

AT THE BOTTOM OF THE FOOD CHAIN:

SMALL OPERATORS VERSUS MULTINATIONAL
CORPORATIONS IN THE FOOD SYSTEMS OF BRAZIL,
MEXICO AND SOUTH AFRICA



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GLOSSARY OF TECHNICAL TERMS

Agroindustry: Large-scale production, processing and packaging of food using modern equipment and methods.

Agribusiness: A large-scale business that earns most or all of its revenue from agriculture, including from production, processing, manufacturing, packaging and distribution of products.

Big Food: Large commercial entities—both MNCs and national corporates—that increasingly dominate key components of the food and beverage value chain.

Biocides: Chemical substances commonly used in medicine, agriculture, forestry and industry; include anti-fouling agents or disinfectants, e.g. chlorine; pesticides, e.g. fungicides, herbicides, insecticides; and antimicrobials, e.g. germicides, antibiotics, antivirals, etc.

“Corporate capture”: The influence of companies on public institutions, for example by lobbying, direct funding of political parties, and funding think tanks to influence political agendas and policy debates.

Developed countries: Countries considered to be industrialised and economically wealthy; also referred to as More Economically Developed Countries (MEDCs); or high-income countries.

Developing countries: Countries considered to be less economically developed or poor; also referred to as low- and middle-income countries; or Less/Least Economically Developed Countries (LEDs); or Least Developed Countries (LDCs).

Emerging markets: “Newly industrialised” countries which are rapidly developing economically due to growing their manufacturing capabilities and increasing their export trade.

Financialisation: “The increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies” (Epstein, G. 2005, Financialisation and the World Economy, page 3).

Food versus products: Where appropriate in this report, a distinction is made between foods, and culinary/industrial ingredients and ultra-processed eatable and drinkable products.

Globalisation: “A process of greater integration within the world economy through movement of goods and services, capital,

technology and (to a lesser extent) labour, which lead increasingly to economic decisions being influenced by global conditions” (Jenkins, 2004).

Inequality: A “hierarchy” of access to resources, with some people having more than others. Integral to this is the ethical concept of inequity referring to unfair, unjust, undesirable and avoidable differences in access to wealth, land and power.

Liberalisation: The relaxation of previous government regulations and restrictions, e.g. trade barriers between nations.

Nutrition disorders: These can be “caused by an insufficient intake of food or of certain nutrients, by an inability of the body to absorb and use nutrients, or by overconsumption of certain foods. Examples include obesity caused by excess energy intake, anaemia caused by insufficient intake of iron, and impaired sight because of inadequate intake of vitamin A. Nutrition disorders can be particularly serious in children, since they interfere with growth and development, and may predispose to many health problems, such as infection and chronic disease.” (World Health Organisation (WHO), 2015)

Multi-National Corporation (MNC): A “stateless” company that operates, produces goods, delivers services, or has investments in more than one country. It usually has management headquarters in one country (the home country) but operates in a variety of other countries (host countries), either in its own name or through subsidiaries – in the latter case it is referred to as a Transnational Corporation (TNCs).

Neoliberalism: A belief in the free market and minimum barriers to the flow of goods, services and capital; based on four principles: economic growth is paramount (companies must be free to pursue whatever gives them economic advantage, free from government regulation); free trade between all nations; the reduction of government spending and increasing privatization; in terms of the distribution of economic goods, individual responsibility replaces the concepts of public goods and community. (WHO, 2015)

“Western” diet or “neo-liberal” diet: The nutritional transition to a “Western” diet, suggests a component of cultural imperialism, as the diet associated with the spread of US and Europe into the developing world. Some critics prefer to call this a “neo-liberal” diet, reflecting a system of economic and political forces which allow large MNCs to thrive in a relatively unregulated market (Otero, et al, 2015).



AT THE BOTTOM OF THE FOOD CHAIN

Small Operators versus Multinational Corporations in the Food Systems of Brazil, México and South Africa

EXECUTIVE SUMMARY

The global market dominance of multinational corporations (MNCs) throughout the food system impacts smaller, independent operators and producers, and also influences significantly the foods that consumers have access to and eat, with implications for public health, hunger and nutrition. The ownership and market share of these conglomerates potentially undermines the development agendas of many countries, and contributes to aggregate wealth and also to poverty and inequality.

According to Guinn and Hamrick (2014), *“Food systems throughout the world have undergone massive transformations during the last 30 years, particularly in developing countries, as large, often multinational firms have extended their reach over the management of food supply chains.”* Governments of developing countries have become interconnected with corporate strategies in ways that make them dependent and subordinate, resulting in the surrender of strategic sectors, such as food and agriculture.

This report examines how the food systems in South Africa, Brazil and Mexico are dominated by a small group of MNCs of both foreign and national origin that play a significant role in agricultural inputs and production, processing and manufacturing of foodstuffs, procurement, storage and transportation, retailing and consumption.

Many studies of the food system track individual commodities, such as staple food items, in order to understand MNC dominance. However this approach carries the risk of underestimating the ownership and market share of conglomerates, and to their privileged access to information, capital, and political power, which operate and are dominant in more than one commodity chain. This report has therefore combined a review of the pathways of economic and political influence of MNCs in the food system with a value chain (VC) analysis as the lens through which to gauge the footprint of these so-called “stateless corporations” operating across the different nodes of the food systems in these three countries, and analyses the resulting impacts of this footprint.

The report begins by situating MNCs within the context of globalisation, discussing the broad policy landscape which has enabled MNC dominance in the food value chain, so that many now have greater economic power (and political ‘clout’) than some states. It then discusses the local responses of each of the three countries to these global economic processes and to the centralisation of power and economic dominance of a few large food and agricultural MNCs.

Through a series of case studies the report demonstrates how each node in the food system in South Africa, Brazil and Mexico is structured in similar ways – highly centralised, with each segment being dominated by the same small group of large local and foreign companies - Monsanto, Cargill, Syngenta, Nestle, Coca-Cola, Wal-Mart, McDonalds, amongst others. The following key and common themes emerge:

The marginalisation of small-scale farmers/producers:

When trade and investment are allowed to proceed without state intervention, large corporations thrive and previously restricted markets are opened to greater private competition. In each country studied, the lack of clear legislation, policies and programmes dealing explicitly with the role of food and agricultural MNCs has impacted most severely on small-scale producers and operators, in a dynamic that enriches owners and investors but simultaneously makes large sections of the populations of each country poorer, more dependent and thus, more vulnerable.

MNC market dominance in agricultural input and production channels small farmers towards a small variety of inputs that are tightly controlled by corporations at the expense of a diversity of regionally appropriate seeds. This is a drain on farmers’ pockets and reduces genetic diversity in seed stock. MNCs also often dictate the type of crops to be grown, for example MNC demand for sugar (as a cheap bulking agent) has implications for where and how it is grown – using up farmland and valuable environmental resources, which could otherwise be used to grow nutrient-dense foods – processed into foods, traded and consumed. This has a knock-on effect throughout the food system.

The impact of MNC dominance in processing and manufacturing:

MNCs use their power as the main buyers of crops (such as grains and sugar) to fix at low levels direct purchasing prices from producers and to impose high sales prices on consumers. In this way they maximise their profits, punishing producers, operators and consumers.

The impact of MNC dominance in procurement on small operators:

By taking over procurement and shipping of fresh produce to capture added value, large supermarket chains cut out middle men in the value chain, reduce the volume of produce through fresh produce markets, and reduce the turnover and profitability of independent retailers and informal traders.

The impact on consumption and on the food environment:

The increasing control of MNCs over the food environment, the unregulated operations of the fast food sector, and the extensive advertising of “high status” fast foods, has resulted in an environment saturated with unhealthy and cheap foods, with implications for public health, hunger and nutrition. Each country in this study manifests some of the highest figures for under-nutrition and overweight/obesity and associated non-communicable diseases (NCDs), in the world.

The undermining of food security and inequality:

Many of the impacts demonstrated in the case studies have the potential to exacerbate poverty and inequality in various ways. For example, anti-competitive behaviour in various food and beverage sectors increases the price of staples and negatively effects especially poor households. In-house trading allows MNCs to legally avoid paying taxes to host nations, thereby depriving these countries of important revenue to fund investment in development such as schools, public health, and infrastructure.

The overall conclusion of the report is that food security is not simply about producing enough calories. The food system needs to allow these calories to remain wholesome, affordable and easily accessible, in foods with sufficient protein and micronutrients. More than just agricultural intervention, there needs to be regulation of actors in the food value chain and economic policies (such as subsidies and taxes) to make unhealthy foods more expensive and healthy foods cheaper. Effective poverty reduction strategies, safety nets and rural development programmes are a priority in order to tackle food insecurity in a sustainable way.



1. INTRODUCTION:

GLOBALISATION, THE RISE OF “BIG FOOD” & THE DOUBLE BURDEN OF MALNUTRITION

Food security refers to a state where “*all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life*”, according to the 1996 World Food Summit hosted by the United Nations (UN). This means that for a nation, region or household to be food secure, conditions must be such that food is not only produced and available, but that people have access to it, both financially and physically; and that food is used in a way that supports nutrition and is safe to eat. The Mexican, Brazilian and South African food systems are dominated by a small group of large MNCs of both foreign and national origin that control food inputs and production, processing and manufacturing, storage, distribution and retail and, of course, profits. This maldistribution of economic power threatens the food security of these nations, undermines the productive role of small producers and operators, and impacts particularly on the poor.

The domination of the food system by corporates operating beyond state levels began in the post-World War 2 United States (US), accelerating with economic restructuring in the 1970s, and further with liberalisation and the financialisation of world markets from the 1990s. This evolution of economic globalisation¹ was underpinned by the ideology of neo-liberalism which favours free-market competition (in a global market place), minimal state interference, and the reduction of regulations to maximize profits.

Liberalisation of global trade has allowed private firms to thrive, powered by technological advances in information, communication and transportation. The US food market model was exported to Europe and then replicated in the global South, with global policy mechanisms and regulations continuing to favour the interests of structures of the global North (Bernstein, 2015; Friedmann, 1993).

The General Agreement on Trade and Tariffs (GATT) in the late 1980s and early 1990s led to the formation of the World Trade Organisation (WTO) in 1995, and locked participating countries into trade agreements skewed towards opening markets to the private sector based in the core capitalist countries. The growth in agricultural exports from these core industrialized countries over the past three decades is an indication of a crisis of overproduction rather than a reflection of the health of global agricultural production. Agricultural trade negotiations were designed primarily to resolve some of these symptoms of crisis. Even if countries did not need to import, they had to open their markets to this minimum exposure (Madeley, 2002). This has had major implications for their systems of production and distribution as local producers and distributors have been forced to scale-up to compete. This often has meant that smaller enterprises were acquired by larger enterprises, and many went out of business.

¹ The term ‘globalisation’ has multiple and often contested meanings. In this paper we use the term to mean “a process of greater integration within the world economy through movement of goods and services, capital, technology and (to a lesser extent) labour, which lead increasingly to economic decisions being influenced by global conditions” (Jenkins, 2004).

When MNCs are more economically powerful than states

Globalisation has accelerated the growth and domination of MNCs both internationally and regionally, so that many now have greater economic power than some states. For example, at the beginning of the millennium:

- In 2014, of the 100 governments and corporations with the highest annual revenues, 63 were corporations and 37 were governments (CIA, World Fact Book, 2015; Fortune Global 500; 2015).
- The 100 largest corporations controlled assets of \$3,400 billion, of which 40% were located outside their home countries.
- 500 TNCs controlled 70% of global trade, and just 20 of these controlled the coffee trade; 6 held 70% of wheat trade; and 80% of the entire production of world grain was distributed in just two companies - Cargill and Archer Daniel Midland (Sikka and Willmott, 2010).

Increased MNC domination and concentration of power has led to growing inequalities both between developed and developing countries, as well as within countries. Governments of developing countries have become interconnected with corporate strategies in ways that make them dependent and subordinate, resulting in the surrender of strategic sectors, such as food and agriculture. The influence of MNCs on developing countries is determined by their market power and their strategies for commercial and productive penetration. This economic power has enabled them to influence national institutions and national policy, based on their private interests.

The political “clout” of MNCs

The economic power of MNCs is accompanied by enormous political clout, especially where strong or effective protection mechanisms have not been established to ensure balanced policy-making. Even when balanced public policies are in place, economic power at the transnational level may surpass the political power of nation-states. MNCs use direct and more obscure tactics to further their interests, for example:

- *Interference in knowledge production and diffusion:* MNC discourse that hunger and undernutrition are expressions of “*absolute lack of food globally*” is being used to push mono-cropping, intensive and extensive use of GM seeds and pesticides, as well as the expansion of “magic saviour” edible products, such as ultra-processed products with added micronutrients. This discourse persists despite extensive evidence to the contrary, for example, according to the Food and Agriculture Organization of the United Nations Statistics Division (FAOSTAT) in the last two decades the global per capita food supply increased by 10% (FAOSTAT, 1992-2011).
- *Interference in political decisions:* The advertising, media and press industries are intricately connected and often form an alliance to impede regulatory measures unfavourable to MNCs - from lobbying in parliament, to behind-the-scenes meetings with politicians and policy makers, to funding think-tanks to influence national agendas and debates, and to drive public opinion against

regulatory measures that negatively impact their businesses (Gomes, 2011; 2013). The Mafrig group, for example, an ultra-processed meat MNC, invested more than half a million US dollars funding electoral campaigns during the Brazilian elections in 2014, including a campaign for the Governor of the State of Mato Grosso - the State positioned as the second major meat products exporter and the biggest soya bean producer in Brazil. Such interference in the political system, be it the funding of electoral campaigns or lobbying in parliament, critically undermines democracy and favours corporate interests.

- “*Revolving doors*”: MNCs move key personnel from public administration into the private sector and vice versa. An analysis of the Boards of Directors of different MNCs in Mexico, for example, identified that they share many different directors and members, some of which have occupied positions in government or chambers of commerce. In this way, corporations are able to weave complex networks of connections based on their economic capacity, allowing them to achieve political influence in different countries.

Maximising profits and minimising tax revenue payments

MNCs sometimes use the different regulatory and tax regimes of the many countries in which they operate to legally avoid paying taxes to host nations. Transfer pricing, for example, is a well-established practice worldwide, where MNCs conduct trade and business between their subsidiary companies in different countries as a way of maximising profits and minimising tax revenue payments. They “distort” their prices artificially, to under-pay on taxes, to leverage economies of scale and competitive advantage in various ways (such as through marketing, protection of intellectual property, and the payment of royalties and rents on those), and to move profits to offshore tax havens. It often involves, “*maximising expenses in (a high-tax country)... and income (in a low-tax jurisdiction) by moving trade between the two countries*” (PricewaterhouseCoopers, 2009).

The consequence for developing countries is the erosion of their tax base which “*undermines the fiscal base from which hundreds of thousands of workers in the state sector are paid, and from which local investments are funded*” (Alternative Information and Development Centre (AIDC), 2015). Sikka and Willmott (2010) argue that such practices “*may enrich a few people but also deprive millions of people of clean water, sanitation, education, healthcare, pensions, security, transport and public goods.*”

Although transfer pricing and other activities behind the loss of capital are not all illegal or direct tax evasion, they often involve moving money using trade “*mis-invoicing*” (often achieved via valuation fraud) (AIDC, 2015), under-invoicing (Kar & Spanjers, 2014) and creative accounting. When MNCs are economically more powerful than nation states it is often difficult and expensive for countries to track these transfer pricing practices. Many developing countries, for example, lack the human capacity to track the practices of companies that have greater annual earnings than the countries’ own GDPs.

Case example

Tax avoidance behaviour of SABMiller

In 2010, UK-based ActionAid conducted an investigation into SABMiller (MNC brewing and beverage company headquartered in London) in order to uncover tax avoidance behaviour of its subsidiaries in six countries in Africa (Ghana, Mozambique, South Africa, Tanzania, and Zambia) and in India. The findings were that “governments in developing countries may have lost as much as £20 million to SABMiller’s expert tax dodging.” This is money which should go into building schools, roads and hospitals.

In its report ActionAid (2012) lists four ways in which SABMiller avoided tax payments to their host countries’ tax revenue streams:

1. **Brand ownership transfer:** By transferring the ownership of African-brewed brands from domestic subsidiaries in Africa to the Netherlands-based SABMiller International BV, the multinational was able to leverage extremely low taxes on brand royalties there. This tax dodge is estimated to have cost the African countries £10 million in 2009/10. By moving the Castle lager brand to the Netherlands SABMiller office, the SA subsidiary SA Breweries pays £18 million (R274 million) in royalties each year to SABMiller International BV, which is money that would otherwise be paid into the SA fiscus.
2. **By paying management service fees to European tax havens,** SABMiller subsidiaries in Africa and India are able to avoid paying domestic tax revenues estimated at nearly £10 million per year.
3. **By dealing with a Mauritian company,** which can hide behind “tax haven secrecy”, SABMiller’s Ghana subsidiary, Accra Brewery, may have avoided a tax bill of £670 000 per year, at the time of the study.
4. **Accra Brewery was able to wipe out its tax liability annually to the amount of £76 000 by taking a loan to the value of seven times its capital from the same Mauritian company.**

THE ROLE & INFLUENCE OF MNCs ACROSS THE FOOD VALUE CHAIN

A small number of large corporations and MNCs now dominate the food and beverage sector as a whole, as well as specific commodity chains. These “stateless” corporations operate across borders, are powerful in terms of the governance of the flows in the food system, and are able to organise it in their favour.

Of importance is the increasing institutionalisation of ownership of these large corporations via stocks and shares owned by, for example, massive pension funds, banks, private investment companies and other financial institutions. Often ownership is widely dispersed between many institutions and shareholders, but there is general agreement on expected returns on investment (ROI) over time.

A hallmark of the global trend towards centralisation of power and economic dominance of a few large MNCs in the food value chain is “vertical integration” which includes:

- MNCs capturing more and more of the market share, profits and power in their respective arenas, using foreign investment, mergers and acquisitions (M&A) of rivals or smaller enterprises, or through new product development;
- Integrated supply chain management, where the whole supply chain is managed under the direction of a lead firm; constantly seeking out supply chain efficiencies which eliminate middlemen and perceived waste in the system, with benefits accruing to those driving these processes; and, in certain conditions, the vertical integration of production and distribution within the corporation.

Agricultural inputs and production

Who owns the genes that become our food?

After World War 2, developments in plant breeding brought new varieties of staple crops (hybrids) that were designed to be higher yielding than traditional varieties, particularly when used as part of a technological package including synthetic fertilizer, intensive irrigation and pesticides. This so-called “Green Revolution” changed the nature of farming and looked like the answer to global hunger and food shortages. However, two key threats emerged:

- Although these hybrid crops do yield well, the second and third generation seed they produce does not. This means that farmers can no longer store seed but have to buy fresh seed every year, becoming part of a cash economy

and being locked into a formal economic system (Greenberg, 2010; African Centre for Biosafety (ACB), 2014).

- As technology has become more sophisticated, it has become more proprietary, owned by a small number of powerful agribusinesses that have flooded the sector with these hybrids, marginalising the mainly genetically diverse varieties farmers have cultivated for generations. Hybrids are also usually based on standardisation which encourages mono-cropping, making farmers less resilient in the face of drought, disease or other environmental shocks. In 2005, the Food and Agriculture Organization (FAO) estimated that three quarters of traditional crop plants were lost in the 20th Century. *“At the turn of the 21st century, 12 plants and five animal species generated three quarters of the world’s food.... the result of a particular system of food production that demands uniformity and yield over diversity and nutrition”* (ACB, 2012).

In addition to hybrids, agribusiness has also developed a model of seed engineering and ownership, with the advent of genetically modified (GM) seeds, tailored to be herbicide tolerant (HT) or with built-in pesticides (Bt).

Centralising ownership in agribusiness

As in other nodes of the food value chain a few large corporations dominate both the seed and agrochemical industries. Hybrid and GM seed are now packaged with the “recommended” pesticides from the same company – locking farmers into buying and using the bespoke agrochemical, or not being covered for seed failure if they fail to do so. Monsanto’s maize and soybean varieties, for example, are modified to be resistant to the company’s trademark weedkiller, “Roundup”.

“Ten companies control 75% of the world’s commercial seed market...and three of them dominate: Monsanto (23% of market share in 2007), DuPont (15% of market share in 2007) and Syngenta (9% of market share in 2007). These companies are also pesticide producers that focus on the development of proprietary hybrid and genetically modified seed” (ACB, 2014). Recently, Monsanto was in the news for its interest in acquiring Syngenta, which appears to be likely in the short term future.

The impact on small-scale farmers

At the other end of the economic spectrum are small-scale farmers who fall into a number of possible categories, ranging from, *“supplementary food producers and allotment-holding wage workers, both of whom engage in some food production for household consumption with differing access to wage labour; worker-peasants who combine substantial agricultural production with wage labour; petty commodity producers for whom farming is the main source of income and who rely on a combination of own, family and hired labour; small scale capitalist farmers who hire labour; and capitalists who farm but whose main income comes from elsewhere”* Cousins, (2009).

All farmers, even the smallest, are integrated into the formal market in some way - most, if not all, need to generate cash from their farming outputs in order to purchase inputs. They are a captive market and are price-takers in a sector where only a few big firms dominate.

The corporatisation of seed, the ownership of intellectual property related to genetic materials in seeds, and locking farmers into the bespoke herbicides, undermines food sovereignty and narrows farmers' choices. It detaches farmers from the reproduction of a fundamental component of farming and food security - the seed stock - and forces them to pay for inputs they previously could have generated themselves. It marginalises small farmers because the technologies are generally out of their reach (owing to expense, or geographic distances from outlets) and inappropriate for their conditions.

The planet of slums

Around the developing world, small-scale farmers are being forced off their land by, amongst other things, direct displacement to make way for large-scale commercial farming activities, tough economic conditions, limited returns on their economic activity, lack of competitiveness or access to markets, and environmental crises linked with climate change and resource over-extraction.

Many of these farmers move to nearby towns and cities in search of economic opportunity. However, often these localised economies cannot provide the jobs and social services for these economic migrants, who are forced to settle in informal settlements on the economic margins of these urban hubs. This process of "*jobless deagrarianisation*" is contributing to what urban theorist, Mike Davis calls "*the planet of the slums*" (Davis, 2006).

In addition, many large commercial farmers have also moved towards towns and cities, in response to factors such as increased input costs, tighter margins, and unfavourable agricultural policies.

