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AGRICULTURAL COMPETITIVENESS: MARKET FORCES AND POLICY CHOICE

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*Human Capital and African Agricultural Development***INTRODUCTION**

Three sets of facts are now established from the available evidence. First, human capital does matter (Schultz, 1961; 1964). Differences in educational levels have been found significantly to explain differences in labour productivity between the United States, India and the Philippines (Hayami and Ruttan, 1970). A survey of 37 countries (Lockheed, 1987) concluded that four years of primary schooling raises farmers' output by 8.7 per cent (Tilak, 1993). This suggests that poor agricultural economies can attain higher productivity levels by investing additional resources in schooling. Second, the sub-Saharan African (SSA) region performs less well than practically all the other major devel-

TABLE 1 *Average annual percentage growth rates in agricultural production in major regions*

Region	Annual growth rate		Growth index 1980–90 (1965–80 = 100)
	1965–80	1980–90	
Sub-Saharan Africa	2.0	2.1	105
South Asia	3.2	4.8	150
Middle East and North Africa	4.3	6.3	147
Latin America and Caribbean	3.1	1.9	61
Low- and middle- income economies	2.9	3.2	110
Low-income economies	2.6	3.9	150
China and India	2.7	4.6	170

Source: World Bank (1992), Table 2.

*University of Agriculture, Makurdi, Nigeria. In the absence of Professor Idachaba, the paper was presented by Professor M. Rukuni, University of Zimbabwe.

oping regions of the world by most of the indices of agricultural production shown in Table 1.

The weakness is reflected in SSA's increasing food import and food aid dependency: while food aid in cereals for South Asia fell from 4 523 000 tonnes in 1974/5 to 2 264 000 tonnes in 1989/90, it rose for sub-Saharan Africa from 910 000 tonnes in 1974/5 to 2 677 000 tonnes in 1989/90 (World Bank, 1992). Third, SSA lags behind other developing regions with respect to pupil enrolment ratios at the primary and secondary school levels and also with respect to health care parameters such as population per physician, population per nurse and infant mortality rate (Tables 2 and 3). At only 51 years, SSA has the lowest life expectancy of all the regions and its illiteracy rate at 50 per cent in 1990 is exceeded only by that of South Asia at 53 per cent (World Bank, 1992).

TABLE 2 *Percentage of age group enrolled in education, by region and level*

Region	Primary				Secondary			
	Total		Female		Total		Female	
	1965	1989	1965	1989	1965	1989	1965	1989
Sub-Saharan Africa	41	69	31	61	4	18	2	14
East Asia and Pacific	88	129	—	124	—	46	16	42
South Asia	68	90	52	75	24	38	12	27
Europe	102	102	97	100	45	73	41	70
Middle East and North Africa	61	90	43	82	17	53	9	45
Latin America and Caribbean	99	107	97	107	20	50	19	55
OECD countries	104	105	106	105	63	95	61	96

Note: Primary enrollment can exceed 100 per cent when pupils are younger or older than standard school age.

Source: World Bank (1992).

Two schools of thought have emerged to explain persistent underperformance of agriculture in SSA. One school posits that SSA countries lack well-articulated policies and that the African policy scene is littered with bad policy packages, mostly inherited colonial paradigms, though some new elements have been introduced by post-independence nationalist governments. The Berg Report (World Bank, 1981) and its derivatives (World Bank, 1984, 1989) are of this genre. Structural adjustment programmes, programme loans and their conditionalities have spearheaded the continental movement for policy reform. SSA agriculture is beginning to reap the pay-off from policy reform, particularly in those countries where explicit and implicit taxes on export crops have been drastically reduced, and where price fixing is less common. A brief note

TABLE 3 *The distribution of population per physician and nurse, and infant mortality*

Region	Physician		Nursing person		Infant mortality rate (per 1000 live births)	
	1965	1984	1965	1984	1965	1984
Sub-Saharan Africa	33 310	26 670	5 420	2 180	157	107
East Asia and Pacific	5 600	2 390	4 130	1 530	95	34
South Asia	6 220	3 460	8 380	2 650	147	93
Europe	1 260	700	510	480	71	30
Middle East and North Africa	7 740	2 410	6 160	1 800	151	79
OECD countries	880	460	440	150	24	8

Source: World Bank (1992).

on the dimensions of policy change is appended.¹ However, agricultural sector performance at the sub-Saharan African regional level still leaves a great deal of room for improvement even after these reforms.

