

The spread of cassava (*manioc*) in Igboland, south-east Nigeria: a reappraisal of the evidence*

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Abstract

That cassava has over the years become the pre-eminent food crop of the Igbo of south-east Nigeria is not in doubt. What is surprising is how this crop, an introduction to the area, now competes with the yam, which according to popular tradition is indigenous. At the same time, the source of cassava and reasons for its adoption by the Igbo both remain subjects of controversy. This work argues that any objective conclusion on the origin and spread of cassava among the Igbo, must take into consideration the period of its introduction, the people's socio-economic conditions at the time and more importantly, the peculiarities of the crop that made it attractive to the Igbo.

Perhaps no other statement illustrates the importance of cassava as a major food crop among the Igbo more than that expressed in the popular Igbo saying: *Ji akpu gara ogu gara igwe alaghi ala* ('cassava that came to sustain life and ended up becoming the number one crop').¹ Among the 'Wawa' Igbo (Enugu and its environs) cassava is called *mbacha agadamgbo, obiara igbo ogu buru isi ya* ('the crop, which came as a hunger buster but eventually out-fought others'). It is important not only for the Igbo, but several other Nigerian communities too, and it is known by different names in the various ethnic groups. Among the Yoruba of the south-west, it is called *gbaguda* or *ege*. The Hausa of northern Nigeria call it *rogo, karaza*, or *doyar kudu*, the Igbo who reside in the south-east refer to it as *akpu, abacha* or *jigbo*, the Benin of the south call it *igari*, while the Efik and Urhobo of the Niger Delta refer to it as *iwa unene* and *imidaka*² respectively.

The Food and Agriculture Organization (FAO) has found that cassava ranks as the seventh-largest food staple in the world. Many therefore call it the 'tropical staff of life' given that it is a major source of nourishment in large areas of the tropics. The crop is especially valued for its outstanding ecological adaptation, low labour requirements, ease of cultivation and high productivity. Indeed, cassava's success, particularly in the tropics, could be attributed

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¹ Mrs. Rosita Duru (farmer, aged c.70, Onuimo), in 'The origin and uses of cassava in Nigeria', *Economic Botany* 39 (1985), pp. 157–64.

² E. Etejere and R. Bhat, 'Traditional preparation



FIGURE 1. A cassava farm about to be harvested (photograph, author, 2012)

to the fact that it can be grown successfully on poor soils and under conditions of marginal rainfalls.³

Nevertheless, although it is the primary source of carbohydrates particularly in sub-Saharan Africa, cassava is also known to contain little protein. In much of the world, where severe malnutrition and even starvation exist, people suffer from both protein and carbohydrate deficiencies. The production of cassava using traditional methods of preparation thus goes far to alleviate the problem. It is equally instructive that in areas where cassava is extensively grown, severe famines seldom occur.⁴ Cassava is:

a perennial shrub, ranging in height from 1–5m, with branching stems, green, pale or dark grey or brown in colour. The leaves are palmate, divided into 3–9 lobes. Flowers are borne in auxiliary racemes near the ends of branches, male and female flowers occurring in the same inflorescence. The fruit is a dry, dehiscent capsule containing 3 seeds. Tubers, usually 5–10 in number, develop radially around the base of the plant by a process of secondary thickening of some of the initially fibrous roots. They are cylindrical or tapering and normally 15–100 cm long and 3–15 cm in diameter. The tubers consist of an outer skin or periderm, which may be white, brown or pink in colour; a thin rind or cortex; and a core or pith rich in starch. The core is most often white but is sometimes yellow or tinged with red.⁵

This description can be supplemented by Figures 1 and 2, both recent photographs, the first

³ Food and Agriculture Organization (FAO), *Agricultural development in Nigeria, 1965–1980* (1965), p. 5.

⁴ P. Lancaster *et al.*, 'Traditional cassava-based foods: survey of processing techniques', *Economic Botany* 36 (1982), pp. 12–45.



FIGURE 2. A pile of cassava tubers at the market (photo courtesy IITA image library, 2009).

showing cassava growing as the tall-stemmed plant on each side of the track, and the second showing the the tuber, which has just been being harvested.

Aside from Africa, where cassava seems to be dominant, the crop is also an important staple in several other parts of the world, where it is known by different names. For instance, in Brazil, cassava is called *mandioca* or *macacheria*. It is *manioc* among French-speaking peoples.⁶ Jones opines that Americans who encounter the crop in Brazil know it as *mandioca* or *aipim* and many fail to recognize it when it is referred to by students of Spanish America as *yucca*. To anthropologists, it is likely to be most familiar as *manioc*, while in the English-speaking parts of Africa it is usually called *cassava* or sometimes *cassada* (although 50 years ago it was *manioc*). In English-speaking Malaya (Malaysia), Sri Lanka and India, the crop is called *tapioca*.⁷

I

First domesticated in South or Central America, where it has been cultivated for several centuries, cassava has not been known to occur in the wild in Africa. Copley states that the crop was taken to west Africa by the Portuguese in the sixteenth century, but its spread throughout all the tropical lands has been a relatively recent event.⁸ Records show that the crop was introduced to Africa by the Portuguese who may have brought it from Brazil to their stations extending along the African coast from El Mina in present Ghana to Mogadishu in Somalia. According to these sources:

The earliest successful introduction was made in the area around the mouth of the Congo River and it was from here that manioc spread over all of Central Africa. Manioc was probably brought to the Upper Guinea Coast at the same time it was brought to the Congo,

⁵ Ibid., p. 13.

⁶ B. I. Odoemelam, 'Origin and domestication of cassava', *Cassava Production Training Course* (1975), p. 1.

⁷ W. O. Jones, *Manioc in Africa* (1959), p. 3.

