

SMALL HOLDER AGRICULTURE: Ignored Gold Mine?

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'Small fish make up the lake and feed the fisherman.'
Niliotic proverb.

This policy briefing seeks to answer the following questions;

- Does the smallholder farmer sector have the capacity to be looked at as a platform of economic and agricultural development or is it just a way of life?
- Is it possible for small holder agriculture to generate its own resources and develop in a sustainable way?
- What can be done to build the capacity of the small holder farmer?

In the last decade, Zambia has seemingly become heavily dependant on institutionalized external food assistance to meet its ever growing annual food deficits. The year 2005 was not an exception as the country faced a food deficit of about 300 000 metric tonnes. To meet the food shortfall, the country mobilised food from international donor agencies and partners. It is important to note that during this same period, there has been superlative talk about increasing agriculture production.

The issues constituting and surrounding the problem of food security may appear complex and certainly intractable but they are manageable and soluble. The country only needs action at the level of policy implementation, an assertive and committed role at the level of the professional and policy maker and a freer and a more decisive participation at the level of small scale farmer.

Smallholder agriculture plays an important role in Zambia agriculture in terms of its contribution to people's livelihoods and to economic development. However, in Zambia's economic policies, small farmers have been left out in the cold. While the rest of the world has been busy investing in its rural areas and in agriculture, and increasing its competitiveness, Zambia has seemingly been standing still and idling. One sees this in crop yields. The average yield of cereals and many traditional export crops (e.g. tobacco and cotton) has barely increased; while there have been very sizeable increases elsewhere.

The answer is not to further neglect agriculture and small farms; rather it is to start making the right investments at the right levels to get our small holder farmers back into the game. In most cases if not all, it is the only real game that they can play.

Given the current emphasis on MDGs, especially the halving of poverty and hunger by 2015, a strong case could be made for massive and direct investments in Africa's smallest and poorest farmers as a direct and effective way of achieving those goals.

Small-holder farmers are vital for Zambia's agriculture and rural economy. Small-holder farmers - defined as those marginal and sub-marginal farm households that own or/and cultivate less than 2.0 hectare of land - constitute about 52% of the country's farmers. It is important to note that 10 years ago, small scale farmers accounted for well over 65% of the population. There has been a relative decrease in their numbers as they continually migrate to the cities in search of other forms of livelihood considering the decrease in farming profitability. It is thus disappointing that notwithstanding their substantial potential to contribute to the national food supply and to agricultural GDP, these small-holder families nonetheless constitute a third of the nation's hungry and poor. Policies and programmes to lessen poverty and food insecurity, and to enhance equity and sustainability of incomes and livelihoods, should thus seek to achieve an agriculture-led broad-based economic development - and to do so by according highest priority to small-scale agriculture.



Factual evidence has shown that agricultural development is a contributor to global poverty reduction. A lot of studies done elsewhere confirm this fact. Irz *et al.*, (2001) cite a wide range of empirical studies showing how agricultural growth has promoted poverty reduction. They show a strong negative correlation between agricultural yields and poverty across samples both of developing countries in general and African countries in particular. Fan *et al.*, (2004) show how a range of different types of investments in India in the 1960s and 1970s had major poverty reduction impacts as a result of the stimulus they provided to agricultural growth. Gallup *et al.*, (1997) estimate higher returns, in terms of poverty reduction, from agricultural investment compared to other forms of investment.

Worldwide there have been dramatic increases in agricultural production over the last 40 or 50 years (with annual increases in agricultural production averaging 2.3% from 1965-1998), and in Asia and Africa much of this growth has been in smallholder agriculture.

However, in sub-Saharan Africa, Zambia inclusive, agricultural output grew slower than overall population growth between 1965 and 2004. In anything, sub-Saharan Africa is still achieving its agricultural growth more through expansion of cultivated areas than through yield increases, while in other parts of the world almost all growth is the result of yield increases. For Zambia, this is seen in the number of people that have 'gone back to the land' after being retrenched and retired from their jobs. Ashley and Maxell (2001:395) note that, 'Poverty is not only wide spread in the rural areas but most poverty is rural,..... yet these core problems appear to have been neglected.

