5. INSTITUTIONS AND INTERACTIONS IN VEGETABLE MARKETING IN JOS: THE CASE OF FARIN GADA TOMATO MARKET

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Introduction
The study has set out to investigate the major actors in tomato marketing on the Jos Plateau. The study has focused specially on the Farin Gada tomato markets. The key questions asked include:
What is the interaction chain between (a) the tomato farmer and the trader? And (b) the trader and consumer? Who are the actors in tomato marketing and what are their roles? What are the regulations and institutions that regulate those roles? What are the security institutions? What effects did the 2001-2004 ethics- religious crises in Jos have on Farin Gada tomato market?

The answers to these questions will enable us to identify the strong and weak links in the tomato marketing chain. This will provide policy makers valuable information for evolving appropriate measures that will further reinforce the strong links and/or remove the weak ones. Such a development will not only facilitate tomato marketing, it will also ensure the sustainability of its production on the Jos Plateau.

The Place of Tomato
The Jos Plateau has long been associated with dry season irrigated vegetable production. The activity which was initially carried on in small areas by immigrant Hausa farmers from the Northern part of Nigerian was encouraged in the early 20th century to meet the vegetable demands of the substantial European employees of the tin mining industry. Over the years dry season market gardening has experienced and continues to experience significant expansion both in terms of the number of farmers practicing it and the area of land under dry season irrigated vegetable production.

Among the wide range of vegetables grown, the tomato very clearly stands out as the most important both in scale of production and level of consumption. The tomato is grown by all dry season market gardeners who regard it as the principal crop. It also occupies more land than any other crop; indeed it occupies more land than all the other vegetables combined. And whereas the other vegetables have restricted demand, as they are consumed exclusively only by the urban affluent/elite class, the demand for the tomato is universal, for it is consumed by both the affluent/elite and poor classes. Furthermore tomato has great poverty alleviation capacity. Its production, handling, transportation, distribution and marketing employ a large number of people. In addition the replacement of the traditional shadoof irrigation system with petrol pumps also holds considerable job opportunity potentials as the pumps will require regular servicing and maintenance/repairs.
Porter et al (2003) highlighted how expansion of dry season market gardening has affected inter ethnic relations on the Jos Plateau, Adepetu’s (1985) study at four locations on the Jos Plateau, showed a predominance of Hausa, but also indicated a growing interest among the indigenous Berom in irrigated vegetable production. This has resulted in ethnic competition for production resources (notably land and water) and marketing. Porter et al (2003) noted that by 2001, migrant Hausa farmers were finding it increasingly difficult to obtain land for dry season farming a factor that has been exacerbated by the recent conflict.

Location of study
Jos is one of the very few large towns in the middle belt of Nigeria with a population at near to 1,000,000. It is located almost in the geographical centre of Nigeria nearly 300km north of Abuja and 400 km south of Kano. Farin Gada Market in Jos receives supply of tomato from four major production zones at different seasons of the year in a rather complementary manner. They are Jos Plateau (January – June), Gboko (June-July), Gombe (August-September) and Zaria (October –December). The market thus remains open and very active throughout the year unlike the Mararaba Junction and Foron Junction tomato markets which are active only in the dry season as their sole source of supply is the Jos Plateau. Generally produce is moved from Farin Gada to markets within Nigeria, but substantial trans-border movement of produce was reported by one of the transporters interviewed at Farin Gada on 25th January, 2005. In addition to Farin Gada Market, interviews for this study were conducted in two retail markets: Kwararrafa Market, a district market, and Terminus Market, in the Central Business District of Jos.

Methodology
Interviews were conducted with tomato retailers, wholesalers, consumers, bulk purchasers, contractors, processors, security personnel, local transporters and head porters. A combination of personal field observations, formal and informal interview of key informants and focus group discussions. Specifically, the method used to collect data was individual interview using semi-structured checklist of key questions, grouped into a set of background questions and a set of core questions aimed at the actors.

The interview teams consisted of the researcher, a male, and research assistants. As most of the retailers were women, interviews with them took the form of the questions being asked and responses recorded by the female interviewers, while the researcher watched and minimally interrupted the process. The interviews with wholesalers were done by Hausa research assistants.

Following the recommendation of Gosling (1995), the rather long and diverse answers were analyzed by summarizing each interview into the main points raised. The responses were categorized and an idea of how many people agreed or disagreed was formed. Particularly interesting views are reported verbatim.
The position of the researchers as male did not negatively affect the openness of the female respondents as most of the women traders were Christians, who do not normally shy away from discussing in the presence of men. There was nothing sexually or culturally sensitive discussed, and most of the discussions were with female assistants, as described above. The fact that we were strangers was significantly toned down by several situations:

1. The women were used to receiving and talking to local and visiting researchers.
2. The tomato retailers were aware that we obtained prior formal authorization from the local market leaders before we embarked on the interviews.
3. We familiarized ourselves with the women by several initial visits before we started the interviews; and the fact that the female assistants spoke local dialects to the interviewees was an additional help.