⁸ L. Copley, *An introduction to the botany of tropical crops* (1976), p. 116.

but it became established in native agriculture much more slowly. It was almost certainly introduced to the Portuguese stations in East Africa at a later time than in West.⁹

Coursey and Booth suggest that cassava was first introduced into west Africa via the Gulf of Benin and the Congo River during the second half of the sixteenth century and into east Africa via the Islands of Reunion, Madagascar and Zanzibar towards the end of the eighteenth century. They also attribute the spread of the crop throughout Africa to the Portuguese. What is evident in all accounts is that cassava, by the end of the nineteenth century, was already present in most of the Portuguese forts, trading posts and settlements on the mainland. However, cassava did not become an established staple in Africa until the nineteenth and twentieth centuries.¹⁰

It is also believed that the main species, found in Africa, *manihot esculenta*, may have had two centres of diversity in the New World – Brazil and Mexico. On Onwueme's account, Brazil remains the world's largest producer of cassava, producing more than double the amount from any other country. Indonesia, Zaire, Nigeria, Thailand, India, Columbia, Uganda and Angola, follow in that order. According to him, each of these countries has a smaller acreage devoted to cassava and a larger yield per hectare than does Brazil.¹¹

It is Murdock's view that all the cultivated plants of New World origins found in Africa have arrived during the course of the last four and a half centuries.¹² According to him, the introduction of the Atlantic slave trade led to great exchanges between the areas involved, since the ships engaged in the human commerce were naturally provisioned on either side of the Atlantic with locally available goods and foods. The stores remaining were traded or even purposely planted on the opposite shore. The similarity in the environmental conditions of tropical Africa and tropical America made it all the more possible for the products from each continent to be readily established on the other. Thus, native African plants are today common in Brazil and the West Indies while American plants gained early footholds on the coasts of Africa.¹³ Plants like tobacco, banana, pineapple, Irish potato, coconuts, cashew, maize, coffee, rubber and, most importantly, manioc are among the various crops said to have been introduced to Africa from Brazil and the Americas through the aid of Brazilians. So much so that Orlando Ribeiro, writing on the relationship between Brazil and Africa, noted that this relationship was essentially complementary:

for it is true that Africa helped to build Brazil or rather to build America from the southern states of the USA to the River Plate, by means of the black slaves she provided; it is also true that the products introduced from America, particularly maize and manioc, alleviated the traditional hunger of the African continent.¹⁴

Having said that, it is also doubtful that Africans could possibly have been dying of hunger

⁹ Jones, *Manioc*, p. 60.

¹⁰ D. G. Coursey and R. H. Booth, 'Root and tuber crops' in C. L. Leakey and J. B. Wills (eds), *Food crops of the lowland tropics* (1977), p. 77.

¹¹ I. C. Onwueme, *The tropical tuber crops: yams, cassava, sweet potato, cocoyam* (1978), p. 155.

¹² G. P. Murdock, *Africa: its people and their culture history* (1959), p. 234.

¹³ *Ibid.*, p. 234.

¹⁴ J. H. Rodrigues, 'The influence of Africa on Brazil and of Brazil on Africa', *J. African History* 13 (1962), pp. 49–67.

prior to the introductions from Brazil, since available records indicate that the continent was not only rich in root crops like yam and cocoyam but also took the pumpkin, ginger, banana (early chroniclers in Brazil called it *placoba*) and cows to Brazil. Be that as it may, it is obvious that the slave trade between the Brazilian and African coasts generated a process of intercommunication and transculturation between the various African and Luso-Brazilian races.¹⁵

II

The diffusion of cassava into west Africa was slow and took place mainly in the nineteenth and twentieth centuries. Carter and others¹⁶ suggest that this was principally due to the human geography and the political organization of the west African kingdoms. According to them, the humid coastal belt was essentially uninhabited and formed a peripheral zone around capitals further inland. With minimal contacts between the coast and the hinterland, the acceptance of any new crop first introduced at the coast by the hinterland population had to take some time. Jones disagrees. He argues that the spread of cassava in Africa was inhibited by neither geography nor the level of African farming skills. According to him, when its adoption was postponed, the reasons were to be sought elsewhere, in the difficulties attendant on reducing its toxicity, in the relations between the native people and the Europeans, in the hostility between the ethnic groups, or in the character of competing crops.¹⁷

Johnston, while admitting that the spread of manioc appears to have been influenced significantly by the spread of knowledge of its processing techniques, also holds that, by 1700, the crop had become important in a few areas in Africa, including the islands of São Tomé, Príncipe, Fernando Pó and at Owerri.¹⁸ Several other scholars confirm that it was the arrival of freed slaves from Brazil in west Africa from the nineteenth century, who brought with them many practices learnt in the New World, including knowledge of the preparation of cassava, products that led to the spread of cassava in west Africa.¹⁹ Morgan and Pugh hold that cassava did not become popular in west Africa until its reintroduction by former slaves from Brazil, who also imported the culinary techniques necessary for its preparation as a foodstuff. Thus, cassava spread as the knowledge of removing its prussic acid content and making cassava meal spread.²⁰ In other words, it was knowledge of proper methods of cassava processing which facilitated the process of its adoption in west Africa.

In western Nigeria, for instance, it was the arrival of returnee slaves from Brazil, the West Indies and Sierra Leone from the 1850s onwards which was the major catalyst for the spread of cassava in the area. Many of them were said to have settled in large numbers among the local people in Lagos, Badagry, Abeokuta and Ijebu, to whom they imparted their knowledge. Likewise, in eastern Nigeria, knowledge of cassava cultivation and processing was first

¹⁵ Ibid., p. 50.

¹⁶ S. E. Carter, *Introduction and diffusion of cassava in Africa* (IITA Research Guide, 49, 1993), p. 15.

¹⁷ Jones, *Manioc*, p. 37.

