



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

THE FUTURE ENVIRONMENT FOR SOUTH AFRICA'S AGRICULTURE

Jerry B Eckert

Fulbright Professor, School of Economics, University of Cape Town, Cape Town and Professor of Development Economics, Department of Agricultural and Resource Economics, Colorado State University, Fort Collins, Colorado, USA

Abstract

Current political and economic trends are described. The economic restructuring and development policy scenario considered most likely in the near term is projected along with probable components of future land policy in order to describe the overall policy environment in which agriculture will find itself in the 1990s. After a brief review of specific components of the agricultural situation, the most likely future pricing and policy trends in agriculture are hypothesized.

1. Introduction

South Africa's evolution continues to accelerate and to diversify. The freeing of national discourse and politics of February 2nd, 1990 launched a process of expression, of testing ideas and wills, and of participation which draws increasing numbers into a whirlwind of change. One wonders if, in 1960, Harold Mac-Millan anticipated that his "winds of change" would become such a maelstrom. The ebb and flow of events and statements, both rhetorical and analytical, is bewildering, even demoralizing and threatening. While most recent attention has been on the urban drama, rural areas and peoples, agriculture and agriculturalists are equally caught up in the flood of events.

This paper attempts the impossible, to look forward across the decade of the 1990s, to identify and synthesize the major themes and trends currently visible, and to project them, however imperfectly, into an overview of a likely political-economic environment for farming and the agricultural sector as a whole.

2. The case for a moderate scenario

The future of agriculture is embedded in the shifting sands of broader political and economic change. Understanding these dynamics is essential to predicting agriculture's future. Several thoughtful, scenario-type projections have been tabled recently (Sunter, 1987; Bethlehem, 1991). At the risk of some repetition, I suggest below that only one macro-economic scenario exists with a reasonably high probability of occurrence. This assertion begins to lift the clouds in the crystal ball.

To justify this assertion it is only necessary to make two related and defensible simplifying assumptions. The first is that moderate people and pragmatism will govern South Africa's future. This assumption reflects the view that the opportunity losses of extremism, on the right or the left, are too high. Consequences of extreme policies include polarization and inflammation, offering a series of events leading, not to a second best solution, but to a no win stalemate. Internationally, the days of philosophical zealotry are over. Serious attempts to resurrect either the cultural ethnocentrism of the right or the excessive populism of the left will be met by foreign withdrawal and abandonment, pushing South Africa into an isolated, impoverished abyss.

The second simplifying assumption is that the emerging economic system will be described as "socially responsible capitalism." The economy of the next century will likely be market driven, including private property rights as a foundation stone, substantially deregulated, yet overlain with significant government intervention in distributing economic benefits. It will be a mixed or pluralistic economy in several dimensions; in the balance between public and private sectors, the mix between the formal and informal sectors and the co-existence of

small and large businesses. Further, government will remain a substantial component. There is no realistic prospect for a reduction of government's importance as an economic player, whether as consumer, employer or investor, in the visible future.

To make this point clearly, there is no substitute for a market driven, private sector based on private property rights for the generation of wealth. And generating substantial surpluses is absolutely essential for the economic, social and political health of the country. The African National Congress (ANC) and their allies must come to accept this truth. Simultaneously, an unassailable lesson from economic development history is that unfettered capitalism, placed in an inequalitarian setting, never solves the distribution problem. The so called "trickle down" process never works. The South African Chamber of Business (SACOB) and their allies must come to accept this truth as well.

3. Political considerations

Obviously, the biggest factor influencing agriculture's future is the nature of the political dispensation, primarily because of its potential effect on land policy and the nature and distribution of agricultural services. As of this writing, the National Party believes that it can win the next, fully enfranchised election. If they do, with or without a coalition, they will do so on the basis of an agenda that captures a large black constituency. Land reform must be part of that agenda.

