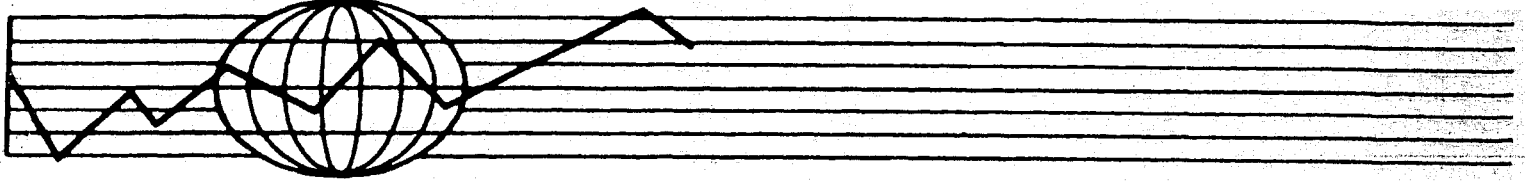


**ECONOMIC DEVELOPMENT CENTER**



**INDIGENOUS SOCIAL SCIENCE AND ECONOMIC  
DEVELOPMENT IN KENYA**

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# Indigenous Social Science and Economics Development in Kenya

## INTRODUCTION

Kenya, as all sub-Saharan African nations, faces an urgent need for increased economic development over the next two decades. For this to occur, many technical and institutional processes must take place simultaneously. The primary intent of this paper is to review the potential contribution of the social sciences in Kenyan institutions of higher learning, with emphasis on rural social sciences, to national economic growth and development. The basic contention of this paper is that the rural social sciences provide the intellectual and analytical base for contributing to understanding and policy analysis of the most intractable problems presently faced by Kenya and the other developing nations of sub-Saharan Africa. Augmenting indigenous capacity in the rural social sciences is a long run effort, but one which will be of lasting benefit to the Nation, the region, and the continent. While much of this paper applied to sub-Saharan Africa in general, primary focus is on Kenya and East Africa.

The central premises on which this case is developed include (1) economic development will emphasize improving the living conditions of low income people, (2) population growth and attendant matters will (and should) continue to receive a large measure of attention, (3) economic development will depend in large measure on, and will be led by, rural development, and (4) concepts of the social sciences are key to constructive debate on fundamental and controversial questions of development strategy.

With economic growth, the entire range of rural economic and social institutions, ranging from patterns of production, marketing and

consumption of agricultural products, to land and natural resource use, to family work and living patterns, will be subject to unprecedented stress, accompanied by severe and sometimes disruptive change. The challenge to the social sciences is to aid in understanding these processes and institutions, thereby contributing to economic development, which inexorably is accompanied by stress and change.

Economic development is far more complex than putting in place some combination of capital, skilled labor, and technical and economic processes. It requires such factors as entrepreneurship, attitudes, and political and social institutions which are conducive to the changes and processes involved in economic development. For this reason it is of paramount importance that the entire spectrum of institutions be understood, that there exist capacity in Kenyan universities to analyze and articulate options pertaining to economic (and particularly rural economic) development, and that there be channels to government policy making units for the transmission of this knowledge. This is neither to diminish the role of technical advance in the physical, biological, and agricultural sciences, nor the role of sound fiscal, monetary, and international trade policies. Rather, the intent is to emphasize the need for concurrent development of indigenous capacity in such disciplines as sociology, political science, economics, and agricultural economics for purposes of understanding those dimensions of economic growth, which relate to changing institutions associated with economic development.

In examining the fundamentals of the case for building indigenous capacity in the rural social sciences, we first focus on several key issues: the important of attention to low income people, reducing



population growth rates, agriculture as the leading sector, and several specific examples of perennial fundamental and controversial issues of current debate to which social science can contribute. We then review some characteristics of the social sciences in East Africa, and conclude by discussing some constraints, as well as opportunities for its contribution to economic development.

#### FOCUS ON LOW INCOME PEOPLE

Economic development herein is taken to include the production and broadened distribution of basic life sustaining goods and services such as food, shelter, and health; increased levels of living, including provision of more jobs and attendant higher incomes, better education, and greater access to cultural and humanistic values, all leading to greater individual and national self esteem; and an expansion in the economic and social choices available to individuals and the nation.<sup>1</sup>

This concept of economic development is necessarily oriented toward addressing the problems and needs of growing numbers of poor people, who are largely, though not exclusively, rural. One practical implication of focus on the income of the lower two quintiles of income recipients is that use of per capita growth of GNP as a measure of economic development is of limited value. This point merits further elaboration.

A narrow focus on percentage increase in GNP not only fails to address the question of income distribution, but implicitly gives greater weight to incomes accruing to those in the higher quintiles.<sup>2</sup> As a given percentage increase in income to the lowest quintiles is compared to a smaller base than the same percentage compared to the top quintiles, the given percentage increase to the lower quintiles, however urgent, may

appear unimpressive in terms of national income statistics. For example, a ten percent increase in income to the lower quintiles of population will show up as a smaller overall increase in national income than will a ten percent increase to the top quintile.<sup>3</sup> Yet, many if not most, analysts and policy makers would view a ten percent increase to the lower quintiles of population of greater urgency than a ten percent increase in income to the top quintiles, particularly when the income distribution is already heavily skewed toward the top quintiles, as is the case in most developing countries.

Critics may contend that emphasis on the lower quintiles of population reflects an arbitrary value judgement. However, following the above line of reasoning, when assessing economic performance on the basis of percentage growth in GNP in an economy with income skewed toward the top, not to make such as explicit value judgement means that an implicit value judgement already is being made favoring the top quintiles of income recipients.

Critics may further contend that there is no particular merit in valuing gains in income to one group as opposed to another, or that to place greater social welfare weights on a particular segment of society involves a degree of "arbitrariness." A rejoinder to this proposition is that not to engage in this "exercise in arbitrariness," is to, first, implicitly favor the top income groups, which is equally arbitrary; second, leave unstated the value judgments of the analyst which are unrealized by the reader (and perhaps even by the analyst!); and third, incredibly, to forswear what economic development is fundamentally about--improving the conditions of large numbers of poor people!

If a major national objective of economic development is to improve the conditions of the lower quintiles of income recipients, and substantial growth in GNP occurs but does not accrue in significant measure to the lower 40 percent, or at least the lower 60 percent, this can scarcely be considered to be economic development in any meaningful sense, or to represent an increase in national social welfare. This point is fundamental, and needs to be restated. If greater values, or more technically, social welfare weights, are not placed on addressing the needs of the poorest of the poor, then, when measuring growth solely in terms of percent increase of GNP, implicit social welfare weights favor the top income recipients, especially when the initial distribution is already skewed toward the top.

Growth records with respect to income distribution are mixed. One study shows that during the period studies, roughly 1950-70, varying by nation, economic growth in India, Peru, Panama, the Philippines, and Mexico had been accompanied by an income distribution increasingly skewed toward the top quintiles.<sup>4</sup> In contrast, economic growth in Costa Rica, Columbia, Sri Lanka, Iran, Taiwan, and perhaps surprisingly, El Salvador, had been accompanied by increased shares of income to the lower 40 percent of income recipients.

The proposition that economic growth will automatically ensure a "trickle down" effect has been all but discredited in modern development literature. Equally invalid, however, is that economic growth which may accompany such phenomena as the Green Revolution automatically favors the landlord or the higher income recipients. Evidence suggests that the ultimate beneficiaries, and effect on income distribution of agricultural

development, depends on the nature of the technical change which brings about development.<sup>5</sup> There is a growing consensus that income distribution associated with economic growth depends on many factors, including initial resource endowment, and institutional factors such as taxation and patterns of government expenditures.

An unequal income distribution results in part from unequal endowment of productive assets, a simple focus on functional distribution of income (returns to land, labor and capital) may do little for those who possess little in the way of valued productive assets. Clearly, a redistribution of income is easier and more feasible in a growing economy. However, it must be emphasized that such redistribution does not automatically occur with economic growth.