Processing and manufacturing

MNCs use their power as the main buyers of crops (such as grain and sugar) to fix at low levels direct purchasing prices from producers and to impose high sales prices on consumers. MNC dominance in the food system and in specific commodity chains contributes towards creating an "abnormal" food environment (Lancet, 2011), which has implications for public health. Not only does this destroy nutrients, it also removes much of the taste and colour from food. The global food industry compensates by adding artificial flavourings, colourings and chemical preservatives so as to extend the shelf-life that foods destined for the global marketplace require. MNC monopoly in the sugar milling sector and in the manufacturing of processed products (where sugar is used as a cheap bulking agent), has the following effects:

- It marginalises small operators and small farmers. In Brazil, for example, Guinn and Hamrick (2014) point out that, “*since the 1990s small farmers have been largely excluded from sugar value chains (for both refined sugar and ethanol), as mills and distilleries have acquired land in order to vertically integrate backward into sugar cultivation, a process which has been linked to violations of indigenous land rights, forced removal of peasants and other human rights violations.*” It displaces healthy calories, both in terms of the kind of nutritious crops farmers could grow, and also in terms of consumption where people eat these “dead calories” instead of nutrient-rich ones. This in turn contributes to the increase in a number of illnesses, such as diabetes, heart disease and certain cancers.
- Growing sugar uses up farmland, as well as valuable environmental resources needed to grow it, which could otherwise be used to grow nutrient-dense foods.

And yet the demand for sugar means that how it is grown, traded, processed into foods and consumed, has a knock-on effect through the whole food system.

Procurement and sales

Globally, studies show that the concentration of power within the sector allows large retail chains to become ‘lead firms’ in the food value chain, enabling them “*to dictate terms and demands to other chain participants further upstream*” (Gereffi, et al., 2005). Their bargaining power, for instance, allows supermarkets to pass costs such as packaging costs, back up the supply chain, and thus protect their own margins (Qeqe and Cartwright, 2005). The effect is to increase the costs and risks of farming, but the bind is that supermarkets will only deal with farmers who are able to carry these costs and risks. This often results in the exclusion of small-scale farmers.

In addition, many large retail MNCs take over their own procurement and transportation of fresh produce to capture added value. In so doing, they cut out middle men, reduce the volume of produce through fresh produce markets, and reduce the turnover and profitability of independent retailers and informal traders.

Supermarkets set rigorous standards around the aesthetics of fresh produce which are of concern for two reasons:

- Accessing formal retail markets is an important way of boosting rural development and small scale farmer success. However, small-scale farmers struggle to gain access to large retail chains, as they often cannot produce sufficient volumes, or guarantee regularity of supply, or meet retailers’ often stringent aesthetic and safety standards on fresh produce (Reardon, 2003.)
- These standards are linked with high levels of food waste at the retail node of the value chain. The FAO reports that a third of all food produced for human consumption is lost or goes to waste at some point from farm and consumer,

and notes that supermarkets and consumers may need to loosen these standards in order to reduce food waste from retailers (FAO, 2011).

The “nutritional transition” and the “dietary transition”

The public health community has drawn a direct link between the increasing sales of ultra-processed foods and beverages, the aggressive marketing and promotion strategies used by MNCs (to promote the perception that these products are desirable), and the epidemic rates of obesity and non-communicable disease (NCDs) globally. MNCs are viewed as direct drivers of these epidemics and as undermining NCD prevention and control (WHO, 2003; Moodie, et al, 2013).

In the developing world especially, the change from a situation where undernutrition predominates, to one where overweight and obesity are the leading nutritional disorders has been termed the “nutritional transition”. However, we are also seeing a more complex picture of the nutritional status of populations, resulting in a mixed disease pattern that occurs over a protracted period of time. Increasingly, in the same country, in some population groups there is the traditional decrease in diseases related to under-nutrition and infectious diseases, which are clearly underpinned by poverty, and an increase in non-communicable diseases (NCDs); while in other population groups there exists a “*dual burden of both poverty-related diseases and NCDs*” (Frenk, et al 1989). Underlying this “dual burden” is a “dietary transition” - a general shift to a diet that is higher in calories, less diverse, lower in fibre, and made up of more highly processed, energy dense but nutritionally poor foods, that are linked with overweight and obesity, and related to NCDs. The rise of Big Food is a key factor in this transition.

“As a result, many low- and middle-income countries now face a growing burden from the modern risks to health, while still fighting an unfinished battle with the traditional risks to health”

(WHO, 2009).

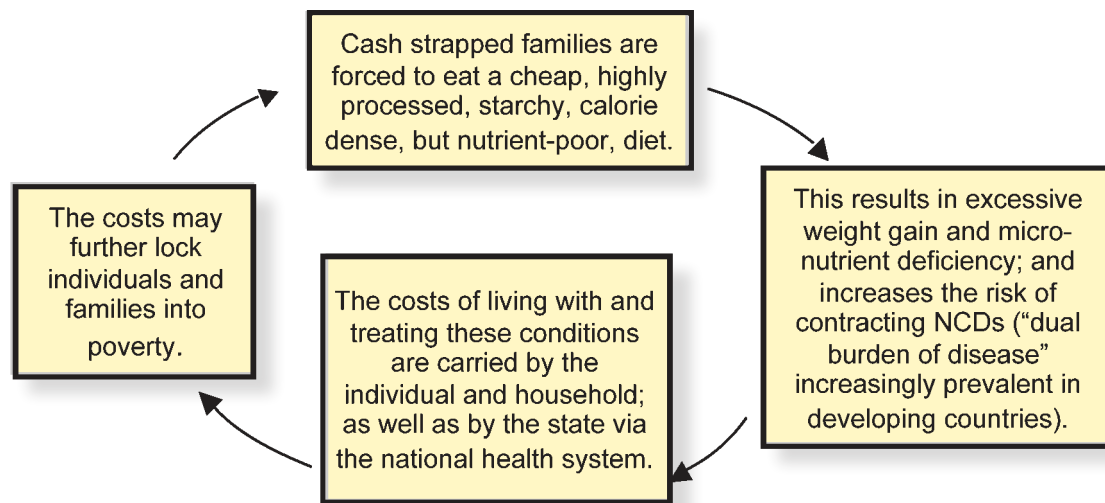
South Africa, for example, is battling with this “*dual burden*”; Brazil and Mexico also are experiencing a rise in overweight and obesity. While Mexico still has a persistence of under-nutrition and nutritional deficiencies, Brazil has made huge strides in this regard (Monteiro, et al, 2010).

MNC domination impacts poverty, inequality and food security

MNC “capture” of the food value chain is a driving force behind economic, political and land inequality and has serious implications especially for those living in poverty, including families and their children. This corporate capture can take many different forms, which undermine not only food security, but struggles for meaningful democracy, and against poverty and inequality.

The wheel of misfortune

An unhealthy, cheap diet, NCDs and poverty, create a vicious cycle that further entrenches poverty and inequality, as shown below.



Food security is about more than just producing more calories

Global market interests control the food value chains in South Africa, Mexico and Brazil – to varying degrees, constituting a serious threat to food sovereignty, the environment and the living conditions, and placing the populations in each country in a situation of high vulnerability and dependency.



2. THE POLICY FRAMEWORK IN SOUTH AFRICA, BRAZIL & MEXICO

Many domestic markets in the global North have peaked, and MNCs now view South Africa, Mexico and Brazil as important emerging markets, as well as gateways into the African and Latin-American continents. According to a Nestlé Press Release (February 21, 2008), *“Popularly positioned products (PPPs), aimed at lower income consumers in the developing world, will continue to grow strongly in 2008 and beyond. Nestlé PPPs, which mostly consist of dairy products, Nescafé and Maggi culinary products, grew by over 25% to reach around CHF 6 billion in sales in 2007. The overall market for such products in Asia, Africa and Latin America is estimated at over CHF 80 billion.”*

However, although each of these countries has experienced some economic growth since the year 2000, they each continue to struggle with high levels of poverty and inequality. According to Guinn and Hamrick (2014), *“The inequalities that characterize these emerging economies (Brazil, India, Mexico and South Africa) are expressed throughout the food system, affecting both producers and consumers of food. On the production side, even as small farmers and agricultural laborers face resource shortages, threats to land tenure and dwindling market access, large, often transnational, agribusiness corporations have enjoyed steadily growing revenues. With respect to consumption, poverty and income inequality undercut the ability of many consumers to purchase adequate, nutritious food.”*

This section provides an overview of the local policy landscape in each country which has enabled large conglomerates to operate and thrive on the one hand, and has marginalised small producers and operators on the other.

THE CASE OF SOUTH AFRICA (SA)

While coming under pressure from more dynamic West and East African economies in recent years, South Africa (SA) still plays an important role as one of the most developed capitalist economies in Africa with a large continental footprint, not only in food and retail but in mining, construction and infrastructure, banking, telecommunications, logistics and other fields. SA businesses are playing a vital role in reshaping the food value chain in Africa.

Nutritional status and diet in South Africa

South Africa is capable of producing enough calories to adequately feed its entire population (Oxfam, 2014). However, *“one in four people currently suffers hunger on a regular basis and more than half of the population live in such precarious circumstances that they are at risk of going hungry.”* (Oxfam, 2014)

According to the South African National Health and Nutrition Examination Survey (SANHANES) in 2013:

- 26% of the population was actually facing hunger- this is approximately 13 million people; 32.4% live in urban informal¹ areas ; and 37.0% live in rural informal areas.
- A further 28% of the population was at risk of facing hunger - 36.1% in urban informal areas and 32.8% in rural informal areas.
- The lowest prevalence of hunger (19%) was in urban formal areas.
- Poor communities have “*bad access to good food and good access to bad food*” (Key informant, Oxfam, 2013).
- The prevalence of childhood stunting in SA has been between 20-30% for the past 20 years, with stunting being higher in children under three years (Said-Mohamed, et al, BMC Public Health (2015).
- Obesity levels are at 42% for women - amongst the highest in the world. (Oxfam, 2014).

Economic-historical context

The apartheid government began the process of privatisation and liberalisation of the economy in the 1980s in response to economic and political crises that had both global and domestic causes. On the domestic front, statutory regulatory systems governing agricultural and food products in the era of national regulation up to the 1970s were dismantled and replaced with a combination of “*market regulation*” and industry self-regulation.

Amendments to the Cooperatives Act in 1993 allowed the co-operative infrastructure to be removed from farmers’ hands, and then corporatised and privatised. The classic example is Afgri, which went from the farmer-owned Oos-Transvaal Koop (OTK) to a corporatised entity operating in agricultural input supply and services, and grain handling and trading, to a MNC with global reach, to a dismembered entity under control of foreign financial interests.

Policies affecting food security

The Department of Agriculture, Forestry and Fisheries (DAFF) is responsible for maintaining the general agricultural sector in South Africa. Its mission is to advance “... *food security and agrarian transformation in the agricultural sector through innovative, inclusive and sustainable policies and programmes*” (DAFF, no date).

The impact of MNCs on small-holder farming is therefore squarely situated within the department’s remit. What is obvious is the lack of clear legislation, policies and programmes related to the impact of MNCs on small farmers and food production.

¹ In SA, this is defined as: ‘An unplanned settlement on land which has not been surveyed or proclaimed as residential, consisting mainly of informal dwellings (shacks)’ (Statistics South Africa quoting the 2001 Census).

The absence of specific legislation dealing explicitly with the role of MNCs and their impact on the food system, food security and the livelihoods of small scale farmers is perplexing considering the importance of food security as highlighted in Section 27 of the Constitution of 1996.

The economic power of MNCs in South Africa

South Africa took a significant geo-political turn in the year 1994: with the first democratic elections following minority rule, when political and economic barriers against apartheid fell away. The new ANC government adopted a neo-liberal economic policy involving deregulation and reduction of state involvement in the economy, selected privatisation, corporatisation of state entities, and opening previously restricted markets to greater private competition. In the process, it opened up its borders to many of the MNCs in the food sector, which were quick to capitalise on this new potential market, both in South Africa, and later using South Africa as a springboard into the region.

Today, a number of MNCs from the US, Europe and elsewhere operate in the South African and southern African food value chain. Other corporations are still majority-owned by institutions or individuals whose businesses are based in South Africa and are expanding into the region (Igumbor, et al, 2012).

Who are the farmers?

There is concentration of ownership amongst farmers in South Africa. Today, about 35 000 medium and large commercial farmers produce most of South Africa's food. These are capital intensive enterprises feeding formal domestic and export value chain. In 2005, 0.6% of the 35 000 farmers generated a third of agricultural income, and 5% accounted for 53% of gross income (Liebenberg, 2013). Concentration of ownership and production is likely to have intensified since then.

In addition to the 35 000, there are about 2.5 million households producing small quantities of food, mostly for household use, with surpluses supplying local formal and informal economies (Cousins, 2009). Importantly they are all *"integrated into capitalist relations of production, whether directly in agriculture through input supply markets or sales of produce, or in the broader sense of being locked into a cash economy to meet at least some of their needs"* (Cousins, 2009).

THE CASE OF BRAZIL

Brazil, like South Africa, is characterised by extreme inequality, and although income inequality has been reduced in the past few years, it is still extremely high, with 41.7% of total income in the hands of 10% of the population (IGBE, 2012). These inequities are expressed in Brazil's socio-political upstream structures, agrifood systems configuration, and nutritional problems.

Nutritional status and diet in Brazil

From the 1970s onwards, and particularly between 1996 and 2007, Brazil succeeded in decreasing childhood under-nutrition by approximately 50% through implementing strong public policies, such as increased maternal schooling, increased purchasing power of families, and expansion of health care (Monteiro, et al, 2002; 2009).

Until the 1990s childhood obesity remained below 5%; however after the 1990s, it quadrupled (Instituto Brasileiro de Geografia e Estatística (IBGE), 2010). While under-nutrition remains a problem among vulnerable population groups, overweight and obesity have continued to increase across the entire population (IBGE, 2010).

Contributing to this scenario is the increasing displacement of traditional healthy foods, such as the mixture of rice and beans, by ultra-processed edible products (IBGE, 2010; Monteiro, et al, 2013). In less than two decades (1987-2003) the share of ultra-processed edible products in Brazilians' food baskets increased from 18.7% to 26.1% (Monteiro, et al, 2013), and the most recent representative data of Brazil (2008-2009) shows that 50% of adults, one fifth of adolescents and one third of children are overweight/obese (IBGE, 2010).

Economic-historical context

Established by law in 2006, the National System of Food Security and Nutrition (SISAN) is based on the right of all citizens to regular and permanent access to adequate food, and reinforces government's responsibility to promote and guarantee the population food and nutrition security. Different formal entities form part of this system (generally comprised of one-third government and two-thirds civil society delegates), including amongst others:

- A national conference, which is responsible for assessing the priorities for the National Policy for Food and Nutrition Security (PNSAN), and implementing the national action plan, which gives life to SISAN.
- An executive power, which assists with the above, and provides information to the cross-ministerial chamber and national council.
- State and municipal level entities, which are responsible for conceiving, implementing, monitoring and evaluating their respective local plans of actions.
- Food and nutrition security forums.
- Various private institutions.

Policies affecting food security

Policies and programmes have led to the structuring of food production and supply in a way that strengthens traditional and local food systems, for example:

- The National School Food Programme receives a budget for school meals,

which in 2015 amounted to \$US1 billion a year for 42.6 million children, adolescents and adults. Seventy per cent (70%) of this must be spent on fresh vegetables and fruits, and other fresh or minimally processed foods; of which at least 30% should be locally sourced from family farmers (Law 11.947, 16 June 2009).

- The aim of the Food Acquisition Programme is to promote access to food and to encourage family farmers. The government buys produce from family farmers and provides this food to populations living in vulnerable conditions that are food insecure and nutritionally vulnerable, as well as to those on social security (Law 10.696, 02 July 2003; Decree 7.775, 04 July 2012; Decree 8.293, 12 August 2014).

The economic power of MNCs in Brazil

While this formalisation of social participation and control is positive, it is counterbalanced by aggressive intervention by corporations. For example, the National Health Surveillance Agency (ANVISA) of the Ministry of Health is responsible for regulating products, advertisement and other marketing strategies for products that are harmful to health (including edible products, cosmetics, and domestic sanitary products²). In 2010 ANVISA published the first formal regulation for the advertisement of food and drink products high in sugar, fats, salt and energy. Before this regulation could be enacted, action taken by MNCs resulted in its suspension (Jacoby, 2012).

Agribusiness also has a parliamentary front³ dedicated to advancing its interests - the Chamber of Deputies' Agriculture Commission – which it has used in various ways, for example:

- To try to push through legislation to remove indigenous people from their land, violating ethics and social justice, and also infringing the rights of indigenous people to their land, as guaranteed in the Brazilian Constitution of 1998.
- It has removed from legislation the compulsory reassessment of pesticides every five years after approval. Now all pesticides approved before and since 1993 have lifetime approval, despite their human health and environmental impacts, unless the health, environment or agricultural authority requires an extraordinary reassessment. Not being compulsory, these are difficult to institute, so that highly toxic biocides (banned elsewhere in the world) are still approved, making Brazil the largest pesticide consumer worldwide since 2009 (Londres, 2011; Céleres, 2014).
- Current legislation provides that if a product contains more than 1% of GMOs, a 'T' symbol must be on the label. However agribusiness has drafted legislation to remove this symbol, enabling them to hide the use of GMOs from consumers. This draft legislation was approved during its first round of votes, and at the time of writing this report was being debated in the Senate (Verdélío, 2015).

² These include products e.g. for household cleaning, insecticides and gardening..

³ Once elected to parliament, parliamentarians can formally organize parliamentary chambers (called Parliamentary Fronts. Parliamentarians decide on the name of the Front, their area of work, agenda and strategies to advance their agenda (e.g. voting as a block). Agendas and strategies are not public. MNCs are known to fund electoral campaigns.

- Besides the expansion of GMOs, other factors have influenced the increase in the use of bespoke biocides, for example, legislation allows aerial dispersion (Permanent Campaign Against Pesticides and for Life, 2012); biocides and synthetic fertilisers are 100% exempt from three different taxes; and a further 60% tax exemption for biocides is being considered (under the State Tax on Circulation of Goods and Services, ICMS).

Who are the farmers?

The last Brazilian Agricultural Census (2006) revealed that: 76% of the total land used for agriculture and livestock production is owned by landowners; 47.2% of this land is occupied by large rural properties; 10.2% is occupied by small rural properties, with indigenous properties occupying less than one fifth of the land (Farah, 2015). Eighty-six percent (86%) of the smaller rural properties are owned by “family farmers”, defined as those practicing rural activities who simultaneously meet other criteria, such as not owning large properties⁴, and mainly using family members to work on and manage their land. Artisanal fisherman, indigenous people, maroons⁵ and other native and traditional people may also fit this definition (Law 11.236/ 24, July 2006).

Family farmers produce most of the food for the domestic market, while landowners are predominantly focused on exporting their commodities. For instance, 70% of beans, essential staple foods, are produced predominantly by family farmers; while 84% of landowners produce soybeans – a crop rarely consumed by Brazilians, but in high demand by meat corporations in Brazil, China and Europe, and mostly produced with GM technologies and biocide-use (IBGE, 2006). Between 1991 and 2013, Brazil’s largest soybeans producer (State of Mato Grosso) doubled its deforested area (IBGE, 2015).

THE CASE OF MEXICO

Like South Africa and Brazil, Mexico struggles with high levels of inequality and poverty, especially amongst the rural and indigenous populations, with a concentration of wealth, land and power in the hands of a few large stakeholders. The productive model imposed by agroindustrial MNCs has had a negative impact on living conditions, as it does not seek to produce food for domestic/local consumption and thus impinges on national food sovereignty. This dynamic also threatens the environment since the agricultural sector must adopt a technological package in accordance with the needs of the global market.

⁴ Properties should be relatively small in relation to the size of the municipality. No larger than four fiscal units (a unit of size used for the purpose of the law, which varies depending on where the property is located). For instance, to be considered a family farmer in Passo Fundo (State of Rio Grande do Sul) property cannot be larger than 64 hectares (0.64 km²), at Boca do Acre (State of Amazonas) family farm property cannot exceed 400 hectares (4 km²).

⁵ Descendants of slaves. There are many communities in Brazil that were built to resist slavery and have remained organised. are descendants of slaves

Nutritional status and diet in Mexico

According to the Global Nutrition Report (2014), Mexico has made significant progress in reducing undernutrition, with stunting rates having decreased from 26.9% in 1996 to 13.5% in 2012. However, Mexico is now facing unprecedented challenges from overweight and obesity, with almost 70% of its population being overweight ($BMI \geq 25$) and about 1 in 3 adults being obese ($BMI \geq 30$) (International Food Policy Research Institute, 2014).

Economic-historical context

The industrial development achieved by the Mexican economy between 1950 and 1970 was founded on a process of internationalisation. In 1986 the government formally adhered to the policies of trade liberalisation regulated by the then General Agreement on Tariffs and Trade (GATT), consolidating these policies in 1994 with the North American Free Trade Agreement (NAFTA). Based on this model, part of the Mexican agricultural sector was inserted into a value chain controlled by global market interests. This continues to constitute a serious threat to food sovereignty, the environment and the living conditions of the Mexican population, placing Mexico in a situation of high vulnerability and dependency.

Policies affecting food security

Fiscal discipline is one of the main principles of the neo-liberal economic policy, with cutting public spending as the central mechanism used to achieve it. In this budget cutback, the farming sector in Mexico was hardest hit. In 1980, public spending allocated to this sector represented 13% of the total budget; by 2010 it was barely 2.5% (CEPALSTAT, 2011). This cutback reduced the extent of national agricultural and livestock production. Monetary policy has resulted in the overvaluation of the peso against the US dollar, limited exports, impacted negatively on national food production, and increased food imports from the US.

Policies to attract Foreign Direct Investment (FDI) reached a cumulative sum of \$818.2 million for the agriculture and livestock sectors between 1999 and 2014. Although this amount represents a mere 6% of the overall amount of FDI, the majority being attracted by the industrial sector⁶ the food industry is currently the fifth highest FDI recipient. The greatest FDI flows in 1999-2014 came from The Netherlands (66.3%), Switzerland (21.9%) and the US (5.7%) (ProMéxico, 2015).

Between 2002 and 2012, the agriculture and livestock sector, which grew at an accelerated pace globally, brought in \$22.4 billion to Mexico. In 2012, the production of processed foods globally was valued at \$4.657 billion, 2.7% of which was produced in Mexico, placing it ninth worldwide. Due to price policies and a low cost structure, Mexican territory is attractive to MNCs because operations generate greater net profits,

⁶ The mining sector has sustained accelerated growth of FDI; participation through 2005 continued to be less than 1% but by 2012, FDI in mining represents 15.3% of the total. (SE-DGIE, 2015)

totalling \$28.339 billion, much higher than Brazil (\$19.329 billion) and Canada (\$5.750 billion) (SE, ProMéxico, 2013).

FDI comes from MNCs and aggravates the centralisation of existing capital. In the case of the food and beverage MNCs, it is aimed at agribusiness, suggesting that the attraction is low input costs to the detriment of national rural producers.

The economic power of MNCs in Mexico

The food and agriculture system in Mexico is highly centralised; each segment being dominated by a small group of companies with 33 main agribusiness MNCs dominating the market (Expansión magazine, 2006-2013).

