Future Agriculturres

Policy Brief

Awakening Africa's Sleeping Giant? The Potentials and the Pitfalls[1]

In 2009 the World Bank published a report entitled Awakening Africa's Sleeping Giant: Prospects for Commercial Agriculture in the Guinea Savannah Zone and Beyond. The report highlights the agricultural potential of Africa's Guinea Savannah (henceforth GS) zone, which it describes as "one of the largest underused agricultural land reserves in the world" (p2). It argues that the time has come for this potential to be realized, noting the strengthening demand for agricultural commodities both in world markets and within Africa, where population growth, rising incomes and urbanization are driving demand for staple foods as well as for livestock and horticultural products. Macroeconomic and sectoral (taxation) policies are also increasingly favourable to agricultural investment within Africa.

The report draws lessons from post-1960 agricultural development experiences in two other regions once considered low potential agricultural areas, but now home to agricultural export industries of global importance: the Brazilian cerrado, where production is dominated by large-scale farmers, and the Northeast Region of Thailand, where production is dominated by smallholders. It recognises that considerable challenges will have to be overcome if Africa's GS zone is to emulate their success and also that such success could be accompanied by some adverse environmental and possibly social impacts. However, it argues that, with adequate planning and policy, the worst of these effects can be mitigated. Priorities for public intervention thus include: land policies that protect property rights in an equitable manner; investments in agricultural research, education and infrastructure; institutions to promote smallholder access to markets and services (including finance), and enhanced environmental monitoring and management. With these in place, "opportunities abound for farmers in Africa to regain international competitiveness, especially in light of projected stronger demand in world markets for agricultural commodities over the long term" (p2).

Is the Guinea Savannah really a "still largely unexploited area" or will efforts to exploit this zone through intensive agriculture displace other productive, but largely unseen activities?

Critical assessment of the report at the Future Agricultures – SOAS workshop highlighted the

heterogeneity of the GS zone. It contains several distinct savannah ecologies, including sudanian savannahs, miombo woodlands and flooded grasslands (Post 2010). In northern Nigeria, south-west Burkina Faso and the Upper East Region of Ghana population densities are high, whereas in the remainder - a vast area, which is the main focus of the report - they are low (Amanor 2010). In the former areas – admittedly a small fraction of the GS zone - smallholder agricultural intensification is already underway in response to rising market demand (Mortimore 2010). Common activities across the remainder of the zone include extensive (often shifting) crop cultivation, livestock herding and harvesting of environmental (especially tree) resources – all of which are important to the livelihoods of the (poor) inhabitants of the zone. Recent experience with large-scale land deals, some of which have been within the GS, shows not just that large-scale land allocations for agriculture can displace such activities, but also that compensation payments for those affected are often inadequate (Hall 2010). Women may be particularly affected by the loss of access to both extensive crop cultivation opportunities and environmental resources. Paradoxically, however, whilst people are already gaining livelihoods from the GS, it is the low populations in and around the GS that pose a challenge to equitable development of the zone, especially given the high labour requirements of smallholder agriculture.

Can internationally competitive agriculture be established and sustained in the Guinea Savannah? If so, what is required for this?

Rising food imports into Sub-Saharan Africa nowithstanding, the report argues persuasively that African agriculture can be competitive in rapidly growing domestic markets (i.e. at import parity prices). There is also some export potential from the GS zone, for example cotton, and world market conditions for many crops are likely to be favourable for some time. The report also recognises that, as in the Brazilian cerrado, soils are poor. Competitive agriculture thus needs appropriate soil fertility management practices (hence research) and input supply systems. Slingerland and Giller (2010) emphasise the complexity of the soil fertility management challenge, with differentiation across both households (for socio-economic reasons) and plots (i.e. within households) as well as across geographic areas. Growing market demand for agricultural produce may encourage producers to address these soil fertility issues. However, evidence from elsewhere (including Machakos: Tiffen et.al. 1994) shows that public support services may also be desirable and/or necessary.