Since economic growth does not ensure a more equal distribution of income, special attention must be focused on some factors as the nature of technical change, the nature of economic growth, and institutional factors affecting both economic growth and income distribution.

Another major practical implication raised in every standard treatment of income distribution is its relation to the basic economic question of "what to produce." Raising people above absolute poverty will increase demand for basic items such as food, clothing, and shelter, which can be produced internally, relative to demand for imported luxury goods, which attend increased incomes to those already at the top of the income scale. Increased effective demand for basic goods required by the modal citizen generates incentive for their production.

A striking aspect of poverty in Africa is that females appear to bear a disproportionately heavy burden of poverty and its debilitating

consequences. By some estimates, females comprise nearly 50 percent of the agricultural work force in sub-Saharan Africa.<sup>6</sup> In addition, they bear major responsibility for child rearing and domestic chores. To exacerbate the situation, domestic chores in rural Africa include hard physical labor such as carrying firewood and water, and laboring without the drudgery saving conveniences of the modern world. Thus, issues such as impact of agricultural technology, poverty, and income distribution, can ill afford to neglect issues of gender.

Finally, the sheer magnitude of absolute poverty directs attention to the conditions of the lower quintiles of population. Of the world's 5 billion people, some 70 percent, or 3.5 billion, live in developing countries. Of these, between 35 and 40 percent, or 1.2 to 1.4 billion, are estimated to live in absolute poverty, lacking a minimal standard of food, clothing, shelter. While the numbers are not known with certainty, some estimates place the number of people in absolute poverty at 170 million, or 33 percent in sub-Saharan Africa.<sup>7</sup>

It is to the credit of the Government of Kenya that major themes of several of its development plans have centered around income redistribution. Specifically, these include "redistribution with growth", (1970-74 and 1974-78), "basic needs approach", (1979-83), and "mobilization of domestic resources for equitable development" (1984-88).<sup>8</sup> These themes reflect official recognition of need for explicit attention to income distribution in the development process.

The fundamental point raised here is that if economic development is to bring forth increased incomes to low income people, understanding the social and economic institutions which affect income distribution is

necessary in order to make the policy decisions to bring about these ends. Specifically, the nature and results of technical change, and results of fiscal policies--systems of raising revenues, and expenditures on health, transportation, education, and the like--with respect to income distribution are among those matters which need to be better understood. The rural social sciences provide the intellectual base for understanding and articulating these issues, and the intellectual leadership for this effort must come from within the nation to be most effective.

#### EMPHASIS ON REDUCING POPULATION GROWTH RATES

As if to emphasize the pivotal nature of the next two decades in Africa, two recent reports by international agencies chronicle the urgency of immediate action on African agriculture and population. A World Bank Report<sup>9</sup> affirms that population and family planning programs will be their number one priority. This report represents one of the strongest policy statements to date by a major donor organization on the urgency of reducing the rate of population growth.

A recent report by the Food and Agriculture Organization of the United Nations (FAO) focuses on food problems, with emphasis on needed policy reforms, but also addressed the population issue.<sup>10</sup> The report states, "It is usual for population growth rates to increase at particular stages of development. But in Africa this period of peak growth is occurring later, at a higher level, and will last longer than in other regions. The growth rates, which now averages three percent per year, is the highest in the world, and is still increasing. The period of peak growth will not be reached before 1995 in at least 20 African countries."<sup>11</sup> The report further states, "The social effects of high growth rates are

equally severe. The increasing demand for social facilities such as health, schooling, housing, roads, and transport threatens to compromise previous successes and to distort national budgets."<sup>12</sup> The report adds, "Sustained high population growth rates affect almost every aspect of African society. Kenya, for example, will double its population over the next 18 years and would have to expand agricultural production at more than four percent a year over the same period just to keep per capita food production at the present level."<sup>13</sup>

Population growth affects Kenya perhaps even more acutely than sub-Saharan Africa as a whole. The population of Kenya in mid-1985 was 20.59 million, and will certainly double by the early years of the 21st century, regardless of what happens to birth rates between now and then. Of grave concern is that Kenya's population growth rate is currently estimated at from 4.1 to 4.3 percent, which ranks with the highest in the world. World Bank projections for Kenya show that, depending on assumptions of rapid fertility decline, standard projections, or slow fertility decline, Kenya will have a population by the year 2000 of 32.54, 36.46, or 38.45 million. By the year 2050, under these assumptions, the projections are 66.2, 96.64, and 128.46 million.<sup>14</sup> These numbers portend staggering implications even under the most optimistic scenarios of food production, as well as for provision of the health care, education, jobs, housing, and related amenities which are fundamental to improved living conditions. It is sobering to reflect that seldom have nations achieved agricultural growth of over 3.5 percent per year for more than 2 decades.

The inevitability of a Kenyan population approaching 40 million by the early part of the 21st century, in contrast to its current (early

1988) 22 million, stems from the "population momentum" phenomenon. This phenomenon results from the fact that even if birth rates decline, population nevertheless is destined to increase in absolute numbers for some time because of the large numbers of young people who will reach child bearing age during the next 20 years. Kenya in 1985 had a dependency ratio (people <15 and >64/people 15-64) of 121, compared to a ratio of 95 for sub-Saharan Africa as a whole.<sup>15</sup> (No other sub-Saharan African nation in 1985 had a dependency ratio of over 110.) These large numbers of young people who will reach child bearing age during the next 15 to 20 years virtually guarantee that Kenya's population will increase at a rate which will strain the capacity of the Nation to provide the education, health care, jobs, and related amenities and services associated with economic development and rising expectations.

The net result of the population momentum phenomenon is that the leveling off of population in terms of absolute numbers requires several generations of declining, and then stable birth rates. (Kenya has already achieved low death rates.) In other words, the effects of declining birth rates will take at least several generations to manifest itself as a stable population in terms of absolute numbers. Further, it suggests that efforts to reduce birth rates will show little in the way of results (in terms of absolute numbers) by the year 2000, but what happens during the next decade will have staggering implications by the year 2050.<sup>16</sup> Thus, the population momentum phenomenon should not be taken to mean that effort on reduction of birth rates is futile or should receive low priority. On the contrary, the delayed reaction of results compels immediate action.



The Government of Kenya officially recognizes the gravity of this problem, expressing concern in a 1986 report, commonly referred to as Sessional Paper No. 1.<sup>17</sup> The opening sentence of the report states, "At the end of this century, Kenya will have a population of about 35 million people, 78 percent more than lived in Kenya in 1984."<sup>18</sup> It is significant that this document states that: "Perhaps the stiffest challenge facing Kenya's people over the next 15 years is to reduce the size of their families so that the economy can provide adequately for all Kenyans."<sup>19</sup> Thus, official government policy recognizes the importance of reducing population growth rates.

Effective policy must be based on understanding the social institutions and related factors which affect birth rates and population growth. It is futile to attempt to limit birth rates simply by "promoting contraceptive use". While western contraceptive technology may be an aid in reducing birth rates, such "western imposed" practices without an understanding of cultural values and incentives are doomed to failure. In some parts of the world, among the measures which have been suggested for strengthening the demand for small families are improving child health, expanding education (particularly for women), improving the status of women, including their opportunities in the economy, and reforming laws and regulations that affect contraception. Again, we see the importance of matters of gender.

Indigenous capacity in disciplines, such as sociology and anthropology, are an important factor in understanding the issues, and the implications of various policy measures to achieve lower birth rates. If, for example, additional children are viewed as "another pair of hands"

which produce more than they consume, and who are seen as "social insurance" for old age, policies of "education", or of "making contraceptives available", are not likely to have any significant effect on reducing birth rates. In contrast, if with increasing incomes, families, and particularly mothers, begin to perceive other options for themselves and their children with smaller families, a given policy may have quite a different effect. Thus, it is necessary to understand the incentives for large numbers of children in terms of cultural heritage.

