

Constraints to Agricultural Development in sub-Saharan Africa

by

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Background

This is a non-definitive think piece on major trends, major issues and key points or facts for consideration by the Focus Group that is developing a framework for the total CGIAR portfolio and a context for Challenge Programmes’ processes and decisions.

Though they have many common issues, this paper does not address the constraints on forestry and fisheries development because FARA’s remit to date only covers agriculture.

Introduction

Defining the major technological, natural resource and environmental, socioeconomic, policy and institutional constraints to sub-Saharan Africa’s agriculture is a difficult task because it is a vast and diverse region. Moreover it is subject to frequent demographic, economic and environmental changes that render such analysis rapidly redundant. Nevertheless it is important that such analysis is conducted periodically so that research can be kept relevant and consistent with current knowledge of the problems and advances in the capacity of science to address them.

Despite much investment and effort, not least by the CGIAR, sub-Saharan Africa is also characterised by making the worst progress in agricultural development. The numbers of people to be fed continues to grow more rapidly than on any other continent. And, because increases in production are not keeping pace, it is the only region in which per capita food consumption is falling. However, with only half the population on 12 times the landmass of India and only half India’s population, Africa should be able to feed itself.

There are multiple interrelated problems that constrain sub-Saharan African agricultural development. The deleterious effect of having increasing numbers of mouths to feed is aggravated by the loss of productive lives due to malaria, TB and especially HIV/AIDs,

which results in greater proportions of dependents relying on weakened bread winners. Current famines in Southern and Eastern Africa which are occurring in countries rich in natural resources illustrate the importance of getting agricultural research right. The downward spirals in productivity must be stopped and reversed so that sub-Saharan African livelihoods can be sustainably improved. But that will not happen unless there are major changes in the way that agricultural constraints are addressed.

The definition sought by the iSC implies disaggregating the problems into technological, natural resource and environmental, socioeconomic, policy and institutional constraints. . Such disaggregation may create false hopes that progress can be made by attending to some constraints while others continue unattended. It is FARA's view that the constraints tend to be so interrelated that they must be addressed holistically and more or less concurrently. The need is illustrated by repeated failures to get fertiliser to African smallholders. Even though almost every aspect of fertiliser manufacture, sale and use has been carefully researched every attempt to promote has been frustrated by one constraint or another that could have been, but had not been, prepared for.

In an era of trade liberalisation, Africa's competitiveness is curtailed by very inadequate infrastructure and weak negotiating capacity. Thus, as it opens its markets, it has to contend with high inter- and intra-regional marketing costs. African producers also face aggressive protectionism in their potential export markets, which subsidise production of products in which Africa could anticipate a competitive advantage and impose tariff barriers on processed agricultural products. It is an irony that such measures are directly contrary to the rhetoric of the same governments regarding the objectives of their development assistance programmes. The conspicuous absence of these issues in the iSC draft outline suggests that the study will conclude that sufficient progress can be achieved without addressing such issues. FARA does not share that view.

Constraints to agricultural development.

Technological issues

It is believed that there are many productivity-enhancing technologies on the shelf. Some of which should remain there because they are not, and possibly never were, appropriate to prevailing African farming systems. Others, while offering promise of improved productivity, cannot be adopted until essential market and policy reforms are in place or until intensification becomes a necessary alternative to land area expansion.

However, even if they are adopted, current technologies do not offer the quantum leaps in productivity that are required in Africa. Technological innovations are needed that will, not only stop the worsening food situation, but improve it sufficiently for the majority of Africans to obtain their minimum daily food requirements and get out of poverty in environmentally sustainable ways. Farmers in sub-Saharan Africa require technologies that cope with orders of problems of greater severity and complexity than faced by their compatriots in other continents. The frequency and severity of droughts are increasing.

Poor soils and multiple tropical pests and diseases are typical of Africa. Note diseases such as African swine fever, African Horse Sickness and East Coast fever.

Cutting edge science must be applied to releasing the potential of African farming systems and their biological and ecological resources. African livestock and crops have genetic adaptations that must be characterised, conserved and utilised to achieve significant sustainable improvements in productivity. But that will require the application of bioinformatics, genomics, proteomics and other emerging sciences for which Africa is currently not well equipped. However, FARA sees promise in initiatives such as the proposed challenge programme on unlocking crop genetic diversity and the NEPAD-ILRI concept of a regional bioscience facility in East Africa.

