

The Political Economy of Cereal Seed Systems in Zimbabwe: Rebuilding the Seed System in a Post-Crisis Economy

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The Political Economy of Cereal Seed Systems in Africa

Preface

This *FAC Working Paper* is part of the first phase of a collaborative research project of the Science, Technology and Innovation (STI) Theme of the Future Agricultures Consortium (FAC). It was funded through a grant from the UK Department for International Development (DFID). The project explored the political economy of cereal seed systems across five distinct country contexts – Ethiopia, Kenya, Malawi, Ghana and Zimbabwe – during 2009-10. The evolution of seed research and development programmes and processes has varied greatly across these countries. In each case, a unique set of public and private actors and interests has been involved in defining priorities in seed policy and implementing projects, each seeking to influence those agendas to their advantage. Moreover, each country has a different reliance on ‘modern’ hybrid (or sometimes biotech) varieties and associated R&D and supply systems and an independent informal sector, involving networks of farmer experimenters and seed bulkers and suppliers, with varying degrees of capacity.

As calls for a ‘Uniquely African Green Revolution’ gain momentum, the focus on seeds and seed systems is rising up the agricultural policy agenda. Much of the debate stresses the technological or market dimensions, with substantial investments being made in seed improvement and the development of both public and private sector delivery systems. But there is currently much less emphasis on the wider policy dimensions – and particularly the political economy of policymaking in these diverse agricultural contexts.

Experience tells us it is these factors that often make or break even the best designed and most well intentioned intervention. And since investment in seed improvement and supply was last emphasised as a major priority in agriculture (in the 1970s and 80s), contexts have changed dramatically. The collapse of national public sector breeding systems has been dramatic, and this has only partially been compensated for by the selective entry of the private sector. Large multinational seed and agricultural supply companies are increasingly dominating the global scene, and there are many claims made about the promises of new technologies (notably transgenics) transforming the seed sector through a technological revolution. While informal breeding and seed supply systems continue to exist, and indeed have been extensively supported through NGOs and other civil society groups, they are often under pressure, as drought, corruption and conflict take their toll and economic transformation and livelihood change continues apace, or they are ignored or excluded from policy circles.

The focus on *cereal* seed systems allowed this project to concentrate on a similar set of crops across the five study countries with a key influence on food security at household and national levels. Given the political reverberations of the ‘food crisis’ of 2007-08, this enabled

timely analysis of the implications of the policy processes shaping the breeding, production, marketing and distribution of cereal seeds. As this *FAC Working Paper* shows, whether grown for local subsistence or traded commercially, the significance of cereal crops to national politics (and therefore arguments about food security and sovereignty), commercial interests and local livelihoods is profound.

To gain clear insights into the policy actors, networks, interests and narratives at play, this project sought to test the hypothesis that contrasting politics and different configurations of interests will affect the way cereal seed systems operate and shape how a ‘New Green Revolution’ will ultimately play out. As such, the five country studies analysed their respective national seed policy processes by asking:

- How do seed policies get created, and by whom?
- How do ideas about what makes a ‘good seed policy’ change over time?
- How are boundaries drawn around seed problems and policy ‘storylines’ elaborated?
- Whose voices are taken into account in the seed policy process? And whose are excluded?
- What spaces exist for new ideas, actors and networks? How can these be opened up?

The underlying implication in all these cases is that politics matter and that by engaging critically with seed policy processes, we can begin to define and then deliberate among different framings and interests to shift the focus of the debate beyond the usual technical/market fix.

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Acronyms

AGENT	Agribusiness Entrepreneur Development Network and Training
AGRA	Alliance for a Green Revolution in Africa
AGRITEX	Agricultural, Technical and Extension Services
ARC	Agricultural Research Council
ARDA	Agricultural and Rural Development Authority
ARI	Agronomy Research Institute
CADS	Cluster Agriculture Development Services
CIMMYT	International Maize and Wheat Improvement Centre
CONEX	Department of Conservation and Extension
CRS	Catholic Relief Services
CSO	Central Statistics Office
CTCT	Community Technology Development Trust
CTDT	Community Technology Development Trust
DEVAG	Department of Agricultural Development
DFID	Department for International Development
ESAP	Economic Structural Adjustment Programme
FAO	United Nations Food and Agriculture Organisation
GMB	Grain Marketing Board
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IRD	International Relief and Development
MERP	Millennium Economic Recovery Programme
MoA	Ministry of Agriculture
NEPAD	New Partnership for Africa's Development
NERP	National Economic Recovery Programme
NGO	Non-Governmental Organisation
OPV	Open Pollinated Variety
PPRI	Plant Protection Research Institute
PRP	Poverty Reduction Paper
RBZ	Reserve Bank of Zimbabwe
SCUK	Save the Children UK
SDC	Swiss Development Corporation
Seed Co	Seed Company of Zimbabwe Ltd.
SNV	Netherlands Development Organisation
UDI	Unilateral Declaration of Independence
USAID	United States Agency for International Development
ZFCU	Zimbabwe Commercial Farmers' Union
ZFU	Zimbabwe Farmers' Union
ZIMPREST	Zimbabwe Programme for Economic and Social Transformation

Abstract

A decade of economic and political turmoil in Zimbabwe, as well as a period of radical land reform which reconfigured the country's agricultural sector, dramatically affected its seed system, reducing supply of quality seeds and undermining regulatory control. This paper aims to understand how Zimbabwe can rebuild a seed system appropriate to the post-land reform context by asking questions about the underlying political economy of this process, exploring the important but often overlooked angle of politics of policymaking and identifying the broader political, economic and institutional factors that affect the way the seed system is structured. As Zimbabwe tries to re-establish its formerly vibrant agricultural sector following land reform, perspectives focus on technical and market solutions, with an absence of concrete analysis and debate about political economic aspects. Yet it is these wider dimensions of policy processes, and particularly the politics underlying these, which inevitably carry the day. Therefore, this study maps the national seed system, examines its historical origins and identifies key policy narratives, actors and networks and political interests shaping the Zimbabwean seed system. It highlights how a number of competing narratives co-exist in the current national policy debate, each suggesting a different route to revitalising the seed system. The dominant narrative, supported by powerful national and international actors and associated interests, has been excluding, obscuring and silencing two important alternative narratives. These alternatives highlight the need to rebuild the private sector with all its ancillary structures for input distribution and the importance of agricultural diversification, non-maize pathways and the need to build from the grassroots. The suppressing of alternatives was done through different political economic processes, justified by particular technical arguments that were supported by clear interests. This potentially undermines longer term recovery based on rebuilding the seed system through the private sector and strengthening formal and informal farmer-based seed systems.

1. Introduction

In the last decade, Zimbabwe has suffered the consequences of economic and political turmoil. This had a dramatic effect on the seed system, reducing supply of quality seeds, and undermining regulatory control. Furthermore, the radical land reform following 2000 has reconfigured Zimbabwe's agricultural sector. In the place of 9,000 large-scale commercial farms a large number, up to 134,000 in some estimates of new small and medium scale farms have been established as part of the Fast Track Land Reform Programme (Moyo forthcoming; Moyo 2006; Moyo 2004; Utete 2003). This has had some significant effects on seed supply and demand patterns.

In the past, the large-scale commercial farming sector dominated both seed production and demand, especially for high quality hybrid maize seed. The once vibrant private seed sector relied on this set up for its business operations. Today, a new scenario has emerged and is

faced with many challenges. With a substantial expansion in the number of farmers and an extension of cropped area into once underutilised large scale commercial farms, a new demand for cereal seed has emerged. This paper asks how Zimbabwe can rebuild a seed system appropriate to the post-land reform context, asking in particular questions about the underlying political economy of this process.

'Political economy' is a key term in discussions about agricultural development in Africa, which implies interaction of political and economic processes in a society (Lipton 1982; Bates 1981). But what is meant by the political economy of cereal seed systems, and how have different understandings of political economy influenced national policies? How has the political economy of agricultural development in Zimbabwe influenced the seed production and supply? And how in recent years has this affected the ability of the seed system to be rebuilt?

There have been numerous articles and reports on Zimbabwe's seed system over the years, focusing on research and development (CIMMYT 1999; Rusike 1998; Rukuni 1996), seed production (Rusike and Sukume 2006; CIMMYT 1999; Eicher 1997) and seed relief (Sperling et al. 2009; CTD 2009; Mazvimavi et al. 2008; Rorbach et al. 2005; Bramel and Remington 2004). While those papers consider the different technical and economic dimensions of the seed system, this paper explores the politics of policymaking and the broader political-economic factors that affect the way the seed system is structured. This is an important but often overlooked angle, which highlights some important challenges for policymaking.

As calls for a 'Uniquely African Green Revolution' gain momentum (AGRA 2009; Cartridge and Leraand 2007; Rockefeller 2006; cf. Holmén 2003; NEPAD 2003; IFPRI 2002), the focus on seeds and seed systems is rising up the policy agenda in Africa. AGRA's Program in Africa's Seed Systems (PASS) for example works to increase Africa's capacity to breed, produce and disseminate quality seed of staple food crops such as maize, rice, cassava, beans, sorghum, millet and other staples. To do so, PASS operates through four sub-programs which are the: Education for African Crop Improvement; Fund for the Improvement and Adoption of African Crops; Seed Production for Africa and the Agro-dealer Development Program. As Zimbabwe tries to rebuild its agricultural sector following land reform, perspectives focus on technical and market solutions, with an absence of concrete analysis and debate about political-economic aspects. The focus is often based on ideal models of how things should be, rather than the way they are and how they are likely to be. The tendency has been to concentrate on devising solutions for problems while failing to notice the intricacies of translating such policy prescriptions into practice.

Yet it is these wider dimensions of policy processes, and particularly the politics underlying these, which inevitably carry the day. Experience tells us that it is these factors that often make or break even the best designed and most well intentioned intervention. A number of

important questions are suggested, which together form the central focus of this paper. They include:

- What processes underlie formulation and selection of a particular seed policy agenda?
- Who are the key actors in the selection and development of seed policy?
- What are the narratives on cereal seed systems, agriculture and food security that define policy thinking in Zimbabwe?
- How are these narratives formed, by whom and whose interests do they represent?
- How and in what context are these narratives deployed and what impact does this have on the way cereal seed systems are envisaged especially post 2000?

These are difficult questions highlighting some critical political dimensions, to seed policy in Zimbabwe. In order to understand these political dimensions this section has introduced the dilemmas and issues faced regarding seed policy in the country. Section 2 provides a setting for the new agrarian structure following the land reform programme of 2000. Section 3 gives a historical perspective on the dualistic agricultural system in Zimbabwe. Section 4 examines the development of the seed sector in light of Zimbabwe's agricultural political economy which has affected research and development priorities, the business models of the private sector and the wider policy environment. Section 5 looks at the policy environment from 2000 to 2009, and particularly the 'command agriculture' approach witnessed from 2005. Section 6 introduces the beginnings of the economic recovery in the 2009 to 2010 season, while Section 7 presents two case studies to illustrate how the emerging dominant seed supply/relief narrative plays out in the field. Section 8 presents emerging alternative narratives. Section 9 looks at the contrasting policy implications that arise and the politics of policy processes. The last section concludes the paper by summarising the core and alternative narratives and provides ways forward including areas where efforts for the future might be focused.