¹⁸ B. F. Johnson, *The staple food economies of western*

tropical Africa (1958), p. 179.

¹⁹ FAO, *Agricultural development in Nigeria*, p. 12.

²⁰ W. B. Morgan and J. C. Pugh, *West Africa* (1969), p. 87.

introduced to the towns along the coast, such as Yenagoa and Calabar, where consumption of the products was initially well established.²¹

Cassava may have been introduced into northern Nigeria through central Africa:

Cassava was known in Northern Nigeria in 1850. In 1825, it had not been recorded by early European travelers, suggesting the entrance of cassava to about 1830–1840. It may well be that cassava reached northern Nigeria via central Africa, through the migrations of the Fulani, rather than from coastal west Africa. In any case, cassava was unimportant north of the Niger–Benue confluence until after World War I.²²

Based on the foregoing, all we can say is that the history of cassava in Africa dates back to the seventeenth century. These were the years of Portuguese exploration, which facilitated the trade in slaves. Such contacts eventually led to exchange of culture, including borrowing of crops on both sides. Hence, towards the end of the nineteenth century and especially by the first decade of the twentieth, cassava was already found in several parts of Africa including Nigeria. It is now left for us to show how the crop came into Igboland, when and from where, the initial challenges it faced, and why the people finally adopted it.

III

The evidence indicates the prominent role played by migrants, especially towards the late nineteenth and early twentieth centuries, in the introduction and diffusion of cassava in Igboland (Map 1). Going by the records cited above, it is likely that some parts of Igboland may have been cultivating cassava since the seventeenth century especially after its introduction at Owerri.²³ In fact, once it was introduced into the coastal areas of Yenagoa, Warri and Calabar, the crop gradually found its way into the Igbo hinterland, via the activities of long-distance traders, especially through the coastal regions and the Igala territories. In this process, Aro traders, who were particularly prominent in the business of long-distance trading at the time, played a dominant role. This may have happened at different periods in Igboland, beginning in the early twentieth century, through the First World War, and up to the 1960s.

A source in Ohafia interviewed in the early 1980s categorically stated that cassava was first introduced into the area of Akanu Ohafia about three years before the First World War by one Isong of Calabar who was then Headmaster of Akanu Primary School.²⁴ However, many more people in the area suggest that it was the Aro traders who, in the course of their long-distance trading, brought cassava to Ohafia. Once introduced, it was also through the efforts of these traders that many learnt how to prepare it as food. Among the Ngwa (southern Igboland), cassava was probably introduced by the Kalabari traders in the last quarter of the nineteenth century. It spread rapidly with the construction of the eastern railway, which passed through the area in 1913.²⁵ In the same vein, Chuku identifies the Igala territory as another source of

²¹ S. A. Agboola, *An agricultural atlas of Nigeria* (1979), p. 60.

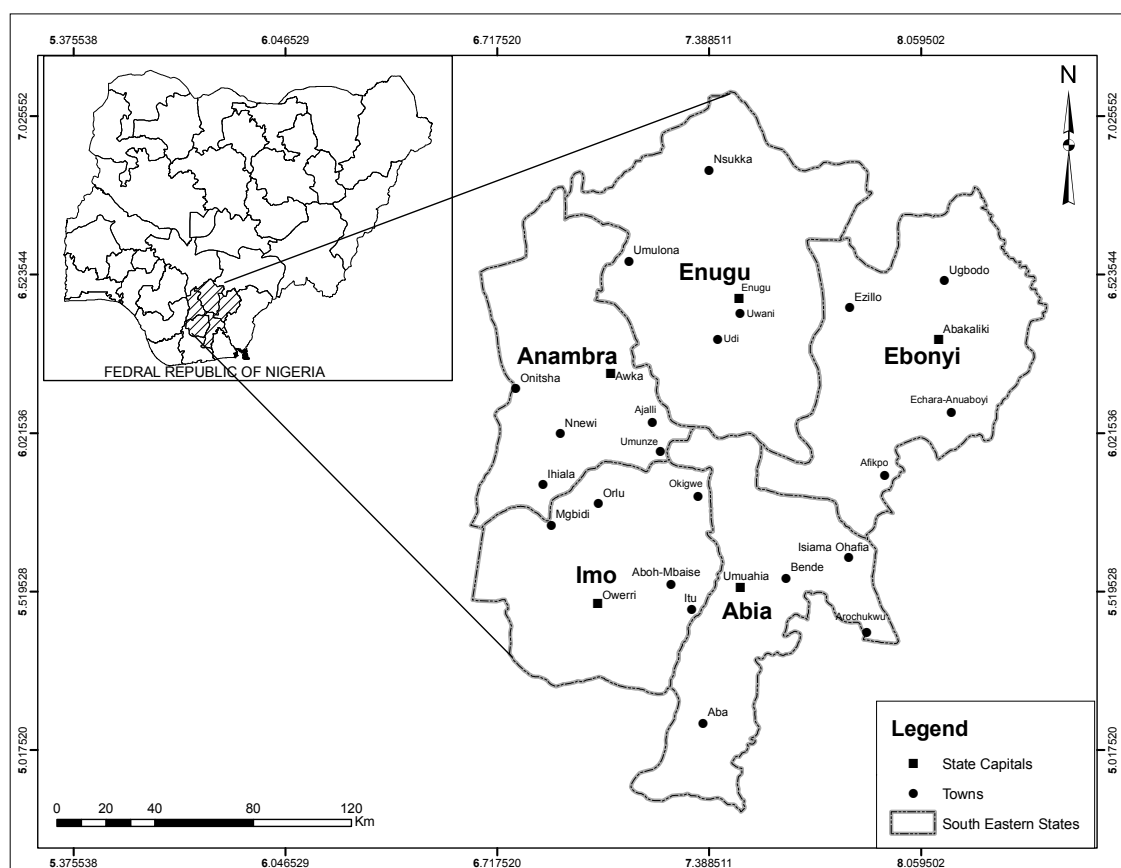
²² Carter, *Cassava*, p. 18.