The research teams visited the Sarkin Kasuwa, Ahaji Bale Attension and some members of the Executives of the Tomato Traders Association, Farin Gada Branch. They were briefed on the purpose of the study and subsequently the research team requested for permission to do the study as well as their support and cooperation for it. The Sarkin Kasuwa promptly granted the request and assured us of maximum cooperation. He also undertook to inform and mobilize the leaders of the various registered associations of key actors in tomato marketing operating in the market for the survey. He added that he would direct the leaders to convey the information to their respective members.

The Commodity chain
The tomato marketing chain involves the farmer producer, through an assortment of bulk purchasers, wholesalers, middlemen, ‘dillali’, and retailers. The latter sell directly to the consumers, (Please see Table 1). A large proportion of the tomatoes sold in Farin Gada Market is shipped to the southern urban centers in Nigeria, by the bulk purchasers and wholesalers. The rest is sold to local consumers by scores of retailers operating in markets and roadsides.

Roles of Actors
(a) The Producer
The activities of farmers in tomato production have been reported fully in existing literature (Adepetu, 1985, Philips-Howard et al, 1990, Abayomi (2002), Nyako (2002) and Pasquini et al, 2004). This section therefore focuses on the post harvest activities of producers, specifically as they relate to getting the tomato to the market.

Producers are responsible for movement of the produce to the farm gate. This is normally done by head-porterage usually provided by members of farmers’ households and/or farm labourers. From this point the tomato is shipped to
Farin Gada market by pickup vans. The supply of the van may be pre-arranged or could just be the first Jos-bound van to arrive at the assembly point. On-loading of the tomato is, however, the responsibility of the driver and his ‘conductor’ once the transport cost has been agreed upon.

Sometimes, the tomato or part of it is sold to the assembler (yan wazai) or retailer at the farm gate. In such a situation it is the yan wazai or retailer who arranges and pays for transporting the tomato to Farin Gada market or any other retailing points. However, the farmer still bears the farm – to – market transport cost as the price he receives per basket is lower than the Farin-Gada market price by at least the cost of per basket transport to the market. Once the tomato arrives at the market, it is handed over to the dillali who sells it on behalf of the farmer. Increasingly farmers are taking produce by lorry to southern markets at particular times of the year.

(b) Commissioned Agent (Dillali)
The commissioned agent (dillali) is the link between the producer and the wholesaler/retailer/consumer. He is the only “legally” recognized seller. He looks for buyers, negotiates “appropriate” prices, sells the tomato, collects the money and hands it over to the farmer. For his services he receives a commission, which is a fixed amount, on each basket of tomato sold. Currently the commission is N50.00 irrespective of the size of the basket. The overall income of a dillali depends on the number of baskets of tomato he sells. To ensure that farmers retain him as their dillali, he assists some of them with credit during production. Sometimes, when tomato remains unsold, he provides over night storage for it. In the present survey, nine dillali were interviewed, they comprised five Hausa, three Plateau and one Igbo. They operated as dillali for periods ranging from 7 to 38 years. It could be noted that the dillali do not require any capital to start their operations. All one needs is to get registered as a “commission” agent after successfully undergoing the pre-requisite period of apprenticeship.

(c) Assembler (Yan Wazai)
Another category of key actors in tomato marketing are referred to locally as yan wazai (assemblers). They go round the tomato producing areas to buy tomato directly from farmers or in local periodic (weekly) markets. The tomato is subsequently taken to Jos either in their own or hired or commercial vans. At Farin-Gada market, they sell directly to both bulk purchasers and retailers. In the present survey, seven yan wazai, three women and four men were interviewed. The group was heterogeneous in ethnic composition and no single group dominated the activity. They were all members of Association of yan wazai which regulates the activities of their members.

(d) The Bulk Purchaser
The survey captured seven bulk purchasers from four ethnic groups – Hausa, Ekif/Ibibio, Plateau and Igbo. The bulk purchasers buy from both the yan wazai and dillali for shipment to the southern urban markets.
Table 1. Key Actors: Their Roles and Characteristics