A second school of thought postulates that the policy shelf in SSA countries can no longer be said to be bare, that there are enough policy packages available, and that the real problem is poor policy implementation. According to this school (Idachaba, 1991), well-articulated policies end up with unintended consequences and policy errors, creating large pools of unintended beneficiaries. Our central proposition is that low levels of human capital of the requisite qualities account for the harsh policy environment, which in turn accounts largely for Africa's continuing poor agricultural performance. The underdevelopment of African agriculture is rooted in Africa's failure to invest in education and health, the main features of which comprise (1) high illiteracy rates, with the vast majority of African farmers having no formal schooling whatsoever; (2) wide rural-urban disparities in the provision of educational services, especially with respect to access, quality of teachers and availability of learning materials; (3) grossly inadequate health care services, including the prevention and treatment of parasitic diseases, the leading causes of morbidity; (4) poor sanitary (environmental) conditions, including practically non-existent supplies of rural potable water; (5) agricultural extension services and rural institutional infrastructures that are among the weakest in the world; (6) weak non-formal and informal educational services that are incapable of meeting the skill requirements of agricultural economies in transition; and (7) thoroughly weak and inept political and bureaucratic leadership which in turn reflects the low levels of human capital availability.

The balance of this paper is structured as follows. The next section provides a framework for examining the contribution of human capital in African agricultural development. It will be shown that previous approaches that have

focused on household/farm level production functions have been too narrow and restrictive. That is followed by a Nigerian case study in new educational reforms to highlight some issues with which African countries are grappling. There is then a discussion of the outstanding policy issues in the development and utilization of human capital in the development of African agriculture.

HUMAN CAPITAL AND AFRICAN AGRICULTURAL DEVELOPMENT: A FRAMEWORK OF ANALYSIS

In traditional agriculture, farming skills are transferred from one generation to the next through on-the-job apprentice training schemes, from parents to children and from the old to the young. Agricultural extension services are transmitted through an intergenerational transfer mechanism, which becomes inappropriate for agriculture undergoing transformation characterized by significant disequilibrium (Schultz, 1975). The role of human capital in agriculture is now well established through the seminal work of Schultz (1961). Human capital, in the Fisherian generalized capital accumulation framework, commands future income streams (Fisher, 1970; Schultz, 1964; Becker, 1975, 1976).

The effect of education on production can be decomposed into (1) the 'worker effect', by which more farm output is realized from a given bundle of inputs through enhanced worker efficiency (Chaudri, 1968, 1979; Welch, 1970; Tilak, 1993; Duraisamy, 1992); (2) the 'allocation effect', by which additional years of formal schooling enhance farmers' ability to choose optimum combinations of farm inputs and farm outputs (Chaudri, 1968, 1979; Welch, 1970); (3) the 'innovative effect', by which additional schooling enhances a farmer's ability to acquire and analyse available information on the probability distribution of returns from innovations, and the expected values of the means and variances of these distributions, thereby reducing individual and aggregate innovation time lags (Tilak, 1993; Lin, 1991); and (4) the 'market efficiency effect', by which additional years of schooling enhance capacity to exploit new market opportunities in upstream, mainstream and downstream activities (Tilak, 1993).

Though the record of empirical studies for the African continent is very scanty, available evidence from accumulated empirical studies from other developing agricultural economies suggests the following conclusions:

- (1) Additional years of schooling have significant positive effects on farm output and gross value of farm production. Duraisamy (1992) found that an additional year of schooling of the household head increases rice output by 1 per cent and gross value of output by 4 per cent. His study also showed that increases in average educational levels of household members had a slightly greater effect on rice output than the same increase in the education of the household head. There exists a threshold of schooling after which it becomes significantly influential on agricultural production, and that threshold rises with modernization and commercialization of agriculture.