The research for this study relied principally on qualitative and participatory methods, including semi-structured interviews and the collection of personal

testimonies. These testimonies proved especially illuminating; conversations with traders were particularly valuable for documenting how particular markets and livelihoods had changed over time, and the implications of these changes for local people. The interviews included policy planners, research officers, seed technologists and extension officers from Ministry of Agriculture; seed production managers, managing directors and seed marketing officers from seed houses; lecturers, breeders, farm managers and research officers from academic and research institutions; policy makers and subject matter specialists from farmer organisations, parastatals, international organisations and NGOs, (Appendix 2). These interviews took place during the period October to December 2009. The interviews with farmers, agro-dealers and local level agricultural extension staff took place during the period February to early March 2010.

2. Rebuilding seed systems for a new agrarian setting

Since the land reform programme of 2000 a new agrarian structure exists in Zimbabwe, (Table 1). Over 7 million hectares of land has been allocated to new farmers under A1 (small-scale with household food security as primary objective) and A2 (medium scale with commercial objectives) units. This redistribution of land has dramatically changed farming operations. This new-look commercial sector is characterised by lower capitalisation, fewer assets, limited access to credit, and given the economic conditions prevailing over the last decade, often an inability to invest in increasing production (Sukume nd). Most of the production is based on dry-land farming without irrigation and is therefore subject to large inter-annual variability. Most of the new farms have mixed production systems, including multiple cropping and livestock enterprises, although cereal production, especially maize, remains an important component. Unlike the former commercial farms, a substantial proportion of cereal production is now for home consumption and with a smaller proportion sold to the market.

While the statistics are notoriously unreliable, especially in the recent past, estimates of total national

Table 1. National land distribution pattern (ha)

Sector	1980	1999	2007
Communal Areas	16,400,000	16,400,000	16,400,000
Agricultural land			
Medium Scale Farms	1,400,000	2,00,000	2,400,000
Large Scale Farms*	15,500,000	11,800,000	5,000,000
Resettlement	-	3,700,000	7,900,000
State farms	300,000	300,000	300,000
Sub-total	17,200,000	17,200,000	15,600,000
Urban land	196,000	250,000	250,000
Parks/forests	5,800,000	5,800,000	5,800,000
Total	39,596,000	39,650,000	38,050,000

*- Includes Agro-industrial farms, conservancies and downsized farms

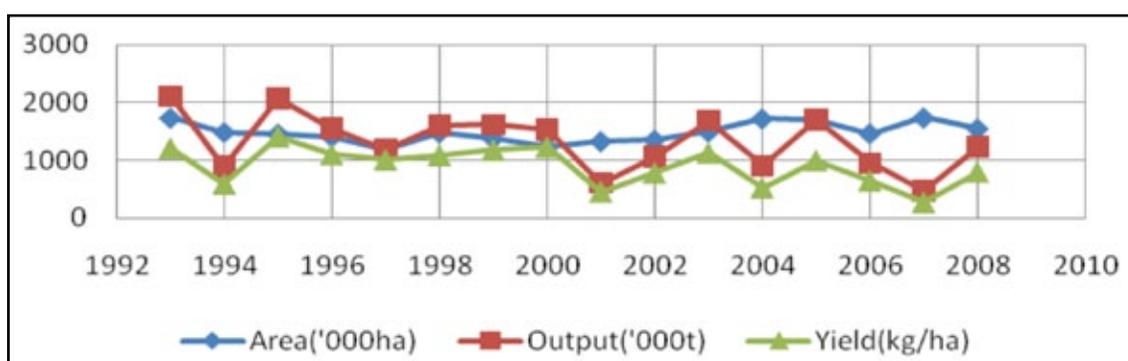
Source: Moyo and Yeros (2005); Utete (2003); Moyo (2000)

Table 2. Cereal production 2000/1 to 2008/9 compared to 1990s averages ('000 tonnes)

Crop	1990s Average	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Maize	1668.6	1476.2	1526.3	929.6	1058.8	1686.2	915.4	952.6	575.0	1242.6
	% Change	-11.5%	-8.5%	-44.3%	-36.5%	1.1%	-45.1%	-42.9%	-65.5%	-25.5%
Wheat	219.3	250	325	213.0	122.4	135	134	150	75.0	38.0
	% Change	14.0%	48.2%	-2.9%	-44.2%	-38.4%	-38.9%	-31.6%	-65.8%	-82.7%
Small Grains	50.01	90.7	99.6	35.8	131.2	196.1	128.6	138.6	93.2	270.2
	% Change	81.4%	99.2%	-28.4%	162.3%	292.1%	157.1%	177.1%	86.4%	440.4%

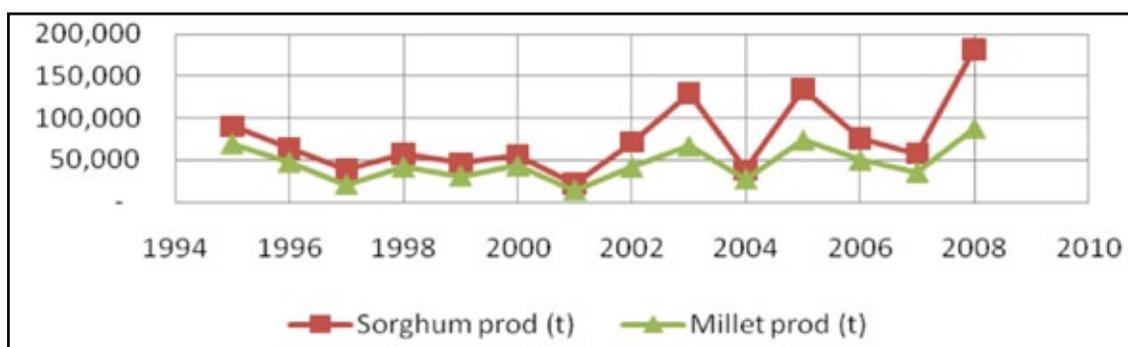
Source: Adapted from Mujeyi (2010); Moyo (forthcoming)

Figure 1. Maize production trends, 1993/4 to 2008/9



Source: Central Statistics Office (2009)

Figure 2. Sorghum and millet (pearl and finger) production, 1995/6 to 2008/9



Source: Central Statistics Office (2009)

production of cereals show some important patterns (Table 2). Total maize production has declined from the 1990s averages, while small grains (sorghums and millets) have increased substantially (Figures 1 and 2). This reflects the removal of large-scale commercial production of maize through land reform and the growth of the smallholder sector. While large-scale producers have not provided the majority of maize production since the 1970s, they did provide a significant quantity that offered a buffer against the variability of production from the smallholder communal areas. The smallholder has dominated overall production since the 1980s, although with high inter-annual variability.

Beyond patterns of overall grain production, the land reform had, at least initially, a major impact on the production of seed. Zimbabwe had been a major seed producer, with a well-developed private sector and a distinguished history. Adoption of hybrid maize varieties

in the smallholder sector had risen to 90 percent by the 1990s, and more than 16 companies were producing improved seed at an average production of 3,000 tonnes per annum (Langyintuo et al. 2008; Rukuni 2006). Maize was the major focus, although there was some production of sorghum, especially linked to demands from the brewing industry. Although for maize, annual commercial sales of hybrid maize seed fluctuated between 28,000 and 32,000 tonnes, the estimated total demand for improved hybrid seed was estimated at 35,000 tonnes per annum, with the balance being made up by carryover seed (GOZ 2003). This was based on the planting of 1.4 million hectares at 25kg application rate per hectare.¹ Much of this seed was produced on a network of large-scale commercial farms. These were distributed across most of the maize producing areas in the country. For example, Seed Co., the dominant company in the sector, had 400 growers. This was backed by dedicated farms

Table 3. Selected maize indicators in Zimbabwe in the 1990

Indicator	Measure
Maize area – 1990s average	1.4 m ha
Improved maize adoption – 1997	90% for hybrids 9% for hybrids
Improved maize seed sales 2007 (1000 t)	35
Registered maize seed companies	21
Average production of seed per company (tons)	3122
Seed Act	Yes
Plant Variety Protection	Yes
Variety Registration	Yes

Source: CIMMYT (1999)

owned by the seed companies, including Rattray Arnold Farm, Agricultural Research Trust Farm and the University farm. There was a well developed regulatory framework, including a Seed Act, Plant Variety Protection and Variety Registration overseen by Seed Services of the Department of Research and Specialist Services.

All this changed following the economic collapse that Zimbabwe suffered, starting from 1997. By 2010 there were just over 10 companies selling seed in Zimbabwe, with a total production of 20,000 tonnes (Sperling et al. 2009). As a result, a large amount of seed had to be imported. In 2009, between 15,000 tonnes and 20,000 tonnes of maize seed was imported through formal channels, while a substantial additional amount was imported illegally across borders. (Table 4)

Local seed production had to be rapidly transformed following land reform. This entailed setting up a new network of seed producers on small-scale plots. This has increased costs of supervision and quality control, although an effective system is emerging. By the 2010 season, Seed Co had 170 growers, down from 400 when the industry was doing well, all², based in A2, A1, and communal areas, Pioneer had 40 growers down from close to 150 when the industry was doing well³.

Another effect of the economic decline over the last decade or more has been the collapse in the seed delivery system that had evolved in previous decades. This was based on a large network of agro-dealers, the village retailers who sell seeds, fertilisers and farm tools, which private companies linked to. This network was highly effective in delivering quality seed at competitive prices to often remote rural areas. In 2000, 374 wholesalers and 2,057 agro-dealers were registered with the Seed

Services. By 2010, less than 100 wholesalers and only 300 agro-dealers were registered with most linked to larger supermarkets and other larger retailers, and the majority located in urban centres rather than rural areas⁴. A combination of hyperinflation, the operation of a cash economy and arbitrary price controls imposed by government and enforced by the security services meant that many businesses collapsed. They have not yet revived and, as highlighted later, elements of the current 'recovery' programme are undermining this further.

During the period 2005 to 2009, most farmers relied on informal seed systems. This involved a growth in seed saving, and significant decline in the use and yearly purchasing of hybrid seed. Seed reuse, and particularly the growth in open pollinated varieties (OPV) of maize seed has been significant. Over this period the over 90 percent adoption rate of hybrid maize in the smallholder sector declined to 80 percent, with a growth in OPV seed use increasing to 30 percent of the area planted to sorghum, and 27 percent of the area planted to pearl millet in Zimbabwe (Sperling et al. 2009). In addition, there has been a growth in demand for sorghum and millet seeds, mostly supplied through informal systems. Informal systems have extended to largely illegal imports of seeds of variable quality from South Africa (Sperling et al. 2009; Langyintuo et al. 2008; Mano 2006).

Today, there are new farmers with new demands, combined with a new supply environment based on a restructured private sector. No one quite knows what the future demand for high quality seed will be, what varieties will be required, in what amounts and in which seasons. The business environment for seed production and delivery remains uncertain as, despite the

Table 4. Maize seed production/sales and imports over time

Season	Seed produced/sales	Imports
2002/03	45 000MT	
2003/04	22 000MT	13-18 000MT
2006/07	43 000MT	
2007/08	50 000MT	
2008/09	32 000MT	
2009/10	22 672MT	15-20 000MT

Source: Munyuki-Hungwe and Matondi (2006); Moyo (2000)

dollarization of the economy in 2009 and the abolishing of inflation, cash constraints and political uncertainty remain major concerns.

