The Mismanagement of Third World Agriculture

Introduction

Without belittling the importance of general environmental factors such as population pressures, climatic features, pre-capitalist social mores and customs, inappropriate land tenure systems, deforestation, soil erosion, desertification etc., a lion's share of the responsibility for many of the agricultural setbacks that have occurred in the Third World rests on the shoulders of Third World regimes. It is not that governments have consciously striven to retard their rural sectors but by dint of neglect and out of consideration to other more compelling political priorities, many have deprived agriculture of essential resources, taxed it excessively and have inadvertently constructed a pernicious disincentive system. This paper seeks to review some of the instances by which Third World regimes accord their farm populations a disservice. After a brief summary of output trends, major policies injurious to the rural sector are outlined and discussed. While no attempt is made to be comprehensive, the issues selected are by far and away among the most crucial.

Output trends

Between 1961 to 1980, Third World food output rose by 3.1% per annum. Since the Third World population growth rate stood at 2.4% per year, per capita food output grew annually by only 0.7% (see Table 1). Growth rates varied among countries and continents. In per

TABLE 1

Region	Annual Population Growth Rates	Annual Food Production Growth Rates
All LDCs	2.4	3.1
Asia	2.3	3.4
Latin America	2.6	2.8
Middle East	2.8	2.6
North Africa	2.6	2.3
Sub-Saharan Africa	2.8	1.7

Sources: L.A. PAULINO, "Food in the Third World: Past Trends And Projections to 2000". International Food Policy Research Institute, *Research Report* 52, Washington, June 1986, Table 6, page 22.

capita terms, Asia and Latin America recorded positive gains while Africa and the Middle East experienced setbacks. In sub-Saharan Africa, the worst affected region, per capita food output declined annually by 0.9%. Beyond 1980, per capita food output rose in all continents other than in Africa (see Table 2).

In overall terms, the Third World has maintained abysmally low food output standards, producing in 1985 a mere 251 kilograms of cereals per capita compared with the advanced countries' per capita average of 859 kilograms.[1] Alternatively, 1985 rice yields expressed in terms of kilograms per hectare were 6095 in the U.S.A., 6225 in Japan, 6857 in Australia and 6625 in Greece whereas in India,

TABLE 2

PER CAPITA FOOD OUTPUT INDICES 1979-81 = 100

Region	1975	1985
All LDCs	96.05	107.50
Asia	97.77	110.93
Latin America	95.11	102.04
Middle East	98.54	102.07
Africa	104.07	95.46

Source: F.A.O. *Production Yearbook*, Vol. 39, 1985, F.A.O. Rome, 1986, Table 9, pages 87 and 88.

[1] The production figures were obtained from F.A.O. *Production Yearbook*, Vol. 39, 1985, F.A.O. Rome, 1986, Table 15. The population figures were obtained from WORLD BANK, *World Bank Development Report*, 1987, Washington, 1987, Table 1.

Pakistan, Bangladesh and the Philippines they were 2179, 2250, 2100 and 2440 respectively.[2] Not all countries both among the rich and poor exhibited yields similar to those cited above since a fair measure of intra group variations exist but the figures provided indeed do justice to the nature of the intergroup productivity gap that prevails. To a large extent, productivity differences reflect differences in input usage for whereas in 1984, advanced countries utilized an average of 122.8 kilograms of fertilizer per hectare, the less developed countries (LDCs) averaged 60.8 kilograms per hectare. (In sub-Saharan Africa, where agriculture is most in disarray, fertilizer consumption was only 7 kilograms per hectare.)[3] The deployment of fertilizer is somewhat governed by the availability of irrigated water and since most Third World farmers are dependent on direct rainfall, their sparse fertilizer applications are partly explicable in terms of limited resources, both natural and otherwise. Where nature is not the ultimate constraint, low dosages, and therefore low productivity levels, go hand in hand with inadequate private and social agricultural overheads and inadequate economic inducements.[4] In both such cases, as is indicated further below, government policies frequently have had a direct and negative bearing.

Looking at the Third World as a whole, although between 1961-80 per capita food output rose annually by 0.7%, per capita food consumption increased by 3.3% per year.[5] (Growth in food consumption is a function of both population and income changes. Considering that many Third World citizens maintain inadequate and or inferior diets, a given percentage increase in income usually triggers a proportionally greater increase in food demand.) The outstripping of food consumption over production has been facilitated by large increases in LDC food imports. Whereas in 1966-70 net LDC food imports amounted to 12.16 million metric tons, by 1976-80 they had risen to 37.89 million metric tons.[6] During the

[2] F.A.O. *Production Yearbook, op. cit.*, Table 17.

[3] *World Bank Development Report*, 1987, *op. cit.*, Table 6, page 213.

[4] For a good discussion pinpointing the connection between agricultural development and infrastructure see J.M. ANTLE "Infrastructure and Aggregate Agricultural Productivity: International Evidence", *Economic Development and Cultural Change*, Vol. 31, No. 3, April, 1983.

