

complacent and to lack a sense of urgency to grow the project (not increasing production for example). Having access to the cash from grants provides choices and flexibility (du Toit and Neves, 2009:22) and the ability to limit interaction when things are not going the way they want. In other words, when there is conflict, they can remove themselves from the project, and in some instances even sabotage the current operations. This has a knock-on effect and discourages members who rely more heavily on the project who are then forced to leave it in search of more lucrative options.

Coetzee and van Averbek (2011:288) note that “most studies concur that urban farming in South African townships is rarely central to the livelihood strategies of poor people and should rather be seen as one of a number of elements that make up these strategies.” While none of Bambanani’s members relied solely on the garden as a livelihood or for their own food supply it was a potentially important livelihood option for Janette and the labourers (Daniel and Bongani). Mtla members relied more heavily on their allocated garden spaces for their livelihoods. Mtla were in control of this component of their livelihoods as they were effectively in charge of their operation at an individual level. Janette was not in charge and ultimately had to change what was produced in the garden, dislodging the networks and relationships that had evolved during her period of control (selling marog to local community members etc.). This was a clear case of where government officials were providing a blueprint of how they believed the project should function. This included producing for formal markets and producing high input exotic produce without considering the membership’s “own plans or their material realities” (du Toit, 2008:14).

The entrepreneurial ability of members should be supported so as to facilitate beneficial and enduring livelihoods within the highly competitive and transitional urban and peri-urban environments. While the city’s poor are not necessarily fully benefiting from the livelihood potential of these UPA community projects, the output from their production potential could be of benefit. Ultimately, if UPA community gardens were left to map their own courses, their impact on the poor could be more substantial. Current government support is partly hampering this potential and therefore needs to be revisited and reconceived.

8.4 Conclusion

This chapter provided a comparative analysis and synthesis of the research findings, while relating these to this thesis's research questions and to debates in the wider literature. Access to production inputs was explained through each community project's ability to access working capital, and to the extent of their agricultural knowledge and experience. The labour component of each project was based on various factors, including how labour would benefit specific project members, how much operational capital was available, and to what degree members could diversify their income sources. Free access to land and water were key factors that, to a large extent, facilitated the continued participation of members and ensured the survival of the groups. Another important influence was the level of external support that was provided primarily by government, and to what degree this support influenced decision-making processes (for example, what to produce, how to produce it, and where to sell it). The chapter continued with a breakdown of how production was organised and how produce was marketed. It argued that informal markets played an important role for UPA producers and for food supply to city residents. Yet, gaining access to the formal market sector was not always the most viable option. Organisational structure impacted significantly on productivity levels and the work ethic of the members. Power dynamics were similarly influential and affected operational capacity and productivity. UPA community projects, while not contributing substantially to cash incomes for most of the project members, did provide an important livelihood strategy that, in most cases, was one of multiple strategies that contributed to members' survival.

Chapter Nine: Conclusions and recommendations

This chapter begins with remarks on what constitutes UPA community projects in Johannesburg and how these activities are organised. I then present the key insights that were touched on in the analysis and synthesis chapter and expand on these ideas indicating what they signify within the wider context of cities in South Africa. This is followed by a presentation of key recommendations on mechanisms to alleviate urban poverty and sustain urban livelihoods. These recommendations are partly aimed at encouraging the COJ's urban agricultural development initiatives to move towards what Marsden (2012) refers to as an "ecological entrepreneurship" model of support, as opposed to the welfare-oriented and 'top-down' developmental approach that is currently a dominant characteristic of the COJ's development sector.

9.1 Urban and peri-urban agriculture community projects in Johannesburg

The focus of this research was on the nature of UPA community projects in Johannesburg, how they were organised, how they impacted on the people that worked within them, and in what ways they engaged with their surrounding communities. The projects were mostly supported through the Human Development programme (a programme within the COJ's Human Development Directorate) particularly with respect to accessing water and land within the city and surrounding environments. Projects were largely support oriented and received a large majority of their inputs at no cost to themselves. Most members had multiple livelihoods and the agricultural project served as one of these, though to varying degrees (in some cases more than one livelihood activity took place in the particular space). The importance of these livelihoods varied between projects and between members but in general they were more important where members had some degree of autonomy from local government. Projects distributed food through a variety of marketing channels though they tended to cater mostly for their local communities, though again this was mostly the case where they were given the freedom to do so.

9.2 Key insights

This research project has provided me with four primary insights: the first is that working class people living in urban and peri-urban Johannesburg engage in multiple livelihoods that should be

supported; the second is that the co-operative model that is currently imposed on UPA community projects should be realigned with a combination of the co-operative and allotment type of organisation; the third is that informal urban and peri-urban market networks should be supported; and the fourth is that external support for UPA community projects should be less prescriptive, more facilitative, and engage communities around what they themselves feel they need.

9.2.1 *Multiple urban and peri-urban livelihoods support*

The urban and peri-urban working class and unemployed in Johannesburg typically engage in multiple livelihood strategies to try to maximise their incomes and improve their quality of life. These multiple livelihood strategies are central to their daily survival and may often cushion sudden financial shocks, food poverty, and other forms of relative deprivation and misfortune (du Toit and Neves, 2009). In the context of people engaged in UPA community projects, having multiple sources of income makes it possible to continue with their UPA interests. While these projects do not provide substantial or stable sources of cash income, there are periods where the financial gains are relatively beneficial. Yet, the only way that these benefits can be accessed is by having other livelihood streams to fall back on during periods of low productivity.

The COJ Human Development Directive should be encouraged to acknowledge these multiple livelihoods and provide the space for them to continue alongside the UPA community projects. Some flexibility is required. For this to be realised, members should be permitted to work the hours that they realistically can, so as to also engage in other livelihood strategies. One way of facilitating this is for the prevailing co-operative model to be adapted (see below under ‘Realignment of the co-operative model’) to avoid the extensive free riding that was regularly observed and that has been documented in this research project. Acknowledging multiple livelihood strategies would also in some part explain why the UPA community projects are currently largely “unsuccessful” when viewed from the strictly economic angle that emphasizes high yields (Tilman et al., 2002:673) and productivity, profitability, and regular cash incomes. UPA community project members could also be encouraged or allowed to utilise their project spaces to expand their assemblage of livelihoods, utilising resources, and taking advantage of

emerging opportunities. While formal employment opportunities are limited, these constructive, entrepreneurial, and potentially wide reaching (food provision) activities should be supported.

9.2.2 *Realignment of the co-operative model*

The co-operative model sits awkwardly with a multiple livelihood scenario, and is possibly one of the main reasons for its failure. When co-operative members are able to find regular, waged work, they often leave the project and default on their responsibilities to the group. Conflicts can arise or numbers simply dwindle until the operation becomes unproductive and unmanageable. While this may be beneficial to the people who stay on, for example through more benefits being gained as a result of having more control of the project (though this could also be more burdensome through greater labour responsibility), it does not support a community development agenda.