²³ *Ibid.*, p. 16.

²⁴ P. Amogu, 'The penetration and influence of

cassava in Ohafia economy to 1960' (unpubl. BA Long Essay, University of Nigeria, Nsukka, 1982), p. 15.

²⁵ G. I. Chuku, 'The changing role of women in Igbo economy, 1929 to 1985' (unpubl. PhD thesis, University of Nigeria, Nsukka, 1995), p. 77.



MAP 1. Map of Nigeria showing the south-east (Igboland) where cassava production is dominant

the introduction of cassava into parts of Igboland. For instance, it was said that the crop came into Aguleri/Otuocho in the Anambra flood plains from there. The first species of cassava that came into the area were *akpuji* (cassava that looks like yam) and *Ogbanku*, which was peeled and put in the sun to dry, pounded and filtered to produce cassava flour. Oral sources claim that the women of the area started practising this method of cassava processing from the beginning of the twentieth century.²⁶

Okoroji Ine, interviewed about 1980, recalled that he was already ten years old when cassava was introduced into Uturu Okigwe mainly through the Aro traders. This was before the women's demonstration at Abangwa (the Aba women's riots which took place in 1928 or 1929).²⁷ Similarly, the initial species of cassava introduced into Ohuhu Umuahia, was called *acham*. Many say it was quite harmful to both human beings and domestic animals. The crop had entered the area through long-distance traders who brought specimen stems to the market at Abagwu in Uzuakoli. (Abagwu market was notorious in the late nineteenth century

²⁶ Ibid., p. 76.

²⁷ A. E. Udueze, 'The economy of Uturu in the

nineteenth century' (unpubl. BA Long Essay, University of Nigeria, Nsukka, 1982), p. 49.

as a slave market.) What is likely is that the middlemen who operated between the coast and the interior brought cassava to this market from the European explorers and traders of the nineteenth century.²⁸ Once adopted in Ohuhu, the knowledge of cassava quickly spread to the neighbouring communities in Umuahia including Ibeku, especially once they learnt how to ferment it to get rid of the prussic acid content. Aro traders also brought cassava to Akaeze in Ohaozara, and most of Afikpo.²⁹ According to Mr Raphael Oko-Aja, interviewed in 2008, cassava came from Panya (Fernando Pó) through the Calabar and the Ibibio areas mainly through Aro traders and then to Afikpo. He claimed that the crop originally came from Potokiri (Portugal) before it found its way into west Africa.³⁰

Whilst there is greater consensus on the issue of source and routes of entry of cassava into Igboland, the issue of the timing remains controversial. It is evident that the crop had made serious inroads into Igboland at different times between the beginning of the twentieth century and the end of the Second World War. In fact, Onigbo Ibeji (b. c.1916) admitted that he was older than the cassava crop in Umudike Umuahia. According to him, cassava was brought to his village by Dee Onuoha, who had taken it from Ubani (Bonny) in about 1910. The crop, which the people called *jigbo*, had to overcome resistance, before it was finally adopted.³¹ Another informant testified that he was already married by 1915 when the white man came to Umunze in Idemili. At that time cassava was unknown in the area. He said the crop was introduced in the early 1900s as a supplement to the yam.³² It is also said that cassava may have been introduced to Isuikwuato Okigwe via Ugwueke and Ezeukwu in Bende. But, it began to make an impact only from 1946, when soldiers returned to the area from the Second World War. It was principally the hunger in the area during the period that forced people to explore alternatives to the yam as a source of food.³³

However, an important contribution to the argument over the period during which cassava was introduced into Igboland is that by Ohadike. According to him, the crop made its entry towards the end of the second decade of the twentieth century. He insists that the shift from yam to cassava was a direct consequence of British imperial presence on the lower Niger as marked by the punitive expeditions of the first fifteen years of the twentieth century, the First World War and more importantly, the influenza pandemic of 1918–19. The major effect of these developments, he argued, was the disruption of agricultural activities. Many people were displaced; while farmland and several crops suffered neglect.³⁴ The result was hunger, which led to a search for viable alternatives.

Archival records also support Ohadike's thesis that the influenza pandemic of 1918–19 seriously affected the socio-economic life of the Igbo. For instance, in the Awka Division

²⁸ S. Okpara, 'Agriculture in Ohuhu during the colonial era, 1900–1960' (unpubl. BA Long Essay, University of Nigeria, Nsukka, 1983), p. 19.

²⁹ J. C. Chukwu, 'Economic activities in Ohaozara area of Imo State up to 1970' (unpubl. MA thesis, University of Nigeria, Nsukka, 1987), p. 31.

³⁰ Mr Raphael Oko-aja (farmer, aged c.58, Amankwo Afikpo) in discussion with the author, 11 Sept. 2008.

³¹ Mazi Onigbo Ibeji (farmer, aged c.92, Umudike Umuahia), in discussion with the author, 24 Aug. 2008.

³² Mr Ebenezer Iloka (farmer, aged c.102, Amuda Umunze), in discussion with the author, 9 Sept. 2008.

³³ B. E. Ogbuo, 'Agriculture in Isuikwuato, 1900–1980' (unpubl. BA Long Essay, University of Nigeria, Nsukka, 1982), p. 70.