[5] L.A. PAULINO "Food in the Third World: Past Trends and Projections to 2000", International Food Policy Research Institute, *Research Report* 52, Washington, June 1986, page 25.

[6] *Ibid.*, Table 9, page 32.

1970-80 decade, sub-Saharan African food imports rose in value terms from $1.1 billion to $5.3 billion,[7] the latter amount being equivalent to 76% of the region's $6.9 million 1980 official aid receipts.[8] Some of the increased African Food imports may be attributed to shifts in consumer preferences from traditional staples to wheat and rice induced somewhat by the process of rapid urbanization and by the persistence of overvalued exchange rates which depress imported cereal prices. Nonetheless, the high import growth rates cited above are also consistent with unsatisfactory farm output increases.

Third World regimes and agriculture

Where the agricultural sector accounts for anything from 33 to 50% of a country's GDP (an interval which would encompass many LDCs), in order for it to obtain a 3% annual growth rate, it should, according to Krishna, absorb close to 20% of total national investments.[9] As it happens, this is seldom the case since LDC governments typically provide their farming communities with few resources. For example, between 1978-80, within 15 African countries, the agricultural sector obtained an average of only 7.4% of government outlays.[10]

The problem is not simply a lack of appropriate and sufficient investment funds but one of a generalized tendency for Third World agriculture to be discriminated against relative to industry (see Table 3). In this respect, LDC farmers are particularly burdened by the all pervasive and harmful effects of officially contrived low farmgate prices. More than ample evidence exists that Third World farmers obtain far lower real crop prices than do their advanced country counterparts. Taking as a case in point, a study by Peterson which incorporates 28 LDCs and 25 advanced countries, it was found that

[7] R.S. McNamarra, "The Challenges for Sub-Saharan Africa", Sir John Crawford Memorial Lecture, Washington, D.C., November 1st, 1985, Table 2, page 5.

[8] *World Development Report*, 1987, *op. cit.*, Table 22.

[9] See R. Krishna "Some Aspects of Agricultural Growth, Price Policy and Equity in Developing Countries", Food Research Institute Studies, Vol. XVIII, No. 3, 1982, page 230.

[10] See J.L. Mellor and R.H. Adams Jr "The New Political Economy of Food and Agricultural Development", *Food Policy*, Vol. II, No. 4 November, 1986, page 295.

Table 3

PROTECTION OF AGRICULTURE COMPARED WITH MANUFACTURING IN SELECTED DEVELOPING COUNTRIES

Country and Period	Year	Relative Protection Ratio[a]
In the 1960s		
Mexico	1960	0.79
Chile	1961	0.40
Malaysia	1965	0.98
Philippines	1965	0.66
Brazil	1966	0.46
Korea	1968	1.18
Argentina	1969	0.46
Colombia	1969	0.40
In the 1970s and 1980s		
Philippines	1974	0.76
Colombia	1978	0.49
Brazil[b]	1980	0.65
Mexico	1980	0.88
Nigeria	1980	0.35
Egypt	1981	0.57
Peru[b]	1981	0.68
Turkey	1981	0.77
Korea[b]	1982	1.36
Ecuador	1983	0.65

[a] Calculated as $(1+EPR_a)/(1+EPR_m)$, where EPR_a and EPR_m are the effective rates of protection for agriculture and the manufacturing sector, respectively. A ratio of 1.00 indicates that effective protection is equal in both sectors; a ratio greater than 1.00 means that protection is in favour of agriculture.
[b] Refers to primary sector.

Source: Reproduction of Table 4.1 *World Bank Development Report*, 1986, page 62.

between 1968-70, the average real price obtained by advanced country farmers (defined as the number of kilograms of fertilizer that could be purchased with 100 kilograms of wheat equivalents) was 34.2 compared with a figure of 19.02 obtained within the Third World.[11] Farm prices are depressed in the Third World as a result of efforts to provide cheap foodstuffs for urban consumers, the taxing of export crops and the maintenance of overvalued exchange rates. Exporters are especially hard done by, particularly in Africa where in

[11] Calculated from data in Table 1 page 14 of W.L. Peterson, "International Farm Prices and the Social Cost of Cheap Food Policies", *American Journal of Agricultural Economics*, February, 1979.

practice they receive a rather small proportion of the going world price. Even when allowance is made for distribution expenses, many export crop producers are heavily taxed. The extent to which this occurs may be gauged by glancing at Table 4 where a sample of nominal protection coefficients (NPCs) calculated for the period 1976-80, is listed. These coefficients where obtained by dividing the payments made to farmers by the sums they would have obtained had they been paid at world prices minus transport, marketing and processing costs. An NPC of less than one indicates crop taxation and conversely, a figure in excess of one crop subsidization. In actual fact, the squeeze on exporters has been higher than Table 4 suggests because in the majority of African countries where marketing is state controlled, distribution costs are needlessly inflated and therefore producers are implicitly taxed. Furthermore, the NPCs do not allow for overvalued exchange rates which reduce export proceeds in terms of local currencies. By facilitating cheap food imports, overvalued