In 2013, their cumulative sales reached \$1,831,616,000,000 pesos - 15% of total sales of the 500 most important companies in Mexico; operating profits were \$131,633,000,000 pesos - 6.8% of the total; and they directly employed 1,013,377 people - 25.2% of the total jobs generated by the 500 companies (Expansión magazine, 2006-2013). Their combined sales represented 11.9% of the total GDP and 361.3% of the Agricultural GDP⁷. Fourteen of the 33 MNCs are foreign companies: 2 Swiss; 1 French; 1 Brazilian; 1 Dutch; 1 British with Dutch capital; and 8 US. The cumulative sales of these 14 MNCs were \$827.595 billion pesos, 45.2% of the total sales reported by the 33 main agribusiness MNCs. Although some are listed as national companies, such as Coca-Cola de México, they are actually subsidiaries of foreign parent companies.

The power relations of agro-industrial MNCs in Mexico

The sphere of control of agro-industrial MNCs that operate in Mexico continues to grow through a network of relations established with companies in the financial sector, in different branches of production and commerce, as well as with people and bodies in the government. This is demonstrated by the interconnections in the composition of the Boards of Directors of the corporations themselves⁸. This reveals a power elite that benefits from symbiosis and cooperation to organise and influence national economic and political activity. Some of the Boards of Directors of agroindustry MNCs include politicians in the Mexican government⁹.

One of the objectives of the Federal Economic Competition Act (LFCE) is to protect free competition through the prevention of monopolies and monopolistic practices, stating that all economic agents, both public and private, are subject to this law (Fernández, 2012). The Federal Law on the Administrative Responsibilities of Civil Servants prohibits

⁷ Calculation of this relation was based on current values.

⁸ The approach used for this analysis of MNC Boards of Directors does not seek to study the structure of ownership, rather the process by which an elite that controls different Boards of Directors influences corporate decision making.

⁹ Examples include: Eduardo Robinson Bours Costelo, from Industrias Bachoco, was the municipal president of Cajeme 2000-2003 and governor of the state of Sonora 2003-2009 for the Institutional Revolutionary Party (PRI); From 2000-2006, Mexico was governed by Vicente Fox Quesada, who was president of Coca-Cola for Mexico and Latin America prior to his presidency. During that period, the director of the National Water Commission was Cristóbal Jaime Jáquez, who was the CEO of Coca-Cola Mexico for 12 years, the CEO of Grupo Visa (a leading water bottling company) for seven years, and the CEO of Grupo Lala, etc. (Andrés Barreda, 2006).

public servants from obtaining private benefit from their public office, so as to avoid conflicts of interest but this legal framework is violated by certain MNCs.

Who are the farmers?

The structure of land ownership in Mexico is highly concentrated¹⁰. Data from the agricultural census from 1991 and 2007¹¹, show that over 50% of rural production units are small plots of land and only 0.3% are 1 000 hectares or larger. Small-scale producers own just 6% of land nationwide, whereas 40% of landowners own larger plots (1 000 to 2 500 hectares or 2 500 hectares or more). There Seventy per cent (70%) of the small-scale producers with small parcels of land are concentrated in eight states: Puebla, the State of Mexico, Oaxaca, Veracruz, Hidalgo, Guerrero, Chiapas and Michoacán. The majority of these states are in the central-southern region of the country, where the negative social effects of the MNCs are most severe. This has led to a divide, specifically in the agricultural world, between northern and southern Mexico.

MNCs have not created a better food supply that can satisfy the demands of the Mexican population. This is demonstrated by the fact that 22% of the national population are located in the states with lack of food access¹², despite two of these states (Michoacán and the State of Mexico) with the poorest food access being among the eight states that contributed the greatest value to national agricultural production in 2010 (CONEVAL, 2010).

MÉXICO

Stratification of farmers aggravated by public policies

In México, states with the highest number of small-scale farmers have the lowest rates of social development, and suffer the most severe effects of the current agricultural model, in a dynamic that makes the entire Mexican population more dependent and thus, more vulnerable. Public spending is not channelled to small-scale producers: *“60% will be destined solely to 20% of the registry of beneficiary producers...[who will] receive \$58,217,000,000 pesos from 2006 to 2012 in farming subsidies, on behalf of the federal government”* (Lara, 2014).

This condition is annually reinforced with the implementation of national public policy. The clearest example of this is in PROCAMPO¹³. In 2013, this programme achieved its national objective by delivering annual amounts from \$19 to \$6,500 pesos to small-scale producers, yet also made deliveries such as to *Rancho El Toro*, in the state of Tamaulipas, which received \$2,363,911 pesos. This same inequality is repeated

10 The agro-industrial MNCs that operate in Mexico are not necessarily the owners of these large pieces of land. We have not been able to prove that MNCs control food production and distribution, as well as being the direct owners of land, as in other countries.

11 Censo Agropecuario 1991 y 2007 (INEGI, VI Censo Agropecuario, 1991) (INEGI, VII Censo Agropecuario, 2007).

12 Lack of food access: Persons with little variety in diet and some food occasionally skipped for lack of financial resources during the past three months (Dictionary of CONEVAL).

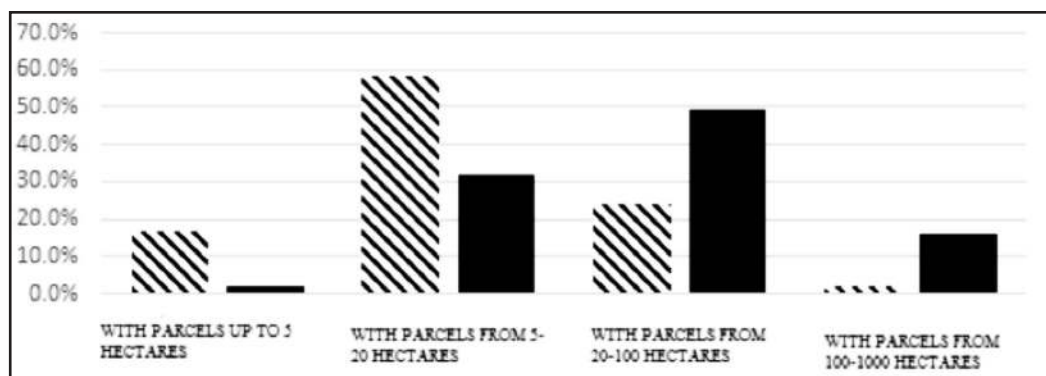
13 This programme was applied in Mexico for 20 years. During its final stages, it had the objective of finishing the entry of producers in the rural areas of Mexico...to thus support attention to needs regarding the right to food... Now, this programme has been updated, introduced as PROAGRO, with important patterns and differences.

year after year throughout the country. This programme turns public resources into a savings fund for large landholders and fails to promote production or assistance to achieve the right to food.

In 2013, PROCAMPO distributed \$12,220,200,000 pesos to 2,197,506 producers (for the Fall-Winter (FW) 2012/13 and Spring/Summer (SS) 2013 cycles), covering a surface area of 11,315,000 hectares. The FW cycle received proportionately more resources than the SS cycle, even though the FW cycle had a greater number of potential beneficiaries. The FW cycle received 21.8% of the total resources, distributed to 16.1% of the benefitted producers, whereas 78.2% of the resources were allocated to the SS cycle, with 83.9% of the producers (Secretariat of Agriculture, Livestock, Rural Development, Fishing and Food SAGARPA), 2013). This is unpacked in more detail below.

- *Spring-Summer (SS)*: The eight states that registered the highest number of beneficiaries for the SS cycle coincide with six of the states with the highest number of small-scale producers (Chiapas, Oaxaca, Puebla, Veracruz, Guerrero and Michoacán) and concentrate 51.6% of the beneficiaries from the SS cycle. Nevertheless, they only received 36.4% of the national resources allocated to this cycle. Chiapas, for instance, received \$729,064,482 pesos for 188,215 producers during the SS cycle; 87.3% of these were small-scale producers who received 62.2% of the resources in amounts¹⁴ that range from \$26 to \$6,500 pesos; medium-scale producers constituted 11.8% of the beneficiaries, with 28.2% of the amounts assigned to this state, with amounts of support from \$4,825 to \$26,000 pesos.
- *Fall-Winter (FW)*: Five states (Tamaulipas, Sinaloa, Sonora, Veracruz and Guanajuato) from the central-northern part of the country received \$1,962,000,000 pesos, equivalent to 74.8% of the resources channelled by the federal government to Mexican farms during this cycle. Tamaulipas, for example, received \$863,257,830 pesos (33.2%) during the FW cycle, which was distributed to 39,933 producers (8.9%) as shown in Figure 1. A group of eight producers in this state (0.02% of the beneficiaries) received \$13,551,800 pesos, 1.6% of the total resources¹⁵.

Figure 1: Tamaulipas: Producers and resources delivered by PROCAMPO, by size of parcel of land, 2013



Source: SAGARPA, 2013

¹⁴ These amounts were taken from the registry of PROCAMPO beneficiaries in 2013 (Listado de Beneficiarios de PROCAMPO 2013). The programme's Rules of Operation state that for plots of land smaller than a hectare the amounts will be rounded up in order to pay out the amount corresponding to a hectare; however, the records indicate that this rounding up did not occur.

¹⁵ Two of these were the Rancho El Toro de San Fernando S.P.R. de R.L., which received \$2,363,911 pesos, and Cantú Noyola S. de P.R. de R.L., which received \$2,125,625 (SAGARPA, 2013).

3. THE IMPACT OF MNCs ACROSS THE FOOD VALUE CHAIN

Global ownership and control of the food value chain is proceeding apace. The monopoly control of a few large global MNCs is seen particularly in agricultural inputs and production, and in processing and manufacturing, and retail. In other nodes of the food system (while there is considerable concentration of ownership under MNCs), the presence of national corporations is more visible and demonstrated through country-specific case studies.

This section is structured according to the different nodes of the food value chain, with both composite and country-specific case studies illustrating in each node, where appropriate.

AGRICULTURAL INPUTS AND PRODUCTION

CASE STUDY 1: SEEDS AND AGROCHEMICALS

(South Africa, Brazil and México)

(MNCs: Monsanto; DuPont (Pioneer), Syngenta)

The seed and agrochemical sector is highly concentrated in South Africa, Brazil and México, as it is worldwide, with mainly three MNCs controlling almost 50% of all seeds, including GM seeds – Monsanto; DuPont; and Syngenta (ETC Group, 2015). Bayer, Syngenta, Basf, Dow Agrosiences, Monsanto and DuPont are the largest producers of agrochemicals, concentrating approximately 75% of global trade.

SOUTH AFRICA (SA)

The African Centre for Biodiversity (ACB) estimates that SA's share of the global seed market (itself valued at US\$45 billion in 2012) is US\$450 million, while the African market is about US\$1.1 billion. The two US based companies, Monsanto and DuPont dominate the SA hybrid and GM seed market. Currently, maize, cotton and soybean are the only GM crops grown commercially in SA; however, there are advanced trials on many other crops.

The footprint of GMOs in South Africa

According to the ACB:

- The Genetically Modified Organism (GMO) Act was passed in South Africa in 1997 and the first commercial crops were planted in 1998 - an IR¹⁶ Monsanto cotton and maize, followed by a HT¹⁷ Monsanto GM soybean variety.

¹⁶ Insect resistant.

¹⁷ Herbicide tolerant.

- Between 2008 and 2012, the government issued 1 458 GMO permits for commercial growing, field trials, imports and exports of seed – 1 200 for maize alone, and the rest for cotton, soybean, sugar cane, cassava and sorghum. Seventy-six percent (76%) of the permits went to Monsanto, Pioneer Hi Bred and Pannar Seed which together owned 84% of all registered varieties of GM maize.
- In 2012 it was estimated that GM seed sales were 77% for maize, 100% for cotton and 78% for soybean.

Implications for small-scale farmers

The SA cotton industry has essentially died out, despite the widespread adoption of GM seed and efforts to get small-scale farmers to use GM seed, for example in the Makhathini Flats in northern KwaZulu-Natal (Pschorn-Strauss, 2005; Patel & Witt, 2005). Reasons include factors beyond input supply (e.g. global markets and competition), however evidence shows that the seed initially performed well before its performance dropped drastically. With the complete dominance of the GM model, the industry could not survive.

GM maize and GM soya, as the basis for industrial-scale crop rotations for bulk standardised products designed for industrial processing, have facilitated the consolidation of farm lands for economies of scale.

The flood of grain onto the market makes it difficult for small and medium sized commercial farmers to compete in formal markets, and those who choose not to compete are still forced to sell their maize cheaper in local markets because of the option of cheaper maize from the large bulk producers. This may be good for consumers in the short term, but discourages farmers from producing surpluses.

As farmers seek yield and their own economies of scale in order to make money from their productive activity, the variety of maize choices declines to a smaller number of hybrid and GM seeds and industrially processed maize brands with standardised characteristics.



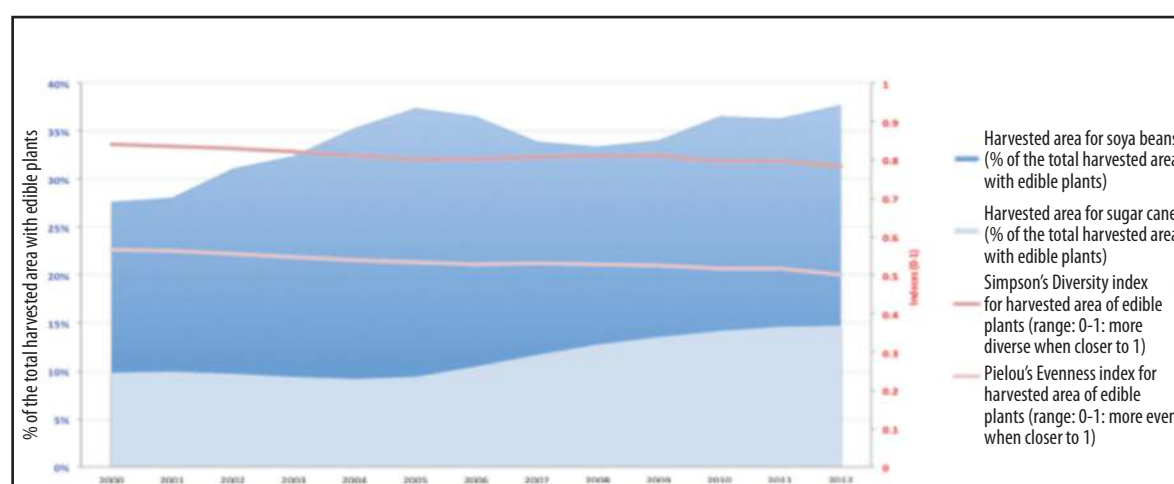
BRAZIL

Brazil is among the 17 so-called megadiverse countries, and its agrobiodiversity is one of the pillars of its food system. It enables the population to be supplied with sufficient, good quality, nutritious foods all year round, while also fulfilling the socio-cultural, environmental and economic dimensions of food and nutrition. However, the expansion of GM seeds and monocrops has a severe impact on the agro-food system, eroding agrobiodiversity, jeopardising access to natural resources and land, resulting in impoverished diets, as well as the erosion of the right to food and nutrition security and sovereignty (IDS IBGE, 2015). In 2005, a National Biosecurity Commission (CTNBio) was formally created to provide technical advice to the federal government on the national biosafety of GMOs. However, the Commission has gone beyond its advisory mandate, and now also approves the commercialisation of GM plants and other requests from MNC seed corporations (CTNBio, 2006).

The footprint of GMOs in Brazil

Brazil is currently the second major GMO producer in the world after the US, with an estimated 93% of soybeans and 83% of maize being genetically modified (Massarani, 2012). This has resulted in an expansion of land for GMO products by more than 600% in a single decade, from 5.7 million hectares to 42 million hectares (Céleres, 2014). As an example, the increasing domination of soybeans and sugar-cane monocrops over diversified agriculture, has significantly reduced the diversity and evenness of edible plant-based foods' harvested areas, as shown in Figure 2.

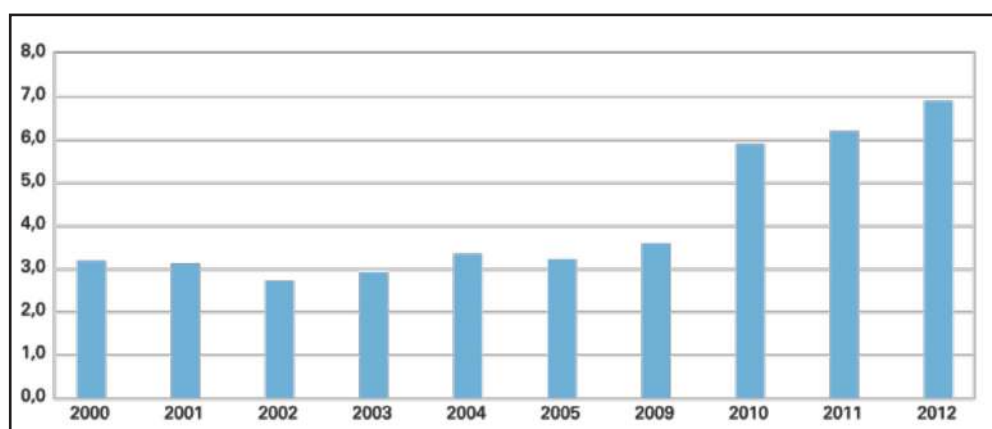
Figure 2: Soybean and sugar-cane domination, and agricultural diversity and evenness of harvested area for edible plants in Brazil (2000/2012)



Source: FAOSTAT Database. FAO, 2015

More than half of the GM seeds used in Brazil are designed to be resistant to pesticides, which accounts for the increasing use of biocides, which has more than doubled in the last decade (see Figure 3). It is estimated that the six global MNCs which control the major share of the world's biocide market (Bayer, BASF, Syngenta, Monsanto, Dow and DuPont) control 85% of the Brazilian biocide market (Ministry of Development, Industry and Foreign Trade (MDIC), 2007).

Figure 3: Annual commercialisation of pesticides and related products, by planted area, Brazil (2000-2012)
Kg/ha of active ingredient



Source: Brazilian Census Bureau (IBGE)

Sources: 1. Report of the purchase of pesticides active ingredients and related products in Brazil 2000-2005. Brasília, DF: Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis - Ibama, 2001-2006.

2. Systematic Survey of Agricultural Production: monthly survey of estimate and monitoring of agricultural crops in the calendar year 2000-2005. Rio de Janeiro: IBGE, v. 12-17, 2000-2006. Available at: <ftp://ftp.ibge.gov.br/Producao_Agricola/Levantamento_Sistemático_da_Producao_Agricola_%5Bmensal%5D/Fasciculo/>. Accessed in: May 2010.

3. Municipal agricultural production 2009-2012. In: IBGE. Sidra: Sistema IBGE de recuperação automática. Rio de Janeiro, 2013. Available at: <http://www.sidra.ibge.gov.br/bda/pesquisas/pam/default.asp>. Accessed in: October 2013.

4. Annual Bulletin production, import, export and pesticide sales in Brazil 2009-2012. Brasília, DF: Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis - Ibama, 2009-2012. Available at: <http://ibama.gov.br/areas-tematicas-qa/relatorios-de-comercializacao-de-agrotoxicos/pagina-3>. Accessed in: March 2015.

Implications for small-scale farmers

The corporatisation of the seed industry and the way farmers are locked into bespoke biocides and GM seeds, undermines food sovereignty, violates the right to food, and marginalises small farmers in some of the following ways:

- The merging of agrochemical, pharmaceutical, seeds and biotechnology MNCs in the 1990s set the political background and legal framework that redesigned the Brazilian agricultural production system, aligned to MNC interests to maximise their profits (Hobbelink, 1990). The advance of industrial-scale agricultural production has meant that small-scale farmers cannot easily achieve MNC industrial and commercial standards and this aggravates their marginalisation in the production system. However, it is also difficult for small farmers to resist the pressure of highly mechanised and “chemicalised” production systems (Dufumier, 2011).
- According to Silva (2011)¹⁸, “the modernisation of Brazilian agriculture, following the industrial model and the technical-scientific perspective of “nature domination”, have consumed a significant share of natural resources and destroyed the diversity of traditional agriculture”.
- Banks involved in rural credit programmes are poorly set up to loan money to family farmers who do not have the ability to offer guarantees (Guanziroli 2007; Programa Nacional de Fortalecimento da Agricultura Familiar (PRONAF) 2002). In fact, one of the assurances required by banks is proof

¹⁸ A representative of the Brazilian Movement of Smallholder Farmers and Via Campesina.

of the use of biocides (Folgado, 2013; Banco Central do Brasil). This pushes farmers into a vicious cycle of economic and agronomic dependency.

- With the illegal introduction of Monsanto GMO plants in the country, several farmers have had their properties contaminated, which may have caused irreversible damage to agrobiodiversity – these communities' essential source of survival (Silva, 2011).

The agribusiness model has also contributed to socio-economic disparities. The 2006 Brazilian Agricultural Census shows that rural family farms employ approximately three times more people than non-family rural properties (12.3 million versus 4.2 million people). However, they are not as well compensated, and their per capita revenues are approximately six times lower compared to non-family agribusinesses (family agriculture US\$1,117.83 per capita versus non-family agriculture US\$6,321.53 per capita).

MÉXICO

Monsanto, DuPont and Syngenta are members of the Asociación Mexicana de Semilleros AC (Mexican Association of Seed Companies - AMSAC) and control this segment through operations by their subsidiaries, with the top three, in order of sales, being- Syngenta, Ingredion México (subsidiary of the US company, Corn Products International¹⁹); and Grupo Monsanto México.

The footprint of GMOs in México

- In 2004, the Law on Biosecurity of GMOs (known as the *Monsanto Law*²⁰) was passed in México, permitting the distribution and release of GMOs throughout national territory, and regulating the protection of biodiversity, the environment and the health of the population.
- Based on this law, in 2009, the government granted permission for 196 experimental and pilot seeding projects (on small surface areas) of GM corn. By 2012, there were 70 more requests, 14 of which sought to carry out commercial sowing on almost 6 million hectares. Due to pressure from grassroots organisations and movements, none of these latter requests was implemented, and the procedure to grant permission has been suspended, as it was determined that GMOs escape from the zones to which they are confined via pollination, and that they contaminate other fields, threatening the biological diversity of the country's other corn species. Eleven writs against this precautionary measure were filed by some federal secretariats, including two by SAGARPA and biotechnology companies, but they have not yet been successful and litigation continues (Sílvia Ribeiro, La Jornada, 2005; Sílvia Ribeiro, Red en Defensa del Maíz, 2014; Luis Hernández, Red en Defensa del Maíz, 2012; Mathieu Tourliere, Proceso, 2014).

¹⁹ A global leader of commercialisation and production of ingredients for different industrial sectors (like the food and pharmaceutical industries). In 2012, under its former title CP Ingredients, it imported 1,516,000 tons of corn from the US into Mexico. This was allowed under the legal guidelines of NAFTA (El Economista, 2012).

²⁰ It is not a coincidence that the former Secretariat of the Economy (2010-2012), Bruno Ferrari, was previously (until 2006) the president and general director of Seminis Vegetable Seeds, the largest seed company in the world, which was acquired by Monsanto in 2005..

Implications for small-scale farmers

The above subsidiaries dominate the production and commercialisation of technological packages in México. They are supported by public programmes, such as PROAGRO Productivo²¹, which subsidises and provides resources to small and medium-sized producers in rural areas to purchase technological packages pre-approved by SAGARPA. However, the conditions attached to these subsidies define what should be produced, how it should be produced, and the kinds of inputs to be used.