Tied to the population issue is the matter of rural to urban migration. In Kenya, as in most developing nations, urban populations have grown relative to rural population, although 80 percent of Kenya's population is still rural. Nevertheless, a policy of "keeping people on the farm" while having some appeal, also poses problems. The most productive areas of Kenya are already heavily populated, and the pressure on highly productive land is intense. Of Kenya's total land area of 580,000 square kilometers, only 20 percent is characterized as high or medium potential.<sup>20</sup> In 1965, there were .7 hectares of high potential land per person in Kenya. Presently, there is .49 hectare of land per person, and it is estimated that there will be only .2 hectare in 1990. Although some 350,000 hectares of land is estimated to be potentially irrigable, this can only be done with high capital investment.<sup>21</sup>

As population increases, there is more intense pressure on more marginal, semi-arid lands, the ecology of which is very fragile. As pressure becomes more intense, problems such as overgrazing, deforestation and shortage of fuelwood, and soil erosion inexorably become more intractable.<sup>22</sup>

Moving people from overpopulated rural areas, to overpopulated cities places strains on its infrastructure--streets and roads, water supply, waste disposal, etc., but keeping them in rural areas adds to pressure on fragile ecological systems. Thus, a great deal of potential economic gain for individuals rests on attaining a population growth rate consistent with the nation's capacity to provide for it.

As put succinctly by Galbraith some 25 years ago, "It is pointless to urge a population policy if overpopulation is not the problem, but all other gains can obviously be annulled if overpopulation is the problem."<sup>23</sup> Donor organizations can lend assistance in the form of technology, financing, and to some extent (perhaps limited) of personnel. But again, the intellectual base for understanding problems and articulating issues must emanate from indigenous leadership, just as successful working programs must be planned, organized, and implemented primarily by indigenous personnel who are familiar with the people and the customs and incentives which motivate them.

#### AGRICULTURE AS THE LEADING SECTOR

During the last 2 decades, scholars in economic development have de-emphasized the leading role of industrialization which had been in vogue during the 1950s and 60s. During that period, increased agricultural production was seen as playing a passive role, serving mainly to release workers necessary for increased industrialization.<sup>24</sup>

Current thinking emphasized agricultural development as a more active stimulus to agricultural income. This has direct beneficial effects. First, increased agricultural income has a direct and immediate beneficial effect on people in the lower quintiles of income distribution, as a large

percentage of the poor are rural, and engaged in agricultural production.

Second, increased agricultural income is seen to increase the demand for products produced by the informal sector, such as simple hand tools, furniture, household goods, and construction. This acts not only directly to increase income in the rural informal sector, but possibly as a means to help stem rural-to-urban migration.

The FAO report cited above gives strong emphasis to agricultural development in Africa as a crucial requirement for future growth. The Government of Kenya, through Sessional Paper No. 1., also cited above, explicitly recognizes the importance of the agricultural sector, and particularly, the necessary contributions of small farmers. The report focuses on seven essential commodities: coffee and tea for improving farm incomes and as a source of export earnings; maize, wheat, milk, and meat (beef and poultry, mainly) for food security; and horticultural crops for both export and home consumption. The report also cites land use issues as including both the possible underutilization of large tracts, and the overdivision of lands into tracts which are too small for efficient production.

Of significance here is that the leading role envisioned for the rural sector in Kenyan economic development over the next two decades will place a high premium on understanding those aspects of agriculture in the domain of the rural social sciences. Land use, family work patterns, family size and labor force, technical change, backward linkages to the farm input sector and forward linkages to marketing activities will all merit continuing attention.

Focus on agriculture and the rural sector implies that more attention

needs to be placed on improving the rural infrastructure. Better roads, more reliable water supply and sewage systems in rural towns, and better access to health care and such amenities not only serve to directly improve the welfare of rural people, and lead to increased production, but serve to diminish the incentive for rural to urban migration. Recent strategy by the Government of Kenya, popularly known as "district focus", is consistent with this theme.<sup>25</sup>

While the role of new technology in agricultural change is not to be diminished, it is important to bear in mind that certain institutional changes are necessary for agricultural development to occur. Credit, extension, research, and marketing institutions will undergo change. For example, as economic development occurs, and incomes increase, there will be a greater demand for meat and other livestock products. This will require a changing mix of inputs, as well as changing marketing institutions, not to mention the changing requirements for research, education, and extension services. Cereals and other crops will tend to be used more as feed for livestock, and less for direct human consumption, again requiring changes in marketing channels, and requirements for information and technical services.<sup>26</sup> Crops such as oilseeds may acquire increasing importance for their byproducts, such as oilseed cake for dairy feed.<sup>27</sup>

A major challenge facing many countries in their planning is the development of a well organized marketing system capable of accurately reflecting changes in supply, demand, and production relationships. For example, in Kenya, the recent deregulation of beef at the retail level is intended to raise producer prices, and increase incentives to the farmer.

However, for this to occur, the marketing system must efficiently reflect increases prices back to farmers. Lack of market information and monopsonistic buyers inhibit efficient transmission of price signals. The design of efficient markets is yet another basic, but urgent and fundamental task to which social scientists can contribute.

With all the compelling arguments for agriculture as the leading sector in economic development, it is ironic that many developing economies penalize their agriculture, while industrial nations subsidize theirs.<sup>28</sup> Social scientists by themselves cannot solve this problem. But certainly, an articulate cadre of indigenous social scientists, particularly agricultural economists in this case, can be an intellectual force for focusing on these important issues.

#### SOCIAL SCIENCE ANALYSIS AS THE KEY TO CONTROVERSIAL DEVELOPMENT ISSUES

A wide range of development issues deals directly with concepts in the purview of social scientists. Let us review a small sample of what could be a virtually inexhaustible list.

##### Natural Resource Issues

The limited land resources, and the environmental pressures of an increasing population, inevitably lead to conflicts and the question of competition for available land and natural resources. Basic and fundamental concepts of social science often are key to analysis of these problems. An example is the use of land surrounding Amboselli National Park, a major game reserve and international tourist attraction responsible for significant foreign exchange earnings. The land surrounding the park,

when left in its natural state, contributes to productivity of game in the park. However, leaving land in its natural state precludes food production which could be obtained by more intensive cultivation.

This problem will be recognized as a classic example of external costs and benefits. If the benefits of increased game production are not reflected back to the landowner, he has no incentive to take such benefits into account. Proper analysis of the problem, recognizing the external nature of the costs and benefits, suggests the possibility of innovative methods of compensation to farmers to use the land for grazing instead of cultivation, allowing its contribution to productivity of the game reserve. While the actual policy prescription may be more complex in practice than in theory, the point here is that in the absence of the correct theoretical formulation of this problem--explicitly recognizing the externalities involved--rational solution on a practical level is impossible. Alternatives in economic development, particularly those involving natural resource policy issues, are rife with problems of this nature. Concepts fundamental to social science often are useful in their analysis.

#### Strategies for Development

A subject of continuing urgency and debate is that of the strategy best suited for propelling a nation to higher levels of development. In particular, the strategy of an "inward looking" import substitution strategy, as opposed to an "outward looking" export oriented strategy, is the focus of continuing debate in developing nations.

Typically, institutions such as the World Bank and the International Monetary Fund (IMF) promote an export oriented strategy, often tying

economic assistance to measures such as devaluation of currencies and tighter monetary and fiscal policies, particularly if the recipient has existing or potential inflation. This strategy is not generally in accord with more inward looking strategies favored by African nations as expressed in the "Lagos Plan of Action".<sup>29</sup> Such policies recommended by the World Bank and the IMF often conflict with those preferred by Africans, and are seen by some as pernicious, actually preventing African nations from "catching up".