The questions to be asked here are: is the continuance of hunger and rural poverty in Zambia a consequence of the smallness of the preponderant majority of the country's farmers? Is it possible to increase the productivity of those small farms as to allow the small-holder farmers - and the nation with them - to escape from hunger and poverty?

To the first question, my answer is a straight YES. I shall however focus my thoughts and arguments in support of positive answer to the second question. This answer is driven by hope. But the hope will be realized only when the small-holders are empowered to access the crucial production resources. These resources are several: land, water, energy, and credit; appropriate technologies, and opportunities to develop the skills and to access the information wherewith to use them; functional and fair markets for products and inputs; health care and sanitation; and education reproductive and social services.

Delgado (1998:1) writes that, 'small holder agriculture is simply too important to employment, human welfare and political stability to be either ignored or treated as just another small adjusting sector of a market economy.' In other words, this sector is the core of an agrarian economy like the one Zambia wants to build.



Contextual Analysis

Agriculture Policy

Since this country got independent in 1964, there had not been a comprehensive agriculture policy until 2004. Government is currently implementing an agricultural policy that runs until 2015. It suffices to say that earlier governments' action towards agriculture amounted to benign neglect. It was as if nature was enough to guarantee production and that little or no public investment was required even for maintenance. This is despite efforts by successive governments attempting to study the decline in agriculture. Most of such efforts have been frustrated by inadequate attention to the critical social and economic root causes of the decline. However, over time and in view of stunted efforts, this new policy has seemingly been articulated more in line with current successful world-wide practices that emphasis market rewards as the essential motivations in the application of man to land for a bountiful harvest.

It can well be argued that the noted decline of agriculture has assumed a real economic security threat. Although government is trying to increase production through the subsidizing of inputs, civil society has argued that such a program is highly unsustainable and should be more of a short term action as it constitutes significant drain on the public purse. It is argued that there is a recognized need for a more comprehensive view and response to the problems of agricultural transformation.

Between now and 2015, significant investments for rural development and agriculture guided by the policy should be concentrated in regions where poverty and hunger are most highly concentrated like Southern, Eastern and Western Provinces, and aim for broad-based sustainable production increases among farmers currently producing less than 2 tons of maize per hectare, and that enhance ecosystem management.

Identifying and developing viable policy options for improving the sustainability of agriculture and regenerating rural economies will require multi-stakeholder approaches to policy implementation. This should include the voice of the farmers themselves, civil society, government and the cooperating partners. Above all, the marginalized rural people must be empowered to make policy rather than merely ignore, evade or suffer its consequences. It is unfortunate that most normal development planning is highly centralized, does not involve major stakeholder groups as partners, is focused on a narrow technical view, and does not take into account social economic or environmental complexities.

Above all, policy makers should create the right environment for small holder farmer organisations and new social movements to be partners in decentralized policy making. In policy terms, this requires governments to provide a non hostile institutional and legal framework for these institutions.

Investment Areas for the Sector

Zambia is fortunate its geography. It has a fair share of land that is moderate in its geophysical extremes; well watered by rains, river-systems and under-ground water reservoirs, most of the country is arable. The agricultural potential of this country has barely been tapped and demand for agricultural produce may continue to outstrip supply for many years to come. From the background it seems obvious that serious investment is needed across the board in enhancing production. Investment is required in crop, livestock and fisheries production to achieve food sufficiency. Investment is required in industries that will use agricultural produce as raw material. Investment is required in commodity trading to help stabilize and guarantee prices for farmers. Investment is required in transportation and infrastructure. Agriculture inputs supplies and distribution; water resources development especially for irrigation; development and fabrication of appropriate small-scale mechanized technologies for on-farm processing and secondary processing of agricultural produce, are also priority areas of investment.

