

Crossfire: 'Nigeria has implemented a cassava incentive and subsidy scheme that has given the sector a competitive advantage. Other cassava producing countries could learn lessons from this model'

GIDEON ONUMAH and SANNI LATEEF OLADIMEJI

Dear Gideon,

Investment in the agricultural sectors in Nigeria, especially cassava, in the last 16 years has leapfrogged the sector into a competitive advantage. I want to look into the cassava incentive and subsidy scheme and convince you that it has given the sector such a boost.

Nigeria is currently the world's largest producer of cassava, producing 38 million tonnes of fresh roots in 2010, 25 per cent more than the next largest producer, Brazil. It may interest you to know that about 90 per cent of the annual production of cassava in Nigeria is for human food while only 10 per cent is utilized for industrial products. But Nigeria accounts for a negligible amount of industrial cassava value-addition worldwide (Sanni, 2011).

As the cost of production is low, the commodity has a high poverty reduction potential. Cassava is considered as a non-traded

commodity as imports and exports represent less than 1 per cent of the production (Asanke-Pok, 2013). Constraints in cassava production include a wide range of technical, institutional, and socioeconomic factors. These include pests and diseases, agronomic problems, land degradation, shortage of planting materials, access to markets, limited processing options, and inefficient/ineffective extension delivery systems.

To increase agricultural productivity and competitiveness, successive Nigerian Governments have introduced incentives and subsidies starting in 2002. According to the United Nations Industrial Development Organization (Sanni, 2011), existing and new policies aimed at supporting investment and market development in the cassava industry in Nigeria include: a policy on pioneer status investment incentives; policies on export incentives for the non-oil

Dr Gideon E. Onumah (g.e.onumah@gre.ac.uk) is an Agricultural Economist and Rural/Agricultural Finance Specialist at the Natural Resources Institute, University of Greenwich, United Kingdom. Professor Sanni Lateef Oladimeji (sannilateef5@gmail.com) is a Professor of Food Science and Technology & Dean of College of Food Science and Technology, Federal University of Agriculture, Abeokuta, Nigeria.

© Practical Action Publishing, 2015, www.practicalactionpublishing.org
<http://dx.doi.org/10.3362/2046-1887.2015.002>, ISSN: 2046-1879 (print) 2046-1887 (online)

sector; and policy on the provision of credit loans for agriculture producers.

The incentives (processing facilities, working capital) and subsidy on fertilizer and agro input distribution (high yielding varieties) have been reported to: increase the quality and quantity of cassava production; strengthen local small- and medium-scale cassava processors (ranging from cottage to medium-sized industries); improve market linkages along the value chain; support an enabling environment for cassava cultivation, processing and exports; and create windows of growth for value addition.

Although harder to estimate, cassava incentives and subsidy have a longer gestation time for positive growth due to the current inefficient production and market operations. Nigerian cassava farmers effectively benefited from the Presidential incentives of 2002–10 from 2008 and 2010 (Asante-Pok, 2013). Sanni (2011) reported that cassava initiatives (incentive and subsidy driven) have given the sector a competitive advantage in terms of product and process innovations. The sector witnessed a spread of SMEs and large-scale factories using thousands of cassava roots per day, bringing in billions of Naira to the nation, annually. Donor-driven projects are also assisting.

With appropriate pricing and sustainable options, incentives and subsidy remain unique tools to promote cassava development and empowerment among pro-poor farmers in developing countries.

*Best wishes,
Lateef*

Dear Lateef,

Your piece is very interesting and raises an issue that often generates considerable debate, some of which is, unfortunately, quite emotive. Before I proceed, I recognize that the note only takes a ' cursory look into the [Nigeria's] cassava incentive and subsidy scheme'. Hence, it is likely that some of my comments may not have arisen if your objective was to undertake an in-depth analysis of the scheme. Nevertheless, considering that Nigeria is a leading cassava producer (in terms of roots) and has pursued innovative policy actions in the subsector, there is every likelihood that other countries will replicate or at least be influenced by what it does. It is for this reason that I am particularly keen that *before copying*, the issues are well understood. So here are my comments:

It is unclear what you mean by 'incentive and subsidy'. In a narrow sense, subsidies may refer to part of the cost of inputs, which is directly absorbed by the state, leaving the farmer to pay less. It is often an attractive option – usually justified on welfare grounds because small-scale farmers who are the target are poor and may otherwise have affordability challenges. Politically, it looks attractive as well because it can be used to demonstrate governments' commitments to directly addressing welfare issues facing poor farmers (usually a significant constituency in general elections). As we know, they cover farm inputs such as fertilizer, improved planting materials, and agro-chemicals, as well as farm credit.

