

# policy brief

briefing number 4 | August 2009

## SEEDS OF PLENTY

### How boosting smallholder farming can ease hunger and reduce poverty at the household level in southern Africa

If countries in the region are to achieve food security for the poor at household level, smallholder farmers should be supported to increase food production by a broad range of interrelated policy measures that include anticipating climate shocks, structural reforms, government policy innovation, and the establishment of partnerships. This policy brief proposes strategies to support smallholder farmers increase their productivity and contribute to food security at the household level. It outlines factors that affect smallholder farmer productivity

and motivates for more coordinated and coherent policies to support the sector. Investments in community based initiatives targeting smallholder farmers in the agricultural sector typically result in a greater impact on economic growth and poverty reduction, taken together with investments in infrastructure development, health and education.<sup>1</sup> There is a growing consensus that investment and policy support towards such efforts must be accelerated.

#### Summary

*This policy brief looks at the factors constraining the productivity of smallholder farmers to achieve food security for poor households and communities, as a contribution to poverty eradication in southern Africa. The brief examines the characteristics of the region in terms of poverty, the state of food security in the region, and current factors that limit smallholder farmers' capacity to produce more food in a sustainable way. It also identifies key policy areas for attention and makes recommendations to address policy gaps.*

Millions of people in southern Africa have been affected by chronic food shortages, more recently exacerbated by the global food price crisis.

Although agricultural production is central to the region's development, it has not achieved the levels of production necessary to ensure food security for all, particularly for the poorest who make up about 40% of the region's population.

The potential of smallholder agricultural producers to contribute to food security, particularly for the most vulnerable, is a major area of underdevelopment. Challenges that have blocked progress in this sector are weak or inadequate policy frameworks; a deteriorating natural resource base; natural disasters; and climate changes leading to erratic weather patterns. The causes of the chronic food crisis in southern Africa are a combination of factors including ineffective land reform, inefficient agricultural management systems and lack of technological advancement, lack of adequate inputs, and poor infrastructure. Another key

<sup>1</sup> For example, see Southern Africa Trust's policy discussion paper "Who will feed the poor: The Future of Food Security in Southern Africa" November 2008

factor is the energy crisis that has led to a growing dependence on bio-fuels as an alternative source of renewable energy. The Food and Agriculture Organization (FAO) Summit in June 2008 identified bio-fuels and climate change as key contributors to food price hikes whose effects were felt globally, especially by the poor. All these factors have combined to create extremely difficult conditions for the farming sector to deliver food security for the region. The impact is worst on smallholder farmers.

Targeted investment and an enabling environment can lead to increased agricultural productivity and increased supply of food, particularly for the rural poor whose existence depends on agriculture. Empowering women smallholder farmers has been identified as an important part of a broader commitment to ensure that women play leadership roles across our economic, political and social development fields. According to the Southern African Development Community (SADC) the agricultural sector has been identified as crucial for economic growth, given that the majority of the population, who are mainly smallholder farmers, rely on subsistence agriculture as their major source of food security and livelihoods. Increased production in the smallholder farming sector can be expected to have a positive effect on poverty reduction. The FAO emphasizes that there is a direct link between the performance of the agricultural sector and the degree of poverty of the population in countries whose economy is largely dependent on agriculture. Consequently it is the countries where agricultural productivity has increased most that have attained the highest poverty reduction levels.

It is therefore essential to accelerate agricultural growth if poverty is to decline significantly and rapidly in southern Africa.

The many challenges confronting the agricultural sector can be addressed through enabling policies. Policies and strategies that promote smallholder production of food crops must remain centre-stage as a strategy for rural development and to ensure food security. Agriculture can provide raw materials and labour to the manufacturing sector, and can create employment opportunities that promote the development of a local market for locally produced goods and services. The brief highlights key policy areas that include enhancing the role of the state in strengthening agricultural systems. This entails public led alternative approaches of expanding and enhancing productivity of smallholder farmers through putting in place policy frameworks that are directed at restructuring the rural economy and developing smallholder farming. Malawi's input subsidy programme provides an example of good practice in this respect.

Another key policy imperative is the provision of infrastructure to develop the capacity of smallholder farmers. Developing transport networks that link production in rural areas with markets in urban areas will enhance the productivity of smallholder farmers. A third area relates to strengthening farmer organisations in supporting smallholder farmers. If they are adequately strengthened, farmers' organisations can play a supportive role to smallholder farmers in a number of ways including building leadership and business skills, and developing partnerships with government and the private sector to facilitate a common approach to develop the productivity of smallholder farmers.

## Introduction

Millions of people in southern Africa have been affected by chronic food insecurity, more recently exacerbated by the global food price crisis. The Dar-es-Salaam Declaration on Food Security, signed by SADC Heads of State in May 2004, notes that inappropriate national agricultural and food policies and inadequate access by farmers to key agricultural inputs and markets are major underlying reasons for the prevalence of hunger in the region<sup>2</sup>. Although agricultural production is central to the region's development, it has not achieved the levels of production necessary to ensure food security for all, particularly for the poorest who make up about 40% of the region's population. The potential of smallholder agricultural producers to contribute to food security, particularly for the most vulnerable, is a major area of underdevelopment.