Economic Growth through Small Holder Agriculture

As I have continuously noted throughout this text, agriculture is the most effective and frequently the only viable lead sector to generate economic growth. Very few countries can boast of enjoying the fruits economic growth without agricultural growth being involved. It is argued countries that experienced real declines in agriculture had the lowest economic growth rates.. Agricultural growth stimulates economic growth in nonagricultural sectors, which, in turn, results in increased employment and reduced poverty. This further stimulates demand for agricultural goods, acting as a growth multiplier in the agricultural sector. The limited availability of new land, however, means that agricultural intensification--increasing the productivity of land already under cultivation--is the key to alleviating poverty through an agricultural growth strategy. And fortunately or unfortunately (depending on which side of the fence you are at) for Zambia much of the land under cultivation is under small scale farmer management.

In that regard, addressing rural poverty where the majority of these small scale farmers are, is a crucial catalyst in igniting agriculture as an engine of growth in an economy. This requires effective programs that target assistance to the poor, raising incomes in tandem with provision of social services in the form of health care and access to safe water and adequate sanitation, thus enabling the poor to be good stewards of their natural resource base and to participate in the growth and development process. The question of whether the smallholder farm sector should be treated as economically viable or simply as a temporary social safety net should not arise at any time. There has been an apparent political willingness to accept a rather rapid rate of decline small holder farming and the transition of poor farmers into pure wage laborers on commercial farms or in the cities.

What needs to be done?

Sustainable Agricultural Practices: The PELUM Association has often argued that there is a need for technical support in sustainable agricultural practices that is adapted to local conditions. Such support should ensure improved crop diversity to suit local niches and needs and to encourage rotational cropping intercropping and better use of land and water resources. Such support could facilitate higher productivity, stability, and sustainability of agricultural production, and hence help address - at both household and at national levels - the emerging issues of equity in nutritional security and in food security and in income security. Small-scale farmers in the country are increasingly finding it hard to earn a sustainable living from farming. Furthermore the perception of farming as low-income, risky, hard work is an enormous impediment to the next generation's entering the profession.

Sustainable Agriculture will mean developing what are now called Resource Conserving Technologies (RCTs). RCTs will work at conserving existing on-farm resources and introducing new elements into farming system that add value to these resources. The 3 main categories of resource conserving technologies are: Integrated Plant Nutrition, Integrated Pest Management, and Soil and Water Conservation. The most effective RCTs are multi-functional. They will improve several components at same time. Natural processes favored over external inputs; aim is to reduce costs and adverse effects on environment. Ecology, microbiology, and biochemistry advances have made possible more rigorous agro-ecological analysis to understand and manage soil nutrient and water flows, nitrogen fixation, and to understand pest-predator interactions that offer effective approaches to pest control.

Farmer-led Research: Farmer participation in all stages of technology development and extension is definitely a key factor of success. Case studies are always showing that agricultural productivity is as much a function of human ingenuity and capacity as it is of biological and physical processes. Strengthened farmer capacity for technology development can be achieved by promoting farmer learning networks, farmer exchange experiences, farmers- researcher relations, and lessons in developing local technologies through participatory research approaches. PELUM Zambia is currently implementing a project of socializing post harvest technology by building relationships between small scale farmers and researchers.

Strengthen the capacity of Small Scale Farmer networks: The development of the East and Southern Africa Farmers Forum (ESAFF) is one of the products of this thought after the World Summit in Sustainable development in Johannesburg. The thrust is to strengthen the capacities of small-scale farmers to take effective collective action on problems that they are confronted with in their born profession.



