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ENCOURAGING SUSTAINABLE SMALLHOLDER AGRICULTURE IN SOUTHERN AFRICA IN THE CONTEXT OF AGRICULTURAL SERVICES REFORM

Martin Whiteside

This paper summarises the results of six DFID funded country studies on encouraging sustainable agriculture in South Africa, Namibia, Botswana, Zimbabwe, Zambia and Malawi. It emphasises the need for continuing government and donor support for sustainable increases in agricultural productivity which must underpin poverty alleviation. In this context, moves toward fiscal sustainability, though justifiable, will have adverse poverty impacts if pursued too rapidly and inflexibly.

Policy conclusions

- Donors and governments need to recognise that to achieve sustainable increases in agricultural productivity will take decades, not years. Long term stability in socio-economic conditions, efforts to reduce transaction costs and to facilitate private enterprise, and more information-sharing, especially with smallholders about future plans, must remain high on the agenda.
- Government research and extension needs to redress existing biases by prioritising long term sustainability and bringing low external input techniques into the mainstream.
- The creation of a learning environment at the extension/farmer interface is required, with a 'basket of choices' and the encouragement of farmer experimentation. Disincentives to farmer uptake of resource conserving technologies need to be understood and overcome where possible.
- Changes caused by the liberalised economic environment need to be actively managed to minimise economic hardship and environmental damage.
- Continued emphasis is needed on community capacity building, with greater involvement by communities and traditional leaders in the management of natural resources.
- Continued development of farmers' associations and unions is desirable, with a dose of realism over the extent to which they can represent all smallholders.
- There needs to be continued decentralisation of administration, with the objective of being more responsive to local conditions and local communities.
- More systematic and objective evaluation of both government and NGO

initiatives, should be combined with a willingness to learn from, and share, experience.

Introduction

Recognising that there are important differences between countries in the region, this paper focuses on the following key concerns:

- smallholder agriculture remains the major source of livelihood for most of the rural poor, yet it is failing to provide a route out of poverty for the majority;
- current practices in much of the region are proving unsustainable, particularly in relation to maintaining soil fertility and managing common property resources (Box 1).

Box 1. Are present agricultural practices sustainable?

There are many strongly held opinions, but remarkably little agreement, on the sustainability of current practices and policies (SARC/IUCN/SADC, 1994; Wiggins, 1995; Scoones *et al*, 1996; Whiteside, forthcoming).

In many drier, extensively farmed areas, such as Botswana and northern Namibia, crop production (with little or no fertiliser use) seems to have ‘bottomed out’ at low yields. Grazing pressure is causing vegetative change, but there is less evidence that this change represents widespread or irreversible degradation, except around waterpoints and some areas of population concentrations. Rainfall variation, rather than grazing, is the key cause of vegetation change from year to year. Grazing intensification tends to be limited by periodic livestock losses in drought years. Some, ‘degraded’ areas continue to support a rising level of agricultural production. In other areas *de facto* privatisation, through fencing and water development, is reducing resources available to poorer farmers, particularly in drought years.

In wetter areas, soil fertility is a main limiting factor where rising population density restricts the length of fallows. The transition to continuous cropping is only sustainable if some means of replacing nutrients is used. In many areas (e.g. southern Malawi) this is not being done, as there is very low availability of organic fertiliser and insufficient use of inorganic alternatives—here there is evidence of falling yields. Where cultivation is taking place on slopes, the problem is compounded by unsustainable loss of topsoil through erosion. In much of the region there is increasing pressure on common property resources—with the poorest households tending to lose most, as resources are privatised or degraded.

The agricultural services environment has changed from a situation in which governments played the central role in regulating markets and providing services, to one where markets are relatively free and services are provided by a range of organisations, including government, commercial companies, NGOs and farmer associations. Current policies create a bias against sustainability and the poorest

farmers. Policies and services therefore need to be reformed to meet the sustainability needs of smallholder farmers.

