FOOD SECURITY AND FOOD SELF-SUFFICIENCY: SOME VIEWS

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Introduction

The divergent nature of the South African agricultural sector is known and its respective characteristics well documented. These dual production systems based on quest to provide food for the country's population are unfortunately not equally treated nor (apparently) were there any intention to treat it any better. While the basic (socio-economic-financial) commitment by all farmers to make food and fibre available at reasonable prices was undertaken, successive White-led South African rulers implemented policies and market arrangements that impinged negatively on domestic food supply and acquirement. Shortsighted agricultural policies interminably had the majority of the country's population without affordable and thus inaccessible food.

It is not the objective of this paper to dwell on the array of errors heaped upon the country by the present rulers and their predecessors. However, reference will be drawn from specific areas on policy instruments, measures and options. The paper will address the meaning of the concepts: Food Security and Food Self-sufficiency, some causes of food insecurity and rural food shortages, the South African food self-sufficiency status and some considered palliatives in addressing the food security issue.

Food Security and Food Self-sufficiency

Food security is defined as the ability of food-deficit countries or regions and households within these countries to meet target levels of consumption on an annual basis. Put somewhat differently: it is the ability of the country or region to assure, on a long-term basis, that its food system provides the total population access to a timely, reliable and nutritionally adequate supply of food (Eicher & Staatz, 1984; Van Zyl & Coetzee, 1990).

Van Zyl and Coetzee (1990) posit that food security involves assuring both an adequate supply of food and access of the population to that supply. It is argued that measures taken to generate effective demand usually include income generation via employment creation or transfers. Food security is thus influenced by both macro- and micro factors, ranging from the level of technology and support institutions available to small farmers and merchants, to monetary, fiscal and trade policies that affect the overall rate of growth and distribution of income. Food insecurity can be either short-term (e.g. famine resulting from a crop failure due to drought) or chronic (long-term undernutrition).

Eicher and Staatz, according to Van Zyl and Coetzee (1990) argue that there is a growing support (empirical and policy) for two fundamental premises about the linkages between food availability, poverty and the access to food. These premises are described as the two sides of the hunger equation, namely supply and demand. The first premise relates to increasing food production, storage and trade which will ensure food availability, though it is acknowledged that this will not ensure that everyone has enough to eat and end hunger. The second premise acknowledge that, poverty is a central cause of hunger and malnutrition, special efforts are needed to assist

in increase the access and entitlement to food. Concerned food specialists advocate a variety of solutions to hunger, *inter alia* increasing food production to increase food availability and thus end hunger; increasing access to or command over food as a way of ending famine and hunger, while others ad-vocate for straight food aid.

On the other hand, **food self-sufficiency** refers to a situation where the role of the government ensure that the society's food supply (via Food Distribution System) is not subject to the vagaries of weather, international markets or political blackmail (Timmer *et al.*, 1983). There is some room for arguing that food security differ from food self-sufficiency. This is the case as in most countries, domestic food production is even less stable than supplies available on the international markets.

Since not a single country depends on a single staple grain/product, then domestic food self-sufficiency within a generally interdependent world is an illusive concept (Timmer *et al.*, 1983). Eliminating food grain imports may be relatively easy for a country clued to self-sufficiency (e.g. Japan on rice though different policy measures). Raising grain prices will lead to declining consumption, while production will be stimulated, as producers are attracted to these higher prices.

Other things being the same, this situation will not leave room for imports, as such any import gap will be effectively closed. Striving for this "self-sufficiency utopia" is undoubtedly disastrous and would be a self-defeating food policy option. Timmer *et al.* (1983), posit that *"eliminating food imports does nothing to guarantee that poor people have enough to eat, and in many cases such a strategy make hunger and food shortages much worse."*

Food security thus involves mobilizing all resources and sources to ensure adequate food supplies. Both domestic and external sources are utilized, imports included. On the same note, food sufficiency engage domestic resources to attain a given desired level of food supplies. External means of supplementing domestic capability are not entertained. Policies are thus inward-looking. Because of the world's interdependence, both domestic and external means must be utilized for adequate food supplies.

Causes of Food Insecurity and Rural Food Shortages

Both natural disasters and man-made policies are responsible for food insecurity. Constituting man-made policies are price and non-price policy measures.

Effects of bad weather on harvest lead to production shortfall. This will have negative effects on food reserves for the coming season, if bad weather persists. Fluctuations in production have profound effects on annual food supplies and annual movements of prices rather than that of the weekly or monthly fluctuations. Eicher and Staatz (1984) describe this to involve understanding of the quality and quantity of information flows on domestic supplies to policy-makers and time lags in converting information into decisions, decisions into actions, and actions into food inflows. It is argued that working food stocks/reserves, are important to bridge the time lags and the unavailability of information where policies have to be devised to meet very short-term targets. Sudden outbursts of natural disasters may lead to more profound level of damage on production and annual food supplies. Their effects necessitate food aid so as to resume normal flow of food.