I would agree with Philip's (2003:26) recommendation that a less prescriptive approach is used as a means to improve the quality of people's lives, more in line with the user co-operative type model, where the priority instead "is to embrace diverse and inclusive approaches, and to find innovative, flexible and locally-specific ways to use economic co-operation". A possible strategy to accomplish this recommendation and to revise the dominant conceptualisation of the urban and peri-urban co-operative model would be to consider a variation that brings together aspects of co-operative and allotment systems. What would change from the current worker co-operative model is that members would be allocated plots that they would hold temporary use rights to. They would be responsible for the labour required for that plot, and they would secure most of the benefits from its produce. Each co-operative could design a constitution setting out the rules of the organisation, stating what contribution should be made to the group from the proceeds from the plots and other specifics such as the responsibilities of members. The contribution could be monetary or it could take some other form such as produce, labour, or resources. The group would share water and irrigation expenses, fencing, and perhaps fertility in the form of communal compost and animal manure (especially in the peri-urban spaces). In addition there could be a "use-it or lose-it" policy which could be based on productivity and time spent working on the plot. A strong and impartial oversight committee that has community buy-in would be a prerequisite for this model to function effectively.

Furthermore, a wholesale change in emphasis from workers co-operatives toward more support for user co-operatives that would provide further opportunities for entrepreneurs who juggle multiple livelihoods, some just to survive but others to bolster their income and longer term accumulation potentials. A user co-operative strategy would help to bring smallholders together to collaboratively market their produce instead of trying to impose group ownership of individual production enterprises.

9.2.3 *Supporting informal market systems*

The informal market network is a major food distribution channel for Johannesburg's vulnerable urban and per-urban residents. Street hawkers source products from large centralised markets, but may also source from smallholder farms that are near to them. They then distribute produce of various types to city populations around the country. Individuals also source produce from gardens near to their homes particularly when culturally specific varieties are produced that are not available in supermarket chain stores.

UPA community projects should be supported to provide for these informal market spaces. As Greenberg (2010:7) notes "little consideration has been given to potential interventions that seek to strengthen non-corporate trading – whether through better integration with industrial–corporate value chains or as part of other non-corporate systems of production and distribution, or some combination of those". The current trend to encourage projects to supply to formal retail with exotic high input produce is not particularly useful. UPA community project members should be encouraged to produce for their local markets, giving them the space to do their own assessment of demand and to fulfil that demand by providing what is required. While local government has provided land and water, making it less difficult to produce what formal markets desire, these resources should not be abused (specifically the water component). In other words, a supportive environment that encourages production of indigenous varieties along with exotic types is preferable to a water heavy and exotic focus.

9.2.4 *Facilitative external support*

Currently, external support for UPA community projects is highly prescriptive and narrowly focussed. Project members are often strongly encouraged to grow specific produce, told how to

organise themselves, and advised where to sell their produce. Greenberg (2010:16) recommends that “A radical retooling of extension services is required, including a transformed curriculum that enables them to provide technical advice based on sound ecological practices (that is, using natural resources renewably)”. In certain instances external support agents even have influence over how group funds are spent. It is problematic that external support should have such strong influence over group decisions, and that they be permitted to align themselves with any one side of an internal conflict.

This type of external support should be transformed to support that links local institutions and networks for the purpose of resource acquisition and distribution, and furthermore, for final product marketing and distribution; or as Greenberg recommends, through the facilitation of “connections between producers and resources/support”, and “the organisation of producers”. Greenberg (ibid).

There are a number of government departments and local businesses that could be co-opted into sharing and distributing otherwise waste resources. For example, Regional City Parks depots could regularly deliver grass cuttings, leaf litter, and/or woodchips to their local UPA community projects instead of to municipal dumps. Regional seedling suppliers and seed banks should be supported and where they are not present they should be developed. These are the type of links that could be supported by external agents and the donor community that would further support and encourage local capacity and initiative.

9.3 What this all means for UPA community projects and their contribution to development

For UPA community projects to have some level of success, a combination of the following should be considered. Firstly, the organisational structure of projects should be adapted to better support the nature of the urban and peri-urban multiple livelihoods reality. Once UPA community project members are assured that their individual efforts will be better rewarded through the allotment setup, they may be incentivised to be more productive, and as a consequence may produce more for sale. This could impact on the informal market sector by creating a steady supply of fresh produce within the populated urban and peri-urban spaces. This abundance could spill over into the niche market sector and could stimulate business

opportunities for niche retail and even further for the supermarket sector. Ultimately this would require a better conceived support structure that would be tasked to bringing together the productive resources of the City, to converge on these urban and peri-urban centres of production.

9.4 Future research

Research on how and from where urban niche market retail outlets purchase fresh produce would provide key insights for the development of the models described above. In addition, a feasibility study on whether or not there is a need for a distribution organisation, possibly in the form of a tertiary co-operative structure, that could coordinate produce collection and distribution from local farmers to niche market spaces. Another possible angle of enquiry would be to ask whether or not the allotment model for urban systems in South Africa has the potential to succeed (what could these look like and who would they benefit?). To pursue this question a desktop study could be undertaken on international allotment models supported by empirical data collection on local African system examples that show likenesses to the basic allotment concept.

9.5 Key recommendations

Within Johannesburg's UPA development context my key framing recommendation would be that guidelines for the COJ's urban agricultural support programme be developed through wide consultation with current project members, support agencies, and other sector role players.

My more specific recommendations include the following:

For the institutional support sector (civil society and research institutions):

- A study should be conducted on the various permutations of the allotment model, internationally and locally, to provide the bases for arguments supporting an alternative or adapted organisational form (an allotment co-operative model);

For local government, specifically for the COJ Human Development Directorate:

- Where it is possible, support an allotment type model where project members are allocated space with certain joint resources;

- Members should be permitted access to these spaces for as long as they keep them productive and well maintained;
- Government's support personnel should provide a facilitation service for these projects where they are tasked to create links with local agencies and business for resource acquisition and distribution.

In conclusion I would like to quote Marsden (2012:139) who refers to the unsustainability of the current agro-food system and suggests that “agriculture will have to return to being what it was: a more embedded, connected and localised activity largely serving and being served by its city regions.” South African city spaces could facilitate such activities, and in the process could provide more secure livelihood opportunities for its people and alternative sources of food.