- (2) Non-formal education (extension contacts) has significant positive effects on agricultural production (Duraismy, 1992; Tilak, 1993). Face-to-face extension contacts in Africa's weak agricultural extension services have had very limited impact on agricultural production because of the unfavourably high farmer/extension worker ratio, poor funding, feeble logistic support and poor incentives for extension workers. Radio broadcasts have proved quite useful in non-formal (extension) education but they have limited effectiveness because a large number of farming operations requiring visual demonstration cannot be successfully transmitted by radio broadcasts. Extension contacts are particularly significant for their innovative and allocative effects. They are also significant for their worker effect. Poor rural road networks in most of SSA have greatly hampered the effectiveness of extension contacts.
- (3) Good health care (preventive and curative) has significant output effects for production systems that rely mostly on human labour as the prime source of motive power for manual farm operations. Therefore the greater the reliance of production systems on manual labour, the greater the direct output (worker) effect of health care services. They also enhance farmers' ability to choose the right combination of inputs and outputs through physical and mental fitness. In addition, health care services, through their effect on life expectancy, reduce the amount of discounting of prospective returns from innovations that farmers would otherwise have made if they were sick. The twin propositions flowing from this are: (a) the longer the gestation period of the innovation, the larger the innovation effect of health care services; and (b) the lower the initial health status of the farming community, the larger the innovation and output effects of health care services. Sick farmers have little energy to seek information on new technology, constrained as they are by poor rural road networks.

In agriculture in disequilibrium, information becomes valuable for profitable farming. Building on the work of Stigler (1961), the author introduced the role of information into the framework of the theory of the firm, in which the producer organizes resources for profit (Idachaba, 1976). The gain from the acquisition of information services was defined as the incremental productivity returns from increased resource employment, or the savings in forgone opportunity costs from reduced resource employment. Additional information lowers expected (average) minimum cost of a given output and raises expected (average) maximum profits.

An expanded framework of analysis

Traditional analysis of the link between human capital and agricultural development that underlies empirical studies is incomplete. It assumes functioning ('good') governments and functioning markets. But the bane of African agricultural underdevelopment is the harsh policy environment. Our central proposition is that persistent policy failures reflect gross underinvestment in human

capital. Investment through additional years of schooling, health care, information acquisition and extension contacts is not sufficient for realizing the needed production gains through the various effects outlined earlier when the policy environment remains very unfavourable and inhibitive.

Household farm production (Y) is a function of the vector of physical inputs (X) (land, irrigation water, labour man-days, fertilizer, seeds and so on); the vector of human capital variables (E) such as years of formal education, extension contacts, health care services and information; and the vector of policy environment variables (P):

$$Y = Y(X, E, P) \quad (1)$$

where $P = P(H_p, H_m)$, from which

$$Y = Y(X, E, P(H_p, H_m)) \quad (2)$$

where H_p stands for skills and attributes of political leaders and bureaucrats depicting enlightened patriotism, nationalism or altruism, and H_m stands for skills and attributes of farmers depicting organizational and mobilization capacity.

Which policies are chosen, and implemented, is a function of human capital with requisite skills and desirable attributes with respect to (1) specific programme and project content of policy packages; (2) capacity to forecast correctly winners and losers, unintended policy consequences and unintended policy mistakes, with a view to minimizing the prospects for the creation of a large pool of unintended beneficiaries; and (3) the capacity to relate proposed policies to comparative lessons of experience from other countries at similar stages of development.

The framework of analysis needs to be generalized to include the impact of additional human capital investments in those responsible for policy, to enable them to choose the right mix of policy packages and to implement them successfully. It also needs to consider the capacity of farmers to mobilize themselves in pressure groups in pursuit of their production and income goals. Put another way, the traditional framework cannot explain the tremendous production and income gains in export crop production in West, East and Southern Africa in the 1940s and 1950s when levels of schooling, extension contacts and health care were much lower than they are at present. The difference, we submit, lies in the much healthier policy environment of the earlier period, especially with respect to the requisite skills in the political and bureaucratic leadership. This appears to be clearly demonstrated by the output and income losses induced by the harsh policy environment in SSA countries in the 1960s and 1970s.

There are enough technology packages which existing stocks of human capital could have utilized to change the African landscape. For the production gains of human capital to be realized, farmers need to invest in additional organizational and self-help skills to demand improved policy performance from policy makers. This leads to the proposition that, the more widely dispersed and socially and ethnically heterogeneous farmers are, the greater the

need for additional human capital investments to create capacities for social mobilization and sociopolitical consciousness and awareness. Household farm-level production is therefore not only a function of physical inputs and human capital attributes of farmers themselves; it is also an implicit function of the skills of policy makers and bureaucrats.