Advocating cutting edge science does not deny due recognition of the role on indigenous science in proposing technical option that fit the end users ecological and socio-economic circumstances. The reductionist approach of ‘modern’ science has relegated ‘ethnic’ science just to social scientists who are not best equipped to expose the technicalities even though they perceive the merits. This is illustrated by the void between range scientists and pastoral anthropologist, which fortunately is closing. Another indication that the gap is closing is the acceptance of the INRM approach with its strong commitment to ‘real’ participation of the beneficiaries as ‘equal’ partners. But the difficulty of getting agreement on what INRM is and intricate institutional changes that it requires indicate that it is indeed cutting edge science.

Natural resource and environmental issues

The issues regarding natural resources and the African environment centre on the conflict between short-term necessities and long-term imperatives. In recent decades, short-term goals have predominated because the majority rural-poor population is fighting for its survival while the rich minority are taking what they can while they can. Kenya, for example, only has 5 major water catchments which were all threatened under past administration by this dual force compelling the poor to move into the forests to subsist and the rich moving in to capture diminishing prime real estate.

The realisation of NEPAD’s commitment to good governance is required to provide governments with the moral authority they require in order to impose the restructuring that is necessary to enable the poor to survive without recklessly exploiting the environment. Without good governance the highly complex task of introducing and internalising integrated natural resource management can hardly be achieved because all the necessary actors will not be able to function in concert. Conserving watersheds and catchments through conservation areas is, for example, improbable if the local people do not benefit adequately from the forestry or eco-tourism alternatives to inappropriate cultivation. But for them to benefit as they should a chain of appropriate trade-offs must kick in from as far away as foreign tourism franchises to the local smallholder.

The political nature of the problems does not absolve the agricultural research community from seeking solutions. Agricultural research to identify and expose the nature of the issues is extremely effective in facilitating good governance. Research products such as

poverty maps and simulations of the consequences of misdirected commercial, social and ecological, interactions provide powerful evidence for policy reform.

There is a strong trend of improving governance across sub-Saharan Africa. This is opening scope for the radical changes in the way that research on natural resource management is conducted. Researchers must make the intellectual and institutional adaptations that will enable them to move out of their institutional and disciplinary comfort zones to take up the multi-disciplinary and multi-institutional modes of the new paradigm for integrated natural resource management (INRM), which is being advocated by FARA in the proposed Challenge Programme for sub-Saharan Africa. And nothing less is likely to achieve the impact in sustainably improving livelihoods that has eluded sub-Saharan Africa in the past. The CGIAR centres are well disposed to the multi-disciplinary aspects but they have not yet sufficiently internalised what it takes to function effectively in multi-institutional partnerships involving collaborators with different goals, capacities and cultures.

Socio-economic issues

FARA is particularly reluctant to separate out socio-economic issues because that makes them particularly prone to misinterpretation. Misconceptions such as those implicit in the concept of the 'tragedy of the commons' and the still widely held perception that there subsistence farmers who are content to remain out of the cash economy illustrate the constraining consequences of such misinterpretations. The socio-economic circumstance of people must be understood and appreciated in any rational attempt to help them help themselves but these circumstance are rarely independent of the technical issues. Pastoral systems are, for example, finally tuned to the realities of production and risk in pastoral lands but, as exemplified along rivers in Somalia, pastoralists readily adopt non-traditional cultivation and trading when the opportunities present themselves.

The success of the INRM approach advocated above is predicated on the participation of beneficiaries in determining their own solutions because they know best their socio-economic and technical circumstances. In recent years there has been increasing acknowledgement of the value of 'ethnic knowledge' but the thought process by which that was acquired and the thinking being applied to resolving current issues is hardly recognised. Scientists continue to take it upon themselves to 'take it from here' to lead future advances, their repeated failures notwithstanding. An understanding is required of the conflicts created by the reductionist approaches of 'modern' and the holistic approach of 'ethnic' science so that they can gain from each other. The INRM approach may help achieve that.

