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# **Africa's Changing Agricultural Development Strategies: Past and Present Paradigms as a Guide to the Future**

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## *Foreword*

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This is the third paper in the Food, Agriculture, and the Environment Discussion Paper series, a product of IFPRI's 2020 Vision initiative, which seeks to develop an international consensus on how to meet future world food needs while reducing poverty and protecting the environment. In this paper, Christopher L. Delgado, of IFPRI's senior research staff, takes a critical look at the changing paradigms of agricultural development that have influenced agricultural policy in Africa since the colonial era.

The review shows how current approaches to meeting Africa's agricultural challenges to the year 2020 developed. It concludes that Africans have had relatively little input into the intellectual bases of strategies affecting their rural areas, a situation that must be changed if future strategies are to be effective in dealing with Africa's problems of development.

Despite a shifting search over many years for a magic wand to put the continent on the path to sustained agricultural development, the challenges for the year 2020 remain greater than ever. There may be an emerging consensus as to the true issues: how to raise rural productivity, how to lower astronomical transport costs, how to promote increased rural employment, how to reintegrate remote and difficult areas into national growth strategies, and how to ensure that future strategies and action are designed and implemented by Africans. Yet there is little evidence of an agreed vision of the best way to deal with these challenges, and some evidence that the lessons of earlier eras have not been fully incorporated into strategic thinking. The paper illustrates that it is vital for African governments and their foreign partners to invest heavily in the people and institutions of the region, which can ensure continuity in the formulation, implementation, and evaluation of fundamental development strategies.

Per Pinstrup-Andersen  
Director General

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**A** perennial academic debate inside and outside Sub-Saharan Africa (hereafter referred to as “Africa”<sup>1</sup>) is whether the collective experience of the region somehow sets it apart from the rest of the Third World: Is Africa different? Another perennial debate is whether it makes sense to refer to “Africa” at all, since the region is clearly heterogeneous in so many ways. Yet it is clear that the outside world, at least, tends to have fairly definite views about Africa as an entity, where it has been, and where it is going. African agriculture is no exception to the rule.

Similarly, there has been no shortage of recipes for promoting African development, including agriculture. Given the underlying diversity of the region, it is remarkable how similar the main lines of agricultural development strategy were in the countries of the region from just before the First World War until the late 1950s. While differences and debates existed, with few exceptions they did not fundamentally concern the importance of agricultural development, its purpose, and the main means of promoting it. All of this was to come, starting in the 1960s and taking off in the 1970s.

During the last 25 years, African policymakers have been bombarded with advice on agricultural development strategy, often conflicting, and often motivated by divergent theoretical views of how agricultural development works and its impact on overall economic welfare. A broad overview of the common experience of the region yields considerable insight into the origins and reasons behind today’s policy debates on agricultural development strategy. It also raises the question of whether these debates are converging in a way that is useful for guiding agricultural development strategy in any given country in Africa.

Agricultural development strategies correspond to what countries have tried to do to promote development objectives in agriculture. As used here, “paradigms” symbolize the underlying body of beliefs on how the process of agricultural develop-

ment works and how it can best be promoted; they are examples of how agricultural development is supposed to be done. The term correctly conveys the notion of a stylized ideal, rather than a pragmatic approach to achieving a set of objectives, more suitably conveyed by “strategy.”

This paper is not about the evolution of broader development ideology in Africa, which is a vast, fluid, and different topic. Since most African countries achieved independence in 1960, emphasis has shifted from faith in the State and foreign assistance as leading factors of the development process to increased emphasis on private initiative, human capital development, and the development of non-governmental institutions (Eicher 1992). The socialist planning models of the 1950s have also given way to market liberalization strategies. Furthermore, the equation between growth and development as objectives in the 1960s has shifted to a more general policy concern about the fate of the poor. Finally, the period since 1980, in particular, has seen considerable interaction and convergence among what Cornia and Helleiner (1994) have characterized as neoliberal monetarist, dependency, and structuralist positions on African economic development.

All of these approaches have been reflected in the evolution of agricultural development strategies over the 1960-94 period, which is hardly surprising for a sector that still accounts on average for 70 percent of employment, 40 percent of exports, and 33 percent of gross domestic product (Jaffee 1992). Therefore, this paper will look at the changing role ascribed to agriculture in overall development strategy from the standpoint of explaining changes in prevailing philosophies about how to promote agricultural development, and not from the standpoint of explaining changes in overall paradigms. Specifically the paper will avoid exploring in detail debates over the ends and means of economic development more generally.

Despite the diversity of Africa, it can be argued that there are key similarities across the countries of

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<sup>1</sup>For convenience, the term “Africa” is used for the region in this paper. It excludes the six countries of North Africa and the Republic of South Africa because these countries are felt to have had such a significantly different history of agricultural development from the rest of the continent that including them would obscure more than it would clarify.

the region that permit a schematic overview of agricultural development strategies. Each one of these is relevant to the experience of a large number of countries in the region at any one time over the past 35 years. By taking a broad-brush look at these development strategies, a clearer perspective on what has been tried and abandoned emerges, and the extent to which more recent strategies build on earlier principles. Furthermore, insights can be derived for major issues that have arisen in different ways in all agricultural development strategies in Africa, and those that should at least be addressed in discussion of future paths to follow.

In fact, major structural similarities among countries of Africa are probably unprecedented elsewhere and in other eras. What is unique is that people in so many different countries were jointly and thoroughly affected and within such a short historical time frame. Given these similarities, it is not surprising that agricultural development strategies in the region should have something in common, at least some of the time, nor that they should have changed over time.

## Similarities and Dominant Paradigms

Nine main similarities among African countries stand out for present purposes. First, virtually all of the countries in the Sub-Saharan region were subjected for at least 80 years to one form or another of European colonial rule, a fact that still affects development patterns today. Second, many of the countries of the region became independent at roughly the same time, during a short period at the start of the 1960s. Third, all but five countries of the region were subjected to explicit or implicit military rule during most of the first two decades of independence.

Fourth, African nations emerged during a highly polarized phase of human history—the Cold War. Fifth, the common influence of major shifts in world economic events—such as commodity booms, oil shocks, and foreign assistance—on developing countries as a group has been arguably greater in the historical period of Africa's emergence since the 1960s than was the case in earlier periods. Sixth, the common influence of demographic factors prevalent in many African countries tends to distinguish the region from other areas of the world, especially the very high rates of population growth.

Seventh, the African intelligentsia has until recently been largely educated in a relatively small number of non-African countries. Eighth, the same groups of expatriate thinkers have played a major

—possibly an inordinate—role by Third World standards in the intellectual elaboration of development strategies of many countries in the region. Ninth, a relatively small group of donor agencies has had a huge influence over the allocation of public goods investment of different countries. Such investment is the centerpiece of agricultural development strategies.

At least nine qualitatively different dominant paradigms for fostering agricultural and rural development have been widely observed at different times in Sub-Saharan Africa since the 1960s. They are presented in the flow chart in Figure 1 and discussed in detail below. The approximate time frame for the dominance of each paradigm and the intellectual links between them are sketched in Figure 1.