There have been doubts about the utility of subsidy schemes in many developing countries. In Nigeria,

evidence reviewed by Dayo et al. (2009) suggests that farm inputs subsidies 'unintentionally benefited large-scale farmers', rather than the targeted smallholder farmers. This experience is not unique to Nigeria but is common in many African countries. There is, for instance, evidence from Tanzania showing that farm yields declined in communities targeted under subsidized input distribution schemes, being out-performed in terms of productivity gains by neighbouring communities, which were not 'official beneficiaries'.

Incentives may represent a broader range of interventions and may include programmes which increase availability of improved planting materials, processing technology, and output markets. Viewed within this perspective, Asogwa et al. (2012) find evidence in Nigeria which indicates that these programmes encouraged investment in the cassava subsector in Nigeria, including, more interestingly from my perspective, investment by the youth. Dayo et al. (2009) go even further to include interventions which impact on the structure of incentives in cassava value chains such as macro-level adjustments in exchange rates and domestic pricing regimes. They argue that these impact on prices of close substitutes of cassava products, especially imported ones such as wheat and maize, and therefore affect perceptions about the relative profitability of investing in the subsector.

If it is this broader viewpoint that you take, then I believe a lot can be said about actions taken by the Government of Nigeria to foster industrial uptake of cassava products. Inclusion in baking flour products is

the most visible. Though there have been many hiccups regarding this policy intervention, it appears to have been one of the most important drivers of private investment in cassava processing, beyond the traditional ones. In my view, any work which will bring out the critical technical constraints that affect this process can help in understanding what is needed to ensure a self-propelled process. For instance, the mismatch between processing capacity and officially determined minimum inclusion rate by industry was a problem, which can be avoided by others. This is especially important when reliable quality assurance systems have not been developed and compliance capacity is also lacking, in particular among SMEs.

It would also be interesting to ascertain the total public sector investment in the form of subsidies. Interestingly, Asante-Pok (2013) asks a similar question. I ask this specifically because I wonder if the cost of subsidies may not have yielded better and more sustainable benefits if invested in supporting infrastructure needed by industry. In my dream, perhaps if promotion of cassava processing had been linked with government investment in the power sector to improve reliability and cost-competitive energy supply, those investing in processing would have been more competitive. By so doing their capacity to absorb roots may have increased, providing incentives for sustained growth in roots production.

To conclude, the issue may not simply be whether or not to have direct subsidies but rather to create an enabling incentive structure which includes strategic public investment to address

the fundamental challenges facing actors in agriculture in the country.

Once again 'well don' (as I would say when I return to my Abia origins) in initiating this interesting debate. And my very best wishes.

Gideon

Dear Gideon,

Thanks for your comments on the above topic. I must say that you have added another dimension to the issue at stake. It is always good to have in-depth analysis on incentives and subsidy. I am as keen to encourage other countries to learn from laudable actions towards sustainable and value-for-money cassava incentives and subsidy schemes. Once we get it right, agricultural productivity would be increased, thereby generating incomes, providing employment opportunities, and improving the livelihood of smallholder farmers and vulnerable groups.

My responses are as follows. On details of 'incentive and subsidy', your comments are most appropriate. Note that this type of support is also applicable to other nations. In some states of the United States, for example, companies producing liquid biofuels receive direct subsidies for every gallon of ethanol they produce. Cash payments to producers are also sometimes linked to prices. According to Organization for Economic Cooperation and Development figures, the average rate of 'producer support estimate' for the heavily supported commodities in the United States ranges from about 55 per cent of the value of production for sugar to about 22 per cent for oilseeds. For the less-supported commodities the rate is typically below 5 per cent (Summer, 2015).