Capital Asset development: Invest in natural capital of farms and communities (savings and credit, natural capital, physical assets, human capital (health and education) and social capital (leadership, membership in formal organizations, community group, learning networks). With appropriate support to build such local assets, farmers were able to diversify local diets, create conditions for high return on inputs, reduce risks and restore critical watersheds. This will definitely lead to long-term and sustainable increases in productivity. Rural Zambia is generally poorly served by roads, telecommunications and physical market facilities. Infrastructural investment in the past has often not been effective due to inappropriate siting and/or design, lack of maintenance and lack of complementary development facilitating beneficial use of infrastructure. However, improved infrastructure is critical for expanding the range of market opportunities open to these small scale producers, improving linkages between producers and traders, reducing both input and support service delivery costs. This is increasingly recognised and rural roads have been one part of the rural economy that has (rightly) received substantial investment in recent years. Emphasis on appropriate low-cost technologies (such as bicycles, radios, and animal power) and community involvement need to be expanded and extended to include other types of rural infrastructure. The country has seen an increase in the levels of investment for community rural radio stations led by the Catholic Church. Priority should therefore be given to increased investment and improved local management and cost-sharing in:

- ❖ Construction/upgrading of rural feeder roads
- ❖ Low-cost road maintenance
- ❖ Accessible communications systems (mobile phones, IT)
- ❖ Market infrastructure (storage, stalls, sanitation).

The Natural Resource Management/Agriculture relationship: Ecosystem functions are essential to ensure continuing food production, watershed management, predator-pest relationships. Successful farming systems meet both food production needs and also protect critical ecosystems, forests and ecological services.

The approach to sustainable agriculture advocated in this paper aims at a win-win vision in which small-scale farmers, rural communities, environments and the national economy all win.

However, there are still many obstacles, threats and uncertainties. Despite increasing number of successful agricultural development initiatives in remote, high risk production

areas, most of these remain localized “islands of success”. The predominance of “islands” is less a symptom of failure to 'scale up', and more an accurate reflection of the limits to bottom-up development within current institutional constraints.

Successes at the project level have not or cannot be translated into public policy because of costs of scaling up, or the lack of incentives, or unfavorable institutional environments. Because they are not rooted in a broader policy context with strong institutional backing, these 'islands of success' frequently fail to spread or be scaled up.

In adverse policy climates, specialized and capable NGOs can succeed on a small-scale, but then come up against their institutional limitations. NGOs have a proven record at 'island' level where they can control conditions, but not on a wider scale. The entire NGO sector, by nature, tackles social development in a piecemeal manner.

Agriculture Extension: Agricultural extension services are poor or non-existent in remote rural areas. Where they exist, extension approaches are top down; not oriented to people centered capacity building, and not farmer driven.

Rural Development: Another area where attention is badly needed is in the planning and implementation of rural development strategies. Currently there seems to be no related approach to agriculture policy implementation and rural development. Moreover, even where some sound agricultural policies exist, rarely is there a coherent rural development strategy or an implementation strategy to turn words into action, or against which performance can be measured.

RECOMMENDATIONS

TO OUR DONORS

- ✓ Increase spending to the Agriculture and Rural development Sector. More money should be spent on concrete projects meant to increase the production capacity of the small scale farmers. Reverse the recent downward trend in investment in agricultural development in low-income developing countries in order to increase production in a sustainable manner and raise incomes of the poor.
- ✓ Explore new approaches to rural livelihoods support by funding experimental programmes to develop evidence-based policy and practice. There is need to have rolling budgets not fixed term projects
- ✓ Help to develop more synergies for local and regional markets and move way from the total focus on the international market as is currently advocated by the WTO's Agreement on Agriculture.
- ✓ Work with NGOs, CBOs and government in encouraging innovative, farmer-led initiatives and strengthening the voice of smallholder farmers and empowering them to influence policy.
- ✓ Support the development of farmer friendly policies in Natural resource management, Biosafety, Environment and Agriculture.