Political conflicts in the form of wars involve disruption of the normal channels of delivery of food to the affected country. Rohrback, in Van Zyl and Coetzee (1990) points out that one of the prime movers in Zimbabwe's success story on increased maize production, was due to the end of Chimurenga disruptions. Political impasse also leads to biased policies and strategies. Denying other participants access to the political market, thus effectively marginalizing them on decision making of the country posed a thread to food security. Timberlake (1985) says this of an old white South African expression of the Blacks: *"If they do not eat, we do not sleep"*, indicating the Whites fear of rebellion by hungry, angry blacks.

Government strategies, supported by enabling measures to achieve particular objectives, can

be shortsighted and irrational such that food supplies may be negatively affected. Documented evidence shows that controlled food prices (particularly staples) have long-term negative effects on food flow, particularly food acquirement in rural areas. Keeping producer prices relatively low leads to product substitution which may threaten national food stocks. Dependency on food imports takes hold and if international sources are not stable, the importing country faces serious food security problems.

Eicher and Staatz (1984), identify high transport costs resulting from the geographical isolation of many rural areas as being one of the causes responsible for rural food shortages. It is further noted that high transport costs imply that grain trade in and out of such remote areas is uneconomical. This leaves rural areas being self-sufficient in that production and consumption are the same, though the situation does not imply nutritional adequacy.

South Africa: The Food Security and Self-sufficiency Question

Van Rooyen and Van Zyl (1990), point out that the country's agricultural sector has succeeded in performing its role and functions reasonably effective: by supplying food and fibre to meet the internal demand as well as earn foreign exchange. This sector operated as the single biggest supplier of jobs, it generated twice the amount of jobs in the total South African economy per R1,00 investment than sectors such as industry and mining, and it also generated substantial linkages and multiplier.

However, the glossy picture of agriculture in this country has been achieved at a high social cost when viewed from economic efficiency and also in terms of sustainability from ecological and political positions. Present political reform directly impacts on the question of restructuring the agricultural sector. This is the case as political entitlement of the disadvantaged will also shape and influence future policies and programmes to improve access by the Blacks to agricultural resources.

It is argued that one important question arising in this regard relates to the continued position and ability of the agricultural sector to produce sufficient food for the Nation wherein the issue of 'FOOD EQUATION' also needs a closer attention. The Food Equation question and its related components is well addressed in Van Rooyen and Van Zyl (1990).

Agricultural production and self-sufficiency in the RSA

Van Rooyen and Van Zyl (1990), state that the target of an increased supply of between 2% and 5% per annum for important food commodities provides a real challenge to the country's agricultural sector.

Table 1 indicates an analysis of production and consumption of selected commodities for the period 1980-1989. This is used to determine total production, domestic consumption and annual growth rates, surplus available for export and self-sufficiency index (SSI), as well as their gross values.

From Table 1 it can be seen that land used for field crop production increased marginally by 0,53% per annum over the ten year period. Total production, however, increased by 6,6% as compared to an increase in consumption amounting to 4,43%. This strongly indicates that for this group of crops self-sufficiency is surpassed. However, individual crops like maize, shows consumption rate with negative values indicating that an increased number of substitutes cause consumption of this crop to increase relatively marginal compared to others. The total self-sufficiency index at 127,94% clearly shows that notwithstanding the drought in 1980, South Africa is self-sufficient in all major field crops produced domestically. 33,25% of the production became available for export.

The horticultural groups also show figures well above self-sufficiency minimum. The excess is of cause a source of foreign earning through heavy exports. A total self-sufficiency index of 195,21% means that just under half of the total annual production is being exported.

Table 1. Production and consumption of selected agricultural commodities in the RSA: 1980-1989