Smallholder farmers do not command the resources that commercial farmers do, yet they have potential to make a direct and immediate impact on hunger and poverty.

These are resource-poor farmers with limited capital (including limited land), limited access to inputs, and who produce food for their household. Where possible, they sell their limited surplus to get an income. Because they grow food to directly feed their households and communities, if enabled, smallholder farmers can create secure livelihoods for large numbers of people in the places that most need it. They can make a major impact on food security needs.



### Box 1: Agriculture and Poverty in the SADC Region

40% of the region's population lives below the international poverty datum line of US\$1 per day\*

70% of the population lives below US\$2 per day\*

Agriculture contributes 35% to the SADC's Gross Domestic Product\*

About 70% of the region's total population of 249 million depends on agriculture for food, income and employment\*

Agriculture is a major source of exports in several countries, contributing on average about 13% of total export earnings and about 66% to the value of intra-regional trade\*

Poor households typically spend between 60% and 100% of their income on food.

Only 5% of all land in SADC is arable. But only 45% of this land is cultivated, and only 4% of the cultivated land is under irrigation

\*Source: Muchero, M. (2008)<sup>3</sup>

<sup>2</sup> Conference paper by Muchero, M. "The Development of a SADC Regional Agricultural Policy (RAP)" presented at the Southern Africa Regional Conference on Agriculture (SARCA) December 2008, Grand Palm Hotel, Botswana

<sup>3</sup> Conference paper on "The Development of a SADC Regional Agricultural Policy (RAP)" presented at the Southern Africa Regional Conference on Agriculture (SARCA) December 2008, Grand Palm Hotel, Botswana. The broad objective of this conference was to bring together policy researchers, analysts, policy makers, private sector, development partners and practitioners, on a common platform, to address the growth challenge with specific reference to the role of agriculture in Southern Africa and in the context of supporting MDG, CAADP and Regional Economic Communities' (SADC and COMESA) imperatives.



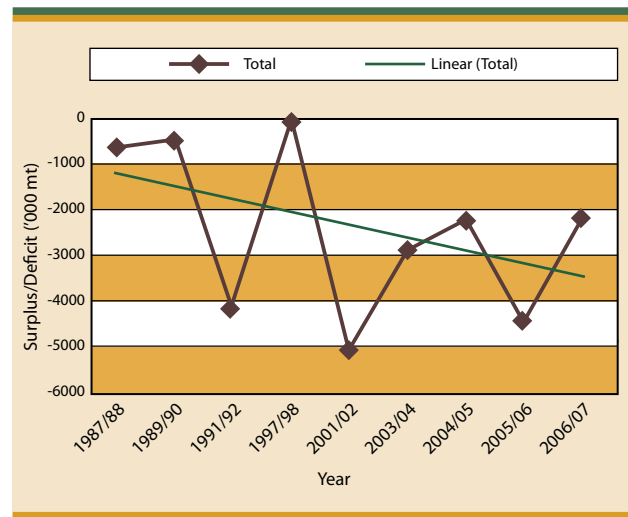
Challenges that have blocked progress in smallholder farming productivity include weak or inadequate policy frameworks; a deteriorating natural resource base; skewed distribution of land ownership largely characterised by racial and gender inequalities; weather-related disasters and climate changes leading to erratic weather patterns; the rising demand for inputs to bio-fuel production; and HIV/AIDS which exacerbates food insecurity. Targeted investment and an enabling environment can lead to increased agricultural productivity and increased supply of food, particularly for the rural poor whose existence depends on agriculture. The case of Malawi provides an example of good practice through its remarkable success in increasing food production driven by input subsidies to smallholder producers. The Malawi model prioritised domestic food production to meet internal demands and to set up a surplus reserve for food security in times of low harvests. Malawi has shown that increased investment in smallholder farmers' food production can achieve food self sufficiency at household and national levels.

## The state of food security in the SADC region

Southern Africa has experienced a chronic food crisis for a number of years. Public investment in the farming sector, especially support for smallholder farmers, has been cut in several southern African countries. This compounds the challenges facing the sector<sup>4</sup>. As illustrated in Figure 1, there is a progressive deficit in domestic cereal availability, and the trend is not only one of under-production but under-consumption too.<sup>5</sup>

SADC countries have committed themselves to increasing investment in agriculture but are, on average, not meeting their commitment to allocate at least 10% of national budgets to agriculture broadly, as agreed at the Maputo Summit in 2003 (see Table 1). The commitments are voluntary, compliance cannot be enforced, and countries tend to focus on their own national priorities. However, it is important that where they scale up their national spending, there should be emphasis on directing more expenditure towards agricultural development for smallholder farmers, backed up by concrete policy implementation. According to SADC, the agricultural sector is crucial for economic growth, given that the majority of the population relies directly on farming as the major source of household food security and livelihoods. Box 1 above highlights the characteristics of poverty in the region, which provide a basis for arguing that agriculture is key to enhancing food security and reducing poverty at household level.

Figure 1. Domestic cereal surplus/deficits in SADC region<sup>6</sup>



SADC/FANR 2008

Despite the relative availability of arable soils and water resources in some parts, the region still imports a lot of food and depends on food aid<sup>7</sup>.

Development strategies have not focused on the potential of smallholder agriculture to contribute not only to adequate food production, improved productivity, but also to economic and social development.