Whether the policy environment is favourable or not depends on abilities within the political and bureaucratic leadership to choose the right policy packages for agriculture. Such choices cover the whole spectrum of technology policy, input and output pricing policy, and processing, marketing and distribution provision. Additional investment in human capital to create capacities for articulating and choosing optimal policy packages will have significant impact on household production and income.

Much against their will, many African countries have been forced by the conditionalities of programme lending to adopt economic reforms such as exchange rate adjustments, reductions in fiscal deficits and curbs on inflationary financing, to mention a few. Management of such fundamental changes obviously requires additional emphasis on the training of policy makers in organizational methods and skills, though it could be argued that more attention also needs to be paid to fostering the capacity to appreciate and pursue altruistic goals over and above self and group rent-seeking interests within the bureaucracy. For example, it is important to ensure that policy makers do not advocate public parastatal monopoly in fertilizer procurement and distribution, even where they know full well that only a few benefit from such policies. Policy makers continue to support fertilizer subsidies even when they know that they are being enjoyed, not by farmers, the intended beneficiaries, but by rent-seeking political leaders and bureaucrats and their friends. Political leaders and bureaucrats need to realize that the pursuit of altruism is not necessarily inconsistent with the pursuit of self or sectional group interest (Margolis, 1982). The social returns to the acquisition of additional altruistic attributes as part of human capital accumulation are larger the greater the ethnic and kin loyalties, as is the case in Africa's heterogeneous and fragile societies.

Interaction effects

Interaction effects ensure that total production and income impacts of the explanatory variables taken together exceed what they would have been in the absence of such effects. This is possible when the second cross partials of the household production function are positive. Formal education enhances the contribution of extension contacts, just as extension contacts enhance the value of additional years of schooling. Similarly, additional investments in skills of policy makers (politicians and bureaucrats) to improve the policy environment enhance the contributions of additional schooling of household heads and household members, extension contacts, health care services and information services. Empirical studies of the impact of human capital on agricultural development need to estimate the coefficients and significance of these interaction effects, especially for technology backward agricultural economies in SSA.

REFORMS IN AFRICAN EDUCATIONAL SYSTEMS: A NIGERIAN CASE STUDY

Nigeria launched free universal primary education in 1976, with federal funds provided to erect and support primary schools nationwide. Emphasis was placed on broad education and permanent and functional literacy. The curriculum was designed to emphasize agriculture, home economics and health education, and quality was to be raised through massive in-service training of unqualified and underqualified teachers. Government has not succeeded in making primary school education compulsory, as was originally intended.

Nigeria's new education policy aims at inculcating national consciousness, national unity, the right values and attitudes, and the training of the mind to master the environment. It aims at imparting skills, abilities and competence for self-reliance, self-employment and technological development. After six years of primary school, there are two phases of secondary school: the junior secondary school (JSS) (three years), where students receive broad-based education in languages, social sciences and introductory technology, and the senior secondary school (SSS) (three years) which prepares students for tertiary institutions or self-employment. Prevocational and vocational training was to be emphasized, though the implementation of this component has been weak. The original plan was for entrants to the senior secondary level to divide into those who would continue in technical and vocational subjects and those who could pursue standard, grammar school, academic training, based on demonstrated potential. The new scheme has been plagued by gross inadequacy of workshop and laboratory equipment and teaching materials and acute shortage of qualified teachers, particularly in the technical subjects. In practice, the present structure now mainly uses the JSS to sort out students into sciences and humanities for their SSS and eventual tertiary education or employment.

In technical education, the objective is to provide training facilities for artisans, craftsmen and technicians in polytechnics, technical colleges and colleges of education (technical). There is a complementary teacher training programme to produce teachers for the vastly expanded school system. In the universities, student enrolment aims at a ratio of 60:40 for science/humanities, though the poor performance of secondary school graduates in the sciences makes the realization of this target difficult. There is an explosion in undergraduate entry for enrolment, though only a small fraction of qualified candidates obtain university admission.

Efforts by state governments to introduce cost-recovery measures into primary school resulted in the decline in pupil enrolment from 14.6 million in 1982/3 to 11.3 million in 1986/7. Secondary school enrolment during the same period fluctuated considerably: 2.0 million (1980/1), 2.9 million (1982/3), 2.1 million (1985/6) and 2.9 million (1988) (FMBP, 1991). Trends in enrolment in agriculture and related disciplines (including veterinary medicine) show that the average share was only 1.46 per cent in polytechnics and 6.09 per cent in universities.