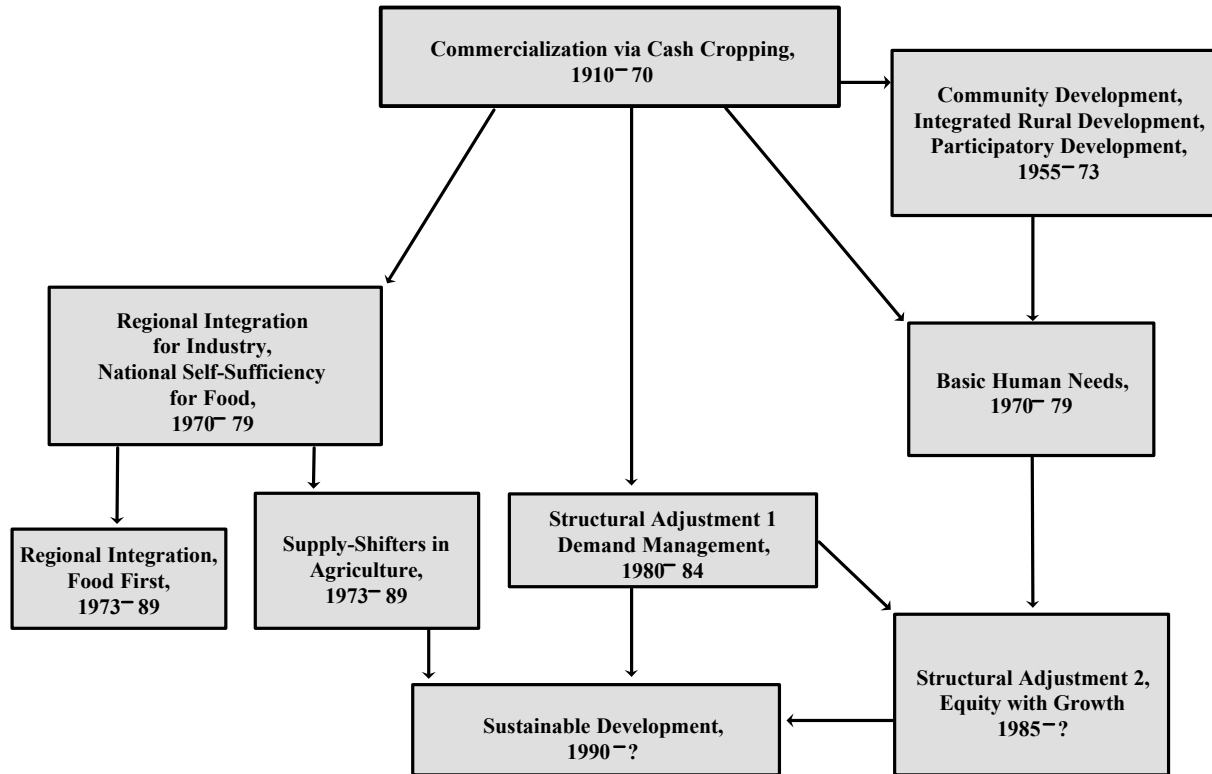
These paradigms have at least five characteristics in common. First, they developed in Africa in roughly chronological order since the late colonial period, yet considerable periods of chronological overlap between them can be observed. Second, it is probably incorrect to ascribe any of these paradigms to a specific geopolitical or intellectual interest, contrary to usual practice. Each of the paradigms has proponents on the political right and left, in universities and government ministries, and each has both African and non-African champions. The closest identification of a paradigm with an actor might be the role of the World Bank vis-à-vis the propagation of structural adjustment 1; however, it will be argued further on that such an equation obscures more than it clarifies about why this became a widespread paradigm in the early 1980s.

Overall, development ideologies in Africa may in some cases have had clear political affiliations, and the heavy role of external decisionmaking in the region over the review period suggests that these affiliations were in considerable measure influenced by global political differences. Yet, decisions to push food versus export crops over the past 35 years or to rely on large units of production versus small, for example, have had both adherents and detractors situated on the two sides of the main ideological divide. For present purposes, it is not particularly enlightening to attempt to relate changes in African agricultural development paradigms during the period to changing political situations in Africa.

A third characteristic of the paradigms is that both their nature and their common application across countries in Sub-Saharan Africa were largely the result of changes in world economic and political events. The rate of growth of world trade—or lack of it—says a great deal about the incentives for regional economic integration during different



**Figure 1—Dominant paradigms of agricultural development in Africa**



periods. The end of the Cold War has affected the finances, if not the beliefs, of those charged with elaborating strategies for agricultural development.

A fourth characteristic in common is that there exists a tension within each paradigm between the will to focus on a precise, well-defined, actionable instrument and the desire to offer a broad vision of how development occurs. This might be exemplified by the debate in the 1960s over the relative merits for cash crop promotion of commodity-specific instruments, such as marketing boards, and single-input instruments, such as fertilizer supply systems, on the one hand, vis-à-vis comprehensive approaches, such as a package approach that includes research, extension, input supply, and marketing, on the other (Lele 1975; Eicher and Baker 1992). Similar discussions within paradigms have been observed throughout the modern history of agricultural development in Africa. A current example would be the debate between those who wish to address overpopulation issues directly and immediately through birth control programs and those who put much greater emphasis on measures to raise rural demand for family planning measures.

A fifth characteristic in common is that the basic design and mode of implementation of all these paradigms come from outside Africa, even though each paradigm undoubtedly has had genuine African adherents. It is hard to think of other significant regions of the world in modern times where outside influences on basic development strategy issues have been so pervasive.

## **Chronology and Elements of the Dominant Paradigms of Agricultural Development**

### ***Commercialization via Cash Cropping***

This strategy of agricultural and overall rural development in Africa was started early in the colonial era, and it has been extensively documented by historians writing in both English and French (Crowder 1968; Suret-Canale 1977). Starting around 1910 in most areas, export cropping took off in earnest after the end of the Second World War, with the rapid expansion of cropped area per agricultural

worker following the expansion of cash cropping for export (Anthony et al. 1979). At the time, agricultural production was constrained primarily by lack of access to markets and services and seasonal labor bottlenecks in indigenous farming systems.

The commercialization-via-cash-cropping model was extremely effective in that comprehensive schemes narrowly focused on boosting the output of specific items were combined with “new” (in terms of the areas receiving them) seeds for plants with significantly different seasonal labor profiles than the traditional food crops. This permitted an expansion of production with existing resources, despite the existing seasonal labor bottlenecks. In this sense, the expansion of cash crops such as peanuts, cotton, and cocoa was as much a manifestation of technical change as one of commercialization (Delgado and Ranade 1987). The heyday of cash crop expansion continued throughout the 1960s. This period saw secular improvement in world commodity prices, fueled by the postwar expansion in world trade, until the first oil shock of 1973 (Lewis 1980). It was also a time when many African smallholders first obtained access to cropping opportunities previously reserved for colonial farmers (Heyer, Maitha, and Senga 1975).

The commercialization-via-cash-cropping paradigm was primarily a growth strategy, consistent with the then prevailing view that growth and development were synonymous and that the binding constraint on growth was foreign exchange. It was also consistent with the prevailing view at the time that the role of agriculture in economic development was as a source of resources for industrialization.

It probably is fair to say that it was ultimately the strong comparative advantage of cash crops vis-à-vis world markets, permitted by new access to those markets, that allowed barriers to their adoption to be overcome. For example, cash crops continued to be produced (at marginal economic return, perhaps) in West Africa at the end of the 1980s, when the terms of trade had fallen 60 percent against them relative to the beginning of the decade (Duncan 1993). This suggests that comparative advantage in earlier times must have been extremely strong. It may also explain why the role of the State in marketing and processing was not a big issue in the 1960s, since the surplus generated by the new export activities was so strong per unit of output relative to alternatives that a good dollop was left over for producers, even after marketing parastatals, rural notables, fiscal authorities, and domestic and foreign processors had taken large margins (Anthony et al. 1979; Delgado and Jammeh 1991).

Debates among analysts within the cash-cropping paradigm concerned how much emphasis to

give to large versus smallholder farms, diversification versus specialization, and farming systems research versus single-input or single-component research, such as crop breeding (Lele 1975; Eicher 1992; Eicher and Baker 1992). A common central tenet of the paradigm was the prime emphasis on the adaptation and extension from afar of (somewhat) known agricultural technologies in the form of cash crops. Cultivation of many of these crops was a new activity in many areas of Africa, involving a different seasonal pattern of labor use than the food crops that had dominated production systems until then. This permitted greater labor input per land area (Delgado and Ranade 1987). The growth spurt largely came from the way export cropping fit into indigenous farming systems, boosting aggregate production. This focus within the paradigm on technology transfer, technical assistance, and capital transfer from abroad was consistent with the broader development orthodoxy of the 1960s (Eicher 1992).

