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### **Nigeria: Food Spoilage and Waste in Nigeria.**

Nigeria is a West African country with over 140,431,790 citizens (according to census conducted in 2006 by National Population Commission, Nigeria). Most citizens engage in farming. They farm basically to meet the immediate needs of their families with little or none to sell. Poverty amongst the farmers is very common and they are often school drop-outs. The farmers mostly have large families which consist of a father, wife (wives) and children. They feed on only what they can produce hereby leading to poor diet and nutrition. UNICEF correspondent Karen Allen reports on the devastating impact of drought, malnutrition and disease in Nigeria. The northern Nigerians travel far and near to retrieve water from muddy holes (Karen Allen). Most people do not see it but 41 per cent of Nigerian children are stunted and that is a basic indication of malnutrition (Bamidele Davis Omotola).

“The continued stagnating healthcare system in Nigeria is of great social and economic consequence. Access to quality healthcare is either limited in Nigeria or nonexistent with staggering financial burden to families and the nation” (Acho Orabuchi). There is lack of health care centers and facilities. There is no money to gain access to the few available ones. Unstandardized equipment and processes are prevalent.

Subsistent farmers work on little or small-scale production. They make use of small pieces of land. The crops grown are usually little and have small yield as well. They make use of crude tools such as hoes, cutlasses, rakes, baskets etc. These tools make work slow and reduce production. It is also time consuming and less effective. The farmers are unaware of good agricultural practices. Few fertilizers are made available for farmer’s usage. Most farmers in Nigeria like to practice shifting cultivation (bush fallowing). This practice leads to loss of soil nutrient and large mass of land. Northern farmers depend on crop rotation and the animal dung gotten from their livestock as a source of fertility instead of modern fertilizers.

A major barrier to agricultural productivity is lack of education. The farmers are unaware of better practices and ways of improving agricultural yield. Some farmers do not even know how to read or write. Ignorance is also a barrier. The uneducated farmers do not want to try new modern practices or new and modern methods. Poor government policies, poor agricultural programs to promote these policies and instability of government policies sometimes interfere with agricultural productivity. Also, the soil has proved to be infertile due to soil erosion caused by water or wind. This is due to lack of drainages and over grazing of livestock. The infertility of the soil is also from poor soil management practices such as: bush fallowing, crop rotation and grazing.

Crops grown in Nigeria include; rice, millet, maize, cocoa, beans, cassava, pepper, sorghum, etc. Perishable crops include; tomatoes, onions, spinach, cabbage, milk, cheese and fruits. Animals reared include; cattle, goat, pig and poultry animals. The people of Nigeria engage in occupations such as farming, engineering, teaching, palm-wine tapping, dress making, fishing, lumbering, etc. Most people in the northern part of Nigeria engage in cattle rearing. This is so because of the relatively dry climate, low trypanosome and pasture.

Located in the north central of Nigeria, Benue state is highly known for production of crops and fish. Fish is a delicacy that every family would want to serve every day of the week. The men also like to gather and drink palm-wine after a long day of work. Whereas- the southern people engage mostly in fishing because

of large masses of water readily available. They also engage in wood works and hand crafts because of the hardwoods which are common in the south. Only a few are privileged to get white collar jobs.

Gaining access to good and adequate nutrition is also very difficult especially for the farmers due to low income. Also, the markets where they buy and sell are unsanitary. One can see many flies perching on crops and butchered meats. The flies cause contamination of the few food items. This leads to so many diseases and infections.

Food spoilage means the original nutritional value, texture, flavor of the food are damaged and- the food becomes harmful to people and unsuitable to eat. The people of Nigeria suffer a lot from agricultural produce spoilage. Some of these factors would be considered.

Poor transportation: “Railways in Nigeria are operated by the Nigerian Railway Corporation (NRC). As of 2003, Nigeria’s poorly maintained rail system had 3,557 kilometers of 1,067 mm (3 ft 6 in) narrow gauge track. The country has two major rail lines: one connects Lagos on the Bight of Benin and Nguru in the Northern state of Yobe; the other connects Port Harcourt in the Niger Delta and Maiduguri in the northeastern state of Borno. Some of the railways tracks are bad and do not function properly. A trip by road from Benin through Ondo and Ogun to Lagos on a normal day paints the terrible picture of the transportation crisis, which Nigeria currently faces.” (Nigeria Intel/Thisday Newspaper).

People no longer use the railway system of transportation. The railways are also very slow and the produce may get damaged before getting to the consumer. Bad roads are common. Before some of the goods can get to the consumer, their vehicles are attacked by robbers; it might have gotten spoiled because of the bad road networks. “Sometimes, the farmers’ trucks breakdown; the weather takes its toll on their sensitive products as a result of lengthy delays by police and other agents of state, as well as traffic jams or many times they pay the ultimate price. Tossed into the bush, somersaults into the rivers along the way or they are involved in head on collisions leaving the conveyers dead and products destroyed” (Nigeria Intel). Furthermore, the farmers lack good means of transportation such as trucks, buses, etc. and if they do have transportation, the vehicles are also not well maintained. The bad road network does not allow crops to be quickly conveyed to the urban places where there are in high demand.

Chain of distribution: the chain of distribution can also cause spoilage of agricultural produce. The most common chain of distribution is as follows: producer to wholesaler to retailer and then the final consumer. This chain of distribution is totally long and the produce would not be as fresh as it was when it was produced. For example, perishable produce such as tomatoes can easily get spoiled before it could get to the final consumer if this distribution chain should be obeyed. In various cases like transportation delays the product loses its importance in the channel and the sales suffer. This also ends up spoiling the produce.