<table>
<thead>
<tr>
<th>Actors</th>
<th>Roles</th>
<th>Gender</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producers</td>
<td>Production, Packaging, Transportation and Marketing (sales locally and occasionally taken to southern markets)</td>
<td>Predominantly male</td>
<td>Hausa/Fulani Indigenous. A few others</td>
</tr>
<tr>
<td>Middleman/Commission agents (Dillali)</td>
<td>Help farmers sell tomato; provide market information to farmers; package and store tomato; provide farm-to-market transport; Provide credit to producers and retailers</td>
<td>Predominantly male</td>
<td>Largely Fulani/Hausa. A few others</td>
</tr>
<tr>
<td>Assembler (Yan wazai)</td>
<td>Buy tomato directly from farmers on their fields or in local markets; assemble and transport the tomato to Farin Gada market, sell tomato to bulk purchasers and retailers; also offer credit to both wholesalers and retailers</td>
<td>Largely male and a small number of women participants</td>
<td>Hausa/Fulani, Indigenes and Southerners</td>
</tr>
<tr>
<td>Wholesalers/Bulk purchasers/Itinerant traders</td>
<td>Bulking; sorting and packaging; storage; transport tomato to external market; sell tomato to retailers through agents; offer credit to both wholesalers and retailers.</td>
<td>Male and Female</td>
<td>Mixed but dominated by southerners, mostly Igbo, Effik/Ibibio</td>
</tr>
<tr>
<td>Wholesalers’ Agents (in consumer urban markets)</td>
<td>Break of bulk; provide market information to Wholesalers; transport tomato to retail-point; offer credit to retailers; remit sales money to wholesalers, provide storage for tomato.</td>
<td>Predominantly Women</td>
<td>Southerners</td>
</tr>
<tr>
<td>Retailers</td>
<td>Break-of bulk; transport tomato to retail point, storage, direct sale to consumers hawking.</td>
<td>Largely female</td>
<td>Mixed</td>
</tr>
<tr>
<td>Consumers</td>
<td>Buy tomato; point of purchase to home transport.</td>
<td>Male and Female</td>
<td>Southerners</td>
</tr>
</tbody>
</table>
The baskets of tomato of each wholesaler are uniquely labeled for easy identification. Every bulk purchaser has an agent at each destination. It is the agent who takes delivery of the tomato, sells it to retailers and remits the proceeds to him/her, either directly or (in the case of Port Harcourt traders) through other wholesalers returning to Jos. However, the wholesalers who ship tomato to Calabar accompany the truck carrying their tomato. They
personally handle the sale of the tomato to retailers at the destination. These traveling wholesalers offer credit facilities to retailers in the southern markets.

(e) Retailers
The retailers operate throughout the range of the hierarchy of retail centers in Jos metropolis, including even street by street hawking of tomatoes and other vegetables in residential areas. This means that all categories of consumers, including urban poor, can easily find to tomatoes to purchase within walking distance of their homes. However, it was observed that in the lower markets, there could be slight increases in prices and decline in the variety and quality of what is available. This is more likely to be worse during the rainy season when there is a seasonal scarcity caused by decline in production, as the tomato variety planted does not thrive in very humid condition. This is the time of the year when the urban poor experiences slightly reduced access to good quality tomatoes, and this applies to most other foodstuffs and vegetables during their off season. At such times, the rich are able to afford the higher priced exotic supplies or the tinned/processed substitutes, which are beyond the reach of the poor.

While the wholesalers are predominantly Hausa/Fulani, the retailers are mostly women with male retailers operating in markets located in predominantly Moslem areas of Jos. The long term involvement of traders suggests that this is a good livelihood compared to other options and it is a particularly good opportunity for poor urban women as the initial entry requires very little or no capital. Some retailers also operate as wholesalers at times.

Market Institutions

Sources of information
The various key actors in tomato marketing rely on different sources for up-to-date information on tomato price. The farmers depend on personal interaction with fellow farmers, transporters, yan-wazi and dillali (considered as the most authentic). Information on where tomato is available for evacuation is easily accessed by transport operators either through mobile phones or direct contact with other drivers. This enables them to evacuate freshly harvested tomato to the market promptly and while still in very good condition.

The yan wazai and dillali also rely on interaction among themselves as well as with bulk purchasers. In addition almost all of them possess mobile phones through which they could access information on price. The dillali believe very strongly that the roles they perform in tomato marketing are crucial and highly beneficial to the farmers. They see themselves constituting a powerful group who are much better placed than the farmers to bargain with bulk purchasers over price. The dillali assert that whatever they do is to ensure that the farmers receive fair prices for their produce.
Those with the most accurate information are the bulk purchaser who ship tomato out of the producing region to urban centres, particularly in southern parts of the country. They are better informed than any other group as they receive information, by mobile phone, (every bulk purchaser owns a mobile phone), from their agents in southern urban centres, on continuous basis on price movements. They also reside virtually permanently in the tomato producing region and know the tomato supply situation. This gives them considerable power and enables them to significantly influence the price of tomato in Farin Gada Market to their advantage.

The principal channel of information used by the retailers is personal contact with each other, with their partner wholesalers, and with producer farmers in that order of importance. No use of telephones was mentioned by the retailers, nor were any radio or government sources. They seek information on prices, availability, and safety of roads from robbery. They said the information they obtain in those ways are often accurate and reliable and so most of them prefer to continue to get more information from those sources on the same topics.

Credit
Traders are reliant on informal means of credit from family, friends and other traders. There was only one case of a female tomato retailer who obtained a loan of N15,000 from a bank on formal terms and at an interest. She said she did not find the conditions attached easy to abide with. The dillali play an important role in providing adequate and timely credit. The credit may be in cash or kind such as seeds/seedlings fertilizers and irrigation pumps. The credit facilities are granted to farmers on the basis of trust only as no guarantors or written agreements are needed. The only condition attached is that he should remain their dillali.