Crop	Area total ha	Growth rate %	Production 1000 t	Annual growth rate %	Cons. 1000 t	Growth rate %	Surplus 1000 t	SS-index	Gross value in 1989 R mill.
Field crops:									
Maize	4177,80	-1,52	8270,90	5,09	5931,70	-0,64	2349,20	139,67	2512,90
Wheat	1830,40	0,96	2313,40	10,67	2309,80	7,24	3,60	100,16	1179,78
Sorghum	260,40	3,31	468,80	5,43	331,50	4,60	131,30	141,42	98,35
Dry beans	58,20	-1,22	79,10	5,27	64,20	2,39	14,90	123,21	135,72
Sugarcane	417,40	1,12	18543,30	6,54	13710,72	3,54	4932,48	135,25	792,96
Total		0,53	29675,50	6,6	22347,92	3,43	7431,48	127,94	4719,71
Horticulture									
Apples			432,63	3,38	214,46	2,63	218,17	201,73	292,76
Peach			165,14	-1,51	151,29	-1,04	13,95	109,15	95,96
Oranges			509,92	-1,27	225,44	4,97	284,48	226,19	209,33
Bananas			142,70	7,39	55,44	7,48	87,26	257,40	98,16
Veges.			2746,89	3,50	1512,94	4,09	1223,95	181,57	1305,45
Total			3997,28	2,30	2159,57	3,63	1827,81	195,21	2001,66
Animal Products:									
Beef			604,95	-2,65	657,90	-2,04	-52,85	92,00	1939,07
Pork			104,99	3,42	101,10	4,39	3,89	103,80	255,13
Milk			1131,10	0,93	1099,25	0,93	31,86	102,90	791,02
Poultry			465,20	5,47	452,20	6,51	13,00	102,90	1980,96
Eggs			277,00	4,50	256,80	5,52	120,20	176,70	551,10
Total			2583,24	2,33	2567,25	3,06	116,10	115,66	5517,28
Grand Total			36256,02	3,74	27074,74	3,37	9375,39	146,27	12238,65

Animal products particularly beef and veal show SSI of below 100 at 92.00 meaning that not enough is being locally produced to meet domestic demand. For these products, it means the country is relying on imports.

Van Rooyen and Van Zyl (1990) point out that South Africa's total agricultural production gives value more than R1,6 billion. A healthy trade scenario if it only represented 95% of our trade value.

It is further pointed out that imports consist mainly of rice and other crops which cannot be locally produced due to physical and climatic restrictions, limitations, as well as economic restrictions (e.g. Turkey due to lack of economies of scale and to monopolistic market). Huntley *et al.* in Van Rooyen and Van Zyl (1900) asserts that: *"calculations indicate that South Africa's agriculture will probably be in a position to provide sufficient food for the nation into the next century".*

The preceding exposition looks glossy and encouraging, however, it should be noted that the agriculture so far spoken is represented by about 50-60000 white farmers. The bulk of the black population is by far the *de facto* consumers. This assertion is not only misleading but based on biased premises. If "NORMAL" political framework was in place for the past three centuries, the state of agriculture would be different at this point. Maloa (1992) points out that 77% of the Black population, are engaged in agriculture. On the other hand, only 8% of whites are engaged in this industry, but contribe 96% of the nation's food needs compared to about 4% by Blacks. This 4% is not significant since it is absorbed in the "subsistence-economies" of these 77% rural farmers. Forces, factors and circumstances responsible for this state of affair are well known. The question posed is: Should the existing inequitable distribution and access to resources be left intact?

Van Zyl (1992) points that it is estimated that Blacks consume 94% of total carbohydrates (mainly white maize products) produced in the country, and are thus the primary target market. This clearly implies that 96% output from the white commercial sector is largely targeted for consumption by the black community. The

question of dependency creeps in with serious social-economic and political ramifications. Should the majority put all the trust and hope of the nation's food security in the hands of the few "minority" farmers? What if the minority farmers decide not to produce (for extremist-political reasons)? The catch 22 situation of the country where very few race exclusive farmers ([not racist but few in numbers and unrepresentative of all population groups]. Not all Blacks want to or can be farmers - but certainly not all are happy with being consumers without opportunities to produce if resources and time allow) produce for the "majority" consumers in such a volatile political framework, leaves room for discontent in as far as resource use and the resulting benefits are concerned.

Food Security: Some Domestic Considerations

Developing an effective domestic food policy depends on creating an environment in which curbing/alleviating poverty is a major function of the economy (Timmer *et al.*, 1983). This sentiment is shared by the author. Van Rooyen and Van Zyl (1990) describe their concern on the issue by pointing at the existence prevalence of malnutrition and hunger in the Republic of South Africa amid the positive self-sufficiency for almost all the basic food stuffs. It is further argued that such occurrences indicate that the food equation has not been balanced yet, though the agricultural sector is in the position to supply self-sufficient food.

It is apparent that the "two agricultures" in South Africa receive different attention from the government. While the government cannot be loaded with the inefficiencies of the individual, it is, however, a fact that an inefficient system cause direct inefficiencies in individuals operating in that system. The conditions (inherent or cause by external forces) of the developing agricultural sector do not receive government attention. Populist models and development strategies designed for this sector have not yielded benefits enough to be socially nor economically laudable. Such strategies and policy actions have inflicted negative effects on the food security and self-sufficiency in the rural areas. Food supplies through official channels may be consistent, but the bulk of the rural areas serviced by an increasing informal market system, tend to be deprived due to some rigidities and monopolistic actions of the official system.

It is in the light of the preceding exposition that some considerations on the 'NATIONAL FOOD SECURITY QUESTION' are presented. The argument is that these issues need not be neglected or underestimated as that may lead to the negative progress in the industry.