The contribution of human capital formation, particularly in education, has been shown to be important to African agricultural development (Okedara, 1978; Mbanefoh, 1980; Abidogun, 1978). It is, however, conditioned by the

varying degrees of success that countries are having with educational reform. Not only is investment in (rural) education necessary to cope with the disequilibrium and transition in which African agricultural production systems find themselves; the framework of the education sector itself is in a state of flux and disequilibrium as countries experiment with different reform ideas. Some of the problems and issues from the Nigerian reform experience are probably common to many African countries. The huge bureaucratic apparatus created by the federal government, outlined in Table 4, reflects its concern for investing additional resources in education.

TABLE 4 *Institutions and federal bureaucracy to service new national education policy, Nigeria, 1991*

Institutions	Number
Federal government girls' colleges	23 ¹
Federal government colleges (boys and girls)	22 ²
Federal schools of arts and science	5
Federal general universities	19 ³
Federal universities of agriculture	2 ⁴
Federal polytechnics	10
Federal colleges of education	19
Federal technical colleges	10 ⁵
Suleija Academy	1
<i>Parastatals</i>	
National Universities Commission (NUC)	
National Board for Technical Education	
National Commission for Colleges of Education	
National Commission for Primary Schools	
National Centre for Adult Education	
National Commission for Nomadic Education	
National Education Research Centre	
National Educational Research and Development Council	
Joint Admissions and Matriculation Board (JAMB)	
West African Examinations Council (WAEC)	
National Teachers' Institute	
National Students' Loans Board	
National Library of Nigeria	

Notes: ¹includes Queen's College, Lagos.

²includes King's College, Lagos.

³There are now (1994) 21; there are also 11 state universities.

⁴There are now (1994) three.

⁵Includes Federal Technical College, Yaba.

Source: Federal Ministry of Budget and Planning, *First National Rolling Plan, 1990-92*, Lagos (1991).

OUTSTANDING POLICY ISSUES RELATING TO HUMAN CAPITAL AND AFRICAN AGRICULTURAL DEVELOPMENT

For human capital to play its historic role in African agricultural development, certain outstanding policy issues must be addressed. In discussing issues affecting the African region, one needs to recognize the usual tendency to overstate the similarities and understate the differences.

- (1) Many African countries have tinkered with inherited colonial educational systems, but only a few have carried out revolutionary structural reforms with respect to the redefinition of the goals and objectives of a national educational system, and the functional and vocational content of the curriculum (particularly at the primary and secondary school levels) that is relevant for agriculture, home economics and health. In moving from general concern over the capacity of educational services to respond quickly to the changing needs of African economies to the specific requirements of agriculture, most countries operate educational systems that pay only lip-service to the low quality of education in rural areas, where the majority of people live. In many countries, there is no explicit agricultural education policy or rural education policy; rural education is treated as a residual that is only dealt with after the educational needs of the vocal urban minority have been met. Generally, schools have very poor vocational content because of lack of equipment and qualified teachers in the technical fields of agriculture. Though many countries have introduced reforms with respect to the duration of formal schooling at the primary, secondary and tertiary levels, little has changed from colonial times with respect to functionality, pedagogical support and the pragmatic responsiveness of the educational system to the dynamic challenges posed by a society and an agriculture in disequilibrium. The educational system in most of SSA, though often looking different in structure from inherited colonial patterns, is still essentially unchanged with respect to content and operation, limiting its usefulness for providing solutions to the multidisciplinary problems of African agriculture. Part of the problem arises from the limitations of formulators of education policies who are themselves classic products of the inherited and dysfunctional colonial paradigm. In some countries, the real obstacle has been policy instability caused by political instability.
- (2) The near total neglect of rural education as reflected in the wide rural-urban disparities in the quality and quantity of provision continues to reduce drastically the impact of investments in human capital on agricultural development. The developmental challenge is how, in an unorganized, illiterate environment, with low levels of political consciousness and usually self-serving political and bureaucratic leaders, attempts can be made to redress gross imbalances and disparities. If the rural majority, paradoxically, do not matter politically, their human capital needs, in spite of the high social returns, will continue to be ignored. A holistic approach to rural education, covering primary, secondary and tertiary levels as well as non-formal education, is required.