Technological bias

Most government research programmes in the region still concentrate on short term yield maximisation on pure stands of crops with increased use of external inputs. Often recommendations are impractical for poorer smallholders. The reasons for the bias are understandable:

- research and extension on low external input technologies tend to be long term and more complex, and therefore tend to be neglected (Box 2);
- most of the agricultural establishment has been trained within the yield maximising, high external input ethos;
- an increasing proportion of research and demonstration is being done by input suppliers, who naturally emphasise the use of purchased inputs;
- farmer organisations,

Box 2. The need for long term perspectives

Sustainable techniques need, by definition, to work over the long term. For instance, an erosion reducing tillage practice needs to be better than existing practice when used over a 10, 20 or even 50 year period. It may however have extra costs, in terms of increased labour or reduced yield, and these often fall in the early years. Experiments or demonstrations of one to three years, which are typical in the region, are often irrelevant.

An example of the challenge of researching and promoting the long term is the use of the leguminous tree *Faidherbia albida*, which may provide an appropriate way of maintaining soil fertility in some parts of the region. However it may take 15 years to establish a good stand, but this stand may then contribute to soil fertility for 150 years. How many research institutions, extension services or projects have this type of time perspective?

Farmers also need support to take the long term view. There may not be an incentive for farmers to adopt resource conserving technologies until environmental damage seriously effects yields; however by then it may be too late, as prevention is often easier and cheaper than the cure. Key questions for farmers are:

- does the technology work over the long term?
- are the returns over the long term adequate to compensate for the costs (land out of cultivation, labour etc.)?
- will those investing reap the expected benefits (is tenure security adequate and what confidence can there be in the social and economic situation for farming in the future)?
- how can the investment in land improvement be financed?

None of these questions can be answered with certainty, but enough is known now to allow the enabling environment to be improved, so that farmers can at least begin to address them.

which may advocate more research, often have members with sufficient resources to use more inputs;

- although NGO research is expanding and may be more oriented towards sustainability, it is still very limited and often lacks a systematic and long term perspective.

There are combinations of technologies with the potential to achieve sustainable intensification (Box 3)—however years of bias has resulted in their underdevelopment and under-promotion.

Box 3. Technology opportunities for southern Malawi smallholders

In southern Malawi (in 1997) one kilogram of nitrogen costs the equivalent of 20kg of maize, but only increases the yield by 15-20kg. Therefore farmers cannot afford to use inorganic fertiliser. High population densities are resulting in continual cropping of maize without fertiliser, leading to mining of soil fertility and a downward spiral of yields and household food security. Research indicates that a combination of technologies can reverse falling production and provide more sustainable livelihoods even on smaller farms:

- Agroforestry, particularly intercropping with *Faidherbia albida*, relay cropping with *Tephrosia* and improved short fallows.
- Increasing the legume content of rotations, particularly with Magoye soya bean.
- Reducing erosion with vetiver grass strips, contour cultivation and possibly reduced tillage.
- Development of high value cash crops to give extra cash income (partly to buy fertiliser).

Although some technologies have been taken up, for others the uptake is low, threatening overall progress towards sustainability. Reasons for this include:

- Subsidies on fertiliser until recently which reduced the demand for alternatives.
- The high short-term costs (especially in labour) needed to achieve long-term gains.
- Bias against low external input technologies within research and extension.

Source: Whiteside & Carr (1997)

Paradoxically, due to the very low use of external inputs (such as inorganic fertiliser) in the region there is generally scope for increased use of external inputs as well as a much greater emphasis on low external input technologies—it is not an either/or situation, both are needed.

There are initiatives across the region aimed at improving the management of Ministries of Agriculture by making decisions more transparent and demand driven (e.g. Zimbabwe's Agricultural Services Management Project and Zambia's Agricultural Services Investment Project). While projects like these may be able to

provide the pre-conditions for a transformation in favour of smallholder sustainability, they will not in themselves do so, without specific affirmative action in favour of sustainability and the poorest smallholders (Box 4).