Like the dillali, the yan wazai help farmers with credit during production on basis of trust only. However, it is expected that farmers who are given credit will sell their produce to their creditors. The yan wazai also offer credit facilities to retailers, also on the basis of trust only. Retailers interviewed said that the credits have no special conditions or terms attached and no extra payment or interest is charged. Ethnicity and religion are not considerations. The only condition which applies to retailers in markets other than Farin Gada, the main tomato wholesale centre is that if the creditor/wholesaler has to make a trip to his retailer debtor operating in the other markets to collect the debt, the only extra payment the debtor needs to pay him is the return taxi fare and a portion or the whole of the outstanding debt. There is no fixed time for repayment and no collateral is required. Often the two are trading partners of many years standing, and they interact with trust. Many said that their creditors trust that they will sooner or later pay their debts, “because the debtors have never failed to pay in the past”; “because of many years of
interaction between us without breach of trust”; “because the creditor knows the debtor and where to find him or her.”

Trust came up very strongly and many times as a major factor in their trading relationship. The tomato retailers expressed their strong preference for the informal credit system because of its highly humane and simple features, and they spoke gratefully of the assistance which the wholesalers extend to them in this way. Bank loans do not appeal to them because “they bring lack of peace of mind” until you pay up within the time frame allowed.

The daily cooperative contribution, “adashe” or “esusu” is another informal source of credit, though it is primarily a form of saving, but it is also fairly rigid in its rules as defaulting is very much discouraged. Most say however that defaulters are “left to God”.

Just as the retailers have access to some sources of informal credits and loans, most extend some credit in the form of tomatoes and other vegetables to some of their poor customers. Most of them said that they do not usually insist on their debtors paying within a fixed time limit, and that most often the debtors pay up. For example, salaried workers may buy tomatoes and other vegetables on credit, especially when salaries are not paid in time, and pay up, when they are eventually paid their salaries.

Market associations and access to markets

There are market associations for the wholesalers, both for the whole of the Farin Gada and for particular commodities and types of traders. These associations ensure that all buyers go through dillali or yan wazai.

There are no associations for retailers in Farin Gada although there is at the Jos Terminus Market). At the Kwararrafu market, a district market, and at Farin Gada vegetable market, the responsibility is, officially, that of Jos North Local Government Authority. In the latter two markets, however, the tomato retailers claim that they are allocated spaces by the local traditional market officials, “Sarkin Kasuwa” and his agents, for no fees or rents. Most tomato retailers are allocated very small open spaces, only about 1 square meter, on which they are allowed to display their vegetables, but they are not allowed to erect even temporary sheds. They sell in the sun throughout the day. It was found that the tomato retailer does not need to be a member of any market association to get an allocation of space in the markets. In this respect, the retailers are not disadvantaged. But they are clearly disadvantaged by the rule that does not allow them to erect sheds or kiosks, unlike the wholesalers who tend to have some form of enclosed rooms to use as stores and shelters in the markets.

However, the women said that they only belong to market branches of their cultural unions, which are not primarily for regulating or interfering with tomato trade. Rather, such unions are for the social cohesion of women of similar ethnic/cultural origin. They usually contribute money and material to assist the
poor, the sick, and those befallen by misfortune among their members. Likewise, they do the same thing to rejoice with each other on occasions such as child birth, wedding, and other good fortunes.

Many of the bulk purchasers from the southern markets buying in Farin-Gada were found to be organised into two sub-groups, the Port Harcourt axis and Calabar axis. Through associations linked to the destination markets, these traders can influence the tomato supplies reaching these urban markets as every bulk purchaser is allocated a quota which cannot be exceeded. The numbers of registered members shipping tomato to the two axes from Farin-Gada market to the two areas stood at about 30 and 20 respectively. Four big trucks, each carrying about 570 big baskets of tomato leave Farin-Gada market for the Port Harcourt axis every week – one truck each on Tuesday and Thursday and two trucks on Sunday. Similarly, three trucks, but of much smaller capacity, each carrying less than 200 baskets – leave for the Calabar axis – one truck also on each of the days for the Port Harcourt axis.

The loader has a register showing the name and quota allocations of all members, and he is under a strict order to adhere to the quota whatever the circumstances. By this arrangement, the bulk purchasers are able to regulate the supply as well as the price of tomato in some urban centres in the south. The extent of this practice is not known but interviewees suggested it was particularly common in Port Harcourt. Further research is required to find out how such control is maintained and what happens when there are tomato supplies from other markets on the Jos Plateau (such as Maraba Foron) or elsewhere in Nigeria.

Security in the market place
Security is a crucial aspect of marketing operations which provides enabling environment for access by the rural/urban poor and improves patronage. Security is thus the pivot on which efficient market operations rotate. Security is the vein of the market without which it will collapse.