TABLE 4

NOMINAL PROJECTION COEFFICIENTS
(1976-80)

Cocoa		*Groundnuts*	
Cameroon	.45	Malawi	.59
Ghana	.40	Mali	.43
Ivory Coast	.38	Senegal	.66
Togo	.25	Sudan	.67
		Zambia	.71
Coffee		*Maize*	
Ivory Coast	.36	Kenya	1.33
Tanzania	.59	Malawi	1.34
Togo	.23	Zambia	.78
Cotton		*Sesame*	
Cameroon	.79	Sudan	.59
Ivory Coast	1.05	Upper Volta	.88
Malawi	.75		
Mali	.44		
Sudan	.60	*Wheat*	
Togo	.79	Kenya	1.43
Upper Volta	.79		

Source: WORLD BANK, "Accelerated Development in Sub-Saharan Africa", World Bank, Washington, 1981, Box D, page 56.

exchange rates also undermine the incomes of farmers producing for internal markets. For instance, at one stage Nigeria's inflated currency enabled U.S. corn to be acquired at just over half the value of local production costs.[12] To make matters worse, the maintenance of overvalued exchange rates invariably necessitates foreign exchange rationing so that in situations whereby urban requirements are given top priority, farm inputs are insufficiently imported.

It could be argued that adverse price and foreign exchange movements are perhaps not always critical factors in governing LDC agricultural output. Where subsistence economies dominate, peasants may not be responsive to price signals even though they may on occasion market food surpluses above their own personal needs. It is possible that these market deliveries largely serve to fulfill specific requirements such as the meeting of dowry payments, poll taxes or the consumption of socially determined non farm products. Given that peasants place a high premium on leisure, price rises may perversely elicit a fall in market deliveries since they entail less effort in satisfying basic wants. Farmers may also be deterred from entering into commercial transactions because of the risks entailed in becoming increasingly reliant upon market forces. Assurance is needed that payments would be met promptly and that necessary inputs and consumer goods would be readily and consistenly available. Finally, it barely needs mentioning that in the absence of adequate transport and communication channels, as well as other institutional factors such as finance and credit agencies, the price mechanism tends to falter.[13]

By contrast, Cleaver has hypothesized that low aggregate farm prices could be expected to discourage cash crop production, encourage smuggling to higher priced neighbouring states and to stimulate migration to city centres in the quest for higher urban incomes. Low farm prices translate into low farm incomes and hence low saving and investment rates, not to mention a diminished capacity to obtain critical inputs.[14] In Africa, at any rate, where capacity

[12] See R.H. BATES *Markets and States in Tropical Africa*. University of California Press, Berkeley, 1981.

[13] Many of these points are derived from M.E. BOND "Agricultural Responses to Prices in Sub-Saharan African Countries", *I.M.F. Staff Papers*, Vol. 30, No. 4, December, 1983, pages 705 to 707.

[14] See K.M. CLEAVER "The Impact of Price and Exchange Rate Policies on Agriculture in Sub-Saharan Africa", *World Bank Staff Working Papers*, No. 278, Washington, 1985, pages 6 and 7.

for extended crop cultivation often exists, higher prices are thought to be likely to enhance total output.[15]

Statistical studies spanning all Third World continents attest to the fact that the supply of individual crops is positively linked to real price movements. The studies in question have been so numerous and the results so qualitatively similar, that there is now virtually no room for dismissing the importance of prices in determining output volumes. Even in Africa, where the subsistence sector looms particularly large, long-run supply elasticities are fairly substantial. (Some representative measures are listed in Table 5.)

On the basis of a 53 country cross section sample, Peterson obtained estimates of aggregate agricultural supply elasticities which varied from 1.25 to 1.66 depending on whether or not a research variable was included in the estimating equations.[16] The data were partitioned between developed countries and LDCs but "revealed no significant difference in the set of coefficients between the two groups".[17] However, the general validity of cross country estimates had been challenged by Chhibber on the grounds that they implicitly assume that farmers in different parts of the world face the same set of structural constraints. The various time series which Chhibber surveyed indicated a supply elasticity interval of between .16 to .78 but on taking yet other calculating procedures into account, Chhibber concluded that the "evidence indicates that in developing countries, the aggregate supply elasticity of agriculture with respect to prices lies in the range of 0.3 to 0.9".[18] Such an interval is closer to what may be expected *a priori*, for it is reasonable to assume that individual crop supply elasticities would be higher than aggregate ones. In the case of individual crops, resources may be shifted relatively easily from one area to another whereas in raising the output of the entire agricultural sector, there is less scope in mobilizing resources from other spheres with more reliance needing to be placed on resource augmentation and/or improved resource productivity.