<sup>4</sup> Article in Amandla, Issue No. 2, June/July 2008, page 7

<sup>5</sup> Southern Africa Trust's policy discussion paper "Who will feed the poor: The Future of Food Security in Southern Africa" November 2008 page 12

<sup>6</sup> Data excludes: South Africa, DRC, Mauritius and Madagascar

<sup>7</sup> Southern Africa Trust's policy discussion paper "Who will feed the poor: The Future of Food Security in Southern Africa" November 2008 indicates that dependence on food imports has been steadily increasing over the last 18 years, and food aid deliveries to the SADC region have shown a sharp increase from 2001 to 2007

**Table 1. Budget Allocations to Agricultural Sector in the SADC Region 2003/04 to 2006/07**

Country	Summit Declaration % of total budget	2003/04 (%)	2004/05 (%)	2005/06 (%)	2006/07 (%)
Angola	10	2.24	6.47	5.29	3.55
Botswana	10	2.8	2.7	3.2	3.3
DRC	10	ns	ns	ns	ns
Lesotho	10	4.8	5.0	4.0	3.5
Madagascar	10	ns	ns	ns	4.2
Malawi	10	6.6	12.71	11	13.2
Mauritius	10	3.96	2.91	2.56	ns
Mozambique	10	6.2	4.4	3.4	3.9
Namibia	10	7.3	6.9	8.2	8.0
South Africa	10	ns	ns	ns	ns
Swaziland	10	4.97	6	4.7	3.71
Tanzania	10	5.7	4.71	5.78	5.78
Zambia	10	7.0	4.0	5.0	ns
Zimbabwe	10	11.9	ns	ns	ns
SADC Average	10	5.77	5.34	5.31	5.46

**[ns stands for not submitted]**

SADC average is for countries for which information has been available.

Source: SADC Secretariat, *Strengthening The Role of Agriculture in Poverty Alleviation A Background Document for the Mauritius International Conference*. April 2008

Agricultural incomes continue to decline and unsustainable management techniques in agriculture and natural resources have become a growing concern, threatening the resource base of the region. Consequently, the region continues to experience food insecurity and widespread poverty.

In addition, the recent food price crisis combined with the energy crisis, emerging climate-change issues, and current governance crises in some parts of the region have exacerbated food insecurity for the most vulnerable, threatening the livelihoods of millions of poor people. Braun, Hazell, Hoddinott and Babu (2003) argue that poverty in the region – far greater in rural areas – has continued to exist because of lack of appropriate strategies targeted at agriculture and rural development, centred on smallholder producers. Despite its potential, the region produces insufficient food even in years when environmental shocks do not occur. More specifically, productivity

has been low because poor farmers have difficulty accessing inputs and cannot get their goods to market due to poor infrastructure.<sup>8</sup>

The agricultural sector is the largest contributor to GDP for several SADC countries, accounting for 35% of the region's Gross Domestic Product (GDP). The sector can be an engine of growth for SADC economies.<sup>9</sup>

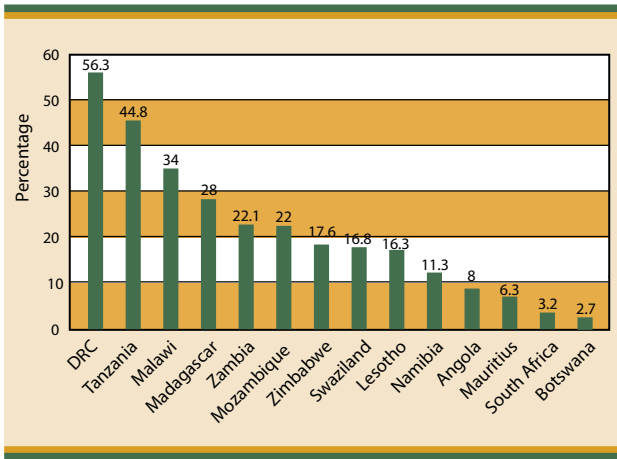
According to the Development Monitor (2009), this sector is the mainstay for more than 415 million people in sub-Saharan Africa, which is equivalent to 55% of the sub-Saharan African population.<sup>10</sup> Figure 2 shows the range in percentage contribution of agriculture to GDP, with countries like the Democratic Republic of Congo, Tanzania and Malawi showing a high contribution.

<sup>8</sup> Von Braun J, Hazell P, Hoddinott J, Babu S, 'Achieving long-term Food Security in Southern Africa: International Perspectives, Investment Strategies and Lessons' made this argument in a keynote paper prepared for the Southern African Regional Conference on Agricultural Recovery, Trade and Long-term Food Security, March 26-27, 2003, Gaborone, Botswana

<sup>9</sup> From a paper "Strengthening the Role of Agriculture in Poverty Alleviation" presented at the SADC International Conference on Poverty and Development, Mauritius, April 2008

<sup>10</sup> The Development Support Monitor is a bi-annual research product of the African Monitor, which tracks development funding commitments by African governments and donors and how these translate to the livelihoods of the grassroots communities.