While a certain amount of criticism of international institutions can be dismissed as the product of political rhetoric and press sensationalism, it seems fair to say that the notion that policies such as devaluation are "against a nation's best interests" are accepted as conventional wisdom by a substantial share of the African public. I cite an example from my own experience in teaching agricultural economics at the University of Nairobi. One of the objectives of my courses, both at the graduate and the undergraduate level, was to introduce the student to factors affecting exchange rates, effects of changes in exchange rates, and some consequences of fixed, and especially of overvalued, exchange rates, as these are symptomatic of many Third World nations.

My objective, of course, was not to promote devaluation, but to teach students to think through consequences, and likely effects of alternatives, for they must be able to cut through the rhetoric and the slogans if they are to be of assistance in making the decisions on which Africa's future depends.

As long as I used neutral (to Africans) examples, such as dollar-yen relationships, students seemed to grasp the concepts with ease comparable



to any students in my past experience. However, when using examples of African currencies, it was slower going. Students immediately saw the increased prices of imports, and the deterioration of the terms of trade which would result from devaluation. However, they resisted the notion that an overvalued exchange rate discriminated against producers of exports, found it hard to see the possible effect of price in rationing available foreign exchange, and almost uniformly believed that little or no good could possibly result from a lower valued currency. I believe this to be the result of prior conditioning and exposure to popular rhetoric. Even the empirical example of Japan resisting further strengthening of the dollar against the yen, and the paradox of Africans insisting on going the other way, was met with skepticism. There must be a catch somewhere.

While a case can be made for inward looking development strategies, it must be based on economic fundamentals such as comparative advantage, existing and potential, and long run costs. At the very least, if Africans are to debate with the World Bank and other donor organizations on such issues as trade and exchange rate strategies, the fundamental issues involved must be understood. It is impossible to conduct significant policy discussions if there is not general agreement of how an overvalued exchange rate affects exporters, or how a realistic exchange rate serves to ration foreign exchange. As has been asserted by Ruttan, "The effectiveness of economic assistance is influenced by the degree of convergence in the views of donor and recipient countries concerning the latter's economic policies... A convergence of views of the recipient's economic policy can occur only in the context of donor-recipient

dialogue."<sup>30</sup> If it is a conscious policy to subsidize consumers at the expense of producers, and manufacturers using important inputs at the expense of manufacturers using indigenous resources, it should be recognized as such. From this point, constructive debate for decision making can begin.

The issue here, of course, is not which strategy Africans should follow. It is, rather, that it is imperative that an indigenous cadre of social scientists be well versed on these issues. If, as many believe, the ultimate answer for Africa is a combination of inward and outward looking actions, such as through customs unions and preferential trade areas (PTA's), this even more strongly supports the need for expertise in these matters. Problems of identifying the industries to emphasize, external barriers, mutually consistent exchange rates, and the host of difficult problems that must be solved if a PTA is to successfully emerge will require significant indigenous capacity in these areas.<sup>31</sup>

We might remind ourselves that although Kenya's exchange rate may be over-valued, it is not over-valued by much in comparison with many other African currencies.<sup>32</sup> Relatively realistic exchange rates, in comparison to other African nations, must certainly be among the factors contributing to Kenya's economic success and attractiveness as a tourist mecca. It would be poetic justice if some of my more skeptical Kenyan students were one day to be in a position, for example in negotiations on intra-African trade, to urge their African neighbors to adopt more realistic exchange rates.

### The Free Market-Central Planning Mix

Developing countries, more so than developed, for which the pattern has been set and changes tend to be marginal, are faced with decisions regarding fundamental organization of their economies. While polar rhetoric exists on some occasion (in developed countries as well as developing), the practical choice is in selecting that mix of government responsibility and decentralized market incentives most appropriate--that is--what works!

One reason why Kenya's economic performance has outstripped most other African nations is that it has adopted a pragmatic mix of capitalism tempered with government responsibility. As the performance of socialist oriented economies in Africa continues to prove disappointing, one can expect that they will move toward a more pragmatic mix, making greater use of the price and market system. In this, the usual distinctions between public and private goods, and problems having associated external costs and benefits, serve as useful starting points for separating what is logically the economic responsibility of the public and private sectors.

Caution is required, however. Even in the most free market oriented developing economy, the American experience cannot wisely be uncritically duplicated. For example, a small nation simply does not have the market size to promote a large number of competing firms with significant economies of scale to allow for effective price competition. Hence, the role of the state in curbing monopolistic pricing practices will necessarily be larger in such countries. (This is another argument for a preferential trade area which would enable larger markets to allow both economies of scale, and healthy price competition, thus reducing the role

of government in price regulation.) To the extent that decisions can be made through the price and market system, the role of government can be oriented toward other functions. Thus, the objective is not to minimize the economic role of the state, but to use the limited resources of the state for those functions best left to government, and which promote economic development, such as building the public infrastructure, which itself fosters external economies of the private sector. Excessive use of scarce government planning resources for price regulation and such matters which could be handled by private markets, detracts from attention to the matters requiring government attention. Unfortunately, the burden in economic development generally is greatest for those governments most lacking in resources.

Galbraith offers several trenchant observations on economic organization relating developing countries.<sup>33</sup> Capitalism, and western style capitalism in particular, offers, in addition to the usual benefits of free markets and fluctuating prices which act as a rationing and allocative mechanism, the prospect of foreign aid in the form of capital and technical assistance from other capitalistic nations; an agricultural system based primarily on market principles and private ownership of land; and a political system with an emphasis on the importance of the individual and economic incentives, and economic and personal freedoms.

In contrast, socialistic rhetoric after the Marxist pattern, emphasizes the "neo-colonialist" nature of capitalism, and the alleged dependence on the developed world. The socialist alternative suggests a direct, frontal attack on institutions which are seen to be retarding to economic development. To the extent that existing patterns of

distribution of income, land, and other resources are seen to be "imperialist", "neo-colonialist", or in other ways, retarding the opportunities of the modal citizen, the socialist solution which promises to destroy these institutions and focus on income distribution often has a seductive appeal. The price of this, however, is the stifling of incentives and production enabled by the market mechanism, denial of the allocative mechanism inherent in freely moving prices, and discouragement of capital investment. A further cost of the socialistic solution is that the heavy central planning required by a government places an unrealistic and impossible burden on scarce planning resources, diverting effort from legitimate role of government, such as education and schools, transportation, roads, highways, bridges, water resources and environment, and health.

As the grim truth that African economies which have attempted the socialist experiment are not well suited for centrally planned models becomes more evident, we can expect that such governments will back away from a dogmatic stance, and that future decisions will be more pragmatic than theological. Those nations selecting a more pragmatic mix, such as Kenya and Ivory Coast, and which have fared much better than their neighbors, can serve as both example and inspiration to other African economies.

Greater reliance on the market system in developing countries neither eliminates nor minimizes the role of the state, nor diminishes the need for planning per se. It merely changes the focus of government effort, as greater reliance on the price system is perfectly consistent with planning. Government will still have much to do. A strong cadre of

social scientists, many of whom either will direct serve in government, or will at some point be involved in advising government, can be of tremendous assistance to developing nations in selecting that proper mix of capitalism and socialism, or more specifically, that mix of the price and market system, and government direction, which will work for the development of Africa.

Finally, in this, there is a lesson for donor organizations and donor nations, particularly those such as the U.S. which appear overly preoccupied with economic organization and the rhetoric of developing nations. First, to the extent that socialism suggests a frontal attack on what are viewed to be retarding institutions, and unequal distribution of resources and income, the United States must place itself squarely on the side of legitimate reform--policies which address the needs of the modal citizen and which emphasize individual economic opportunities and reasonable distribution of economic resources and income. The U.S. is well advised to play to the best features of Western style democracy, driving its foreign policy by a decidedly pro-democracy rather than an anti-communist stance.