Box 4. Requirements for gearing research towards sustainability in smallholder systems

1. Clear priorities in favour of smallholders and sustainability.
2. Long term perspective and funding security to allow experiments into the maintenance and enhancement of yield over the longer term.
3. Active creation of a learning environment involving farmers, extension and research, with research and extension stimulating, enabling and publicising research done by farmers.
4. Producing options to choose from rather than fixed recommendations.
5. Appropriate reward system, rewarding researchers for adoption and sustainability of technologies produced, rather than for yields obtained on station or papers published.
6. Research planned in accordance with the priorities of smallholder farmers, including women, and within an understanding of the overall farming system.
7. Adaptive locally based research, responsive to diverse environments.
8. Research, not only looking at how to increase yield, but also on what is cost effective over the long term, and how to reduce costs, labour, risk and environmental damage.
9. Promotion of a multi-disciplinary approach to research.

Agricultural Extension

Public sector agricultural extension has tended to suffer from the same biases as research—favouring more commercial farmers and simple yield maximisation rather than a range of choices more relevant to small farmers. The very large gap in all countries between extension recommendation and small farmer practice is an indication of low research/extension relevance. Some of the changes needed are:

- i. Affirmative action in favour of sustainability through the demonstration and promotion of a combination of resource conserving practices and the creation of a learning environment at the smallholder-extension interface. This implies the promotion of choices, the encouragement of farmer experimentation and the facilitation of farmer-to-farmer and farmer-to-researcher exchanges. Although these imperatives are increasingly being recognised in theory, there is often a need for a change in attitude for there to be sustainable change in practice.
- ii. Decentralised organisation to allow local managers to respond to local conditions. The quid pro quo would be that local managers would need to be accountable for the local impact. Impact indicators, sensitive to sustainability and poverty criteria are needed. Involvement of local farmers' organisations in extension management could also contribute to increased accountability.
- iii. Collaboration with NGOs and Community Based Organisations (CBOs), whose overlapping objectives, but different styles of working, provide

opportunities for synergy between NGOs, CBOs and the public sector. Much collaboration to date has been ad hoc and short term—there needs to be a realisation that the involvement of local NGOs and farmer associations in extension can be effective and long term, and thus worthy of strategic development. There is scope for exploring the possibilities of more contracting out of extension tasks to local NGOs or farmer associations, especially where these organisations are strong. However NGOs skills vary widely and there is a need for more independent and systematised evaluation of their efforts. Some that appear successful at a small scale are too expensive to be scaled up or replicated.

- iv. Collaboration with the commercial sector—this may range from collaboration with outgrower schemes to the promotion of particular commercial products. There are both opportunities and dangers in this collaboration—for instance in Zimbabwe demonstration plots at a local level are sponsored by input suppliers, and this has led to demonstrations of high input techniques, but not of low input alternatives. Guidelines need to be drawn up to prevent (and/or compensate for) bias.
- v. Divestment of ‘non-extension’ tasks—throughout the region extension workers have become responsible for a wide range of tasks such as managing input supplies, drought relief and credit programmes. Divestment of some of these tasks can provide opportunities for re-defining core extension roles and creating an optimum allocation of responsibilities between a range of government, commercial and non-profit organisations.
- vi. Extension workers who understand the ‘art’ of extension as well as the ‘science’ of agriculture. Much of the agricultural training in the region concentrates on technical issues. Subjects such as low external input agriculture, participatory techniques, gender, communication skills and community organisation need to be more central to syllabi. There is a severe shortage of people who combine technical agricultural knowledge with the skills and experience of using participatory approaches. Some interventions are addressing this (e.g. the PELUM College in Zimbabwe which is an in-service training initiative developed with participation of government and NGOs), but more are needed.

Making markets work for smallholder sustainability

Box 5. Redefining roles in sustainable agricultural service provision

Successful sustainable intensification will need both:

- more use of low external input resource conserving technologies;
- more use of purchased inputs, particularly inorganic fertiliser.

Improved input supply can contribute to sustainability, as long as its development and promotion does not detract from affirmative action on low external input techniques. Price, availability and lack of seasonal credit are all constraints to smallholders using purchased inputs.

Across the region, there has been a rapid withdrawal of government from agricultural input supply and subsidy, and from agricultural produce marketing and price control. The differing roles of different organisations in service provision need to be defined by pragmatic criteria depending on local circumstances (Box 5).