The report also argues that commercial agriculture in the GS should be predominantly rainfed, which again seems sensible. Only large-scale farms and the best-capitalised smallholders will be able to afford irrigation themselves. According to Lankford (2010), a desirable combination for the GS is a rainfed system with supplementary irrigation when the rains are scarce - in poor seasons or when there are gaps in the rains. However, such optimisation of irrigation water use is almost impossible to achieve on medium to large-scale irrigation systems for smallholders or where many small and micro-systems coalesce into larger areas. Such systems tend both to be costly and to overuse water, hence ultimately causing scarcity downstream and other environmental problems e.g. salinisation. Lankford (2010) argues that it would be better to direct scarce water to villages and towns, thereby assuring the water supply necessary for urban growth, which in turn will service a growing rainfed agricultural sector and stimulate demand for agricultural products. Nevertheless, rainfall is variable in the GS, so intensification of smallholder agricultural production under rainfed conditions is likely to need both research into more drought tolerant

crop varieties and development of appropriate micro-insurance products.

Arguably one of the big gaps in the Sleeping Giant report is consideration of the role of livestock in future development scenarios. Demand for livestock products within Africa can be expected to grow as incomes rise, whilst for producers in mixed crop-livestock systems cattle can contribute both animal traction (essential if smallholder households are to expand their areas under cultivation) and manure. Whilst financial systems remain weak, livestock also perform a valuable savings function for enterprise growth. In turn, a growing livestock industry (possibly poultry even more so than beef?) could stimulate demand for soybean, cotton cake and maize – all crops with production potential within the GS. Rushton et.al. (2010) emphasise that diseases remain an important constraint to livestock production within the GS. In particular, much of the area remains infected by tsetse fly which is the main vector for both human (sleeping sickness) and livestock trypanosomiasis. Large-scale bush clearance removes the habitat for tsetse fly, as has happened over time in the more densely populated parts of the West African GS. However, public eradication programmes, to stimulate pioneer settlement of new areas by agricultural producers, are costly and progress can be reversed (as recently in Gokwe, Zimbabwe) if cultivation declines. Meanwhile, an array of other diseases affecting different types of livestock are also prevalent in the GS. Restoring the strength and quality of veterinary services (a major casualty of structural adjustment) is a prerequisite for controlling these.

Major investment in transport infrastructure is also essential if African agricultural producers are to increase their competitiveness, not just on global markets but also against imports where major centres of demand are located at the coast. More than anything else, it is these investments that will "open up" the GS. The question of what needs to be in place prior to such investments being made, so as to ensure that the processes thereby set in motion are pro-poor and environmentally responsible, is addressed below. For landlocked countries, infrastructure investment raises the challenge of regional (supra-national) policy coordination. Similar coordination is also desirable for agricultural research targeted at the GS and also if labour demand for production expansion in previously sparsely populated regions is to be met through migration from neighbouring countries.

What are the major environmental constraints to the promotion of commercialised agriculture in the Guinea Savannah and can these be managed appropriately?

Mortimore (2010) argues that this question is too narrow! Instead we should be asking what development pathways for the GS are most likely to reduce poverty and protect the health of the ecosystems on which society depends. He suggests that the Northern Nigeria model, whilst not perfect, is as good as any other available: the agricultural system is smallholder-based, the natural resource base is managed through decentralised institutions and both production practices and natural resource management institutions respond organically to growth in population and market demand. Other contributions to discussion at the Future Agricultures – SOAS workshop suggested that development trajectories within the GS should recognise the importance of diverse tree species within the landscape (for economic as well as social and environmental benefits), the potential of a variety of crops and cropping systems (looking well beyond maize, cassava, rice, soybean, cotton and sugar that were examined in detail in the report), the value of integrated crop-livestock systems and the crucial role of "wetlands in drylands" to serve as key resources for agricultural and pastoral production in

complex, risk-prone environments. This will require not just strong local institutions for natural resource management, but also deliberative fora within which competing visions can be debated and competing interest groups can dialogue.