Perhaps unlike much of foreign assistance in a later era, it is arguable that technology transfer during the cash-cropping era gave African smallholders something they could use (Lele 1991). This naturally raised the question of what to do once the initial spurt from adaptations of imported varieties and technologies gave out. The question was raised: to what extent should further research be adaptive or basic? Farming systems research by itself as a prime mover of change was probably not a large component of strategies at this time (de Wilde 1967; Lele 1975, 1989a, 1989b). However, long-term farming systems research was clearly a key facilitator of cash crop development when other circumstances were favorable (Eicher and Baker 1992).

Naturally, there was considerable change in the broader paradigms of colonialism over the 1910 to 1960 period, when most African countries became independent. Yet the view of the desirable role of agriculture in economic development appears to have been remarkably stable over the colonial period after 1910, at least relative to the period since then. Yet a noticeable evolution began in the 1950s, with the move to independence and the example of Fabian socialism in the Third World provided by Indian economic strategies of the time (Holdcroft 1984).

### *Community Development*

The first use of the term “community development” to denote an official strategy for preparing the British colonies in Africa for independence has been established as occurring in 1948 (Holdcroft 1984). Later schemes with similar elements were called “participatory development” and eventually “integrated rural development.” The present paper rather

arbitrarily sets the start date for community development in Africa as halfway through the 1950s, when both the French and the British were beginning to arrive at a consensus on the need for decolonization.

Community development projects in the late 1950s and 1960s were attempts to provide non-revolutionary sources of change in rural areas, and were especially meant to keep rural people occupied in the countryside until economic growth could speed up enough outside agriculture to absorb new entrants to the labor force (Lele 1975; Staatz and Eicher 1984; Eicher and Baker 1992).

While there were differences of emphasis between various approaches to community development, the key elements with respect to agriculture were the same. They typically involved a package of rural social services and cottage-industry promotion, yet the financing of these services continued to come from the profits taxed from export cropping. As such, the agricultural development part of the community development paradigm continued to resemble the commercialization-via-cash-cropping paradigm, including the earlier emphasis on smallholders, and an emphasis on technical assistance, extension, and capital transfer (Eicher 1992). As an agricultural paradigm, community development had the added dimension relative to earlier cash cropping of emphasizing the quality of human labor input (such as schooling, skills, and health) in agricultural production strategies.

Community development activities in Africa were largely patterned after the programs developed in India in the 1950s (Holdcroft 1984; Staatz and Eicher 1984), and were run as projects. In the late 1960s and early 1970s, they evolved, along with growth-oriented cash-cropping packages, into integrated rural development schemes (de Wilde 1967; Lele 1975; Staatz and Eicher 1984). African integrated rural development projects of the period, while emphasizing broad social development, continued to look to cash cropping as the engine of growth, and tended to be concentrated in export-crop-growing areas. Gradually, in the early 1970s, the compatibility of the commercialization-via-cash-cropping paradigm with the social agenda of community development came to be criticized, marking the rise of a new paradigm with major consequences for agricultural strategies.

### ***Basic Human Needs***

Beyond the general concern with rural poverty in the community development paradigm in the 1950s and 1960s, the basic human needs (BHN) paradigm argued for a direct approach to meeting the basic needs of the poor as quickly as possible. “Basic”

needs were taken to include adequate nutrition, health, and access to education. The direct approach to meeting needs was in contrast to the “trickle-down” approach of the cash-cropping paradigm. The specifics of the philosophy of BHN are summed up in ILO (1977), Ghai and Radwan (1981), and Stewart (1985).

The rise of BHN was part of the broader refocusing of concern in development economics that has been called “the growth-with-equity era since 1970” (Eicher and Staatz 1984). The use of the term “basic human needs” to designate an approach to development strategy is usually attributed to five International Labour Office (ILO) country missions of the early 1970s, and most notably in the present context, the 1972 mission to Kenya (Eicher and Staatz 1984; ILO 1977). In Africa, the advent of the BHN paradigm was importantly linked with (1) the mushrooming of capital cities and an urban underclass due to the urban bias widely represented in policies of the 1970s; (2) declining terms of trade for

ties, combined with a commodity boom for those lucky enough to have access to coffee, tea, or cocoa land, which heightened rural inequality; (3) major drought in the early 1970s that focused the world’s attention on the extent of poverty and famine in the Sahel and Ethiopia; and (4) major expansion in development assistance flows to Africa in the 1970s, which financed most of the BHN interventions.

As policy, BHN was a statement of priorities for allocation of programmatic and public investment resources. It undoubtedly guided donor priorities in the 1970s, and it was reflected in African national priorities in particular through major national emphasis on food production for increased self-sufficiency (Eicher and Baker 1992). As a development paradigm, it argued that improving the welfare, education, technical knowledge, and active participation of all people—especially those at risk—will do more to increase both productive capacity and actual production than growth strategies that rely on economic linkages (trickle-down) for transmission of benefits. The literature of BHN tends to be eloquent on the need to have a proactive distributive policy under growth.

As an agricultural development paradigm, BHN gave smallholder agriculture priority, more for distributive reasons than for growth. Because trickle-down was rejected, effectively increasing the incomes of the poor meant targeting the poor, and in the 1970s these were primarily smallholder farmers. A secondary, growth-oriented rationale is also developed for targeting smallholders in the BHN literature in studies that show that smallholders are more efficient agricultural producers than large

estates (Stewart 1985). Food production is urged over export crop production, again because poverty alleviation is the allocation criterion and local food production is felt to target the poor more effectively than local cash crop incomes.

The BHN literature for Africa tends to be a bit vague as to where short- and medium-run sources of growth are likely to be found. There is a definite hint that it will come from outside smallholder agriculture, probably in small-scale manufacturing (Stewart 1985; Stewart, Lall, and Wangwe 1992; Stewart 1994). Furthermore, the links between proposed transfers to the poor and the means to finance them in the short and medium run tend to focus on redistributive policies, such as land reform, as opposed to economic linkages from public goods investment or other factors shifting the aggregate supply curve (Ghai and Radwan 1983; Stewart, Lall, and Wangwe 1992; Cornia, van der Hoeven, and Mkandawire 1992). Regarding production policies in rural areas, the BHN literature tends to focus on improving productivity of landless labor, particularly in the nonfarm informal sector. The problem of productivity increases for landowners is given less attention.

The debate between a broad and narrow focus within this paradigm primarily concerns what constitutes a “basic need.” This was somewhat a question of the extent of distribution policies, such as whether shelter and clothing should be in the package with clean water, food, and health services. More fundamentally, the issue was raised as to whether the right to employment should be guaranteed by policy. Recently, it has also included a right to free political expression and participation (Stewart 1985).

The political issue raised the complex question of how best to ensure that smallholders benefit from a policy environment that favors their production interests. Lack of legitimate local government in rural areas that can be held accountable by farm people was felt to be a widespread attribute of military-style governments in Africa in the 1970s. Reestablishment of local government was also felt to be critical to securing proagriculture policies and mobilizing resources in rural areas (Mellor, Delgado, and Blackie 1987). It is hard to judge the growth results of BHN policies as a rural development paradigm seen two decades later, since, as will be argued below, events outside agriculture were shaping agricultural outcomes in the 1970s. Yet the intellectual influence of BHN on development thinking toward Africa in the 1990s is undisputable.

### ***Regional Integration in Industry, National Self-Sufficiency in Food***

Concurrent with the BHN paradigm in the 1970s, overall economic strategy in Africa—as elsewhere—tended to emphasize industrialization (Aboyade 1976). Given the size of the market in most African countries, this started first as import substitution for a very limited range of consumer items such as beer, matches, and textiles. Even this substitution was dependent on regional market-sharing arrangements (Robson 1983; Guillaumont and Guillaumont 1988).

