DEPENDENCY THEORY AND DEVELOPMENT ECONOMICS: AN ASSESSMENT OF SAMIR AMIN'S VIEWS

By

Elhadji Amadou Wone

PLAN B PAPER

Submitted to
Michigan State University
in partial fulfillment of the requirements
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INTRODUCTION

Dependency and neo-Marxist theorists have exerted a substantial impact upon development economics. Western development analysts are becoming more aware of the important role that social groups and their political struggles play in the development process. However, controversy over some key issues of world development rages between the neo-Marxist and dependency theorists and neoclassical economists. A chief element in this controversy is a conviction among dependency theorists that development in backward areas is related through the international market to the developed countries and is "blocked" because of its integration into the world capitalist system. Moreover, this integration is hypothesized to lead to the underdevelopment of Third World societies.

Dependency theorists contend that because of the introduction of capitalism from outside, Third World economies are weak and national business groups in these countries are unable to launch and sustain industrialization. Furthermore, they argue that relations between developed countries and underdeveloped nations are relations of dependence. Dependence is defined as "a situation in which the economy of certain countries is conditioned by development and expansion of another economy to which the former is subjected." [Dos Santos, 1970:p.231].

In this dependency paradigm, an analysis at the world level is conducted in terms of two categories, center and periphery. Amin (1976) contends that a world level analysis is necessary, because the social structure of the periphery is a "truncated structure that can only be understood when it is situated as an element in a world social structure." [p. 294].

The concept of periphery-center was introduced by the Argentine Raul Prebish in the 50's, followed by Myrdal,[1] Frank, Cardoso, Hinkelammert, Dos Santos, Amin, de Janvry, and a number of others. The center refers to the developed nations ("self-centered" nations) which, neo-Marxists argue, through colonization and past colonial domination, have transformed the backward areas into peripheral economies, ("outward-looking" economies). "The periphery is that portion of economic space which is characterized by backward technology with consequent low levels of renumeration of the labor force and/or by advanced technology with little capacity to absorb the mass of the population into the modern sector." [de Janvry, 1975:P.491]. Lenin did not examine the peripheral economies but the concepts produced by his work on imperialism, constitute a perspective for the analysis of the class struggle in the world economy.

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[1] In his Economic Theory and Underdevelopment Regions, published in the United States as Rich Lands and Poor (New York: Harper and Row, 1958), the Swedish political economist Gunnar Myrdal used the concept periphery-center to analyze the effects of exchange between different regions of the United States. Myrdal contends that growth at the center (more developed regions), stimulates growth at the periphery (less developed ones) but these "spread effects" could be canceled or even reversed by "backwash" effects to the point that the periphery may not be able to organize and sustain new economic activities. Later, Myrdal extended his analysis to regional and international relations (see Myrdal 1970).

The purpose of this paper is to analyze Samir Amin's views on the role of agriculture in the development process of the Third World countries. It is beyond the scope of this paper to undertake a comprehensive analysis of the theory as a whole.

Amin is a well known neo-Marxist and one of the most publicly acclaimed African economists. Amin was born in 1931, in Egypt. He served from 1957 to 1960 as a Research Fellow of the Economic Development Organization, Cairo and later served as a technical advisor to the Government of Mali, from 1960 to 1963. Having established, over one decade, a solid reputation in these African governments, Amin began to gain admiration among a considerable number of intellectuals in Africa and throughout the world. Before being appointed as Director of L'institut Africain pour le Developpement et de la Planification (IDEP) Dakar in 1970, Amin was professor at three different universities: Poitiers and Vincennes in France, and Dakar in Senegal. Because of his growing influence on development planning officers, and young African intellectuals and the dominant role of agriculture in African economies, it is important to examine his views on agricultural development in Africa and in the Third World. These views cannot be fully understood, however, without an exposition of his theory of dependency and underdevelopment.

The influential theories of Amin have been subjected to relatively little published criticism. In fact, as Schiffer [1981] noticed, "there has been remarkably few critical appraisals of Amin's work." Schiffer tries to demonstrate that Amin's analysis is "illogical especially from the Marxist point of view" and that "available evidence does not support his contention of 'blocked' capitalist development." Sheila Smith [1980] criticized Amin's views on the necessity of an analysis of underdevelopment at the world level, on the nature of peripheral economies, and on the economic relationships between the center and the periphery.

This paper supplements the critiques by Schiffer and Smith. After a presentation of the broad theoretical features of Amin's work, this paper focuses on the following six main issues in Amin's analysis:

1. relationship between agriculture and industry,
2. types of agricultural production systems,
3. trade off between cash crops and food crops,
4. role of the state and private enterprise in marketing,
5. benefit incidence of rural to urban migration, and
6. benefit incidence of international migration.

The paper is divided into three parts. The first part is an exposition of Amin's theory of underdevelopment. It presents the origins of underdevelopment and the reasons proposed by Amin to account for constant reproduction of underdevelopment in the periphery.

Part two is an analysis of the origins and contemporary forms of underdevelopment in Africa. The continent was victim of the mercantilist slave trade. Africa was also victim of the "forced" integration into the world capitalist system. Amin tries to demonstrate how these historical events have impacted the agricultural sector in the African countries.

The third part is a critical analysis of Amin's views on the six important issues described above. It will be shown that Amin's views are contradictory in many cases.

I. THE ORIGINS OF UNDERDEVELOPMENT

Amin's study of the origins of underdevelopment is conducted in terms of two major and interrelated themes. First he analyzes the transition from pre-capitalist formations to the social formations[1] of peripheral capitalism. Amin tries to demonstrate that neoclassical economic theory is unable to explain the causes of underdevelopment. Secondly, he presents the general features of peripheral economies and how these structures will lead to stagnation.

A. Transition from Pre-Capitalist Formations to the Peripheral Capitalism

Neoclassical economic theory of transition from subsistence economies to market economies is presented by Amin as "doubly superficial and inadequate" because the results of such work "always suffer from the inadequacies of a 'science' that isolates the 'economic' field from that of sociology." [Amin, 1974C:p.137]. Amin rejects not only the methodology of neoclassical economic theory but also the terminology: "transition from subsistence economies to market economies." He argues that:

> the problem is not one of transition from subsistence economies [that is, economies without commodity exchanges] to market economies [which would imply that what is meant is a simple commodity economy, or that all market economies are similar].

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[1]Social formations are defined by Amin as an organized socio-economic, and political structure characterized by a dominant mode of production which forms the apex of subordinate modes. [Amin, 1972].

> It is a problem of transition from economic formations which are non-capitalist [but not necessarily non-commodity] economies to capitalist economic formations.
> [Amin, 1974C:p.137].

Thus, Amin asserts that: "the only scientific concept is that of transition from pre-capitalist social formations to the social formations of peripheral capitalism." [Amin, 1974C:p.138]. This analysis of transition is an extension of the theory of the transition from feudalism to capitalism (from the European feudalism to capitalism) developed by Marx.

Amin believes that "aggression by the capitalist mode of production, from outside, against these formations (pre-capitalist formations), constitutes the essence of the problem of their transition to formations of peripheral capitalism." [Amin, 1974C:p.142]. Amin contends that pre-capitalist formations are transformed by colonial trade, foreign investment, import-substituting industrialization and the international division of labor within multinational firms. The instruments are used by the capitalist mode of production to combat the "tendency of the rate of profit to fall."