On the narrower question posed above, the report appears to underestimate the likely environmental and health consequences of agricultural intensification in currently low population density areas of the GS. Jones (2010) highlights the high biodiversity of the GS zones and the high number of animal, bird and amphibian species threatened with extinction. Globally, increasing populations and agricultural intensification (independent of population effects) have been identified as major drivers of biodiversity loss. Whilst there is an impressive commitment to the establishment and maintenance of protected areas in some countries of the GS, perhaps most notably Tanzania, additional measures may well be required. However, these will need (time-consuming) location-specific research to understand which species are threatened and the measures that could assist their survival (e.g. migration corridors, local variants of wildlife-friendly farming). Meanwhile, biodiversity in the GS stands out as a global public good in part because other parts of the world have already wiped out so much of their biodiversity. The commitment to protected areas notwithstanding, is there a misalignment of international and local incentives here?

Poor health remains a significant burden for African communities within the Guinea Savannah and can act as a brake to economic development. Infectious and parasitic diseases pose the greatest threats. However, Post (2010) argues that the ways in which they respond to land-use changes are sufficiently understood to enable planning to ameliorate the major threats. In the past health systems have sometimes been unable to respond to delivery challenges, but new models (often involving community volunteers and community-directed treatment) are proving to be highly cost-effective, for example against onchocerciasis and guinea worm. Malaria is likely to present the greatest challenge, but successful strategies for malaria are also now emerging.

On the other hand, agricultural expansion in the GS could trigger the emergence of new diseases. Jones (2010) cites work showing that over 60% of emergent infectious disease events worldwide during 1940-2004 were caused by zoonotics, three quarters of which emanated from wildlife. There is thus an increased likelihood of new emergent diseases as human and livestock populations increase in proximity to wild animal populations in the GS. Such events are, therefore, most likely with expansion in livestock production, but there could also be indirect impacts through crop agriculture, for example via increased rodent populations feeding on crops. Of course, the impacts of emergent diseases are more serious the weaker is the capacity of health systems to deal with them. Ceteris paribus, factoring in the likelihood of emergent diseases will lower the benefit-cost ratio of agricultural expansion in the GS, but quantifying the effect is difficult.

Given the political economy factors driving interest in this zone, can commercialised agricultural development in the Guinea Savannah really be productive, sustainable and pro-poor?

Arguably, this is the most critical question of all! Amanor (2010) cautions that most processes of agricultural commercialisation intensify rural differentiation, with large numbers of semi-subsistence households excluded from the immediate benefits. However, given the choice between the Thailand (smallholder) model and the Brazil (large scale) model, the more desirable development pathway for the GS is the Thai model. Poulton (2010) argues that smallholders

enjoy a competitive advantage over large farms in the production of most staples and other major agricultural commodities that are likely to be grown in the GS (an exception being sugar). As noted above, smallholder systems – especially ones that evolve over time in response to growth in population and market demand – are also likely to be better for biodiversity conservation. Binswanger (2010) argues that historically large scale farms have only prospered in Africa where they have been able to capture some form of public subsidy. Many Zimbabwean farmers who have emigrated elsewhere within the continent have found life hard without it.

However, whilst the desirable development pathway for the GS may be the Thai model, countries that "wake the sleeping giant" could well end up following the Brazil model. Even Brazil embarked on its exploitation of the cerrado aiming to support poor smallholders from the north-east of the country to resettle and produce food for domestic markets, yet such plans were quickly overtaken by an influx of enterprising farmers from the south of Brazil who were attracted to the cerrado by the opportunity to acquire much larger landholdings at low prices. The cause for pessimism in the GS lies in the incentives for politicians to allocate land either to local elites (including themselves) or to large-scale foreign investors. Such allocations may be encouraged by pro-large scale discourses (e.g. Collier 2008). However, as argued by Poulton (2010), it is also simply more demanding to initiate smallholder development, as this requires provision of a range of support services, as well as local infrastructure[2]. Finally, land allocations to the wealthy provide opportunities for rent-seeking.

The Sleeping Giant report presents the Brazilian cerrado as a major success story, albeit an inequitable one. However, it is easy to envisage large farm-based scenarios that are much less successful in growth terms in Africa - especially given the lack of established indigenous agricultural entrepreneurs - and that thus deliver neither growth nor equity. Speculative acquisition of land, which was then held under extensive livestock grazing, was a feature of the early development of the cerrado. This is also likely in the GS, especially if expectations of future development of the region grow (a possible unintended consequence of the report?).