TO THE ZAMBIAN GOVERNMENT

- ✓ Increase the percentage annual budgetary allocation to the agricultural sector in line with the SADC and AU declaration of giving 10% to agriculture by the year 2008. This will help to reflect agriculture's importance to the national economy. Let the government invest in small scale irrigation and market infrastructure
- ✓ Spend more rural infrastructure development like communications, electricity, roads, as this will strengthen the rural economy and thus increase production among small scale farmers.
- ✓ Increase performance of the Ministry of Agriculture through the provision of enough operating costs to enable staff to work effectively. It is also important to develop institutional capacity by train frontline employees like extension workers to improve their community facilitation and empowerment skills, encourage local innovation and



adopt a “client-orientated” approach. In that regard, I suggest a reform of the Ministry of Agriculture and development of a coherent and comprehensive rural development strategy and implementation plan which is a prerequisite for large additional investments in the agricultural sector

- ✓ Support land reform
- ✓ Support local agricultural research capacity to work on the priority needs of smallholder farmers and invest in disseminating existing research results.
- ✓ Rural micro finance especially for women and for non-farm economy

AGRICULTURAL TECHNOLOGY FUND

Conclusions

It is unfortunate that Zambia has turned into a food-deficit country that on occasions has been dangerously dependent on food imports for the welfare of its people. The country's agricultural sector has not been an effective contributor to poverty alleviation; even its contribution to the stability of the economy has declined. This situation has not always been so and in fact; there is a great national optimism that the current predicament would be reversed and Zambia return to full status of a major food basket in the region.

Poverty reduction during the latter part of the last century, principally in Asia, was associated with initial agricultural sector development, including increased productivity, higher incomes, falling real food prices and rising agricultural wage rates. The impact on poverty reduction was further enhanced where broadbased agricultural growth, based on smallholder production, created the conditions for expansion in manufacturing and services. Smallholder agriculture can still provide the drivers for economic growth and poverty relief in Africa today.

Indeed, not only is it the best option, it may be the only option that can provide these necessary pro-poor drivers.

In order to increase progress in meeting the Millennium Development Goals, agriculture must have an increased profile in development policy leading to much higher levels of direct investment in the sector. At the micro level a variety of government, NGO and local initiatives have demonstrated that agricultural pathways out of poverty are possible in anywhere, but greater investment is needed to scale-up these successes to impact on poverty reduction at the national level. This paper advocates targeting investment at the meso-level to create and develop the enabling institutional environment that allows smallholders to increase production and supply the expanding markets. Crucial elements of this enabling environment include the provision of coordinated support services such as credit, input supplies, technical support, access to information, access to markets and market services.

Smallholders are also more likely to succeed if they operate in an environment in which their voice is more widely heard where a fair trading system exists, rural infrastructure is improved and they are provided with incentives and protection to allow innovation. These conditions provide the crucial support for the success of a poverty-reducing, equity-enhancing smallholder agricultural growth strategy. Clearly, support for smallholder agriculture cannot succeed in isolation and must be complemented with basic investments in education, health and good governance, together with facilitation of non-farm activities acting as supporters to spread growth benefits within rural societies. However, it is agriculture that is best placed to provide the initial kick-start to self-sustaining growth and poverty reduction.

I have argued in this paper that smallholder agricultural has huge potential to emancipate the over 3 million Zambians engaged in subsistence agriculture. I note that this sector offers one of the best options for initiating the sustained poverty-reducing growth that the country so desperately need. There are opportunities for donors and government to address the problems currently constraining smallholder agriculture and these opportunities must be grasped, urgently. This course of action is not without major challenges, as it requires substantial long-term political and financial commitment while



grappling with new problems. However, unless commitments are made to address these problems, the prospects for the Zambian peasant remain bleak. Additionally talk of a vibrant agricultural system will remain a pipe dream.

A shortage of reliable, ready information frequently stops growers from taking the next step in their development such as diversifying their production, improving their efficiency, becoming certified organic, moving into food processing or expanding their marketing network. Growers could make good use of a regular forum for information exchange among a wide variety of farmers; this could be written, verbal, broadcast, or face-to-face. Most definitely, they need access to a responsive, unified but flexible information resource that delivers information from 'planting to consumption.'

With greater access to markets and resources such as information, technology and, to a lesser extent, capital, farmers will be in a better position to earn a living wage. In turn, and with attention to the stewardship of our country's natural resources, that possibility will then be passed on to future generations.



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