As for the production impact of overvalued exchange rates, a cross section study undertaken by Cleaver which was based on 31 African states, indicated that a 1% per annum increase in the rate

[15] See M.E. Bond *op. cit.*, page 716.
[16] W.L. Peterson *op. cit.*, page 16.
[17] *Ibid.*, page 18.
[18] A. Chhibber "Raising Agricultural Output: Price and Nonprice Factors", *Finance and Development*, June, 1988, page 45.

Table 5

SOME AFRICAN LONG RUN CASH CROP SUPPLY ELASTICITIES

Crop and Region	Period	Elasticity (All significant at the 5% level)
Cocoa		
Ghana	1947-64	.71
Nigeria	1947-64	.71
Ivory Coast	1947-64	.80
Cameroon	1947-64	1.81
Coffee		
Kenya	1946-64	1.33
Cotton		
Nigeria	1950-64	.67
Sudan	1951-65	.50
Palm Oil		
Nigeria	1950-64	.81
Rubber		
Nigeria	1952-72	1.75
Sisal		
Tanzania	1945-67	.48-.76
Tobacco		
Malawi	1926-60	.48

Source: M.E. Bond "Agricultural Responses to Price in Sub-Saharan African Countries", *I.M.F. Staff Papers*, Vol. 30, No. 4, December, 1983, Table 2, pages 710-711

of currency appreciation is associated with a .15% decrease in agricultural growth.[19] Summarizing his findings, Cleaver affirmed that "the common assertion that over-valued exchange rates have a negative impact on agricultural growth appears to be correct".[20] Some insight as to the deleterious effect of an overvalued exchange rate may be obtained by noting recent trends in Tanzania, where the 1985 Tanzanian shilling thought to be overpriced by a factor of five, was considered by Lofchie to be "the single most important factor" in accounting for that country's dismally poor agricultural export performance.[21]

[19] See S.M. Cleaver *op. cit.*, page 20.
[20] *Ibid.*, page 20.
[21] M.F. Lofchie "The Roots of Economic Crisis in Tanzania", *Current History*, April, 1985, page 161.

Taking into account the fact that Third World farmers frequently realize low product prices and that this in turn has been established as a significant supply disincentive, it follows that price suppressing policies of LDC regimes account for untold production shortfalls. On the basis of his own calculations, Peterson concluded that had LDCs "enjoyed the level of prices that prevailed in developed nations, or even in the world market, there would be no such thing as a world food shortage".[22] However, without denying the importance of appropriate product pricing, Peterson's assertions may be somewhat farfetched. For one thing, his estimated supply elasticities were unduly high and for another, as average farm gate prices in developed countries are often artificially inflated, there is no reason why the Third World should be expected to emulate them. More to the point, the setting of realistic prices may have limited effectiveness in the absence of complementary measures and a suitable economic framework. As it is, among Asian countries the availability of irrigation has been an important ingredient in the adoption of high yielding wheat and rice varieties and only a third of variations in fertilizer usage have been attributed to differences in price structures.[23] Some writers have even argued that in order to augment agricultural output, "there is a case for giving primacy to a technology policy".[24] Such has been the view of Krishna who detailed figures which purportedly demonstrate that in order for a Third World economy to secure a 3% annual agricultural growth rate over a five year period, the agricultural sector's terms of trade would need to be improved by 40%, a magnitude regarded by Krishna as being "hardly a practical proposition".[25] While it is important to place the effectiveness of price incentives into perspective, Krishna and others may have carried this somewhat too far. For instance, to derive the need for a 40% terms of trade improvement, it is necessary to assume the complete absence of agricultural growth in the first place. If by contrast, an LDC originally maintained a 2% annual agricultural growth rate (which is not unusual), then to raise it over a five year period to 3%, entails (using Krishna's price elasticity of supply estimate of 0.4) a terms of trade improvement of roughly 15%, an amount which is not extraordinarily excessive.

[22] W.L. Peterson *op. cit.*, page 46.
[23] See A. Chhibber *op. cit.*, page 46.
[24] R. Krishna *op. cit.*, page 46.
[25] *Ibid.*, pages 235 and 236.

Granted that non price policy instruments are important, it still remains true that on account of price distortions alone, needlessly large volumes of agricultural output have been foregone. Examples in relation to individual crops abound. Sukhatme believes that had rice in India not been priced below international levels in the late 1960s, adoption rates of high yielding strains would have been almost 100 percent in states like Andhra Pradesh and Haryana instead of realized adoption rates of 41 and 31.6 percent respectively.[26] In Tanzania, where the relative internal price of cashew nuts receded and where the ratio of producer to world prices fell from 69.5 in 1970-71 to 29.1 in 1977-8, "production plummeted from a high of 145,000 tons in 1973-74 to only 58,000 tons in 1978-79".[27] Elsewhere, in Nigeria even though the British Palm Centre developed improved palm varieties, few farmers took them up "mainly because the state marketing board seriously reduced the price that producers receive for palm fruits".[28] Instead, the new plants were rapidly utilized by West Malaysian farmers who were not encumbered by restrictive fruit prices. While West Malaysian palm oil exports rocketed from 180,000 metric tons in 1967 to 872,000 in 1974, those of Nigeria slumped to only 50 metric tons in 1973 and to none in 1974.[29] Another instance of a dramatic output setback in response to price falls is found in Ghana's cocoa industry where the 1981-82 crop averaged 238,500 metric tons compared with an amount of 430,000 metric tons obtained ten years earlier.[30] Such an outcome reflected the cocoa farmers' reaction to revenue shortfalls induced by official 'marketing' margins rising to 80%.[31]