Most markets in Jos are relying increasingly on informal policing due to the apparent inability of the formal security system without which the market cannot function effectively. Our findings are in line with Alemike’s (2003) findings that formal policing in urban food markets have been observed as a failure resulting in traders engaging informal policing. Market associations and individuals are tasked with the additional cost of hiring the service of informal security and this has inflationary implications on the prices of produce.

Research in Farin Gada showed that the informal security operators such as vigilante group (yan bang’a) and night watchmen (yan gadi) operate everyday while the formal sector only operates on market days. The army, mobile police and fire service only come to the market when there is problem such as fire outbreak or breach of security, in the market. The informal security are predominantly Hausa and Fulani, with Quaranic education only. They have
limited training on security issues and are only armed with bows and arrows and torches.
The roles of the different security agents are described below. The police are involved when the informal security and association cannot solve a problem. The cases the police have recorded are primarily disagreement or conflicts among actors of the market such as those arising between members of market associations or within associations, as well as cheating, theft and (in 2004) three cases of fighting.

Table 2. Roles of security

<table>
<thead>
<tr>
<th>Security group</th>
<th>Roles/ functions</th>
</tr>
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<tbody>
<tr>
<td>Vigilante group (yan banga)</td>
<td>Surveillance, patrol, settling disputes, collection of market dues, arrest.</td>
</tr>
<tr>
<td>Night watchmen (yan gadi)</td>
<td>Take custody of produce, crime prevention, arrest of criminals in the market.</td>
</tr>
<tr>
<td>Police(regular)</td>
<td>Maintenance of law and order, crime prevention, arrest, prosecution, settlement of disputes, safety of market actors</td>
</tr>
<tr>
<td>Mobile police</td>
<td>Controlling riots, handling demonstrations, preventing looting.</td>
</tr>
<tr>
<td>CID</td>
<td>Crime investigation, arrest, gathering security information.</td>
</tr>
<tr>
<td>SIB</td>
<td>Crime investigation, surveillance, arrest</td>
</tr>
<tr>
<td>Fire service</td>
<td>Containing fire outbreaks</td>
</tr>
<tr>
<td>The army</td>
<td>General defense, forestall threats to market.</td>
</tr>
</tbody>
</table>

INVESTIGATIONS ON BUILDING A FOOD MARKETING POLICY
EVIDENCE BASE IN NIGERIA: November 2005
INVESTIGATIONS ON BUILDING A FOOD MARKETING POLICY
EVIDENCE BASE IN NIGERIA: November 2005

While the traders perceive the informal security to be more effective there are some reservations. One trader complained of theft despite having security:

“... thieves have opened my bags of onions and carted quantities without detection. ... if you have your produce here in the market you leave it in the hand of God ... we pay on daily basis all forms of dues for security and protection of our goods but we no de see am”

The research also noted that the market authority and the retailers sometimes have different opinions on the security operations in the market. For instance while the market authority claims that there are few cases of breach of security, the small scale traders-retailers impress that security problems are high. These conflicting claims, and as earlier mentioned in this work do not give a clear picture of the security environment. Some traders complained that the informal security were as biased as the formal security particularly against smaller traders and women retailers:

“... they can help you to investigate, help you to detect bad people in this market and not for small to small traders like us”.

“You cannot risk leaving produce in open space of the market till the next day as any loss to unknown persons will usually receive unfair remedy, ... we usually endure because of the slim chances of recovery and sometimes we do not even report because the cost is not worth it.”

Standards of quality and measures
Tomatoes are highly perishable and they have very short shelf life. This poses the greatest risk to the tomato retailers in a country where there are no central refrigerated warehouses and delivery vans; and where electricity supply is not reliable. Traders and producers have developed a range of systems to minimize damages and losses.

The tomatoes are usually harvested on the farms when they are just beginning to ripen, only a day or two before the market day. Furthermore, the traders, particularly the retailers, and those who have to transport tomatoes to distant places prefer the “dan UTC,” a variety which has many unique qualities such as its firmness, thick flesh, long shelf life, and good taste.

Traders in tomatoes as well those in other vegetables and fruits rely on traditional packaging methods that only succeed in preserving the commodities for a short time by ensuring that they are naturally cooled by air, with minimum exposure to heat and to the sun before they are sold off. Thus, tomatoes are packed in baskets made of split bamboos lined with straws or leaves. Packaging is done by boys, numbering about 200, but operating in groups of 10-15. Immediately a wholesaler completes buying, the baskets are assembled at a point. Here the boys carefully sort the tomato, removing the broken and crushed ones. The good ones are subsequently transferred from the medium-sized baskets to the much larger ones, whose bottoms have
been lined with dry grass. When the baskets are filled to the desired level, they are covered with brown cement paper and carefully and loosely fastened together with strings. Loaders arrange the baskets of tomato very carefully and orderly in the truck. Such a task requires considerable experience.