If the ANC leads the future government, it will also be with an expanded constituency, possibly based on coalition. How that constituency is built will determine the level of moderation one might expect in future agricultural policies. One important factor is whether such a constituency is founded primarily on job holders or job seekers. A second factor is how labour in commercial agriculture and related agribusinesses will align. For farm labour in particular, their most pressing quality of life concerns may soon be addressed through extending labour law to farm workers. If this occurs, their politics may express an interest in protecting their jobs and the farms that employ them.

A third political factor that will influence future agricultural policy is the recently politicized issue of food prices. The constituency that elects the next government, regardless of political party, will undoubtedly be one that demands cheap food. The critical factor will be whether that goal is sought through stimuli to productivity and efficiency in farming or through price controls and cheap imports. The moderate perspective suggests that the three goals of 1) protecting current agricultural employment, 2) output prices that makes small and emerging farms viable and 3) keeping food prices relatively low and stable, all converge to support policies which would stimulate agriculture rather than suppressing it.

4. Macro-economic trends

The decade of the 1990s will be an era of economic restructuring, of rapidly expanding access and participation. The components are falling into place that could create a period of growth, perhaps even rapid growth, and continued strong progress toward greater economic equality. Major trends are identified below.

4.1 Recoupling with the rest of the World

The years from 1991 to 1994 will likely see full elimination of sanctions. Emerging international economic relationships promise a diversity of form and national linkage exceeding those of the pre-sanctions economy. From this diversity should arise strength and resilience, not to mention a much needed supplement to domestic resources for critical social and other programs. Five arenas can be identified in which this trend will be manifest.

- (i) Access to world capital markets is on the horizon and, indeed, utilization of this resource has already begun. Through tough debt management and repayment decisions taken under sanctions, South Africa is now both under borrowed and has an excellent credit record. Over-subscription of recent offerings in the European money market attests to the potential supply of these types of funds.
- (ii) Vigorous activity in the last 3 years has multiplied the number of nations with economic or trade ties with South Africa. Significant penetration has occurred in Asia, East Europe and, perhaps most significantly in the long run, in Sub-Saharan Africa. Regional economic integration within Southern Africa seems to be an idea whose time has finally come. Closer economic ties between SACU and PTA member are probable by 1995 with continued *de facto* integrations thereafter.
- (iii) For the first time ever, large volume foreign assistance from donor nations is a likelihood. Half a billion dollars annually is readily conceivable from a combination of the U.S., U.K., E.C. and selected Asian nations. This volume could be flowing even before elections. Importantly, a coherent, socially responsible development policy could possibly double that amount, especially in the post-election period. Two cautions are needed. First, much of these funds will be concessional loans requiring repayment. Second, such money often comes with baggage of donor agendas, policy imperatives and expatriate personnel. Without a decisive development policy of its own, South Africa's agenda risks being driven by external forces.
- (iv) More slowly, but equally surely under the assumption of moderation posited above, is corporate reinvestment. Indicative of the potential is the recent proactive involvement of North American and European corporate sectors in negotiations with the ANC, insisting that a climate be developed which sustains reinvestment decisions.
- (v) Last, but also important is an increased involvement of international, voluntary organizations in a host of human service activities supporting rural or urban development. These programs may not add large dollar volumes to the mix, but they add human services and contact, a key element that the larger bilateral donors find difficult to deliver for institutional reasons.

4.2 New engines of growth

The initial fillip to an economic resurgence may well come from social and infrastructure investment. The crying need for housing and serviced sites converges with the need for an immediate economic stimulus as well as significant international interest in supporting this type of investment. A million houses and two million serviced sites is seen as an acceptable general target for the turn of the century.

Receiving less attention, but perhaps equally important as a stimulus, is electrification. Extending power grids and generating electrical power both have among the lowest employment and GDP multipliers of any macro-strategy. But induced shifts in consumer expenditures toward electrically driven durables and semi-durables, plus the restructuring of food buying habits and other demand changes that can be traced to electrified households offer vast potential stimuli to local manufacturing and local jobs. Further, electrical power becomes direct economic empowerment by making possible all those small businesses and informal sector activities that require either a motor, a heat source or lighting. The potential range is extensive.