The orientation toward import-substituting industrialization became most significant for agricultural paradigms in the 1970s, when the easy stages of industrial import substitution were largely used up. This period coincided with a deceleration in the annual rate of growth in world trade from a post–World War II norm of 8 percent per year to 2 percent per year following the 1973 oil shock; under these conditions, proposals for regional economic integration through common external tariff protection have historically tended to enter into strategy debates (Lewis 1980). Africa was no exception. Furthermore, those African countries that had done best in cash cropping in the 1960s obtained relatively easy financing for urban investments due to prior cash crop success and heightened petrodollar lending in the international banking system. Incentives in those countries gradually shifted after 1973 from favoring agriculture to favoring urban manufactures (World Bank 1981; Gbetibouo and Delgado 1984; Oyejide 1986; Degefe 1994).

Although regional economic integration in the 1970s was not an agricultural development paradigm per se, it had two major effects on agriculture in Africa. These effects were so important that they should not be neglected in a survey of agricultural development paradigms, yet during the 1970s they were disguised by the commodity booms of the late 1970s, which helped maintain the relative profitability of export crops, at least temporarily, and facilitated food imports (Gbetibouo and Delgado 1984; Bigsten and Ndung’u 1992).

The first effect was a steady appreciation of the real exchange rate, due to the policy measures designed to support industrialization. This had the effect of discouraging export crop production (Oyejide 1986; Krueger, Schiff, and Valdés 1988). Second, regional economic integration affected the demand for food imports, both directly and indirectly. Overvalued exchange rates and swelling

cities directly encouraged rapidly rising food imports for urban areas. Indirectly, prices of non-tradable traditional foods (roots and tubers, millet, and so forth) increased relative to imported rice and wheat, as predicted by economic theory in cases of exchange overvaluation (Delgado and Miller 1985; Delgado 1992).

At the same time, the world environment was also conducive to a greater focus on food production. Policy thinking was influenced by two events in particular: the 1974 drought and famine in the Sahel and Ethiopia and the 1975 world price spike for rice following the 1973 oil shock. These events, combined with rising relative prices for traditional food staples, caused increased concern about African domestic food production in the 1970s.

The policy response focused on boosting African food production and creating parastatal marketing organizations to feed the city populations (Eicher and Baker 1992). During the 1970s, policy literature often denounced the research “neglect” of food crops during the cash cropping era and emphasized agricultural research and extension for both traditional nontraded foods and for rice. In West Africa, major investments were made during this period in dams for irrigated rice production. Farming systems research, with a particular emphasis on traditional food crops, became more important. Increasingly, references to “agricultural” strategy referred in fact to “food production” strategy. “Food” was considered strategic both because it was the most “basic” of needs and because food prices were politically sensitive in the cities; it was becoming harder and harder to keep the lid on prices. During this period, support for the principle of giving priority to smallholder food production systems in Africa spanned the ideological spectrum from neoclassical liberals to neo-Marxist dependency theorists.

A major debate of the period that crossed ideological lines, and that is reappearing today, concerns how much emphasis to give in food production strategy to replication of the Asian seed-fertilizer revolution for smallholders in the irrigable zones versus improving production in the better rainfed areas and in the low potential areas (Eicher 1982; Mellor, Delgado, and Blackie 1987; Otsuka and Delgado 1994). In any event, in the period from 1975 to 1985, irrigated agriculture got the lion’s share of public investment for agricultural production in several regions of Africa (World Bank 1989).

### ***Structural Adjustment 1 Demand Management***

Export agriculture and emphasis on indirect economic mechanisms (“trickle-down” to the uncon-

vinced) reentered the limelight of the strategy debate with the inauguration of Structural Adjustment Program (SAP) lending by the World Bank in 1979 (World Bank 1981). The early years of SAP—to roughly 1984—were qualitatively very different from SAP since then (Husain 1994), especially with respect to agricultural development paradigms; thus the two periods are dealt with separately here. The earlier period can be termed the “demand management” or “stabilization” era, or SA 1 for short.

The early phase of structural adjustment (SA 1) has been characterized as reflecting broader intellectual trends of the period, amounting to no less than “a break-up of the neo-Keynesian consensus, and a revival of the neoclassical approach to policymaking” (Demery 1994, 29). In any event, SA 1 had a radical effect on African development strategizing in general and on agricultural policy in particular; all major paradigms since SA 1 are in truth post-SA 1. Therefore, this paper will deal with the period since 1984, or SA 2, in a later section, after exploring other paradigms spawned as alternatives to SA 1.

SA 1 was a reaction to the events of the 1970s, most particularly to unsustainable budget deficits and foreign exchange shortages. The strategy underlying SA 1 was based on the premise that the emerging agricultural and overall development problems were the result of artificially distorted price incentives. SA 1 therefore focused on measures to promote macroeconomic balance through aggregate demand management (Husain 1994). Economic adjustment required shifting incentives from net consumers of tradables (civil servants, workers in protected manufacturing industries, service providers, and so forth) to net producers of tradables. The latter overwhelmingly were smallholder farmers producing agricultural exportables. Unfortunately, corrections needed to occur just when the external terms of trade for Africa’s agricultural exports were falling rapidly.

The SA 1 paradigm was essentially based on four actions: (1) freeing up the nominal exchange rate, to permit it to move in reaction to supply and demand pressures on foreign exchange reserves, which meant substantial devaluation in most cases; (2) moving toward unification of tariffs, with the objective of unifying effective exchange rates faced by different sectors; (3) undertaking fiscal austerity, thus preventing rapidly rising wages from reclaiming any reduction in net consumption of tradables to be had from devaluation; and (4) liberalizing markets, to ensure that increased foreign exchange earnings from export crops would make their way back to farmers and not go to reimburse the debts of parastatals (World Bank 1981). Like all statements

of strategy in large organizations, SA 1 was hotly debated within as well as outside the World Bank at the time. Nevertheless, SA 1 was further elaborated without a major change of focus—albeit more diplomatically and with increased recognition of the donors’ role in producing the distortions in the first place—in two subsequent World Bank publications (1984, 1986).

Unlike the paradigms of the 1970s, the early SAP presented a clear, internally consistent, theoretically based, and—in theory, at least—simple strategy for promoting agriculture, which could be implemented by policy reforms (as opposed to expensive investments). But as an agricultural paradigm, it was essentially passive: it said what not to do. The proactive policy content primarily concerned events outside the agricultural sector per se, and it only peripherally addressed nonprice policy issues within agriculture.

The SA 1 paradigm was not simply a creation of the World Bank or of Elliot Berg, the principal author of the landmark 1981 report (World Bank 1981). In fact, it was motivated in large part by the concerns of African ministers of finance, who had to produce the foreign exchange to meet the burgeoning demands of other ministries. One of the earliest structural adjustment loans was in Senegal, where in 1979 the government approached the World Bank on this matter, and not the other way around, following a disastrous peanut crop in 1978 that added to imbalances already in place (Delgado and Jammeh 1991).

Yet this simple, clear, painful strategy of tremendous scope with limited principles of action had many critics inside and outside of Africa. Consideration here is limited to the debate over agricultural strategy. The Economic Commission for Africa (ECA) and the African Development Bank (AfDB) joined forces to denounce the 1981 report and to emphasize an alternative plan called the Lagos Plan of Action (Browne and Cummings 1984; Adedeji and Shaw 1985; Shaw 1985; Ravenhill 1986). With regard to agricultural strategy, both the Lagos Plan and the ECA/AfDB critique of the 1981 Bank report were essentially pessimistic about whether aggregate supply response in African agriculture would be adequate to improve agriculture’s terms of trade. They distrusted the idea that the private sector and farmers would respond to prices and the freedom of maneuver. They also disliked the emphasis on export agriculture, which smacked of the colonial period to the detriment of the food self-sufficiency objectives of the 1970s. They saw the real exchange rate analysis argument as a way to reduce Africa’s role in its own affairs, by reducing African industrial output. Counterarguments to the 1981 report were hampered by the lack of any concrete alterna-

tive proposals to deal with agricultural problems facing governments at the time (Mureithi 1985).