There have been concerns about getting agriculture moving again in the country especially in order to counter food insecurity. Both government and donors/NGOs have initiated huge programmes aimed at boosting seed supply through major deliveries of subsidised seed. These are constructed on the assumption that there is a major seed shortage in the country. The supply gap was estimated at between 15,000 and 20,000 tonnes in the 2009/10 season. Although a major seed assessment questioned this assumption and pointed to the ability of the informal system to deliver seed in reasonable quantities as had happened in previous seasons (Sperling et al. 2009), both government and donors/NGOs went ahead with massive programmes of seed acquisition and delivery as part of 'emergency' and 'relief' programmes. While there were deliveries of sorghum and some other crop seeds, the majority of seed delivered was hybrid maize. In the 2009/10 season, for example 6,800 tonnes of improved maize seed were delivered by relief agencies to 742,000 households covering communal areas, while government had a parallel programme which delivered close to 16,000 tonnes (Table 4).

A number of important thought-provoking questions which will not necessarily all be answered in this paper, centred on issues of political economy, arise from the foregoing analysis of the current situation. These include:

- How is seed demand estimated and how are seed gaps constructed through what processes?
- What are the political, institutional and commercial incentives that generate a 'crisis' response mode?
- How has government and donors/NGOs justified their interventions?
- What are the politics of patronage associated with such seed distribution efforts?
- Who are the supposed beneficiaries of such programmes, and how is targeting designed?
- Who wins and who loses from such programmes?
- Do such programmes enhance or hinder a broader rebuilding of the seed system?

These are challenging questions, which highlight some important political dimensions to seed policy in Zimbabwe. In order to understand the dilemmas and issues faced, it is important first to delve into the historical background which affects how these debates play out today. Later the paper turns to an examination of the politics of seed supply and delivery in recent years, and identifies some of the challenges ahead if Zimbabwe's seed system is to be rebuilt for the post-land reform era.

3. Historical perspectives on the agricultural sector

Zimbabwe's seed policies in the recent crisis and post-crisis period have been influenced heavily by its past, making it imperative to view the seed sector developments in a historical context. Agricultural policy during the colonial period focused on acquiring land to settle white farmers in the high potential areas (Rukuni 2006).

This policy was supported by a system of laws and controls to ensure whites maintained a monopoly of economic and political power through land allocation, research and technology, marketing and service institutions and pricing policies.

Overriding views on agricultural development were based on a modernisation narrative and as such the Native Land Husbandry Act of 1951 was implemented in order to modernise and transform African agriculture (Duggan 1980). This narrative has often come to define understandings of agricultural development in Africa, in relation to technology (and a shift from 'backward' to 'modern' practices), markets (and a shift from self-provisioning to market based production and consumption) and economic productivity and growth (and a shift from 'subsistence' to commercial farming) (Scoones et al. 2005). The Departments of Agricultural Research and Extension were tasked to achieve this modernisation of agriculture and they set the research agenda which pushed hybrid-oriented maize research in the country.

The needs, aspirations and objectives of white settler farmers, an important political constituency for the colonial and apartheid state, greatly influenced these agricultural institutions (Herbst 1990). Two decades of sustained investment in agricultural research laid a foundation of a maize production revolution in the 1950s. The 'white agricultural policy', launched in 1907 promoted commercial farming through reliance on a wide spectrum of imported seed for maize and wheat (Arrighi 1967). These imported seeds and agricultural knowledge through colonial connections helped frame knowledge and practice in particular ways, and so came to shape how notions of agricultural production and seed production were deployed.

Maize was the main crop that received attention from the government because it was considered as a commercial and food crop, a situation which is still evident even today. Minimal research was done to other crops (outside estate crops such as sugar, tea and coffee which were supported through different routes) and there was very little research support for smallholder agriculture whose problems were largely viewed as non-technical (Rukuni 2006; Tawonezwi and Hikwa 2006). A combination of increased population pressure in the native reserves around the mid 1920s and the rise of educated black elites who were starting to offer minimal resistance forced an attempt in 1926 to improve smallholder agriculture.

Sanctions were imposed on Rhodesia by Great Britain and the United Nations after it announced a Unilateral Declaration Independence (UDI) from Britain which was deemed illegal. With that announcement came the loss of the British market for tobacco which had become the most important export crop for the country then. According to Rukuni (1994), the government started to support its economy through a number of ways including crop diversification schemes to reduce its dependence on tobacco. Research on diversification led to the expansion of other crops, including maize.

Poverty in rural areas had its roots in both the dispossession that helped create the dualistic agricultural

structure and in the discriminatory manner in which the agricultural sector was run. This helped fuel support for the liberation struggle that was to come in Zimbabwe. At Independence in 1980, the government followed a socialist philosophy characterised by strong government intervention in the agriculture sector. This resulted in a powerful and well-staffed ministry with considerable financial autonomy and substantial clout in national politics, through patronage. Investment in smallholder agriculture at this stage started paying dividends, as observed by Muir-Leresche (1984). The smallholder farmers saw increased returns to maize and cotton production which provided ingredients for a mini-agricultural revolution.

The private sector, strongly associated with colonial exploitation, was not trusted by nationalist leaders (Dorward et al. 2005). The successful Asian model of the state-led Green Revolution was often seen as a reference to the potential of a well-coordinated and well-funded centrally-run, state effort. It is however argued that contrary to their objectives, agricultural and other economic policies implemented at that time in Zimbabwe as well as in the rest of Africa discriminated against agriculture (Birner and Resnick 2005). Furthermore, the policies discriminated against the interests of the peasant economy and the rural poor (Lipton 1982), with well-organised urban constituencies influencing the government towards policies with 'urban bias' (cf. Bates 1981; Lipton 1982).

The new government maintained the UDI's regime of cheap-food policy and increased consumer food subsidies. The government introduced minimum-wages which tended to increase the demand for manufactured foods like bread and vegetable oils. As noted traditional export crops were discriminated against through overvalued exchange rates (Bates et al. 2007; Cabral and Scoones 2006; Roe 1995). These rates, however, ensured cheap inputs for domestic manufacturing urban industries while subsidised inputs and grain marketing boards guaranteed high food production at low prices for urban consumers. As a result, overall agricultural production declined, agricultural exports stagnated and dependence on food imports increased, all while the fiscal burden of inefficient parastatals became unsustainable. This gave prominence to the narrative of government failure and opened ground for structural adjustment programme.

Despite the said socialist philosophy, the government maintained a dual agrarian structure of commercial and communal farmers with its inherent biases and assumptions. This thinking was influenced by agricultural development theories sponsored by powerful institutions such as the World Bank, who emphasised the need to transform existing systems of production and move them towards a modernised, business-oriented, 'new' agriculture (World Bank 2007).

In 1981, the two agricultural institutions that formerly provided agricultural services according to race, the Department of Conservation and Extension (CONEX) and the Department of Agricultural Development (DEVAG) were merged into the Agricultural, Technical and Extension Services (AGRITEX). The merger was to make

the new department more inclusive thus enabling the smallholder communal farmers access the services and so reflect a more unified approach to extension. The Department of Research and Specialist Services introduced on-farm research, surveying communal lands (Tawonezwi and Hikwa 2006). There was a growing relationship between research, service institutions and smallholder farmers. This resulted in a notable boost in maize production, demonstrating that with appropriate support in various areas like service institutions, pricing and technology, smallholder farmers can contribute positively to aggregate supply.

Zimbabwe entered its second decade of independence facing great challenges of poverty and unemployment (GOZ 1991). These factors combined with a declining GDP forced Zimbabwe to adopt Economic Structural Adjustment Programme (ESAP) in 1991, although rather cautiously. The liberalisation narrative enforced the withdrawal of state from agriculture through downsizing and streamlining of the Ministry of Agriculture, which was not supposed to have direct interference in agricultural production and marketing activities but play a more regulatory and private sector enabling role. Thus the locus of patronage and power shifted to new locations, with the Ministry of Finance and the Central Bank being now at the centre of the reform process and financial resources being directed to new spending priorities in line with the structural adjustment process.

The said reforms did not produce the expected results of substantial agricultural growth needed to drive rural poverty reduction and increase food security (Dorward et al. 2005). Instead smallholder food crop producers were particularly penalised – 'the food crop sector tends disproportionately to include the poorest and most remote smallholders who have lost access to crucial inputs during the process of market liberalization' (Birner and Resnick 2005: 297). The private sector did not move into the spaces vacated by the state, and agricultural markets did not blossom as was expected from the macroeconomic stabilisation and structural adjustment measures (Friis-Hansen 2000).

The Economic Policy Framework of Zimbabwe from 1995 to 2000 was a reaction to the failures of ESAP. The government made a follow-up proposal which was called the Zimbabwe Programme for Economic and Social Transformation (ZIMPREST), which was never implemented as it failed to attract funding. Meanwhile the economy continued to decline from 1997 following the sudden, unbudgeted payouts to war veterans in 1998, support for the war in DRC and capital flight due to differences with aid agencies (Munyuki-Hungwe and Matondi 2006). There were increased political and labour conflicts throughout the country during this period, owing to income declines and an increase in poverty among the poor and middle classes. The failure to master resources at the 1998 donors' land conference, the rejection of the draft constitution in 2000 and the land occupations that followed further weakened the already fragile economy and resulted in the government taking a hard stance which resulted in fast tracking the land reform

(Munyuki-Hungwe and Matondi 2006). A number of factors contributed to hard-line stance taken by the state for the compulsory land acquisition which are the stalling of the negotiations over ZIMPREST with IMF, the renegeing of British government on their promises and sudden appearance of war veterans as a powerful force demanding improvements in their standards of living and resettlement to be speeded up (Munyuki-Hungwe and Matondi 2006).

For much of the past hundred years the political economy of seed systems in Zimbabwe was structured by the dualistic agricultural system. This system was first introduced by the colonial government when they put forward a policy similar to apartheid that promulgated separate development for ethnic races (Rukuni 2006). Post-Independence, the new government inherited and maintained the same dualistic agrarian structure of commercial and communal farmers with the unintended consequences of entrenching the rift between the two, and further alienating smallholder farmers from commercial seed production. All this had a bearing on how the evolution of seed system in the country took place as further explained in the following section.

4. Evolution of seed sector

Zimbabwe's agricultural political economy has been deeply affected by this history. From the colonial era through the first decades of Independence, the political importance of the large-scale commercial sector has influenced how the seed systems have evolved. This has affected research and development priorities, the business models of the private sector and the wider policy environment. Since Independence the importance of the small-scale sector has been increasingly acknowledged in policy, however the fundamentally dualistic nature of the agricultural sector continued to distort perceptions and priorities thus never allowing the small-scale sector to receive the attention it deserved.