To round up the discussion on market signals, cognizance should be taken of the widespread imposition of uniform prices. In many an LDC, specific crops are subject to a single price not only throughout

[26] V. Sukhatme "Farm Prices in India and Abroad: Implications for Production", *Economic Development and Cultural Change*, 1983, pages 178 and 179.
[27] Z. Ergas "The State and Economic Deterioration: the Tanzanian Case", *Journal of Commonwealth and Comparative Policies*, 1982, page 296.
[28] T.W. Schultz, "On Economics and Politics in Agriculture in J. W. Schultz, *Distorsions of Agricultural Incentives*, Indonesia University Press, 1978, page 17.
[29] *Ibid.*, page 19.
[30] See J.C. de Wilde "Agriculture, Marketing and Pricing in Sub-Saharan Africa", African Studies Centre, University of California, Los Angeles, 1984, page 81.
[31] See J. Hinderink and J.J. Sterkenburg, "Agricultural Policy and Production in Africa: The Aims, the Methods and the Means", *Journal of Modern African Studies*, Vol. 21, No. 1, 1983, page 10.

the entire marketing period but also throughout the entire state. The absence of price variations over time encourages farmers to dispose of all their crops as soon as they are harvested, a practice which tends to overtax their countries' buying, transport and storage facilities. Where prices are everywhere the same, agricultural resources are likely to be deployed without regard to transport costs and relative regional scarcities. On this account alone, the agricultural sector's aggregate output and composition thereof is likely to be suboptimal.

If an inappropriate price structure hinders Third World agriculture, one might well ask why such a situation arises and perhaps more significantly, why it endures. The answer lies in internal Third World power politics. Most LDCs are governed by non elected rulers, many of whom maintain but a tenuous grip on power. To entrench themselves, they guard against urban unrest by instituting cheap food policies. Experience has long since taught them that even modest food price hikes may be met with violent reactions, for not uncommonly food outlays constitute no less than 70% of the budgets of the Third World's poor. As a Zambian politician cynically put it, his government "loved the rural people but feared the townspeople, and in Zambia, it was better to be feared than loved".[32] Similarly, in relation to Peru, Handelman noted that the spectre of urban food riots had been of far greater concern to officialdom than any long-term effects of rural poverty.[33]

Sometimes low food prices coexist with high farm gate ones but considering that this frequently entails budgetary strains with concomitant deficit financing and inflation, governments usually coerce the farming community to bear the entire cost of pandering to city consumers. Although in most LDCs farmers and peasants constitute a majority of the population, they are in general remote from the centres of power, dispersed, disunited, disorganized and inarticulate. All these factors coalesce to ensure a considerable measure of official disregard for their interests.

Cheap food policies, it must be emphasized, are maintained not for the benefit of the poor as such but on behalf of all urban dwellers regardless of their economic status. As it happens, most of the Third World poor are located in rural areas. For example, in Latin America

[32] K. Good "Systemic Agricultural Mismanagement: The 1985 'Bumper' Harvest in Zambia", *Journal of Modern African Studies*, Vol. 24, No. 2, June, 1986, page 260.

[33] See H. Handelman, "The Politics of Agrarian Change in Asia and Latin America" Indiana University Press, Bloomington, 1981, page 11.

70% of those that are malnourished live in the countryside.[34] The plight of the rural poor is often worsened by government zeal to channel food to the cities. In countries such as Kenya and India, there have been occasions when even at peak marketing seasons, rural blackmarket grain prices have been twice as high as the by and large non-available official ones.[35] The effective subsidization, at the expense of the impoverished peasantry, of the living standards of the urban workforce, middle class and bureaucracy has become so blatant that many observers "speak of a system of 'internal colonialism' whereby the rural regions serve as a source of cheap labor, food and raw materials for the cities".[36]

The woes of the agricultural sector do not emanate merely from the tendency of Third World regimes to favour urban consumers, they have also been grounded on leadership perceptions, such as those of Ghana's late president, Nkrumah, who considered agriculture "an inferior form of activity" and who declared that "industry *rather* than agriculture is the means by which rapid improvement in Africa's living standard is possible".[37] In one Third World country after another, premature attempts to force feed industrialization have induced high tariffs (which worsen the agricultural sector's terms of trade *vis-à-vis* industry), overvalued exchange rates, the concentration of investment funds in manufacturing and a desire to ensure low prices and hence low wages, for the sake of industrial employment.