Access to agricultural subsidies by smallholder farmers (SMFs) has been a critical bottleneck to increasing agricultural productivity. The government distribution system is inefficient and wastes resources. Hence, the Federal Government of Nigeria attempted to create a more accessible fertilizer subsidies system. Government-distributed fertilizer reached only 11 per cent of the intended farmers. This was replaced with a private sector fertilizer support system, utilizing input vouchers; under this voucher programme, 94 per cent of farmers received the subsidized fertilizer as reported by the Federal Ministry of Agriculture Transformation Agenda team (Adesina, 2015).

Subsidies for political gains may not be significant in developing countries like Nigeria. Despite the subsidy, the opposition political party won the 2015 election. Also, in wealthy nations such as the United States, farm subsidies, though large in total, are a relatively minor political issue for most voters. The reason is that the cost per voter, in higher taxes and higher food prices, is small. For farmers, though, the gain per person is large (Summer, 2015).

I agree with your point that incentives encouraged investment in the Nigerian cassava subsector. The global spikes of wheat and oil prices are indications that government should promote domestic production and local contents. Macro-level adjustments in exchange rate and domestic pricing regimes have not been found to negatively affect structures within the cassava value chain. To benchmark, the average international price of cassava starch is \$500 (based on government subsidies, introduction of high-yielding

varieties, mechanization, fertilization, and efficient human capital) while the Nigerian price for cassava starch is \$750 (based on small government subsidies, low-yielding varieties, subsistence farming practices, and low skills).

Cassava inclusion in baking flour products is indeed the most visible policy. The fact that government is the 'pusher' of the inclusion created inconsistency in the pricing and patronage by the reluctant end users. The technical constraints in the flour policy are: early buy-in of end user markets, appropriate buying pricing, inadequate access to credit and slow disbursement where credit is available, lack of efficient machinery, dearth of support infrastructure, inadequate marketing outlets, and existence of quantification equipment to ascertain the accuracy of percentage inclusion even in the open market (CBN, 2015).

Accuracy of total public investment in the form of subsidies is difficult to achieve. However, realizing the fact that government alone cannot provide some of the infrastructure, the Federal Government of Nigeria instituted incentives such as 20 per cent of the cost of providing basic infrastructure like roads, water, and electricity, where they do not exist.

In conclusion, the institution of comprehensive and integrated incentive structures should be private-public sector driven. Other stakeholders are enjoined to join hands with government to actualize the dream of sustainable competitive cassava enterprises. The focus of incentive and subsidy policies is to favour mass uplift of the rural poor without discouraging the large-scale

farmers. We have come to realize that the promotion of agriculture at the grassroots would inevitably accelerate the development of cottage industries, and therefore provide the much-required linkages to industrialization, having taken for granted availability of food sufficient for local consumption.

Lateef

Dear Lateef,

Thanks very much for your feedback. I am particularly pleased that we have, in this brief exchange, moved beyond whether African governments should subsidize the farm sector or not. I hope that the other issues we have raised feature more in the general discourse on this subject and help governments to make better choices. Some final thoughts below:

As you mentioned, the US and other OECD countries spend quite a lot on subsidies. Actually, ActionAid in a recent publication, estimates that the '*rich* [emphasis mine] countries spend over US\$300 billion each year to subsidise their agricultural sectors – more than 6 times the amount of aid to developing countries' (ActionAid, 2002). Quite often resource-constrained countries, including many in Africa, use these figures to justify agricultural subsidies.

However, what we are arguing is that merely subsidizing may not be sufficient to transform the performance of the sector and the evidence regarding this is fairly common in Africa and, in many cases, quite robust. For instance, doubts remain about benefits to the poor. Several studies by a Zambia-based policy research institute – Indaba Agricultural Policy Research Institute – have concluded

that the sizeable inputs subsidy regime maintained by the Government of Zambia does not benefit resource-poor farmers. This is consistent with conclusions of an evaluation of such programmes in four African countries including Zambia by Baltzer and Hansen (2011–12). The other countries covered in their study are Ghana, Malawi, and Tanzania.