But the early proponents of SA 1 were also hampered by the same problem—lack of concrete proposals. In its original formulation as a passive demand management strategy, SA 1 insisted on acceptance of broad principles for economic reform and elaboration by host governments of a realistic action plan for implementation, as a condition for loans. Thus governments were expected to come up with consistent and specific national and sectoral strategies to implement the broad principles.

By the mid-1980s, it was increasingly apparent in Africa that such strategies were not being developed. In part, this was probably due to a political impasse in many countries, since the agricultural policies of the 1970s were driven by vested interests (Bates 1981), and these same interests still predominated in policymaking. In part, it was due to inadequacies in the resources and institutions of government and governance to elaborate such strategies.

Faced with a lack of clear, realistic, politically legitimate expressions of agricultural strategy in most African countries, technical people in donor agencies and government ministries set out in the mid-1980s to design technical strategies for promoting agricultural growth (Delgado and Jammeh 1991). The result was three different paradigms that were all developed in the mid-to-late 1980s. The first paradigm sought to provide an alternative to structural adjustment, whereas the other two sought to change it from a passive to a proactive strategy, particularly for the agricultural sector. The paradigms will be examined in turn.

### *Supply-Shifters in Agriculture*

A paradigm to reemerge in the 1980s in reaction to the early SA 1 paradigm for agriculture can be loosely termed “supply-shifters,” in reference to an earlier terminology concerning those nonprice factors that shift agricultural production functions upward, leading to more output for the same inputs.

The roots of the supply-shifters paradigm in Africa were well established in the 1960s and 1970s in some parts of the region. Seed-fertilizer innovations for radically boosting maize production were in fact applied in the 1950s in parts of eastern and southern Africa (Rukuni and Eicher 1994). Yet it came into its own as an agricultural development paradigm in Africa at the beginning of the 1980s. This is because of the obvious success by then—and attempts to extend it to Africa—of the Asian Green Revolution approach to boosting smallholder production of rice and wheat in the 1960s and 1970s. It is also because its emphasis on boosting food

production fit in well with the dominant paradigms in the 1970s, particularly integrated rural development and BHN.

By 1980, however, the emphasis of supply-shifters on using public goods investment in roads, research and extension systems, fertilizer supply systems, and water control as entry points to agricultural development put it in conflict with SA 1, which emphasized price incentives and withdrawal of input subsidies. Supply-shifters became an alternative agricultural development paradigm, one that emphasized that price reforms were necessary but not sufficient for sustained and rapid productivity growth in African agriculture (Delgado and Mellor 1984). Although it was similar to the much older commercialization-via-cash-cropping paradigm without the export crops, the supply-shifters paradigm also incorporated the insistence of SA 1 on the necessity of macroeconomic and trade regime reforms and the liberalization of agricultural input and output markets. Unlike the cash cropping paradigm of the 1960s and like the paradigms of the 1970s, it focused on increasing food production.

Thus, the paradigm differs from the early SA 1 primarily in the emphasis it gives to the food side of the agricultural sector, and within that to public investment in research, extension, and infrastructure to support production. Inflows of private productive resources to agriculture were thought to depend as much on the right types of public investment in the sector as on relative prices, under conditions found in most African countries (Eicher 1982; Delgado and Mellor 1984; FAO 1986; Mellor, Delgado, and Blackie 1987; Lele 1989a, 1989b, 1991; Rukuni and Eicher 1994).

Although the early manifestations of the supply-shifter paradigm in Africa focused heavily on technical assistance, resource transfers, and technology transfer (the latter from Asia), much like the dominant overall development paradigm of the 1960s, it evolved over the 1980s to place much greater emphasis on institutional and human capital capacity building (Eicher 1994).

As in the earlier cash-cropping paradigm, a debate exists within the supply-shifter paradigm over whether to focus on a small number of priorities before moving forward or to pursue a more comprehensive approach to public investment in agriculture. Should policy focus only on getting the rate of growth of fertilizer up before turning to the next problem, or is a more comprehensive strategy necessary and feasible? Similarly, should the priority be irrigation systems or skilled people?

Another key debate under the supply-shifter paradigm, which shows its contemporaneous existence with REI 2, concerned whether public policy

should subsidize food production in the early stages, as the Asian Green Revolution countries did, or laissez-faire should prevail. The question was posed whether Africa can feasibly return to the model of the 1970s, where more than four-fifths of the investable public resources for agriculture were devoted to the less than 5 percent of land that is irrigable. Finally and relatedly, while there was broad agreement on how to increase production in the higher potential areas such as the better maize lands of Zimbabwe or the cotton lands of Mali, there was disagreement over what to do in the drier and more marginal areas.

The supply-shifters paradigm continues to receive support from agricultural production scientists and is still the dominant development paradigm for agriculture in much of the world outside Africa. Yet it is probably correct to say that external donor agencies, which finance so much of investment in agricultural public goods in Africa, have moved away from this paradigm because of concerns about poverty and—more recently—sustainability issues. A key distinction, to be explored later, lies in the difference between those who take a laissez-faire approach to promoting cuts in unit costs of agricultural production while proactively pursuing poverty and environmental objectives and those who retain the need for a proactive approach to boosting agricultural productivity, while pursuing other goals.

The hardships of the 1980s in rural areas, brought about by the unhappy combination of a need for policy reforms based on austerity, low world commodity prices, and rapid population growth, have already moved the focus of attention to a third paradigm to arise out of the early SA 1. This is the real concern that the human cost of ignoring the impact of adjustment strategy on the rural poor may be too high. This third paradigm incorporates many of the actors and ideas of the BHN paradigm.

### ***Regional Integration 2, with Food First***

World agricultural prices declined precipitously in the mid-1980s, largely due to the spin-off effects of increased agricultural subsidies in the United States and the European Community. Food imports to Africa were still rising, due to the continuance of overvalued exchange rates in some countries, growing urbanization, growing population, and the effects of the 1984 drought. In this general context, ideas that had been important parts of the previous regional integration for industry and national food self-sufficiency (REI 1) paradigm were brought together into a new paradigm for agriculture offered as an alternative to the agricultural parts of SAP.

Broadly, this paradigm could be called regional integration with food first (REI 2); it was an attempt

to extend to food the sorts of arguments used to protect industry in the REI 1 paradigm. A French proposal for a common tariff barrier against rice in Francophone West Africa was exhaustively discussed in West African and donor policy circles between 1986 and 1989 (Club du Sahel and CILSS 1986; Requier-Desjardins 1989; France 1990; Hugon, Coussy, and Sudrie 1991).

Although food self-sufficiency for food security is a weathered topic in African debates, the explicit linking of it to regional protection arrangements as a paradigm for growth was novel. The issue of regional stocks for food security had been proposed in the Sahel in the 1970s and in the Southern African Development Coordination Conference (SADCC) in the early 1980s; both were shown to be very costly (McIntire 1981; Koester 1986). The key policy prescription of this paradigm involved differential protection for food to raise domestic food prices relative to other prices in the protected areas. Like all regional integration, the costs and benefits would be borne unequally. The paradigm also tended, like earlier regional integration paradigms, to equate “agriculture” with “food,” which was taken to mean “cereals,” which were taken to be good substitutes for “imported cereals.”

The REI 2 strategy was founded in a vague way on the belief that a West African Common Agricultural Policy to protect cereals patterned after cereals policies in the European Community would provide the basis for a renaissance of peasant agriculture in West Africa. No account was taken of the enormous difference in feasibility between 95 percent of a wealthy population supporting 5 percent through price transfers and 25 percent of a poor population supporting 75 percent. There was no real consideration in the proposal for a protected space for rice in West Africa of the impact on fiscal balances of implementing such a scheme. There was also no analysis of the impact of such a proposal on labor costs, the incentives for tradables production, or the effects on welfare of relative price rises for food (Delgado 1991). In any event, West African governments declined to implement the strategy, despite considerable prodding from some donors.