³⁴ D. C. Ohadike, 'The influenza pandemic of 1918–19 and the spread of cassava cultivation on the Lower Niger: a study in historical linkages', *J. African History*, 22 (1981), pp. 379–91.

of Onitsha Province alone, about 10,365 people were said to have died from the influenza in 1918 and 1919,³⁵ an increase of more than 70 per cent over the normal death rate. Its impact is appropriately captured in a memorandum by the District Officer, Awka Division to the Resident, Onitsha Province at the time:

The toll has been a heavy one. As far as I can gather, the deaths have occurred chiefly amongst the younger men and women ... also, women in pregnant condition. The elderly people in most cases seem to have recovered. The epidemic has had a very unsettling effect on the native generally, simply because, it was something new that he could not understand. The rapidity with which the deaths occurred (practically all in the month of November) made him think they were all going to be wiped out.³⁶

Ohadike's argument therefore, is that the cassava crop made its debut in the Igbo territory towards the end of the second decade of the twentieth century, following the influenza pandemic of 1918–19, which ravaged the vital working population of the area at the time, and which made cassava an attractive alternative to the yam. More so, as the yam crop, which demanded considerable manual work was adversely affected by the consequent withdrawal of labour from the farms. In any case, although the issue of why cassava was accepted in Igboland will be revisited later, it is evident, as Ohadike concedes, that even before 1920 cassava was already present in the area, suggesting that factors other than the influenza pandemic may have contributed to its acceptance by the Igbo.

Available evidence from Abakiliki suggests that cassava did not become a major staple until the end of the Second World War. An informant even insisted that cassava cultivation was not popular in Ikwo until the end of the Nigerian Civil War; even then, it was planted in areas usually considered unsuitable for the yam.³⁷ Mr Ikechukwu Ochere insisted that he was born about the end of the Second World War, before his people knew cassava. The crop, according to him, was constantly being brought from Afikpo. But his townsmen rejected it initially because of its odour.³⁸ Also in nearby Ezzeagu, it was said that cassava first featured in the food basket of the people during the colonial period. However, it was hardly ever used for ceremonial occasions since it was considered strictly as food for the less privileged. These claims that cassava was not immediately popular in the Abakiliki area are supported by an Agricultural Officer, who said that the crop only became widely accepted in the area from the late 1970s. Before then, the crop was only being planted by non-indigenes.³⁹

Most informants, however, agree that the crop was popularized in the area by the officials of the Norwegian Church Agricultural Project (NORCAP), who arrived Ikwo in 1962. They introduced improved methods of agriculture, new species of cassava and rice, as well as fertilizer on palm plantations. The evidence from Abakiliki also shows that cassava may have arrived earlier to some parts of Igboland than others. This is understandable considering that

³⁵ National Archives Enugu, Nigeria (hereafter NAE), AW B5, Influenza Epidemic, AWDIST 2/1/38.

³⁶ NAE, AW B5, 'D.O. Awka to Resident Onitsha Province, 7 Jan. 1919, Influenza Epidemic', AWDIST 2/1/38.

³⁷ Mr Ikechukwu Ochere (farmer, aged 65, Ikwo

Abakiliki), in discussion with the author, 5 Sept. 2008.

³⁸ Mr Pius Nwuguru (farmer, aged c.68, Ikwo Abakiliki), in discussion with the author, 5 Sept. 2008.

³⁹ Mr M. O. Adumike (Extension Officer, Enugu State Agricultural Development Project, aged 65), in a discussion with the author, 7 Sept. 2008.

Abakiliki ranks as the foremost area of yam production in Igboland. In an economy such as this, it would be expected that there would be manifest resistance to the introduction of a new crop. Similar experiences were also recorded in places like Ohaji and indeed other major yam producing areas of Igboland.

Yet another issue in the introduction and diffusion of cassava among the Igbo is the resistance that the crop faced before it was accepted as an important food crop. To say that there were complaints, difficulties and bitter controversies over the adoption of the crop would be to state the obvious. The Igbo initially viewed cassava with suspicion. Even the people who first agreed to experiment with the crop did so with caution. Considering that cassava was being introduced into an area where the yam culture had for ages reigned supreme, one can appreciate why many shied away from it. So serious was the problem that even today some informants are unwilling to comment when asked to compare the importance of yam and cassava in their agricultural economy. They fear that this will amount to sacrilege against the yam god, *Ahiajoku*.

Furthermore, devising a proper method for the preparation of the new crop was also a major challenge, and the failure to do so resulted in an initial loss of lives for both man and animals. And this obviously scared more people away from the new crop. In some areas, the many deaths even led to outright banning of cassava for periods. At this early period, the proper method of fermenting the cassava tuber (Figure 3), as well as the technique of *gari* production, was still unknown.⁴⁰ Indeed, cassava can cause acute cyanide poisoning if the roots are eaten raw or without being properly processed. It is equally a known fact that long-term ingestion of low levels of cyanide from cassava is associated with goitre, cretinism, tropical ataxic neuropathy and tropical diabetes.⁴¹

It is possible that the initial species of cassava introduced into Igboland may have had a high percentage of hydrocyanic acid, which is harmful to both man and animals, as a result of which many died. The testimony of Mrs Oyidiya Uka of Ohafia gathered in the early 1980s illustrates this possibility. She had gone to Nne Nkwo's house to collect fire to cook on a particular day (in about 1920, when cassava was still relatively new to this community). There, she found that everybody in the house was vomiting to the point of unconsciousness:

I therefore raised alarm which attracted other neighbours. Before the first person arrived, all of them had died except Udonsi, their last son. We took him to my house, where he recovered the following morning. People then gathered around him and asked him: 'What did you eat?' 'We ate nothing but the cassava, which we took in the afternoon', he answered.⁴²

There were similar incidents throughout the whole of Ohafia about this time (1918–21), resulting in severe loss of life including those of domestic animals (especially sheep, goats and pigs) that were fed with the cassava meal or its chaff, so much so that men of prestige and high social status subsequently refused to experiment with the new crop, regarding it as an inferior food beneath the dignity of man. A few even abandoned the crop completely. An indication

⁴⁰ *Gari* is processed from raw cassava and eaten either raw or with soup. It is especially popular among urban communities.