Bibliography

- ALTIERI, M. 2002. Agroecology: the science of natural resource management for poor farmers in marginal environments. *Agriculture, Ecosystems and Environment*, 93, 1–24.
- ALTIERI, M., ROSSET, P. & THRUPP, L. 1998. The potential of agroecology to combat hunger in the developing world. *A 2020 Vision for Food, Agriculture, and the Environment*. International Food Policy Research Institute (IFPRI)
- ALTIERI, M. A. 1999. The ecological role of biodiversity in agroecosystems. *Ecosystems and Environment*, 74, 19-31.
- ANDERSON, B. 1991. *Imagined Communities. Reflections on the Origin and Spread of Nationalism*, London, Verso.
- ASAD, T. 1994. Ethnographic Representation, Statistics and Modern Power. *Social Research*, 61, 55-88.
- BADGLEY, C., MOGHTADER, J., QUINTERO, E., ZAKEM, E., CHAPPELL, M., AVILE'S-VA'ZQUEZ, K., SAMULON, A. & PERFECTO, I. 2007. Organic agriculture and the global food supply. *Renewable Agriculture and Food Systems* 22(2): , 22, 86-108.
- BARROW, S. 2006. South African Organic Market Study. Export Promotion of Organic Products from Africa (EPOPA).
- BELLOWS, A. C. 2004. One hundred years of allotment gardens in Poland. *Food & Foodways*, 12, 247-276.
- BERNSTEIN, H. 2010. *Class dynamics of agrarian change*, Fernwood Publishing.
- BOLWIG, S., PONTE, S., DU TOIT, A., RIISGAARD, L. & HALBERG, N. 2010. Integrating Poverty and Environmental Concerns into Value-Chain Analysis: A Conceptual Framework. *Development Policy Review*, 28, 173-194.
- BORRAS, S. M., HALL, R., SCOONES, I., WHITE, B. & WOLFORD, W. 2011. Towards a better understanding of global land grabbing: an editorial introduction. *Journal of Peasant Studies*, 38, 209 — 216.
- BUTLER, L. M. & MARONEK, D. M. 2002. Urban and Agricultural Communities: Opportunities for Common Ground. *CAST Task Force Report*. Ames, Iowa.
- CARRITHERS, M. 1988. The Anthropologist as Author: Geertz's 'Works and Lives'. *Anthropology Today*, 4, 19-22.
- CHAPLOWE, S. 1998. Havana's popular gardens: sustainable prospects for urban agriculture. *The Environmentalist*, 18, 47-57.
- CHAYANOV, A. 1991. *The Theory of Peasant Co-operatives*. Alexander Chayanov, Columbus, Ohio State University Press.
- CLARK, D. 2006. *The Rough Guide to Ethical Living*, London, Penguin Books.
- COETZEE, M. & VAN AVERBEKE, W. 2011. Poverty, land and food production in South African townships. In: HEBINCK, P. & SHACKLETON, C. (eds.) *Reforming Land and Resource Use in South Africa: Impact on livelihoods*. New York: Routledge.
- CONNOR, D. 2008. Organic agriculture cannot feed the world. *Field Crops Research*, 106, 187–190.
- COUSINS, B. 2005. Agrarian reform and the 'two economies': transforming South Africa's countryside. In: HALL, R. & NTSEBEZA, L. (eds.) *The Land Question in South Africa: the challenge of transformation and redistribution*. Cape Town: Programme for Land and Agrarian Studies (PLAAS).
- COUSINS, B. & SCOONES, I. 2009. Contested paradigms of 'viability' in redistributive land reform: perspectives from southern Africa. Cape Town: Institute for Poverty, Land and Agrarian Studies, University of the Western Cape.
- D'HAESE, M. & VAN HUYLENBROECK, G. 2005. The rise of supermarkets and changing expenditure patterns of poor rural households case study in the Transkei area, South Africa. *Food Policy*, 30, 97–113.

- DE SWARDT, C., PUOANE, T., CHOPRA, M. & DU TOIT, A. 2005. Urban poverty in Cape Town. *Environment and Urbanization*, 17, 101-111.
- DIMITRI, C. 2010. Organic Agriculture: An Agrarian or Industrial Revolution? *Agricultural and Resource Economics Review*, 39, 384-395.
- DOA 2002. The Integrated Food Security Strategy for South Africa. Pretoria: Department of Agriculture.
- DOE 2009. National School Nutrition Programme – A guide for secondary schools. Department of Education (DOE).
- DOL 2002. Basic Conditions of Employment Act, 1997. Code of Good Practice for employment and conditions of work for Special Public Works Programmes. Government Gazette No. 23045. Department of Labour.
- DRAKAKIS-SMITH, D., BOWYER-BOWER, T. & TEVERA, D. 1995. Urban Poverty and Urban Agriculture: An Overview of the Linkages in Harare. *Habitat International*, 19, 183-193.
- DSD 1997. White Paper for Social Welfare. Pretoria: Department of Social Development.
- DTI 2004. A Co-operative Development Policy for South Africa. Department of Trade and Industry.
- DTI 2012. Co-operatives Amendment Bill. Republic of South Africa.
- DU TOIT, A. 2005. *Chronic and structural poverty in South Africa : challenges for action and research*, Bellville, South Africa, Programme for Land and Agrarian Studies, School of Government, University of the Western Cape.
- DU TOIT, A. 2008. Adverse Incorporation and Agrarian Policy in South Africa: Or, How Not to Connect the Rural Poor to Growth. Institute for Poverty, Land and Agrarian Studies.
- DU TOIT, A. & NEVES, D. 2009. Trading on Grant: Integrating Formal and Informal Social Protection in Post-Apartheid Migrant Networks. Working Paper 75. Brooks World Poverty Institute.
- ELLIS, F. & SUMBERG, J. 1998. Food Production, Urban Areas and Policy Responses. *World Development*, 26, 213-225.
- FAO_A 2001. FAO's state of food insecurity 2001. Rome: Food and Agriculture Organization of the United Nations (FAO).
- FAO_B 2007. Profitability and sustainability of urban and peri-urban agriculture. Rome: Food and Agriculture Organization of the United Nations (FAO).
- FEENSTRA, G. 2002. Creating space for sustainable food systems: Lessons from the field. *Agriculture and Human Values*, 19, 99-106.
- FRAYNE, B., BATTERSBY-LENNARD, J., FINCHAM, R., HAYSOM, G. 2009. Urban Food Security in South Africa: Case study of Cape Town, Msunduzi and Johannesburg. *Development Planning Division Working Paper No. 15*. DBSA: Midrand.
- GADS 2006. Gauteng Agricultural Development Strategy. Johannesburg: Gauteng Provincial Government.
- GDARD 2009. Annual Report. Department of Agriculture and Rural Development (GDARD).
- GEERTZ, C. 1988. *Works and Lives: The Anthropologist as Author*, Stanford, California, Stanford University Press.
- GILLER, K., WITTER, E., CORBEELS, M. & TITTONELL, P. 2009. Conservation agriculture and smallholder farming in Africa: The heretics' view. *Field Crops Research*, 114, 23-34.
- GODFRAY, H., BEDDINGTON, J., CRUTE, I., HADDAD, L., LAWRENCE, D., MUIR, J., PRETTY, J., ROBINSON, S., THOMAS, S. & TOULMIN, C. 2010. Food Security: The Challenge of Feeding 9 Billion People. *Science*, 12, 812-818.
- GPDED 2010. A strategy for a developmental green economy for Gauteng. Gauteng Province Department of Economic Development.
- GPG 2012. Provincial Economic Review and Outlook 2012. Gauteng Provincial Government.
- GREENBERG, S. 2010. Status report on land and agricultural policy in South Africa, 2010. Cape Town: Institute for Poverty, Land and Agrarian Studies (PLAAS).