Some remote areas have suffered when government supply and marketing has ended and have not been effectively replaced by the commercial sector. However government supply was often erratic and late, so in many areas the situation is no worse than before.

More serious for many smallholders has been the enormous rise in inorganic fertiliser prices. It has become uneconomic for smallholders in many areas to use bought fertiliser on cereals because of:

- the withdrawal of subsidies on fertiliser and grain prices;
- high distribution costs;
- low responses/yields and high risks due to low/erratic rainfall and other production constraints.

Some research and extension services (e.g. Malawi, Namibia, Zimbabwe and

Agricultural services can be provided by a mix of government, commercial, NGO and community organisations. The appropriate mix needs to be developed locally and pragmatically, depending on:

- the relative strengths of local organisations (which are likely to change over time);
- the different comparative advantages different organisations have for different tasks.

A balance of competition and collaboration is needed between the different service organisations.

Although government is unlikely to return to the dominant role aspired to in the 1970's and 80's, it needs to:

- create an enabling environment for other service providers;
- redress imbalance in existing service provision by affirmative action in favour of sustainability and the poorest smallholders;
- regulate potentially dangerous practices.

This requires developing resources and new skills within government, ideally at a decentralised level. Programmes like the Rural District Capacity Building Programme in Zimbabwe are trying to do this.

Sustainability requires a long term perspective, which government, like the other stakeholders, find difficult to achieve. Government can help to create the stable conditions that encourage other stakeholders to take a long term view. Donors can also support initiatives within government in favour of the longer term and sustainability.

Financial crises within governments in the region have led to NGOs being visibly better-resourced than local government (and in some cases funding government activities, by providing transport and training etc). This has led to distorted relations and weak accountability, which need to be at least

Botswana) have been slow to recognise the changed economics of fertiliser, continuing to promote inorganic fertiliser even when uneconomic. Farmers have recognised the problem and reduced their usage well below extension recommendations—however they have received little support to adopt other fertility maintaining alternatives.

It can be argued that the market will adjust to the ending of fertiliser subsidies and as cereal prices rise, production shifts to more fertile areas and there are more incentives to use organic techniques to maintain soil fertility increases. However in some areas, the costs of this adjustment in human suffering and environmental degradation is likely to be unacceptable—and intervention is needed to support farmers through this transition.

Even with government withdrawal from direct running of services, various interventions can be considered to reduce market failure and encourage sustainable services for smallholders:

- i. Lowering transaction costs through improved infrastructure—feeder roads, market facilities, communications.
- ii. Lowering transactions costs through farmer organisation—farmer groups providing links to service providers or becoming service providers in their own right. For instance, the Likwama Farmers Co-operative in Namibia, runs both some of its own services on a commercial basis and acts as a link between farmers and service providers like Meat Co.
- iii. Supporting contract culture—such as legislative reform, improved law and order, market regulation and quality standards.
- iv. Market intelligence—to inform and empower smallholders. An example of this is the Zimbabwe Farmers Union, which runs a weekly radio programme giving marketing information, as well as putting groups of farmers directly in touch with potential purchasers. Zimbabwe government agricultural extension workers are also increasingly getting involved in providing marketing advice as a result of the more complex marketing environment following liberalisation.
- v. Incentives to commercial services in remote areas—such as training, set up grants and tax holidays, are likely to be more sustainable than long term subsidy (e.g. initiatives like the AGENT Scheme—Box 6).
- vi. Encouraging local value added—through support to set up, but not long term subsidy of, local agro-processing capacity (e.g. milling of small grains, oilseed presses, leather processing and blacksmithing).
- vii. Improved financial services (Box 6).

Box 6. The AGENT Programme

The Agribusiness Entrepreneur Network and Training (AGENT) programme, run by an NGO, CARE Zimbabwe, is an intervention promoting the development of agricultural input retailers in rural areas. Potential Agents are identified by local communities and approved by CARE; they are given a short training course on both business and agricultural inputs, and are supplied through CARE, on a cost covering

basis. Agents learn retailing skills and build up credibility with wholesalers and other suppliers, before graduating to become independent retailers.