It is interesting to note in this context that Nigeria adopted a strong protectionist policy for food, using nontariff barriers, when adopting SA 1 for other sectors in 1986. Anecdotal evidence from Nigeria since then suggests that this may have been a strong contributing factor to the inability of the government to implement SA 1's prescription for a fall in the real exchange rate (Delgado 1992). If so, it illustrates the incompatibility of SA 1 reforms with food protectionist strategies in countries where a high share of the population is engaged in farming.

### ***Structural Adjustment 2 Equity with Growth***

Declining real world prices for Africa's agricultural exports, drought, and declining per capita real incomes in African rural areas led to severe concern about what was happening to the poor in a time of macroeconomic retrenchment. A landmark report sponsored by UNICEF assessed the serious food security and social effects of demand contraction in adjusting countries; its argument against the pure version of SA 1 as a paradigm for development is summed up in its title: *Adjustment with a Human Face: Protecting the Vulnerable and Promoting Growth* (Cornia, Jolly, and Stewart 1987). The basic tenet, reinforced in subsequent literature, is that the poor are the end and not the means of growth; redistribution can be justified, even if it lowers aggregate production in the short run (Cornia, van der Hoeven, and Mkandawire 1992; Stewart, Lall, and Wangwe 1992).

The broader paradigm that arose as part of these concerns is labeled here as “Structural Adjustment 2—Equity with Growth.” It starts from the premise that basic macroeconomic adjustment of the early SA 1 type is necessary. It questions whether adjustment can take place at all without a proactive effort to involve the poor in growth. As Helleiner (1994a) points out, even though these concerns started out as an alternative paradigm under BHN their widespread acceptance by many key actors, including the World Bank, suggests an emerging new consensus. The mainstream elements of this consensus are labeled “SA 2” to emphasize its evolution from the structural adjustment paradigm of the early 1980s. Since the lead sector for SA 1 was export agriculture and most poverty is found in rural areas, SA 2 can be seen as an agricultural development paradigm as well as an overall paradigm.

The SA 2 paradigm focuses on three classes of action. First, there is a need to know what are the direct effects of adjustment on the poor, and what can be done to alleviate these effects directly, for example, by slowing down the adjustment process or putting greater emphasis on supply increase rather than demand contraction. Second, opportunities in the economy for rent extraction from the poor should be removed, supporting the emphasis in structural adjustment programs on market liberalization. Third, proactive policies that help generate income for the poor should be emphasized, even where these have a small cost in overall efficiency (Pinstrup-Andersen 1989; von Braun 1991; Duncan and Howell 1991; Cornia and Helleiner 1994).

The primary debate within this paradigm is the division between those who see poverty alleviation and structural adjustment as complementary strategies—or as being at least neutral to each other



in the long run—and those who claim that there are major contradictions between structural adjustment policies of the SA 1 type and long-run poverty alleviation objectives. Many mainstream proponents of SA 2 agree with the need for direct targeting of the poor, while they do not challenge the current course of stabilization policy. Within the World Bank, a new emphasis has been placed on social safety nets, in the form of both inquiry into “the social dimensions of adjustment” and supplementary project activity to mitigate the effects on the poorest sectors (Kanbur 1990; Alderman 1991).

Yet even some otherwise mainstream authors question whether the effects on the poor of adjustments of the magnitude that Africa is making can be handled by add-on social programs, as opposed to a modification of adjustment strategy itself (Pinstrup-Andersen 1989; von Braun 1991). More strongly, some writers associated with the earlier BHN paradigm have claimed that structural adjustment policies in fact move economies away from long-run paths of growth and poverty alleviation, while admitting that some form of macro balance is necessary. Stewart (1994), for example, sees conflicts between short-run adjustment policies and long-run development objectives in four areas that are especially critical to agriculture as well as being relevant to the rest of the economy: cuts in public expenditure, a decline in investment, “indiscriminate” import liberalization, and encouragement of primary exports. According to this view, a fundamental overhaul of adjustment policies is needed, including placing priority on creating incentives for increased manufactured exports.

Whereas the cash-cropping and SA 1 paradigms tended to see agricultural exports as the primary engine of growth in Africa, paradigms since the mid-1980s have often been indifferent, sometimes even hostile, to agricultural exports as a means of development. More recently still, growth strategies based on shifting supply curves for agricultural tradables are making a comeback. In part, this is due to recent improvements in agricultural commodity prices; in part, it is because of growing awareness of the potential for household spending from increased smallholder-produced agricultural exports to stimulate demand-constrained rural sectors.

A current agricultural extension of SA 2 as a development paradigm incorporates much of the supply-shifters emphasis on public investment in research, extension, institutions, and infrastructure to continually cut unit costs of agricultural production. It also emphasizes the potential for labor-intensive growth in rural areas, where most of the poor are still concentrated (Mureithi 1985; Haggblade, Hazell, and Brown 1987; Delgado et al.

1994). The evolution of the paradigm into a focus on the factor-market implications of agricultural development draws on an older literature in both Asia and Africa that emphasized the intersectoral linkages between agricultural development and non-farm rural employment. It builds on the premise that labor is available in rural areas that can be more fully employed at a somewhat constant price, even if the labor is largely found outside bottleneck periods.

The paradigm targets the need to specifically increase demand in rural areas for the things that the rural poor can produce but that at present lack a local market, due to lack of local purchasing power and high transport costs out of the local region. The trick then is to find a sustainable way to broadly increase incomes in rural areas in order to provide demand stimulus. Key debates that are ongoing with varying degrees of optimism concern (1) potential sources of sustained rural income growth to provide the initial purchasing power in rural areas; (2) whether the things that rural people buy when their incomes increase are likely to be imported or made locally, and (3) the extent to which local production is likely to respond to price incentives (Haggblade, Hammer, and Hazell 1987; Bagachwa and Stewart 1992; Delgado et al. 1994).

Even as the initial emphasis on demand management in SA 1 led to three separate paradigms of agricultural development in Africa, the elements of a fourth, largely different paradigm began to be forged out of interaction of two strategic concerns in the post-structural adjustment era: participation and natural resource conservation.

### ***Sustainable Development***

Like the previous paradigms in their heyday, the present one—sustainable development—enjoys strong donor support for an identifiable set of actions consistent with the major tenets of the paradigm. Unlike previous paradigms at comparable periods of donor and host government acceptance, there is considerable disagreement as to the appropriate conceptual framework for justifying those actions as a strategy for agricultural development. As such, sustainable development is not quite the same kind of paradigm as the previous ones were. It is more akin to a map pointing to where one wants to go, based primarily on a view of where one does not want to go. Nevertheless, paradigm-like elements are beginning to emerge that have gained widespread acceptance, at least outside of Africa.

First, sustainable development is post-SA 1, in the sense that the need to observe the main SA 1 tenets of policy reform is not contested. However, it places great emphasis on the widespread degrada-

tion of the agricultural resource base in Africa and the relationship of such degradation to externalities. The latter, such as the issues bound up with property rights and degradation of common land, show conflicts between a laissez-faire approach to market reform and sustainable development (Timberlake 1985).

The potential for conflicts between environmental and equity concerns is also raised with SA 2, since there may be short-run trade-offs between natural resource degradation and human survival, especially in the poorer areas. Much of the current work on developing the natural resource conservation side of the paradigm is directed to finding paths that reconcile natural resource conservation for future generations with immediate poverty alleviation goals. In particular, it focuses on the very different sets of issues posed in rainfed areas of low agricultural potential and those posed in higher-potential areas that are more easily intensified.

The second pillar of sustainable development is also a reaction to—or more correctly, a consequence of—structural adjustment. That is, as the State withdraws from organizing rural economic life, a vacuum is left that is not fully filled by the “private sector,” as it is generally conceived. In reality, many rural production activities, particularly new ones, require some form of organization not found in traditional societies, and individual merchants and joint stock companies are only two of the possibilities. There is, once again, tremendous interest in local organizations, grassroot organizations, and other forms of participatory mobilization of rural people.