⁴¹ J. H. Cock, 'Cassava: a basic energy source in the tropics', *Science*, 218, 19 (1982), pp. 755–62.

⁴² Amogu, 'Influence of cassava in Ohafia' p. 18.



FIGURE 3. Cassava tuber being sifted into *fufu* after undergoing fermentation (photograph, author, 2012)

of its inferior status was that it was now left in the hands of women as the main propagators or cultivators.⁴³ Dimgba Iko, one of the first to adopt the cassava cultivation in Ohafia, had a particularly bitter experience around this time. The elders of his village accused him of having brought poison to his people. Amidst the heavy sanctions and restrictions imposed on him, he was forced by the village elders to swear before the various shrines in the villages of Ohafia to prove his innocence.⁴⁴ So great was the fear that even the colonial administration in the area proposed to phase out the inadequate processing technique of the crop and subsequently sent sanitary inspectors to the villages to teach the people better methods of cassava processing.

In Owerri District, too, there were widespread reports, particularly in 1939, of food poisoning resulting from the consumption of cassava. A medical officer noted that the cases were common between April and August, by which time, he observed, more people ate mostly cassava, as yams were just being planted. He identified the people's inadequate method of processing as a likely reason for its toxicity. According to him, the people did not know that cassava contained some form of poison:

⁴³ Ibid., p. 19.

⁴⁴ N. C. Kalu, 'Cassava revolution in Ohafia up to 1990:

a historical analysis of economic change' (unpubl. BA Long Essay, University of Nigeria, Nsukka, 1991), p. 14.

The general belief had been that some enemy in the neighbourhood managed to drop poison into their food. Great enmity (poison combat) existed between the families of those suspected to have taken part in this diabolical act and of course the families of the diseased ones were always ready to retaliate. But a close study of the frequency of the occurrence of the cases and the nature of their history and symptom tended to dismiss the idea that the administration of any poison was done by someone.⁴⁵

It was even reported that those sent to hospital early enough recovered, while others died after three or four days. From the records, five of the eleven persons admitted to the hospital for cassava poisoning in the District in 1939 died.⁴⁶

In spite of these problems, people still adopted the crop, albeit gradually and cautiously. Owing essentially to the acute food shortages occasioned by the First World War and the influenza pandemic, highlighted earlier, a gradual reappraisal of the viability of the crop seems to have taken place among the Igbo. Moreover, the Great Depression of the late 1920s and 1930s made the production of more food expedient. For both reasons, cassava was to benefit tremendously. Hopkins has observed, that, where new plants and seeds were adopted, it was not because they caught the fancy of a primitive people, but because they were seen as useful additions to the existing range of foods, being worth more than the extra cost of producing them or, alternatively, because they were regarded as good substitutes, yielding a higher return for the same input than the crops they displaced.⁴⁷ This was obviously the case with the adoption of cassava in Igboland.

Against the backdrop of Ohadike's thesis on the introduction and diffusion of cassava among the Igbo, which emphasized the influenza pandemic of 1918–19 as the primary factor, several scholars have identified the obvious economic advantage of cassava over and above the yam as the primary reason for its domestication. They argue that once the people realized that the labour requirements of cassava were merely half that of yam, they readily embraced it. Also, the crop yielded more, as the entire crop (tuber, stem and leaves) could be put to use. Equally, they found out that cassava was less choosy in terms of soil. In fact, it grew remarkably well on poor soils. Many believe that cassava was quickly adopted by the Igbo because of its adaptability to traditional farming and food systems; relative ease of cultivation and processing; year-round availability as insurance against crop failure; low input of resource requirements; and its relatively high yield of food energy (calories) per calorie of labour input.⁴⁸ In view of these obvious advantages and the fact that the depleted male population could conveniently leave cassava to women and children, while they concentrated on yam production and house roofing,⁴⁹ it was easy for the population to embrace the new crop.

These early consumers of cassava were probably eating it as *fufu* (cassava food). Here, once the cassava tuber had been harvested, a process of fermentation usually took place essentially to prepare it for cooking. The tuber was washed to remove sand and soaked in water for three days. On the fourth day, the fermented tuber was sifted to remove its veins. In more recent

⁴⁵ NAE 41, IV, 'Annual Report 1939', OWDIST 10/1/4.

⁴⁶ Ibid.

⁴⁷ A. G. Hopkins, *An economic history of West Africa* (1973), p. 31.

⁴⁸ S. K. Hahn, 'Cassava and African food crisis', in S. K. Hahn *et al* (eds), *Tropical root crops: root crops and the Africa food crisis* (1989), p. 24.

⁴⁹ Ohadike, 'Influenza pandemic', p. 379.