In the Economic Structural Adjustment Period (ESAP) of the 1990s, the emergence of a vibrant local commercial seed sector played a role in structuring the political economy of seeds in Zimbabwe. This seed sector was built on decades of public and private investment and has relentlessly promoted hybrid maize, such that adoption has been widespread, even in marginal areas where small grain crops often perform better. Government extension has often followed a similar line, with maize being promoted as the food security crop for the smallholder sector.

Seed production in Zimbabwe was initiated in 1940 when the Southern Rhodesia Seed Maize Association was formed by a small group of commercial farmers (Weinmann 1972). Its objectives were to produce certified maize seed and provide members with advice on the best methods of seed production. Other associations and seed schemes were subsequently established for sorghum, wheat and barley. Seed Company of Zimbabwe Limited was an amalgamation of members of the various seed associations (Havazvidi and Tattersfield 1994). All the seed associations established formal agreements

with government regarding the use of varieties by government and research boards.

Agreements for maize were drawn up as early as 1970, while agreements for other cereals did not occur until a decade later. The Tripartite agreement for maize was drawn up in 1970 between Ministry of Agriculture, the Seed Maize Association and the Rhodesian National Farmers' Union (Rukuni 2006). According to Havazvidi and Tattersfield (2006), the Bipartite agreement for wheat, barley and sorghum was drawn in 1981 between the Ministry of Agriculture and the Crop Seeds Association. These legally binding agreements required the government to release breeders' seed only to the government owned Seed Co for further multiplication to foundation and certified seed. The government supplied seed varieties, established official seed certification and legislated for plant breeders' rights and also passed legislation to control and organise the industry (Havazvidi and Tattersfield 2006). This marked the beginning of the Seed Co monopoly in hybrid seed production together with the tight association with its contracted large-scale farmers.

According to these authors, the important features of these agreements were:

- Exclusive access to government-bred inbred lines and varieties for seed production by the associations
- Availing to government of benefits and results of any plant breeding by the associations
- Holding of a strategic seed reserve of at least 20 per cent of hybrids and planning for surplus production of 30 percent of non-hybrids by the associations
- Ownership retention of varieties under the Plant Breeders' Rights Act of 1973 Government while maintaining associations as sole licensees
- Government would control seed prices after consultations with associations and Farmers' Unions

The Seed Act of 1965 legalised the instruments required to monitor production and marketing of seed including the rules, procedures and standards for seed certification. The scheme was later revised in 2000 to prevent the marketing of inferior seeds, making the government the sole certifying authority registering and certifying all seed before it is released for commercial use⁵. The emphasis of this piece of legislation is procedures, standards and quality, and relates to the commercial production of seed rather than informal seed production among farmers. The Plant Breeders' Act of 1973 enables persons or organizations to protect the ownership of varieties bred either or outside the country. Breeders' protection is enshrined at home in legislation; however, it remains silent about the persons who provide the land races (CTDT 2009).

Thus the legislative framework for Zimbabwe's seed system focuses on the commercialisation of high quality hybrid seed. Through the Tripartite agreement in particular a very close relationship existed between public breeding, commercial companies and the large-scale commercial farming sector. The formal seed system was thus designed for a particular group, with particular interests, largely excluding the needs and rights of small-

holder farmers, informal seed systems and non-commercialised varieties and landraces.

The trade liberalisation policy during ESAP contributed to the emergence of even more seed companies. From the 1980s, the government partially liberalised seed certification and Pannar, Cargill and Pioneer companies started seed certification together with the Seed Co. In spite of competition, Seed Co maintained 80 to 85 percent market share of seed maize and 90 to 95 percent of wheat (Havazvidi and Tattersfield 2006). The remaining 10 to 20 percent was divided among Pioneer International and Cargill/Monsanto which are both American based, Pannar which is South African based and two Zimbabwean-owned seed companies, National Tested Seeds and the Africa Centre for Fertiliser Development.

In 1992 the Tripartite agreement was annulled (Havazvidi and Tattersfield 2006). At the termination of the agreements, the government issued royalties on the use of government-bred varieties in order to source funds for its research and development. The government also sought to increase seed production of its parastatal, the Agricultural and Rural Development Authority (ARDA), as a way of improving seed security and stabilise seed prices.

During the 1990s the economics of seed use changed, with hybrid seed increasingly becoming unaffordable to many (Rukuni 2006). Many farmers started to recycle the seed with the advantages of hybrid vigour lost⁶. In 1985, the government formally approved the release of certified open-pollinated varieties (OPVs) after much debate. Some emerging seed companies that were focusing on producing and distributing Kalahari Early Pearl maize OPV seed were banned from doing so, as it was deemed a threat to the seed industry (Utete 2003). Seed Co., National Tested Seeds (NTS), Agri Seeds and Pannar produce open-pollinated maize variety seeds mainly for export to regional markets, mostly Mozambique and Angola. For many decades, seed companies had a captive market for hybrids with high adoption rates. However, significant lobbying from farmer groups, researchers and NGOs saw a number of improved OPVs released and accepted, with some becoming commercial successes⁷.

By the end of the 1990s, a liberalized market existed for seed production. While this was still dominated by hybrid maize seed, a wide range of varieties were available on the market, some suited to dryland conditions. In addition OPV seed was accepted and became available beyond research and NGO projects. While the large-scale commercial sector remained an important segment in the seed market, especially for maize, its production of maize declined from the 1980s. This continued significantly into the 1990s when farmers diversified into higher value products, such as horticulture, flowers, wildlife and other commodities (Utete 2003; Moyo 2000). This meant that the smallholder sector was increasingly being targeted, and the growth of the agro-dealer network in this period was dramatic, meaning seed was available across a wide area (Jayne et al. 2005).

As structural adjustment affected the economy, issues of affordability were increasingly raised and reliance on

local seed systems became more important (Rukuni 2006).⁸ A range of NGO-led projects in this period encouraged farmer-to-farmer seed exchange, seed fairs and local agro-biodiversity protection, increasingly with a focus on sorghum and millet as key food security crops, especially in vulnerable dryland areas (Monyo et al. 2003). The sorghum and millet initiative was in response to the major droughts in the early 1990s where seed supply was affected. While some projects succeeded in improving local seed systems, attempts by government and donors to import seed resulted in the distribution of inappropriate varieties as part of seed relief programmes which had damaging effects on local seed varieties (Takavarasha et al. 2005).

At the end of the 1990s, a well developed formal seed system existed in parallel to an increasingly recognized and supported informal seed system. This all changed following 2000 when there was a dramatic collapse in the private sector capacity for seed supply and distribution. The radical restructuring of the agricultural sector following land reform means a major challenge exists today for rebuilding seed systems in Zimbabwe.

In the following sections, the paper examines the emergence of a strong dominant narrative in policy thinking focused on the supply of subsidised seed through centralised programmes. This defines a core narrative, shared by a variety of actors. As indicated earlier, policy narratives define a problem, explain how it comes about, and show what needs to be done to put it right (Keeley and Scoones 2003; Roe 1994; 1991). In the following sections, the paper asks: what policy narratives have defined debates about Zimbabwe's seed system, and what are the policy debates that flow from this? What alternative narratives are hidden or obscured by more dominant and powerful narratives?

The next section examines the period from 2000-2009, and particularly the 'command agriculture' approach witnessed from 2005. Subsequent sections look more specifically at the 2009/10 season and the influence of a dominant narrative about seed supply/relief in the emergency, humanitarian and crisis response. The last sections then examine alternative narratives and the contrasting policy implications that arise.

5. Command agriculture and government schemes: policy from 2000-2009

Before moving to the challenges faced in 2010, it is worth recalling briefly the policy environment for economic recovery that prevailed in the decade from 2000. During the period 2000-2002 the government implemented the Millennium Economic Recovery Programme (MERP) with the aim of restoring macro-economic stability and restoring international cooperation, but this programme was overtaken by events following the Fast Track Land Reform Programme (Munyuki-Hungwe and Matondi 2006). There was another failed attempt to resuscitate the economy during 2003-2004 through the National Economic Recovery Programme (NERP). This programme

had a greater bias towards agriculture, with a number of subsidies to the agricultural sector and support to the informal sector. NERP targets were not met and the economic meltdown continued.

Realising that the attempts to resurrect the economy were failing, and agriculture was in a desperate situation, with the resettlement areas unable to perform as expected due to shortages of inputs among other constraints, the government devised a series of programmes to redress the situation. The government launched Operation Maguta in November 2005, spear-headed by the military, aimed at boosting food security and consolidate national strategic grain reserves through a 'command agriculture' approach. Under this scheme, farmers were given inputs including seeds in order for them to grow targeted crops such as maize and wheat. The programme was mainly targeting model A2 resettlement schemes and the Agricultural and Rural Development Authority (ARDA) farms. The farmers were required to pay back after harvesting their crops at an interest rate 50 per cent, but with an option of paying with produce through the Grain Marketing Board (GMB) or with cash. The GMB input scheme facilitated access to inputs, including seeds, to farmers by dispatching the inputs to GMB depots countrywide. Until February 2009, the Ministries of Finance and Industry and International Trade used to set the prices for the different inputs GMB sold to the farmers. The prices of inputs are heavily subsidised. From 2004 to 2008 the policy regime in Zimbabwe was coordinated through the Reserve Bank of Zimbabwe. Increasingly desperate, the Bank's enigmatic governor resorted to a cash budget and began printing money on a massive scale in order to fund increasingly erratic and poorly thought out programmes (Rusike and Sukume 2006; Sukume nd).

This policy environment, increasingly politicised and militarised, created bottlenecks through government's monopoly of seed system resulting in the collapse of most registered seed distributors a situation that led to artificial shortages in the formal markets and encouraged a growth in rent-seeking behaviour. Final distribution saw a lot of partisan politics at play, where most of the seed went to those people that were politically connected.

Gideon Gono, Reserve Bank Governor, noted in his January 2009 Monetary Policy Statement that:

As is the case in any environment where economic fundamentals are constrained, price controls rife, with pricing distortions the order of the day, the prevalence of corruption is inescapable. Corruption does not only retard overall economic recovery due to its generation of disincentives for genuine economic processes but it also imposes a dead-weight loss to society through phenomenal increases in transactions costs on the back of the attendant corruption levies and premiums⁹.

Boosting production, securing food in the face of economic challenges and assumed outside threats was seen to be a political imperative. It resulted in substantial investment in seeds and fertilisers. Over the period between 2005 and 2008, a substantial quantity of maize

seed and fertilisers was delivered as part of Operation Maguta and the subsequent Champion Farmer programme. At a time of a severe lack of government resources, this was a substantial commitment.

As already mentioned these programmes suffered many design failures, and the impacts were poor. Numerous cases of corruption were reported in the press, including a farm inputs audit task-force that was established after reports of rampant abuse of farming inputs by top officials. Currently, the court cases remain outstanding. The next sections look more specifically at the 2009-10 season and the influence of a dominant narrative about seed supply/relief in the emergency, humanitarian and crisis response.

6. The beginnings of economic recovery and an inclusive government: the 2009/10 season

Following the Global Political Agreement between the different parties in 2008 and the establishment of the Inclusive Government of Zimbabwe in 2009, the economy was dollarised and the rampant inflation was tamed [peaking in some estimates at 230 million percent at the end of 2008 (Berger 2008)]. The new economic environment is substantially more conducive to private business, but political uncertainties have continued to undermine economic stabilisation. It is in this very difficult environment, with a decade of economic mismanagement, an extended period of political uncertainty, and a new agrarian structure, with which the challenge of rebuilding Zimbabwe's seed system must be undertaken.