In two years 104 agents, in five provinces, have set themselves up, with 500 projected by 1999. Indications are that the majority of agents are proving to be commercially viable, a significant proportion of customers claim to be making additional input purchases, in response to the local availability of goods at reasonable prices. Agents have participated in demonstrations with agricultural extension and input suppliers. There is interest in expanding services to include marketing and other services such as bagging, weighing, and organising transport to market.

It is not clear whether, with time, the agents will develop into typical rural retailers, or whether they will retain a community service orientation.

Although, with market liberalisation, subsidies are generally being withdrawn, there remain initiatives in the region, and circumstances, in which targeted subsidies need consideration:

- Subsidised capital inputs (e.g. the ALDEP scheme in Botswana) may be able to provide incentives for investments in long-term productivity and contribute to sustainability.
- Subsidised recurrent inputs (e.g. voucher schemes in Namibia and Zimbabwe) may be necessary as part of drought recovery, or be a way of providing income transfer, but tend to exacerbate bias in favour of bought inputs and may not be either sustainable or targeted at the poorest.
- Subsidised early destocking on onset of a drought (and support to restocking after drought) may protect the environment and smallholder assets; however more experience of doing this within a community managed tracking process is needed.

Agricultural financial services

Rural financial services—savings, credit and insurance, can encourage sustainability by:

- facilitating rational farm planning, by acting as a buffer between the household's fluctuating cash needs and optimum farm income generating strategy.
- enabling seasonal or longer term investment in productivity and sustainability.
- reducing risk, and therefore encouraging longer term planning and investment.

Government agricultural credit programmes in the region have generally collapsed in the face of economic and political liberalisation. Attempts to revive them on a more commercial basis mean they tend to be restricted to larger farmers and more profitable crops. Some NGO schemes do reach the poor, but do not always apply interest rates sufficient to cover transaction costs.

Attempts are being made to make schemes more sustainable by lowering transaction costs. For instance the Agricultural Finance Company in Zimbabwe is trying:

- group schemes with joint liability (though there is some concern that group sizes are too large for effective accountability between members);
- indirect lending to retailers at the beginning of the season and to truck owners for grain purchasing;
- lending to intermediary NGOs with an existing network in the field such as the SHDF (see Box 7).

With the growth of the retail network, retailers could provide a sustainable source of seasonal credit for inputs. This is currently limited because of low liquidity and a short term perspective among many retailers. Improved credit for retailers and macro-economic stability are key incentives to further development.

One source of input credit that has been expanding rapidly in southern Africa has been supply through outgrower schemes (typically for crops like cotton). Inputs and sometimes advice are given, on condition that the farmer sells through the company, which deducts for the inputs received. Typically these schemes involve the larger smallholders; exploitation by the companies is likely to be minimised if there is a degree of competition between schemes and other alternatives for farmers. Government intervention may be needed to ensure safer use of agrochemicals in such schemes.

Building community capacity

Well organised communities can support sustainable agriculture by:

- undertaking group activities such as water development, feeder road

Box 7. Community based savings and loans in Zimbabwe

There are a number of initiatives within the community and NGO sector in Zimbabwe linking savings and loans. The sector is paying more attention to its own sustainability, being hard-headed about risk and repayment—the challenge is to provide services to the poorest smallholders at the same time.

The Self Help Development Foundation (SHDF) has a 35 year track record of supporting small rural savings clubs, with 12,000 affiliated clubs, an estimated membership of 300,000, 90 per cent of whom are women. Savings clubs are financially autonomous, usually consisting of a group of relatives or neighbours saving money together, often for seasonal agricultural inputs, or providing a type of collective insurance, for instance for funeral costs.

SHDF has recently taken a big step by accepting a loan from the Agricultural Finance Corporation for on-lending to members of their affiliated savings clubs. Clearly this changes the relationship between SHDF and its affiliates; so far, however, the scheme has proved successful, with a 100 per cent repayment record.

A slightly different initiative originates within the credit union movement, with the setting up of 'village banks'. Each bank is an autonomous credit union providing saving and credit facilities to members, the interest spread between savings and loans covering the operating costs. An estimated 300 members are needed for the village bank to be viable.