The subsidies do not cover or satisfy basic needs, much less drive production, but in fact limit what producers can use their lands for, and restrict their farming practices to standardised forms of production dictated by MNCs. In this way, historical productive practices in México (that have been conserved to this day, although they are being lost with the Green Revolution²²) are being altered. This system benefits large landholders and reinforces the dependency of small-scale producers on MNCs, exacerbates México's food vulnerability, and marginalises and excludes small and medium-sized producers, further benefitting MNCs.

CASE STUDY 2: THE IMPACT OF AGRO-INDUSTRIAL MNCS ON IMPORTS AND EXPORTS (México)

Foreign trade in México is significantly affected by the profitability of agro-industrial MNCs. Although México increased its exports and reduced its trade deficit between 1994 and 2004, this was due to the oil industry, because in the same period the agricultural, food and industrial deficit increased. In 1993, prior to NAFTA, the agricultural and food deficit was \$2,022,000,000 pesos; in 2011, it reached \$5,067,000,000 pesos (SAGARPA-FAO, 2012).

MNCs determine which products will be exported and imported. Tables 1 and 2 show the main agricultural and food products that México exports and imports: while the country exports alcoholic beverages, coffee, vegetables, legumes, and some fruits, it mainly imports cereals and meat. In practically all cases, it is preferable to produce certain goods domestically for export due to the profit margin that producers can obtain. In the case of alcoholic beverages, control over production and distribution is concentrated in the hands of just a few MNCs, which is not the case for coffee, tomatoes or avocados. However, the levels of profitability for different producers of these goods are not the same.

21 PROAGRO originally called PROCAMPO; and later the Direct Support for Rural Areas Program: targets rural areas and the distribution of resources and subsidies to small and middle sized producers.

22 The Green Revolution began in the 1950s. Its objective was to increase agricultural productivity using a technological foundation based on high yield seeds, irrigation and the massive use of agrochemicals.

Table 1: The five main agricultural and food exports from México, 2012

VOLUME (IN TONS), VALUE (IN MILLIONS OF DOLLARS)				
PRODUCT	RANKING VOLUME	VOLUME	RANKING VALUE	VALUE
MALT BEER	1	2,260,900	1	\$1,984
GREEN COFFEE	16	148,332	2	\$1,205
AVOCADOS	5	557,656	3	\$1,010
TOMATOES	2	1,380,868	4	\$1,000
OTHER LIQUORS (TEQUILA)	15	150,667	5	\$ 807

Source: Developed by the authors with information from the Atlas Agroalimentario 2013, SAGARPA, and from the list of Mexican products from the agriculture and food sector included in the Top Ten de las Exportaciones Mundiales, SAGARPA 2006-2012.

Table 2: the five main agricultural and food imports into México, 2012

VOLUME (IN TONS), VALUE (IN MILLIONS OF DOLLARS)				
PRODUCT	RANKING VOLUME	VOLUME	RANKING VALUE	VALUE
CORN GRAIN	1	9,454,330	1	\$2,738
SOYBEANS	3	3,477,267	2	\$1,908
WHEAT GRAIN	2	4,641,788	3	\$1,425
PORK MEAT	7	516,449	4	\$998
POULTRY MEAT	6	527,025	5	\$534

Source: Developed by the authors with information from the Atlas Agroalimentario 2013, SAGARPA, and from the list of Mexican products from the agriculture and food sector included in the Top Ten de las Exportaciones Mundiales, SAGARPA 2006-2012.

What México exports: The case of tomatoes

For tomatoes, like other agricultural products, production and retail conditions are dictated by other regions in the country or in the world (Macías, 2003). These production arrangements are established as nodes of the international value chain that turn local producers into subsidiaries of leading MNCs in the chain (Sandoval, 2011). (Generally speaking, this dynamic is repeated for coffee and avocados.)

- Tomatoes are the main horticultural crop produced in México and practically all tomato exports leave the country without value added.
- Tomato production is controlled, both in México and worldwide, by technology (modified seeds, agrochemicals, irrigation) and distribution channels (supermarkets, fast food chains and the food processing industry). The producer is therefore caught up in a chain that begins with foreign companies that supply the technological packages and that ends with MNCs that purchase the crop (Sandoval, 2011).
- Mexican tomatoes compete on the international market because of their quality and low price, owing to low wages for agricultural workers.

- Sinaloa state leads tomato production and is also the highest export state, mainly exporting to the US. Only 53 of the 554 production units in this state export to foreign markets; with 14 of these 53 units being located in Culiacán (INEGI, 2007)²³.
- Profitability of tomatoes is \$238 million pesos/hectare (SAGARPA, 2013). However, small and medium-sized producers earn less than this due to their reduced market power, their poor technology, elevated production and storage costs, and limited distribution channels.
- Not all tomato producers export. Small-scale producers (up to 5 hectares) and medium-sized producers (5 to 20 hectares) sell to packing companies (that normally do export), or sell on the domestic market through intermediaries or officially established commercial companies.

What México imports: The case of corn

México's main food imports are essential grains. The US is the main producer, exporter and controller of corn in the world (Secretariat of the Economy (SE), 2012) and US corn surplus²⁴ allows it to keep a reserve as part of its food security policy. The level of dependency and vulnerability of corn importing countries²⁵ is growing as a result of climate change, modifications to technology patterns, and increases in biofuel production.

Officially, the Mexican government recognises that it is not self-sufficient in corn production but its explanations are contradictory. For example, in its agricultural atlas, SAGARPA (2013) states that imported feed corn is used only by the fisheries subsector; while the Secretariat of the Economy (SE), in its analysis of the corn-tortilla value chain, mentions that feed corn is also used for human consumption (SE, 2012). And while there is no proof, it is likely that Gruma (a Mexican MNC corn flour and tortilla manufacturing company) imports corn as a raw material for making corn flour for tortillas.

In 2014, SAGARPA promoted a crop reversion programme in which it paid 360 pesos per hectare to producers who would stop sowing white corn and would begin sowing yellow corn, aimed at increasing food production for cattle. However, most poor Mexican households cannot afford to buy meat and tend to obtain more protein from the intake of cereals, vegetables, legumes and leguminous plants (Martinez, Irma y Villezca, Pedra, 2013, No 21).

According to figures from the SE, the productive structure of corn in México is defined by dualism - a huge number of small landholders with fields smaller than 5 hectares, and a small number of producers who possess a large portion of the land and who have access to hi-tech irrigation - leading to different levels of productivity and profitability. For example, although corn is produced throughout the country, the main corn cultivators are the states of Sinaloa (5.2 million tons, 23%) and Jalisco (3.2 million

²³ These 53 units control the sector and are the only ones that have the necessary infrastructure to export.

²⁴ One of the reasons for high levels of corn production in the US is their Farm Bill which promotes production through subsidies, which artificially lower the price of grains.

²⁵ Mexico is the second main importing country, second only to Japan.

tons, 14%). Both use technological packages that tie them to MNCs, and both employ monocrop farming which once again tethers them to MNCs to sell their harvest. The main purchasing companies are Gruma, MINSA and Cargill, which can fix the price in México due to their power over the market.

The influence of these companies on the Mexican government's public policy is also evident. For example, the SE recommends programmes to benefit those companies that produce and sell corn flour, as well as some financing of companies to promote the consumption of industrialised corn flour in central and southern México, despite its elevated price (SE, 2012).

Implications for small-scale farmers

Agro-industrial MNCs affect both small- and medium-scale producers, undermining food sovereignty and economic development²⁶. This is demonstrated in the figures which show the apparent consumption of foods that imports cover, for example, in 2012, 34% of bovine meat consumption was covered by imports; 40.2% of porcine meat, 51% of wheat, 80.1% of yellow corn, 89% of rice, and 95% of soybeans (SAGARPA-FAO, 2012).

Table 3 presents Rural Economic Units (UER) stratified by average income level in relation to sales; showing the extent to which vulnerability increases. For example, 73% of UERs are E1 and E2 family subsistence units – their combined income from sales is \$17,205 million pesos, while 0.3% of UERs are (E6) dynamic business units, with sales of up to \$77.4 million pesos.

Table 3: Stratification of rural economic units (REU) in México

STRATUM	UER	% UER BY STRATUM	INCOME FROM AVERAGE SALES	RANGE OF INCOME FROM SALES	
				MINIMUM INCOME FROM SALES	MAXIMUM INCOME FROM SALES
			(IN PESOS)		
E1. FAMILY SUBSISTENCE UNIT WITHOUT TIES TO THE MARKET	1,192,029	22.4	-	-	-
E2. FAMILY SUBSISTENCE UNIT WITH TIES TO THE MARKET	2,696,735	50.6	17,205	16	55,200
E3. UNIT IN TRANSITION	442,370	8.3	73,931	55,219	97,600
E4. BUSINESS UNIT WITH FRAGILE PROFITABILITY	528,355	9.9	151,958	97,700	228,858
E5. THRIVING BUSINESS UNIT	448,101	8.4	526,433	229,175	2,322,902
E6. DYNAMIC BUSINESS UNIT	176,633	0.3	11,700,000	2,335,900	77,400,000
TOTAL	5,325,223	100			

Source: SAGARPA, FAO (2012). Panorama de la Seguridad Alimentaria en México, México

²⁶ The official definition of a small-scale producer is a person who possesses a piece of land up to 5 hectares in size. However, this definition is limited as it does not fully describe the complexity of the reality of a small-scale farmer (in reality, there is no significant difference between producers who have 5 or 5.1 hectares).

PROCESSING AND MANUFACTURING

The series of case studies which follow illustrate the control exercised either by large local corporations in each country in this report (see Case studies 3 and 6), as well as the ubiquitous power of the same well-established large food and beverage MNCs, Nestle and Coca-Cola, which dominate in each country (see Case Studies 4 and 5).

CASE STUDY 3: SUGAR: THE “DISPLACEMENT” FACTOR [MNCs: SABMILLER, NESTLE]

Nutritionists regard sugar as a “dead” nutrient, as it contributes little to nutritional well-being other than providing energy. Once treated as a condiment to occasionally flavour food, today it is often used as a cheap bulking agent in most processed foods. It is present in many obvious forms (sugary drinks and confectionery), as well as in many “hidden” forms, such as in savoury foods (baked beans, breads, for instance). Sugar is increasingly regarded as highly addictive, and is implicated in obesity, type 2 diabetes, heart disease, and other NCDs.

SOUTH AFRICA (SA)

In SA, the sugar industry is self-regulated and dominated by three large millers, Illovo (owned by foreign interests), Tongaat Hulett, (owned by Tongaat Hulett institution), and TSB (owned by large investment companies). The size of the sugar industry and the dominance of these few big players mean that these “*lead firms*” have significant sway in the sugar value chain, which impacts on success or failure of small growers. Farmers are subordinated to millers because they lack alternative markets to sell to. Farmers sell to the closest mill because the cane cannot travel far, and millers have divided the grower areas between them to prevent competition.

On the *production side*:

- In 2014, the value of sugarcane farming was R7.85 billion, equal to 3.8% of total gross value from primary agricultural production in SA (DAFF, 2015). In the heartland of SA sugar production, sugarcane makes up nearly 50% of field crop gross farming income (Conningarth Economists, 2013).
- Since industry-led deregulation, the cane footprint is smaller by 9%, relative to the 1997 footprint. The amount of cane coming off the land is also down by 20% on 1997 figures, suggesting a decline in farming productivity.

Because of its size the sugar industry is an important *employer*:

- In 2012, it provided about 93,990 direct jobs, constituting 18% of total agricultural employment.

On the *consumption side*:

- The domestic consumer market is the largest single market for the miller, absorbing around 58% of total production in 2012. The largest portion of this market is pre-pack refined sugar direct for household use.

- In 2014, South Africans spent about R6.28 billion on sugar, equal to 1.3% of total consumption expenditure on food that year. In 2015 per capita sugar consumption was at 35.8kg per person (DAFF, 2015). The industrial market is about 18% of the total market, with large industrial buyers like Coca-Cola having significant influence.

Major trends include greater regional expansion, although cane production in SA and regionally could switch to ethanol production. Land also is already being moved out of agriculture and towards other higher value uses including residential, tourism, retail and industrial.

Implications for the small-scale farmers

In the 1990s, the sugar sector managed to prevent wholesale deregulation, arguing that it was necessary to protect domestic production from distortions in global prices caused by large producer subsidies in other countries. As a result, corporations have been able to adjust their practices at their own pace, unlike most other agricultural sectors that were challenged by deregulation. Being sheltered in this way, enables collusion in dividing up the domestic market and coordinating and sharing the proceeds of exports.

The sugar industry boasts the largest black small-scale farmer base of any agricultural sector. This base began developing in the 1970s with the apartheid government consolidating 17 000 ha of cane land for incorporation into the bantustans²⁷, coupled with a temporary rise in global prices, millers expanding into communal lands and working with small-scale growers (Dubb, 2015).

Production is divided between large growers, small growers and estates:

- In 2013/14, there were 22 493 registered sugar cane growers, of which 94% were small-scale growers. However only 46% of registered small-scale growers delivered cane, accounting for 9% of the total crop (South African Cane Growers' Association (SACGA), 2014).
- In the same year there were 1 383 large-scale farmers (SACGA, 2014). Other figures indicate 1 730 large-scale farmers including 323 black farmers in 2013 (Engineering News, 2013). Large-scale growers produced 83% of the total and milling companies with their own estates produced 7.5% of the crop (Conningarth Economists, 2013).
- More recently, the state has pursued a strategy which has shifted support to medium-scale commercial black farmers, rather than small-scale black farmers. This is reflected in recent figures: the share of area under cane for medium-scale black commercial farmers has risen substantially from 3% in 2000 to 15% in 2012 (Dubb, 2015). Meanwhile small-scale black growers have dropped precipitously in number from 51 000 in the late 1990s, to fewer than 14 000 in recent years. This drop is partly a result of reduced miller support – as the industry is restructured there is not as much profit to be made in such support.

²⁷ A partially self-governing area set aside during the period of apartheid for a particular indigenous African people; a so-called homeland.

Processing and market dominance

Processing can be divided into milling, packing, refining and other value addition. Sugar is the most concentrated food processing sector in SA, with the five largest enterprises accruing 87% of total income in 2011 (StatsSA 2011:23). The big three millers – Illovo, Tongaat Hulett and TSB – together account for well over 80% of income.

Table 4: The Big Three sugar companies (South African sugar operations)

	Illovo	Tongaat Hulett	TSB
Controlling shareholder	Associated British Foods plc	Financial institutions	Remgro
Own cane production ('000 tons)	371	no data	no data
Sugar production ('000 tons)	698	634	380*
Employees (all operations)	2,224 permanent 1,804 seasonal	3,326 permanent 1,606 seasonal	3,800 permanent
Revenue (R'm)	4,504	6,224	5,421
Operating profit (R'm)	266	340	214

Source: Annual reports, 2014

*Pro forma

According to the Moore School of Business (2005), Coca-Cola is one of the biggest bulk sugar buyers in SA, purchasing 20% of SA sugar. It therefore has significant influence in the sugar market, and especially in sugar consumption. Nestlé is another major purchaser with its products being mainly assemblages of ingredients derived from very few matrices such as sugar cane, amongst others. The extensive demand for sugar as a key ingredient in many of these MNC's products has a knock-on effect through the food system because it displaces other sources of more nutrient-dense calories.

CASE STUDY 4: NESTLÉ: THE LARGEST ULTRA-PROCESSED FOOD PRODUCT CORPORATION GLOBALLY

(South Africa, Brazil and México)

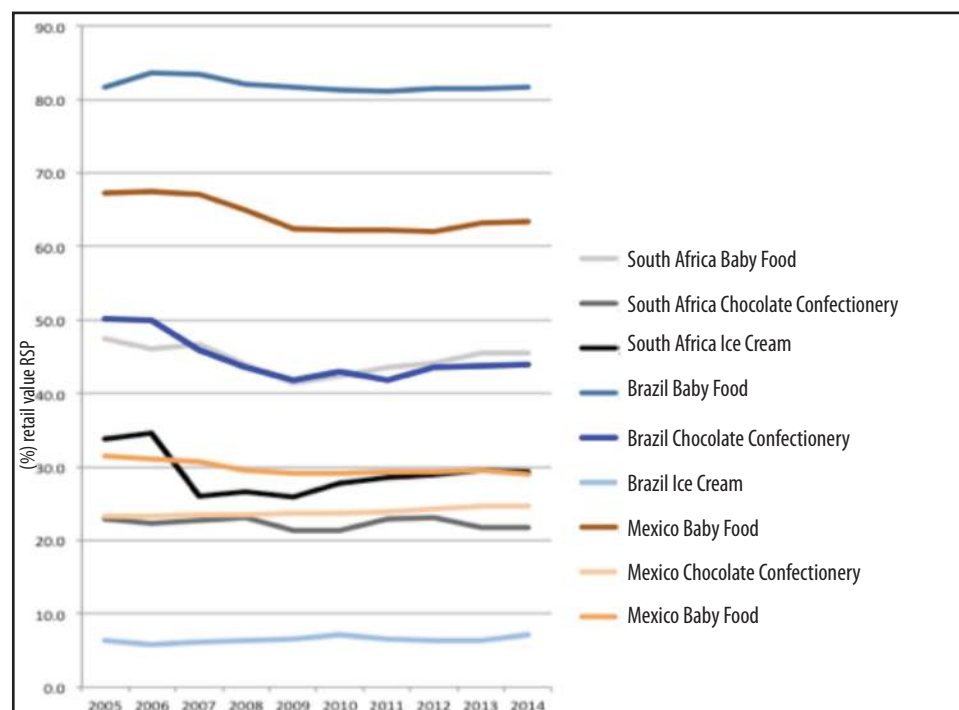
Nestlé's main business is in infant formula and baby food, milk-based products, ready-to-consume cereal extrudates²⁸, confectionery, ice-cream, pet food, and bottled water (see Figure 4 for its market shares in SA, Brazil and México). It operates in 197 countries, and in 2014 its total sales were 91.6 billion Swiss francs, with 14 billion Swiss francs

²⁸ Food extrusion is used in food processing to enable the mass production of food via a continuous, efficient system that ensures uniformity of the final product. Mixed ingredients are forced through a machine (an extruder). The mix is known as the extrudate (Wikipedia)..

in profits. Together Brazil and México are among Nestlé's top ten markets, accounting for a combined 8.1 billion Swiss francs (Nestlé Annual Report, 2014).

As Figure 4 illustrates, Nestlé controls 80% of the baby food market in Brazil; 60% in México, and almost 50% in South Africa. According to Nestlé's stated policy, breastmilk is best for infants, but women who cannot or choose not to breastfeed need an alternative to ensure that their babies get the correct nutrition. Contrary to this policy, Nestlé advertisements promote infant formula over breastfeeding. This is a direct violation of the 1981 WHO Code which regulates the international advertising of breastmilk substitutes (International Baby Food Action Network (IBFAN), 2004), a violation that has been confirmed by UNICEF (Montague-Jones, 2011). The IBFAN claims that Nestlé's advertising has led to health problems and deaths among infants in developing countries. In 2014, IBFAN reported that Nestlé further violated the WHO Code when advertising the Nido infant formula; and in the same year, IBFAN found Nestlé infant formula in a South African store amongst discounted products, as part of a store's "End of Range" clearance (IBFAN, 2014).

Figure 4: Nestle SA market shares in SA, Brazil and México (2005-2014)



Source: Euromonitor database

Strategies used to maximise returns and enhance brand loyalty:

- According to Nestlé, "Popularly Positioned Products [are] a Nestlé initiative to create products with good nutrition and great taste, based on deep consumer understanding, for consumers in emerging markets.²⁹" In Brazil this is advertised as "Nestlé até você" (Nestlé comes to you), and involves recruiting community sellers and micro-distributors of Nestlé products (chocolate confectionery, sugary and salty snacks and other energy dense

²⁹ Emphasis inserted by authors of this report.

ultra-processed products), with the promise that they will increase their income and also help the community's health, nutrition and well-being³⁰. Micro-distributors are trained to use a door-to-door selling strategy and to persuade the community to buy Nestlé products (Financial Times Limited, 2015). In 2012, this strategy accounted for 11% of sales, despite these products being 10-20% higher than supermarket prices (Nestlé Annual Report, 2014).

- Nestlé funds congresses, research, and professional organisations in order to create brand and product loyalty.
- It uses both overt and covert tactics to facilitate public interactions and debates between scientists and health professionals who have conflicting interests – these confuse the public, provoke false debates, but more seriously, infringe on public health and public goods interests (Gomes, 2013).³¹

Impact on small-scale producers

As mentioned previously, Nestlé products are mainly assemblages of ingredients derived from very few matrices such as milk, corn, soybeans, sugar cane, rice, wheat, and coffee. This indirectly contributes to small-scale (and commercial) farmers focusing mainly on these specific ingredients rather than on the production of more diversified crops, and limiting their production processes. Nestlé's demand for these products also uses up farmland and valuable environmental resources, which could otherwise be used to grow nutrient-dense foods. In addition, its buying power enables it to fix at low levels direct purchasing prices from producers.

CASE STUDY 5: SUGARY BEVERAGES AND THE STRONG ARM OF ADVERTISING

(South Africa, Brazil and México)

[MNC: COCA-COLA]

The Coca-Cola Corporation is almost 130 years old. Having started out in the US with a single product, it now owns or holds the license on over 500 brands, including four of the top five global fizzy drink brands – Coca-Cola, Diet Coke, Fanta and Sprite (Coca-Cola Company, 2011). Globally, Coca-Cola is the number one provider of sparkling beverages, ready-to-drink (RTD) teas, and juices and juice drinks, and is amongst the top advertisers globally. It aspires to be the leading soft drink (*“non-alcohol RTD”*) business *“in every market and every category that is of value to us”* (Coca-Cola Company, 2011).

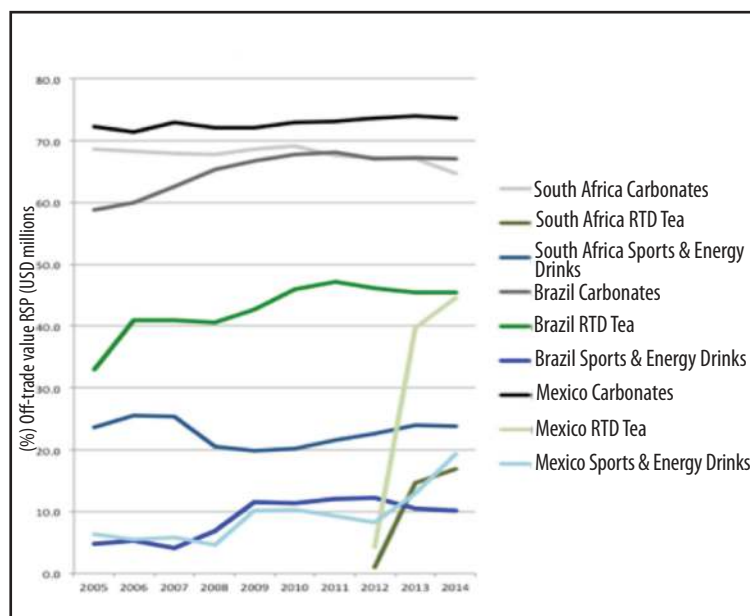
³⁰ Along the Amazon River there is evidence of Nestlé marketing and products with implications for nutrition as well as the culinary traditions of populations.