Amongst retailers there is a grading system to separate the damaged tomatoes. The poor often go for these cheaper types, known as “baje.” Low class restaurateurs also use a lot of “baje” tomatoes. Some “baje” tomatoes are not safe as they may be rotten and infested with fungi and maggots. Sanitary inspectors are supposed to ensure that “baje” tomatoes are destroyed and not sold or used for human consumption, but they do not enforce the regulation. A trader remembered seeing a sanitary inspector in the market only once in the last twelve months. This neglect allows the traders to continue to sell “baje” tomatoes to the poor, but the buyers ensure that they purchase only smashed but not rotten tomatoes to minimize their health risks. There is no consumer association to champion their cause.

Government officials such as sanitary inspectors, Ministry of Health officials, Environmental Protection Agency staff, National Agency for Food and Drug Administration and Control (NAFDAC) officials, and Local Government Administration staff, have formal and legal roles to play in the markets. The traders said that with the exception of Jos Metropolitan Development Board (JMDB) staff that periodically go round the markets to collect rents from shop owners and other traders and to carry out space control, the activities of the government officials in the markets are not known to them and are certainly not helpful to them. Many of them said, “Government is not helping us at all”. Some lament the poor and unhygienic environmental condition of their markets, especially during the wet season. In contrast, their perception and opinion of the roles of the informal traditional market administrators are very familiar and positive.

Tomatoes are not retailed by weights (requiring scales for measuring), but rather in traditional inaccurate measures, such as in baskets and bowls which are often falsified by denting or padding the bottom of the container with leaves, grass or earth, designed to cheat the customer. Another form of measure in which tomatoes are retailed in Jos is in heaps. In all cases the consumer is not allowed his/her choice because the fruits are not sorted. Thus, in a heap, bowl or basket, often there may be a mixture of species of tomatoes in various stages of ripening; a mixture of sizes, and in various stages of deterioration or damage. The trader does this to pass on his/her losses to the consumer, and so the consumer is worse off for it.

There are laws about the use of weights and measures in Nigeria, stipulating that the metric units are the legal and official system. However, only some butchers selling meat and those selling frozen fish use scales. Vegetable retailers and other retailers in Nigeria seem to have a dislike for the scale but the consumers interviewed wanted scales to be introduced into vegetable retailing. However, the Standard Organization of Nigeria (SON) that should
enforce the use of scales in the markets appears to concentrate, for now, on trying to enforce compliance by formal organizations such as industries.

Transport
While some tomatoes are sold from the farm gate, most are brought to markets before being sold onto bulk purchasers. Ordinarily pick-up van operators, owners and drivers ply the tomato producing areas and assist farmers with timely farm-to-market movement of tomato. Very often drivers bring the produce to the market on credit and get paid only after the farmers have sold the produce. Over the years, a high level of trust has developed between farmers and pick-up van operators. Hence farmers regularly send their produce unaccompanied, thus saving valuable time which is deployed to other critical farming operations. Where the farmer does not accompany his tomato, he usually instructs the transporter to deliver the tomato to his “regular” dillali who pays the cost of off-loading by yandoko and later recovers the cost from the sales price of the tomato.

Pick-up van operators also make their vans available to farmers and yan wazai on a hire basis. When this is done they always ensure that the weight of the produce carried is within the vehicle’s specified capacity which is 45 and 80 baskets of tomato for 4-wheel and 6-wheel vans respectively. The Farin Gada Tomato Market Pick-up Vans Owners Association, according to Ibrahim Abubakar, its leader, has 25 members drawn from virtually all the major ethnic groups in Nigeria.

Taxi operators convey tomato retailers (with their tomato) to various retailing points on the Jos Plateau, and particularly Bukuru, Kuru, Tree Centre (Jos South Local Government Area). They even go as far as Gwantu, and Fada Karshi (Kaduna State) and Akwanga and Wamba (Nasarawa State). Each taxi carries 7-8 baskets of tomato and the current fees charged range from N50.00 to N70.00 per basket to Bukuru and Tree Centre respectively. Higher charges are made for more distant locations. The operators, whose number range from 25-30 and drawn from all the major ethnic groups in Nigeria are members of the Farin Gada Tomato Market Drivers Association. Very often they assist traders by carrying them on credit and they pay up promptly when they sell their goods.

Long distance truck operators play very crucial role in the tomato trade and particularly in the trader-producer and consumer-trader interactions. The Ejikeme Transport Company provides all the trucks for evacuating the tomato of the wholesalers operating in the Port Harcourt axis. Each truck carries 540 to 560 baskets. The manager of the transport company claimed that his company provides transport facilities on credit to the traders by allowing them to pay for transportation after selling their goods. Responding to the question on what his company does when a truck breaks down he said that the
breakdown is reported promptly to his office as the driver and the two traders accompanying the truck have mobile phones. If the fault is minor, the company branch (his company has branches in nearly all the state capitals on the Jos-Port Harcourt route) closest to the point of breakdown is directed to rush a mechanic and appropriate spare-parts to the scene to repair the fault. However, if the fault is a major one requiring considerable time to correct, another truck will be sent also from the branch of his company closest to the breakdown point to evacuate the tomato to Port Harcourt.