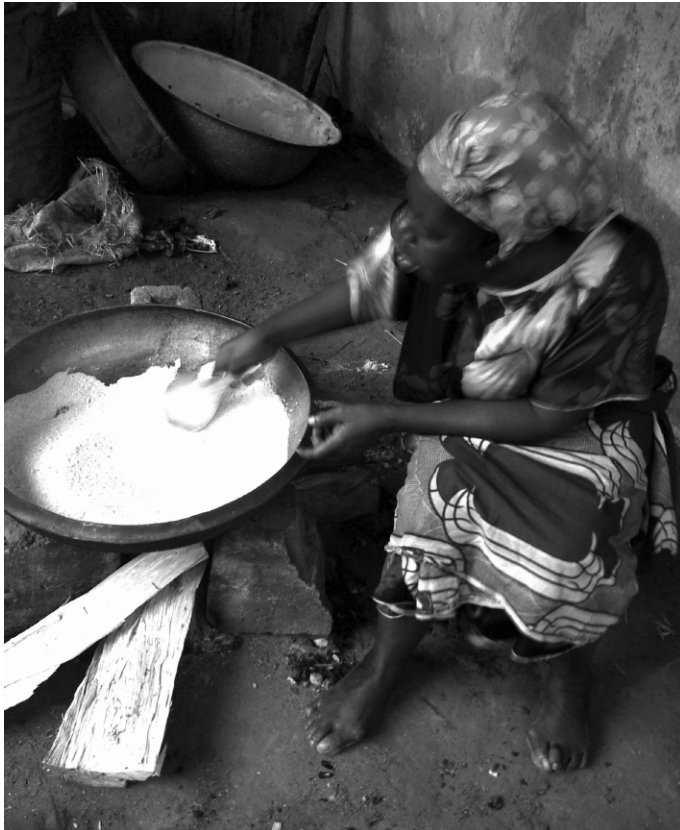


FIGURE 4. Frying cassava paste to produce *gari* (photograph, author, 2012)

times, some people removed the outer scales of the tuber before soaking in water, just to ensure that the end product was completely white. What was produced after the sifting was introduced into boiling water and allowed to cook for 20 minutes. Subsequently, it was removed and pounded in a mortar. A second round of cooking usually took place for another 15 to 20 minutes, even as it was pounded again. This was now the *fufu*, which was then used to scoop up any local soup. It is likely that the initial deaths resulting from cassava consumption may have occurred from lack of proper preparation, especially from either not cooking it well or from cooking longer than necessary. These processes are not required in *gari* processing, hence the argument that the introduction of *gari* processing revolutionized the spread of cassava among the Igbo (Figures 3 and 4).

A new phase in the diffusion of cassava among the Igbo opened with the introduction of new methods for its processing in the 1920s. For instance, once a more efficient technique of processing was introduced in parts of Ohafia, by a woman (Orie Kalu) who had copied it while staying in Bonny with her husband, many people adopted the crop.⁵⁰ But, it could be argued that it was the introduction of *gari* processing machines that revolutionized cassava cultivation in Igboland. This was particularly the case in Amiyi-Obilohia in Isuikwuato Okigwe, where the people initially prepared cassava by mixing it with cocoyam or unripe banana. By this time,

⁵⁰ Amogu, 'Influence of cassava in Ohafia', p. 17.

fufu was prepared in a very rough way. Later, the people learnt how to sift fermented cassava as well as *gari* making. *Gari* making was not very popular until machines were introduced into the villages of Isuikwuato.⁵¹ Also, whereas knowledge of *gari* making came about 1910 to Aguleri/Otuocha in the Anambra flood plains from Benin,⁵² it was not until about 1928, that the technique was adopted in Orlu.⁵³

The initial *gari* processing machines were laborious and operated by hand. Indeed they were used mainly to grind cassava tubers, which was the first stage in the process of *gari* production. Recent developments however, have seen the introduction of electric machines (Figure 5). The point still remains that the introduction of these machines made the production process much easier, providing an alternative to the local fermentation process that occasionally led to loss of life through the consumption of *fufu*, but more importantly enhanced the already growing demand for *gari* especially in the new towns. Arguably, the early recognition of cassava, especially *gari*, as the food of the urban masses and as a profitable crop, removed any further cultural barriers to its acceptance.

To prepare *gari*, the cassava roots are peeled with a cutlass and washed in several changes of clean water to remove the earth particles. They are then coarsely grated with the help of a locally made tin grater. The grated cassava is collected in cotton or raffia sacks and pressed by means of heavy stones or logs. Sometimes the necks of the sacks are tied around strong sticks in such a way that by twisting the sticks, the sacks are gradually tightened. Alternatively, the sacks are sandwiched between 4 wooden planks that are strongly tied together with ropes. These sacks are left for 3–4 days during which the starch solution, if required for edible starch, is squeezed out and collected in a container. The ropes are tightened frequently resulting in the extraction of the maximum amount of starch solution. The grated cassava becomes fermented and develops a sour taste. The moist grated cassava is then taken out of the sacks and sieved to remove the fibres by means of a sieve made of bamboo. The sieved, grated cassava is now heated with constant stirring in wide, shallow, nonsticky metal pans till it becomes light or crisp *gari*. The *gari* is thoroughly sundried before storing and marketing.⁵⁴

Gari is consumed in various forms such as cooked *gari* or *eba*. Here, the dried *gari* is added to boiling water to cook and soften it. It now assumes a partially sticky and solid mass, which is taken with fish, meat, vegetable soup or stew. There is also the *gari* gruel, in which the dried *gari* is soaked directly in cold water to make gruel to which milk and sugar or table salt is added to taste.⁵⁵ It is evident that the processing of cassava into *gari* particularly made cassava production popular not only among the Igbo but among other Nigerian communities too.

Similarly, the movement of population between the coast and the interior as well as improvement in communications also helped the spread of the crop inland.⁵⁶ In fact, the establishment of railway stations led to the growth of urban centres, which required lots of foodstuffs. *Gari*, especially, was found to be very effective in meeting this demand. Although

⁵¹ Ogboon, 'Agriculture', p. 63.

⁵² Chuku, 'Changing role of women', p. 76.

⁵³ Ibid., p. 78.

⁵⁴ Etejere and Bhat, 'Traditional preparation', p. 159.

⁵⁵ Ibid., p. 159.

⁵⁶ Agboola, *Agricultural atlas*, p. 60.