**Figure 2. Agriculture as a percentage of GDP**



Source: FAO, *Africa Statistical Yearbook and selected indicators of Food and Agriculture, 2004*

According to The International Food Policy Research Institute (IFPRI 2004) productivity in the smallholder farming sector can be expected to have a positive effect on poverty reduction. The FAO further emphasises that there is a direct link between the performance of the agricultural sector and the degree of poverty of the population of countries whose economies are dependent on agriculture. Consequently, it is the countries where agricultural productivity has increased most that have attained the highest poverty reduction levels.

It is therefore essential to accelerate agricultural growth if poverty is to decline significantly and rapidly<sup>11</sup>. The challenges faced by many countries in the region in increasing productivity of smallholder farmers may require multifaceted structural reforms such as land reform, appropriate technology, infrastructure development, and improved agricultural extension services.

### Current factors influencing smallholder production and food security

It is generally agreed that the food crisis in southern Africa can only be resolved through the implementation of policies designed to set the agricultural sector on a sustainable development path. This is especially important in the present situation of chronic food deficits, which have emerged due to the combined effects of low productivity, limited access to fertile lands, low mechanization levels, low levels of irrigation and dependence on the natural weather conditions which are characterised by variations of drought and floods.

Price increases have exacerbated the situation, reducing incomes and placing restrictions on access to inputs for smallholder farmers who are unable to pay the high prices of farming requirements such as fertilizers, seeds, chemicals and farming equipment<sup>12</sup>. Research has shown that low levels of soil fertility are a drawback, and the challenges are worsened by high fertilizer prices which in sub-Saharan Africa are estimated to be the highest in the world, a situation that lends itself to inadequate fertilizer use resulting in low crop yields. Policies and strategies are urgently needed to improve agricultural production, in particular for smallholder producers to be able to make a positive contribution to food security at household level, especially in the production of staple crops. Poor households typically spend between 60% and 100% of their income on food.<sup>13</sup> Most households' response against rising food prices is to reduce the volume or quality of their food consumption as a coping strategy. Increasing food prices are therefore causing more malnutrition and poverty.

The causes of the chronic food crisis in southern Africa are a combination of factors, including ineffective land reform policies, inefficient farming management systems, lack of technological advancement, lack of adequate inputs, reliance on rain fed agriculture particularly in the face of recurring droughts in the southern African region, and poor infrastructure. All these combine to create extremely difficult conditions for the farming sector and the impact is worst on smallholder farmers.

### Inadequate land availability, skewed access to land and insecure conditions of tenure impacts negatively on smallholder farmers

About 5% of all land in southern Africa is classified as arable, but only 45% of the arable land is cultivated. Most of the region's arable land is underutilised. Historically, the region has been associated with an acutely skewed land ownership pattern characterised by dominance of large-scale commercial agriculture and historical limitations of the indigenous population who are the poorest, thus limiting their ability to be productive. Policy interventions have to address these imbalances and ensure that smallholder farmers have access to productive land.

Agriculture continues to provide jobs for the rural poor in southern Africa. With proper policies in place it has the potential for sustained growth through smallholder agriculture. Access to and availability of land is an important factor in food security at household and national level. The challenge is to enhance and increase production on the limited land available. Enabling policies for smallholder farmers are the key to improved agricultural food security at household level.

<sup>11</sup> SADC (2008)

<sup>12</sup> Roberston, Don. "Maize farming not profitable in current climate". Sunday Times, October 26, 2008

<sup>13</sup> www.fao.org/foodclimate "Climate change, water and food security"

**Table 2. Total agricultural land in the SADC region (km<sup>2</sup>)<sup>14</sup>**

Country	Land area	Inland water	Arable land	% under crops	Irrigated area	% cropland irrigated
Angola	1 246 700	0	35 032	2.81	750	2.14
Botswana	556 730	15 000	3 463	0.61	10	0.29
DRC	2 267 050	77 810	78 893	3.48	110	0.14
Lesotho	30 350	0	3 250	10.71	10	0.31
Malawi	94 080	24 400	20 001	21.26	280	1.40
Mauritius	2 030	10	1 060	52.22	NA	NA
Mozambique	780 490	21 100	31 064	3.98	1 070	3.44
Namibia	823 290	1 000	8 151	0.99	70	0.86
Seychelles	450	0	70	15.55	NA	NA
South Africa	1 221 040	0	157 514	12.90	14 980	9.51
Swaziland	17 200	160	1 801	10.47	700	38.87
Tanzania	883 590	61 500	46 477	5.26	1 600	3.44
Zambia	743 390	9 220	52 855	7.11	460	0.87
Zimbabwe	386 850	3 910	33 811	8.74	1 170	3.46
<b>SADC Total</b>	<b>9 036 240</b>	<b>214 110</b>	<b>473 442</b>	<b>5.22</b>	<b>21 210</b>	<b>4.48</b>

Source: FAOSTAT, 2002 and SADC

According to civil society activists and researchers, the key land question related to poverty reduction remains that of women's access to and control of land which is currently inadequate and constrained by various customary and generally patriarchal social relations.