On the question of colonial trade Amin observes that the colonial authority:

> concerns itself with stimulating 'monetarization of the primitive economy,' as the conventional expression has it. What is meant here is the use of methods that are purely and simply methods of violence, and therefore methods of primitive accumulation. The obligation to pay taxes in money form is the most widespread device employed. In the same connection, however, we should not forget 'compulsory crops': in tropical Africa, for example, the 'commandant's fields,' with the obligation to grow export crops. In extreme cases the cultivators have been simply expropriated: the creation of inadequate 'native reserves,' so that the African peasants are obliged to go and sell their labor power to the mines, factories, or plantations owned by the Europeans, belongs in this context.
> [Amin, 1976:p.204].

As a result of this domination and control, local craftsmen and small scale industries were ruined and local agriculture was deprived of its traditional markets. Thus the peasant now uses his food to buy industrial products instead of buying local crafts. [Amin, 1974C: p. 150]. According to Amin, this is an absolutely crucial phenomenon "which underlies both the alleged "population problem . . . as well as a certain number of parasitical directions subsequently taken by economic activity." [Amin, 1974C:pp150-51].

With foreign investment, "the conditions for unequal exchange--that is, for the reproduction of underdevelopment--are thus gradually assembled." [Amin, 1976:p.206]. But Amin believes that foreign capital is the symptom not the cause of the problem. The real problem is that "foreign capital was invested not in local production designed for the local market but in producing for the external market." [Amin, 1974C:p.160]. Moreover, it is impossible for local capital to find investment freely. Amin explains the role of foreign investment as follows:

> The penetration by foreign capital speeds up the formation of native capital. The latter cannot find investment, for the general reason that commercial exchange still goes on, parallel with the penetration of foreign capital, and that local capital, weak because newly formed [and therefore small in amount] is incapable of competing with the advanced industry of the center. The foreign capital that flows in makes the crisis still more intense.
> [Amin, 1974C:p.162].

The development which will result from this influx of foreign capital will become increasingly external to the local economy. "Dualism in the crudest form, the juxtaposition of two independent sectors, may sometimes make its appearance." [Amin, 1974C:p.163]. Amin recognizes, however, that a steady accumulation of capital which increases total demand, will take place as a result of foreign capital penetration. But he notes that, although accumulation occurs, the rate of development is slower, because craftsmen return to agriculture and the tertiary sector which offers substantial resistance to subsequent development; the specific direction taken by foreign investment; and finally, the limited possibilities for the newly formed native capital to be invested.

Industrialization by import-substitution is viewed by Amin as the third form of aggression by the capitalist mode of production against subsistence economies because the industrial monopolies endeavored "to maximize their profit on the whole of their activities, at the center and in the periphery, and this led them to prefer investing in the periphery in production for export." [Amin, 1976: p. 210]. The industries that were created employed modern techniques "that were too capital-using to absorb the unemployment caused by the aggression of the capitalist mode of production, and so reproduced the conditions of a market in which abundant labor supply kept wages low." [Ibid.]. If anything, it is Amin's opinion that the import substitution model of capital accumulation and development will simply increase the inequality within the system and impoverish the major part of the population. Using the reproduction model of Karl Marx, he explains why this strategy fails to bring about desired changes.

In this reproduction model, the economic system is divided into four sectors: (1) exports, (2) "mass" consumption, (3) consumption of luxury goods, and (4) capital goods. In a self-centered system there exists a "determining relationship" between sectors 2 and 4 which characterized the historical development of capitalism at the center increases total demand, will take place as a result of foreign capital penetration. But he notes that, although accumulation occurs, the rate of development is slower, because craftsmen return to agriculture and the tertiary sector which offers substantial resistance to subsequent development; the specific direction taken by foreign investment; and finally, the limited possibilities for the newly formed native capital to be invested.

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The international division of labor within the multinational firms according to Amin leads to a new form of inequality between nations. Amin contends that wages at the center are much higher even if the productivity is the same in the center and periphery. Therefore, this division of labor "deepens unequal exchange by internalizing this in the firm." [Amin, 1976: p. 212]. This new inequality has several effects:

> In the first place, the international division of labor deprives the periphery of any initiative of its own development, and thereby reduces to nil all chances not merely of 'catching up' in terms of consumption but even of aspiration to some sort of autonomy, if only of a cultural and political order. Then, it adds to the transfers of values from the periphery to the center. The visible transfers alone, in the forms of rewards of capital and payments for 'software,' and arising from the monopoly of specific kinds of equipment, are enormous. [Amin, 1976: p. 212].

The international division of labor is not, however, noticeable in the Third World as a whole. In South Korea, Taiwan, Hong Kong, Singapore, and Mexico, the effects of the international division of labor are already identifiable. For example, the balance of payments of these countries have become vulnerable for the following reasons:

> First because the exclusive allocation of investments to industries of this type has been made at the expense of agriculture and the industries aiming at the home market, so that there has been a rapid growth in imports in those sectors. Second, because imports of equipment and semi-finished goods have increased at the same pace as industrialization. Finally, and above all, because transfers of profits, visible and invisible, largely wipe-out the benefits of exports. The external balance worsens when the rate of inflow of new capital slows down, reproducing the familiar pattern of the blocking of independent growth. [Amin, 1976: p. 213].

Furthermore, despite the high growth rates achieved by these countries, Amin asserts that "they are even more dependent than they were twenty years ago" and "the strengthened domination of central capital forbids any formation of a bourgeoisie of national entrepreneurs." [Amin, 1976: pp. 213-14].

The peripheral formations have different origins and were integrated into the world system in different forms and epochs. But, "despite their different origins the peripheral formations tend to converge toward a pattern that is essentially the same." [Amin, 1974C: p. 378]. Amin presents the essential features shared by all the peripheral formations beginning with the first one--that is--the predominance of agrarian and commercial capitalism in the national sector of the economy.

> The development of agricultural production for exports tends to give rise to an agrarian capitalism throughout the periphery and, furthermore, the latifundia form of this agrarian capitalism, both in Latin America and in the East[1] is continually threatened by the rising power of the rich peasantry, so that the Kulak form of agrarian capitalist is tending to become general and to expand in scope.
> [Amin, 1974C: p. 378].

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[1]By East, Amin means Asia and the Arab World.

As a result of the predominance of agrarian capitalism, a large number of agricultural laborers are thrown out of employment, and the proportion of landless peasants increases. [Amin, 1974C: p. 381].

The second feature shared by all peripheral formations is the creation of a local bourgeoisie in the wake of dominant foreign capital. Amin contends that in such case the mechanisms of primitive accumulation will function in favor of colonial capital.

The third feature is the tendency to increase the role of state enterprises and a bureaucratic form of development. The rise of petty-bourgeois strata ("officials, office workers, in some cases old-style craftsmen, small traders, middle peasants, etc.") which assume major importance in local affairs is a manifestation of the phenomenon of state capitalism . . ." [Amin, 1974C: p. 394].

B. Development of Underdevelopment

Having presented Amin's analysis of the transition from pre-capitalist formations to the formations of peripheral capitalism, we can now indicate the forces which, according to him, account for the impossibility of attaining autonomous and self-sustained growth, that is development in the true sense. [Amin, 1974C: p. 393]. In his endeavors to prove that growth is blocked in the periphery, Amin uses central capitalism ("the true capitalist mode of production") as a standard against which the experience of the underdeveloped countries is evaluated. Underdevelopment, however, can be understood only at world level because the underdeveloped economy "is a piece of a single machine, the capitalist world economy." [Amin, 1974C: p. 19]. The world level analysis is further justified:

> . . . capitalism has become a world system, and not just a juxtaposition of 'national capitalism.' The social contradictions characteristic of capitalism are thus on a world scale, that is, the contradiction is not between the bourgeoisie and the proletariat of each country considered in isolation, but between the world bourgeoisie and the world proletariat.
> [Amin, 1974C: p. 24].