Policy issues

A major policy issue facing sub-Saharan Africa is the apparent disconnect between the often-stated political recognition of the importance of agriculture in the development of sub-Saharan Africa and the failure of African governmental bureaucracies to promote the same priorities. The neglect of agriculture and agricultural research in particular in some

national poverty reduction strategy policies (PRSPs) is a case in point. Unless Ministries of Finance are persuaded of the importance of agriculture they will not get the attention that it seems the politicians agree they should have.

In view of the huge constraints imposed on the development of sub-Saharan agriculture, and indeed forestry and fisheries by market failures. FARA sees this as the major policy issue. Post-independent Africa governments first sought to encourage industrialisation (and to protect powerful urban votes) by keeping food prices down. This rural to urban subsidisation proved disastrous. Presently governments are pursuing market liberalisation policies that expose local producers to competition from imports, which enjoy considerable advantages to the detriment of local producers. For instance, foreign suppliers often have the advantage of subsidized production. They also have substantial marketing capabilities in the form of advertising, packaging and uniformity of products. They also have infrastructural advantages that may be illustrated by considering the ease of shipping grain from Australia to Dar es Salaam as compared to getting it from much closer southern Sudan.

African producers are also restricted from reaping secondary incomes and employment from agricultural products. OECD countries advocate trade liberalisation and will obtain cocoa and coffee from the cheapest sources but protect their own chocolate and coffee roasting and packaging concerns. Clearly the playing fields are not level and levelling them is an urgent matter for policy research to create enabling internal policies and strengthen Africa's negotiating capacity.

At the same time sub-Saharan African governments must address the governance, policy and infrastructural issues that currently impede intra- and inter-regional trade. For example, based on their relative natural and commercial assets there appear to be enormous opportunities for trade between West and Southern Africa that are as yet unexploited.

Institutional issues

Institutional constraints may be divided into those that will have to be addressed by structural and organisational changes and those for which the change agents require assistance in building their capacity to do things differently.

Structural and organisational changes are required where African governments have retained the traditional strict separation of responsibilities between ministries and departments. These distinctions impede functional partnerships but they are jealously protected out of fear of the unpredictable consequences of change. And this fear is aggravated if there is little prospect of accompanying capacity development. The institutions in most need of reform are under funded state institutions, which are not well placed to commit the extra resources for institutional reform and capacity building. These problems are particularly serious for research institutes because of the combination of the rapid changes in science and the high level of skills required to be an effective scientist.

Even where the need for change is generally accepted, the way it is implemented can radically effect the outcomes as evidenced by the demoralising change in agricultural research in Britain compared with the positive outcomes in other European countries that faced the same issues brought about by the declining importance of agriculture in their economies.

In its commitment to INRM, FARA is advocating substantial investment in institutional reform and capacity building.

Sub-regional differences

Most of the constraints indicated above are common across sub-Saharan Africa but there are some important differences.

Eastern Africa is not rich in directly marketable natural resource such as fossil fuels, hydro power or minerals. Its strength lies in its diversity of landscapes and production options. However, tapping this in a way that will bring about meaningful national development has eluded past attempts that were focused on single options. Agriculture, forestry, fisheries must be developed jointly to capture their direct and indirect potential through, farming, pastoralism and tourism etc.

West and Central Africa as a region has enormous opportunities to use oil-wealth to create markets for agricultural products but, for Africa's development, more attention should be given to removing the constraints on sourcing foods and other agricultural products locally and regionally.

Southern Africa as a region must address the poverty of natural resources required for agriculture and in particular of water resources by finding appropriate technologies and opening opportunities for non-farm employment and investment. Research is required to ensure that the differential levels of development between and within countries is utilised as an asset and is not allowed to become a political millstone.

Conclusion

Defining the major technological, natural resource and environmental, socioeconomic, policy and institutional constraints to agricultural development and sustainability in sub-Saharan Africa will require a holistic integrated approach. There is no set priority across sub-Saharan Africa. The entry points must be found locally in a fully participatory manner with the intended beneficiaries leading the way. And the constraints cannot be removed one at a time they will require concerted actions.

Broadly defined the constraints are much the same in the different regions but their priorities and modes of resolution will be different depending on economic, ecological and historical factors.

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