³¹ Nestlé funds the Brazilian Society of Pediatrics: a website dedicated to health professionals and pediatricians (in Brazil, Mexico and other Latin-American countries); it offers courses on pediatrics, which are announced through the Brazilian Society of Pediatrics; and it offers fellowship grants in partnership with Universities in Brazil, Mexico, South Africa, amongst other countries (<https://www.nestlenutrition-institute.org/Education/scholarships/Pages/default.aspx>).

Products, practices and policies

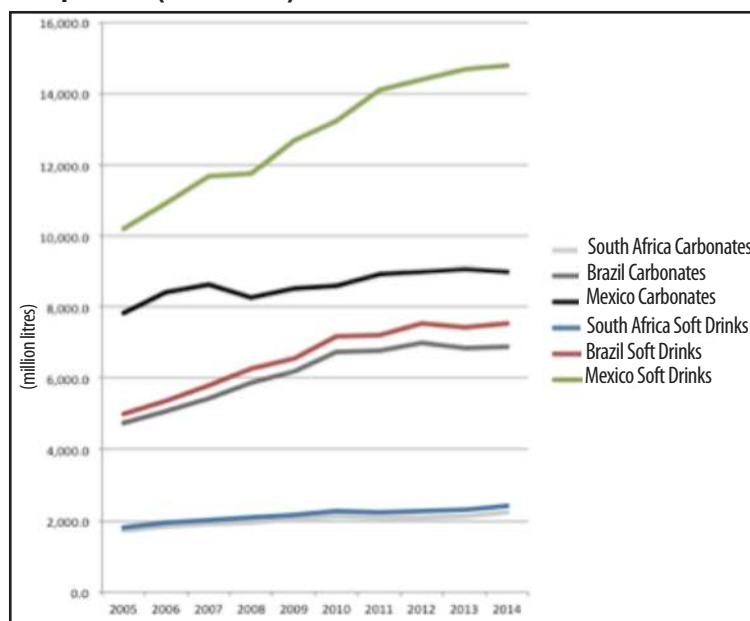
Figures 5-7 (Source: Euromonitor database) below show Coca-Cola's presence in Brazil, South Africa and México, its market share, volume of sales in carbonates and soft drinks, RTD teas and sports drinks. In all three countries, more than half of the carbonate market is in the hands of Coca-Cola (Figure 5), with the MNC controlling over 70% of the market in carbonates in México; almost 70% in SA (this fell slightly in 2014), and showing a growth in Brazil from below 60% in 2005 to almost 70% in 2014. Its control of the RTD tea market in México increased rapidly from 5% in 2012 to 45% in 2014.

Figure 5: Coca-Cola Company market share - country comparison (2005-2014)



Figures 6 and 7 illustrate how Coca-Cola's share of the sugary drinks market is increasing. Figure 6, for example, shows how volume of sales increased in México to almost 15 000 milliliters in 2014, from 10 000 milliliters in 2005.

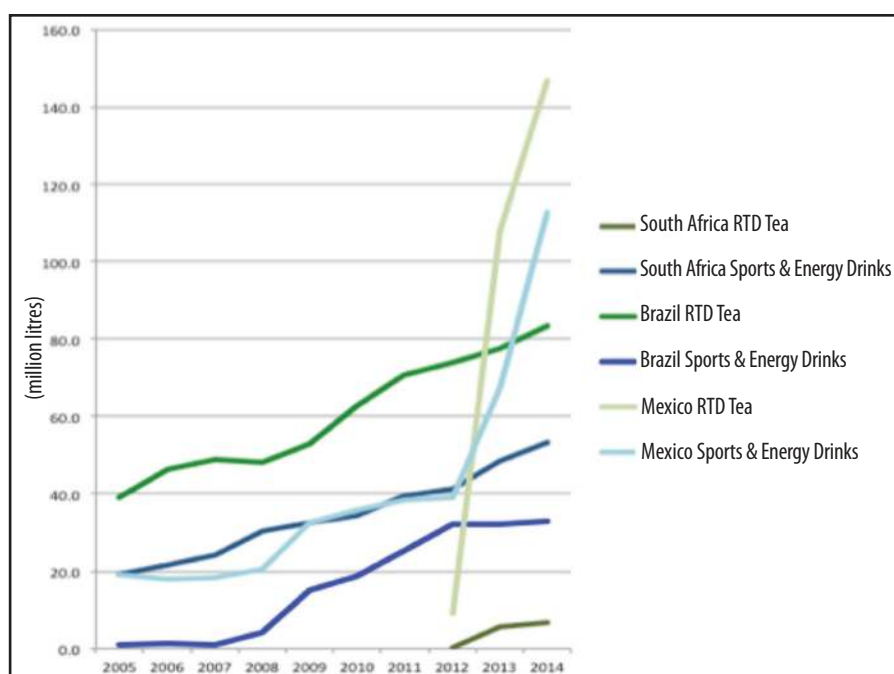
Figure 6: Coca-Cola Company off-trade volume of sales of carbonates³² and total soft drinks - country comparison (2005-2014)



³² Carbonated soft drinks do not include nectars.

Figure 7 shows the exponential rise in soft drink sales especially in México (from 2007 onwards, with RTD tea sales rising sharply between 2012 and 2014). Ultra-processed products, such as these displace healthy food and drinks, such as water and fresh fruit juices, and may jeopardise the businesses of those small operators who produce these healthier alternatives (Boutelle, et al, 2007; Bowman, et al, 2004; French, et al, 2001; Taveras, et al, 2005).

Figure 7: Coca-Cola company off-trade volume of sales of ready-to-drink teas and sports/energy drinks - country comparison (2005-2014)



Source: Euromonitor database

Strategies used to maximise returns and enhance brand loyalty:

- According to the WHO, of the top 100 biggest spenders on media advertising worldwide (which includes for example, McDonald's, KFC and Pizza Hut) Coca-Cola is the highest spender in the food and beverage sector (Hawkes, 2002). Coca-Cola itself attributes the increase in demand for its products as being a consequence of successful marketing strategies, including effective pricing, advertising, sales promotion, new packaging, new vending and dispensing equipment, and brand and trademark development and protection (The Coca-Cola Company Annual Report, 2014).
- Considerable ad-spend goes into “*service-related marketing, TV and movie tie-ins, sports sponsorship, music, event and product sponsorship, educational competitions, and philanthropy*” (Hawkes, C. 2002.) Ahead of the 2014 FIFA World Cup hosted in Brazil, for example, Coca-Cola announced that its marketing strategy would include: adverts starring celebrity soccer players; 300 million pieces of merchandise with the World Cup logo; and a strategy aimed at reaching 4 billion viewers globally through linking their brand with the soccer event. Targeting Brazil as a new growth market, the company intended investing “\$7.6 billion in Brazil between 2012 and 2016 to build its soda-making and distribution businesses with a view to a 6%

growth by 2017, on top of a market already valued at \$43 billion ahead of World Cup kick-off (iNet Bridge, 2014).

- The company aims for aggressive growth in the next 15 years. In its 2020Vision, Coca-Cola states that it intends to more than double its profits, and the number of servings per day to over 3 billion (Coca-Cola Company, 2011). A particular focus on growth is in emerging markets, according to the 2011 Annual Review.
- Coca-Cola invests in funding nutrition conferences worldwide, with the hidden agenda of influencing science and capacity building in their favour (Gomes, 2013). The Brazilian Society of Food and Nutrition (SBAN), for example, accepts funds from Coca-Cola and in so doing, gives Coca-Cola space to advertise at their congresses and participate in initiatives.
- Coca-Cola uses various strategies to influence scientists, such as the Coca-Cola Pemberton Award supported by SBAN, the Brazilian Association of the Studies on Obesity, and the Brazilian Association of Nutrology (Pemberton Award, 2015).³³
- Its latest initiative, along with other beverage makers, is the creation of the Global Energy Balance Network, which intends to “*spread the message that sugary sodas have no deleterious effect on health and should not be taxed or regulated*” (*The New York Times*, 2015). Although scientists leading this Network claim that Coca-Cola will have no control over their studies, there is an abundance of evidence linking biased results and conclusions related to corporate funding (Bes-Rastrollo et al., 2013). Other international organisations founded, funded and/or controlled by Coca-Cola, which attempt to put a “*science-based*” gloss on industry positions include the International Life Science Institute, the Beverage Institute for Health & Wellness, and the EPODE International Network - some of these have domestic representation in Brazil and México (*New York Times*, 2015).

SOUTH AFRICA (SA)

The Coca-Cola brand has been present in South Africa since the 1930s and remained in the region throughout the apartheid era, moving its operations to Swaziland in order to retain a foothold in the region – at a time when many international companies withdrew for political reasons or joined the sanctions process against South Africa. Because demand for sugary beverages is so high amongst consumers, Coca-Cola’s brands have extensive reach through all markets, which could potentially stimulate small business and job creation, particularly in the informal sector.

According to the Moore School of Business analysis (2005):

- *Bottling*: In 2005, Coca-Cola Canners of SA was the largest canning facility in the southern hemisphere – it was here that the company’s secret formula (X7) was mixed with water and sugar, and carbonated before bottling. In 2014 Coca-

³³ The Pemberton Award is part of the Live Positively Sustainability Platform Coca-Cola Brazil, and is aligned with the pillar Healthy Living. It’s one of the Company’s initiatives, which aims to encourage and promote scientific research focusing on welfare and requirements for healthy living, such as the benefits of balanced nutrition, hydration and physical exercise (Sustainability Report, 2010/2011, Coca-Cola, Brazil).

Cola, SABMiller and Gutsche Family Investments announced a merger of bottling operations in southern and eastern Africa to form Coca-Cola Beverages Africa (CCBA). The merged entity is the largest bottler in Africa and the tenth largest worldwide, producing approximately 40% of Coca-Cola volumes in Africa. It will be headquartered in South Africa, the largest single market in Africa.

- *Distribution:* Products are distributed through an extensive network, where 80% of products go directly to retailers, but around 20% is distributed to wholesalers, who sell to smaller and rural retailers. In 2003 there were over 1 500 primary wholesalers and hundreds of sub-distributors and runners. There are strong connections between the primary wholesalers and the bottlers, while sub-wholesalers do not have a direct link to the bottlers and work directly with the primary wholesalers. They distribute to the small informal retailers and sometimes engage in retailing themselves. Runners truck regular small quantities to smaller retailers who do not have the facilities or resources to carry large inventories. This ranges from carrying crates by hand through wheelbarrows and to trucks.
- *Informal sector:* Soft drinks are the most important product sold by spazas (informal retailers) and hawkers, and the second most important for shebeens (taverns), after alcohol (sweets and chocolates were also in the top five products for shebeens and hawkers). In 2003, about 95% of spazas, 80% of shebeens, 5% of hawkers and 37% of other informal outlets sold Coca-Cola products (Moore School of Business, 2005).
- *Delivery, equipment and signage:* As a way of building their brand and market share, Coca-Cola provide extensive support to informal retailers, in the form of free branded vending machines and refrigeration options, signage, as well as packaging products in smaller, cheaper sizes to be more affordable to lower income markets, while selling in bulk sizes to higher income markets to increase home consumption.

MÉXICO

In México, soda and beer hold 23.6% of sales and 44% of operational profits of the agro-industrial MNCs³⁴. México has the highest consumption of sugary drinks worldwide (specifically of beer and soda) - 600 millilitres per cápita - and the highest annual rate of death related to this consumption - 318 people for every 1 million adults, or 65 Mexicans per day (Global Burden of Disease Study, 2010). The intake of these drinks leads to weight gain and an increased risk of developing diabetes, cardiovascular disease and some types of cancer.³⁵

Three of the six MNCs in the beer, soda and other beverages segment are part of the US parent company; Coca-Cola Co. Coca-Cola de México on its own encompasses nine groups of bottling companies and Jugos del Valle. The most important bottlers include Coca-Cola FEMSA (KOF) – its largest bottling company, and Arca Continental,

³⁴ Classified as such because of their demand for sugary inputs, barley and fruit. The main suppliers to beer companies are the grain MNCs.

³⁵ Close to 80% of deaths associated with these drinks occur in low and middle income countries (WHO, 2010).

which also produces a range of snacks and candies. Together these three companies account for 49.7% of sales for this segment and 56.7% of the profits.

In 2012, beer was México's main export, and México was the number one exporter of beer globally. In terms of the export of pure water or sugary water, México ranks seventh globally (SAGARPA, 2012).

In 2013, a tax on the production and import of sugar sweetened beverages and junk food was approved in México, with the objective of increasing the country's fiscal revenue and also to combat the epidemic of overweight and obesity by increasing the price for consumers³⁶. The Mexican Council for the Consumer Goods Industry (ConMéxico, representing companies like Coca-Cola, Pepsi, Bimbo, Alpura and Lala) were against this measure, claiming it was regressive and lacking scientific evidence (El Financiero, 2013). In fact, the measure was paid for by consumers rather than the producers as it was consumer prices that increased.

CASE STUDY 6: PROCESSED FOOD: THE GRAIN SECTOR, MEAT PROCESSING AND DAIRY PRODUCTS (México)

According to the National Institute of Statistics and Geography (INEGI), in 2013 the Mexican food industry's GDP was \$651,290,000,000 pesos, with 44.8% of this corresponding to the sales of just six MNCs. This means that six MNCs alone control this node of the food value chain. Moreover, just two companies, Grupo Bimbo and Gruma (which controls Grupo Industrial Maseca), concentrate 87% of sales and 85.7% of the segment's profits.

- *Grain:* Cargill, Archer's Daniels Midland and Bunge control 90% of the global grain trade (Delgado, 2010). In México, they participate strategically in the agroindustry chain using different practices, including hoarding, storage, processing, distribution of grains and oilseeds (for both human and livestock consumption), in addition to other agricultural and financial products.
- *Meat processing:* Given the changes in consumption and commercialisation patterns of supermarket chains that can offer consumers a broad variety of meats, the meat processing value chain is integrated in a complex fashion. Behind the corporate meat industry, there are a broad range of agricultural and livestock producers who supply MNCs through their livestock supply centres. In the case of MNCs who produce and sell cold cuts, production mainly depends on imports.
- *Chicken or bovine/porcine products:* According to México's national Agricultural, Food and Fisheries Information Service (SIAP), in 2013, the value of the national production of poultry carcass meat reached

³⁶ Although the inflation rate in January 2013 was 3.5%, this rate was 15.1% by 2014, 11.4% higher (América Economía, 2014).

\$84,220,100,000 pesos, 80% of this coming from the sales of the three market giants – Industrias Bachoco – the sixth largest poultry producer in the world and with an almost monopolistic position in egg production in México; Pilgrim's Pride; and Tyson de México. Bachoco alone produced 47.2% of the value of poultry meat in the country.

- *Other MNCs in meat processing:* In 2013, the cumulative sales of the leading corporations represented 79.2% of the national production value of bovine and porcine meat carcasses. These included Sigma, SuKarne, Grupo Bafar, Xignux Alimentos, Kuo Consumo Agroindustrias Unidas de México (AMSA) and Smithfield.
- *Dairy products:* This segment is supplied by large and medium-sized producers that may work as partners and must comply with strict sanitary and quality regulations in order for the controller to supply them with inputs and credits. MNCs in this segment operate as collectors, transporting milk to the industry and, in this way, controlling the market. These groups are also characterised by strong vertical integration; their diversification is in products like coffee with Nestlé being a paradigmatic case.

Four companies dominate this segment: two of national origin and two foreign companies. Their sales in 2013 were 228.6% of the value of national milk production.

- Grupo Lala is the largest dairy company in Latin America.
- Alpura's growth on the market is an obstacle to small producers since it processes 2.5 million litres of milk a day. It has 30 storage deposits and its own distribution network, enabling it to command the dairy chain for processing and distribution.
- Danone México is the number one company for fresh dairy products globally; other activities are the production of bottled water and infant nutrition goods.
- Nestlé México: has 16 research centres, is integrated in the dairy sector, but also produces drinks, cereals, baby food, ice cream and frozen foods, as well as owning the Purina brand of animal foods. It controls the coffee market and purchases 20% of the national production of cocoa. It acquires both coffee and cocoa in México at highly punitive prices for national producers.

RETAIL AND PROCUREMENT

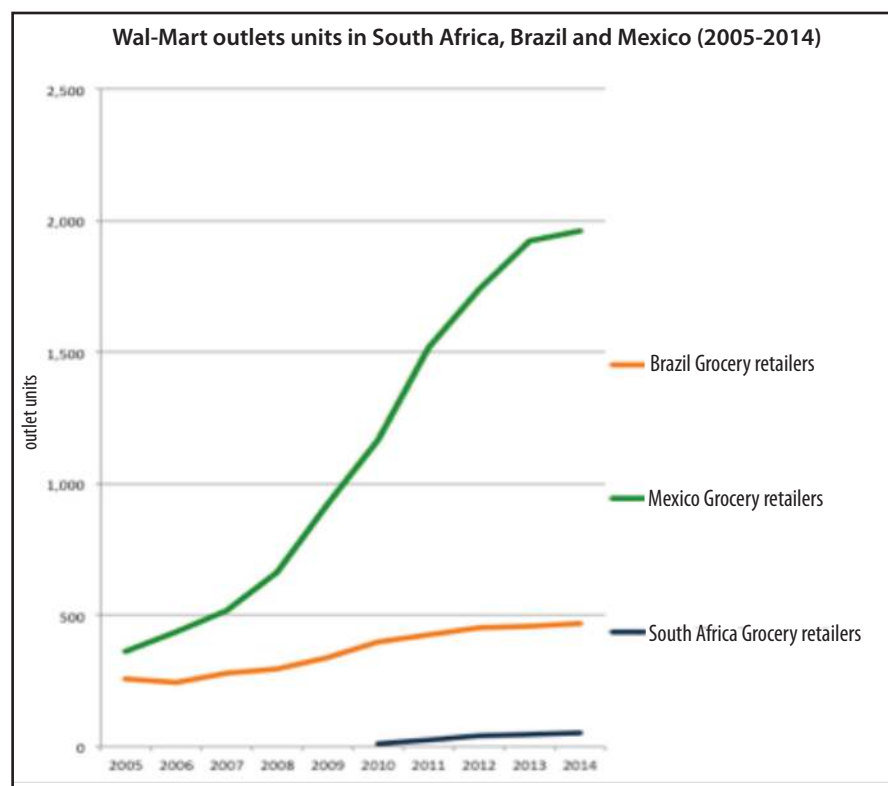
MNCs have changed the traditional way of accessing agricultural and food products, shifting and imposing new patterns of consumption. Their multi-format marketing strategy helps them to diversify and to secure their place in the market, based on the population's level of income. Hence, they own warehouses, storehouses, price clubs, markets and superstores, among others. Their concentration of power enables them to prescribe conditions, set their own standards and make demands on other participants in the food value chain (Gereffi, et al., 2005). At issue is also the expansion of large and growing MNCs such as Wal-Mart and the impact they will have on small and medium-scale operators, as well as on spending patterns.

CASE STUDY 7: THE EXPANSION OF WAL-MART

(South Africa, Brazil and México)

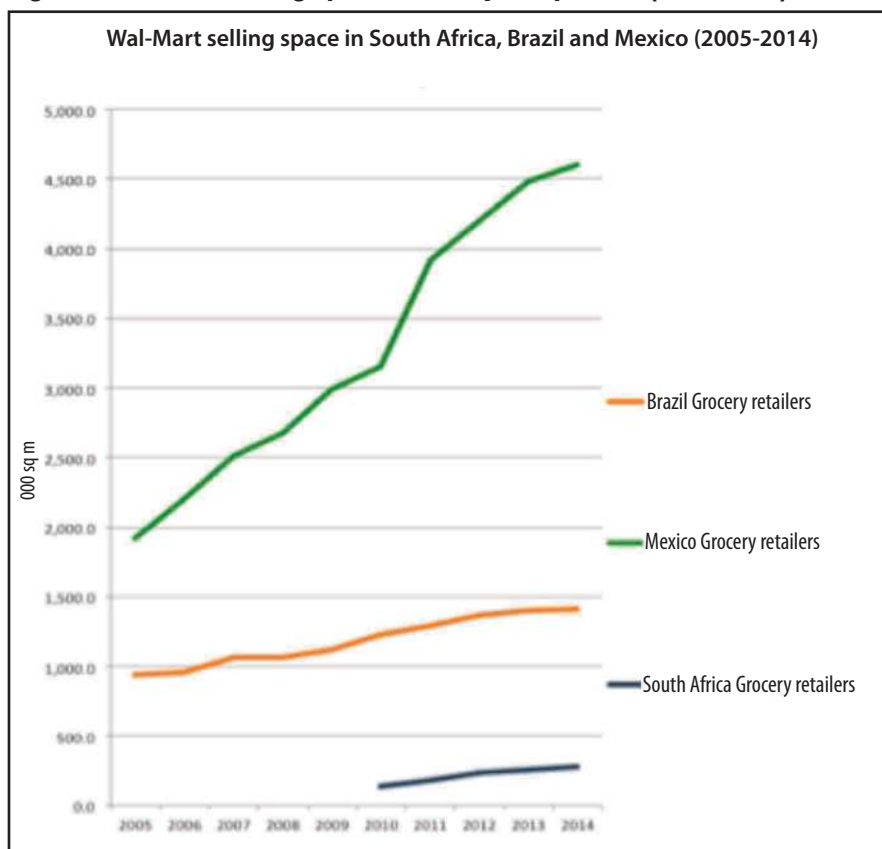
In all three countries the number of Wal-Mart outlets and selling space increased rapidly between 2005 and 2014 (see Figures 8-9). In México, in particular, Wal-Mart's growth has been so rapid, that by 2014 it was close to achieving control of one fifth of the grocery retail market (see Figure 10). Wal-Mart's market power allows it to establish alliances with other important MNCs and position itself with consumers. This expansion is likely to have a severe impact on small retailers who find it difficult to compete with the lower prices Wal-Mart can offer, by negotiating to buy in bulk.