4.3 Redistribution through jobs

Reduction in unrest and greater economic and social equality, which are both so essential to a buoyant and democratic future, depend critically on solving the un- and under-employment problem as rapidly as possible. Two conflicting approaches to redistribution are presently advocated. SACOB supports "redistribution through growth," the old World Bank strategy (Chenery, *et al.*, 1974). The ANC has put forth their strategy of "growth through redistribution" suggesting a reversed set of causative links and thus policies (ANC, 1990).

What follows is a simplified version of a four dimensional strategy, captured in a phrase in the heading of this section, designed to stimulate growth, shift the national aggregate capital:labour ratio, integrate the economy and bring the majority into the economic mainstream during this decade. Ambitious? Of course. Yet most of these components are already under consideration. The components are these:

- (i) Expanded trade and growing exports should channel new final demand into old sectors. South Africa's economy has, for decades, been export driven. Productive capacity and transactions institutions, which have historically responded to export demand, remain in place. New for the 1990s is the range of potential clients, especially within Africa. Jobs created by new exports will fall predominately among unionized labour, thus the middle and upper middle income classes. Their expenditures will reflect the multipliers of households in these income classes and become new final demand for consumer durables and semi-durables, sectors of the economy that have languished of late as growth in white spending power stagnated.
- (ii) Further deregulation and proactive stimulation of small businesses has considerable potential to reach and impact a decentralized labour force. While the deregulation process is not complete, and in agriculture has hardly begun, the needed future emphasis is an institutionalized service and support network following the lines of the excellent program of the Small Business Development Corporation. In time this will encourage shifts from informal enterprises to small businesses. The employment and income impact will fall largely on the middle and lower middle income strata where it is badly needed. Their expenditures will become new demand for clothing, footwear, transport, consumer semi-durables and processed food.

- (iii) Third, labour intensive public works seem to be one of the few avenues for quickly impacting the openly unemployed, largely recently arrived urban job seekers. Social and public infrastructure construction including labour intensive house construction and site development offer a key channel, especially in view of the magnitude of expenditures probable in this sphere. To be maximally effective, however, labour intensity needs to be defined as it is in South Asia. This suggests substantially revised perceptions on the part of both the construction industry and organized labour. Clinging to machine based techniques and insisting on labour priced at R20-30 per hour in the face of three million unemployed residents of squatter camps and townships is inhumane.
- (iv) The fourth leg of the stool has been called "inward industrialization" (Lombard, *et al.*, 1985). This concept recognizes that, to the extent the poor see their incomes rise, the structure of final demand will shift toward their particular consumption patterns. Agriculture and new processing and manufacturing sectors will need to take up the economic lead. Part of inward industrialization is, thus, the recognized need to restructure industrial output to accommodate shifting demand.

In addition, incomes and expenditures of the poor have substantially greater GDP multipliers and because of this generate greater demand for imports than do expenditures of the more affluent (Eckert and Mullins, 1988). Thus the second component of inward industrialization is an import substitution thrust designed to produce domestically both the intermediate and capital goods required by a restructured consumer demand.

In essence, this strategy intends that South Africa's economy remain "demand driven" but that the driving force shifts from consumption by upper income groups to those of middle and lower middle income, whose incomes rise, not through welfare and transfers but through jobs.

Incomes received by the poor will stimulate agriculture, the informal and small business sectors and a new mix of manufacturing sectors. Assuming these sectors can respond without undue demand generated price rises, new jobs and incomes among the lower middle income classes create a new demand pulse for consumer durables and semi-durables. Inward industrialization then internalizes the growing pressures for imported goods, translating this into added demand for the output of historically leading manufacturing sectors. Coupled with jobs derived from a sustained rise in traditional and non-traditional exports, most strata in society could participate.

The fact that most of this activity will be urban based will stimulate even faster rural to urban migration. The gap between the employed and the job seeker will continue to exist for several years. To avoid dramatic worsening of peri-urban slums with their attendant problems, the above scenario requires simultaneous policy and program emphases on rural development and economic decentralization.