A rather exceptional occurrence in which exogenous economic variable changes have imparted an anti-agricultural bias is found in relation to the exploration and extraction of oil. This has been most evident in Nigeria where a rapid surge in purchasing power, fueled by oil revenues, raised the relative price of non-tradeable goods. (The increased demand for tradeable goods was met by increased imports, financed by oil exports.) As a consequence of this, large numbers of farmers were drawn from the countryside to urban areas in search of well paid employment in the then thriving construction industry. This and a sharp fall in real crop prices (abetted by a substantial appreci-

[34] *Ibid.*, page 11.

[35] G. Brown "Agricultural Pricing Policies in Developing Countries," in T.W. Schultz *op. cit.*, page 91.

[36] H. Handelman *op. cit.*, page 11.

[37] Cited in J. Killick "Development Economics in Action", Heineman, London, 1978, page 46. Italics added.

ation of the Nigerian currency, the Naira) induced a sizeable decrease in Nigeria's agricultural exports. Between 1970 and 1982, the production of cocoa, rubber, cotton and groundnuts fell by 43, 29, 65 and 64 percent respectively.[38] Similar events were recorded among other Third World oil exporters. In Trinidad, Pollard considered the near demise of that country's agricultural sector be an "almost inevitable consequence of the intrusion of a modern oil industry into a free market economy".[39] In Ecuador after the 1973 oil boom, per capita food production declined[40] and in Iran, following a large influx of foreign investment in oil, agriculture "was relegated to a secondary position" and the country "lost its earlier self-sufficiency in food".[41]

Needless to say, the poor agricultural record of various oil exporting countries cannot simply be attributed to adverse exogenous shifts, for even in such cases government policies affect the final outcome. In this regard, the contrast between the Nigerian and Indonesian experiences is instructive, for while both states are significant oil exporters, agriculture in the latter country did not deteriorate. On the contrary, Indonesia's rice output grew per year by 4.2% from 1968-78 and by 6.7% from 1978-84[42] enabling that country to become virtually food self-sufficient.[43] Indonesia avoided problems that beset Nigerian farmers by taking measures to counter exchange appreciation tendencies (between November 1978 and March 1983 the rupiah was devalued by more than 50%) and by pursuing market oriented policies. Apart from ensuring that internal crop prices reflected international ones, considerable emphasis was placed on research, extension and credit programs, investments in irrigation and the encouragement of fertilizer usage. By these means, Indonesian farmers were sheltered from the agricultural retarding effects inherent in an oil exporting economy.

Unfortunately, far from emulating the Indonesians, many other LDC regimes have continued to regard agriculture merely as a reservoir from which resources are to be drawn rather than as a national asset to be conserved and enriched. These regimes tend to harness

[38] World Bank, *World Development Report,* 1986, page 72.
[39] H.J. Pollard "The Erosion of Agriculture in an Oil Economy: The Case of Export Crop Production in Trinidad", *World Development*, Vol. 9, No. 11/12, 1981, page 833.
[40] See H. Handelman, *op. cit.*, page 63.
[41] H. Afshar "An Assessment of Agricultural Development Policies in Iran", *World Development*, Vol. 9, No. 11-12, 1981, page 1098.
[42] World Bank, *Development Report,* 1986, page 72.
[43] B. Pinto "Nigeria During and After the Oil Boom: a Policy Comparison with Indonesia", *The World Bank Economic Review*, Vol. 1, No. 3, May, 1987, page 433.

farmers to their bidding by formulating batteries of controls and regulations and by establishing public corporations, such as marketing boards, which intervene directly in virtually all agricultural transactions. Ostensibly, intervention is necessary to protect farmers from the baleful effects of free market forces, for it is alleged that private traders tend to exploit peasants rendered vulnerable because of ignorance and financial indebtedness. Furthermore, marketing boards are supposed to moderate price fluctuations so as to stabilize farm incomes.

In point of fact, private enterprise operations were not as unsatisfactory as depicted. Evidence relating to Ghana indicates that they were fairly competitive and "efficient in coping with the highly complex task of collecting a wide variety of often perishable foodstuffs from a multitude of small farmers and transporting them over often long distances to the consumer".[44] Moreover, transport fees were explicable in terms of mileage, weight and bulk. Likewise, in India a comprehensive survey concluded "that the private grain market was highly competitive [and] that traders operated efficiently".[45] Government involvement by contrast, not only entailed lower crop prices but to add insult to injury, price fluctuations were not contained. If past practices in Ghana and Nigeria are anything to go by, priority had been accorded to the stabilizing of marketing boards funds, for even when reserves were buoyant, the full burden of low world cocoa prices had been passed on to local producers.[46]