Women in the region are marginalised in the ownership of land through patriarchal customary and discriminatory statutory land tenure systems, yet more than 60% of the rural population within the region are women and girls. Even in countries such as Zambia and Tanzania where positive land reforms laws in favour of land ownership by women have been enforced, women do not own or control land due to lack of capital, illiteracy and a lack of knowledge on their land rights.<sup>15</sup>

Women farmers are the key producers of food in countries of the region. The bias limiting women's agricultural productivity must be reversed. They must be supported through information, technology and inputs. According to the FAO, 31% of rural households in sub-Saharan Africa are headed by women. The burden of food production in most households remains the primary responsibility of women who are increasingly finding it challenging to satisfy their household food needs.<sup>16</sup> At the 2009 AU Summit, the Deputy Secretary General of the United Nations, Asa Rose Migiro, pronounced that

"Empowering women smallholder farmers should be part of a broader commitment to ensure that women play leadership roles across our economic, political and social development fields."<sup>17</sup>

Oxfam (2009) emphasizes that when provided with a combination of land rights, input and credit, female-headed households will be equal contributors to agricultural growth.<sup>18</sup>

<sup>14</sup> SADC 2004, Key issues paper for SADC Extraordinary Summit on Enhancing Agriculture and Food Security for Poverty Reduction in the SADC Region, Dar es Salaam, Tanzania

<sup>15</sup> From perspectives, ideas and insights of a wide range of social activists and academics across the region captured in a book 'Alternatives to Neo-liberalism in Southern Africa: Towards a people-driven development agenda' October 2007, published by the ANSA Secretariat, based in Harare,

<sup>16</sup> Development Support Monitor 2009, African Monitor

<sup>17</sup> In 'African Heads of State call for common African position on agriculture and solid framework for food security' Press Release No. 21/2009 issued at the 13<sup>th</sup> African Union Summit in Sirte, Libya.

<sup>18</sup> Oxfam Briefing Paper, Investing in Poor Farmers Pays: Rethinking how to invest in agriculture, June 2009

## Impact of climate change threatens household livelihoods

Projections indicate a worsening impact of climate change that will aggravate an already serious shortage of food and that will be felt the most by the rural poor, who are also the most food insecure due to absence of mitigation strategies. Scientists have established that climate change has far-reaching consequences that will affect poor and vulnerable communities around the world, particularly in Africa, for a long time to come. The 2007/8 UNDP Human Development Report (HDR) predicts that development progress will increasingly be affected by climate change. Mitigating the effects of climate change on agricultural production by smallholder farmers should be an essential poverty reduction strategy.<sup>19</sup> This must include more rapid infrastructure development in support of increased agricultural productivity by smallholder farmers.

Climate disasters directly affect agricultural production. Southern Africa is one of the most vulnerable regions to the impact of climate change mainly due to its reliance on rain-fed agriculture.

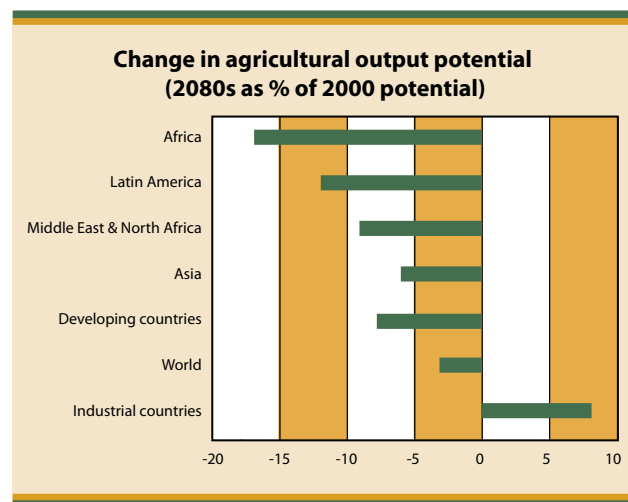
Figure 2 projects the impact of climate change on agriculture comparing all the regions of the world.

Industrialised countries show a positive trend of improved agricultural production despite being the major polluters causing climate change. Conversely, by 2080 Africa could potentially lose almost 20% of its agricultural productivity, causing further escalation of the food crisis and more hardship for the poor unless the situation is mitigated through interventions that integrate mitigation and adaptation strategies into all aspects of agricultural policy development. Because of its reliance on rain-fed agriculture, the smallholder farmers are likely to feel the negative impact of climate change. There is an urgent need to improve water harvesting and management systems as well as irrigation infrastructure development in the region.

In addition, there is need to improve the current early warning system to proactively anticipate rainfall decline and to feed this information to smallholder farmers. An early warning system should also include information on input markets, pricing and food availability. Identifying potential input shortage areas will contribute towards governments and the private sector making concerted efforts to respond to the shortage prior to the beginning of the agricultural season.

The growing variability in water supplies and the incidence of drought and floods is increasing and will continue to be a major cause of food emergencies, more so in sub-Saharan Africa where 96% of all cultivated land is dependent on rainfall.<sup>20</sup> A cluster meeting of SADC Ministers of Agriculture and Food Security recently met and agreed on the important role of research in adaptation to climate change.<sup>21</sup>

Figure 3. Climate change will hurt developing countries' agriculture



Source: FAO 2007

Such adaptation strategies include growing drought-resistant varieties of crops, and development of small-scale irrigation technology such as drip irrigation, small dams and community water supply boreholes.<sup>22</sup> Without sustainable water management across river basins, lakes and underground aquifers, local and regional food security is at risk. The management and allocation of water therefore is a major factor in determining success or failure of agricultural programmes in southern Africa.