4.4 The decline and rise of South Africa

Mancur Olson, in his book *The Rise and Decline of Nations*, suggests an institutional dynamic which fits South Africa, past and present, well. His theory postulates that rational behavior of groups leads them to first coalesce, then to erect boundaries to entry, and finally to engage in rent seeking behavior that skews economic returns toward their organization. His logic is based on a multitude of historic examples around the globe. The costs of this process include an increasingly intricate web of behavioral constraints, market distortions, inefficiencies, and

growing disparities between group insiders and outsiders. Carried to its logical extreme, exploitation emerges. The economy, its feet trapped in sandbags of its own making, grinds to a halt.

Olson's rising phase in national history occurs when these strictures are abruptly broken and the pent-up initiative, creativity and demands of the previously excluded are empowered. His examples include the Meiji Reformation of 19th century Japan, Germany and Japan after WWII, South Korea in its own post-war period and numerous others. Old elites, with their atrophied institutions are, if not sidelined, jarred into new competitive responses. New institutions, behavioral patterns and values emerge. Wholesale shifts in economic power occur and there are, to be sure, both winners and losers. But the end result is a socio-economic vibrancy reflecting an energetic response to newfound opportunity.

One need not stretch the imagination to apply this model to South Africa. In microcosm, the earlier job reservation acts and the prohibition of black labour organizations, plus the responses to removal of these institutions, form nearly "pure case" examples of Olson's logic. There are hundreds of others to be found in South Africa's recent history as well. Is it not realistic to look to an expanded opportunity set and the incentives thus created to provide the energy that will capture and exploit the economic strategies and available resources described above?

5. Through the crystal ball: Land reform

Perhaps the flashpoint in agriculture's future is land reform. That this issue can be explosive stems from divergent, fundamental values. Europeans, in the tradition of the natural philosophers, believe unquestioningly that private property rights are morally just. African ethics, on the other hand, define land as a social good, intended to serve the welfare of the community as a whole. Private property rights are immoral in this conception. That many were forcibly deprived of access to land only serves to further inflame the issue.

One must recognize certain socio-cultural realities of the "land hunger" in South Africa. Africans see access to land as a birth right. In an increasingly urbanized society, title to one's home and the land it sits on ranks high on many Africans' list of priorities. Further, land may be desired for its relationships to personal identity, for the sense belonging and acceptance into a community that it begets, or for the various roles that go with adulthood which are only established in Southern African culture through paying lobola, marriage and acquiring house and fields.

Physical realities affecting land and agriculture include two important considerations. First, cultivated land per capita is shrinking as a result of population growth. From a base of one-third of a hectare per person in 1990, this will shrink to 0,17 hectare per person by 2020 when the population will have more than doubled to over 70 million (Dostal, 1990:72,415). Second, the "quasi-20 year oscillation" in rainfall over the summer rainfall region of Southern Africa will very likely continue. "The (1980s) dry spell will last until about 1992 and the following wet spell until the turn of the century" (Tyson and Dyer, 1978). The next dry spell should begin about the year 2000 and last for a decade. Maize yields during a dry period are reduced between 12 and 20 percent on traditional small holdings (Eckert, 1980). Implications of these trends are drawn below.

Several physical and economic realities will affect land policy in the future. First, most of this country is not suited for small scale farming simply because rainfall and soils will not generate an adequate income from small holdings. Land in KwaZulu and Natal can be the exception to this generalization. Second, Alan Low has shown that in the presence of a well developed, well paid, off-farm labour market such as exists in this region, optimizing behavior results in small farming being the last recipient of allocable labour (Low, 1986). Yields from crop-

ping thus remain low and agriculture is neglected by most households. As a result, most black rural residents probably do not want to farm as a primary activity, but rather, where farm land is available, seek income supplementation, security and enhancement of certain cultural attributes of land. Third, Lele and Agrarwal (1990) find that, contrary to patterns elsewhere in the world, small farms in East and Southern Africa do not generate higher yields per hectare than larger farms. Productivity is limited by inadequate institutional systems and widespread limitations in access to these systems faced by small farmers. Finally, those with jobs are not likely to wish to risk those jobs by acquiring farm land and undertaking the variable business of farming.