Thus, the periphery is a structure that can only be understood "when it is situated as an element in a world social structure." [Amin, 1976: p. 294]. Moreover, that structure is truncated because the "leading nucleus, the essential driving force, is at the 'center of centers,' in the monopolies of the United States," and the bourgeoisie of the periphery has been formed in the context of "a world market created, moved and dominated by the center." [Amin, 1974C: p. 25].

The primary objective of Amin's world level analysis is to show that the integration of the periphery into the world capitalist system has led to unequal international specialization which is manifested in three kinds of distortions in the development of the periphery. The distortions are the deviations from the "standard," "correct," "true," and "pure" capitalism, the central capitalism. The first distortion is the orientation of the periphery toward export activities (extraversion). This distortion, "the decisive one," is said to result from "the superior productivity of the center in all fields, which compels the periphery to confine itself to the role of complementary supplier of products for the production of which it possesses a natural advantage: exotic agricultural produce and minerals." [Amin, 1976: p. 200]. Therefore, that distortion "does not result from inadequacy of home market." [Ibid.].

The second distortion is the enlargement of the tertiary sector in the peripheral economies, which "neither the evolution of the structure of demand nor that of productivities can explain." [Amin, 1976: p. 200]. Amin explains:

> At the center, hypertrophy of the tertiary sector reflects the difficulties in realizing surplus value that are inherent in the advanced monopoly phase, whereas in the periphery it is from the beginning a result of the limitations and contradictions characteristic of peripheral development: inadequate industrialization and increasing unemployment, strengthening of the position of ground rent, etc. [Amin, 1976: pp. 200-201].

The third distortion, the orientation toward light branches of activity which use modern production techniques, is the source of "special problems that dictate development policies in the periphery that are different from those on which the development of the West was based." [Amin, 1976: p. 201]. In fact, we cannot confuse the underdeveloped countries with the now advanced countries as they were at an earlier stage of their development, because "underdevelopment is manifested not in level of production per head, but in certain characteristic structural features . . ." [Ibid.]. These characteristic features are the extreme unevenness in the distribution of productivities in the peripheral economies and in the system of prices transmitted to them from the center; the disarticulation due to the adjustment of the peripheral economies to the need of the center; and the economic domination of the center "which is expressed in the forms of international specialization . . . and in the dependence of the structures whereby growth in the periphery is financed . . ." [Amin, 1976: p. 202].

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In the final section of Volume I of his Accumulation on a World Scale, Amin points out that the development of peripheral capitalism is neither regular nor cumulative. "On the contrary, it is jerky and made up of phases of extremely rapid economic growth ['economic mirales'] followed by sudden blockages and 'failures to take-off.'" [Amin, 1974C: p. 299]. These blockages are manifested in a double crisis of external payments and public finances, "which is a chronic phenomenon in the history of the Third World." [Ibid.].

II. HISTORY OF UNDERDEVELOPMENT AND AGRICULTURAL STAGNATION IN AFRICA

Amin undertakes a historical analysis to demonstrate the arbitrariness of some modern conceptions about African backwardness. He contends that, before the mercantilist slave trade, "Black Africa was not on the whole more backward than the rest of the world." [Amin, 1972: p. 506]. During that period, long distance trade "encouraged social differentiation, and the creation of states and empires just as it promoted the improvement of instruments, and the adaption of techniques and products to suit local climatic conditions." [Amin, 1972: p. 509]. Alas, with the mercantilist slave trade, and forced integration into the world capitalist system, "the only true 'traditional' Africa, neither isolated nor primitive" was transformed into a backward continent.

A. The Mercantilist Slave Trade

"Reduced to the function of supplying slave labour for the plantations of America, Africa lost its autonomy." [Amin, 1972: p. 511). The continent began to be shaped "according to foreign requirements, those of mercantilism." [Ibid.]. Amin presents the devastating effect of the mercantilist slave trade:

> There were wars and anarchy almost everywhere on the continent, and the flight of peoples towards regions of shelter which were difficult to reach and also very poor--such as those of the poleonegritic peoples in the over-populated mountains of West Africa. It all ended with alarming decrease in population. The processes

> of integration were stopped, as well as the constructions of large communities, begun in the premercantilist period. Instead there was an incredible fragmentation, isolation, and entanglement of peoples, and this, as we know, is the root cause of one of the most serious handicaps of contemporary Africa.

Amin asserts that the new forms of economic and social organizations imposed by the invaders, which stopped the normal development process, created an already bad situation for Africa that, alas, had to be worsened by the integration into the world capitalism system.

B. Integration into the World Capitalist System

Amin divides Black Africa into three wide macro-regions: the traditional West Africa ("Africa of the colonial trade economy"), the traditional Congo River basin ("Africa of the concession-owning companies"), and the Eastern and Southern parts of the continent ("Africa of the labour reserves"). Since Amin is mainly concerned with agricultural problems of West Africa, attention will be focused on that portion of the continent.

With the end of mercantilism, the slave trade disappeared; the old periphery of the plantation of America, and its African periphery of the slave trade, "had now to give way to a new periphery whose function was to provide <u>products</u> which would tend to reduce the value of both constant and variable capital used at the centre: raw materials and agricultural produce."[1] [Amin, 1972: p. 516].

The colonist powers shaped a system which made possible the large-scale production of tropical agricultural products for export under the terms necessary to interest central capital in them, i.e.

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[1]Amin's analysis concerning the terms under which these products were supplied to the center are exposed in Chapter I.

"provided that the returns to local labour were so small that these products cost less than any possible substitutes produced in the centre itself." [Amin, 1972: p. 516]. These procedures gave rise to the "Africa of the colonial trade economy."[1] The political and economic processes included the following:

> (i) the organisation of a dominant trade monopoly, that of the colonial import-export houses, and the pyramidal shape of the trade network they dominated, in which the Lebanese occupied the intermediate zones while the former African traders were crushed and had to occupy subordinate positions; (ii) the taxation of peasants in money which forced them to produce what the monopolists offered to buy; (iii) political support to the social strata and classes which were allowed to appropriate defacto some of the tribal lands, and to organize internal migrations from regions which were deliberately left in their poverty so as to be used as labour reserves in the plantation zones; (iv) political alliance in the social groups which, in the theoretical framework of the Muslim brotherhoods, were interested in commercialising the tribute they levied on the peasants; and last but not least, (v) when the foregoing procedures proved ineffective, recourse pure and simple to administrative coercion: forced labour. [Amin, 1972: p. 520].

As a result, the traditional society was distorted to the point of being unrecognizable; "it lost its autonomy, and its main function was to produce for the world market under conditions which, because they impoverished it, deprived the members of any prospects of radical modernization." [Ibid.]. Hence, "this 'traditional' society was not, therefore, in transition to 'modernity;' as a dependent society it was complete peripheral, and hence at a dead end." [Amin, 1972: p. 520].

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[1] Amin (1974b) contends that "trade economy" is not an exact translation in English of the expression "economie de traite" he uses in his original French texts. The producer in the "economie de traite" is a semi-proletarian because he is a producer who is dominated and exploited.

III. TRANSFORMING THE AGRICULTURAL SECTOR: SIX MAIN ISSUES

Amin's views on agriculture are scattered and difficult to synthesize for an overall appraisal. For example, in the book L'Agriculture Africaine et le Capitalisme, which Amin edited in 1975, he does not contribute any views on agriculture. He simply served as the editor without even writing a preface or forward. The starting point is to examine Amin's views on agriculture as part of his broader concern with the center and periphery.