- GUTHMAN, J. 2004. The Trouble with 'Organic Lite' in California: a Rejoinder to the 'Conventionalisation' Debate. . *Sociologia Ruralis*, 44, 301-316.
- HALL, R. 2010. Two cycles of land policy in South Africa: Tracing the contours. In: ANSEEUW, W. & ALDEN, C. (eds.) *The struggle over land in Africa: conflicts, politics & change*. Pretoria: HSRC Press.
- HART, T. 2009. Exploring definitions of food insecurity and vulnerability: time to refocus assessments. *Agrekon*, 48, 362-383.
- HOBBS, P., SAYRE, K. & GUPTA, R. 2008. The role of conservation agriculture in sustainable agriculture. *Philosophical Transactions of the Royal Society B*, 363, 543-555.
- HOWE, J. 2003. Growing Food in Cities: the Implications for Land-Use Policy. *Journal of Environmental Policy & Planning*, 5, 255-268.
- IFOAM 2008. Participatory Guarantee Systems. 5 case studies. Bonn: International Federation of Organic Agricultural Movements.
- IFOAM 2011. How Governments can support Participatory Guarantee Systems (PGS). Bonn: International Federation of Organic Agricultural Movements.
- ILO 2003. Street traders and their organisations in South Africa. Geneva: International Labour Organization (ILO).
- JARA, M. & SATGAR, V. 2009. International Cooperative Experiences and Lessons for the Eastern Cape Cooperative Development Strategy: A Literature Review. Eastern Cape Socio Economic Consultative Council.
- JAROSZ, L. 2008. The city in the country: Growing alternative food networks in Metropolitan areas. *Journal of Rural Studies* 24, 231-244.
- JAYNE, T. 2008. Forces of change affecting African food markets: Implications for public policy. In: MCCULLOUGH, E., PINGALI, P. & STAMOULIS, K. (eds.) *The transformation of agri-food systems: Globalization, supply chains and smallholder farmers*. Rome: Food and Agriculture Organisation.
- KOCH, J. 2011. The Food Security Policy Context in South Africa. International Policy Centre for Inclusive Growth, United Nations Development Programme.
- LAHIFF, E. & COUSINS, B. 2005. Smallholder Agriculture and Land Reform in South Africa. *IDS Bulletin*, 36, 127-131.
- LEWIS, M. 2006. *Agricultural development 'from below': an analysis of an organic farming initiative in Cala, the Eastern Cape*. BA Honours Mini-Thesis, Rhodes University.
- LIPTON, M. 2009. Goals: output, efficiency, growth. Beyond the inverse relationship. *Land Reform in Developing Countries*. London: Routledge.
- MACHETHE, C. L. 2004. Agriculture and poverty in South Africa: can agriculture reduce poverty? *Overcoming Underdevelopment Conference*. Pretoria.
- MACMILLAN, N. 2007. Designing the Edible Urban Landscape. Canada: International Development Research Centre (IDRC), Canada.
- MARSDEN, T. 2012. Towards a Real Sustainable Agri-food Security and Food Policy: Beyond the Ecological Fallacies? *The Political Quarterly*, 83, 139-145.
- MATLALA, P. 1990. Mamelodi's amazing maize growers. *New Ground*, 1, 30-31.
- MAXWELL, D. G. 1995. Alternative food security strategy: A household analysis of urban agriculture in Kampala. *World Development*, 23, 1669-1681.
- MCLACHLAN, M. & THORNE, J. 2009. Seeding change: A proposal for renewal in the South African food system. DBSA, Midrand.
- MCMICHAEL, P. 2009. A food regime genealogy. *The Journal of Peasant Studies*, 36, 139-169.
- MCMICHAEL, P. 2010. Agrofuels in the food regime. *The Journal of Peasant Studies*, 37, 609-629.
- MOORE, J. 2010. The End of the Road? Agricultural Revolutions in the Capitalist World-Ecology, 1450-2010. *Journal of Agrarian Change*, 10, 389-413.

- MOUGEOT, L. 2000. Urban agriculture: Definition, presence, potentials and risks. In: BAKKER, N., DUBBELING, M., GÜNDEL, S., SABEL-KOSCHELLA, U., ZEEUW, H. DE (ed.) *Growing cities, growing food: Urban agriculture on the policy agenda*. Feldafing: German Foundation for International Development.
- ORTMANN, G. & KING, R. 2007. Agricultural Cooperatives I: History, Theory and Problems. *Agrekon*, 46, 40-68.
- PHILIP, K. 2003. Co-operatives in South Africa: Their Role in Job Creation and Poverty Reduction. South African Foundation.
- PILGRIM, S., CULLEN, L., SMITH, D. & PRETTY, J. 2008. Ecological Knowledge is Lost in Wealthier Communities and Countries. *Environmental Science and Technology*, 42, 1004-1009.
- POLICY 2007. Urban Agricultural Policy for the City of Cape Town. City of Cape Town.
- PRETTY, J. N., MORISON, J. I. L. & HINE, R. E. 2003. Reducing food poverty by increasing agricultural sustainability in developing countries. *Agriculture, Ecosystems and Environment*, 95, 217-23.
- PSC 2008. Report on the Evaluation of the National School Nutrition Programme (NSNP). Pretoria: Public Service Commission (PSC).
- RAPPORT, N. & OVERING, J. 2000. *Social and cultural anthropology : the key concepts*, London ; New York, Routledge.
- RAYNOLDS, L. 2002. Consumer/Producer Links in Fair Trade Coffee Networks. *Sociologia Ruralis*, 42.
- RAYNOLDS, L. 2004. The Globalization of Organic Agro-Food Networks. *World Development*, 32, 725-743.
- REARDON, T. & HOPKINS, R. 2006. The Supermarket Revolution in Developing Countries: Policies to Address Emerging Tensions Among Supermarkets, Suppliers and Traditional Retailers. *The European Journal of Development Research*, 18, 522-545.
- ROBERTS, P. 2009. *The End of Food*, New York, First Mariner Books.
- RODALE 2011. The Farming Systems Trial. Celebrating 30 years. Rodale Institute.
- ROGERSON, C. 1996. Urban poverty and the informal economy in South Africa's economic heartland. *Environment and Urbanization*, 8, 167-179.
- ROSE, W. J. 1935. *The Drama of Upper Silesia*, Brattleboro, VT, Stephen Daye Press.
- SAMSON, M., MACQUENE, K. & VAN NIEKERK, I. 2006. Social Grants, South Africa. *Inter-Regional Inequality Facility*. Overseas Development Institute (ODI).
- SASURVEY 2011. South African Survey 2010/2011. Johannesburg: South African Institute for Race Relations.
- SAYER, R. A. 1984. *Method In Social Science: A Realist Approach*, London, Routledge.
- SCOONES, I. 2009. Livelihoods perspectives and rural development. *The Journal of Peasant Studies*, 36, 171-196.
- SCOONES, I., MARONGWE, N., MAVEDZENGE, B., MAHENEHENE, J., MURIMBARIMBA, F. & SUKUME, C. 2010. *Zimbabwe's land reform: myths and realities*, Harare, Weaver Press.
- SHIVA, V. 2000. *Stolen Harvest*, Cambridge, MA, South End Press.
- SILICI, L. 2010. Conservation Agriculture and Sustainable Crop Intensification in Lesotho. *Integrated Crop Management*. Italy: Food and Agriculture Organization of the United Nations.
- SINGER, P. 1976. *Animal Liberation: A New Ethics for Our Treatment of Animals*, London, Jonathon Cape Ltd.
- SINGER, P., AND MASON, J. 2006. *Eating: What we eat and why it matters*, United Kingdom, Arrow Books.
- SMIT, J. & NASR, J. 1992. Urban agriculture for sustainable cities: Using wastes and idle land and water bodies as resources. *Environment and Urbanization*, 4, 141-152.
- SMIT, J., RATTA, A. & BERNSTEIN, J. 1996. Urban Agriculture. An Opportunity for Environmentally Sustainable Development in Sub-Saharan Africa. The World Bank.