Many critiques have considered agricultural policy in the period from 2000, and especially from 2005 (Marongwe nd; Kinsey 2008; World Bank 2007; Sukume 2006), with most criticism focused on the issues of delivery, corruption and financial mismanagement. There has been little questioning of whether providing subsidised/free seed to farmers makes sense. Was there really a seed supply shortage of the scale assumed, and would a massive subsidy programme help rebuild the sector, or in fact undermine this process?

The seed system security assessment in Zimbabwe by Sperling et al. (2009) found that the informal seed sector was both resilient and dynamic. Farmers are generally seed secure and have developed resilient community seed sourcing mechanisms during stress periods when seed is not available or affordable. The assessment also found that the informal sector supplies were abundant after the 2008/09 season and that social networks of exchange remained strong and continued to function during the rest of that season. Processes such as participatory variety selection, on-farm trials, cross-border trade and seed fairs have helped to keep the informal sector dynamic and supplied with an injection of new varieties. Sorghum, pearl millet, OPV maize and other grains constitute the bulk of crops that are important in the informal seed sector in Zimbabwe. Except for maize, the informal sector supplies over 95 percent of the seed farmers sow.

The assessment showed that, in fact, massive direct seed aid to farmers will hurt agro-dealers and 'short circuit' a natural business. While most of the major seed companies are still operating in Zimbabwe, they are doing so at much reduced levels compared with 10 years ago. These findings could be helpful in jump-starting the recovery of the agricultural sector. This potential for recovery is fragile, and the sector needs to be encouraged with the right kind of relief programmes that promote rather than compete with the formal seed sector and retail networks. These findings give an important opportunity to re-establish the formal seed sector and related retail market networks in the country.

The findings by Sperling et al. (2009), along with additional questions raised by NGOs and others about the appropriateness of a focus on hybrid maize in a drought-prone setting were ignored by the new government, as well as donors and other NGOs eager to reengage with Zimbabwe. There were numerous seed initiatives that began in 2009 by both the government and NGOs. All offered the similar narrative that there is a major shortage of seed which is constraining the ability of farmers to produce, as part of a national objective to boost food security, getting seed to people is the main priority and that the response should be subsidised seed packages (mostly hybrid maize and some OPVs). Interestingly the narrative that emerged in 2009 was remarkably uniform, and not hugely different from the justifications used by the Reserve Bank of Zimbabwe (RBZ) for the Maguta and Champion Farmer programmes.

The FAO announced in June 2009 a Smallholder Crop Production Support Programme 2009/2010; which would support at least half of Zimbabwe's estimated 1.2 million communal farm households in the 2009/10 with their staple cereal production. With US\$119 million in funding, two components the programme were to provide support to 600,000 communal farmers for the production of about 600,000 hectares of cereals. Covering entire communities in food insecure communal areas, input distribution was complemented by coordinated extension services. This programme, aimed to procure and distribute an estimated 15,000 tonnes of seed and 120,000 tonnes of fertilizers through contracted implementing partners. Of this, about half the seed was maize, with 90 percent of that as OPV and the remaining 10 percent hybrid (FAO et al. 2009). Delivery of inputs was

through NGOs including CARE, Christian Care, CRS, WVI, among many others.

The other component to this initiative was Seed and Production Protection, estimated at US\$23 million. Under this initiative the WFP provided food aid, enough for one to two months at the same time as seed distribution to the most vulnerable farming households in order to prevent seed consumption (FAO et al. 2009). Project documents from FAO, IFAD and some NGOs stated that 'evidence gained in recent years, particularly during the 2008/09 production season, shows that substantive production gains can be realised when key inputs (seed and fertilizer) and extension support are provided to communal farmers in a timely manner, together with effective coordination of activities' (FAO et al. 2009: ii).

The government announced in August 2009 a major Smallholder Farmer Input Support Programme for Food Security with US\$55.5 million for local seed and fertilizer suppliers and a further US\$ 45 million subsidized input seed and fertilizer programmes (MoA 2009). The target was to provide inputs sufficient for 0.5ha to 1 million households who have labour to work the hectares in communal areas. The inputs requirements for the programme were 8,684 tonnes maize seed; 1,730 tonnes small grain seed; 89,652 tonnes Compound D; and 80,089 tonnes Ammonium Nitrate. This would be provided at an estimated cost of US\$111.4 million (MoA 2009).

The government further announced a US\$210 million seed and fertilizer voucher facility for farmers in A2/large scale farming areas with offer letters or title deeds as collateral to banks. The Agricultural Bank (AGRIBANK) and the Commercial Bank of Zimbabwe (CBZ) were the main banks through which this was being done. The way this was working was that farmers presented their collateral for the inputs they wanted at the bank; they would get given vouchers redeemable at the GMB (MoA 2009).

Another programme of assistance was the US\$10 million Presidential Well Wishers Programme comprising maize, sorghum rapoko (bulrush millet) and bean seed together with basal fertiliser. And finally the SADC Agricultural Assistance Programme supporting Communal, Old Resettlement and Small Scale Commercial Farming with leftovers from last season was also part of the input support programmes in the 2009/10 season.

Thus, two main focuses to the initiatives emerged – one from the donors and another from government. The former focused on communal areas, while the latter

Table 5 Comparison of the government and donor programmes in the 2009/10 season

Indicator	Government Programme	Donor Programme
Participants	Ministries of Finance and Agriculture, AGRIBANK, Commercial Bank of Zimbabwe, Grain Marketing Board and AGRITEX	Donors – WB, DFID, EU UN Agencies – FAO, WFP NGOS – SCUK, Christian Care, CTDT, CADS
Support	Technical support from AGTITEX	Technical support from NGOs working closely with AGRITEX
Delivery	Central government, banks and service departments and parastatals	Through NGOs
Target	A2, A1 units mostly and communal areas	Communal area farmers

continued the earlier focus on new resettlement areas. While each programme had similarities in overall objective, and justified interventions on the basis of a seed deficit, there were major differences in organisation, targeting and wider politics. (Table 5)

Looking at each of these actor groupings that have defined seed policy over the recent past, but in particular the 2009/10 season, it can be noted that the government programme became more technically focused, linked back to the MoA/AGRITEX, financing through loan facilities from banks using vouchers allowing more focus and less corruption. This was a significant departure from the configuration of actors that had defined seed policy from 2005 to 2008. During that time, the government programme was highly politicised, centrally controlled, with limited technical input, being financed through printing money and focused on political objectives. This gave large scope for rent seeking, corruption and leakages (illegal sales, diversion of seed, export etc.). The donor programme on the other hand is also very similar to the government programmes; however, operating not through the government but through a parallel structure of NGOs. The target for the donor programme is a different client group made up of smallholder farmers in communal areas and not in the so called contested areas, i.e. new resettlements.

Different forms of patronage have emerged around these schemes. Because the positioning of actors and their configuration is highly political so are the programmes that evolve. This means that targeting, defined by who wins, who loses and where seed goes, has its own political economy. Narratives shift, depending on the wider political-economic context, on the actors and on the time. For example, 2005-06 witnessed the Maguta response to food insecurity (RBZ, JOC); 2007-08 saw the Champion Farmers being targeted (the viable) and 2008-09 Government and FAO/donor facility targeting both the viable and the vulnerable.

The variation in patronage has resulted in major confusions around targeting. There is uncertainty around whether the schemes are for the vulnerable, poor and needy, for the viable, most productive who have potential, or even for those who are in line with particular politics. There is questioning around which areas are being targeted, whether it is old or new resettlements, communal land, or small-scale commercial farms. Interviews with people involved in some of these schemes highlighted the confusion. For example, an official from CARE noted that the organisation 'has implemented direct input distribution which has tended to undermine the agro-dealer programme which CARE also runs. Inputs were distributed through the same agro-dealer shops and farmers were expected to pay a token fee.'¹⁰

What is intriguing about these initiatives by very different actors with very different politics is that the broad narrative is the same. Both networks promote input-support based on assumptions of scarcity and the failure of alternative seed systems. Both rely on a top down approach for delivery and a fairly blunt approach to targeting. They are also highly prone to rent seeking/

corruption, and inevitably link and identify with local politics and patronage systems, whether blatant support to particular party supporters or favouritism of 'communities' in NGO programming. Furthermore, both initiatives have a tendency not to procure seed locally even in cases where OPV seed is available at local level.

The programmes are both allied to particular private sector interests who are very happy to be the beneficiaries of large subsidy programmes which have been referred to as 'fat cheques'. The private sector receive these without the hassles of dealing with numerous small farmers who buy small quantities, or the increased risk of transporting seed to remote areas where it is not bought. This was confirmed with various private sector participants who admitted that '...administratively it's easier to deal with a few big customers than numerous small ones, although it tends to distort the market by removing the competitiveness of local seed sellers or agro-dealers'.¹¹ Agro-dealers on the other hand bemoaned the lack of business as a result of the huge government and donor programmes, as noted by an agro dealer from Goromonzi when he said, 'We have been out of business for a long time now and have had to diversify into other products which are not agricultural because there is no space to operate. Although this season was better we managed to stock and make money with seeds, but as you can see fertilisers did not move as farmers were getting these cheap from GMB and NGOs.'¹² The result of these initiatives is seed companies neglecting their network of rural stockists and customers while donors and government are crowding out agro-dealers at local level.

7. Field realities: The dominant narrative in practice

What happens when this dominant narrative, promoted by donors and government alike, encounters the real world? What are the impacts, local debates, alternative perspectives? In this research it was not possible to undertake an extended period of field research, but a number of short trips to different sites highlighted many of the challenges from a field level perspective.

Case 1: Government programme in Goromonzi District

Goromonzi District is in Natural Region II which receives rainfall of about 1000mm which is well distributed throughout the farming season. Soils range from sandy in the communal areas to clay loams in former large scale areas. The district is made up of 25 wards (Appendix 4), 11 of which are communal, 13 are A1/A2 and one is Small Scale Commercial Farming Areas. Resettlement areas benefited from the government voucher scheme programme which was targeted at farmers in the A2 resettlement areas and the few large-scale farms which remain. Farmers would take their input requirements to the bank with supporting documentation from local AGRITEX staff where they would get vouchers that they

could then redeem at the GMB. The comments made about this programme by local AGRITEX staff was that very few people benefited; in fact they were aware of only two people in the district. Extension staff remarked that the communication about the programme was not very good, because they were not sure of what was expected of them and how it was going to be implemented, particularly latter in the season when they were being asked to report on beneficiaries of the programme. 'Implementation took very long and as a district we did not receive information on the scale of that programme in terms of either money or volumes of seeds, so when we were expected to report on the people who benefited, we did not have the information. Though we were supposed to get it from GMB, it was very difficult to do so,' observed Mr Matipano¹³.