Figure 8: Wal-Mart outlets - country comparison (2005-2014)



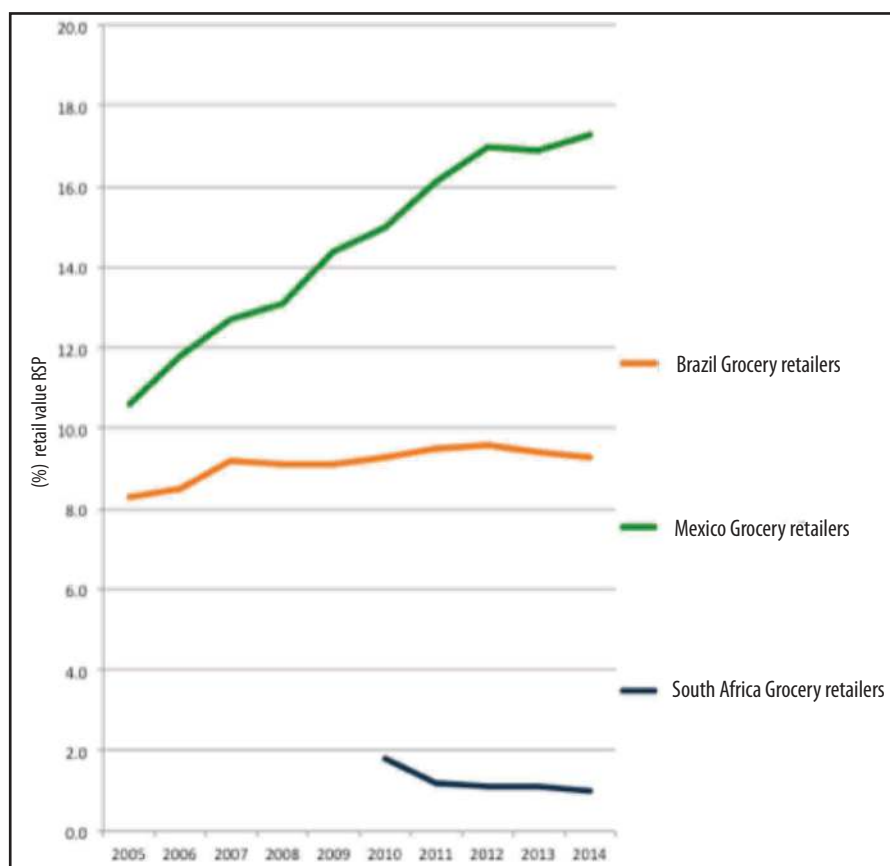
Source: Euromonitor database

Figure 9: Wal-Mart selling space - country comparison (2005-2014)



Source: Euromonitor database

Figure 10: Wal-Mart market share country comparison (2005-2014)



Source: Euromonitor database

CASE STUDY 8: SUPERMARKETS, FRESH PRODUCE PROCUREMENT, AND THE URBAN FOOD ENVIRONMENT **(South Africa)**

Usurping the fresh produce value chain

Supermarkets in general claim 55% of the total food market share in South Africa (Weatherspoon and Reardon, 2003). According to the Institute for Poverty, Land and Agrarian Studies (PLAAS) (2013), food markets in SA are valued at approximately R200 billion, with fresh produce making up about 15% of that. Pick n Pay, Shoprite Holdings, Woolworths and Spar supermarket chains dominate the SA food retail sector. It is difficult to establish precise market share but these four, plus Walmart/Massmart as a new entrant into food retail, control between 50-60% of the retail market. Formal retail channels are also a significant outlet for fresh produce.

Traditionally, the flow of fresh produce from farm to fork is through informal and small retail channels, such as hawkers, spazas, and independent retailers, as well as through fresh produce markets around the country. However, in the past 15 years, supermarkets have expanded their share of the market and now drive key aspects of the value chain, such as quality and standards. They have changed the flow of this fresh or “wet” produce by centralising much of their procurement and distribution, either in-house, through lead suppliers, or category managers controlled by the supermarket.

As they have streamlined their operations to become more customer-oriented, to leverage scales of economy and streamline logistics, they have linked “production, processing, retail and consumers, leading to a decline in traditional wholesale and wet markets” (Barrientos & Visser, 2012). Supermarkets now procure directly from large commercial farmers, moving fresh produce trade away from wet markets and smaller and independent wholesalers and retailers. Although commercial farmers still sell to some traditional outlets – including to hawkers and wet markets, independent supermarkets and directly to the food service industry such as to hotels and restaurants – fresh produce market volumes to these outlets have declined considerably in recent years (Barrientos & Visser, 2012).

De facto governors of the food business

Due to the concentration of ownership within the country’s large retail chains and their displacement of wet markets, they have become de facto governors of the country’s fresh food business. Supermarkets are bargain hunters, increasingly looking for producers who can guarantee not only competitive pricing but also “quality, quantity and consistency” (Chikazunga & Paradza, 2012).

A report from the Department of Agricultural Economics, Extension and Rural Development at the University of Pretoria confirms this (Bienabe & Vermeulen, 2007), and further states that in the absence of state-imposed safety norms, or enforcement thereof, “(a)gri-food industries and supermarkets have been setting their own standards,

based on their understanding of consumer demand and existing regulations". The influence of these privately set standards by trading partners in the Global North is another feature of SA's fast-changing fresh produce sector (Barrientos & Visser, 2012).

Implications for small-scale farmers

Van der Heijden and Vink (2013) found that in the SA context, where supermarket expansion has been aggressive:

- Supermarket expansion has a significant impact on independent and informal retailers. One PLAAS study found that spaza shops in Mpumalanga and Limpopo lost 20% of their turnover between 2003 and 2005, as supermarkets moved into their neighbourhoods (Louw, et al, 2007).
- The procurement practices of SA's "*big four*" shows that their centralised and streamlined system favours a small number of large-volume producers "*who can guarantee deliveries well in advance, and on precise dates*". This comes at the expense of smaller farmers who cannot compete on the same grounds.
- In-house supermarket procurement has moved business away from the traditional wholesalers and fresh produce markets which are an important market entry point for many farmers. Large supermarkets only buy about 10% of their fresh produce from fresh produce markets now – a major decline over the past decade (PLAAS, 2013). In 2007, Pick n Pay bought 97% of its fresh fruit and vegetables from preferred producers, and 3% from fresh produce markets, whereas a decade earlier the ratio was about 50/50 (Chikazunga, et al, 2007). The sale of fresh fruit also illustrates the dominance of supermarkets in the fresh produce value chain - in 2000, approximately 40% of fruit sold domestically was retailed through supermarkets; by 2011 this figure had increased to 60% (Barrientos & Visser, 2012).
- Small farmers are also acutely dependent on being able to sell to local retailers, in order to stay in business. While commercial farms are important to rural economies, and support urban food security, small farmers are critical for maintaining a diverse, robust rural service economy, which can sustain small farmers and informal, smaller and independent traders, keep money within the local economy, and create jobs. With the dominance of large retail chains in the rural economy, livelihoods are affected, and money "*leaks*" out of the local economy (Du Toit, 2009).

Social grants and the "hoovering" effect

As supermarkets have extended their reach into poor communities in urban and rural areas, they have changed the flow of money in communities. Previously social grant payouts, a significant source of income for poor South Africans, were handled by government facilities, such as post offices or municipal offices. People would then spend the money at local independent businesses and informal traders, resulting in this inflow of money from the state remaining and circulating within the community. Now, many

supermarkets have become social grant payout points and people receive their grants inside the shop premises. They then spend their money in the supermarket, resulting in money flowing out of the community and into the profits of these supermarket giants (Du Toit, A & Neves, D. 2007; Battersby, personal communications, 2015.)

Supermarkets and global trade: implications for farmers and labourers

Buyers in the Global North, such as Carrefour, Lidl, Tesco, Metro, and Aldi, tend to have high standards around the production, processing and the social conditions of people involved in the value chain (Barrientos & Visser, 2012). For instance, most leading European supermarkets subscribe to GlobalGAP, a set of best practice codes relating to environmental and labour conditions in the agriculture sector. SA farmers, wanting to export to Europe, need to adhere to these standards, as well as to the phyto-sanitary and aesthetic standards set locally by the state and the private sector.

As a result of the opening up of the global fresh produce trade, including in neighbouring African countries, as well as in Asia and Latin America, local farmers have access to a wider variety of markets. However, there is also greater competition, and there are usually price-takers in global value chain bargaining. Prices are lower and margins thinner (Barrientos & Visser, 2012). Just as is the case with local supermarket procurement trends, northern buyers' preference for large reliable suppliers is pushing smaller operators out of business.

A consequence of this growing pressure on farmers is that they have tried to cut the costs of production. Since 1994 this has driven a casualisation of labour, thinning the workforce and pushing many farm-residing labourers into towns where they have become seasonal labourers. This trend has also undermined the need for more skilled labour. This is one of the main ways that a food system which is monopolised by a few large firms aggravates poverty and inequality (Barrientos and Visser, 2012).

Supermarket spread and the urban food environment

A recent mapping of food retailers in the city of Cape Town by the African Food Security Urban Network (AFSUN) shows a high concentration of supermarket stores in wealthy suburban neighbourhoods (the wealthiest neighbourhoods mapping nearly eight times as many supermarkets per household as those in the lowest-income areas). There is also a rapid extension of supermarkets into relatively poorer townships³⁷ on the urban edge of the city – a pattern that is repeated across SA. However, it was found that these supermarket chains stock less healthy foods than those in wealthier neighbourhoods, which “*challenges the assumption in the literature that access to a supermarket automatically guarantees a better diet*” (Battersby & Crush, 2014). Supermarket expansion into these communities feeds into the “nutritional transition” towards a diet higher in processed, unhealthier foods.

³⁷ In SA, a township refers to an often underdeveloped urban residential area that, from the late 19th century until the end of Apartheid, was reserved for black Africans, “Coloureds” and Indians, and was generally located on the periphery of towns and cities.

Research shows that informal food traders, rather than supermarket chains, help make urban communities more resilient in the context of food security. They are more “fluid” businesses, popping up where there are gaps in the markets, and they are not constrained by the formal operating hours of many retail chains. While they can’t compete with supermarkets gram-for-gram on pricing, they often operate closer to people’s homes, saving them the cost or difficulty of transporting groceries using public transport. They often also allow customers to buy on credit, which can help a family avoid hunger when they run out of cash.

Nevertheless, the urban informal food economy is policed by environmental health practitioners to ensure food safety standards and is regularly the target of “control, regulation and draconian eradication policies... (while supermarkets are) generally free to do business without any significant degree of regulation”(Battersby & Crush. 2014). Furthermore, while supermarkets and agri-food industries have largely been allowed to write their own rules around safety and aesthetic standards on fresh produce, this has been “used in the competition with the informal sector, to claim superior food product quality” (Bienabe & Vermeulen, 2007).

CASE STUDY 9: STORAGE AND TRANSPORTATION CENTRES (México)

Storage and transportation centres unite the agroindustrial value chain by forming part of the supply chain that stocks MNCs. Warehouses are privatised³⁸ and used by MNCs for stockpiling and storage. Cargill or ADM have exclusivity agreements with the warehouses that control the distribution of grain so that they are able to concentrate a large amount of food, as well as control prices. There are 2 649 warehouses concentrated in the following states: Jalisco (344); Tamaulipas (263); Sinaloa (254); Chiapas (231); Durango (190); Chihuahua (171); Michoacán (142); and Sonora (106) (Federal Agency for Commercialization and Agriculture and Livestock Market Development Services (ASERCA).

In addition to playing a role in collection and storage, General Deposit Warehouses (AGDs) carry out logistical, transportation, commercialisation and financing activities. The AGDs link the agricultural and livestock sector to the financial sector, since they are empowered to issue deposit certificates that can be used to carry out transactions even on the futures market, to request fiscal credits linked to foreign trade, and to access lines of private credit and federal government support.

The magnitude of MNCs facilitates their acquisition of agricultural insurance and warehouse access, and enables them to obtain large public and private credit. Public policy is supposedly focused on improving conditions for producers who lack these facilities, however, MNCs and their subsidiaries receive significant support from ASERCA, as part of the Mexican government’s credit policy.

38 The BORUCONSA warehouses (rural CONASUPO warehouses) are currently commercial storage facilities that have been transferred to local producers. ANDSA assets have been transformed into Almacenedora del Sur, Almacenedora Centro Occidente (which became ALMER upon liquidation) and Servicios y Almacenamientos Norte (SERANOR), acquired by Grupo México. (Ayala-Garay & B., 2008)

CONSUMPTION AND THE FOOD ENVIRONMENT

The “abnormal” food environment

When the US-based fast food outlet Burger King opened its first franchise in Cape Town, South Africa, in May 2013, queues ran around the block as people waited to get a taste of the burgers from this internationally recognisable brand. Four months later, the franchise operator Grand Parade Investments said Burger King had turned over R20 million in that time, even though it was still only based in Cape Town. The company was struggling to meet demand, looking to Middle Eastern imports to fill the gaps left by local suppliers’ shortfalls (Wynn, 2013).

This anecdote illustrates how established fast food brands have become in popular culture in SA, just as they are in Brazil and México, and elsewhere in the world. It also illustrates how the growing volume of fast and processed foods, are a key factor in the “*abnormal*” global food environment that was alluded to earlier in this report.

With increasing urbanisation, men and women are driven into the workforce to earn money to pay for their needs and expenses. Long working hours, time spent travelling, fewer hours in the day available to shop for and cook wholesome meals, push people to eat on the run.

“Traditional meals and meal times are replaced by spontaneous often unplanned food purchases on street corners or in small kiosks...attention to dietary balance and dietary quality, which was traditionally “intuitive” at the household level, is now subject to wider cultural changes and external influence” (Kennedy, et al, 2004). These factors, together with the prominence of highly recognisable fast food brands drive demand and have led to significant market expansion of fast food options.

The shifting urban diet

Many of the foods on the menus of these fast food outlets fall into the realm of the “*dietary transition*” or “*nutritional transition*” discussed earlier in this report³⁹.

Writing about the specific nature of this transition in South Africa, Chopra (2004) comments that, “Increased exposure to fast foods, decreases in the relative cost of meat and high fat foods, and reduced time for food preparation are all changing dietary patterns in the urban setting...Until a couple of decades ago the African population consumed a typical traditional diet, where the fat intake was only 16% of the total calories. By 1990 the fat intake in an urban African community had increased to 26%.” (Chopra, 2004)

In addition, those who lived most of their lives in cities “*consumed a typical westernised*

³⁹ See the earlier discussion on the dietary transition.

diet with 30% of calories from total fat, while those who had spent less than 20% of their lives in the city only consumed 22.5% of calories from total fat.” (Chopra, 2004)

These figures show the strong link between the dietary and nutritional transition associated with globalisation and urbanisation, and the way that fast food chains have capitalised on the shifts. It is these trends in the developing world that are behind the “*silent emergency*” of over-nutrition leading to obesity (Crush, et al, 2011).

Fast food outlets are concentrated in urban centres, which is why their influence at a consumer level is seen most readily in cities. “*Structural*” constraints on a home-cooked diet for the urban poor include lack of time, limited access to grocers and whole food markets, cost of energy, and limited cooking, refrigeration and storage.

“Urbanization, globalization, the expansion of supermarket chains, the increased availability of processed food, the “fast food” revolution and junk food are all making it more difficult to speak of discrete dietary types in Southern Africa” (Crush, Frayne and McLachlan, 2011). This is equally valid for both Brazil and México, where MNCs influence the development and practice of a consumption model with low nutritional value.

CASE STUDY 10: FAST FOODS AND STATUS BRANDS

(South Africa, Brazil and México)

[MNC: McDonald’s]

McDonald’s vision and mission are: “To feed the nation and be our consumers’ first choice by being their favourite place and way to eat and drink” (Our Story, 2015). McDonald’s aggressively pursue this vision and mission via, amongst other things, high profile marketing across a number of forums and media (including its golden arches, huge billboards and TV campaigns). According to the company’s US chief marketing officer, “Marketing at the Golden Arches used to be organised by product – there would be a marketing lead for beef or chicken...but it is now organised by consumer group such as millennials, families and adults” (Morrison, 2014). Children continue to be a prime target market – this is especially alarming given that children are particularly vulnerable to diets high in processed and junk foods and should be protected from over-exposure to these products as well as from the aggressive marketing strategies employed by fast-food MNCs.

Since 2005, McDonald’s fast-food market shares and its number of units and transactions have increased in South Africa, Brazil and México, especially in Brazil, where stores/kiosks increased from 800 units in 2005 to almost 1 800 in 2014 (Figure 13); and volume of transactions doubled from 200 000 in 2005 to over 400 000 in 2014 (Figure 14).

Figure 12: McDonald's market shares – country comparison (2005-2014)

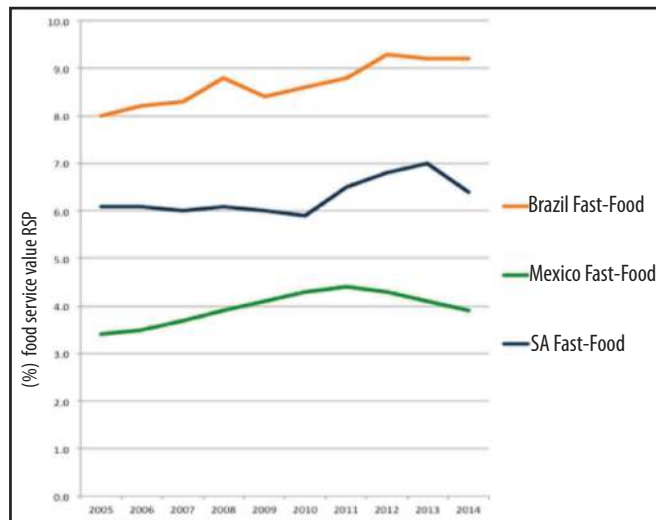


Figure 13: McDonald's stores/kiosks – country comparison (2005-2014)

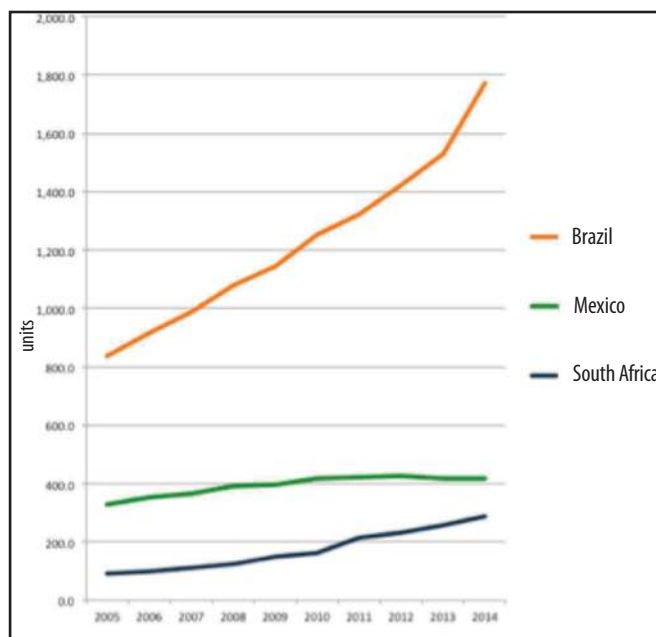
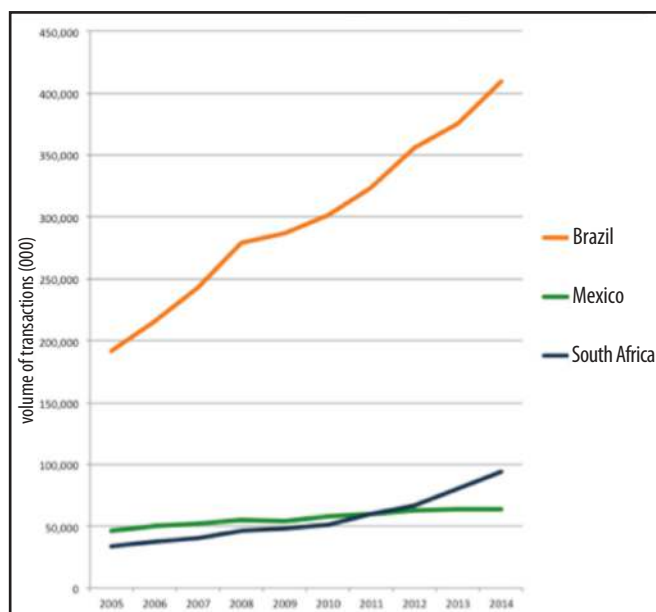


Figure 14: McDonald's volume of transactions – country comparison (2005-2014)



Source: Euromonitor database

MÉXICO

In México, there are two main operators that unite fast food companies: ALSEA and Arcos Dorados. The former is dominant and owns Domino's Pizza, Starbucks, Burger King, Chilis Grill & Bar, California Pizza Kitchen, P.F. Chang S and Pei Wei. The latter operates McDonald's establishments, with sales of up to \$2,818,000,000 pesos annually.

SOUTH AFRICA (SA)

McDonald's quickly set up shop in SA once the country was welcomed back into the global economy following the end of apartheid in the early 1990s; and like many other international fast food chains saw SA as a springboard into the continent as a new and untapped market. Its strategy was aggressive, opening 30 outlets in just 26 months following the launch of the first take-away in Gauteng Province in 1995. In 2014 McDonald's had 211 outlets, mostly in urban centres (Euromonitor, 2015). The corporation says it has invested more than R750million directly into the SA economy and created over 6 000 jobs. Most of its supplies are sourced within the country (Shanduku, 2011).

CASE STUDY 11: FAST FOODS, STATUS BRANDS, AND THE "DIETARY TRANSITION"

(South Africa) [MNC: KFC]

KFC is the longest-standing fast food MNC in SA having been here since 1971. The company capitalises on the fact that chicken is a staple food in Africa, where people prefer chicken on the bone, and takes advantage of the scales of economy of reaching an expanding, high-density urban population which was getting wealthier. According to a recent study by McKinsey Global Institute, *"Approximately 40% of Africans live in urban areas now and the number of households with discretionary income is projected to increase by 50% to 128 million over the next decade"* (Bloomberg, 2010).

In 2010, the parent company of KFC, Yum Brands Inc. stated that it planned to double its footprint on the continent, with a target of 1 200 outlets in the coming four years, and a projected doubling of revenue to US\$2 billion (Bloomberg, 2010).

In 2014, KFC had 745 outlets around the country. In 2014 it had a 20% share of the country's R78.3bn consumer foodservice market, and 30% of the R31bn fast-food market (a sub-category of the consumer food service market); while the local chicken chain Nando's had 9%, and McDonald's had 8.5% (Euromonitor, 2015a).

KFC also prices products according to the various markets, from the wealthy down, so that some menu items are priced at around US\$7 for a chicken sandwich, chips and a drink, down to US\$1 for a straight chicken sandwich or four chicken wings for US\$1.20 by 2010 prices.

CASE STUDY 12: ANTI-COMPETITIVE BEHAVIOUR: MILLING, DAIRY AND BIG GROCERS (South Africa)

According to the Competition Commission South Africa, *“Anti-competitive behaviour in markets that affect poorer consumers is a priority for the Commission. Sharply increasing food prices internationally, as well as in South Africa, have grave implications for consumers, particularly low-income households, which spend more than 30 percent of their total annual household expenditure on food (as compared with 7 percent spent by the wealthiest households)”* (Competition Commission SA, 2007/8:10)

The National Anti-Corruption Summit explored the possible impact of price fixing on staples like bread and milk, particularly on lower income communities, at a 2008 Johannesburg summit. According to the report arising out of this summit, price fixing and cartel forming activities are illegal (under the Competition Act), unethical and immoral (National Anti-Corruption Forum (NACF), 2008). This behaviour stifles free and fair competition, pushes smaller businesses out of the sector, and makes it difficult for ‘new players’ to enter the sector. Cartel dominance also limits the products or services that consumers have access to and usually leads to artificial price manipulation which hits the poor hardest.