This interest has led to a new conceptualization of how the process of forming nongovernmental organizations contributes to the agricultural (and nonagricultural) development process, based on the “new institutional economics” (de Janvry, Sadoulet, and Thorbecke 1993; Nugent 1993). From the standpoint of the paradigm, the key to decreasing the huge transaction costs that characterize rural (and other) trade in Africa lies in support of the formation of these organizations.

This paradigm began to emerge at a time when the end of the Cold War occasioned less emphasis in donor circles on winning allegiances and more on securing compliance with what is felt by donors to be in the general interest of the development community. The emergence of the paradigm also corresponds to a period of relatively low world prices for agricultural commodities. This is perhaps reflected in the low priority given to increasing agricultural production in the donor countries at the present time, quite independent of whether African countries are likely to have the future import capacity to meet food needs (Pinstrup-Andersen 1994). At the same time, the

opening to the outside world of the former socialist countries has allowed everyone to see what can happen when environmental considerations are ignored.

One can trace the evolution and variety of strategic thinking about African agriculture in the donor community through the publications of the World Bank, still the most articulate and strategy-oriented of donor agencies. (See in particular World Bank 1989; Cleaver 1993; Hoff, Braverman, and Stiglitz 1993; Cleaver and Schreiber 1994; and Crosson and Anderson forthcoming.) The first two references emphasize the value of agriculture to growth and equity, while the third contributes importantly to the policy-oriented academic literature on the primacy of institutional and organizational development in promoting rural areas in the Third World, particularly agriculture. The fourth argues that agricultural growth is the essential element of a strategy to handle population growth and preserve the environment. The fifth builds the case for human capital formation in rural areas as the key policy entry point to get agricultural growth moving on a sustainable basis. Evidence that the sheer scope of priorities held by donors at the present time is not limited to the Bank is to be found in CIDA 1993, which is a compendium of donor agency views on African agriculture in the 1990s, and in UNDP 1993, which broadly emphasizes the participatory mode of rural development.

The main elements of the widespread interest in sustainable development that could properly be considered an emerging paradigm are that rapid population growth, agricultural income stagnation, and environmental degradation of rural areas are part of a “nexus” (Cleaver and Schreiber 1994). The three go together, and solutions to any one of them will involve solutions to the other two as either a consequence or a cause. The main policy instruments offered are ensured access for rural women to education, health, and agricultural production services; improved property rights, including land tenure and pricing of common pool resources; and increased attention to urban development to provide an outlet for rural labor. In all cases, support of nongovernmental forms of organization in rural areas is seen as vital to achieving lasting results in these areas. Beyond participatory institutions, institutional development on the research and extension side is emerging as the entry point to boosting total factor productivity in agriculture, going beyond the earlier concentration on seed-fertilizer issues.

Since income generation in rural households is central to handling environmental and population problems under this paradigm, the question arises as to how to go about achieving this growth. Few

proponents of the paradigm would take the more neutral approach of the early SA 1 and wait for policy reform, population density, and infrastructure development to induce growth. Most would also take a more proactive stand, as in the supply-shifters paradigm, with increased emphasis on institution building and rural human capital formation (Lele and Stone 1989; Cleaver 1993; Cleaver and Schreiber 1994; Crosson and Anderson forthcoming).

Thus, as the paradigm evolves, greater emphasis is being put once again on agricultural research, human capital formation, and investment policies. However, the objective also includes increased agricultural output and resource conservation. The former would come not only from adding inputs, but particularly from higher-quality labor input. Such a proactive or policy-led approach would target opportunities for “sustainable intensification,” including rainfed areas.

Controversies continue, however. The propriety (for outsiders, at least) of various instruments to promote democracy and participation is not broadly agreed upon, even if many people think that the end result may justify the means. On the technical side, a debate is going on regarding the relative merits of interventions to supply environmental and population services directly (much like the basic human needs approach of old) and, preferably, of ways to increase the demand of rural people in Africa for environmental and family planning services. Since stimulating this demand largely involves finding ways to provide sustained income increases to rural households, this wing of the paradigm overlaps to some degree with the strands of thought in the equity-with-growth paradigm, at least on the policies recommended.

## **Insights for Future Paradigms of African Agricultural Development**

The main lesson of history represented in Figure 1 is probably that every paradigm has its day, and then the world moves on. There is no fundamental reason to suppose that the current paradigms shown at the bottom of the figure will be any different. Yet the lines between boxes in Figure 1 also represent the real intellectual heritage of the later paradigms vis-à-vis the earlier ones; it is hoped that the lessons of present experience will persevere in the future.

Table 1 illustrates three other broad trends in strategizing for African agriculture. First, the view of what agriculture’s main contribution to the overall development process should be has shifted quite a bit since 1960. Second, growth has been a major objective in every period except the 1970s, when agriculture’s primary function in development para-

digms was to alleviate poverty. Paradoxically, the 1970s were a period when development strategies were particularly discriminatory against agriculture. Third, agriculture’s tasks in development strategy have increased in the last decade, raising questions as to the realism of what is being asked of the sector.

### ***Evolution of the Paradigms toward an Emerging Consensus***

The commercialization-via-cash-cropping paradigm that reigned throughout the 1960s in Africa placed the greatest emphasis on raising agricultural productivity in areas of comparative advantage. The actions undertaken arguably did more than most strategies since then to build rural infrastructure, lower rural transfer costs, and improve household incomes and food security. One downside was that it favored those zones with the most favorable agricultural resources, and it had less to offer the lower-potential zones. Another was that, as a strategy, it was immune neither to domestic urban bias in the 1970s nor to the meltdown of world commodity prices in the 1980s. The question arises as to what this strategy could again offer if both these problems were remedied in the 1990s. The community development paradigm did not fundamentally challenge cash cropping as the main engine of growth, but gave birth to institutions that could not be financially sustained when community services were added to the cash cropping model in a top-down fashion.

The basic human needs paradigm arose in reaction to the perceived effect on equity of cash cropping (or at least to the perceived lack of progress in eliminating poverty), and in frustration with the results of community development. However, unlike the community development era, the real action on the growth strategy side during the BHN era was in import-substituting industrialization, which largely doomed the BHN objective of boosting food production. Agriculture’s role in the growth process was primarily as a passive supplier of food and capital for activities outside of the agricultural sector. As in the previous paradigm, development strategy sought to make rural areas more attractive to live in, while the main focus of attention was preparing the cities to receive migrants from the countryside.

Regardless of how well BHN policies might have functioned in rural areas, they probably did not stand a chance as a successful growth paradigm under these conditions. There was little in the way of mechanisms to stimulate sustained increases in agricultural productivity, beyond one-shot redistri-

**Table 1 Primary objectives of agricultural development in Africa under the dominant paradigms**

Paradigm	Growth	Equity	Conservation	Industrialization
Commercialization via cash cropping, 1910–70	Yes	...	...	Yes
Community development, integrated rural development, participatory development, 1955–73	Yes	Yes	...	Yes
Basic human needs, 1970–79	...	Yes	...	...
Regional integration in industry (REI 1), national self-sufficiency in food, 1970–79	...	Yes	...	Yes
Structural adjustment 1—demand management (SA 1), 1980–84	Yes	...	...	...
Supply-shifters in agriculture, 1973–89	Yes	...	...	...
Regional integration, food first (REI 2), 1985–89	Yes	Yes	...	...
Structural adjustment 2—equity with growth (SA 2), 1985–?	Yes	Yes	...	Yes
Sustainable development, 1990–?	Yes	Yes	Yes	...

butions of assets or broadening of access to services. In this sense, the BHN paradigm of the 1970s applied to rural areas was perhaps more an equity-oriented complement to a nonagricultural growth strategy than an agricultural strategy itself. Nevertheless, BHN did put great emphasis on fundamental development, through improvement of the human condition in rural areas, and in this respect it laid a foundation for future growth.