A. Relationship Between the Agricultural and Industrial Sectors

The purpose of this section is to present and analyze Amin's views on six main issues involved in agricultural development. The first issue is Amin's global model of development and the relationship between the agricultural and industrial sectors in the development process. Unlike W. Arthur Lewis (1954 & 1965), Amin does not believe that growth in the "capitalist (industrial) sector" would somehow drag the "non capitalist (agriculture) sector" along the path of growth and development. Neither does he contend like Mellor (1976), that increases in technology and appropriate government pricing policy for food grain, would solve unemployment and food problems in the poverty-stricken areas of the globe. Instead Amin considers a coordinated expansion on the agricultural and industrial fronts, as the only path toward development.

In 1965, Amin published a book (1965) on the development process of three socialist countries: Mali, Guinea, and Ghana; he observed that annual growth rates were very low in these countries and a dual pattern of industrial and agricultural development was not meeting the needs of society. Moreover, he noted that the same general problems were found in the capitalist countries in West Africa. He contended that in order for both capitalist and socialist countries in West Africa to achieve higher growth rates that will reduce the gap separating them from the developed countries, they need to promote the concurrent development of the agricultural and industrial sectors.

Amin's version of the "Walk on Two Legs"[1] theory is organized around three major agricultural revolutions: first, the expansion of the use of draft animals; second, building up a machinery industry to produce investment goods; and third, change fiscal policy.

Amin [1965: p. 210] contends that the transformation of the traditional agriculture requires first of all "a widespread adoption of animal traction which implies the replacement--say within twenty years--of the present extensive farming methods to more intensive methods which mixed farming will offer." (Our translation.) Amin expects the productivity and returns from crop production to increase as a result of shifting from hand cultivation to animal traction. In fact he argues that agricultural productivity will increase three to four times as a result of animal traction. However, the success of this program calls for the mass mobilization of the rural people to create an awareness of animal traction technology. [Amin, 1965: p.211].

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[1]Amin borrowed this expression from Mao (1977). Working on two legs means to promote concurrently agriculture and industry.

This effort must be accompanied by "a real effort at diversification of crops, the development of industrially important crops, high value plantation crops, and improvement of livestock and increased quality control." [Our translation; Ibid.] Amin predicted that the animal draft revolution, "would permit, within twenty years, the construction of a solid agricultural base, on which large scale industry will rest." [Our translation; Amin, 1965: p. 211].

The second agricultural revolution consists of large investments in industrial plants and facilities that produce investment goods needed by industry and agriculture. For example, the industrial plants will produce tractors and fertilizer which will increase productivity and returns from crop production. [Ibid.]. But Amin believed that the establishment of large scale industries is out of the question without the establishment of a West African economic union. Specifically Amin felt that the only viable alternative is the creation of "industrial complementarities between the regions of a unified West Africa." [Our translation; Amin, 1965: p. 213]. As discussed above, Amin rejected the creation of import-substitution industries, because these industries will require capital and scarce resources (skilled labor), and they will increase inequality, and unemployment and thereby impoverish the major portion of the population.

The third agricultural revolution presented by Amin relates to the reform of the fiscal system in order to mobilize local resources for development. The financing of animal traction and large-scale industry requires curtailing consumption of the high income groups in order to channel "savings into productive investments." [Our translation; Amin, 1976: p. 225]. The state cannot rely on foreign aid, it must be strong enough to extract surplus purchasing power. Because, if investment is left to private firms, "the needed structural changes will never occur." [Our translation; Ibid.].

Now we shall examine the empirical data for each of the three recommended agricultural revolutions: on the animal traction recommended, Amin provided no evidence that increase in yields and gross returns on West African farms can be obtained through animal traction. However, constraints on adoption and effective use of agricultural technology, need to be identified and tackled. President Jawara's[1] address to the parliament of his country soon after independence is perhaps a useful pointer to the mistakes that have to be avoided:

> Agricultural technology is not simply transferable, but must be adapted to the peculiar conditions of individual locations. Production in this sector is carried on by a large number of individual farmers for whom it is not only a means for obtaining a livelihood but also the source of their family sustenance. Mistakes are therefore costly and individual farmers are thus reluctant to assume the risk of innovations whose advantage over traditional methods are uncertain. [Jawara, 1970].

Jawara's argument plays up the need for location-specific applied research to deal with problems of mechanization. If anything is clear, it is that agricultural problems of the different West African countries are not uniform and that there is not a large typical African country. A large amount of empirical data will have to be collected on a country-by-country, sector-by-sector, and sub-location-by-sub-location basis in order to come up with new innovations and techniques that reflect the changing needs of the different groups of the society.

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[1]Sir Dawda Jawara is the president of the Gambia, West Africa.

Viewed from this perspective, Amin's recommendations are unrealistic and nonoperational. In fact, a recent study [Sargent et al., 1981] based on a review of available literature and a detailed assessment of 27 projects in Francophone West Africa, belies Amin's contention that the use of animal traction can successfully be expanded to all the regions of West Africa. As of 1981, sixteen years after Amin published his book, "a package which has been tested and proven at the farm level is not available for widespread adoption in most countries in the francophone West Africa." [Sargent et al., 1981: p. 61]. "Overall," Crawford et al. (1981) wrote, "limited earnings opportunities, uncertain supporting services, and a high variable climate combine to confront the adopter with substantial financial risks." The results of the study done by Barrett et al. (1981) in Eastern Upper Volta, show that yields effects of animal traction are modest.

Animal traction can, and does, in some cases, achieve high benefits; however, only on-farm testing can show where it does. In fact, elements such as labor data, land tenure system, grain marketing study, inventory of the existing rural small scale industries, and all the questions related to biological and mechanical technology to the individual environment have to be seriously examined before animal traction can be carried into effect.

Six years after Amin had endorsed animal traction he reversed his position and stated "The use of animals means a heavy increase in the work required . . . there is no real economic incentive to adopt this method." [Amin, 1971: p. 170]. Furthermore, he emphasized that the Mossi peasants of the Central Plateau Region of Upper Volta, "more rational than those who want to transform the peasantry using a century old European model, as a standard, have resisted this false means of modernization." [Our translation.]

Turning to the second revolution--heavy industry--, Amin provides no empirical evidence that tractors are a sound and well tested technology that West African farmers will adopt. Moreover, in a review of surveys of tractor mechanization in South Asia, Binswanger (1978) discovered that the social and private benefits that arose out of the agricultural uses of tractors were often overestimated. Furthermore, "the tractor surveys," Binswanger wrote:

> fail to provide evidence that tractors are responsible for substantial increases in intensity, yields, timeliness, and gross returns on farms in India, Pakistan, and Nepal. At best, such benefits may exist but are so small that they cannot be detected and statistically supported, even with very massive survey research efforts. This is in marked contrast to new varieties or irrigation, where anybody would be surprised if he failed to find statistically significant yields effects, even in fairly modest survey efforts. [Binswanger, 1978: p. 73].

Although the results of this study cannot be applicable to West Africa, they do point out the importance of biochemical technology as a source of agricultural change. Moreover, even if mechanical technology did increase production, it could lead to problems of equity, welfare and employment as well. The results of Winch (1976) study in Ghana largely support the view that larger farmers generally adopted the new technology and made full use of it. Winch's study enables a much clearer perception of the policy options available to Ghana because it used a cost route survey to collect farm level data by continuously interviewing 161 farmers from May, 1973 through February, 1974. The costs and returns for six production systems (five bottomland production systems and one upland rice system) were analyzed from both the private and the social point of view. The author's comparison of the employment and income distribution implications of alternative rice production strategies revealed that a large scale, capital intensive strategy would generate less employment than a small farm production strategy. Moreover, Winch found that both strategies would generate about the same net farm income in the aggregate. (See Table 3.1 and 3.2.) But a small farm production campaign would generate more employment and income for casual workers (Table 3.3). Furthermore, we cannot say, like Amin did, that animal traction should be adopted first and the tractors later. Tractors can well be adopted first depending on the nature of the soil, cropping mix, and farmers' behavior toward the technology. Only empirical studies can tell which one is more suitable for the area studied.