Responsible government policies

A truly representative and responsible state authority is guided by national interests. The present South African order is undoubtedly paternalistic and protectionist biased towards white farmers. The non-consultative approach of the government and its policy implementation is clearly witnessed in the underdeveloped of the so-called developing agriculture. This is not a surprise as it is not a representative government. However, its actions impact and extend to all engaged in the sector. It will be more assuring if the government could consider the voices of bodies representing other categories of farmers, notably the National African Farmers Union (NAFU). This will enable policy makers to table socially responsible policies. Policies affecting agriculture should be representatively dealt with. Both micro- and macro-economic socio-economic implications of shortsighted policies are mirrored in the persistent and prevalence of malnutrition, poverty and social discontent in the country.

Enabling Measures

These are commonly known as farmer support services which can be effectively delivered to needy farmers through the Farmer Support Programme (FSP). The understanding of this concept and its multiplier effects seem to elude policy makers. Lack of capital, inaccessible and small-farmer-friendly markets and the persistence of landlessness faced by rural farmers are well known. While instant and automatic provision of such much needed services will be applauded, it is doubtful whether the conditions under which the Black farmer has been made to operate will be considered, which will lead to a different set of requirements amenable to this sector. Landlessness can be addressed effectively via adoption of flexible land use and tenure ar-

rangements as required. Review of lease, renting and other tenure arrangements need urgent attention to relief pressure on land, particularly the agricultural land. About 87% of the country's land is well administered and that is the area which needs to draw the potential of the country and have it committed to food production. The other 13% under communal tenure needs progressive commercialization and privatization.

On research, technology and information, much have been established and the infrastructure is supportive. To extend these ready services to the emerging farming sector cannot be deemed a nightmare or an impossibility (unless hidden agenda or egoism prevails). The multiplier effects with such released resources are likely to enable the country to better its self-sufficiency rates and lead to the much-sought-after economic stability. Opportunities lead to commitment by individuals to increase productivity, which in turn leads to efficiency, and most likely, the individuals involved will develop their own sustainable modes of production.

Provision of Physical Infrastructure

Forming part of the national capital investment is the farm physical infrastructure. The country's geographical location suggests that the country should (have) invest(ed) much in water conservation. Construction of catchment dams, river dams, canals and feeder canals should receive some priority from now on. The present drought, negating irrigation in many areas, is a clear indication of underestimating the vagaries of nature.

Ecological system and the environment can be preserved by providing and extending electricity as a source of energy to rural areas. The provision of electricity will have positive effects on productivity levels of farmers. Provision of these is regarded as a state responsibility and the private sector to a lesser extent.

Freer Markets and Distribution System

Markets create opportunities for production. Van Rooyen and Van Zyl argue that the distribution system links the production capacity of a country to the demand through the creation of form, time and place utility. Failure to take into account the realities of the country's developing areas, where poor households reside, the agricultural policy has constantly created a situation where the food distribution systems have been stressed to deliver sufficient food, when and where it is needed. This has resulted in higher food prices due to transport costs, thus affecting the acquirement and affordability of food by the poor households. The conditions in the white farming commercial sector are responsible for the setting of food prices, especially the controlled group. Higher maize prices are a delight to the commercial farmer, but adversely affect nett consumers of maize.

Both state protectionism and monopolistic control and regulation on the food distribution system have long been advised to diminish. South Africa is, undoubtedly, the only country outside the "communist countries" which has such a level of state control on the economic activity. Pricing policies have led to a bias against the evolution of geographical comparative advantage, which would have encouraged the development of high-value, low-bulk products at distant locations and the growth of bulky products like maize, near their markets (Lipton, 1992). The adverse effects on the consumption of basic food raise questions about the efficiency of the "food security" principle that this elaborate, regulated and expensive food distribution system is supposed to ensure.

Conclusion

Food is a survival weapon. Governments and authorities can only exist and maintain that if food to the nation is ensured. That is a premise for a country's internal social stability. The question of food security and self-sufficiency requires not only relevant information and rational thinkers, but national support in terms of understanding the implications of a set of policies and strategies in pursuance of national food interests, thus food security. Researchers and economists alike, in the food question circles, are convinced that economic growth, creation of jobs, decent minimum standard of living and security against famine or extreme food shortages, are the ingredients of what might be achieved by a successful food policy.

The country's natural resources, the human

potential and initiative, the skills, the infrastructure and the ready markets, cannot be deemed incapable of driving the country to become an economic unit to reckon with. However, the underlying point is: The detained energies, initiatives and potentials of the individuals must be released so that they can realize their capabilities. The onus lies with the state to unlock its doors of control and unguided regulation in a country purporting to uphold free market principles and operation. Only then, would the movement towards economic upswing, be a reality and not a mirage. It is high time that the state must learn to listen and acknowledge the voices of concerned parties without being pushed or forced through revolts, threats, boycotts and unwarranted marches or work-stoppages.

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