As already indicated, the true purpose of most state marketing boards, at least in regard to Africa, has been to effect resource transfers from the rural sector to governments and their bureaucracies. When in 1957 legislation in Ghana was introduced to facilitate untrammeled government access to market board funds, the function of such funds was redefined as being capital "held in trust for all the people".[47] (Since in those days most Ghanian cocoa producers supported the opposition party, the government had no qualms in divesting them of their wealth.) Basically, farmers have been fleeced by virtue of the levying of excessively high distribution charges. For instance, in Tanzania, the distribution fee on cotton amounted on

[44] J. Killich, *op. cit.*, page 189.
[45] G.J. Brown, "Agricultural Pricing Policies in Developing Countries in T.W. Schultz *op. cit.*, page 91.
[46] See R.H. Bates, *op. cit.*, page 15.
[47] As quoted in R.H. Bates *op. cit.*, page 17.

occasion to as much as 40% of the going world price.[48] Bureaucratic inefficiencies and corrupt practices account both for the establishment of extortionate marketing imposts and the squandering of market board assets. Inefficiencies are associated with a scarcity of top flight managers, lack of work incentives, an absence of appropriate controls and widespread overstaffing, whereas corruption is facilitated by inadequate accounting procedures not subject to proper audits. Commonly, high ranking market board officials draw exorbitant salaries, while favoured outsiders have also been beneficiaries.[49]

Some insight of the ill effects on agriculture wrought by incompetent marketing boards may be gained by an observation of the 1985 Zambian maize harvest. The country's National Marketing Board (NAMBOARD) which was responsible for grain bag allocations, only commenced bag importations two weeks after harvesting was due to commence. Unexpectedly, new grain bag prices were raised substantially from 1.2 to 4 Kwachas and as if to compound matters, existing credit facilities were abolished. As Good observed, this meant that even the few bags then available remained unsold.[50] In response to a public outcry, credit was eventually restored but by not honouring its promise to pay producers on delivery, NAMBOARD finally hauled in only 5 million bags of maize which fell far short of the 10 million originally expected given the exceptionally good rains and climatic conditions that presaged the harvest. Local critics lamented "the shame of the goverment's urging the people to grow more food but failing to collect what they had grown".[51]

Marketing boards also function to assist processing industries that are dependent on agricultural inputs. That this occurs at the peasantry's expense should by now come as no surprise. In Ghana, the Esiama Oil Mill, fitted with the latest capital intensive equipment, rarely if ever operates at anything like full capacity, and consequently its per unit production costs normally exceed world ones by a margin in excess of 50%. To reduce costs, the state authorized it to constitute itself into a marketing board and endowed it with monopsonistic powers to secure copra at depressed prices. In Tanzania, the government mandated that a soluble coffee manufacturer be supplied by

[48] G. Hyden, "Beyond Ujamaa in Tanzania: Underdevelopment of an Uncaptured Peasantry" University of California Press, Berkeley, 1980, Table 6.1, page 172.

[49] For an example referring to the Ghanian Cocoa Board, see R.H. Bates, *op. cit.* page 27.

[50] See K. Good *op. cit.*, page 270.

[51] *Ibid.*, page 273.

the crop authority with beans at subsidized prices. Between 1975-76 when robusta coffee commanded a world price of TSHS 14.84 per kilo, the manufacturer purchased it for TSHS 6.32 per kilo.[52] (The losses the crop authority sustained were passed on to producers.) Likewise, the Tanzanian Sisal authority has been supplying sisal to local spinners at below world market prices and in addition, the industry has been obtaining a subvention equal to 50% of the sisal export tax proceeds. (Once again, the peasants have borne both the burden of the export tax and of lower prices.) Finally, in the late 1970s, Nigeria banned the export of groundnuts "in an effort to secure adequate supplies of raw materials for ther local crushing industry at prices the industrialists could afford".[53]

While figuratively speaking many Third World regimes have been killing their agricultural golden geese, they have nonetheless realized the importance of conserving a modicum of secure food outlets in order to ward off acute shortages. With this in mind, various regimes in Africa and Latin America in particular, have fostered the establishment of a limited number of large farms either under private or public ownership. Given that in the main a vastly disproportionate share of the meagre resources allocated to agriculture is bestowed on these farms, a large farm policy may in practice be fully consistent with an anti-agricultural bias. Among other things, it may reflect a view commonly held among the ruling elite, that development is synonymous with industrialization and that agriculture itself should be industrialized. A marked preference for large state owned farms is also likely to be manifested when an anti-capitalist ethos prevails. Characteristically, Nkrumah mistrusted small scale farming on the grounds that it posed as an obstacle to the propagation of socialist ideas by virtue of it engendering "conservatism and acquisitiveness and the development of a bourgeois mentality".[54]

The general performance of state farms has been pitiful. In Mozambique where they have been estimated to have received some 90 percent of agricultural investments, their net product has been around zero, that is, the value of their gross product has not covered production costs.[55] In 1980, Zambia committed K 400 million to

[52] R.H. Bates *op. cit.*, page 23.