Thus realism suggests that land reform should not seek to create a nation of farmers. Further, non-farming attributes of land are likely to play important, probably dominant, roles in any future reallocation of land rights. Perhaps the issue of land rights can be defused by the realization that many valid and valued strategies are possible which could meet much of the "land hunger" without sweeping alienation of existing farms and risk to aggregate agricultural production. Among these options are:

- (i) Arguably, the largest number of black people requiring land are those needing places to live in and near urban areas. It is further conceivable that the urban black population could increase by 50 percent during the decade ahead, making South Africa clearly the most urbanized nation south of the Sahara. Three million sites, including streets, commercial and community centers and green space will require at most 3000 square kilometers of land, the equivalent of 2-3 average magisterial districts.
- (ii) Peri-urban land, permitting specialty crop production for nearby population centers, is an important possible avenue of interest. DBSA estimates that 850,000 hectares of such land exists at present, zoned for agricultural small holdings, only half of which is so used. Conceivably these zonings could be expanded.
- (iii) High productivity farm land that could support viable small scale agriculture, say up to 30 hectares, exists primarily in KwaZulu and Natal. Considerable unallocated Development Trust land exists in these areas. However, a productive resource base is a necessary but not sufficient condition for the success of small farms. Farm management skills and, most importantly, access to markets and supporting institutions must be available. By comparison to altering land access, restructuring and redirecting institutional systems could be much the more difficult task.
- (iv) The interest of Africans in grazing rights, as distinct from rights to arable land, must be recognized. Cattle and, by derivation, the veld on which they graze, are so intrinsically woven into the African culture that cattle must be defined as a social good (regardless of ownership) and thus, also, grassland. A significant portion of the land hunger might be resolved with an expansion of the commons available to black communities. Such a trend would be consistent with government's present policy of converting marginal cropped holdings to grass and pastures.
- (v) The assertion that black workers on white farms demand title to the land they have worked cannot be credible. More plausible is the idea that terms and conditions of their employment, housing and benefits are their dominant concerns. Legislation already drafted could measurably improve the real quality of life of these families.

Thus, much of the "land hunger" of blacks can be satisfied, it would seem, within limits of existing resources. However, the realpolitik of the issue is that no land policy will not be seen as legitimate by the majority unless it includes; 1) some resolution to the grievance of "black spot" removals, 2) reasonable access for black farmers to highly productive land, and 3) institutional means through which some blacks can acquire large farms intact.

Two additional land decisions seem likely. Neither of them involves access rights directly. First there is a growing awareness that the Subdivision of Agricultural Land Act of 1970 will likely be repealed (de Klerk, 1991:264). Originally passed for conservation purposes, this law stands in the way of several policies that must now be considered. Second, some form of land tax seems probable. Kassier (1991) suggests two reasons why this may be inevitable. First, administrative devolution requires that lower level authorities establish a viable local revenue base. Second, it is felt that a land tax will either stimulate more efficient land use or move land onto the market.

A final dimension of land reform realpolitik emerges from an examination of recent regional history. Zimbabwe passed significant legislation regarding additional land reforms over a year ago and has not yet moved to implement it. Namibia had its national land conference fully 15 months after independence. As of this writing, the government is proceeding extremely slowly in formulating land policy. Many insiders believe that few sweeping changes are imminent. Further, Lesotho passed comprehensive legislation modernizing their traditional tenure system in 1980, laws that remain to be implemented. In short, land reform tends to be a slow, cautious affair in Southern Africa. A realistic scenario would suggest that South Africa will actually begin redistributing land rights toward the end of the decade, at about the time that the next below average rainfall period begins, suggesting tough times for small farmers.