Strategic links between governments, the private sector and civil society organisations can spearhead water harvesting, conservation, and management efforts that benefit smallholder farmers.

<sup>19</sup> "Fighting Climate Change: Human Solidarity in a divided world" UNDP Human Development Report 2007/2008

<sup>20</sup> ibid

<sup>21</sup> This was announced in a Communique issued after a Cluster Meeting of SADC Ministers of Agriculture and Food Security on 21 May 2009 in Johannesburg, South Africa

<sup>22</sup> Southern Africa Trust 2008 "Building bridges out of poverty: How can infrastructure development strengthen regional integration to overcome poverty in southern Africa, Policy Brief Number 2, January 2008





## Knock-on effects of bio-fuel production have affected global food prices

Another key factor is the energy crisis that has led to a growing dependence on bio-fuels as an alternative source of renewable energy. The FAO Summit in June 2008 identified bio-fuels and climate change as key contributors to food price hikes. The key concern with bio-fuels is that the attempt to limit the world's dependence on fossil fuels has resulted in diversion of food crops to fuel crops.<sup>23</sup> In response to the climate change and energy crises, developed countries introduced bio-fuels as an alternate source of renewable energy. The production of bio-fuel energy from food crops has sparked a raging debate and criticism due to the fact that food crops are increasingly being replaced by agri-fuel crops, causing a shock to the agricultural sector and resulting in food price hikes.

A World Bank report states that bio-fuels have forced global food prices up by 75% due to diversion of food crops to bio-fuel production.<sup>24</sup> The report argues that without the increase in bio-fuel production, global wheat and maize stocks would not have declined appreciably and price increases due to other factors would have been moderate. The basket of food prices examined in the study rose by 140% between 2002 and February 2008. The report

estimates that higher energy and fertiliser prices accounted for an increase of only 15%, while bio-fuels have been responsible for a 75% jump over that period. It argues that production of bio-fuels has distorted food markets and diverted grain from food to fuel. Over a third of United States of America corn is now used to produce ethanol and about half of vegetable oils in the European Union go towards the production of biodiesel. Farmers have been encouraged to set land aside for bio-fuel production. This has sparked financial speculation in grains, driving prices up.

Developed countries are actively promoting bio-fuels to an extent that is impacting on agricultural markets worldwide, as well as contributing to food insecurity due to food shortages and high food prices.

FAO has cautioned that the race by food-importing countries to secure farmland overseas to improve their food security risks is creating a new crisis. Saudi Arabia and China, for example, have planned to lease vast tracts of land in Africa and Asia to grow crops and ship them back to their national markets.<sup>25</sup> Civil society groups have called for the endorsement by the UN Special Rapporteur on the Right to Food, for a five year moratorium on the expansion of large-scale industrial production of bio-fuel in order to develop rules for bio-fuel production.

In the southern Africa region, maize and wheat are staple foods for millions of people. Diversion of these crops into energy will exert extreme pressure on food availability, directly affecting households. In southern Africa, if bio-fuel production programmes are developed, they would largely be driven by external demands, i.e. export to industrialised countries. Although there is a potential for job creation and income generation from bio-fuel production, there is a potential negative impact on food availability. However, there is also a potential positive impact on rural development if there are policies in place to regulate the sector. The challenge for policy makers is to understand the sector before making any major policy changes. If demand for bio-fuels increases and becomes a policy issue for the region, it will create competition for agricultural commodities between bio-fuels, livestock feed, and food for human consumption, increasing food-based inflation and causing more food insecurity.

<sup>23</sup> [www.fao.org/foodclimate](http://www.fao.org/foodclimate) "Climate change, water and food security"

<sup>24</sup> Chakraborty, A. 2008. Internal World Bank study delivers blow to plant energy drive, *The Guardian*, 4 July

<sup>25</sup> <http://www.ethioguardian.com/news.php> extend.2050



## Research and extension services can enhance the capacity of smallholder farmers

Agricultural research has made significant gains in developing improved agricultural technologies for production suited to the soil and climatic conditions of southern Africa. However, there is a bias towards large-scale commercial farmers in provision of agricultural research and extension services. An important factor that has been highlighted by analysts is that agricultural research is not in step with the changing needs and management strategies of smallholder farmers who are increasingly faced with limited resources and market access constraints. Some examples where research has been of benefit can be found in some countries in the region, such as Malawi, which has adopted improved varieties of cassava, while sorghum production has increased as a result of intensified efforts to supply farmers with better seeds and training on soil and crop management.

At a broader level, there are opportunities for policy makers to tap into the work of academic and research institutions as a strategy towards increasing smallholder farmers' ability to produce more food. Institutions in the region like the Africa Institute of Agrarian Studies (AIAS) and the African Centre for Food Security (ACFS)<sup>26</sup> have the comparative advantage to influence policy by providing capacity to civil society organizations and policy actors through drawing extensively on cross-disciplinary expertise from academia, international agencies and experts. In this way partnerships can be forged that bring together agricultural research and use best practices to improve household food security through increased smallholder productivity. Policy and programme support by such institutions can enhance the work of governments, community-based projects, farmers, farmers' organisations and other civil society organisations.