Second, in moving away from unsuccessful socialist experiments, the rhetoric of developing nations may lag behind. Nations may feel compelled to proclaim that they "have not abandoned socialist principles". This is human nature, as failure is not readily admitted. In this, we can learn from the nature of political controversy in the U.S., where the largest beneficiaries of federal programs often are among the most vehement in their denunciation and disavowal of "socialism". The lesson is that we would be well served to pay more attention to what governments of

developing nations are doing, as opposed to what they are saying. We can expect that Africans ultimately will adopt "what works". And, of course, "what works" for Africa will be, in the long run, in the best interests of the developed world as well.

#### CHARACTERISTICS OF SOCIAL SCIENCE IN AFRICA

It is beyond the scope of this paper to review the evaluation and organization of the social sciences in East Africa, or even Kenya. The intent here is merely to draw from contributions of others some essential features of social sciences in Africa which may bear on their effectiveness to contribute to economic development. We will then combine these features with observations based on my personal experience as a visiting professor at the University of Nairobi to reflect on some "bread and butter" issues which may have implications for future effectiveness of the rural social sciences in contributing to economic development.

The question of the relationship between the social sciences and development in Africa is indeed not a simple one. In the words of one author, in the post World War II era, "Development was conceptualized as a particular kind of change reflected in capitalist industrialization and the replication of institutions characteristic of Western capitalist industrial societies, even though such societies differed in their social organizations and structures."<sup>34</sup> He further observes that if African societies were to become like the West, then it might be assumed that the role of African social science was to facilitate this replicative process, and further observes that this formulation has been subjected to serious questioning, there being skepticism about the appropriateness of African Social Science, based on "an analysis of much of contemporary African

social science as necessarily a warped imitation of dominant European bourgeois Western social science."<sup>35</sup> He adds that it cannot be too readily assumed that African social science is an agent and catalyst of development, that the institutionalization of social science is a part of economic development, and the character of the development process will have a bearing on the character of African social science.

The relevance of the European-North American capitalistic "bias" of Africans receiving their graduate education in Europe and North America is a question which commonly arises. Many argue that a broader perspective, including a Marxist perspective, is necessary to chart alternative courses of development. Suffice it to say for now that this is one feature, or to put it more strongly, a source of tension in African social science. It would seem, however, this could be a constructive source of tension, for the practical task viz a viz the capitalism-socialism controversy is to select what works, i.e., that combination of prices and markets, and central direction, which will best enable African nations to get on with the urgent task of economic development!

Court identifies several "sources of cleavage" in the East African social sciences.<sup>36</sup> Included among them are: (1) a "generation gap" between the older or first generation (after independence) social scientists trained mostly in the U.K., and more recent social scientists who were trained in North America, (2) "intellectual concentration versus practical involvement", which may be "eternal and universal", but which is intensified in a context of urgent developmental process such as prevails in East Africa, (3) "scholarly detachment versus practical policy involvement"; to what extent do (or should) African social scientists



involve themselves in providing direct answers to pressing policy issues as opposed to research further removed from immediate concerns? and (4) "nationalism versus internationalism". This cleavage stems from the fact that although having attained their professional credentials at British and North American universities, they retain a strong desire to formulate research along nationalistic lines, and attempt a "problem" rather than a "disciplinary" orientation.

Perhaps above all, we need note, as we are reminded by Court, the recent evolvement of African social scientists. "In East Africa, the idea of social science has in the space of 15 years taken tangible shape through the foundation of university departments, the emergence of an indigenous community of scholars as the production of an impressive volume of writing on East African Society".<sup>37</sup> Further, "the most visible achievement of East African social science has been the expansion and Africanization of social science departments. They have in the space of ten years developed from small expatriate dominated enclaves into major university departments with a fragmentary expatriate component."<sup>38</sup> And certainly, a review of African social science literature bears a steadily increasing proportion of African authors.

With this, let us leave such philosophical and weighty issues as the appropriateness of the "Eurocentric bias" for another day, and review some constraints based on my experience and observation which inhibit the contribution of indigenous social science to contribute to economic development. The underlying assumption used here is that although social science may not be the force for replicating institutions of Western culture or for providing direct and immediately applicable "correct"

answers to pressing policy issues, that nevertheless, social science provides the intellectual foundation for understanding a broad range of development issues. As such, an articulate cadre of people is a valuable, if not indispensable resource for posing appropriate questions, for adding a crucial dimension to the education for the next generations of the nations leaders, and as a potential source of understanding, if not direct solution, of issues of direct policy relevance.

#### CURRENT CONSTRAINTS ON THE RURAL SOCIAL SCIENCE IN KENYAN INSTITUTIONS OF HIGHER LEARNING

Some of the constraints which currently limit the contributions which the rural social sciences are capable of making include the following:

1. Heavy teaching loads. Because of large student numbers and class size, a disproportionately large portion of university staff members' time is devoted to teaching. Lack of support facilities, such as teaching assistants, teaching materials, and duplicating facilities, exacerbates the problem. Kenya's current demographic structure, with its large population under the age of 15, suggests continued high intake of students. There is a shortage of foreign exchange for obtaining textbooks. More fundamental is the shortage of indigenous teaching materials, such as textbooks written by and for Africans. As noted earlier, the increasing volume of research on Africa, authored increasingly by Africans, provides encouragement and assurance that indigenous teaching materials will become more abundant. The obvious need for such materials, high publishing costs and small (by relative standards) markets, imply that the support of indigenous teaching materials may be a fruitful area of support by donor organizations.

2. Low research budgets. Research budgets for colleges of agriculture and for departments such as economics and sociology lack a stable and assured funding base. Some support is afforded to various projects by domestic and donor organizations. Nevertheless, there is merit to the suggestion that a stable base, however minimal, be established and funded on a continuing basis. Additional funds obtained from donor, or other sources, would then be in addition to an established research program. While social scientists have been in some measure used by, or assimilated into government in East Africa, faith in social scientists does not seem to have been matched by faith in social science, if government support for research in university programs is used as an indicator.

3. Low salaries and rigid promotional structure. The structure of university departments is such that there is "limited room at the top". There exist a very small number of openings for full professors. Salaries tend to be low, relative to alternative sources of employment, and promotions come very slowly. Therefore, research which may lead to publications, and an established academic reputation, is perceived to have benefits which are uncertain and distant, while the need to meet expenditures for family needs is immediate. As with any endeavor which holds distant, future benefits of uncertain magnitude, relative to another endeavor which offers certain and immediate benefits, the activity yielding future benefits will receive relatively short shrift. Thus the incentive is to engage in short term, relatively well paid consultantships, when they are available. This is simply rational behavior. While work of academic value may arise from such consultantships, most observers believe it best

that consultantships arise out of an academic research program, rather than the other way around.

4. Excessive turnover of personnel. The relatively low salary structure of Kenyan universities tends to promote an incentive for staff members to move to international organizations such as the World Bank, FAO, and others, as such opportunities arise, and arise they do! While some turnover is expected in any academic organization, it is not in the best interest of that organization to be composed of individuals who are willing, or even anxious, to leave at the first attractive opportunity. The point is that there must exist incentives for top senior, and promising junior staff, to stay on. Court estimates that of 40 Ph.D.s in economics financed by the Rockefeller Foundation between 1963-67, about 20 percent are still at universities in Kenya, Tanzania, and Uganda as of 1979.<sup>39</sup> This suggests that such personnel are valued outside academia, and that the investment in human capital was sound. But it also raises the questions on development and continuity of academic programs and developing senior African scholars with established reputations.

The foregoing has dire implications for the contributions of the rural social sciences to the process of economic development. The perceived lack of incentives, as well as opportunities, for undertaking long term research programs does not auger well for the future development of intellectual leaders in the academic community. One can ask "whence will come the senior academic leaders with established reputations, who will lead the development of curriculum, who will lead research effort, who will from a detached position outside of government advise on public policy, and who will participate in the international dialogue on issues

of the day?"<sup>40</sup> The current lack of incentive for development of senior personnel for these purposes is among the more severe consequences of the current dilemma. It also suggests areas of possible donor support.