While clearly meeting a felt need, village banks need to guard against co-variant risk—with borrowers and savers all being at risk of drought, leading to failure of the bank and loss of savings. Insurance or links into broader based financial networks is needed.

- maintenance and market development;
- lowering transaction costs for services;
- managing common property resources (see below);
- lobbying for policies and services appropriate to their needs.

Actions that increase the capacity and confidence of communities and farmer groups, can help provide the pre-conditions for sustainable agricultural development. However it should not be assumed that community organisations are homogenous, democratic or free of gender bias.

Community capacity building is more easily advocated than achieved. Approaches being tried in the region include:

- leadership training (e.g. ‘Training for Transformation’ provided by Silveira House in Zimbabwe);
- specific technical training (e.g. paravet training being developed in Northern Namibia);
- participatory approaches (e.g. Participatory Rural Appraisal—PRA), being tried by many organisations throughout the region;
- learning by doing (this is an important component of Zimbabwe’s District Council Capacity Building Programme);
- specific initiatives to empower women (e.g. literacy, women only groups,

savings and loans clubs like SHDF in Zimbabwe). There are many different design options for community based agricultural interventions such as:

- whether to work through existing structures or to create new groupings and whether to work with single issue or generic groups;
- whether to pay compensation/salaries to community based intermediaries;
- what role traditional leaders should play, and what relationships to have with government institutions;
- what are optimum size, tiers, structures etc. for groups.

The final choice needs to be made in participation with the community, so blueprints are inappropriate.

Farmer associations and farmer unions form part of this picture; they can act as a link to services, as service providers in their own right, or can lobby for improved services and policies. But not all members of an association or union have similar needs; for example the Zimbabwe Farmers Union represents a wide range of smallholders, but the better-off and male farmers tend to be better represented in decision making. The leadership of farmer organisations can easily become distanced from poor and women farmers, who form the majority. Specific policies and internal regulations can reduce this tendency, and donors can also help by funding capacity building at the base, as well at the apex.

Decentralisation of local government provides opportunities to develop new alliances and to provide more locally appropriate and accountable services. There is growing recognition of the importance of working with the traditional leadership, particularly in the management of natural resources.

Land access and security

Security of tenure is necessary for smallholders to take a long term view and conserve and invest in the land and its natural resources. In most of the region, smallholder land access comes through traditional/communal entitlements; in some areas this is being superseded by a title deed system and there seems to be increasing de facto leasing and 'selling' of land, even if not officially permitted. In traditional systems, intervention is sometimes needed to ensure women get more access and security. There is little evidence that title deed systems necessarily increase the security of poor farmers; where there is a transition from traditional to title deed systems, care is needed to ensure the less powerful (especially women) do not lose out. Access to common property resources, such as grazing, is under more immediate threat.

Availability of crop land varies enormously throughout the region, being particularly scarce in southern Malawi, parts of Zimbabwe and South Africa. In these areas land reform is seen by many as a political and economic necessity; although there is considerable debate about how to achieve this equitably and sustainably. The following however are important ingredients:

- settlers need tenure security;
- participatory planning is needed, taking into account diversity of objectives and circumstances of both settlers and farms to be settled;
- attention needs to be paid to institutional development, especially for the management of common property resources; over-large groups should be avoided.

Community based natural resource management

In much of southern Africa, the sustainability of, and access by the poor to, vital common property resources is under threat from unregulated use (common property becoming open access) and privatisation by the better off (eg fencing of grazing land).

A range of innovative community-based programmes, mainly for wildlife management, are being developed, such as Campfire in Zimbabwe. These represent a major step forward in combining sustainable resource management with more immediate needs. However, this model is difficult to extend beyond areas where large photogenic, or huntable, game allow lucrative income-generating opportunities. In most areas returns to communities are not as high as suggested by extrapolation from 'best-case' scenarios (Thomas, 1995). Similar approaches beyond these areas need to be more holistic, embracing grazing areas, firewood, and wild products and animals used for food, crafts, medicines and construction (see also Brown, [NRP No. 33](#)).