Again, in a more recent publication, Amin warns of the danger of the use of modern techniques in the African rural sector and argues that the primitive forms of colonial exploitation are bound to evolve into a new type of rural economy:

> In agriculture, the increasing trend is the development of irrigated perimeters using modern technology (machinery, fertilizers etc.). This intensive exploitation will certainly cause land ownership to play a far greater role in social differentiation than it has ever played in the context of dry intensive farming. Such intensification is the sine quo non of the extention to tropical Africa of the 'green revolution' whose effects are now well known to speed up class differentiation. In the field of animal husbandry, the extensive semi-nomadic methods will no doubt be progressively relinquished to pave the way of a ranch economy. In a ruthless article published by the English review The Economist [October 6, 1966], an anonymous correspondent of unbelievable cynicism, declares that the Sahel 'vocation' is to produce meat for the developed world and that this vocation demands the disappearance of the population of semi-nomadic herdsmen

TABLE 3.1

Projected Output, Employment, and Income Impacts of a 35,000 Acre Rice Production Campaign in Northern Ghana: Small Farm vs. Large Farm

Indicator	Units	Small Farm Per Acre	Small Farm 35,000 Acres	Large Farm Per Acre	Large Farm 35,000 Acres
Output	Bags	8.7	304,500	10.2	357,000
	Tons		24,470		28,688
Employment	Man-days	30.6	1,071,000	6.8	238,000
	Man-months		44,625		9,917
Net Farm Income	Cedis	60	2,100,000	63	2,705,000
	Cedis	27	945,000	81	2,835,000

SOURCE: Winch (1976).

TABLE 3.2

Producer Income Distribution Implications of a 35,000 Acre Rice Production Campaign in Northern Ghana: Small Farm vs. Large Farm Approach

Small Farm				Large Farm			
Size of Farm (Acres)	No. of Farmers	Net Cash Income Per Farmer	Govt Transfer Per Farmer	Size of Farm (Acres)	No. of Farmers	Net Cash Income Per Farmer	Govt Transfer Per Farmer
		- - - - - Cedis - - - - -				- - - - - Cedis - - - - -	
2	17,500	120	54	100	350	6,300	8,100
4	8,750	240	108	200	175	12,600	16,200
6	5,833	360	162	300	117	18,846	24,231

SOURCE: Winch (1976).

TABLE 3.3

Income Distribution Implications of a 35,000 Acre Rice Production Campaign for Casual Workers in Northern Ghana: Small Farm vs. Large Farm Approach

Proportion of the Labor Requirement Hired (Percent)	Income Paid to Casual Workers	
	Small Farms	Large Farms
30	¢ 321,300	¢ 71,400
50	535,500	119,000
70	749,700	166,600
90	963,900	214,200

SOURCE: Winch (1976).

> now living there. The new ranches that are multiplying at present under the aegis of private 'agro-business' and external 'aid' and that will benefit first and foremost from the hydraulic resources, require as a matter of fact only very little labor. Therefore, once deprived of water those now useless herdsmen will have no choice but to die out. The overall result will then be that African agriculture and animal husbandry once renovated by the 'green revolution' will contribute to feeding the Europeans, while the local populations become useless and will be requested to emigrate or disappear.
> [Our translation; Amin, 1974b: pp. 61-62].

Moreover, in 1975 Amin asserted that the West African nations did not need the advanced technologies of the West because "it was the origin of their underdevelopment" and:

> This technology is not a neutral factor in the development of under-development and the flourishing exploitation of the peripheral period. It is the technical instrument and the vehicule of these evils.
> [Amin, 1975b: p. 37].

Hence, "progress must pass through the stage of developing an independent technology." [Ibid.]. Otherwise, Amin asserts, the West African countries will have to wait until discoveries have been worked out in and for the developed world to be asked to pay in gold for "dross" which does not cover their needs. [Amin, 1975b: p. 37]. However, in 1970, Amin was saying that "the problem of the choice of techniques is largely an artificial one which provides food for discussion in university circles; however, there are really no efficient labor-intensive techniques." [Amin, 1970: p. 217].

The third revolution is the reform of the fiscal policy. Indeed, the majority of high income receivers in West Africa continue to maintain the feudal style of life and invest in luxury goods leaving little margin for savings. Nevertheless, it is possible that the members of the "strong government" that Amin recommends will transform themselves into a bureaucratic bourgeoisie that will use taxpayers' money for its own private purposes. Moreover, it is not evident that this government will be capable of engaging in economic activities more efficiently than the private businessman.

Concerning the creation of an African Economic Union, Amin's views have also changed. In 1965, Amin recommended the creation of a West African market in order to stimulate exchange among African countries and enhance their development. [Amin, 1965: p. 219]. However, Amin later became extremely critical of the world capitalist and asserted that West African common markets should be viewed as "a reactionary policy, a European neo-imperialism which took over from the old colonialisms of the British, the French, the Belgians and others in Africa and in the Arab world, seeking to divide the world between them . . ." [Amin, 1975B [illegible]]. Essentially, Amin has not discovered a way to make the transition from an "outward-looking" economy to a "self-centered" one.

B. Types of Agricultural Production Systems

Soon after independence was achieved, some West African countries chose to organize their agricultural production systems along the socialist lines. The governments of Mali, Guinea, and Ghana opted for a policy of rural collectivization. In Mali[1] and Guinea, cooperatives at the village level, which englobe all the rural population and which assume major economic activities, were created. In Tanzania, the program of collective villagization (Ujamaa Villages) was the most serious attempt in disseminating socialist practices in agriculture.

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[1] Under President Modibo Keita, Mali was a socialist country.

Amin (1965), in examining the economies of Mali, Guinea and Ghana, was skeptical about the success of rural collectivization. For him, such a system will not bring about progress in agriculture; because, the collectivization will perpetuate the precapitalist production relations in the sense that it will reproduce the social values that are a real impediment to progress. [Amin, 1965: p. 231]. The problem of the rural people is according to Amin, to transform their sector, so, what needs to be done is not "to 'educate the peasants' in the context of the traditional family; rather the family and the traditions have to be broken up." [Ibid.]. Amin (1965) favors the development of a system where the production unit is a family "weaned from the social values." Moreover, Amin (1965) argues that the creation of dynamic privately owned small farms, that "develop individualism and free rural dwellers from the shackles of tradition, is what will bring about progress in agriculture." [Our translation; Amin, 1965: p. 231].

On the other hand, Amin is not in favor of a plantation economy. The very nature of the extensive plantation economy "involves serious risks for the future" because it has created, where it was implanted, a "regressive social structure." [Amin, 1973a].

The reason why in 1965 Amin recommended the creation of dynamic privately owned farms was that he believed that growth of small scale local production in the rural sector would disintegrate the precapitalist system, and would create the conditions for socialism by simply avoiding the appearance of severe class-differentiation. [Amin, 1976: pp. 231-2]. However, he neglected to indicate the mechanisms that would transform capitalism in the countryside into socialism. Neither did he mention how class differentiation would be avoided. Later, in 1973, Amin reversed his position and argued that "any development of production based on profit [particularly agrarian capitalism], . . . will prove negative in the long run, even if in the short run it facilitates the rapid growth of production." [Amin, 1973b: p. 56]. Instead, Amin opted for rural collectivization which represents the true step toward socialism:

> In Tanzania and other countries, a correct ideology and correct organizational structures mean that the Ujamaa, for example, represent a step toward socialism transformation.
> [Ibid.].