Between 2007 and 2015, the Competition Commission of SA investigated various forms of anti-competitive behaviour in various industries in the food system – bread and milling, dairy and big grocers.

Bread and milling: Price fixing

Four of the big bread and milling companies together hold between 50% and 60% of the domestic bread market share in the country - Premier Foods owns the Blue Ribbon bread label; Pioneer Foods produces Sasko bread; Foodcorp produces Sunbake; and Tiger Brands produces the Albany bread range. Their businesses are also vertically integrated –they mill their own wheat from which they bake their bread products, where *“wheat flour represents approximately 41% of the cost per loaf of bread”* (Competition Tribunal SA, 2010).

In February 2007, the Competition Commission SA began an investigation into these four corporations, after small independent bread distributors in the Western Cape lodged a complaint that these big bread and milling companies were colluding to fix the price of bread. Premier Foods, Tiger Brands and Pioneer Foods received most of the focus, since they dominate the sector. They had colluded to increase bread prices by about 30 cents per loaf, and reduce discounts to distributors by 15 cents, to prevent distributors from finding alternative sources of bread. In addition, the companies vouched not to *“poach each others”* independent distributors (NACF, 2008). Premier Foods cooperated with the Commission, agreeing to a fine in exchange for information on the other companies’ roles in the cartel behaviour. Tiger Brands then negotiated a fine of R99 million or *“5.7 percent of turnover from its bread operations nationally*

for the 2006 financial year” to settle the case (Competition Commission SA, 2007/8). Pioneer Foods was eventually fined R196 million and Foodcorp was fined almost R46 million (Competition Tribunal SA, 2010). Concern was expressed by trade unions that these massive fines would be transferred on to the consumer, as these companies would simply increase the price of bread in order to recoup their costs.

Dairy industry: Collusion

In late 2008 the Competition Commission brought a case of anti-competitive behaviour before the Competition Tribunal against eight big dairy processors - Clover, Parmalat, Ladismith Cheese, Woodlands Dairy, Lancewood, Nestle and Milkwood. The charges were linked with manipulating prices through working together to remove surplus milk from the market, fixing the price of UHT milk, and agreeing not to compete on UHT milk sales in certain geographic areas (NACF, 2008). In addition, the Commission found that Clover, Parmalat, Ladismith, Woodlands, Lancewood and Nestle had exchanged sensitive information on procurement prices of raw milk (NACF, 2008).

Big grocers and shopping malls’ “exclusivity clauses”

The Competition Commission recently initiated an inquiry into the conduct of the grocery retail sector, in order to test whether there are “any features in the sector that may prevent, distort or restrict competition” (Government Gazette, 12 June 2015). Two important issues raised in the Competition Commission’s gazetted declaration of intention to do this research include:

- The arrival of supermarkets in a community is known to lead to a drop-off in trade for informal markets and independent shop owners, and that the number of informal shops decreases. This impacts *“employment, income levels and the spread of ownership in the sector”*.
- Exclusivity clauses in leases signed between supermarket chains, shopping malls and financing companies can restrict landlords from renting shop space in malls to other businesses, particularly independent businesses, which specialise in foodstuff. This impacts on small businesses, as well as the type of foods available to customers.

Civil society organisations in the food security sector submitted their own concerns to the Competition Commission, as it formalised the scope of the inquiry. The group included the Institute for Poverty, Land and Agrarian Studies (PLAAS), African Centre for Biodiversity (ACB), and the South African Food Sovereignty Campaign (SAFSC).

In their submission to the Commission in June 2015, the group highlighted concerns about the concentration of corporate and financial power in the food system, and how this might impact on the *“food choices of the population, especially those in low income categories, as well as the impacts on the opportunities for creating livelihoods within the food system”* (Greenberg, personal communication, 2015).

4. CONCLUSIONS & RECOMMENDATIONS

This work has shown that monopolistic control by MNCs at all levels of the food value chain threatens a country's capacity for development and the realisation of the population's right to food. As noted in the report, food security is more than producing enough calories and more than just agricultural intervention.

However, tackling food insecurity needs a wider focus. It must include addressing issues in food processing and manufacture, food retail and food marketing. The increasing control of the few large local and foreign corporations over the food environment and the unregulated operations of the fast food sector have contributed to the marginalisation of indigenous agriculture and foods and resulted in an environment saturated with unhealthy, cheap, ultra-processed food products and sugary beverages. The double burden of malnutrition and ill-health associated with this inadequate diet is increasing food and nutritional poverty, with the consequent diseases having to be covered by the state and the individual household. Thus, the current unregulated food market system allows for the privatisation of profit, but the socialisation of the "losses". And, the power of MNCs to influence the market is reinforced by collusion and price-fixing, which results in major consequences, particularly for lower income families.

As deregulated agroindustrial MNCs thrive financially, this report has demonstrated the various impacts on small-scale producers and operators, and the consequences for entrenching poverty and inequality. Greater state intervention in policy is a priority in order to curb and restrain food multinationals. What is needed is the regulation of actors in the food value chain and economic policies (such as subsidies and taxes), together with effective poverty reduction strategies, safety nets and rural development programmes to tackle food insecurity in a sustainable way.

Recommended policy interventions

- Contest the discourse of current economic policy that defends the role of MNCs as modernising and efficient agents, and review the excessive liberalisation of trade and investment that fosters the free entry of poor quality foods at low prices.



- Fiscal, monetary, credit and trade policies that are appropriate for development are required. In the food and agricultural sector, this policy must be guided by national planning that ensures food production and that protects both producers and consumers. In this, agroindustrial MNCs should be subservient to national policy.
- Explore specific regulatory and policy interventions that can break the market dominance of large corporations in the agricultural input sector.
- Tighten regulations pertaining to the entry and utilisation of GMO seeds.
- Tighten tax regulations and increase government capacity to limit and monitor capital flight as MNCs use transfer pricing as a way to avoid paying local taxes.
- Design public policy aimed to offset the patterns of consumption imposed by MNCs, which are already posing public health problems.
- Impose regulations restricting the addition of sugar and corn syrup as a sweetener in foods.
- Raise awareness in the general public of the dangers to health of sugary and processed foods and impose restrictions on advertising and marketing of sugary and processed foods to children.
- Impose restrictions on the distribution of sugary and processed foods in areas with high concentrations of children, such as schools.
- Identify and engage specific government departments (local, provincial, national) in understanding that food security policies need to be applied across the value chain, and not just at the production node.
- All policy makers must take the threat of climate change to agricultural production seriously.

Support small-scale producers and operators

- Implement governmental programmes to support farming and rural areas to ensure that resources flow to small- and medium-scale producers. More resources should be delivered to those producers and operators in need (without subjecting them to conditions, such as the purchase of technological packages), in order to promote food production, build a domestic productive chain composed of these producers and finally, and enhance food security.
- Support small-scale farmers in terms of research and development (R&D), funding, access to appropriate markets, technical support and extension

services that are not linked to specific brands or corporations, and access to inputs that are derived from sources other than MNCs.

- Invest in R&D to build up a agrobiodiversity, natural resources, land, and non-GM seeds.
- Provide similar support for small and independent input suppliers.
- Foster the development of localised food distribution networks in rural areas so that small-scale farmers can sell directly into local food markets (formal and informal retailers and traders) as well as to public food provisioning programmes, e.g. through school feeding programmes, in prisons, and so on.
- Investigate how fresh produce markets can be made more resilient and continue to be a key conduit through which fresh fruit and vegetables reach key retail outlets.
- Carry out agrarian reform and increase public spending which they have channeled to productive investment in the farming sector, focusing their attention on small-scale producers, providing them with stimulus and protecting their production from the international pricing movement.
- Assist with organising and attaining local cooperation among small-scale producers, aimed at developing supply chains that break the mould and dynamics imposed by MNCs. This can occur by promoting bodies and organisations for solidarity financing or through sustainable ecological agricultural practices.
- Review supermarkets' practices which may be creating barriers to entry for smaller supplier, as well as how their strong buying power impacts fresh produce markets which remain an important but pressured market entry point for many smaller producers.
- Protect and nurture informal traders in the urban food sector, as a way of making urban, lower income communities more resilient in the context of food security.
- Foster links between small-scale farmers and informal traders. Rather than seeing the formal market, with big retailers as the main conduit to accessing that market as the panacea for rural development and small-holder farming success, informal traders can be an important and viable market for small farmers.
- Lobby the media to continue exposing and combating anti-competitive behaviour.

If lobbying, legislative and social action do not broaden their scope to address the bigger problems of the food system - from the dominance of big business, the prevalence of unhealthy cheap foods, the issue of corporate-friendly legislation, the lack of access to healthy food, and so forth – the challenges of poverty, inequality and food security in South Africa, Brazil and Mexico will deepen.



REFERENCES

(SA, Brazil & Mexico)

- Abrahams, C. (2009). Transforming the region: Supermarkets and the local food economy. *African Affairs*, 109/434, 115–134.
- African Centre for Biosafety. (2009). Biotechnology, seed and agrochemicals: Global and South African industry structure and trends. Johannesburg: African Centre for Biosafety.
- African Centre for Biosafety. (2014). Africa an El Dorado for South Africa's Agribusiness Giants. South Africa, Johannesburg. Available at: www.biosafetyafrica.net.
- African Centre for Biosafety. (no date). Hazardous Harvest: Genetically modified crops in South Africa, 2008-2012. South Africa, Johannesburg. Available at: www.biosafetyafrica.net.
- AgroDer. (2012). Huella hídrica en México en el contexto de Norteamérica. Mexico City: WWF.
- América Economía. (2014). Primeros efectos de los impuestos en México. January 26, 2014. Mexico.
- AMSAC. (2014). Asociación Mexicana de Semilleros, A.C. Consulted 26 February 2015. Available at: www.amsac.org.mx/.
- ASERCA. (s.f.). Available at: www.aserca.gob.mx/comercializacion/acopio/Paginas/default.aspx.
- ASERCA. (s.f.). Available at: www.aserca.gob.mx/riesgos/8888/Paginas/default.aspx.
- Ayala-Garay, A.V., & B., C. C. (2008). Una reserva estratégica de alimentos: almacenes y bodegas en México. *Análisis del medio rural latinoamericano*, (July-December 2008). (52), 75-95.
- Barreda, Andrés, & Ana Esther Ceceña (coords.). (1995). Producción estratégica y hegemonía mundial. Mexico City: Siglo XXI.
- Barreda, Andrés. (2006). En defensa del agua. SME, Casifop AC, Editorial Itaca. Mexico.
- Bartra, A. (2003). Cosechas de ira. *Economía Política de la Contrarreforma Agraria*. Mexico: Itaca and Instituto Maya, A.C.
- Battersby, J. & Crush, J. (2014). Africa's Urban Food Deserts. *Urban Forum*. 25:143–151.
- Bayley, B. (2000). A revolution in the market: The deregulation of South African agriculture. Oxford, Oxford Policy Management.
- BCB. Manual do crédito rural. Accessed: 18 August 2015. Available at: <http://www3.bcb.gov.br/mcr/Manual/09021771806f48ae.htm?fullName=23>
- BCB. Manual do crédito rural. Accessed: 18 August 2015. Available at: <http://www3.bcb.gov.br/mcr/Manual/09021771806f48ae.htm?fullName=23>.
- Bernstein, H. (2015). Food regime analysis: Expansions - and contractions? Rural transformations and food systems: The BRICS initiative for critical agrarian studies (BICAS) and agrarian change in the global South. PLAAS, University of the Western Cape (UWC), South Africa. 20-21 April 2015.
- Bienabe, E. & Vermeulen, H. (2007). New trends in supermarkets procurement system in South Africa: the case of local procurement schemes from small-scale farmers by rural-based retail chain stores. Paper presented at Barcelona Mediterranean Conference of Agro Food Social Scientists, April, 23rd-25th, 2007.
- Bloomberg Business. (2015). Bloomberg. Accessed: 26 January 2015. Available at: <http://www.bloomberg.com/>.
- Bloomberg. (2010). KFC (US) Sees Potential in Africa. *World Franchise Associates*. 9 Dec 2010. Accessed: 10 January 2012. Available at: <http://www.worldfranchiseassociates.com/franchise-news-article.php?nid=775>.
- Bolsa Mexicana de Valores. (2007). Grupo BMV. Accessed: 26 January 2015. Available at: [Bolsa Mexicana de Valores, S.A.B. de C.V.: www.bmv.com.mx/](http://www.bmv.com.mx/).
- Boutelle, K.N., Fulkerson, J.A., Neumark-Sztainer, D., Story, M. & French, S.A. (2007). Fast food for family meals: relationships with parent and adolescent food intake, home food availability and weight status. *Public Health Nutr*, 2007, 10(1):16-23.

Bowman, S.A., Gortmaker, S.L., Ebbeling, C.B., Pereira, M.A. & Ludwig, D.S. (2004). Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. *Pediatrics*, 2004, 113(1):112-8.

Brasil. Decreto nº 7.775, de 4 de julho de 2012. Regulamenta o art. 19 da Lei nº 10.696, de 2 de julho de 2003, que institui o Programa de Aquisição de Alimentos, e o Capítulo III da Lei nº 12.512, de 14 de outubro de 2011, e dá outras providências. Brasília, DF: Presidência da República, 2012.

Brasil. Decreto nº 7272, de 25 de agosto de 2010. Brasília, DF: Presidência da República, 2010.

Brasil. Decreto nº 8.293, de 12 de agosto de 2014. Altera o Decreto nº 7.775, de 4 de julho de 2012, que dispõe sobre o Programa de Aquisição de Alimentos. Brasília, DF: Presidência da República, 2014.

Brasil. Lei nº 10.696, de 2 de julho de 2003. Dispõe sobre a repactuação e o alongamento de dívidas oriundas de operações de crédito rural, e dá outras providências. Brasília, DF: Presidência da República, 2003.

Brasil. Lei nº 10.696, de 2 de julho de 2003. Dispõe sobre a repactuação e o alongamento de dívidas oriundas de operações de crédito rural, e dá outras providências. Brasília, DF: Presidência da República, 2003.

Brasil. Lei nº 11.326, de 24 de julho de 2006. Estabelece as diretrizes para a formulação da Política Nacional da Agricultura Familiar e Empreendimentos Familiares Rurais. Brasília, DF: Presidência da República, 2006.

Brasil. Lei nº 11.346, de 15 de setembro de 2006. Cria o Sistema Nacional de Segurança Alimentar e Nutricional—SISAN com vistas em assegurar o direito humano à alimentação adequada e dá outras providências. Brasília, DF: Presidência da República, 2006.

Brasil. Lei nº 11.947, de 16 de junho de 2009. Dispõe sobre o atendimento da alimentação escolar. Brasília, DF: Presidência da República, 2009.

Câmara Legislativa. Projeto de Lei da Câmara nº 34, de 2015. Altera a Lei nº 11.105, de 24 de março de 2005. Brasília, DF: Câmara Legislativa, 2015

Camay, A. (2011). Imminent changes to transfer pricing documentation requirements in South Africa, *South African Tax Guide*. Accessed: 2, June 2015. Available at: <http://www.sataxguide.co.za/imminent-changes-to-transfer-pricing-documentation-requirements-in-south-africa/>.

Ceceña, José. (1994). *El capital monopolista y la economía mexicana*. Mexico: 1994.

Céleres. Informativo Biotecnologia. 16 de Dezembro de 2014. Uberlândia: Céleres, 2014.

CEPALSTAT. (2011). *NACIONES UNIDAS, CEPAL*. Accessed: January 2015. Available at: Bases de Datos y Publicaciones Estadísticas: estadisticas.cepal.org/cepalstat/WEB_CEPALSTAT/Portada.asp.

Chikazunga, D. & Paradza, G. (2012). Can smallholder farmers find a home in South Africa's food-system? Lessons from Limpopo Province. *PLAAS*. Available at: <http://www.plaas.org.za/blog/can-smallholder-farmers-find-home-south-africa%E2%80%99s-food-system-lessons-limpopo-province>.

Chikazunga, D. & Paradza, G. (2013). *PLAAS Working Paper 27: Smallholder farming: A panacea for employment creation and enterprise development in South Africa? Lessons from the ProPoor Value Chain Governance Project in Limpopo Province*. November 2013. Available at: http://www.vumelana.org.za/wp-content/uploads/2014/03/Document-51-PLAAS_WorkingPaper27ChikazungaParadza.pdf.

Chikazunga, D., Jordan, D., Bienabe, E., Louw A. (2007). Patterns of restructuring food markets in South Africa: The case of fresh produce supply chains. Paper presented at the African Association of Agricultural Economists Second International Conference, August 20-22, 2007, Accra, Ghana.

Chisanga, B., Gathiaka, J., Nguruse, G., Onyancha, S. and Vilakazi, T. (2014). "Competition in the regional sugar sector: The case of Kenya, South Africa, Tanzania and Zambia". Paper presented at pre-ICN Conference.

Chopra, M. (2004). Globalization, urbanization and nutritional changes in South Africa. In: *Globalization of food systems in developing countries: impact on food security and nutrition*.

Food and Agriculture Organization of the United Nations. Rome, 2004.

CIA World Fact Book. Available at: <https://www.cia.gov/library/publications/the-world-factbook/fields/2056.html>.

Clowning With Kids' Health - a case for retiring Ronal McDonald. (2015). Available at: <https://www.stopcorporateabuse.org/sites/default/files/resources/retire-ronald-factsheet.pdf>.

CNA. (2008). Consejo Nacional Agropecuario. Consulted February 2015. Available at: www.cna.org.mx.

CNN EXPANSIÓN. (2006-2013). 500, Las Empresas más Importantes de México. Accessed: January, 2015. Available at: Ranking Interactivo de las 500 de Expansión: www.cnnexpansion.com/rankings/interactivo-las-500/2014.

Coca-Cola Company. (2011). Annual Review. Available at: http://assets.coca-colacompany.com/2c/b0/349db5694b25943742e8ebd2f021/TCCC_2011_Annual_Review.pdf.

Coca-Cola hoping to score big at World Cup. (2014). iNet Bridge, eNCA, 17 March 2014. Available at: <http://www.enca.com/money/coca-cola-hoping-score-big-world-cup>.

Comecarne. (s.f.). Consejo Mexicano de la Carne. Accessed: February, 2015. Available at: www.comecarne.org/.

Comparison of the World's 25 Largest Corporations with the GDP of Selected Countries. (no date). Global Policy Forum. Available at: <https://www.globalpolicy.org/component/content/article/150-general/50950-comparison-of-the-worlds-25-largest-corporations-with-the-gdp-of-selected-countries.html>.

See also <http://makewealthhistory.org/2014/02/03/the-corporations-bigger-than-nations/>.

Competition Commission South Africa. (2007/8). Annual Report. Pretoria. Available at: <http://www.compcom.co.za>. Available at: <http://www.compcom.co.za/wp-content/uploads/2014/09/annual-report-2007-2008.pdf>.

Conningarth Economists. (2013). "Growing the sugar industry in South Africa. Document 1: Overview of the sugar industry in South Africa. Contribution to social and economic development and contentious issues". Available at: http://www.namc.co.za/upload/Document%201%20Overview%20of%20Sugar%20Industry_%2012Feb2013%20FINAL.pdf.

Conningarth Economists. (2013a). "Growing the sugar industry in South Africa. Document 4: Evaluation of the financial and economic viability and macroeconomic impact of the sugar industry". Available at: <http://www.namc.co.za/upload/Document%204%20Macroeconomic%20Impact.pdf>.

Cousins, B. (2009). What is a 'smallholder'? Class-analytic perspectives on small-scale farming and agrarian reform in South Africa (draft). Cape Town: Institute for Poverty, Land and Agrarian Studies (PLAAS).

Criança e Consumo. (2014). Available at: <http://criancaeconsumo.org.br/internacional-biblioteca-advocacy/arcos-dourados-comercio-de-alimentos-ltda-show-do-ronald-mcdonald/>.

Crush, J., Frayne, B. & McLachlan, M. (2011). Rapid Urbanization and the Nutrition Transition in Southern African. Urban Food Security Series No. 7. Queen's University and AFSUN: Kingston and Cape Town.

Davies, R., O'Meara, D. & Dlamini, S. (1984). The struggle for South Africa: A reference guide to movements, organisations and institutions. Vol. 1. London, Zed Books.

Davis, M. (2006). The Planet of Slums. Verso, UK.

De Klerk, M. (1991). "The accumulation crisis in agriculture". In: S. Gelb (ed.) South Africa's Economic Crisis. Cape Town, David Philip/Zed Books.

Delgado, M. (2010). El sistema agroalimentario globalizado. Revista de Economía Crítica (10):32-61.

Department of Agriculture, Forestry and Fisheries (DAFF). (2013). A Profile of the South African Sugar Market Value Chain, Pretoria, DAFF.

Department of Agriculture, Forestry and Fisheries (DAFF). (2015). Abstract of Agricultural Statistics. Pretoria, DAFF.

Department of Agriculture, Forestry and Fisheries (DAFF). Available at: <http://www.daff.gov.za/daffweb3/About-Us/Vision-and-Mission>.

Di Cesare, M., Khang, Y.H., Asaria, P., Blakely, T., Cowan, M., Farzadfar, F., Guerrero, R.,

Ikeda, N., Kyobutungi, C., Msyamboza, K., Oum*, S., Lynch, J., Marmot, M. & Ezzati, M. on behalf of The Lancet NCD Action Group Inequalities in Non-Communicable Diseases and Effective Responses. *Lancet*. (2013). 381:585–97.

Du Toit, A. & Neves, D. (2007). In search of South Africa's Second Economy: Chronic poverty, economic marginalisation and adverse incorporation in Mt Frere and Khayelitsha. Chronic Poverty Research Centre. C. Working Paper 102.

Du Toit, A. (2009). Space, markets and employment in agricultural development. Synthesis Research Report 48. Institute for Poverty, Land and Agrarian Studies (PLAAS).

Dubb, A. (2015). "The Rise and Decline of Small-Scale Sugarcane Production in South Africa: A Historical Perspective". *Journal of Agrarian Change*.13:2.

Dufumier M. (2011). Os organismos geneticamente modificados (OGMs) poderiam alimentar o terceiro mundo? In: *Transgênicos para quem? Agricultura, Ciência e Sociedade*. Magda Zanoni & Gilles Ferment (orgs.). Brasília: MDA, 2011.

Echeverría, R. (2013). Senadores: ¡ni un paso atrás! *El Universal*. Mexico.

Einarsson, P. (2000). "Agricultural trade policy as if food security and ecological sustainability mattered: Review and analysis of alternative proposals for the renegotiation of the WTO Agreement on Agriculture". Global Study No 5. Stockholm, Forum Syd.

El Economista. (2012). Importación histórica de maíz, en línea con el TLCAN: SE. *El Economista*, págs. Accessed: August 7, 2012. Available at: eleconomista.com.mx/industrias/2012/08/07/empresa-mexiquense-realizo-compra-historica-de-maiz.