The Subsidised Input Scheme in the 2009/10 season was implemented in communal areas, A1 resettlement areas and the Small Scale Commercial Farming Areas. Communal farmers were allowed to buy 10kg hybrid maize seed at US\$5, three bags of basal fertiliser at US\$7 per bag and 2 bags of top dressing fertiliser at US\$7 per bag. A1 farmers were allowed slightly more quantities, enough for 2 hectares as follows; 50kg maize hybrid seed; 10 bags basal fertiliser and 10kg top dressing fertiliser. The Small Scale Commercial Farming sector farmers could buy whatever quantities they wanted; they only needed supporting letters from AGRITEX. Farmers who benefited were happy with the programme but indicated that they catered for very little quantities. Farmers who did not benefit were not happy with the selection criteria and complained of favouritism in the process of beneficiary selection. A number of agro-dealers interviewed in Domboshava and Majuru Growth Points registered frustration with the input programmes as they had taken business away from them and were fuelling dependency. As noted by Mr Chiroodza from Domboshava, 'Nowadays it is very difficult to sell agricultural inputs because most people are developing a dependency syndrome on handouts and also the GMB and makorokoza (touts) sell fertilisers very cheap. We still have lots of stock despite the fact that we had very little stock to begin with.'¹⁴

The Presidential Well-Wishers Fund Input programme also took place in Goromonzi District. The district received 0.32 tonnes of sorghum, 0.32 tonnes of rapoko and 0.32 tonnes of groundnuts. This translated into 64 beneficiaries for each of these crops. The district also received 1 tonne sugar beans; 20 tonnes of maize and 30 tonnes of basal fertiliser. Comments from both extension staff and beneficiaries were that the programme was implemented very late especially regarding cereal seed as it started after the December 2009 ZANU PF Congress. Very little of the cereal seed from this programme was planted as a result. The seed was delivered to the District Administrator's office and distributed through chiefs and the local leadership hierarchy.

Case 2: NGO/donor programme in Goromonzi Communal Area

The FAO/EU programme was implemented in Goromonzi district by the Cluster Agriculture Development Services (CADS). At least 9,500 households benefited with each getting 15kg OPV maize seed; 50kg basal fertiliser and 100kg top dressing fertiliser. This was done in 8 communal area wards.

WB/DFID was also implemented in the district by Farm Community Trust of Zimbabwe (FCTZ). The programme benefited 3,000 households each getting 15kg maize hybrid seed; 10kg edible beans; 25kg basal fertiliser and 100kg top dressing fertiliser. It was generally agreed that most of the deserving households received some inputs, but reservations were made concerning quantities received and OPVs. One beneficiary said, 'If they had given us money, we would have bought the seed we are used to from Seed Co or Pioneer Seeds.'¹⁵

In both cases a similar set of issues emerged. Centralised delivery programmes in different ways created distortions. These emerged through local political struggles over access to seed, corruption around seed delivery and negative impacts on private seed suppliers. While farmers were (of course) happy to be receiving cheap or free seed, issues of the quality, timing and appropriateness of the varieties were also highlighted. Also, both appear to undermine the previous (pre-2000) seed system based on a liberalised market system which seemed to work rather well through a network of agro-dealers, with a lot of healthy competition amongst providers and delivering good quality seed at reasonable prices to the farmers.

This previous system was backed by state/donor support in a very selective and focused way through, for example, public breeding programmes. It also worked effectively alongside a local seed system which involved local networks of seed production and distribution especially for OPVs and small grains, outside the networks of the formal system. With private sector/agro-dealer and public plant breeding gone, or seriously compromised, and the informal seed systems under severe stress and not yet established in the new resettlement areas, one wonders how current interventions, whether by the government or donors/NGOs' programmes, will help in the long term. As such the strategy undermines liberalised market oriented systems, particularly small scale agro-dealers and so runs against the professed commitment of both government and donors to market led solutions.

8. Alternative narratives, different actors

Who has been excluded by this narrative that has so dominated thinking in recent years centred on subsidised seed supply, assumed to be filling a supply gap? This research has identified two alternative narratives which have often been silenced by the dominance of the government and donor push – one focused on the private sector and market-centred formal seed systems and the

other focused on farmers and informal, local-level seed systems. These are discussed in turn in this section.

The private sector

Has recent policy undermined the capacity of the private sector both to produce quality seed and deliver it? There are many actors within the private sector, including large and small companies and agro-dealers. Some of these actors have benefited from large government/donor contracts while others have lost out. An alternative narrative emerges from this group, that rebuilding the seed system requires rebuilding the private sector, but re-gearred to a new pattern of demand with the right product in the right places for the farmer of today. It's not so much a question of supplying more seed, but rebuilding the formal and informal systems for the long term; however current efforts are actually undermining this.

Actors in aid agencies, government and the seed industry are split on this alternative view. While most agree that rebuilding the seed industry is vital, the pressures to maintain an emergency approach are intense. For the aid agencies, emergency/humanitarian funding is largely the only source of funding in Zimbabwe given the on-going political conflicts and 'restrictive measures'. For government an emergency footing again suits a delivery mode which is top down and directed at immediate production targets rather than longer term development. For the seed industry, the 'fat cheques' and guaranteed markets are highly beneficial.

Some rethinking is occurring, and the likelihood of such a massive subsidy programme in future years, either from government or donors, is unlikely. In March 2010 a workshop convened by FAO reviewed the 2009/10 season input programmes and examined alternative pilots for delivering seed relief aid in more market-friendly ways. The workshop discussed how the World Bank had implemented a maize seed voucher programme with an objective to establish the commercial supply chain and restoring good market relations in the input distribution chain that is built on trust between wholesalers and retailers. The model involved contracting the

seed house, Seed Co Ltd., to provide the necessary seed to the wholesalers. The seed voucher model was viewed as a success and would likely be implemented in the coming season building on lessons learnt.

The Swiss Development Corporation had implemented a pilot voucher scheme for seed and fertilizers for vulnerable households in one district (Zaka). Households were purchasing seed and fertilizers at designated distribution points. This involved transporting the inputs to wards. Viewed generally as a success there were concerns of small coverage and sustainability of the programme given the relatively high administrative and logistical challenges of delivering inputs to the communities.

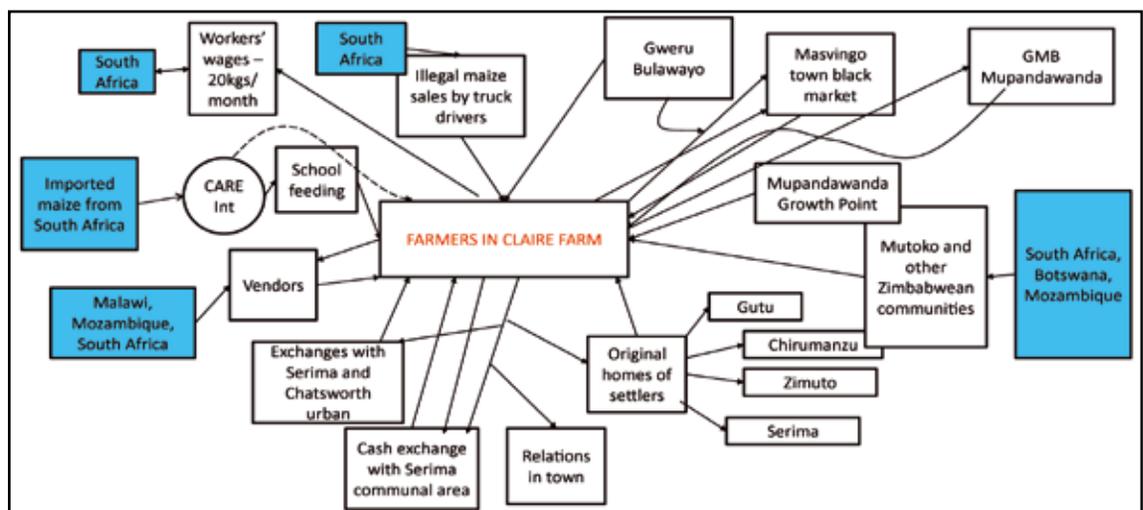
CARE implemented the Agribusiness Entrepreneur Development Network and Training (AGENT) programme to establish and support the functions of agro-dealers through such activities as training. The model does not have any input distribution but focuses on creating market linkages in inputs supply chain.

The Netherland Development Agency (SNV) implemented the Rural Agro-dealer Restocking Programme (RARP) with an objective of re-establishing working relationships between wholesalers and retailers in the inputs supply chain. The programme created the necessary trust that will allow retailers to sell inputs on consignment and was described as desirable in the face of a stable economy and more favourable to direct distributions which have been crowding out agro-dealers.

Reedan Mobile Transactions implemented a Market Linkage and E-Voucher System with an objective to increase efficiency through technology, cellphones in particular, to create tele-pay points in the rural areas where households could obtain their inputs. This was modelled after their pilot in Zambia. The E-Voucher system was described as efficient in that it allowed real-time payments to retailers and wholesalers, in case of consignments, and reduces administrative and logistical challenges of moving bulk inputs.

Even with these concessions, the wider political economy of the relief approach remains and different types of politics will undoubtedly emerge. A look into

Figure 3. Maize seed flows in Gutu resettlement areas during 2008



the political economy around these initiatives might serve as an important addition and check to the technical and economic proposals and pilots envisaged. In particular, consideration of the political economy around the relief approach to agricultural inputs provision, where 'crisis' and 'emergency' argument has been used to promote programmes of seed delivery or 'seed dumping' as others have reported it as without addressing a fundamental lack of supply is important. This fuels patronage, as certain individuals/organisations have an interest in promoting a 'perpetual emergency' which justifies funding flows and field activities.

Farmer led informal system

Another alternative narrative centres on informal systems and their support. Many ask what farmer-led informal systems might serve as the basis for rebuilding an appropriate seed system for the future?

Another alternative narrative emerges from this analysis. Rebuilding the seed system so that it is able to respond to new opportunities following land reform requires rebuilding the farmer based seed system from the bottom up. In recent times, there has been a remarkable resilience of local seed systems, despite the failures/collapse of the formal system. Informal seed systems are, however, geared to different needs and so have different products (OPVs, small grains etc.). Farmers need research support and links with private sector for multiplication.

This alternative narrative is promoted by a diverse group of actors which include farmers themselves, farmer organisations, NGOs and some institutional analysts especially those who emphasise market access and how people gain access to seeds. This group holds different positions to those having an alternative view about agricultural diversification, food security and non-maize pathways and agrees that there is need to mobilise from grass roots and strengthen local seed systems. It recognises particular needs and priorities of the informal systems, including the importance of recognition and inclusion in policy and programme design, the need for extending breeding/crop management and extension foci, and the requirement for improvement in both yield and productivity of traditional land races/varieties (offsetting the degeneration caused by regular reuse without active selection).

An interview with the NGO International Relief and Development (IRD) indicated that up to 60 percent of seed supply in their areas of operation comes through informal systems.¹⁶ Others present in a stakeholder meeting (Appendix 3) argued that it would be half of that at maximum. A study in a resettlement area in Gutu during 2008 showed the flows of maize seed (Scoones et al. 2010) highlighting the diverse ways that maize (both grain and flour) is accessed, including a huge range of informal market and non-market connections (Figure 3). The study also describes the significant amount of seed, grain and flour imported across the border, often illegally, from a variety of countries in the region.