Environmental concerns have prompted a renewed interest in community land-use planning (e.g. the District Environmental Action Plan (DEAP) programme in Zimbabwe). Typically, such initiatives are promoted as 'new' by recently created environmental ministries or departments. However, apart from a more explicit emphasis on participation, they are often not very different from land-use planning activities launched by agricultural or rural development ministries a decade or more ago. Past experience in such initiatives—such as grazing schemes in Zimbabwe—has not been particularly positive. Future success will depend on:

- integration of ‘minor’ species and products into coherent management systems;
- improved learning from past experience;
- wise use of participatory techniques (recognising the costs and risks as well as the benefits);
- the creation of appropriate incentives for sustainable management;
- the creation of management capacity in local communities;
- changes in access and tenure rights in some areas.

Public sector approaches to the management of communal grazing land throughout the region are still characterised by concerns of overgrazing, premised on somewhat rigid perceptions of carrying capacity. There are major opportunities for incorporating the newer thinking on tracking management into policy and for exchange of experiences in more innovative forms of rangeland management.

Conclusion

In much of the region, sustainable intensification of smallholder agriculture is possible but not guaranteed. Since the commercial sector is increasingly meeting the needs of richer farmers, governments and NGOs must ensure that the needs of poorer smallholders for sustainability are also met.

This does not mean giving a blank cheque for agricultural subsidies. The challenge is to develop sustained programmes and policies that:

- support farmers in developing long-term sustainable techniques for increasing the production from the land;
- relieve poverty during a lengthy transition phase without creating a bias against sustainability and self-reliance.

Donor pressure has persuaded many governments rapidly to phase out agricultural subsidies and other support, often in the name of ‘sustainability’. However too rapid a move to, and inflexible insistence on, programme fiscal sustainability may undermine more general smallholder sustainability or cause immense amounts of human suffering.

Southern African agriculture is in a state of transition, trying to come to terms with rapid social, political and economic changes and population growth. A problem is that the timescales given to African farmers and governments for this transition are often unrealistically short, and the goalposts are continually being moved, with shifting policies and prices, undermining the stability which is needed to enable farmers to invest in long term sustainability.

The danger is when a rush to fiscal sustainability in the short term destroys either agricultural sustainability, or causes increased poverty, exacerbating suffering and undermining progress to stabilise birth rates. It seems likely that, if the policy environment is appropriate, rates of population growth will come down and begin to stabilise. This will make the attainment of sustainable agriculture much more realistic, and will—in turn—enable agricultural programmes and policies to be financially sustainable. However, this process is likely to take decades rather than years (United Nations, 1996).

Box 8. Can sustainable agriculture provide a route out of rural poverty?

Agriculture provides an essential component to the livelihoods of most of the poorest households in the region, although for many, off-farm income, remittances and pensions are also important complements to agricultural livelihoods. Many poor rural households are net purchasers of food, consequently a rise in agricultural producer prices can bring them more harm than benefit.

In the drier areas (especially Botswana and Namibia) it seems unlikely that rainfed crop agriculture alone can provide a viable route out of poverty; it can however provide a vital holding operation and a safety net while other alternatives are developed. Livestock has greater economic potential, however recent droughts have left an increasing percentage of the poor without cattle, so this route seems limited to those who already have more resources.

In the areas with more rainfall and adequate land availability (e.g. parts of Zambia, and northern Malawi) there is more opportunity for households to use agriculture as a means to escape poverty. Improved techniques, services and organisation, supported by appropriate policy, will be needed to achieve this. Where land for smallholders is limited and heavily used (like southern Malawi, parts of Zimbabwe and South Africa) agriculture will remain a vital safety net, but those families with small land areas are unlikely to be able to use it to escape poverty. Some hope is placed on higher value cash crops (e.g. Burley Tobacco in Malawi), but wider structural changes are also needed. Sustainable techniques are required in these areas to prevent further deterioration and to give time to develop alternatives.

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Overseas Development Institute
Portland House
Stag Place
London SW1E 5DP, UK

Telephone +44 (0)171 393 1600

Fax +44 (0)171 393 1699

Email: nrp@odi.org.uk



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