- (3) The negative correlation between years of completed formal education and preferred future careers in farming will need to be reversed if the induced and massive rural–urban migration is not to threaten food security in SSA before alternative sources of motive power for human labour for peak farming operations are found. The massive drift is creating huge urban food dependency, given the rudimentary stage of mechanical technology.
- (4) Policy makers in many SSA countries neglect the pedagogical needs of education at all levels – books, teaching and learning materials, equipment for vocational training, and payment of teachers salaries. The lower the political cost of educational neglect by the self-preserving political leadership, the greater is the tendency to neglect. This explains why governments can afford to default in the payment of salaries of primary and secondary school teachers, while at the same time managing to pay salaries of teachers in the volatile tertiary institutions with their highly organized students, and to fund expensive non-educational urban infrastructure.
- (5) SSA countries must address the limitations of providing agricultural education in general universities where there is severely limited exposure of students to practical farming, premature specialization, and an agricultural education that is discipline-based rather than being multidisciplinary, problem-driven and mission-oriented. Teaching, agricultural research and extension have not attained the desired levels of functional integration. South Asia and South East Asian countries have, with the help of donors, established agricultural universities to correct the structural weaknesses inherited by colonial-type general universities. Some countries (such as Cameroon) have been able to establish agricultural universities with help from donors, while others (such as Nigeria) have been able to establish agricultural universities purely as a domestic effort. The challenge is how to move from the ineffective inherited colonial structures to ‘land grant’ agricultural universities, at least in their functional provisions, even if not exactly in form.
- (6) The political leadership in SSA countries, in their quest for health care relevant to agricultural development, need to strike an effective balance between primary, secondary and tertiary health care and between preventive and curative health care. Primary health care is the most relevant form of human capital for African agriculture, but it is the most neglected, on political economy grounds. SSA countries need political leaders with the vision to see the functional linkages between village-based primary health care centres and widely dispersed household farm-level production units. The usual bias is towards secondary and tertiary health care and towards curative rather than preventive services (FMED, 1981).
- (7) Finally, structural adjustment programmes, with their fiscal discipline imperative, have taken a heavy toll on investments in human capital, leading in some countries to closure of schools and rural health centres, and failure to pay teachers’ salaries. The implied elasticity of expenditures on these forms of human capital with respect to government revenues is greater than one for decreases in government revenues and less than

one when they increase. Cutbacks in human capital investments have an adverse impact on household farm-level production and income. Accelerated agricultural development in Africa requires massive, well directed investments in human capital (Eicher, 1984; Lele, 1984).

CONCLUSION

African countries have not seriously woken up to the critical importance of investments in education, health care and extension services for agricultural development. Firm conclusions can be drawn from studies in other regions on the positive significant impact of additional years of formal school on output (the worker effect), on the efficient allocation of inputs and outputs (the allocative effect) and on the adoption of innovations (the innovation effect).

The traditional framework for measuring the impact of human capital on household farm-level production and income is incomplete because it fails to incorporate explicitly the effect of the policy environment. That, in turn, is a function of skills among political and bureaucratic leaders, and their capacity to achieve a better balance of altruistic goals over self and sectional group interests. Additional investments in human capital with these desirable characteristics will vastly enhance the contribution of additional years of schooling, improved health care of rural dwellers and extension to farm production and income.

NOTE

¹The record of practices with respect to producer pricing and procurement of export crops before structural adjustment reforms and late 1992 post reform is as follows.

I.	Export crop sales	Before reforms	Late 1992
	Countries/crops with public-sector monopoly in:		
	Export sales	39	23
	Domestic purchasing from producers	40	23
	Countries/crops with parastatals and private traders in competition in:		
	Export sales	1	7
	Domestic purchasing from producers	—	6
	Countries/crops with exporters/private purchasing agents licensed by government or parastatals in:		
	Export sales	4	8
	Domestic purchasing from producers	2	7
	Countries/crops with private-sector competition in:		
	Export sales	2	8
	Domestic purchasing from producers	4	10

II. Producer pricing

Countries/crops with price set at government discretion	41	18
Countries/crops with price set but linked to world prices	2	6
Countries/crops with indicative producer price recommended; export price linked to world market prices	—	2
Countries/crops with indicative producer price recommended	—	7
Countries/crops with no producer prices set	3	13

Source: Derived from World Bank (1994), *Adjustment in Africa: Reforms, Results, and the Road Ahead*, New York: Oxford University Press.

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