It emerges, as also found by Takeshima et al. (2012), that the not-so-poor farmers, who can access inputs from mainstream inputs markets, tend to be the largest beneficiaries. It is therefore not surprising that rural communities which are apparently targeted do not 'show appreciation' to governing parties running such programmes when it comes to elections. The case of the recent elections in Nigeria, which you cite, is not atypical. It happened in Zambia in 2011, when the then opposition party, which heavily criticized the government for maintaining a costly and unsustainable subsidy programme, won the election. Having taken over government, that party didn't do much to reform the subsidy programme, probably worried about potential political fall-out. It reportedly lost so much of the rural vote in 2015 despite maintaining the old subsidy programme.

Perhaps policymakers need to pay more attention to the nuanced, vote-based opinion being expressed by rural communities on the utility of agricultural subsidies in Africa. It may be that they have noticed, as observed by Takeshima et al. (2012), that these programmes undermine the development of private inputs markets, making access even more

uncertain. It may also be that they have greater concerns about poor infrastructure and other challenges which squeeze farmers' margins because they create inefficiencies in output marketing.

Whatever it is, subsidies on their own don't seem to be effective, even as populist political tools. So let the debate go on – maybe the Buhari government will listen and take a path that others will learn from.

Lest I forget, I find the official outreach numbers reported under the Inputs Voucher Scheme in Nigeria (Adesina, 2015) very impressive. But before recommending lesson-sharing, let me say I sometimes view such figures through the tinted lenses of caution. Unfortunately, I am not alone in this regard (see Jerven, 2013).

*My very best wishes,
Gideon*

References

- ActionAid (2002) *Farmgate: The Developmental Impact of Agricultural Subsidies*, London: ActionAid.
- Adesina, A. (2015) 'Agricultural transformation agenda: repositioning agriculture to drive Nigeria's economy', presentation by the Federal Ministry of Agriculture and Rural Development, Abuja.
- Asante-Pok, A. (2013) *Analysis of Incentives and Disincentives for Cassava in Nigeria* [pdf], Technical notes series, MAFAP, Rome: FAO <www.fao.org/3/a-at582e.pdf> [accessed 8 May 2015].
- Asogwa, B.C., Umeh, J.C. and Okwoche, V.A. (2012) 'Agricultural policy in the cassava subsector: implications for welfare of cassava farmers in Nigeria', *British Journal of Science* 6(2).
- Baltzer K. and Hansen, H. (2011–12) 'Agricultural input subsidies in Sub-Saharan Africa' study funded by DANIDA (2011–12).

- Central Bank of Nigeria (CBN) (2015) *An Assessment of the Operations of the Presidential Initiatives on Agriculture in Nigeria: 2001–2007* [pdf], Abuja, Nigeria: CBN <www.cenbank.org/Out/2013/RSD/CBN%20Occasional%20Paper%2040%20Inner.pdf> [accessed 21 May 2015].
- Dayo P., Nkonya, E., Pender, J. and Oni, O.A. (2009) 'Constraints to increasing agricultural productivity in Nigeria: a review', *IFPRI NSSP Background Paper 6*, Washington, DC: IFPRI.
- Jerven, M. (2013) 'The political economy of agricultural statistics and inputs subsidies: evidence from India, Malawi and Nigeria', *Journal of Agrarian Change* 2013.
- Rogers, B.A. (1999) 'Policy recommendations on agriculture' [online], Nigeria World <http://nigeriaworld.com/feature/article/agric_policy.html> [accessed 21 May 2015].
- Sanni, L.O. (2011) 'Process and product innovations in the cassava agro-industrial sectors in Africa: the stimulating effect of presidential initiatives', in C.A. da Silva and N. Mhlana (eds), *Innovative Policies and Institutions to Support Agro-Industries Development*, Rome: FAO <www.fao.org/docrep/015/i2420e/i2420e00.pdf> [accessed 8 May 2015].
- Summer, D.A. (2015) 'Agricultural Subsidy Programs', *The Concise Encyclopedia of Economics and Liberty* <www.econlib.org/library/Enc/AgriculturalSubsidyPrograms.html> [accessed 21 May 2015].
- Takeshima, H., Nkonya, E. and Deb, S. (2012) 'Impact of fertiliser subsidies on commercial fertiliser sector in Nigeria: evidence from previous fertiliser subsidy schemes', *IFPRI Policy Note 34*, Washington, DC: IFPRI.