- THAMAGA-CHITJA, J. & HENDRIKS, S. 2008. Emerging issues in smallholder organic production and marketing in South Africa. *Development Southern Africa*, 25, 317-324.
- THERON, J. 2003. Trade unions and the co-operative alternative (Part I). Labour and Enterprise Project UCT.
- THIOMBIANO, L. & MESHACK, M. 2009. Scaling-up Conservation Agriculture in Africa: Strategy and Approaches. Addis Ababa: The FAO Subregional Office for Eastern Africa.
- THORNTON, A. 2008. Beyond the Metropolis: Small Town Case Studies of Urban and Peri-urban Agriculture in South Africa. *Urban Forum*, 19, 243-262.
- THRUPP, L. A. 2000. Linking agricultural biodiversity and food security: the valuable role of agrobiodiversity for sustainable agriculture. *International Affairs*, 76, 265-281.
- TILMAN, D., CASSMAN, K., MATSON, P., NAYLOR, R. & POLASKY, S. 2002. Agricultural sustainability and intensive production practices. *Nature*, 418, 671-677.
- UN-HABITAT. 2010. *State of the World's Cities 2010/2011 - Cities for All: Bridging the Urban Divide* [Online]. Available: <http://www.unhabitat.org/content.asp?cid=8051&catid=7&typeid=46&subMenuId=0>.
- VAN DEN BRINK, R., THOMAS, G. & BINSWAGER, H. 2007. Agricultural land redistribution in South Africa: towards accelerated implementation. In: NTSEBEZA, L. & HALL, R. (eds.) *The Land Question in South Africa. The Challenge of Transformation and Redistribution* Cape Town: Human Sciences Research Council Press.
- VAN ROOYEN, C., MAVHANDU, B. & VAN SCHALKWYK, H. 1997. The informal food marketing system in urban environments: Case studies of Kagiso and Orange Farm. *Development Southern Africa*, 14, 471-476.
- VINK, N. 2004. The influence of policy on the roles of agriculture in South Africa. *Development Southern Africa*, 21, 155-177.
- VOS, T. 2000. Visions of the middle landscape: Organic farming and the politics of nature. *Agriculture and Human Values*, 17, 245-256.
- WEATHERSPOON, D. & REARDON, T. 2003. The Rise of Supermarkets in Africa: Implications for Agrifood Systems and the Rural Poor. *Development Policy Review*, 21, 1-17.
- WEBB, N. 2011. When is enough, enough? Advocacy, evidence and criticism in the field of urban agriculture in South Africa. *Development Southern Africa*, 28, 195 – 208.
- WEIS, T. 2007. *The Global Food Economy: The Battle for the Future of Farming*, London, Zed Books Ltd.
- WENHOLD, F., FABER, M., VAN AVERBEKE, W., OELOFSE, A., VAN JAARVELD, P., JANSEN VAN RENSBURG, W., VAN HEERDEN, I. & SLABBERT, R. 2007. Linking smallholder agriculture and water to household food security and nutrition. *Water SA*, 33, 327-336.
- WEZEL, A., BELLON, S., DOR'E, T., FRANCIS, C., VALLOD, D. & DAVID, C. 2009. Agroecology as a science, a movement and a practice. A review. *Agronomy for Sustainable Development*, 29, 503-515.
- WILTSHIRE, R., AND AZUMA, REN. 2000. Rewriting the Plot: sustaining allotments in the UK and Japan. *Local Environment* 5, 139-151.
- WOOD, A. 2009. Access, not availability drives urban hunger. *Urban Food Security Conference. Kempton Park, Johannesburg*.
- WOODHOUSE, P. 2010. Beyond Industrial Agriculture? Some Questions about Farm Size, Productivity and Sustainability. *Journal of Agrarian Change*, 10, 437-453.
- ZEZZA, A. & TASCIOTTI, L. 2010. Urban agriculture, poverty, and food security: Empirical evidence from a sample of developing countries. *Food Policy*, 35, 265-273.

APPENDIX I



agriculture, forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

Directorate: Food Safety and Quality Assurance, Private Bag X343, PRETORIA, 0001 • Tel: +27 12 319 6023

FAX COVER SHEET

**TO: TO ALL PRODUCERS, MARKET AGENTS, WHOLESALERS, MARKET MASTERS
TRADERS, RETAILERS AND IMPORTERS OF FRESH VEGETABLES**

FROM:	Mr. Billy Makhafola	E-MAIL:	BillyM@Daff.gov.za
TEL:	(012) 319 6023	REF NO:	21/4/1 Vegetables
FAX:	(012) 319 6055	SERIAL NO:	
NO. PAGES:	1	DATE:	18 August 2010

Subject

**PRACTICAL IMPLEMENTATION OF REGULATIONS RELATING TO THE GRADING, PACKING AND MARKING
OF FRESH VEGETABLES INTENDED FOR SALE IN THE REPUBLIC OF SOUTH AFRICA (R.69 WHICH WAS
PUBLISHED ON THE 13th FEBRUARY 2009 IN THE GOVERNMENT GAZETTE No. 31828)**

The Executive Officer: Agricultural Product Standards Act, 1990 (Act no. 119 of 1990) has observed a general culture of non-compliance by both the producers, packers, sellers and retailers with Regulations Relating to the Grading, Packing and Marking of Fresh Vegetables Intended for Sale in the Republic of South Africa throughout the national fresh produce markets and some retailers. The aforementioned Regulations came into force on the 13th February 2009 through Government Gazette no. 31828 which implied that due compliance by the fresh vegetable industry was immediately expected.