The recent seed assessment supports this narrative, thus confirming that the informal sector is both resilient

and dynamic with a surprising abundance of seed (Sperling et al. 2009). Participatory variety selection, on-farm trials, cross-border trade and seed fairs have helped to keep the informal sector lively and with an injection of new varieties. The assessment also found that social networks of exchange remain strong functioning throughout the season, providing 10 to 38 percent of the seed sown to maize, groundnut, finger millet, cowpea, sorghum, pearl millet and bambara nut.

9. The politics of seed policy

As the previous sections have shown, a number of competing narratives co-exist in Zimbabwe's current policy debate, each suggesting different routes to rebuilding the seed system. While a dominant version is promoted by both government and donors, despite their often extreme political differences, this is countered by two alternative perspectives. The alternatives highlight the need to rebuild the private sector with all its ancillary structures for input distribution and the importance of agricultural diversification, non-maize pathways and the need to build from grassroots.

A variety of contradictions result from the various pressures at play which, depending on circumstances, can be commercial, where the aim is to sell seed in bulk through guaranteed contracts with government/donors; strategic where the intention is to find some quick fixes to food security problem and political when the aim is to secure patronage via input schemes. The current policy process centred on rebuilding Zimbabwe's seed system and agricultural sector more generally is not just a technical-economic debate but an intensely political process, driven by particular actors and networks associated with different interests.

Why is it then that a dominant narrative prevails, and alternatives are silenced, occluded or ignored? A number of themes can be identified.

- **Political instability and short-term planning.** The economic fundamentals (including credit supply, collateral security, financing, investor confidence, tenure security) had been substantially undermined in the last decade. This makes rebuilding the seed system, with the private sector at its core, very difficult – a relief orientation is easier to achieve. Uncertainty in the political setting is undermining the ability to plan for the future. Currently planning time horizons are short, and visions of the long term are very difficult to define given lack of clarity, and rapid change, in the broader political economy of Zimbabwe.
- **Influence of patronage politics.** Government/donor/NGO controlled delivery allows control and patronage (our seed, our people), buying allegiance through 'development'. The UN, donors, NGOs and government – often in separate, parallel programmes – are using an argument of 'crisis' and 'emergency' to promote programmes of seed delivery. Some see these as simply 'seed dumping' and not addressing a fundamental lack of supply. This fuels patronage, as certain individuals/organisations have an interest in promoting a 'perpetual emergency' which justifies funding flows

and field activities. Others, formally working in the policy realm, may have commercial interests in the seed sector and may directly profit from the activities being promoted. There is 'profit to be made from a crisis'.

- **A focus on techno-fixes.** Presenting the problem as a gap in seed supply suggests solving the food security/production problem is a technical challenge which can be fixed by distributing more seed and producing more food. This is a typical Green Revolution-type approach, which puts it as a simple technical challenge, not a complex political economic one. This provides a quick solution which does not look at the whole system or ascertain the long term social, political and institutional changes that are required.
- **Limited regulatory capacity.** The basic capacity to oversee the provisions of the Seed Act and other legislative provisions is weak. While this may not be the result of deficiencies in the formal legal framework which is well developed in Zimbabwe, regulatory failures do exist. These undermine the ability of the seed system to develop effectively, especially in 'emergency' situations or where seed is part of a political programme. Under these circumstances poor quality seed may be provided, and a range of side-marketing and other notionally illegal activities may be promoted.
- **Lack of policy debate.** Farmers, private sector and other actors are not part of the current policy debate. They are not within the mainstream donor and government structures. Farmers lack capacity to express ideas and perspectives in policy arenas. This then eliminates them from the policy processes. But also there is generally lack of debate about policy in Zimbabwe with lots of parallel policies being created behind closed doors or the various corridors of power. This lack of coordination, lack of trust, and intense politicisation of policy debate in Zimbabwe causes problems.

The politics of these policy processes in turn have a number of consequences:

- **Constraints on agro-dealers.** Instances of agro-dealers closing down or being unable to operate at certain times of the year when government/donor/NGO programmes start running were cited in interviews as well as meetings.¹⁷ A case of one agro-dealer was offered in the National Seed Stakeholders meeting in Harare. He was set to supply seed and other agricultural inputs but had to close shop from November when a certain NGO initiated their programmes. Overall there has been a reduction in the numbers of agro-dealers in the country from around 2,800 in the late 1990s to around 300 registered dealers today, mostly concentrated in the large chains/stores and in more urban settings.
- **Dependence on public and donor subsidies.** Reliance on the 'fat cheques' from government/donors/NGOs is an increasing necessity for the private sector. With their supply/delivery system decimated by the consequences of the economic collapse since 1997, a business model focused on emergency aid/government programmes has become a commercial necessity. This results in a shift away from building a

long-term business strategy for rebuilding agro-dealer networks and a move to products which can be supplied as part of bulk orders rather than a more differentiated, customer-focused product development strategy.

- **Rise of rent-seeking and elite capture.** Large programmes, involving big contracts and a highly diffuse and poorly regulated distribution system, open up many opportunities for corruption, rent seeking and speculation. There were examples of hoarding and release of sub-standard products when prices peaked. The involvement of senior officials, often linked to the new farming-business-political elite, was identified by a stakeholder meeting (Appendix 3) as part of the problem. Aid agencies, NGOs and others are also not immune to corrupt practices in field level delivery. Even if not 'corrupt' in a legal sense, the capture of seed delivery by elites at the local level has been almost inevitable, with certain local officials, traditional leaders and others in charge of 'targeting'.
- **Reduced demand.** A policy/programmatic focus on seed supply assumes significant shortages and the lack of effective demand in existing markets. This is not always supported by the facts on the ground. There are big incentives to define a large target for demand. About 40,000 metric tonnes is the standard level of national seed requirement for improved maize seed in Zimbabwe. But the figure can be questioned, given the switch to small grains and shifting patterns of demand, alongside the regular practice of seed re-use. However, a high figure allows for the generation of a (perhaps artificial) 'supply gap' figure which generates huge seed purchase contracts. In a 'free market' it is not clear what the real demand would be.
- **Ill conceived humanitarian aid.** Much evidence points to the very real demand for quality seed, even in the cash-constrained markets of Zimbabwe. People are certainly willing to pay, and many more than assumed are able to pay for high quality, improved seed. While there are undoubtedly some who are clearly too poor to afford inputs of this sort and therefore are rightly the beneficiaries of aid/humanitarian efforts, a narrow focus on hybrid seed and fertiliser may not be the most appropriate form of social protection for such people, given the agronomic and financial risks involved.
- **Market and political distortions.** Large-scale government/aid programmes act to distort markets, removing the competitiveness of local seed sellers/agro-dealers. Large programmes by their very nature are often poor at targeting, so there is often a flood of supply in certain areas (favoured government or NGO sites/villages/districts – for political and other reasons), often affected more by politics than demand, and an absence of supply nearby. While secondary markets emerge, these may not result in an efficient distribution of supply. A donor focus on communal areas and a government focus on new resettlement areas are creating geographical (and so political) distortions too.

10. Conclusion

There is a core narrative which dominates policy across government, donors, NGOs and international agencies centred on redressing an assumed shortage of seed supply, and so focusing on the provision of subsidised seed packages, mostly of hybrid maize. This, as argued by many of its proponents, is the only way to address a humanitarian crisis (recurrent food insecurity) and allows a focus on boosting agricultural production with hybrid maize seed as the primary technological solution.

The narrative is supported politically and institutionally by a strong network of actors, each with major interests in reinforcing it. Seed is used as a tool of patronage, both by government and by international agencies and NGOs and has thus become a political instrument. Private sector suppliers also have big incentives to support a centralised, top-down, supply driven approach, as it guarantees a high volume market. This has been the way of doing business from the period of RBZ-led Maguta/Champion Farmer programmes through to the present time. In it government and donors/NGOs have separately organised, but almost identically designed, programmes focused on different people/areas. This has resulted in substantial confusion over targeting (what and who the programme is for?) and distortions of markets (especially undermining the private sector's long term competitiveness and the once highly effective agro-dealer network).

This dominant narrative, supported by powerful actors and associated interests, has been excluding, obscuring and silencing two important alternative narratives. These are that rebuilding the seed system requires rebuilding the private sector to be re-gearred to a new pattern of demand and secondly, that rebuilding the farmer base from the bottom up with research support and links with private sector. This suppressing of alternatives was done through different political-economic processes, justified by particular arguments and which were supported by clear interests. This potentially undermines longer term recovery based on rebuilding the seed system (not just supply) but based on private sector and farmers both formal and informal.

The way forward

While many of the issues discussed in this paper are well known, and some were indeed highlighted in a major cross-stakeholder seed assessment carried out in 2009, the underlying political economic issues that create such distortions are often neither discussed nor addressed. Yet there is need for discussions involving senior officials in both international/donor agencies and government where broad common agreement across very diverse stakeholders can be achieved. There is need to convene a dialogue with senior officials in both international/donor agencies and government to shift the focus from short-term relief/humanitarian assistance through seed supply to longer-term rebuilding of the seed system. This will involve support to the private sector, agro-dealer networks, farmer groups, extension support. This will result in a shared vision across government and the inter-

national agencies allowing a more integrated and forward-looking programme of support.

Areas where efforts for the future might be focused include:

- Investing in extension and skill building for new farmers will be an important priority in the future. This is so because the major challenge of producing quality seed across multiple, small land holdings was identified as a key area where skill improvements and capacity building will be required. This will mean close working between farmer groups and the private sector, including support from former commercial farmers with the requisite skills and expertise in seed production and multiplication.
- Rebuilding agro-dealer networks, working to get the incentives right and the support infrastructure in place (including credit, finance, retailer-wholesaler relationships etc.) will also be an important area of future focus. Again a public-private sector effort will have to be adopted, where models for delivery of seed aid are elaborated which support not undermine the rebuilding of market systems for seed delivery in Zimbabwe.
- Reviving the role of the Zimbabwe Seed Trade Association to provide a platform for engagement across stakeholder groups, to oversee and support the rebuilding of Zimbabwe's seed system will be yet another essential area of focus. This would improve coordination, information exchange and regulatory oversight in the seed sector.
- Lastly ensuring that informal seed systems are recognised as an essential part of the overall seed system will be a crucial part of any future strategy. This will be done by allowing policy changes that will allow them to improve and flourish and defining mechanisms for bringing priorities of informal seed systems, via farmer groups/representatives, into policy debates on, for example, breeding priorities or the seed choice in emergency aid efforts which were seen as important.