5. The impending crisis in staffing. A more immediate question is "whence will come the staff to teach the students during the coming five years?" The dearth of new Ph.D.s in the pipeline portends a crisis in the near term. The Rockefeller Program, which was instrumental in staffing many departments during the 1960s and 70s, has ended, and there is nothing on the horizon to replace it. While many departments now have excellent Masters level programs, capacity for training Ph.D.s is lacking, and will be in the foreseeable future.

6. The academic-policy link. African social scientists, in my experience, often lament the lack of access to the policy making process. On first impression, the "visiting Westerner" is tempted to dismiss this as only typical of the more or less universal lament, certainly not limited to Africa, that policy recommendations based on research so often seem to fall on deaf ears. However, upon further reflection, and experience, one comes to believe that, indeed, in Africa the links between academic research and policy making are not well developed, or perhaps more correctly, are more indirect than in the U.S., for example. In the U.S., Hatch Act funding for research, close ties between the U.S. Department of Agriculture and Colleges of Agriculture, the "Land Grant Tradition" in general, and numerous interactions between policy makers and academic personnel, such as legislative internships and government-academic exchange programs for personnel provide rather direct channels for research results to flow to government, however imperfect and

seemingly ineffective, at times. In Africa, the connection between academic departments and policy making tends to be more indirect. Academic research and personnel, for example, may provide backup to donor organizations to initiate or fund a project or program, which in turn furthers a pre-determined policy of the host government. Of course, one must bear in mind that it takes time to establish these connections-- never an easy process. The African nations are relatively young and cannot be expected to accomplish this instantaneously. Yet, one must emphasize the need to forge these links in order to maximize the policy impact of limited academic resources.

Of immediate concern is the tenuous balance between available and required senior staff in many departments. In the University of Nairobi's agriculture economics department, for example, two senior positions are temporarily staffed by M.S. holders. Another position is filled by an expatriate from India on a temporary basis. Only one potential Ph.D. is in training abroad, and is anticipated back. Clearly, if even one or two senior staff members would resign, or accept a position at an expanding institution, such as Egerton University for example, the department would be severely stressed, if not in a complete crisis situation. Clearly, such a delicate balance is not conducive to the ongoing research activities which are so essential for departmental strength and effectiveness in policy assistance.

Exacerbating the situation is the increasing numbers of students on the horizon. With the possibility of sudden attrition of staff, it is unrealistic to label this situation anything but "impeding crisis".

## POSSIBILITIES FOR STRENGTHENED PROGRAMS

Some opportunities for a strengthened program in the social sciences might include the following:

1. A base of funding for research and information dissemination.

A few topics in a potentially long list might include:

- Impact of new agricultural technology on family time allocation, income, and living patterns.
- Fiscal, Monetary, and international trade policy as it affects agriculture.
- Improving the rural infrastructure and its effect on rural-urban migration.
- Economics of agricultural production, storage and marketing.
- Land and natural resource policy, including relation to production and conservation of natural resources.

Obviously, the list could be long, and even under the most optimistic scenario, not all could be accomplished. Research programs need to be concentrated on key developmental issues.

2. Developing means of communication and/or networking. In many African universities, there is a lack of "critical mass" which is necessary to develop and maintain the professional edge. It simply is impossible to keep current if a graduate program is non-existent, and if there are too few professional colleagues with which to confer. At the University of Nairobi, the African institution with which I am most familiar, this is less of a problem. But at many institutions throughout Africa it is a problem. One means of overcoming the problem is development of networks such as the very productive and successful East and Southern African Macroeconomics Network supported by the International Development Research Center (IDRC), and the Pan-African Agricultural

Economics Research Network supported by the Winrock International Institute for Agricultural Development. If Africans are to achieve their full contribution, they simply must be given the opportunity to develop as professionals, and networking may be an efficient way to achieve this.

3. Developing a tradition of providing timely information useful to farmers and policy makers. This might take the form of periodic reports on research, or shorter analyses of prices, problems, or policies relating to major commodities. It might further take the form of annual outlook reports based on available information. It would be useful to further develop working relationships with the Ministry of Agriculture and other key agencies of government. This is not to suggest duplication, or that the University should become a research arm of government. It does suggest, however, that better use might be made of existing information.

4. Developing new sources of support staff. It may be possible to make greater use of lower cost, but well trained graduate, and even undergraduate assistants, for some teaching functions. Insofar as classes are large, and support facilities are scarce, it seems that graduate assistants could conduct "help sessions", as well as assist in administering examinations. This would not only provide low cost assistance to senior staff, but would be valuable experience for students who may be interested in pursuing advanced study. At many institutions in the U.S., undergraduates of advanced standing are hired for responsibilities such as grading homework assignments for beginning level courses. This enables more intensive instruction of students, and is of direct benefit to undergraduates so employed.



5. Development of indigenous teaching materials. While the volume of indigenous research and teaching materials written by Africans has increased dramatically during the past decade, much remains to be done. While the limited size of the market, and the large teaching loads, mitigate against such development, there must exist innovative ways of overcoming these barriers. This may be a cost-effective area of donor support.

6. Programs to create incentives for promising mid-career professors to remain with the university in academic positions. This may require measures such as "salary topping", and provision of opportunities to periodically study or conduct collaborative research abroad.

These activities would clearly involve some short run costs to the nation. Yet, the potential payoff in terms of building institutional capacity are potentially very high, and these possibilities may provide attractive and interesting items for potential funding by donor organizations.

#### COMPENSATING OPPORTUNITIES FOR AFRICAN SOCIAL SCIENTISTS

As with the problems of economic development in Africa, the problems under which social scientists labor in Africa are legion. But there are some unique and exciting opportunities available to the African social scientist as well, and it would be remiss not to specifically note them.

In the developed nations, basic decisions regarding fundamental economic organization have been made long ago. While American social scientists produce work which often has direct policy application, with rare exception, contributions in the policy arena tend to suggest no more than marginal change.

Further, the structure, tone, and orientation of most academic departments has been set, and change again tends to be marginal. Basic textbooks have been written, with revisions numbering in the double digits. The marginal contribution of yet another American textbook on intermediate microeconomic theory, or principles of agricultural marketing, must certainly be minuscule, as there already are many fine examples of such works.

By way of contrast, Africans are engaged in the deadly serious task of economic development and nation building. The well-educated, industrious African social scientist has the opportunity to contribute to decisions which can affect, for good or ill, the course of events of national institutions in a way that simply is not open to his/her North American or European counterpart. Certainly, this must be an exciting and inspiring opportunity and responsibility--to be in position to so profoundly shape the form of an academic department, to provide the information on which pricing policy will be made, or to shape and form the questions which will provide the basis for planning policies.

Not only would the opportunities for the African social scientist for contribution to public policies be abundant, but the opportunities for individual professional development as well. The basic text materials on numerous subjects in Africa have yet to be written, waiting only for the African scholar to put it to the pen. While the marginal contribution of another text on farm management would be of little value to the American student, such a text, based on established principles, but using distinctly Kenyan applications, would be of enormous value to Kenyan students. The same would be said of agricultural marketing, pricing and

trade policies of coffee and tea, and many other topics.

This is not to imply that policy makers in Africa are always anxiously awaiting the advice of social scientists. I nevertheless assert that the opportunities, and the need, for African social scientists to contribute to economic development are legion, notwithstanding a perceived reluctance of policy makers to seek such counsel.

We noted the limitations of time for research and writing, and limited resources of Kenyan educational institutions. Yet, too much can be made of these limitations. Resources of Kenyan educational institutions are not limited to national resources, but consist of potential assistance of the donor community as well. These resources can be tapped for assistance in developing course materials, and perhaps in subsidizing the cost of production of low cost materials. Often, much can be done at a surprisingly modest cost.