In order to assist the role-players (agents, retailers, producers and packers of fresh vegetables) in the local fresh vegetable industry to comply with Regulations No. 69, the Department of Agriculture, Forestry and Fisheries will be implementing Regulations in phases. These phases will be split into two, namely the 'compliance with requirements phase (namely Regulation 6 and 10) and the full comprehensive compliance with the aforementioned Regulations. The first phase (compliance to requirements stage) comprises of adherence to packing and marking of fresh vegetables. The second stage (phase) of implementation will focus solely on compliance with all aspects of the regulations, i.e. compliance with grading, packing and marking.

Role players in the fresh vegetable industry are given a period of four months to ready themselves for full compliance with the first phase of implementation which starts from September up to December 2010. During this concession period no consignment of fresh vegetables shall be rejected on the basis of non-compliance however this period should be viewed and used as a grace period to allow the industry to gear them towards complete adherence to the Regulations.

The sale of non-complying products with respect to packing, marking and labelling requirements shall be prohibited in terms of section 3 (a)(v) of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990) once the four months period has lapsed. This prohibition will be effected at the point of sale, in other words at the wholesale or retail level. The first batches of products which the DAFF inspectors will focus upon are carrots, butternuts, peppers, cucumbers, beetroots, green beans, broccoli, sweet potatoes, asparagus, mushrooms and cabbages.

This concession only applies to Regulations on vegetable types as set out in No. R. 69 which were published on the 13th February 2009 in the Government Gazette number 31828.

It would be appreciated if this communiqué can be taken heed of by all stakeholders within the Fresh Vegetable industry.

EXECUTIVE OFFICER:
AGRICULTURAL PRODUCT STANDARDS ACT, 1990 (Act No. 119 of 1990)

Copies: **Regional Manager: Kempton Park, Durban and Stellenbosch**

APPENDIX II

The Gauteng Department of Agriculture and Rural Development's 2009/2010 annual report

A list of the 18 projects awarded a letter of intent to supply government institutions with vegetables for a period of three years (Leshage Construction and Be Fresh Produce are listed under the Western Region and Eastern Region respectively).

Company Registration Name	Name of Project / Farmer
NORTHERN REGION	
Tsakane Brokerage	Mrs Marivate
Korema Development Agency	Mr P Mokgohloa
Nhaka Heritage Trading cc	Mrs Mureriwa
Seho Bouikutlo General Maintenance	Mr G Sehole
Khoza's Fresh	Mr H Khoza
Boitumelo Cooperatives	Kutlwano Cooperatives
WESTERN REGION	
Diepkloof Nursery	Ms T Gazi
Jaykes Tiller & Farmers	Mr Smith
Mama's Chillies	Mama's Chillies
Lehlare Construction	Thuthukani Lumphumile
Bilalian General Traders	Mr L Mojokane
EASTERN REGION	
Masebiseng Farming	Mrs A Phoza
Be Fresh Produce	Mr G Leshage
Songula Trading Enterprise	Songula
Vicky Agricultural Services	Mrs Molewa

Rothe Poultry and Vegetables	Ms S Malinga
Dijalo Farming	Mr Sithole
Ntswanatsatsi Produce Farm	Mr Tseki

Source: Gauteng Department of Agriculture and Rural Development's 2009/2010 annual report, page 79.



APPENDIX III

ORGANIC FOOD PRODUCTION RESEARCH PROJECT

Questionnaire number					Research Assistant			
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Name of respondent			
Project name			
Language spoken			
Are you a member of a co-operative?	Yes	No	
If Yes: name of co-operative and approximate membership?			
If Yes: Are you employed by the co-operative?	Yes	No	
Farm/Plot name (if applicable)			
Name and surname by which household is known			
Cell phone number of respondent			
Area where you live in Gauteng?			

Particulars of visits to the household	Date	Time started	Time ended
First visit			
Second visit			

Do you have any questions before we start?

.....

TABLE 1: MIGRATION HISTORY – now I’m going to ask you a couple of questions about where you come from

1a	In what country were you born?			<i>Go to Question</i>
		South Africa	1	↓ 1b
		Zimbabwe	2	↓ 1e
		Mozambique	3	↓ 1e
		Malawi	4	↓ 1e
		Swaziland	5	↓ 1e
		Lesotho	6	↓ 1e
		Botswana	7	↓ 1e
		Namibia	8	↓ 1e
		DRC	9	↓ 1e
		Zambia	10	↓ 1e
		Nigeria	11	↓ 1e
		Other Specify.....	97	
		Don't know	98	
		No response	99	
1b SA	If you were born in South Africa, which province were you born in?			<i>Exact location</i>
		Eastern Cape	1	
		Free State	2	
		Gauteng	3	
		Kwazulu-Natal	4	
		Limpopo	5	
		Mpumalanga	6	
		Northern Cape	7	
		North-west Province	8	
		Western Cape	9	
		Don't know	98	
		No response	99	

TABLE 1: MIGRATION HISTORY – continued.

1c SA	If you weren't born here in Gauteng, when did you leave the province of your birth?	<input type="text" value="mm"/> <input type="text" value="yyyy"/>		
		Not applicable	96	
		Other Specify.....	97	
		Don't know	98	
		No response	99	
1d SA	If you remember, when did you arrive in Johannesburg? Note to researcher: If the participant says he/she can't remember, please probe. Ask if it was <ul style="list-style-type: none"> • In the last month • Last 6 months • Last year; or • More than 5 years Add answer to Other Specify.....	<input type="text" value="mm"/> <input type="text" value="yyyy"/>		
		Not applicable	96	
		Other Specify.....	97	
		Don't know	98	
		No response	99	
		After answering this question move to TABLE 2		↓
1e Non-SA	If you remember, when did you leave your home country? Note to researcher: If the participant says he/she can't remember, please probe as above.	<input type="text" value="mm"/> <input type="text" value="yyyy"/>		
		Not applicable	96	
		Other Specify.....	97	
		Don't know	98	
		No response	99	
1f Non-SA	If you remember, when did you arrive in Johannesburg? Note to researcher: If the participant says he/she can't remember, please probe as above.	<input type="text" value="mm"/> <input type="text" value="yyyy"/>		
		Not applicable	96	
		Other Specify.....	97	
		Don't know	98	
		No response	99	

TABLE 2: HOUSEHOLD MEMBERS

Please tell me about all the people who are members of the household, even if they are not here at the moment. Do not include people who have established other households and have not come home in the last few years. **[USE CODES TABLE 1: Household members]**