FIGURE 5. A *Gari* processing machine
(photograph, author, 2012)

cassava could be found throughout Aba and Bende Districts by 1928, Martin states that its importance grew slowly in the 1920s. It was still a minor crop, planted on yam farms during or after the yam season itself. With the introduction of *gari* grating machines, however, a full-blown trade started between the Ngwa and neighbouring towns of Aba and Umuahia. So lucrative was this trade that by the eve of the Second World War even men were actively involved in it.⁵⁷

The spread of cassava among the Igbo perhaps received its greatest boost once the colonial government, to encourage the war effort and to meet local demand for foodstuffs, began to advocate an increase in the cultivation of the crop. To this end, in 1940, the colonial government initiated the 'Plant more cassava this year' campaign.⁵⁸ According to an instruction from the Agricultural Officer to District Officers in Owerri Province, the campaign was to be given the widest publicity as early as possible and by whatever means were available. Personal explanation through local authorities was recommended. This was to be done by circulating a leaflet or its Igbo translation to local authorities and native courts and posting the translation in public places, such as markets.⁵⁹ The campaign stressed the need for local supplies, while emphasizing the peculiar advantages of cassava over yam and cocoyams. The campaign was to be primarily addressed at women given that, among the Igbo, cassava was considered a woman's crop.

⁵⁷ S. Martin, *Palm oil and protest: an economic history of the Ngwa Region, south-eastern Nigeria, 1800–1980* (1988).

⁵⁸ NAE, OW 4481, 'Plant more cassava this year campaign', RIVPROF 9/1/917.

⁵⁹ Ibid.

The argument was that, since women were responsible for feeding the family all year round, the onus was therefore on them to ensure that there was no hunger. To this end, the Health Department commenced a programme of sending trainees to the newly established National Root Crop Research Institute (NRCRI), Umudike Umuahia, to learn modern techniques of cassava propagation and processing. The result was tremendous. As the District Officer for Okigwe noted in his Annual Report for 1941, the 'Plant more cassava' campaign resulted in a great increase in cassava planting. He observed that in many areas where the soil had become so impoverished by exhaustive cropping and good yams could no longer be grown, cassava became the chief alternative.⁶⁰ By 1942, he could confidently assert that, because of their unrelenting effort in the campaign, there was an increase in cultivation and the district could then boast of an adequate area under cassava cultivation. The difficulties that arose from the Second World War made acceptance of cassava even more imperative. As a result, throughout the late 1940s and into the 1950s, many more people naturally took to cassava cultivation.

The Agricultural Officer for the Eastern Region attributed this rise to the popularity of *gari* and fermented cassava, the low cost of production and the absence of storage problems, all of which encouraged more farmers to take up the cultivation of the crop. From his calculations, cassava grating machines in use in the region increased in number from 304 in 1962/63 to 381 in 1963/64.⁶¹ Similarly, numerous bags of *gari* were now being exported from the region. The high demand, especially from the northern region, was also met using railway transportation. Henceforth, the *gari* business became a booming trade.

After this, cassava gradually began to challenge the dominant position of yam as the major food crop of the Igbo. So much that by the 1950s and 1960s, it had become the main food crop in Ngwa District, although yams, cocoyams and maize were equally important.⁶² For many in the Ngwa region, therefore, *onye adighi ima akpu aguru egbue ya* ('whoever refuses to plant cassava would die of hunger').⁶³ Furthermore, although the crop made a late arrival in the Abakiliki area, the situation there was not entirely different.

Among the communities in Ohaji, what took place could be described as a revolution. Once cassava was adopted, it became the most important crop. It was immediately integrated into the farming and dietary habits of the people, to the extent that many even began to see it as one of the indigenous food crops of the area.⁶⁴ In fact, the displacement of yam, in an economy which was hitherto monocultural, is accepted as the first victory of cassava in Ohaji. This sudden change had major consequences on the socio-economic life of the people. For women in particular, it brought liberation. It was a ready solution to their numerous economic problems and in particular signified an end to the dominance of a yam economy, which had tied them to their husbands' purses. With cassava, therefore, the picture changed automatically from an economy dominated and controlled by men to one in which women were more active. Cassava in Ohaji offered hope to widows, although it also led to

⁶⁰ NAE, 1100, 'Annual Report 1941-2', OKDIST 11/1/454.

⁶¹ NAE, Box 79, 'Eastern Region: Annual Report, Agricultural Division, 1963-64', AR/EN/A2.

⁶² Martin, *Palm oil and protest*, p. 124.

⁶³ Mrs. Beatrice Nwala (farmer, aged c.68, Ovokwu Isiala Ngwa), in a discussion with the author, 13 Sept. 2008.

⁶⁴ Kalu, 'Cassava revolution', p. 11.

the commercialization of the people's land and the introduction of foreign elements to the community.⁶⁵

IV

Any discussion of the evolution of food crops and in particular of cassava among the Igbo, must take a holistic look at the people's socio-economic and cultural history. Whereas some crops like yam and, to some extent, species of cocoyam and several other crops like the oil palm and breadfruit are believed to be indigenous, having been in the area for so long that neither oral nor written histories can demonstrate their introduction, a wide range of others, including cassava and some species of the yam and cocoyam were introduced, since the voyages of discovery, from the New World by the Portuguese explorers. The introduction of new crops or species of crops was however multi-directional. It was a mutual process in which both Africa and the New World benefited.

That any particular crop was adopted was not because of a single factor, as Ohadike's thesis of the influenza pandemic of 1918–19 tends to suggest, but for a variety of reasons, especially those relating to the socio-economic and cultural life of the people, as well as the willingness of the people to adapt to changing economic conditions. In the case of cassava, it was obvious that it came at a time when circumstances made its acceptance imperative. Its multiple uses, the fact that it was easier to cultivate, easily adaptable to different soil conditions and less demanding in terms of labour requirements were all factors that ensured that the crop was adopted by the Igbo.

⁶⁵ C. N. Alua, 'Cassava industry and its socio-economic impact on Umuokanne-Ohaji from 1900 to the present' (unpubl. BA Long Essay, University of Nigeria, Nsukka, 1996), p. 74.