Amin thinks that this rural collectivization will not lead to inequalities and will bring about harmonious development. But Amin's predictions about rural socialism in Tanzania are not materializing. A number of scholars are providing evidence that rural socialism in Tanzania is not meeting food production goals. Some scholars such as Lofchie perhaps overstate when they report that "Tanzania's policy of rural collectivization has been abandoned as a failure" [Lofchie, 1978: p. 451], or when they assert that because of rural socialism, "Tanzania's supply of domestically produced basic grains fell disastrously short of national needs." [Ibid.]. Recently the World Bank provided a $150 million loan to help Tanzania cope with its general economic stagnation.

C. Trade Off Between Food Crop and Cash Crop

Amin's analysis leads him to conclude that specialization in cash crop production, is the main cause of the economic difficulties of the West African countries. According to him, it is colonization that created the belief that these economies could produce nothing but cash crops. This specialization does not correspond to real agricultural potential. The choice was made because the colonial state was not interested in the development of the colony; after independence, the same policy was continued by the national governments. In Senegal, the result of the specialization has been an "extremely low rate of real growth, estimated by the IBRD as 1.5% a year [at constant prices] for agriculture in the narrow sense between 1959 and 1969, compared with 6.1% for livestock rearing and fishing." [Amin, 1973a; p. 15].

The production of groundnut in Senegal will only lead to "slow, unbalanced and dependent growth." [Amin, 1971a]. For Amin, the surplus is transferred to the metropolis and this makes it impossible for the country to compensate for its permanently increasing deficit in trade. Moreover, Amin contends that the production of cash crops will not increase domestic savings:

> Cotton is similar to groundnuts in being a 'poor' crop; its price depends on the world market and its prospects are declining as a result of competition from synthetic fibers. The countries which have specialized in cotton [Chad, the Central African Republic, etc.] have problems similar to Senegal's.
> [Amin, 1973: p. 16].

The solution would then be the intensification and diversification of the economy in order to produce more food. Amin contends that:

> The main effort at diversification should be made in food production: with the principal object of supplying all the food requirements of the towns; and with the subsidiary one of supplying additional raw materials for certain industries, within a wider, West African economic framework which has still to be created.
> [Amin, 1973a; p. 57].

In Senegal, Amin contends that an intensive cultivation and modern forms of agriculture have to be developed on a large scale: for high yields of rice and sugarcane, and high quality produce (early vegetables and fruits, oil-palms in Casamance). In the groundnut basin, the main potential is not in fact groundnuts, "but intensive modern livestock rearing and the cultivation of fodder such as sugar-beets in rotation with millet and groundnut." [Amin, 1973a: p. 15].

It is worth noting that many of the suggestions are mutually contradictory. Amin (1965: p. 211) acknowledged the importance of food crops, but urged that more emphasis should be put on industrial crops: cotton, sugarcane etc. . . ., in order for agriculture to become a real base for industry.

In fact specialization in production and exports of cash crops, as a source of rural income and export earning, has occasioned deficit in cereals consumption and dependence on external sources for cereal grains. Moreover, in West Africa where populations depend mainly on agriculture for a livelihood, endeavors should be made to increase production of food crops which possess characteristics acceptable for both urban and rural population. Nonetheless, the solutions proposed by many studies on the Senegalese case suggest that cash crop production has also to be encouraged by means of diversification in order to respond to the need of foreign exchange earnings and rural incomes. Technical problems certainly exist; labor constraints sometimes limit the possibility to increase both production in the farm sector to meet the high levels of demand for food crops, and foreign exchange earnings which are mostly obtained through cash crop production.

The Government of Senegal has opted for, as a result of the World Food Conference in Rome, a policy for import substitutes of domestic production for imports of cereals. This policy option has been subjected to many studies. For Ross (1979), increase in domestic rice, millet/sorghum, and maize production, and promotion of their consumption, would be a difficult thing to realize. First because "the local Gambian rice, similar to rice varieties found in the Casamance, was not appreciated. Moreover, "although rice production increases could technically be achieved, the increase in price that will result from it, would undoubtedly lead to urban discontent." Hence, the targeted 43 percent reduction in rice consumption by 1985, is simply unrealistic because "millet does not appear acceptable as a mid-day substitute due to its incompatibility with fish and its heaviness." Appendix A provides information about Senegalese food self-sufficiency strategy.

Rigoulot (1980) sees the problem differently. He argues that "Senegalese consumers prefer the quality of rice produced in the Casamance and are willing to pay a substantial premium to get it." Moreover, he contends that the rice produced using improved techniques, and processed in small scale mills in the Casamance, "has a competitive advantage over imported rice for all of Senegal since all imported rice passes through Dakar." [Ibid.]. Another study done by Jabara et al (1980) contends that domestic import substitution programs "which distort internal prices to reflect risk may be optimal from an economic point of view." In any case, neither these studies nor the Senegalese government advocate for a policy that rules out international trade.

D. Marketing

Amin was deeply concerned about marketing and he wrote a book in 1969 about the pre-colonial, colonial, and post-independence history of marketing in Senegal. Amin showed that agricultural marketing in Senegal was dominated by colonial agencies which were replaced after independence by state agencies. He discussed the state agency (OCA) which until 1971 had legal monopoly over the buying and selling of groundnut and also a monopoly over the import of rice in Senegal, the state agency ONCAD which replaced it, and the large scale marketing sector. He also presented a detailed ethnic background of the national businessmen engaged in marketing in Senegal and their subordinate role in marketing. However, the book [Amin, 1969] is a history text rather than an analysis of the agricultural marketing system.

The crux of Amin's argument is that the state must play the essential role in marketing because only the state can perform the needed structural transformation. Amin contends that "the private businessmen do not have the financial means and the human capacity to do marketing." [Amin, 1969: p. 185]. "Hence," Amin wrote, "socialism becomes the only alternative." [Ibid.]. But, as Lele and Candler (1981) point out, although governments are responsible for food security, they do not have the power to control major components of the food distribution system. Therefore, there is a need to analyze the traditional marketing sector in African countries which normally handles approximately 80-90 percent of the food for domestic consumption. Obviously, as Lele (1977) noticed, there is a positive role for public sector involvement in marketing in areas such as market regulation, construction of storage facilities and development of transport network ought to be taken care of by the state. But the experience with state trading companies has not been very successful in most African countries. In cases where marketing boards have been successful they have handled export crops and often have a legal monopoly. Also the export trading schemes were already established by the colonial system. Whereas, in domestic food marketing the state often abolishes private trading and pursues exploitation by another kind of monopoly. State agencies have difficulty in duplicating the skills and technical expertise of private traders.

The reason why Amin does not trust the privately owned firms with agricultural marketing is that they are incapable of ensuring effective marketing. Here again, evidence has shown that the small businessmen in the African rural areas are cautious operators. They might be lacking in financial means to carry forward their determination to cope with life, but they are as humanly capable of doing marketing as anyone else.

Furthermore, as Harrison et al.pointed out, the "marketing system" should be regarded as "a primary mechanism for coordinating production distribution and consumption activities." [Harrison et al., 1974: p. 4]. Hence, in analyzing marketing problems it is relevant to know how the actions undertaken by producers, truckers, processors, assemblers, wholesalers, retailers and consumers are coordinated and how the coordination affects the system as a whole. (See Figure 3.1.)

The following approach to market system diagnosis and reforms is proposed by Harrison et al. (1974, p. 8).