Household head:

Code	Col 1	Col 2		Col 3	Col 4	Col 5	Col 6	Col 7
	1.Full name	2.Sex		3.Year of birth and age of this person	4. How is this person related to you? [USE CODES]	5. What is the marital status of this person? [USE CODES]	6. How often is this person present at this household? [USE CODES]	Total % present most or all nights
		Male	Female					
1A		1	2	/				
2B		1	2	/				
3C		1	2	/				
4D		1	2	/				
5E		1	2	/				
6F		1	2	/				
7G		1	2	/				
8H		1	2	/				
9I		1	2	/				
10J		1	2	/				
11K		1	2	/				
12L		1	2	/				
13M		1	2	/				
14N		1	2	/				

TABLE 3: SOURCES OF INCOME OF HOUSEHOLD MEMBERS

[USE CODES TABLE 3: Income sources of household members]

N.B. Description of income source: add details on nature of income source such as type of job, economic sector, where it is located, etc

	Col 1	Income source 1			Income source 2			Further information
	Name (use code pg6)	Code	Description	Cash per month	Code	Description	Cash per month	Description
1	A							
2	B							
3	C							
4	D							
5	E							
6	F							
7	G							
8	H							
9	I							
10	J							
11	K							
12	L							



TABLE 3: SOURCES OF INCOME OF HOUSEHOLD MEMBERS - continued

[USE CODES TABLE 3: Income sources of household members]

N.B. Description of income source: add details on nature of income source such as type of job, economic sector, where it is located, etc

	Col 1	Income source 3			Income source 4			Further information
	Name (use code pg6)	Code	Description	Cash per month	Code	Description	Cash per month	Description
1	A							
2	B							
3	C							
4	D							
5	E							
6	F							
7	G							
8	H							
9	I							
10	J							
11	K							
12	L							



TABLE 4: RANKING OF SOURCES OF INCOME OF HOUSEHOLD MEMBERS

Please rank the four most important income sources of the household, in order of importance, and explain why each is so important.

Rank order	Name (use code pg6)	Income source	Cash earned / month	Reason for importance
1				
2				
3				
4				

TABLE 5: REMITTANCES TO THE COUNTRYSIDE – is money remitted back to family members in the countryside or in another country?

	Name (use code pg6)	Money sent where (country and province?)	Money sent to whom (family member?)	Cash sent / month	Reason for sending
1					
2					
3					
4					

TABLE 6: DURABLE GOODS AND PRODUCTIVE ASSETS OF HOUSEHOLD MEMBERS – here only consider goods that are working

DOMESTIC	Does the household have?		Number owned	TOTAL
	Yes (1)	No (2)	Household	DOMESTIC
1 Electric stove	1	2		
2 Microwave	1	2		
3 Sewing or knitting machine	1	2		
4 Washing machine	1	2		
5 Lounge suite	1	2		
6 Gas stove	1	2		

7 Paraffin stove	1	2		
8 Fridge/freezer	1	2		
9 Freezer separate from fridge	1	2		
ELECTRONIC /COMMUNICATION				COMMUNICATION
10 Radio	1	2		
11 CD player	1	2		
12 Television /DVD player	1	2		
13 Computer	1	2		
TRANSPORT				TRANSPORT
14 Motor cycle	1	2		
15 Bicycle	1	2		
16 Motor vehicle in running order	1	2		

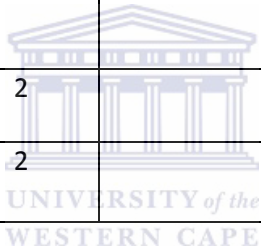
TABLE 6: DURABLE GOODS AND PRODUCTIVE ASSETS OF HOUSEHOLD MEMBERS – continued

AGRICULTURE				AGRICULTURE
17 Tractor	1	2		
18 Plough	1	2		
19 Wheelbarrow	1	2		
20 Knapsack sprayer	1	2		
21 Donkey cart/ox cart/horse cart	1	2		
22 Garden spade	1	2		
23 Garden fork	1	2		
24 Hoe	1	2		
25 Generator	1	2		
26 Water tank	1	2		
27 Mill	1	2		
28 Pick	1	2		
27 Inverter	1	2		
28 Other (specify)	1	2		

TABLE 7: LAND USED BY MEMBERS OF THE HOUSEHOLD LAST YEAR

What types of land does this household have? (Include land that is not adjacent to the household)

	Col 1	Col 2		Col 3		Col 4	Col 5	Col 6
	1.Type of land	2. Does your household have use of this type of land?		2. Has the land been used by the household in the last 12 months?		3. In what year did your household get this land?	4. How did your household first get this land?	5. How many plots does this household have?
		Yes (1)	No (2)	Yes (1)	No (2)			
1	Residential	1	2	1	2			
2	Garden plot/s within household	1	2	1	2			
3	Project land?	1	2	1	2			
4	Other (specify)	1	2	1	2			



- If the household has land but is not using it, please explain why:

.....

.....

.....

.....

.....

.....

.....

- **ONLY ASK HOUSEHOLDS THAT HAVE GARDEN PLOTS**

TABLE 8: CROPS GROWN BY MEMBERS OF THE HOUSEHOLD LAST YEAR

What types of crops were grown on the land used by this household last year? (Include land that is not adjacent to the household)

	Type of land	Crop type1	Crop type2	Crop type3	Crop type4	Crop type5	Crop type6	Crop type7	Crop type8	Crop type9
1	Garden plot/s within household									
2	Other (specify)									

TABLE 9: USE OF CROPS BY HOUSEHOLD LAST YEAR

	Crop type	Measure	Amount consumed	Amount sold	Cash received	Purchaser
1						
2						
3						
4						
5						
6						
7						
8						

- **ASK ALL PARTICIPANTS**

TABLE 10: LIVESTOCK OWNED BY HOUSEHOLD

What livestock are owned by this household? (Include animals kept elsewhere and looked after by others)

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
	Type of livestock	Number owned now	Where these animals are kept	Purchases in last year	Births in last year	Deaths in last year	Slaughter in last year	Sales in last year
1	Cattle							
2	Goats							
3	Sheep							
4	Donkeys							
5	Pigs							
6	Chickens							
7	Other poultry							
8	Other (specify)							

TABLE 11: NUMBER OF LIVESTOCK OWNED BY INDIVIDUAL MEMBERS OF HOUSEHOLD

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	TOTAL
	Type of livestock	Name/Code	Name/Code	Name/Code	Name/Code	Name/Code	Name/Code	
1	Cattle							
2	Goats							
3	Sheep							
4	Donkeys							
5	Pigs							
6	Chickens							
7	Other poultry							
8	Other (specify)							

TABLE 12: LIVESTOCK SOLD BY MEMBERS OF THE HOUSEHOLD LAST YEAR

	Livestock type	Number sold	Livestock owner/s – use codes	Cash received	Purchaser
1	Cattle				
2	Goats				
3	Sheep				
4	Donkeys				
5	Pigs				
6	Chickens				
7	Other poultry				
8	Other (specify)				

Did any project workers receive a cash wage last year? Yes No How many?.....