[53] *Ibid.*, page 26.

[54] As quoted by T. Killick *op. cit.*, page 46.

[55] P. Raikes, "Food Policy and Production in Mozambique Since Independence" *Review of African Political Economy*, No. 29, page 101.

the formation of thirty six 20,000 hectare state farms. However, by 1984, only 800 hectares on three farms were actually cultivated. The schemes were described by a Zambian agronomist as 'grandiose projects', 'heavily subsidized', with theft and the irrational use of inputs being 'the order of the day'.[56] In Ethiopia between 1980-1985, state farms obtained 40% of all government expenditure on agriculture, 76% of available fertilizer, 95% of improved seed allocations and 80% of credit, "yet they contributed only 4 to 5% of total agricultural production".[57] Notwithstanding that between 1962-66, Ghanian state farms absorbed 90% of the country's agricultural development budget,[58] they performed miserably in comparison with small farms where yields of maize per acre and tons of food per worker were greater by a margin of 88 and 464 percent respectively.[59] As Killick so aptly declared "bearing in mind that the (Ghanian) State Farms Corporation had absorbed many of the Ministry of Agriculture's professional officers, that it had command over infinitely more capital assets and other modern imports than the peasants, and that it was receiving favourable treatment in the way of financial support, the allocation of import licences and the provision of technical assistance, it is little short of staggering that it should have achieved lower yields and smaller outputs per man".[60]

Essentially, state farms are inherently inefficient since they operate beyond the realm of commercial criteria. Managers lacking farming knowledge are frequently appointed on the basis of political considerations, while labourers who are paid fixed rates regardless of productivity, show little interest in increasing their work efforts or in accepting improved organizational procedures. In any case, work schedules are often externally determined with little or no regard for on site conditions. The farms are invariably highly mechanized, and for want of skilled tradesmen and spare parts, large quantitites of expensive equipment are unutilized.

A corollary of Third World government intervention in agriculture is the widespread practice of vesting state authorities with monopoly powers in the supply of farm inputs. As in other areas of

[56] See K. Good, "The Reproduction of Weakness in the State and Agriculture: Zambian Experience", *African Affairs*, Vol. 85 No. 339, April 1986, page 257.
[57] J.M. Cohen and N. Isaksson, "Food Production Strategy in Revolutionary Ethiopia", *World Development*, Vol. 16 No. 3, March, 1988, page 328.
[58] See R.H. Bates *op. cit.*, page 46.
[59] See T. Killick *op. cit.*, Table 8.2, page 193.
[60] *Ibid.*, page 194.

inappropriate state involvement, the impact on aggregate agricultural output has been negative. Indeed, empirical findings suggest that "countries which leave farm input supply to private and mixed ownership enterprises tend to have higher rates of agricultural growth".[61] Negative consequences emanate from the frequent practice of subsidizing input prices, particularly fertilizer. Since budget constraints limit the quantity of inputs available, supplies are rationed in favour of large firms where they are squandered. Aggravating the situation, delays by agencies in input procurement and untimely farm deliveries are not unusual.

Conclusion

The foregoing discussion has surveyed policies persued by Third World regimes that have been detrimental to agricultural progress. Not all such policies have been covered. Others, such as the ill considered promotion of gigantic dams focussing on large farms, are also relevant but more than enough evidence has already been assembled to illustrate the malefic effects of misguided state intervention. That is not to say that government intervention as such is intrinsically bad. Where regimes act to curb restrictive practices, and where they encourage private initiative by enhancing production incentive structures, they do indeed serve a useful purpose, particularly when such actions are complemented by prudent investments in social capital.

There are of course certain LDCs where government policies have been more or less exemplary. In Africa, Malawi is one such state. Its government "has permitted the adjustment of food prices, particularly maize to favour the interests of the rural producers",[62] and has ensured that rural areas obtain a significant share of public investments, which by making them more attractive areas in which to live, moderates the rate of rural to urban migration. As a result, between 1973 to 1983, Malawi's agricultural sector grew annually by roughly 6 percent. Further afield, in South Korea, the regime "dramatically

[61] K.M. Cleaver *op. cit.*, page 12.
[62] M. Glantz, "Drought and Hunger in Africa", Cambridge University Press, London, 1987, page 374.

raised produce prices in a conscious policy of transferring wealth from urban areas to the countryside".[63] Unfortunately, such regimes do not represent the norm whereby LDCs typically discriminate against their farmers even though they form a large proportion of their population and produce a large proportion of national income. By contrast, in advanced countries, where farmers are relatively few in number and account for a smaller share of GDP, agriculture is especially favoured. While there is no call for LDCs to replicate the wasteful agricultural subsidies that abound in advanced countries, there is a clear need to retreat from the opposite stance.

Sydney

LESLIE STEIN

[63] H. HANDELMAN *op. cit.*, page 11.