El Financiero. (2013). México rechaza los impuestos a refrescos y alimentos chatarra. Mexico.

Engineering News. (2013). "Cheaper imports affect supply and demand in South African sugar industry". *Engineering News*, April 26. Available at: <http://www.engineeringnews.co.za/article/imports-affecting-south-african-sugar-industry-2013-04-19>.

ENSANUT (Encuesta Nacional de Salud y Nutrición). (2012). Consumo de alcohol en México, 2000.2012: Estrategias mundiales para reducir su uso nocivo. Mexico.

Ensor, L. (2014). Clamour to end transfer pricing abuse. *Business Day*. 4 September 2014. Accessed: 2 June 2015. Available at: <http://www.bdlive.co.za/business/2014/09/04/clamour-to-end-transfer-pricing-abuse>.

Euromonitor. (2014). Available at: <http://www.portal.euromonitor.com>.

FAO (Food and Agriculture Organisation of the UN). (2005). "Fertilizer use by crop in South Africa", Rome, FAO.

FAO. (2009). "Sugar beet and white sugar agribusiness handbook". Rome, FAO.

FAO. (2011). Global food losses and food waste – Extent, causes and prevention. Rome. Available at: <http://www.fao.org/docrep/014/mb060e/mb060e00.pdf>.

Folgado C. (2013). A luta constante contra os agrotóxicos. *Brasil de Fato* 2013. Accessed: 18 August, 2015. Available at: <http://www.brasildefato.com.br/node/11533>.

Food & Beverages Overview. McDonald's South Africa. Accessed: 25 June, 2015. Available at: <http://www.shanduka.co.za/mcdonalds-south-africa/index.html?&re=1>.

Fortune Global 500. (2015). Available at: <http://fortune.com/global500/>.

French, S.A., Story, M., Neumark-Sztainer, D., Fulkerson, J.A. & Hannan, P. (2001). Fast food restaurant use among adolescents: associations with nutrient intake, food choices and behavioral and psychosocial variables. *Int J Obes* 2001, 25(12):1823-33.

Friedmann, H. (1993). The Political Economy of Food: A Global Crisis. *New Left Review*, 197:29-57.

Funke, T. (2011). "Employment in the South African sugar industry". Presentation to Job Creation Imbizo, Morningside, Johannesburg, 18 April, 2011.

Frenk, J., Bobadilla, J.L., Sepulveda, J. & Lopez Cervantes, M. (1989). Health transition in middle income countries: new challenges for health care. *Health Policy and Planning*. 4(1): 29-39.

Gomes F. (2013). Big Food Watch. Words for our sponsors. *World Nutrition* 2013; 4(8):618-44.

González, S. (2013). México, sexto lugar mundial en consumo de cerveza: 62 litros en

promedio por persona. La Jornada. Mexico.

Greenberg, S. (2010). Contesting the food system in South Africa: issues and opportunities. Research Report 42. Institute for Poverty, Land and Agrarian Studies (PLAAS), School of Government, Faculty of Economic and Management Sciences. University of the Western Cape (UWC).

GRUMA, S.A.B. DE C.B. Y SUBSIDIARIAS. (2013). Informe Anual. San Pedro Garza García, Nuevo Leon, Mexico: Gruma.

Gruma. (s.f.). GRUMA, la compañía global de alimentos. Accessed: 26 January, 2015. Available at: www.gruma.com/.

Grupo Bimbo, S.A.B. de C.V. y Subsidiarias. (2013). Informe Anual 2013. Mexico City.

Grupo Bimbo. (2013). Accessed: February, 2015. Available at: www.grupobimbo.com/es/index.html.

Grupo Herdez. (2009). Grupo Herdez. Accessed: February, 2015. Available at: www.grupoherdez.com.mx.

Grupo Herdéz. (2013). Reporte Anual Integrado. Financiero y de Sustentatibilidad. Mexico City: Grupo Herdéz.

Grupo Minsa, S.A.B. de C.V. (2013). Reporte Anual que se Presenta de Acuerdo con las Disposiciones de Carácter General Aplicables a las Emisoras de Valores y a otros Participantes del Mercado Por el Año Terminado. Tlalnepantla, State of Mexico: Minsa.

Guanziroli, CE. (2007). PRONAF dez anos depois: resultados e perspectivas para o desenvolvimento rural. *Rev. Econ. Sociol. Rural* 2007, 45(2):301-28.

Hall, R. & Cousins, B. (2015). Commercial farming and agribusiness in South Africa and their changing roles in Africa's agro-food system. Rural transformations and food systems: The BRICS Initiative for Critical Agrarian Studies (BICAS) and agrarian change in the global South. 20-21 April, 2015. PLAAS, University of the Western Cape (UWC). South Africa.

Hall, R. (2009). A fresh start for rural development and agrarian reform? Cape Town: Institute for Poverty, Land and Agrarian Studies. (PLAAS) Policy Brief, 29.

Harl, N. (2000). The age of contract agriculture: consequences of concentration in input supply. *Journal of Agribusiness*. 18(1): Special Issue (March 2000):115S127. Available at: <http://ageconsearch.umn.edu/bitstream/14701/1/18010115.pdf>.

Hawkes, C. (2002). Marketing activities of global soft drink and fast food companies in emerging markets: a review. In: *Globalization, Diets and Noncommunicable Diseases*. World Health Organisation (WHO). Switzerland. Available at: <http://whqlibdoc.who.int/publications/9241590416.pdf>.

Hawkes, C. (2015). Presenation at a workshop at the University of the Western Cape's School of Public Health, April 2015.

Hawkes, C., Smith, T., Jewell, J., Wardle, J., Hammond, R., Friel, S., Thow, A., & Kain, J. (2015). Smart food policies for obesity prevention. *Lancet*. February 18, 2015.

Hernández, L. (2012). La Ley Monsanto. Red en Defensa del Maíz. Mexico.

Hobbelink, H. (1990). Biotecnologia: muito além da revolução verde. As novas tecnologias genéticas para a agricultura: desafio ou desastre. Porto Alegre: Juquira Candiru, .

IBFAN. (2014). Breaking the Rules, Stretching the Rules 2014: evidence of violations of the international code of marketing of breastmilk substitutes and subsequent resolutions. Penang: IBFAN.

IBGE. (2012b). Censo agropecuário 2006: Brasil, grandes regiões e unidades da federação. Rio de Janeiro: IBGE.

IBGE. (2015). Indicadores de desenvolvimento sustentável: Brasil. Rio de Janeiro: IBGE.

IBGE. (2012a). Síntese de indicadores sociais: uma análise das condições de vida da população brasileira: 2012. Rio de Janeiro: IBGE.

Igumbor, E.U., Sanders, D., Puoane, T.R., Tsolekile, L., Schwarz, C., et al. (2012). "Big Food," the Consumer Food Environment, Health, and the Policy Response in South Africa. *PLoS Med* 9(7): e1001253. doi:10.1371/ journal.pmed.1001253

Illovo. (2014). "Integrated annual report 2014". Available at: <http://www.illovosugar.co.za/Investors/Integrated-Annual-Reports>.

INEGI. (1991). VI Censo Agropecuario. Mexico: INEGI.

INEGI. (2007). El cultivo del tomate rojo en Sinaloa: Censo Agropecuario 2007. Mexico: INEGI.

INEGI. (2007). VII Censo Agropecuario. Mexico: INEGI.

Instituto Brasileiro de Geografia e Estatística (IBGE). (2010). Pesquisa de orçamentos familiares 2008-2009: antropometria e estado nutricional de crianças, adolescentes e adultos no Brasil. Rio de Janeiro: IBGE.

International Baby Food Action Network (IBFAN). (2004). Breaking the Rules, Stretching the Rules. Oxford: IBFAN.

International Food Policy Research Institute. (2015). 2014–2015 Global Food Policy Report. Washington, DC: International Food Policy Research Institute.

Jack, A. (2011). Brazil's unwanted growth. Financial Times Limited. 8 April 2011. Available at: <http://www.ft.com/cms/s/2/6e0319c2-5fee-11e0-a718-00144feab49a.html#axzz3ISx6UT9h>

Jacoby, E., Rivera, J., Cordero, S., Gomes, F., Garnier, L., Castillo, C. & Reyes, M. (2012). Standing up for children's rights in Latin America. *World Nutrition*, 2012; 3(11):483-516.

Janet, P. (2005). L'Automatisme psychologique. L'Harmattan.

Kar, D., & Spanjers, J. (2014). Illicit financial flows from developing countries: 2003-2012. *Global Financial Integrity*, 2014:vii.

Kennedy, G., Nantel, G. & Shetty, P. (2004). Globalization of food systems in developing countries: a synthesis of country case studies. In: *Globalization of food systems in developing countries: impact on food security and nutrition*. Food and Agriculture Organization of the United Nations. Rome.

KFC. (2015). 'Company Info'. Accessed: 25 June, 2015). Available at: http://www.kfc.co.za/company_info.

Lara, C. (2014). Acaparan las grandes firmas apoyos al agro. *El Universal*, 2014;1.

Lehtonen, M. (2009). "Status report on sugar cane agrochemicals management". Available at: http://www.sucre-ethique.org/IMG/pdf/agrochemicals_1_.pdf.

Lewis, M. (2013). Sweet nothings: The human cost of a British sugar giant avoiding taxes in southern Africa. ActionAid. Somerset, UK. Available at: http://www.actionaid.org.uk/sites/default/files/doc_lib/sweet_nothings.pdf.

Ley Federal de Competencia Económica. (2014). Mexico: Diario Oficial de la Federación.

Ley Federal de Responsabilidades de los Servidores Públicos. (2013). Mexico: Diario Oficial de la Federación.

Llotska, L. (2013). Statement made on behalf of the Geneva Infant Feeding Association and the International Baby Food Action Network, at Nestlé Annual General Meeting, April 2013.

Londres, F. (2011). Agrotóxicos no Brasil: um guia para ação em defesa da vida. Rio de Janeiro: AS-PTA – Assessoria e Serviços a Projetos em Agricultura Alternativa, 2011.

Louw, A., Chikazunga, D., Jordaan, D. & Bienabe, E. (2007). Restructuring food markets in South Africa: Dynamics within the context of the tomato subsector, *Regoverning Markets Agrifood Sector Studies*, IIED, London.

Macías, A.R. (2003). Enclaves agrícolas modernos: el caso del jitomate mexicano en los mercados internacionales. *Región y Sociedad*, XV;(26).

Madeley, J. (2002). Food for all: The need for a new agriculture. Cape Town/London, David Philip/Zed Books.

Martínez, I. & Villezca, P. (2013). La alimentación en México: un estudio a partir de la Encuesta Nacional de Ingresos y Gastos de los Hogares. *Revista de Información y análisis*, 2013; (21):26-37.

Maseca. (2015). Gimsa, Grupo Industrial Maseca, S.A. de C.V. Accessed: January, 2015. Available at: www.gimsa.com.

McDonald's. (2015). Our story. Available at: <http://www.mcdonalds.co.za/story>.

Meyer, E. (2005). "Machinery systems for sugar cane production in South Africa". Presentation to SASRI seminar. Available at: <http://www.sasta.co.za/wp-content/uploads/essential%20reading/Agriculture/2005%20Meyer,%20Sugar%20Mechanisation.pdf>

Ministério do Desenvolvimento, Indústria e Comércio Exterior (MDIC). (2007). Base de Dados Estatísticas de Mercado. Brasília DF: MDIC.

Montague-Jones, G. Ex-UNICEF head joining Nestle board reignites baby milk marketing

controversy. Accessed: 26 April, 2011. Available at: <http://www.dairyreporter.com/Regulation-Safety/Ex-UNICEF-head-joining-Nestle-board-reignites-baby-milk-marketing-controversy>.

Monteiro, C.A., Benicio, M.H., Konno, S.C., Silva, A.C., Lima, A.L. & Conde, W.L. (2009). Causes for the decline in child under-nutrition in Brazil, 1996-2007. *Rev Saude Publica*, 2009; 43(1):35-43.

Monteiro, C.A., Conde, W.L. & Popkin, B.M. (2002). Is obesity replacing or adding to undernutrition? Evidence from different social classes in Brazil. *Public Health Nutr*. 2002; 5(1A):105-12.

Monteiro, C.A., Moubarac, J.C., Cannon, G., Ng, S.W. & Popkin, B. (2013). Ultra-processed products are becoming dominant in the global food system. *Obes Rev*. 2013; 14(Suppl 2):21-8. doi: 10.1111/obr.12107.

Moodie, R., Stuckler, D., Monteiro, C., Sheron, N., Neal, B., Thamarangsi, T., Lincoln, P. & Casswell, S, on behalf of The Lancet NCD Action Group; Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. *Lancet* 2013; 381: 670–79.

Moore School of Business. (2005). "The economic impact of the Coca-Cola system on South Africa". Columbia, South Carolina, Moore School of Business.

Morrison, M. (2014). Three strategies McDonald's is using to lift sales chain's 2014 priorities: improve menu, marketing and digital. Accessed: 13 March 2014. Available at: <http://adage.com/article/cmo-strategy/mcdonald-s-focus-improving-marketing-digital-menu/292155>.

National Anti-Corruption Forum (NACF) of South Africa. (2008). Towards an integrated national integrity framework: consolidating the fight against corruption report on the third national anti-corruption summit. Held at the Birchwood Conference Centre Ekurhuleni, Johannesburg, South Africa 4 – 5 August 2008.

National Biosecurity Commission (CTNBio). (2015). Resumo Geral de Plantas Geneticamente modificadas aprovadas para Comercialização. Available at: <http://www.ctnbio.gov.br/index.php/content/view/20559.html>.

Nestlé Annual Report. (2014). Available at: http://www.nestle.com/asset-library/documents/library/documents/annual_reports/2014-annual-report-en.pdf.

New York Times. (2015). Coke Tries to Sugarcoat the Truth on Calories. Accessed: 14 August, 2015. Available at: http://www.nytimes.com/2015/08/14/opinion/coke-tries-to-sugarcoat-the-truth-on-calories.html?_r=0.

OECD. (2006). "Agricultural policy reform in South Africa". OECD Policy Brief, April 2006, Paris, OECD.

OMC. (2010). Informe sobre la situación mundial de las enfermedades no transmitibles 2010.

Ornelas, R. (2008). Saberes de la dominación, Panorama de las Empresas Transnacionales en América Latina. Agenda de Investigación. In: A. Ceceña, De los saberes de la emancipación y de la dominación. Buenos Aires: CLACSO.

Otero, Gerardo, Gabriela Pechlaner, Giselle Liberman & Efe Can Gürcan. (2015). Food security and inequality: measuring the risk of exposure to the neoliberal diet, Simons Papers in Security and Development, No. 42/2015, School for International Studies, Simon Fraser University, Vancouver, March 2015.

Permanent Campaign Against Pesticides and for Life (2012). Situação do mercado de agrotóxicos no mundo e no Brasil. Accessed: 2012. Available at: <https://biowit.files.wordpress.com/2010/11/cartilha-dados-sobre-agrotoxicos-mundo-brasil-maio-12.pdf>.

Price-fixing and its impact on communities. (2008). In: Towards an integrated national integrity framework: consolidating the fight against corruption. Report on the Third National Anti-Corruption Summit. Ekurhuleni, Johannesburg, South Africa. 4-5 August 2008. Available at: http://www.nacf.org.za/anti-corruption-summits/third_summit/UnitedNationsReport_summit3_Chapter7.pdf. http://www.nacf.org.za/anti-corruption-summits/third_summit/United_Nations_Report_third_summit_2008.pdf.

Programa Nacional de Fortalecimento da Agricultura Familiar (PRONAF). (2002). Relatório Institucional do PRONAF. SAF/MDA.

ProMéxico. (2015). ProMéxico, inversión y comercio. Available at: mim.promexico.gob.mx/

wb/mim/agroalimentaria_perfil_del_sector.

Ramírez, E. (2007). Cargill “Coyote Transnacional” del Maíz. Contralínea. Periodismo de Investigación.

RCL Foods. (2014). “Integrated annual report 2014”. Available at: <http://www.rclfoods.com/pdf/2014/2014IntegratedAnnualReportResults.pdf>.

Rendón Trejo Araceli and Morales Alquicira Andrés. (2008). Grupos Economicos en la Industria de Alimentos. Las Estrategias de Gruma. Argumentos.

Ribeiro, S. (2014). Otro año contra el maíz transgénico. Red en Defensa del Maíz. Mexico.

Ribeiro, S. (2005). Ley Monsanto: parece mala pero es peor. La Jornada. Mexico.

Rubio, B. (2011). Soberanía alimentaria vs. dependencia: las políticas frente a la crisis alimentaria en América Latina. Revista Mundo S. XXI, VII(26), 105-118.

SA is fattest nation in sub-Saharan Africa. (2014). Business Day. 22 June, 2015. Available at: <http://www.bdlive.co.za/life/health/2015/06/22/sa-is-fattest-nation-in-sub-saharan-africa>.

SACGA (South African Cane Growers’ Association). (2014). Annual report 2013/14. Available at: <http://www.sacanegrowers.co.za/wp-content/uploads/2014/04/CG-Annual-Report-2014v3.pdf>.

SAGARPA. (2013). Atlas Agroalimentario. Mexico: SAGARPA.

SAGARPA. (2013). PROCAMPO Productivo. Informe de avances del mes de diciembre 2013.

SAGARPA. (s.f.). SIAP/SIACON. Accessed: February, 2015. Available at: www.siap.gob.mx/indicadores-economicos/

SAGARPA-FAO. (2012). Panorama de la seguridad alimentaria y nutricional en México. Mexico.

Sandoval, S. (2011). La cadena global de hortalizas: la estrategia de ascenso de los productores de Sinaloa. Mexico: Thesis for a Doctorate in Economy, UNAM.

SE, ProMéxico. (2013). Alimentos Procesados. Accessed: February, 2015. Available at: mim.promexico.gob.mx/work/sites/mim/resources/LocalContent/72/2/130704_DS_Alimentos_procesados_ES.pdf.

SE. (2012). Análisis de la Cadena de Valor Maíz-Tortilla: Situación actual y factores de competencia local. Mexico: Secretaría de Economía.

SE-DGIE. (2015). Inversión Extranjera Directa en México y en el Mundo. Carpeta de Información Estadística. Mexico.

Shanduku Food & Beverages Overview: McDonald’s South Africa Shanduku, Our Business, 2011). <http://www.shanduka.co.za/mcdonalds-south-africa/index.html?&re=1>.

Shisana, O., Labadarios, D., Rehle, T., Simbayi, L., Zuma, K., Dhansay, A., Reddy, P., Parker, W., Hoosain, E., Naidoo, P., Hongoro, C., Mchiza, Z., Steyn, N.P., Dwane, N., Makoe, M., Maluleke, T., Ramlagan, S., Zungu, N., Evans, M.G., Jacobs, L., Faber, M., & SANHANES-1 Team. (2013). South African National Health and Nutrition Examination Survey (SANHANES-1). Cape Town: HSRC Press.

Sikka, P. & Willmott, H. (2010). The dark side of transfer pricing: its role in tax avoidance and wealth retentiveness. University of Essex, UK. Available at: http://www.researchgate.net/profile/Prem_Sikka/publication/222406910_The_dark_side_of_transfer_pricing_its_role_in_tax_avoidance_and_wealth_retentiveness/links/00b7d524a903d7287e000000.pdf.

Silva, M.T. (2011). Violação de direitos e resistência aos transgênicos no brasil: uma proposta camponesa. In: Transgênicos para quem? Agricultura, Ciência e Sociedade. Magda Zanoni & Gilles Ferment (orgs.). Brasília: MDA.

South Africa: Submission to the Davis Tax Committee by Alternative Information and Development Centre (AIDC), 16 April 2015.

South African Government: Agriculture. (2015). Available at: <http://www.gov.za/about-sa/agriculture#Legislation>

Spear Pty Ltd & BFAP (Bureau for Food and Agricultural Policy). (2014). “JADAFa agricultural outlook brief: South Africa’s commodity markets”, Pretoria, DAFF/AgBiz.

Spitznagel, E. (2013). Drink deception and the legal war on Vitaminwater. Bloomberg. July 26, 2013. Available at: <http://www.bloomberg.com/bw/articles/2013-07-26/drink-deception-and-the-legal-war-on-vitaminwater>.

- Swinburn, B., Kraak, V., Rutter, H., Vandevijvere, S., Lobstein, T., Sacks, G., Gomes, F., Marsh, T. & Magnusson, R. (2015). Strengthening of accountability systems to create healthy food environments and reduce global obesity. *Lancet*. 2015; 385(9986):2534-45. doi: 10.1016/S0140-6736(14)61747-5.
- Swinburn, B., Sacks, G., Hall, K., McPherson, K., Finewood, D., Moodie, M., & Gortmaker, S. (2011). The global obesity pandemic: shaped by global drivers and local environments *Lancet* 2011; 378: 804–14.
- Taveras, E.M., Berkey, C.S., Rifas-Shiman, S.L., Ludwig, D.S., Rockett, H.R.H., Field, A.E., Colditz, G.A. & Gillman, M.W. (2005). Association of consumption of fried food away from home with body mass index and diet quality in older children and adolescents. *Pediatrics* 2005, 116(4):e518-24.
- Tongaat Hulett. (2014). Integrated annual report 2014. Available at: http://www.tongaat.co.za/imc/annual_reports/ar_home.asp.
- Tourliere, M. (2014). Golpe a Monsanto y sus transgénicos. *Revista Proceso*, Mexico.
- Tribunal Superior Eleitoral (TSE). (2014). Sistema de Prestações de Contas Eleitorais. Available at: <http://inter01.tse.jus.br/spceweb.consulta.receitasdespesas2014/abrirTelaReceitasCandidato.action>.
- UNCTAD. (2009). *World Investment Report*. New York.
- Unilever de México. (2013). *Unilever Sustainable Living Plan 2013: Making Progress, Driving Change*. EU: Unilever Sustainable Business Team.
- Unilever México. (2015). *Unilever México*. Consulted February 2015. Available at: www.unilever.com.mx.
- Van der Heijden, T. & Vink, N. (2013). Good for whom? Supermarkets and small farmers in South Africa – A critical review of current approaches to increasing access to modern markets. *Agrekon* 52:(1). Available at: <http://www.pari.org.za/wp-content/uploads/Agrekon.pdf>.
- Wade, L. (2013). México, el país con más muertes relacionadas al consumo de refresco. *El Economista*. Mexico.
- Weatherspoon, D. & Reardon, T. (2003). The rise of supermarkets in Africa: Implications for agrifood systems and the rural poor. *Development Policy Review*, 21(3):333–355.
- Williams, E. (2014). “Changes in South Africa’s global agricultural trade regime, 1996-2013”, PLAAS Working Paper, 31. Bellville, PLAAS.
- World Bank. (1994). “South African agriculture: Structure, performance and options for the future”, World Bank Southern Africa Department, Discussion Paper 6. Washington DC, World Bank.
- Wynn, C. (2013). Burger King flips R20M since launch. *Eye Witness News*. Available at: <http://ewn.co.za/2013/09/02/Burger-King-flips-R20m-since-launch>.