## Box 2 NEPAD's CAADP Pillars

NEPAD has developed the Comprehensive Africa Agriculture Development Programme (CAADP) as a strategy to improve on past efforts to achieve food security. The African Union Assembly endorsed the CAADP in July 2003. The programme has 4 pillars for investment and action:

- Extending the area under sustainable land management and reliable water control systems e.g. by increasing access to irrigation.
- Increasing market access through improved rural infrastructure and other trade-related interventions.
- Increasing food supply and reducing hunger across the region by increasing smallholder farm productivity and improving responses to food emergency crises.
- Improving agricultural research, improving systems to disseminate appropriate new technologies and increasing support to farmers to adopt these.

<http://www.nepad.org/2005/files/documents/172.pdf>

The ACFS, in its work as a lead research, policy formulation and advocacy institute, supports NEPAD's Comprehensive Africa Agriculture Development Programme (CAADP) activities and policy development under the pillar "increasing food supply by increasing smallholder productivity and improving responses to food emergencies"<sup>27</sup>. This support is for NEPAD's country roundtable processes whereby country priorities are established for investment and programming. The knowledge generated through these processes presents evidence-based research to support smallholder farmers. In this vein, the main focus of AIAS is to mediate in the policy making processes so as to enhance rural livelihoods through an improved policy framework. In its work, the institute interacts with and provides policy advice and capacity support to various stakeholders who include, governments, regional bodies, universities, NGOs, researchers, students and the donor community.

## Policy recommendations for strengthening the smallholder farming sector

The many challenges confronting the agricultural sector can be resolved through policies that promote increased production, provide employment and means of livelihood to rural populations, food to urban populations, and raw materials to industries to enhance economic growth. Many developing countries have over the years, implemented urban biased policies which impacted negatively on agricultural output. In spite of these setbacks, smallholder production of food crops must remain centre-stage as a strategy for rural development and to ensure food security. Agriculture can

<sup>26</sup> Development Brief. 2008, Volume 5, Number 1, University of KwaZulu-Natal, April 2008

<sup>27</sup> Refer to Box 1 in the text for a summary of NEPAD's 4 pillars

provide raw materials and labour to the manufacturing sector and can create employment opportunities that promote the development of a local market for locally produced goods and services.

## Enhancing the role of the state in strengthening agricultural systems

There is need to increase the volume and quality of production by smallholder farmers by putting in place policy frameworks that are directed at restructuring the rural economy and developing smallholder farming.

An example of best practice in prioritising the smallholder sector is Malawi (See Box 2). Recently the Malawi government introduced a new set of policies based on provision of inputs to the smallholder farming sector. The subsidies have boosted production, making Malawi an exporter of staple grains to countries in southern Africa.

### Box 2 Malawi: A National Programme with High-Productivity Quick Impact

The smallholder sub-sector of Malawi comprises about 2.4 million households with an average farm size of 1.2 ha. Maize, the staple food crop, is grown by 97% of farming households on about 1.6 million ha of smallholder farms and contributes 60% to total calorie consumption. Over decades of intensive cultivation in the absence of significant fertilizer use, soils in smallholder fields have been depleted of nutrients, particularly nitrogen. National yields of smallholder maize have averaged 1.3 MT/ha during the last 20 years. More than half of the farming households operate below subsistence. Only 20% of maize producers sell their product and most households purchase maize at much higher prices when stocks are exhausted. In the 2004/5 rainy season, many parts of the country went without rain for up to one month during January and February 2005. This dry spell had a devastating effect on maize production: the national average yield dropped to 0.76 MT/ha, one of the lowest on record. Total maize production for the 2004/5 season was just 1.23 million MT – a decline of 24% from the previous year, and just 57% of the estimated national maize food requirement. The UN issued a “flash appeal” for food aid and agricultural inputs. Donors responded with food aid but were unwilling to support an input subsidy.

The Government of Malawi responded in mid-2005 with a national scheme to subsidize improved seed and fertilizer. The scheme involved the distribution of fertilizer vouchers (not more than two per household) and seed vouchers that enabled most smallholder farmers to purchase fertilizer and seed at about one quarter of the market cost. Drawing on \$58 million from its national budget in 2005, \$65 million in 2006, and an estimated \$80 million in 2007, the programme reached most of Malawi’s smallholder maize farmers. Resulting harvests in 2006, 2007, and 2008 have dramatically improved the level of national and household food security (see below). In the past three seasons, the country’s smallholders have recorded large increases over the 2001-2005 (pre-subsidy) average. The surplus of over a million MT in 2007 enabled the country to export 300,000 MT maize to Zimbabwe and contribute to regional food security through World Food Programme procurements.

	2003	2004	2005	2006	2007	2008
Production (mil MT)	1,98	1,61	1,23	2,58	3,44	2,78
5 year average (2001-2005) (mil MT)	1,62	1,62	1,62	1,62	1,62	1,62
% above average	22	-1	-24	59	112	72

Malawi’s experience demonstrates the feasibility and value of investing in food crops grown by smallholders as a first step towards sustained economic growth. In a country where agriculture employs 78% of the national labour force and provides food security and livelihoods for over 10 million people, agricultural productivity growth is having a direct positive effect on the broader achievement of the Millennium Development Goals (MDGs). The number of Malawians at risk of hunger decreased from 5 million in late 2005 to just over 500,000 in late 2007. Beyond the most obvious impacts on reducing hunger, the maize surpluses reduced the risks of disease and increased school attendance. Communities also report increased economic activity in areas where productivity increases have been most pronounced. Moreover, at a time when many countries experienced food riots, Malawi’s surplus over the past year has buffered the population from the recent food price increases.