Did any project workers receive an in-kind wage last year? Yes No How many?

If both, why is there a difference in wage types?

.....

.....

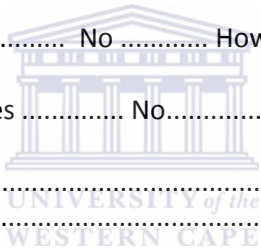
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APPENDIX V

Enterprise details for 2007/001643/24

Please note: - If any of the information displayed on the page is incorrect, please DO NOT email us asking us to change it. Regulated information for CCs must be changed by submitting a CK2A and regulated information for companies must be changed by submitting a CM22. Non-regulated information can be changed by following the [Change Corporate Information](#) link.

Enterprise Name	BAMBANANI FOOD AND HERB
Registration Date	03/04/2007
Business Start Date	03/04/2007
Enterprise Type	Primary Co-Operative
Status History	
Current Enterprise Status	In Business
Standard Industrial Classification	TO ESTABLISH FOOD GARDENS TO CATER FOR POOR & VULNERABLE HOUSEHOLDS. TO ENABLE COMMUNITIES TO HAVE ACCESS TO ORGANIC VEGETATION
Telephone Area Code	
Telephone Number	
Fax Area Code	
Fax Number	
Registered Address	46 BERTRAMS ROAD BERTRAMS 2094
Postal Address	46 BERTRAMS ROAD BERTRAMS 2094
Email Address	
Docex Address	
Web Site Address (URL)	
Additional Information	

APPENDIX VI

<http://www.truthabouttrade.org/2012/11/21/we-must-remove-the-landmines-that-limit-access-to-biotechnology-in-africa/#comment-4946>

Accessed 24 November 2012

[We Must Remove the Landmines That Limit Access to Biotechnology in Africa](#)

— By [mmusi](#) on November 21, 2012 9:08 am

Back in the dark days of apartheid, many South African farmers like myself were forced to drive our tractors through fields full of landmines as we worked hard to grow maize and other vegetables.

That's now a part of history, thank goodness. Yet farmers in today's Africa continue to face landmines of the metaphorical variety: As we try to obtain access to the latest agricultural technology, we see hazardous obstacles everywhere. They must be removed.

If our continent is ever going to feed itself, we're going to have to beat the odds—and adopt the same tools that are taken for granted in so much of the developed world. That means we must have access to seeds improved with biotechnology.

I've seen the benefits of GM crops firsthand. Just south of Johannesburg, I own several acres of land and rent more. For the last eight years, I've grown genetically modified corn and soybeans. They are outstanding crops. My yields have improved by more than one-third, meaning that the economics of farming never have been better. Agriculture doesn't have to be a subsistence occupation. It can be a sustainable profession.

Economics are only a part of it. GM crops are more sustainable for the environment and human health as well. The biotech variety I planted protects maize from stalk boring insects, so I don't have to apply nearly as much chemical spray as in the past. That's a huge benefit for field laborers, especially children.

The enemies of biotechnology sometimes claim that GM food is harmful to eat. This is sheer nonsense. Ever since I've grown it, I've eaten it. There are no bad side effects. This is perfectly good food.

Africans everywhere must come to this realization. We don't grow nearly enough food. Our production is simply too low. And so we face a stark choice: Do we accept the bleak prospect of permanent dependence, in which we rely upon the wealthy nations of the world to feed us, out of pity? Or do we want to stand on our own and take care of ourselves?

The choice is between aid and trade, and this is no choice at all. We must embrace agricultural growth. We shouldn't struggle to feed our fellow Africans, but should grow so much that we export our crops around the world.

GM technology is not a panacea. It won't solve all of our problems. African farmers face a long series of challenges, from an inadequate infrastructure to political corruption. Yet access to the latest crop technologies will give us a fighting chance, especially as the climate changes and we try to adapt to new and possibly harder conditions. Drought-resistant plants represent an especially hopeful opportunity.

Too much of Africa missed out on the Green Revolution. We cannot afford to let Africa ignore the Gene Revolution. Unfortunately, many people, especially in Europe, don't want us to benefit from these developments. It reminds me of the worst aspects of South African apartheid

In 1976, I quit high school to become an anti-apartheid activist, thinking that liberation was more important than education. They're both essential, of course, and I'm proud to say that over time we saw Nelson Mandela go free and now many of us actually own the land we work. I'm no longer a second-class citizen, but a proud South African with my own passport.

But those were tough times. As a protestor, I was detained by authorities. My brother was beaten. He still has a dent in his skull from that experience. Just thinking about those times brings back memories of pain.

Now we face a new kind of imperialism—an international eco-imperialism that seems to think African farmers should remain poor and desperate, while the rest of the world flourishes. This new breed of activist seeks to keep GM crops away from African farmers and hamper the sale of our GM food to customers in other countries. Almost nothing could be more harmful.

I look forward to a different kind of future, when Africans refuse to let others push us around. We should demand nothing but the best. For those of us who produce the food, that means full access to biotechnology.

Mr. Motlatsi Musi grows maize, beans, potatoes, breeding pigs and cows on 21 hectares he acquired in 2004 through the Land Redistribution for Agricultural Development Program (LRAD) in South Africa. Mr. Musi is a member of the TATT Global Farmer Network (www.truthabouttrade.org)

APPENDIX VII

Enterprise details for 2007/001716/24

Please note: - If any of the information displayed on the page is incorrect, please DO NOT email us asking us to change it. Regulated information for CCs must be changed by submitting a CK2A and regulated information for companies must be changed by submitting a CM22. Non-regulated information can be changed by following the [Change Corporate Information](#) link.

Enterprise Name	MOKOBOBO FARMERS
Registration Date	13/03/2007
Business Start Date	13/03/2007
Enterprise Type	Primary Co-Operative
Status History	
Current Enterprise Status	In Business
Standard Industrial Classification	AGRICULTURAL. TO CARRY ON FARMING & INDUSTRIAL OPERATIONS. TO ENGAGE IN POULTRY FARMING & DISPOSE OF THE PRODUCTS THEREOF VIZ EGGS& LIVE CHICKENS,PIGGERY ETC.
Telephone Area Code	083
Telephone Number	5828693
Fax Area Code	073
Fax Number	0670905
Registered Address	IQ 316 PORTION 15 EIKENHOF ROAD (R554) OLIFANTSVLEI 1821
Postal Address	667 VLAKFONTEIN EXTENSION 1 THEMBELIHLE ZAKARIYYA PARK 1821
Email Address	
Docex Address	
Web Site Address (URL)	