Thus, unique opportunities exist for the contribution of African scholars to national economic development, as well as for individual professional contribution, in "Africanization" of existing knowledge and synthesizing and authoring basic works which can serve as a basis for future students.

As Galbraith has noted in a related context, "The advantages of late arrival are all too few. Those that exist should be exploited."<sup>41</sup>

#### Training of African Social Scientists

Let us conclude with a note on the training of African social scientists, emphasizing agricultural economics, the field with which I am most familiar.

Many African academic departments now have programs at the masters

level which are well recognized.<sup>42</sup> Based on my experience, I would not only affirm the validity of such programs, but add that they have some notable strengths. In particular, virtually all students write their thesis projects using primary data derived from field interviews. In contrast, most graduate students in agricultural economics in programs with which I am familiar in American universities, use secondary data, and never attain the valuable field interviewing experiences.

African masters level programs have come far in the last decade, and some institutions have begun Ph.D. programs. However, even as Ph.D. programs develop in Africa, it would be unrealistic to rely on African "self-sufficiency" in Ph.D. training. It seems realistic to expect a substantial share of the new Ph.D.s to staff African institutions to have received their advanced degrees from abroad.

What are the special responsibilities and considerations which North American and European programs have for African students, particularly at the Ph.D. level? Over two decades ago, Ruttan and Weisblat asserted with respect to Asian students in agricultural economics, "Too little emphasis has been placed on preparing agricultural economists from abroad for work on problems of national significance, to giving them training in macro-economic theory, including its rigorous quantitative application in the fields of demand, supply, and resource utilization. We do not suggest that the Asian student avoid micro-economic studies. But he does need a sufficient grounding in macro-economic theory to enable him to organize micro-economic studies which will contribute to knowledge needed for the development of agricultural policy."<sup>43</sup>

This advice, rendered in 1965, could as well be directed toward the

training of African agricultural economists in 1988. Further, I would emphasize the importance of setting the research topic in the appropriate theoretical framework. The most advanced quantitative technique is mischievous--even pernicious--if the fundamental economic concept is missed. This mischief is exacerbated if the analyst perceives professional reward in accordance with complexity of technique employed.<sup>44</sup> While the tendency to carry around a tool in search of a problem on which to use it is not unique to young African scholars, Africa can ill-afford to squander its best talent on such exercises in futility, while more fundamental, urgent, and perennial issues of economic development beg for attention.

Such fundamental issues include those discussed earlier, and others: the efficacy of food crops versus cash crops; the real cost of self-sufficiency in a given product; import substitution versus export oriented development strategies; issues to be resolved and conditions to be met for development of PTA's, enabling expanded markets, economies of scale, and more efficient regional resource use; and, of course, a host of other international trade and exchange rate questions endemic to African nations.

Thus, I recommend for the African agricultural economist who will be in the "eye of the storm" on development issues, more emphasis be placed on conventional macroeconomic theory, including a thorough grounding in foreign trade and exchange rate theory. Further, in addition to price theory per se, the African student needs a thorough understanding of what the price system does not do, including conditions under which prices and markets do not foster efficient resource allocation--public goods, external costs and benefits, and monopoly conditions which are likely to

exist in small economies. These, we remind ourselves, are the rule, rather than the exception for developing countries.

To forestall charges of "economic nihilism", let us repeat--that while the price and market system can do much in the way of efficient resource allocation, thereby relieving government of decisions best left to the market, the task is to select that mix of prices and markets, and government direction, which works, and which is conducive to the all-important, urgent, and deadly serious task of economic development. A thorough knowledge of the theory of price is necessary, but I strongly emphasize--far, far from sufficient for these purposes.

I suspect that similar judgments may hold for social sciences other than agricultural economics, as well.

### Three Basic Questions

In discussing some very general aspects of social science in Africa, as well as some specific problems, we perhaps raise more questions than we answer. Three questions which are pertinent to the potential contribution to economic development follow.

1. What constitutes the present "indigenous cadre" of social scientists in Kenya and East Africa? Who are they, where are they located, in what career stage are they, and are there "typical" career paths taken? Certainly, a good portion of them are in academic institutions. Yet, as we have alluded, many have left. Some are in government, and some are in private firms, or acting as private consultants. Others are working for international organizations, and many more would like to! How will those who have left national service be replaced? Or, more ominously, will they be replaced?

2. Is the required "policy-relevant" research being done? Or, more fundamentally, with excessive teaching loads, is it possible for the relevant research to be done? Again, to re-emphasize the points made by Ruttan and Weisblat (footnote 43) the most useful microeconomic studies are those which contribute to broader macroeconomic questions. While the U.S. can afford to use a portion of its academic resources for micro studies oriented toward development of tools, and to answering questions having but tenuous and indirect policy relevance, I assert that Africa cannot.

3. Following from the preceding question, how can better links be forged between the social science, and the academic community in general, and the policy making units of government? Certainly, this is a difficult question, and one in which expatriates and donors can probably be of but limited direct assistance. Here again, as in so many other matters, the real thrust must come from within the nation, as its processes and institutions are developed. In the meantime, we should not diminish the role which the academic community already plays in training future civil servants. Yet, the necessity of forging more effective links between academic research and the policy making units of government must be of high priority.

This list of questions could be expanded indefinitely. But an exhaustive list carries the risk of obscuring the most important. And, I assert, identifying the indigenous social science community, ensuring that they do policy-relevant research, and ensuring that this reaches the relevant arms of government, are among the most urgent tasks regarding the indigenous social science community, and its potential contribution to economic development.

## CONCLUSIONS

The case for building indigenous capacity in the rural social sciences cannot rest on the assurance that social scientists will always provide accurate, correct, timely, and concise solutions to problems of developing nations. Perhaps the engineer can provide clear cut engineering solutions to engineering problems. And perhaps the agricultural scientist can provide rapid technical advice and prescription. But the most intractable problems of development are social problems, and social science, by definition, deals with behavior of people. Economic development necessarily involves the political, economic, and social organization of society, and changes thereof. The traumatic disruption and stress involved in such change brings us inexorably to questions of policy goals, many of which are conflicting; alternatives, many of which are controversial; and consequences, many of which are neither clear, evident, nor foreseeable. Quite simply, economic development deals with people, and as we have noted throughout, improving the condition of large numbers of poor people, many of whom are rural--with their hopes, dreams, aspirations, as well as with the reality of human faults and limitations--is obviously quite a different process than assembling structures from concrete and steel, or growing three blades of grass where but two grew before.

The case for building indigenous capacity in the social sciences must rest on a more broadly defined basis. We can start with the value to society and the nation of a reservoir of human capital, an articulate cadre of people who are capable of asking appropriate questions, of defining problems in such a way that choices and tradeoffs between conflicting goals can be clarified, that alternatives can be defined, and



consequences of alternatives by analyzed. This is quite different than providing a "correct" answer to a specific question posed by a government agency, but more valuable in the end. On such matters as agricultural policy, adoption of technology and its impact on families, health and family planning, natural resource policy, and a host of other development related issues, social scientists, using scientific techniques, can answer carefully worded questions, and test carefully constructed hypotheses. While results of such exercises are valuable in providing a better basis for social choice, it is not realistic to expect ultimate answers. The contribution of the social scientist is to clarify the goals, alternatives, and consequences, and in so far as possible, provide the unbiased information which enables better informed choices.

We note again that in many African countries, social scientists have held key posts in government. It is reasonable to speculate that many future leaders in government, and a large share of people of a growing middle class, will have had in their formal education a liberal exposure to the social sciences. One can take some measure of comfort in this, for a nation could do worse.

Certainly unique responsibilities and opportunities exist for Africans with respect to policy contributions, public service, and individual professional development. These opportunities will doubtlessly be pursued by the most talented of indigenous scholars, although they will require assistance form the donor community. Such opportunities, especially as aided by donor organization in the future, as in the past, can partially offset the many disadvantages and constraints under which African social scientists labor.