Bulk purchasers in the Calabar axis have a different transport arrangement. Generally a group of 8 – 10 bulk purchasers hire a truck (trucks are always available for hire at Farin Gada market). If after on-loading all their baskets of tomato, there is still space left in the truck, they may accommodate other traders who agree to abide by their terms. If the truck has a major breakdown the hirers arrange and pay for another truck “locally” to evacuate the tomato to Calabar. They are able to do so because only 50 percent of the cost of hire is paid in Jos while the balance is paid in Calabar.

The problems which transport operators reported they encounter are similar. First on the list is the issue of multiple charges on their operations. For example, one interviewee claimed that the Jos North Local Government Council collects N500 on each truck that loads at Farin Gada Tomato market. In addition the truck pays N1,000.00 at every customs check point located at every inter-state boundary. There are eight such points along the Jos-Port Harcourt road. Thus altogether the truck pays N8,500.00 to government. This amounts to over N15.00 per basket of tomato, and ultimately higher costs of tomato to the consumer. Similarly every pick-up van that brings tomato to Farin Gada market also pays a fee of N50.00 which is always passed on to the producer.

All the motor vehicle operators complained bitterly about increasing harassment and extortion by police (at the numerous road blocks), Vehicle Inspection Officers (VIO’s) and Road Safety Corps (FRSC). They claimed that these unwholesome activities result in delays and higher transport cost. Another problem universally encountered is frequent incident of armed robbery. An interviewee recounted and incident along Jos –Akwanga Road in December 2004. The truck conveying tomato to Port Harcourt ran into a road block mounted by armed –robbers. The driver lost control of the truck and it eventually fell on one of the robbers. To conceal his identity his colleagues instantly set the truck ablaze resulting in the loss of both the truck and the tomato. Furthermore they expressed dissatisfaction with the very high cost of petrol and petroleum products, spare-parts, and vehicle maintenance, all of which have resulted in very high cost of providing transport services.

Transport operators are also unhappy about the very bad conditions of the roads. Although the Jos Plateau has a relatively high density of road network (which was developed to serve the needs of the tin mining industry), most of
the roads have laterite surfaces and are always in a state of disrepair. Consequently, vehicles plying the roads suffer considerable tears and wears.

The motor vehicle operators also held common views on who bear the losses resulting from accidents. They said the losses are borne jointly—the traders bear the loss of their goods, while the transport operators bear the cost of repairs on their vehicles or their replacement. Furthermore, all the categories of traders have no insurance covers for their goods. However, sometimes they receive assistance from friends and relations and from their associations.

**Effects of 2001-2005 Crisis**

It is anticipated that the series of ethno-religious crisis on the Jos Plateau would have serious consequences not only for tomato production but also its marketing. The views of the actors interviewed were sought for and obtained.

Virtually all the actors interviewed reported that the crisis seriously disrupted operation at Farin Gada market, although only temporarily. Traders had to flee the market and abandon their tomato on September 7, 2001 and when they returned several days later, the tomato had completely gone bad. There were also corroborated reports of several traders who got stranded at Tilden Fulani, some 10 km away from Jos, with tomato they were bringing back from Gombe also on September 7, 2001. Two days later the pick-up van carrying the tomato had to be diverted to Kano, but before it arrived there the quality of the tomato had deteriorated so considerably that it had to be sold at a give-away price, resulting in substantial losses.

Similarly, tomato farmers along the Dilimi Valley at the University of Jos Permanent Site claimed that neither their farming operations nor the peaceful relationships among them as well as between them and the traders had suffered as a result of the crisis. However, the situation is somewhat different in the Jos-South Local Government Area where the crisis has resulted in a small decline in the population of migrant dry season farmers and farm labourers of Hausa/Fulani origin. Nevertheless this had not led to a reduction in the total land area under dry season vegetable production as an increasing number of the local population have become dry season farmers.

Retailers reported that the current lingering impact of the conflict on the women is the loss of some of their Hausa customers and the lingering fear of venturing into remote rural areas to buy tomatoes.

However, they all maintained that the crisis had not adversely affected operations at the market and intra-and inter-association relationships. It is significant to note that over 50% of the women retailers interviewed said that, these impacts are not seriously affecting them or their tomato retailing, as most of such incidents occurred on the streets. They also stated that the market leaders have done much to restore peace in the markets after the conflicts.
Concerning their relationship with other ethnic groups, most of the retailers described it as “good”, “fine” and “smooth”; but one indigenous Plateau female tomato retailer said, “our relationship with other ethnic groups is fine, except the Hausa who find it difficult to forgive”. Hers was, perhaps, a minority opinion, for we equally heard more favorable comments from others on their trading relationship with the predominantly Hausa/Fulani wholesalers whom they describe as “humane creditors”.