During the first half of the 1980s, the agricultural strategy agenda was preoccupied with finding a way to cope with the overarching need for adjustment, which arose in no small part from the discrimination against agriculture in the dominant overall development paradigms of the 1970s, such as REI 1 and even BHN. These paradigms continued to view agriculture's role as a resource pool, like the cash-croppers. However, unlike the cash-croppers, they neglected to provide incentives to the agricultural production activities that laid the golden egg. The main point of the SA 1 paradigm—that events outside agriculture can have a determinant role on what happens inside it—is now part of the received wisdom of current and future paradigms. Much of the debate in the early 1980s was over how to imple-

ment adjustment itself, without much insight coming to the fore.

During the second half of the 1980s, all the actors—including the World Bank—in effect became post-SA 1, in the sense that few seriously debated the need for some major adjustments, but most also saw the need to go beyond stabilization policies. Along with renewed attention to nonprice factors in countries at early stages of economic development, economists have become more conscious since SA 1 of the importance of addressing the extremely high transport costs in rural Africa as a precondition for growth. Furthermore, there is a wider view now, not evident in the original SA 1, that liberalization policies will not address these needs in full.

Driven by the feeling that something important for agriculture was being lost in the SA 1 debates, and drawing on the 1970s preoccupation with boosting food production, some analysts continued work throughout the 1980s under what has been characterized as the supply-shifters in agriculture paradigm. This was a continuation of the cash-cropping emphasis on raising agricultural productivity through public investment in research, extension,

infrastructure, and input supply systems, but it was applied to food and inspired by the Green Revolution in Asia and Latin America. Like its intellectual precursors, it did not offer much assistance to the lower-potential areas, which are particularly numerous in Africa. While it had the advantage of strong support from the agricultural science community and some visible success stories, like seed-fertilizer technologies elsewhere in the Third World, the supply-shifters paradigm in Africa also had to deal with equity and environmental-based challenges.

The early concerns of both the cash-croppers and the supply-shifters have persisted to become a major issue for the future: that is, technological change in agriculture that cuts unit costs of production must once again become a rural development priority in Africa. It is hard to see where Africa will get the food necessary to feed its population in 25 years otherwise. It is even harder to see where rural people will get the income to buy food if their incomes do not rise. This requires a dynamic agriculture to stimulate both agricultural income and nonfarm activities induced by the purchasing power of agricultural income.

During the 1990s, those paradigms concerned with equity-oriented strategies in agriculture have made a comeback, with more stress this time on regional and intrahousehold equity issues. Unlike the BHN adherents of the 1970s, supporters of today's paradigms are also confronted with the need to address environmental and population issues at the same time. When these problems are added to the underlying issue of how to increase agricultural productivity—the comparatively simple problem facing the cash-croppers of old in higher-potential areas—quite a series of challenges lie ahead.

The focus of the determinants of total factor productivity growth in agriculture, as opposed to single-input productivity, has led to an emerging consensus among those primarily concerned with natural resource issues and those primarily concerned with agricultural productivity. They have reached agreement on the importance of improving the quality of decisionmaking on the farm and the necessity of institutional innovations to achieve that objective (de Janvry, Sadoulet, and Thorbecke 1993; UNDP 1993; Crosson and Anderson forthcoming).

More broadly, Helleiner (1994a) has eloquently pointed out five areas of emerging professional consensus with regard to development strategies in Africa. These are of direct relevance to future agricultural development paradigms when put in terms of the analysis above. First, self-styled “alternative” approaches to both cash cropping and SA 1 no longer seem so unconventional. Some of the main tenets of BHN as enshrined in equity-with-

growth are very much part of the mainstream. Second, there is a widespread consensus on the need to build on agriculture for growth, and not just as a pool of resources. Third, “getting prices right” is correctly perceived to be a more complex issue than simple prescriptions for market liberalization. Fourth, nonprice factors such as institutions and infrastructure are coming back onto the agenda—not as an alternative to market reforms, but as necessary complements to them. Increasing participation and a greater role for civil society are increasingly recognized as necessary concomitants to the scaling down of the State. Fifth, with the perception that African rural economies produce large shares of nontradables comes the recognition of the potential importance of demand constraints. One might add (with a smile) that reports that neo-Keynesianism is dead are premature.

### *Lessons and Challenges for Future Paradigms*

The present review suggests five specific challenges that ought to be paramount for African food and agricultural strategies with forward-looking ambitions—challenges that find widespread support in the literature surveyed, if not perfect agreement. First, it will be imperative to find new sources of sustainable productivity growth. There seems to be no way around this for progress in countries where so much of the population lives in rural areas and the main sources of foreign exchange are crops and livestock. It seems clear at this point that the issues here go beyond price distortions, and that proactive nonprice production policies of the types advocated by the cash-croppers and supply-shifters will also be necessary to meet the challenge.

Second, it seems clear that it will be hard to do much for rural growth without finding a way to address Africa's very high transfer costs. Africa's relative costs in this regard far exceed those of any other major region of the world, and they present a difficult barrier to commercialization. A 50 percent cut in the unit costs of distribution can be as valuable to competitiveness as a 50 percent cut in the unit costs of production when the two are equal components of c.i.f. prices. More broadly, as suggested by de Janvry, Sadoulet, and Thorbecke (1993), one of the major challenges of the post-SAP era is to find ways through nongovernmental organizations of various types to reduce transaction costs generally in rural Africa.

Third, the needs of a growing population in rural areas and the looming food security problem suggest that agricultural development strategies in the future cannot omit consideration of effects on employment. The growth-with-equity literature of

SA 2 suggests that there is in fact great scope for deliberately increasing the labor intensity of rural growth paths. Strategic research needs to identify the costs and benefits of different options as a matter of great priority. One of the most fundamental structural changes in Africa since 1960 has been the rapid demographic change in rural areas, leading to increasing rural differentiation based on access to land. As Eicher (1994) points out, there are now four farm types in Africa: resource poor, small-holder, progressive, and large-scale. This is a fundamental change from the 1960s, when the mass of African farmers were not land constrained and generally were far more homogeneous in access to resources (Lele and Agarwal 1989, cited in Eicher 1994).

Fourth, a paradigm needs to be developed that integrates remote and lower-potential areas into rural growth. While there is not a great deal of technical disagreement on what is needed to boost production in the highest-potential areas, there is little consensus on the other 80 percent of cropped area. Current paradigms tend to ignore the special problems of lower potential areas, except as pools of labor or target zones for welfare transfers.

Experience suggests that attempts to make lower-potential zones do the same things as higher-potential ones are problematic. Outmigration alone will not solve this problem. On the other hand, there may be some scope for helping the lower-potential areas to benefit symbiotically from growth in higher-potential areas, through agricultural diversification in the lower-potential areas into items consumed in the adjacent higher-potential areas.

Finally, the degree of African intellectual input in constructing the dominant paradigms since the

1960s has been distressingly low, albeit growing rapidly. This is undoubtedly an important explanation of why the dominant development paradigms have shifted so much over so short a period of time as 35 years. Other explanations include geopolitical change with the end of the Cold War, major shifts in world commodity markets, other changes in the donor countries, and, particularly, the weak legitimacy of many African governments, which hinders them from formulating and implementing rural strategies capable of mobilizing the population. Structural changes in world commodity markets and the end of the Cold War are taken as givens, and African societies are rapidly addressing the issues of governance and political legitimacy. Donors can avoid hindering the latter and they can do a great deal to increase human capital and institutional capacity for formulating appropriate agricultural development strategies.

The relative lack of genuine African input into the formulation of development paradigms separates modern African experience from that elsewhere in the world, and it accentuates the fact that the main challenge for development is to increase the capacity of African entities to analyze past experiences and to formulate new strategies for a better future. The elaboration of viable paradigms of agricultural development in different parts of Africa that can address the complex issues raised here will require local ownership, broad knowledge, and unwavering commitment within the region. It is vital for African governments and their partners to invest in the institutions, procedures, and people capable of mobilizing these three items. A broad push in this regard is the only hope in the short historical time frame of 25 years, to 2020.

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