The report highlights the importance of strong and equitable land policies, if smallholders are to be included in the GS development trajectory, and comments favourably on existing policies (on paper) in some GS countries. However, there can be a difference between policies on paper and their implementation, as has been shown by some recent land deals (Hall 2010). Nevertheless, land policy does remain critical. A key concern regarding many African countries is the dualism (and the resulting tensions and conflicts) between formal national land policy and customary tenure systems (Mortimore 2010). What is needed is to give stronger content to rights in law, accompanied by funded and decentralised land rights administration, to give local land users the basis on which to defend their rights as well as to leverage favourable terms when negotiating with outside investors.

Given the fear of large farm capture of GS development, should Africa's sleeping agricultural giant be allowed to rest undisturbed for a while longer, giving time for more research into the environmental resources of the GS, for rising populations to lead us towards the decentralised smallholder intensification model that has emerged in northern Nigeria and for civil society to make progress in demanding state accountability as democratisation deepens? A counter-argument is that the market and other forces encouraging the exploitation of the GS are already sufficiently strong and only likely to intensify, such that exploitation will happen

anyway. Then, in the absence of a pro-active approach by sympathetic elements within governments, development agencies and financial institutions, exploitation of the GS will follow the large farm model almost by default. This argument should be carefully assessed in different locations within the GS zone. Evidence from existing land deals is that these have often focused on areas with above-average rainfall and accessibility (Hall 2010)[3]. Thus, they are not conclusive evidence that the GS as a whole is about to be targeted for investment. However, where the argument is considered valid, what might a pre-emptive pro-smallholder development strategy look like?

There are two challenges here. The first is that allocation of land to large-scale farms may be catalysed by a subset of the investments needed for smallholder development (albeit still with hidden demands for subsidies). Thus, in a favourable macro-economic and political environment, road investment in the GS zone is likely to trigger interest in land for large-scale farms, even though this is insufficient to catalyse smallholder development. The second is that the champions of a pro-smallholder development strategy are likely to be technocrats (international agencies plus sympathetic local bureaucrats) whose intentions are often thwarted by domestic political elites (van de Walle 2001). It is these elites who are likely to favour large-scale land allocations.

Could farmer organisations provide a credible alternative to a large-scale farm model, especially where there is pressure for large volumes from downstream actors in global (or even regional) supply chains? Farmer organisations have a mixed history in Africa (Future Agricultures Consortium 2009). However, even when and where they have been successful, they have tended to emerge once there is a vibrant commercial agricultural sector, i.e. existing agribusiness investment plus smallholder suppliers, already in place.

The first recommendation, therefore, is: proceed with caution! Don't put roads in where there is no clear plan for smallholder inclusion and/or where land law is weak! Similarly, don't invest in large-scale enterprises where the business model is ultimately dependent on some form of state subsidy (however well hidden). On the other hand, where credible large-scale enterprises are keen to invest, attention needs to be paid to existing land rights and tenure arrangements. Even where land is apparently "under-utilised", it is almost certain to be claimed and used by someone. Taking their rights seriously can avert conflict and enable wider sharing of benefits from new investments. Public funds may also be deployed to leverage smallholder inclusion, either as formal outgrowers (where the attributes of the major crop are compatible with this) or as settlers in the vicinity of the enterprise, able to benefit from the infrastructure and market linkages that accompany the large-scale investment[4]. Finally, however, it is worth reiterating that it it the Thai (smallholder-led) model for development of the GS that is likely to generate the broadest social and economic benefits, with lower environmental costs - if coalitions to promote such a model can be formed.

(Endnotes)

[1] This policy brief draws on the contributions to a joint Future Agricultures and SOAS workshop on "Awakening Africa's Sleeping Giant?" held at SOAS on June 21st-22nd 2010. Unless otherwise shown in the reference list, all references in the brief are to presentations made at the workshop. Further details of the workshop can be found at www.future-agricultures.org, from where the presentations can also be downloaded.

[2] Note that the issue here is the capacity of the state to provide these services, rather than the cost, given the tendency of large-scale farms also to negotiate subsidies.

[3] For this reason external investors have come into direct conflict with small-scale farmers, precipitating displacement and anti-poor outcomes (Hall 2010).

[4] For a recent review of public-private partnerships in African agricultural development, see Poulton (2009).

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Acknowledgements:
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