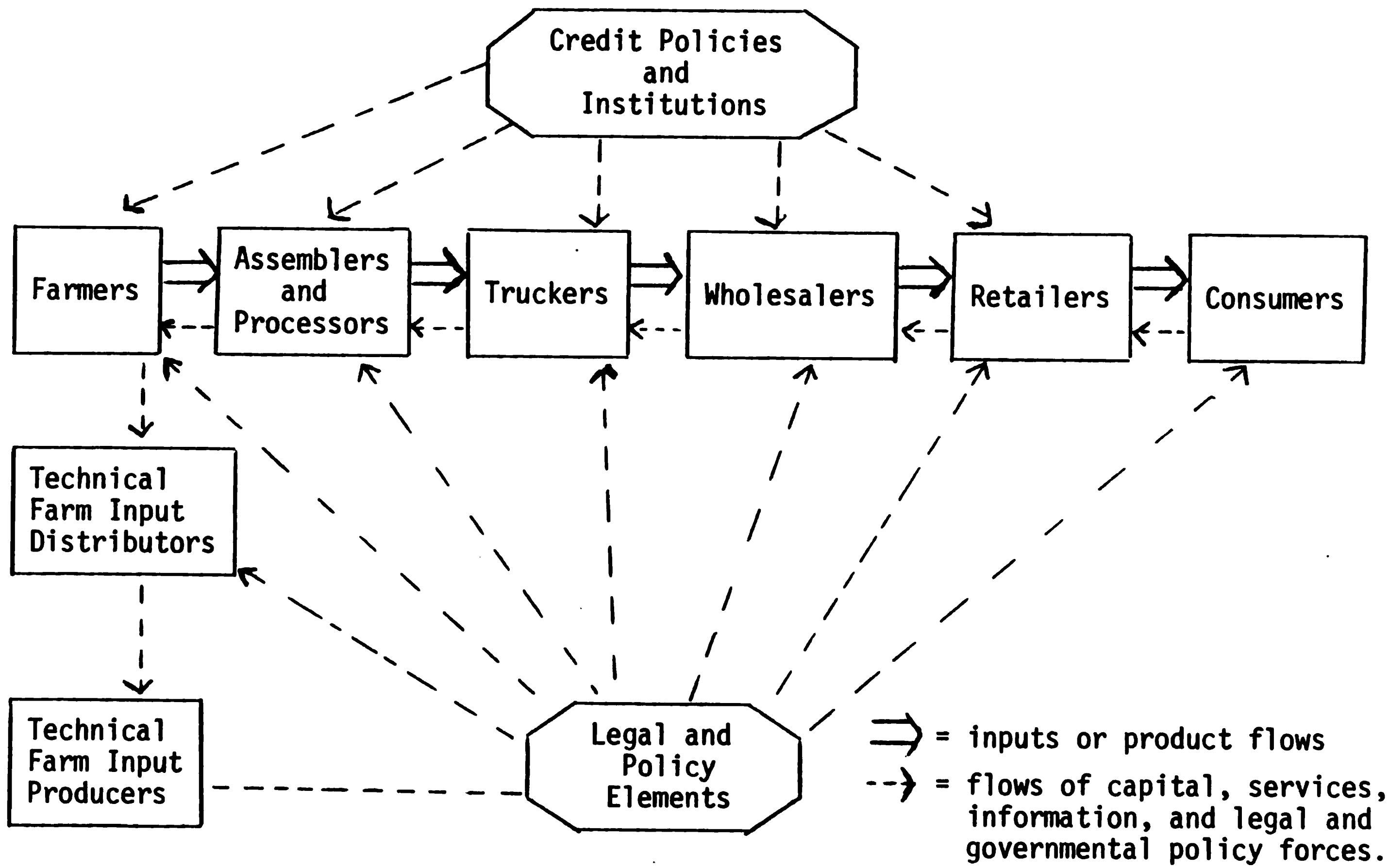
1. "An examination of the food production-distribution-consumption system in a selected market, which can be extended to include entire countries."

2. "A description and analysis of the urban food distribution system and related commodity supply subsystems to identify potential opportunities for improvements."

3. "Preparation of similar diagnostic studies directed toward farm input and consumer goods distribution, and selected public aspects of marketing concerned with laws and regulations, information systems and credit policies."

FIGURE 3.1

An Illustration of Principal Components in a Diagnostic Study of Agricultural Production--Distribution Systems



SOURCE: Harrison et al. (1974).

4. "An evaluation of marketing system performance that is both normative and relative."

Agricultural marketing is a very important issue because it is through the marketing system that production and consumption activities are coordinated. Therefore in analyzing the system, a great amount of empirical data needs to be collected in order to diagnose and identify market structure and performance. An analysis which is not derived from empirical data will lead to costly errors of policy implementation.

E. Rural to Urban Migration

Recent work on migration in tropical Africa, as Gerold-Sheepers and Van Binsbergen (1978) pointed out, displays a dazzling heterogeneity in terms of theoretical approaches. Using a Marxist approach, Amin (1974) criticizes the neoclassical views on migration as "singularly inadequate." Precisely, Amin rejects both the "methodological-individualist" approach presented by Todaro (1969) and the "structural functionalist"approach presented by Berg (1965). Amin claims that it is necessary "to analyze the system, determine its rules and its needs before examining how men conform to it." [Amin, 1974a: p. 91]. Hence, Amin suggests that the problem of migration should be seen in terms of the modes of production and the organization of the society rather than the individual choice of the migrant. Amin believes that "The rational choice of the migrant is nothing but the immediate apparent cause; a platitude which leads nowhere. [Amin, 1974: pp. 88-89].

Thus, individual motivations are only outward indications. People leave their regions because they are "obliged to get money within the framework of a system that gives them no alternative." [Amin, 1974a: p. 99]. On the other hand, Amin does not support the use of the cost and benefit analysis of migration because he believes that economists can introduce whatever they want in the costs and benefits, and readjust them accordingly. [Amin, 1974a: p. 101]. Instead, Amin proposes the concept of "simple economic growth" or change in per capita income to analyze the effect of migration. This procedure will be examined in the next section.

For Amin, migration is one aspect of the penetration of capitalism and will only lead to the impoverishment of the departure areas which are transformed into reserves of cheap labor. Amin, contrary to the claims of Berg, does not believe that migration will be beneficial to the regions of emigration "because the absence of workers will prevent the cultivation of new land." [Amin, 1974: p. 99]. Finally on the question of migrants' remittances which neoclassic economists play up, Amin believes that the amount of money remitted is often "so small as to be laughable and for the most part serve only to pay taxes." [Amin, 1974a: p. 100]. But can we consider, as Amin does, that the cultivation of new land in the departure regions is eliminated by "the very fact of migration"? There is no evidence that something would have been done in these regions under the present structure, if we follow Amin's argument that as long as the economy is integrated into the world system no productive activity can be undertaken. Obviously, in absence of better alternatives, the rural people have chosen to migrate as a second best strategy in order to ameliorate their living conditions. In a recent study in the Casamance region in southern Senegal, de Jonge et al. (1978) showed that remittance represents, on the average, 33 percent of the household budget of families in the village of Diotock in the Casamance region of Senegal. Even though the authors think that the year 1974 was a special year for that village, because of special ceremonies, this gives much reason to believe that the money sent can be more than supplement "to make ends meet." The same study indicates that investments were being made in banana production in Birkama village even though a large percentage of people had left the village.

Moreover, if the money earned by the migrant is not invested in productive activities, in his village, it could be because of the structure of the society. For instance, sending relatives to Mecca is viewed in the Fulani society of Mauritania and Senegal as a very productive activity.