Finally, a broad brush view such as such inevitably raises more questions than it answers. The three fundamental questions are: (1) What constitutes the present and future indigenous cadre of social scientists in Kenya and East Africa, and what are its characteristics? (2) What is their current and future capacity to contribute to the necessary policy-relevant research? and, (3) What are means of ensuring that the results of such research get incorporated into the policy making process? These are issues which must be addressed if indigenous social science is to maximize its contribution to economic development.

While the exact role of social science as a direct catalyst in economic development is debatable, increasing reliance on competent social science undoubtedly heralds the fact that economic development is indeed in process.

## Footnotes

<sup>1</sup>The meaning of economic development itself provides grist for lengthy discussion and debate. The concept described here follows that outlined by Todaro, which I assert is as useful as any, and better than most. This definition may be criticized as broad and all-encompassing. However, economic development is a broad and all-encompassing subject! See Michael P. Todaro, Economic Development in the Third World, 3rd Edition, Longman (New York) 1983. Chapter 3.

<sup>2</sup>This point is made by M. S. Ahluwalia and H. Chenery, "A Conceptual Framework for Economic Analysis", in H. Chenery, Duloy, and Jolly, Redistribution with Growth: An Approach to Policy (Washington, DC: IBRD, 1973), pp. 2-4.

<sup>3</sup>As a more concrete illustration, consider a hypothetical example where the initial income distribution by quintile is 5,5,5,20,65 = 100. If the income of the lower 3 quintiles would increase by 100 percent, over some time period, we would have 10,10,10,20,65 = 115, which is a 15 percent increase in total income. However, should instead the new distribution be 5,5,5,30,75 = 120, we have a 20 percent increase in total income, but a distribution even more skewed toward the top than before. See Todaro, op cit., p. 161, for further elaboration on this point.

<sup>4</sup>Todaro, op cit., p. 157.

<sup>5</sup>Yujiro Hayami and Vernon W. Ruttan, Agricultural Development: An International Perspective, Johns Hopkins (Baltimore) 1985, Chapter 11.

<sup>6</sup>Fortman, Louise, and Diane Rocheleau, "Women and Agroforestry: Four Myths and Three Case Studies", Agroforestry Systems, Vol. 2, The Hague: Martenus Nyhoff/Dr. W. Junk, Publishers, 1985, p. 254.

<sup>7</sup>Todaro, op cit., pp. 31-33.

<sup>8</sup>Ireri, Dunstan, "Environment in Relation to Development in Kenya", a report prepared for The United Nation's Environmental Programme (Office of Environmental Management Services), Nairobi, December 1987, draft copy, p. 47.

<sup>9</sup>IBRD, Population Growth and Policies in Sub-Saharan Africa: A World Bank Policy Study, Washington, DC, 1986.

<sup>10</sup>FAO, African Agriculture: The Next 25 Years, FAO of The United Nations, Rome 1986.

<sup>11</sup>Ibid., p. 2

<sup>12</sup>Ibid., p. 2.

<sup>13</sup>Ibid., p. 2.

<sup>14</sup>IBRD, op cit., p. 68.

<sup>15</sup>Ibid., p. 71.

<sup>16</sup>The high projection versus the low projection by 2050 in Kenya differs by some 62 million people, or 3 times the current population.

<sup>17</sup>Republic of Kenya, Economic Management for Renewed Growth, Government Printer, Nairobi, 1986.

<sup>18</sup>Ibid., p. 1.

<sup>19</sup>Ibid., p. 6.

<sup>20</sup>Ireri, op cit., p. 69.

<sup>21</sup>Kenya/USAID, Watering the Shamba: Current Public and Private Sector Activities for Small-Scale Irrigation Development in Kenya, WMS Report 40, Cornell University, April 1986.

<sup>22</sup>See Ireri, op cit., especially pp. 22-26 for a more thorough discussion.

<sup>23</sup>Galbraith, John Kenneth, Economic Development, Houghton Mifflin Co., Boston, 1964, p. 20.

<sup>24</sup>For a thorough review of the evolution of the role of agriculture in development theory, see Hayami and Ruttan, op cit., especially Chapters 1 and 2.

<sup>25</sup>Officially known as District Focus for Rural Development, this strategy was first implemented in 1983 as a result of a Presidential Directive, and became the theme of Kenya's 5th Development Plan, 1984-88.

<sup>26</sup>See Hayami and Ruttan, op.cit., pp. 426-438 for a more thorough discussion of these points.

<sup>27</sup>As of this writing (March 1988) the International Development Research Center (IDRC) is contemplating support of an oilseeds research project in Kenya, including the potential demand for the byproduct, oilseed cake, as a dairy supplement.

<sup>28</sup>See Bale, Malcolm D., and Ernst Lutz, "Price Distortions in Agriculture and Their Effect: An International Comparison", World Bank Staff Working Paper No. 359, Washington, DC: IBRD 1979, for a thorough discussion of this issue.

<sup>29</sup>The Lagos Plan of Action is an agreement that was signed by the African Heads of State at a special economic summit of the Organization for African Unity (OAU) in 1980. It basically was a declaration of intent to proceed towards self-reliant development by means of regional cooperation and integration. See Susan Hall, "The Preferential Trade Area (PTA) for Eastern and Southern African States: Strategy, Progress, and Problems", Institute for Development Studies, Working Paper No. 453, Nairobi, September 1987, p. 6.

<sup>30</sup>Ruttan, V. W., "Development Thought, Development Assistance, and Assistance Impact," University Graduate Faculty of Economics, Lecture Series #2, November 1987, Oregon State University, p. 113.

<sup>31</sup>See Hall, op cit., for a thorough discussion of the current status of the PTA for Eastern and Southern Africa.

<sup>32</sup>See Gulhata, Ravi, "Exchange Rate Policies in Eastern and Southern Africa, 1965-1983", World Bank Staff Working Paper No. 720, Washington, DC: IBRD 1985, for a discussion of exchange rate policies in Africa during the post-independence period.

<sup>33</sup>Galbraith, op. cit., Chapter 3. These observations, offered over 25 years ago, are as valid today as in 1962, and I borrow heavily from them in what I see as their applicability to Africa today, and U.S. attitudes towards economic organization in African nations.

<sup>34</sup>L. Adele Jinadu, The Social Sciences and Development in Africa: Ethiopia, Mozambique, Tanzania, and Zimbabwe, Swedish Agency for Research Cooperation with Developing Countries (SAREC) Report R 1:1985, p. 7.

<sup>35</sup>Ibid., p. 7.

<sup>36</sup>David Court, The Idea of Social Science in East Africa: An Aspect of the Development in Higher Education, Discussion Paper No. 272, Institute for Development Studies, Nairobi, 1981.

<sup>37</sup>Ibid., p. 51.

<sup>38</sup>Ibid., p. 10.

<sup>39</sup>Ibid., p. 17.

<sup>40</sup>This point is consistently raised by University of Minnesota colleague Vernon W. Ruttan.

<sup>41</sup>Galbraith, op cit., p. 56.

<sup>42</sup>Some years ago (circa 1981) the University of Minnesota Department of Agricultural Economics declared a policy of encouraging Third World students who desired to apply for the Ph.D. to first pursue a masters program at their home institutions before applying to Minnesota for the Ph.D. in agricultural economics. This policy affirms the recognition by a major American institution of the viability of such Masters level programs.

<sup>43</sup>Ruttan, V. W., and A. M. Weisblat, "Some Issues in the Training of Asian Agricultural Economics Graduate Students in the United States", Journal of Farm Economics, Vol. 47, No. 4, November 1965, pp. 1024-1026. These views, in my judgement, are as relevant today as in 1965, for Asians, as well as for Africans, and, it might be averred, for students from more developed countries as well.

<sup>44</sup>This observation, certainly not limited to African Agricultural Economists, is based on my personal experience with the Pan-African research network funded by Winrock International, and IDRC's Macroeconomic research network.