Appendix 1:

Participants to the Inception Meeting

List of Participants to the Inception Meeting for the
Political Economy of Cereal Seed Systems in Zimbabwe:
Formation of Steering Committee

4 November 2009 , Chapman Golf Club, Harare, Zimbabwe

Name	Position	Organisation
Evelyn Mutetwa	Seed Research Officer	Seed Services
Rutendo Nhongonhema	Programme Manager	AGRITEX
Joyce Chanetsa	Director	RDT
B Butaumocho	Country Representative	FEWSNET
Jacopo Damelio		FAO
E Maponde	Agronomist	ZFU
Charity Mutonhodza	Researcher	RDT

Appendix 2:

List of organisations visited and people interviewed

Ministry of Agriculture

Mr. W. Makotose, Chief Policy Planner, Ministry of Agriculture
Mr. T Mukura, Agricultural Economist, Ministry of Agriculture
Ms. A. Murangi, Research Officer, National Gene-bank
Mr. K. Kusena, Head, Gene-bank
Ms. E. Mutetwa, Seed Research Officer, Seed Services
Mrs. T. Chakanyuka, Maize Research Officer, Seed Services
Mrs. S. Marongwe, Conservation Agriculture Coordinator, AGRITEX
Ms. R. Nhongonhema, A/Chief of Crop Production, AGRITEX
Mr. C. Matimaamba, Seed Technologist, Seed Services
Mrs. D. Hikwa, Head, Crop Breeding Institute
Dr. Chikwenhere, Head Plant Protection & Research Institute
Ms. S. Bhaureni, Small Grains Specialist, AGRITEX
Y Mafuta, Plant pathologist, Plant Protection & Research Institute
Mr. E. Pikirayi, Agricultural Extension Officer, Zvimba District
Mr. Matanga, Agricultural Extension Officer, UMP
Mr. Runoziva, Agricultural Extension Worker, UMP
Mr. Matipano, District Agricultural Extension Officer, Goromonzi District
Mrs. C. Matipano, Agricultural Extension Officer, Goromonzi District

Farmers & Agro-dealers

Mrs. Bhobho, farmer, Goromonzi District
Mr. Deka, farmer, Goromonzi District
Mr. Kambarami, farmer, Goromonzi District
Mr. and Mrs. Chikwature, Goromonzi District
Mr. and Mrs. Chivasa, Goromonzi District
Mr. Chiroodza, agro-dealer, Domboshava
Mr. Murape, agro-dealer, Majuru Growth Point
Mr. Bhaselamu, agro-dealer, Majuru Growth Point

GMB

Ms. B. Chiko, Inputs Officer, Grain Marketing Board
Mr. P Mutasa, Business Development Manager, Grain Marketing Manager
Mr. Ngozi, Assistant Depot Manager, Zvimba District

University of Zimbabwe

Dr. R Mano, Lecturer, Department of Agricultural Economics
Dr. Jowah, Chairman, Crop Science

CIMMYT

Mr. E Nyamutowa, Research Officer Agronomy, CIMMYT
Mr. S Mawere Senior Research Officer Agronomy, CIMMYT

Other people interviewed

Dr. S. Muchena, Managing Director, Centre for Fertiliser Development
Dr.T. Nyamupingidza, Maize Breeder, SIRDC
Dr. Mharapara, CEO, Agricultural Research Council
Mr. Nyandoro, Manager, Agricultural Research Trust Farm
Mr. Maravanyika, Operations Manager, Farm & City
Mrs. D Mushayavanhu, Environmental Lawyer

International Organisations & NGOs

Michael Jenrich, FAO
Jacopo Damelio, FAO
Mr. B. Butaumocho, FEWSNET Country Representative
Dr. T. Ntasis, Country Director, International Relief & Development
Dr. B. Mupeta, PLAN
Mr. T Kakono, Head SEAD Programme, CARE
Mr. E Kanengoni, Food Security & Livelihoods Manager, SC-UK
Mrs. M. Mafusire, Community Technology Development Trust
Mr. P. Kasasa, Programme Manager, Community Technology Development Trust
Mr. Mark Harper, Country Director, CONCERN
Ms. Sithembile Maunze, Economic Development Advisor, Netherlands Development Organisation (SNV)

Seed Houses

Mr. V. Mabika, Production Area Manager, Seed Co Zimbabwe
Mr. Makasi, Pioneer Hybrid Zimbabwe
Mr. Nkatozo, Pannar Seeds/Zimbabwe Seed Traders Association
Mr. N. Rufu Pannar Seeds
Mr. Chigodora, Managing Director, Agriseeds
Dean Muungani, Agriseeds
Mr. E Mawoneni, Marketing, ARDA Seeds
Mr. J Mukiwa, Marketing, ARDA Seeds
Mr. B Magiya, Marketing ARDA Seeds

Farmers' Organisations

Mr. P. Zacharia, Director, ZFU
Phillip Gumunyu, ZFU
Mr. J. Gwaringa, Agricultural Economist, Zimbabwe **Farmers' Union**
Mr. E. Maponde, Agronomist, Zimbabwe Farmers' Union
Mr. T. Mutesva, Cereal & Grains Specialist, ZCFU
Mr. Taylor Oilseeds and Grains Commercial farmers' Union

Appendix 3:

Participants to the Presentation of Draft Report

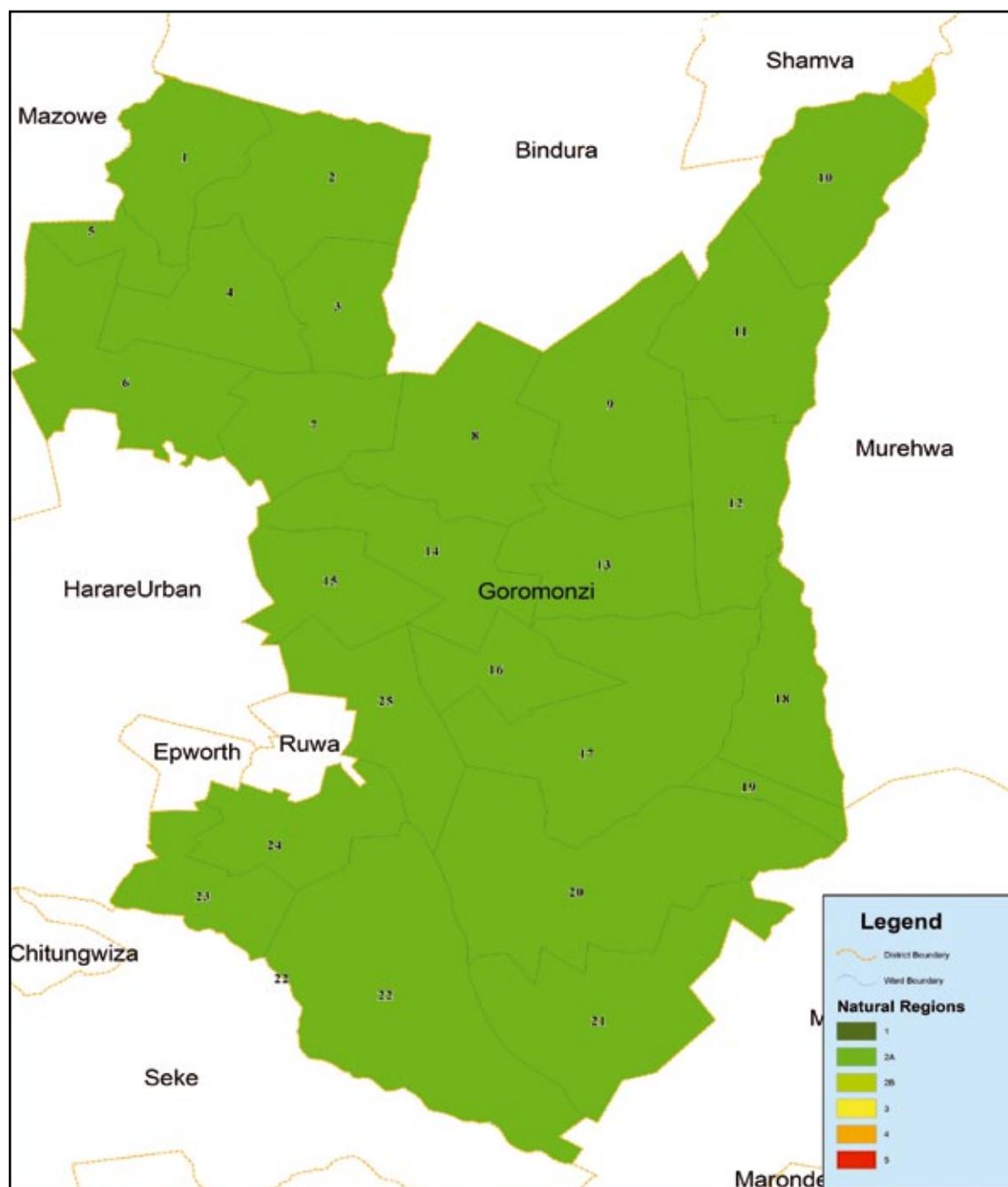
List of Participants to the Political Economy of Cereal Seed Systems Meeting: Presentation of Draft Report

5 February 2010 Chapman Golf Club, Harare, Zimbabwe

Name	Position	Organisation
Clyde Mujaju	Head	Seed Services
Patrick Kasasa	Programme Manager	Community Technology Development Trust
Kudzai Kusena	Head	Genebank
Ngoni Rufu		Pannar Seeds
Jacopo Damelio		FAO
Themos Ntasis	Country Director	International Relief & Development
Richard Gomo	Projects Coordinator	Research for Development Trust
Richard Taylor	Cereals	Commercial Farmers' Union
Charity Mutonhodza	Researcher	Research for Development Trust
Ian Scoones	Professorial Fellow IDS	Future Agricultures Consortium
Dorcas Tawonashe	Agricultural Economist	Ministry of Agriculture
Marshal Ruzvidzo	Agricultural Economist	Ministry of Agriculture

**Appendix 4:
Map of Goromonzi District**

Goromonzi District - Ward Boundaries and Agro-Ecological Zones



End Notes

- ¹ Farm Management Handbook
- ² Interview with Victor Mabika, Production Area Manager, Seed Co Zimbabwe
- ³ Seed Security Assessment for Zimbabwe, 2009
- ⁴ Interview with Clyde Mujaju, Head Seed Services, Harare February 2010
- ⁵ Assessment of Challenges and Opportunities for Improving Seed Supply Under Relief and Recovery Programs: Report of Stakeholder's Consultancy by T. Takavarasha, D. Rohrbach, K. Mtindi and D. Mfote. 2006. FAO
- ⁶ Interview with Dr Mano, Department of Agricultural Economics, University of Zimbabwe, November 2009
- ⁷ Interview with Evelot Nyamutowa, Maize Research Officer, CIMMYT, November 2009
- ⁸ Interview with Dr Samuel Muchena, African Centre for Fertiliser Development, November, 2009
- ⁹ Monetary Policy Statement issued by G Gono, Governor Reserve Bank of Zimbabwe. January 2009, pg 24
- ¹⁰ Interview with T Kakono, SEAD Programme manager, CARE December, 2009
- ¹¹ Interview with N Rufu, Pannar seeds, February 2010
- ¹² Interview with Mr Majuru of Goromonzi February 2010, March 2010
- ¹³ Interview with Mr Matipano, District Agricultural Extension Officer Goromonzi District, March 2010
- ¹⁴ Interview with Mr Chiroodza, agro-dealer Domboshava February 2010
- ¹⁵ Interview with Mrs Chivasa, Goromonzi, March 2010
- ¹⁶ Interview with T Ntasis, IRD February 2010
- ¹⁷ Meeting discussions at a National Seed Stakeholders Meeting held in Harare on February 4, 2010

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