*Source: Prepared by Glenn Denning of The MDG Centre, East and Southern Africa, Nairobi IDEAS Foundation (2009) Smallholder Food Production and Poverty Reduction: Principles for a Financial Coordination Mechanism (FCM) to support Smallholder Farmers. Report of the Ad Hoc Committee to the Madrid Conference on Food Security*

## Provision of infrastructure to develop capacity of smallholder farmers

Poor infrastructure, especially roads and transport services, hampers agricultural productivity and access to markets and inputs. Developing transport networks that link production in rural areas with markets in urban areas will assist smallholder farmers to be more productive, facilitate access to inputs, move produce to markets. In this way, household food needs are met and smallholder rural farmers earn an income from selling their surplus produce. In addition, SADC governments need to invest in the management and development of water resources, including irrigation infrastructure and technologies, and efficient use of limited water resources<sup>28</sup>. Currently, the main emphasis of irrigation is on commercial agriculture, leaving smallholder producers to depend on rainfall. Civil society organisations that operate in rural development have the potential to influence policy through advocating for development of small-scale irrigation technology, small dams and community water supply boreholes.<sup>29</sup>

There is need for the adaptation of technological innovation to suit smallholder production. Technologies should be promoted to enhance the sector's less energy and capital intensive production system, and promote its labour intensive approaches that can create more jobs - while at the same time rationalising its requirements for motorized traction, harvesting and food processing (Moyo, 2008). This requires concerted effort by governments in the region to embark on a sustained effort towards investment in cheaper and easily accessible technologies such as drip irrigation or user-friendly water pumps.

Small-scale irrigation development could include small scale informal irrigation for private, peri-urban, and horticulture use. Civil society organizations that operate at a local community level have the potential to influence the adoption of small scale irrigation technology by communal and small scale farmers.<sup>30</sup>

## Strengthening farmer organisations in supporting smallholder farmers

Despite the constraints that smallholder farmers face in their day to day lives, they have devised innovative strategies to respond to some of the challenges. Some of the response mechanisms that they have developed can be strengthened. A variety of social networks have been mobilised to enhance capacity in the form of



labour sharing networks for cultivation and harvesting, and asset sharing in cultivation. These social networks serve other broader functions such as welfare and providing a framework for community development. At a more formal level smallholder communities are engaged in associational activities through farmer associations.

There is need to identify ways in which various local smallholder farmer organisations can be strengthened. If their capacity is developed, they can play a supportive role to smallholder farmers for increased production, in a number of ways.

A recent study by Cruzeiro do Sul<sup>31</sup> looked into the role and potential of farmer organisations in assisting smallholder farmers in three countries in the region – Mozambique, Zambia and Malawi. Emerging issues revolve around the need to strengthen the capacity of farmer organisations in leadership and business skills, and partnerships of these organisations with government and the private sector to facilitate a common approach to develop the capacity of small-holder farmers for increased food production.

<sup>28</sup> Southern Africa Trust 2008 "Building bridges out of poverty: How can infrastructure development strengthen regional integration to overcome poverty in southern Africa, Policy Brief Number 2, January 2008

<sup>29</sup> ibid

<sup>30</sup> ibid

<sup>31</sup> Cruzeiro do Sul is a Mozambique-based organisation that does research on policy issues, policy analysis and conceptualisation of policy tools for civil society, private sector and government. The Southern Africa Trust partnered the organisation to undertake research in Mozambique, Malawi and Zambia to better understand the policy environment affecting farmer organisations in their role in poverty reduction.



## Conclusion

Southern Africa has been facing continued food insecurity, felt first and hardest at household level in poor rural households. Smallholder agriculture has been a neglected sector, with smallholder farmers facing constraints due to lack of policy support as well as other factors related to high food prices, land distribution challenges, land degradation, the impact of climate change, and lack of research and extension services to the sector, amongst other factors. If countries in the region are to achieve food security at household level, attaining the goal of food security amongst the rural poor through smallholder farmers should be based on a broad range of interrelated policy measures that include anticipating climate shocks, structural reforms, government policy innovation, and the establishment of partnerships.

There are a number of critical areas for policy intervention, particularly public-led policy interventions, to ensure increased production by smallholder farmers and strengthen the state's role in transforming agricultural systems in southern Africa. Malawi's success has been cited as an example of good practice. Making smallholder farming more productive requires public-led transformative agricultural systems; infrastructural development for access to markets and improved irrigation; and strengthening farmers' organisations to play a more effective role in community development.

### Southern Africa Trust

4 Midridge North | International Business Gateway | 6th Road (off New Road) | Midrand | South Africa • Postnet Suite 100 | Private bag x 121 | Midrand | 1685 | South Africa  
Tel: +27 11 318 1012 | Fax: +27 11 318 0814 | [www.southernafricatrust.org](http://www.southernafricatrust.org)