6. Agriculture: Status and prognosis

6.1 Situation report¹

Agriculture is under serious stress in South Africa. During the previous year rainfall contributed to the failure of the wheat crop in the Orange Free State and to diminished production of maize and summer cereals generally. Parts of Eastern Cape remain trapped in the worst drought of this century. As a result, 1990 agricultural production declined by 4 percent from 1989. Net farm income fell by 19 percent compared to 1989 while sectoral contribution to GDP declined by 8 percent for the year.

Weather aside, more fundamental problems exist. Important structural adjustments are underway and will likely continue. High on the list of causes is a worsening cost:price squeeze. In 1990, producer prices rose by 5.4 percent while the price of farming requisites rose by 12 percent.

Farm debt rose to R 16 billion at the end of 1990, 6 percent above 1989 levels and 44 percent above 1985. Farm debt in 1990 stood at 23.1 percent of the value of total farming assets. Interest charges remain a major cost factor in agriculture and high interest policies coupled with large debts have a depressing impact on net incomes. Some 7 percent of farms are under sequestration. Labour payments exceed 40 percent of cash flow.

Government is implementing a policy of phasing out subsidies to agriculture. Rebate and subsidy payments, excluding interest subsidies, have declined from R 507 million in 1986 to R 198 million in 1990.

Changing economics of agriculture, especially cereals production, have brought significant shifts in crop mix in response. Maize area on commercial farms has been declining for a

decade. A contributing factor is the land diversion scheme in which more than half a million hectares have already been signed up for conversion to grass and planted pastures.

Despite these figures, some analysts consider that the greatest majority of farmers are still in a sound financial situation. The most important problem areas are among summer grain farmers in the western areas of the country and crop and cattle farmers in Northern Transvaal and Eastern Cape.

6.2 Future price relationships and consequences

The dominant trend in future price relationships is likely to be a continued gravitation toward world pricing and nearly full cessation of subsidies. The effect is to subject South Africa's agricultural sector to the Carborundum of comparative advantage economics. As comparative advantage principles become more operative, cereal prices will be governed primarily by the world market. Prices of livestock, livestock products and certain specialty commodities, however, will be partly defined with reference to production relationships within SADC neighbors.

Trade will likely increase. The South African Agricultural Union currently estimates that cereal imports will be required one year in four. This could prove conservative if area planted continues to decline. Simple economics indicates that it may be cheaper to land U.S. maize in Durban for distribution to Natal than to move grain down from South Africa's "maize triangle." The feasibility of feeding Northern Transvaal with maize from the SADC nations is also worth analysis.

South Africa's collection of white farms are in the midst of a shakedown cruise. Those that survive as commercial farms with farm sales as their principal source of income will necessarily adjust their enterprise mixes and technologies to market signals and comparative advantage. Limited Input, Sustainable Agriculture (LISA) concepts will become important in technology choice (Kassier, 1991). For others, the concept of farming could shift, of necessity, to one of a place to live and raise one's children, a place to retire, and a source of supplemental income. For these families, farming becomes a "fixed resource" enterprise, relatively insensitive to price signals, occasionally producing at an economic loss in return for psychic income.

On a positive note, income redistributions which should continue within the greater economy will fuel demand for agricultural products, both raw and processed. Among the poor, the highest income elasticity of expenditure is for cereals, followed closely by other staples, then meats and processed food products. The flip side of the coin is that food prices have already become politicized. And given the present rate of urbanization, the bargaining power of producers relative to consumers is declining.

6.3 Probable policy and administrative dimensions

Several policy and administrative trends can be extended or projected into the 1990s with reasonable certainty. Among these are the following:

- (i) Continued deregulation and removal of subsidies will prevail. Commodity marketing boards will continue to receive fire. Some will be dissolved while others will find new and more viable roles to justify their existence.
- (ii) Priorities derived from the geo-political need to ensure stable neighbors from among SADC neighbors will occasionally influence pricing decisions. Of relevance, maize price distortions, maize shortages and food riots nearly toppled the Zambian government only a few years ago.