**Conclusions**

Power and stake holders in urban food market have been the central theme of this paper. The findings of the study in this regard have largely shown that the traditional informal institutions and their associated power relations appear to be more effective and acceptable to the actors in their interactions with each other in the market than the formal institutions. This situation has left the actors the responsibility of creating informal institutions that will regulate their activities. Today, the activities of eight of the actor types are highly organized. Each of them has an association whose membership is compulsory for all its members. The traditional trading institutions and regulatory environments in the markets visited in Jos have their roots in Hausa customs and practices which traders have got used to for nearly 100 years.

The producers as well as consumers, do not have any regulatory body. The two groups are thus left very vulnerable to exploitation by other actors. Unfortunately, all efforts to organize them into viable producer and consumer cooperative associations by both government agencies and NGO’s have proved unsuccessful.

Presently, the three most influential actor-types in tomato marketing in Farin Gada market are the yan wazai and dillali (who interact directly with farmers) and the bulk purchasers (whose interaction with the farmers is indirect). As already indicated the yan wazai’s roles in tomato marketing are invaluable. They facilitate farm-to-market evacuation of tomato and pay farmers “appropriate” price based on the information supplied by both the dillali and bulk purchaser. The dillali’s roles in tomato marketing are also important. They represent the link between the farmer and the bulk purchaser/retailer. They also provide farmers price information and decide for them what price to sell their tomato. This decision is also based on the price information supplied by the bulk purchaser. However, the practice of charging a fixed commission per basket of tomato sold irrespective of size and price appears unfair to the farmer. The practice does not provide the dillali sufficient motivation to strive for higher price or to resist a fall in price as they neither suffer nor benefit from price fluctuations. A better alternative system is a fixed rate on the sales price of a basket of tomato. Under such a system price fluctuations will result in corresponding benefits and losses to both farmers and dillali.
However, the farmers are sharply divided in their assessment of the dillali’s roles. According to Alhaji Hamidu, the chairman of Fadama Farmers Association, Yelwa Branch, only the poor farmers are happy with the dillali because of the credit facilities they receive from them. They realize that until governments come to their aid, the dillali will remain indispensable. On the other hand, the relatively wealthy farmers regard the dillali as parasites who make “profits” without making any investments. Furthermore, this study found that some harboured resentment against dillali that were not indigens.

The effectiveness of the traditional home grown system of power relations at the food retail level of the market chain was confirmed by the actors themselves. Viewed from western value perspectives, inequalities and constraints imposed by sex, ethnicity and religion abound, but the actors do not seem to perceive them as such. Instead, the informal and humane qualities of the institutions are hailed by them – especially those pertaining to market entry and provision of credit and savings.

However, nobody really understands the mechanism for fixing the price of tomato. Several basic questions remain unanswered. The questions include: Who or what determines the ‘appropriate’ price? How is price information obtained by the various actors?

Another practice of the bulk purchasers that has the most far-reaching implications for both the producer and consumer is the quota system reported to be operating in some southern markets. The justification given for this practice is to prevent the urban centers from becoming dumping ground for cheap tomato, without any indication that it is unwholesome. By this practice select groups of traders not only effectively control the supply of tomato to urban centers but they also dictate the price consumers pay.

Generally transport providers, especially, operators of pick-up vans and taxis offer adequate and satisfactory transport service to tomato farmers. The only complaint of the farmers is that the transport cost is on the high side.

This study confirmed these advantages and popularity of informal credit systems. They have good potentials for improving the small trader’s access to credit; increase his/her working capital, and improve marketing systems, credit from suppliers, money lenders, and rotating credit/savings schemes can be important if ways of reducing their interest and other costs are found. The informal credit and savings systems need to be improved. The USAID (2001) suggested that the credit unions could become more efficient and profitable than they are currently if they could be strengthened through consolidation and economic integration; updated accounting systems, stronger controls and procedures. These actions will amount to modernization of the systems, but such should be gradual and systematic to avoid sudden and damaging shock.

Modern institutions and regulatory environments are normally introduced by banks, and the various government agencies and officials. But they do not
appear to be making positive impacts on tomato traders in Jos, perhaps because their practices are alien, formal, legalistic, and rigid – even punitive. It has been reported that a trader saw bank loan as a source of worry. The perception, which the traders have of government officials and their roles, clearly portrays the modern and government sectors as discouraging if not oppressive.

The implications of the above, for urban and rural poor include the following:
   a) Government programmes may not be taken seriously by the small traders, as government officials are usually assumed to be “not serious”.
   b) Programmes that target the poor may get better reception among them if some elements of local /traditional institutions and regulations are built into them.

Furthermore, there is evidence of discrimination against smaller traders and retailers. The following recommendations made by the retailers themselves will improve the marketing of tomatoes:
   a. Allocation of more and larger spaces to the retailers and allowing the retailers to erect sheds.
   b. Improvement of the physical environment and more regular inspection of the markets by environmental sanitation officials.
   c. Improved security in the markets especially for small scale traders and retailers.