Inadequate processing and storage facilities: processing and packaging of agricultural produce can minimize spoilage. It is a problem farmers face in Nigeria. President of All Farmers Association of Nigeria (AFAN), Adamu Abdullahi, has lamented that about 65 per cent of agricultural produce in Nigeria is wasted due to inadequate storage facilities. Agricultural produce lack proper storage and warehousing facilities in Nigeria. There are few good storage facilities that include equipment such as refrigerators. “In developing countries like Nigeria, the losses from inadequate storage are estimated to be 15 to 20 per cent of the production levels of the farm products. For example, about 50 percent of cashew fruits produced in Nigeria annually are wasted due to lack of storage facilities” (Folarin Gbolahan). Also, perishable produce such as fresh milk is not well stored or even processed to canned milk, causing it to get spoiled before getting to the final consumer. There is also a lack of good and well-equipped warehouses.

Climate change is another factor. Climatic elements that affect agriculture include: rainfall, temperature, humidity, sunshine and wind. Nigeria has a tropical climate and has both the rainy and dry season. It experiences consistently high temperature all year. The northern part of Nigerian gets the driest climate during the dry season and this sometimes leads to drought in those areas. When farmers grow their crops, due to the scorching of the sun, the crops may die and the farmer loses a lot. Food spoilage happens directly from the farm. “Environmental factors such as adverse climatic conditions (desertification, deforestation, drought and erosion) exacerbated by climate change pose serious threats to food production. Sub-Sahara Africa including Nigeria is reputed to practice the least farm irrigation in the world with about 4.5 percent of farmlands receiving irrigation. Much of the farming is rain-fed. This cannot put a dent on hunger in the continent let alone Nigeria” ( Osaze Omoragbon).

These and many other factors such as lack of electricity and unstandardized grading can also cause spoilage and waste. These problems and issues can be curbed. There are possible solutions to these problems. The issue of poor transportation can be curbed in Nigeria. Government could provide basic means of transportation such as trucks, buses, etc. for farmers. Also, the government could embark on constructing new roads and if possible also repair the spoiled ones. However, farmers with the same problem could be encouraged to form cooperatives so that they can pool resources together and curb their problem. The government can assist them by providing collateral and loans for them.

The railway corporation of Nigeria should be strengthened and revived to provide a means of transportation of farmers and goods. “To curb the problem of post-harvest losses, the nation must build more storage facilities across the country. Besides, the storage facility gap is an opportunity which investors should strive to harness” (Business Day News). Standardized processing and storage facilities and equipment can be made available to farmers by the government at low price rates. The government can also subsidize this equipment and provide credit facilities for the farmers.

When the produce gets spoiled, it is rendered useless. It is of low quality and quantity. It also loses its market value thereby -causing a great loss to the producer leading to low income. If consumed, it could lead to infection or disease. Spoilage causes scarcity in the market. If consumers cannot get these produce, it may lead to nutritional imbalance.

“Goals set by the Millennium Development Goals “World Environment Day: Tackling global food waste” may help to solve this problem. According to the study ‘Reducing Food Loss and Waste,’ which was produced by the World Resources Institute and UNEP and draws from FAO research, the world will need about 60 per cent more food calories in 2050 compared to 2006 if global demand continues on its current trajectory” (UN News Centre).

“No amount of effort aimed at tackling the issue of environmental sanitation and waste management in Nigeria can be said to be too much in view of the poor state of our environment and the resultant effects.” (All Africa). Quite commendable are the efforts of all the bodies charged with the responsibility of environmental matters in Nigeria, and the National Orientation Agency for the systematic approach it has taken towards finding a lasting solution to the endemic problem.

Nigerian government has set up many programs to solve this issue. For example, National Seed Service (NSS) Programme has been set up to provide improved quality seeds to farmers. National Accelerated Food Production Programme is set up for educating farmers on increasing productivity and also organizing seminars to enlighten farmers. Non-governmental Organizations such as Nigerian Stored Products Research Institute (NSPRI), Ilorin, Kwara State, was established in 1954 to conduct research in all aspects of post-harvest handling of agricultural crops and their products (Agricultural Research Council of Nigeria). The Nigerian government (GON) inaugurated the National Food Safety Management

Committee (NFSMC). It is responsible for food safety and quality control measures from the farmer to the final consumer.

The National Health Policy in Nigeria is based on providing a comprehensive health care system. Its major aims are to educate citizens on prevailing health problems and the methods of preventing and controlling them, promote food supply and proper nutrition and prevent/control locally endemic and epidemic diseases.

“At busy Katsina General Hospital, children admitted with severe acute malnutrition are given specialized feeding and therapeutic care to help rehabilitate them. Once they are stabilized and able to be discharged, they’ll be monitored as part of an eight-week programme at an outpatient therapeutic care programme (OTP). OTPs are one-stop shops located in the community that provide children with access to both nutritional help and other medical services, including childhood immunizations” (Shantha Bloemen).

There is need to address the issue of food spoilage and waste as soon as possible. Agriculture produces food and food influences our nutrition and health. When farmers gain access to good storage facilities, stable government policies, credit facilities, proper education and good road networks, availability of food would increase. Consumers would gain access to adequate nutrition and farmers would yield a good income. I hope to see a country of healthy children, good leaders and proper sanitation.

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