(iii) A dichotomy will likely arise among farms and farm programs. The terms "commercial" and "emerging" are already in use to make the distinction. Commercial farms will likely be governed by market transmitted price signals and reliant on the private agribusiness sector for inputs and production and marketing services. Emerging farms will likely benefit from an affirmative action skew in the allocation of public sector support services, including research, extension, financing and market access. This two pronged policy mirrors policy trends emerging in Namibia.

(iv) Labour legislation will be extended to farm workers in 1992. Over time, this will stimulate labour saving capital intensification (and new labour saving enterprise mixes), adding another social stratum to rural to urban migrants.

(v) Rural infrastructure expenditures will be concentrated on currently backward areas in an effort to eliminate the economic vacuum that exists there and slow job seeking migration. White farm areas will be expected to live on depreciation of their infrastructure during the 1990s.

7. Final thoughts

The period ahead for South Africa and its agricultural sector will be one of change, perhaps even rapid change. In many dimensions, the future is unknown. As with any restructuring, there will be both winners and losers and the costs for the latter will be real and painful. Tension and apprehension will be felt by many. A dominant theme will be much broader participation than in the past; participation in farming and land use, in marketing and agricultural institutions and in the formulation of agricultural policy. The number of empowered shareholders in agriculture's future will multiply rapidly.

Yet, changes on the horizon are, for the most part, needed as part of the national effort to set things right and prepare the basis for a strong expansive future. They will be seen as just only if the rules of change reflect the input of all concerned people and, more basically, if the process for making the rules is perceived as just. Among the more important inputs to the process will be objective, theoretically sound, practically grounded analysis of issues and alternatives. The coming dialogue will bring new challenges, new opportunities and a new birth of the agricultural economics profession in South Africa.

Note

1. Statistics in this section provided courtesy of the Agricultural Attache, United States Embassy, Pretoria.

References

- AFRICAN NATIONAL CONGRESS. (1990). Recommendations on a post-apartheid economic policy. Transformations, No 12:2-15.
- BETHLEHEM, R. (1991). The sensible thing to do. Leadership, the watershed years, Vlaeberg.
- CHENERY, H, MS AHLUWALIA, CLG BELL, JH DULLOY, R JOLLY. (1974). Growth with redistribution. New York, Oxford University Press.
- DE KLERK, M. (1991). Issues and options for land reform, in de Klerk, M (Editor). A Harvest of Discontent. Cape Town, IDASA:259-274.
- DOSTAL, E (Editor). (1990). Business futures 1990. Bellville, Institute for Futures Research, University of Stellenbosch.

ECKERT, JB. (1980). Rainfall oscillations in Lesotho and the possible impact of drought in the 1980s. Maseru, Lesotho Agricultural Sector Analysis Project, Discussion Paper No. 10.

ECKERT, JB and D MULLINS. (1988). Income redistribution and its effects on the South African economy. *Studies in Economics and Econometrics*, Vol 13, No 2:1-20.

KASSIER, WE. (1991). Agriculture in the new South Africa. *Effective Farming*, Vol 8, No 7:366-368.

LELE, U and M AGRARWAL. (1990). Smallholder and large-scale agriculture in Africa: Are there tradeoffs between growth and equity? Washington, The World Bank.

LOMBARD, JA, JJ STADLER, L KRITZINGER, CJ MEINTJIES and JP VAN DEN HEEVER. (1985). Industrialization and growth. Focus on key economic issues. No 36.

LOW, A. (1986). *Agricultural development in Southern Africa: Farm household economics and the food crisis*. London, James Curry publishers.

OLSON, M. (1982). *The rise and decline of nations*. New Haven, Yale University Press.

SUNTER, C. (1987). *The world and South Africa in the 1990s*, Cape Town, Human and Rousseau Tafelberg.

TYSON, PD and TGJ DYER. (1978). The predicted above-normal rainfall of the seventies and the likelihood of droughts in the eighties in South Africa. *South African Journal of Science*, Vol 74:372-377.