A study by Niang (1979) in the Sine Saloum region of Senegal showed that farmers invested in productive activities with the money they brought from the other regions of the country. A survey of 24 farmers revealed that the money they brought back to their village was used for their wedding, improvement of livestock, debts repayment, small business, and savings.

Amin asserts that monetization of the economy increases inequality and "the money sent by the migrants increases the process of monetization." [Amin, 1974: p. 104]. It is worth noting that the expansion of small farmer production Amin had recommended in 1965 cannot proceed without the monetization of the economy. Migration is a delicate issue. In order to come up with a realistic assessment, a lot of empirical studies must be carried out.

F. International Migration

Historically, international migration has been of central importance in sub-Saharan Africa. For example, migration to mines is a dominant theme in the southern African region. In West Africa an estimated two million of eight million people of Upper Volta live outside of Upper Volta. The neoclassics and neo-Marxists take different approaches in evaluating the social and economic costs and returns of international migration.

Although Amin rejects the use of income per capita to compare the level of development of countries,[1] he surprisingly uses income per capita indices to show that international migration does not benefit the source areas.

Amin's analysis can be represented as follows:[2]

$$TC = d \times TP \times \$50 \times 20$$

Where:

TC = total cost of migration for the source areas

d = reduction of rate of population growth in the source areas due to migration

TP = total population of the source area

\$50 = cost of feeding[3] one migrant per year

20 = the average age of migrants

To illustrate the case of Upper Volta, Amin used the total population of that country in 1970 (TP). The total population is multiplied by the reduction of population growth rate due to migration

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[1]Amin claims that Gabon with its $600 per capita GDP is not less but more underdeveloped than Ruanda with $70. [Amin, 1970].

[2]This mathematical representation is not used by Amin [1974: pp. 42-43] but it makes the analysis easier to follow.

[3]In the translation this is referred to as the "cost of composition." This is a poor translation.

to obtain the total number of migrants for the year 1970. Amin assumes that the average age of the migrant is 20 years and the cost of the feeding the migrant from his birth to the age of 20, is $50 per individual per year.

For Amin, TC represents a benefit for the host areas and a cost for the departure area. Hence, Ivory Coast benefits from the migration and Upper Volta loses. For Upper Volta, Amin contends that the loss represented by emigration is 50 millions of dollars.[1] This amount represents the total cost of feeding the emigrants from their birth until they reach the age of twenty. Discounted, it represents 6.2 percent of the GNP of Upper Volta.

Amin's analysis is incomplete and misleading for several reasons. First, the analysis does not tell us anything about the benefits that Upper Volta obtains from migration. A costs-benefits analysis is rejected and replaced by an analysis using only costs. At least using Berg's neoclassical analysis, we would have some costs and some benefits which are compared. Also it is implicitly assumed that all the emigrants will never come back to Upper Volta; the country lost them forever, they never worked for the society before they left and they will never do so.

Secondly, children are productive in African society and contribute to their subsistence by working as early as age ten or eleven. Hence, it is incorrect to assume that the society's cost to maintain young people until they migrate at age 20 is $50 per person per year.

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[1]Note that this amount is not an annual cost as the English translation of Amin's French text implies.

Obviously, even if it is true that migration benefits only the host areas, Amin's analysis fails to prove it. Even if we accept the results of the analysis, one could argue that migration was a good investment for Upper Volta in terms of foreign exchange earning because the workers' remittances were $137.0 millions from 1970 to 1974 compared to the $26.3 millions sent out during this period. (See Table 3.4.)

Note that the table gives the usual neoclassical information on remittances through official channels; some remittances, goods and cash when the migrants return home, are not included in the table.[1] In any case, it should be remembered that discussion of the modes of production and the organization of the society does not mean the elimination of a rigorous analysis. Rather, a good understanding of the organization of the society commends a circumspect analysis of the production and reproduction schemes. Therefore, micro and macro economic analysis are needed. The same mode of production, say the capitalist mode of production, displays striking varieties while the essence--that is, the proprietorship of the means of production that dictate the productive relations--does not change, the means of production are privately owned. One cannot say that the Swedish system is identical to the American one. Hence, while still having in mind the nature of the mode of production we must investigate further to discover the differences.

In the same way, migration will have different impacts on different social formations although the dominant mode of production is

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[1]Appendix B gives some indications about the demographic dimensions and characteristics of migration in West Africa.

TABLE 3.4

Workers' Remittances in Selected West African Countries, 1970-74

(millions of U.S. dollars)

Country	Amount Received	Amount Sent Out	Net Receipt
Gambia	n.a.	7.9	- 7.9
Ghana	n.a.	35.9	- 35.9
Ivory Coast	18.8	502.3	-483.5
Mali	44.6	n.a.	44.6
Senegal	32.1	111.8	- 79.7
Togo	n.a.	21.0	- 21.0
Upper Volta	137.0	26.3	110.7
Net Gain			155.3
Net Losses			-628.0
Total	232.5	705.2	-472.7

SOURCE: Zachariah and Condé (1981), p. 53.

n.a. Not available

"the peripheral capitalist" mode of production. Therefore it is not correct to say that international migration will have the same impact on all the departure regions. Mauritania does not seem to complain about international migration. In fact the Mauritanians control almost all the retail markets in Senegal. The money these merchants send, represents a major source of private investment. The Caisse Nationale d'Epargue (a quasi-governmental agency operating under the premise of a bank of savings) could not operate without the funds sent by the Mauritanians living in France.

In another study in the Guidimaka Region of Mauritania where there is substantial migration to France, Dussauze-Ingrand (1974) found that life had improved in the village because of the money that migrants in France send to their families. "The income per capita of that region has increased more than twice as much because of the migration." [Our translation; Dussauze-Ingrand, 1974: footnote #1, p. 255]. Dussauze-Ingrand describes what she observed in Guidimaka:

> Total annual savings of the migrants for 1970/1 were estimated to be 335 million CFA in money alone, and conservatively estimated at around 480 million CFA including goods and commodities (around 1,900,000 U.S.). They accrue to a population of slightly over 25,000 inhabitants. This means that total savings per head in the area are as much as GPP and that the great majority of the men in the young age group are involved . . .
>
> Consequences are manifold and sometimes striking. More basic food is available; houses, household equipment and clothing have substantially improved. Considerable importing of foreign goods is obvious. Other marked features are the monetarization of the most trade, a switch from basic food crops to cattle breeding, and some development of modern crafts and trade.
> [Dussauze-Ingrand, 1974: p. 256].

All these above indications support the contention that international migration has some important positive effects on certain countries. It has provided an important relief for many rural people that would be, otherwise, in a very critical condition. Even the radical economist, Keith Griffin (1976) of Oxford has noted that international emigration of the peasantry has decidedly positive virtues, including increasing the real income of the emigrants and transmitting income flows and new ideas back to the villages. But in closing let us not overlook the important point that neoclassical economics cannot come to grips with the human dimension and social costs of migration. For example, neoclassical economics cannot come to grips with the family disruption accompanying the prolonged absence of male heads of households in Botswana, Lesotho and Malawi who are away in the mines in South Africa for six to nine months per year for periods of 15 to 25 years.

SUMMARY AND CONCLUSIONS

Samir Amin is one of the best known African economists. The purpose of this paper was to assess his views on the role of agriculture in the development process of the Third World countries with emphasis on West Africa. We shall critically examine the evolution of Amin's views on the following six main issues: (1) relationship between agriculture and industry; (2) types of agricultural production systems; (3) trade-off between cash crops and food crops; (4) role of the state and private enterprise in marketing; (5) benefit incidence of rural to urban migration; and (6) benefit incidence of international migration.

Concerning the first issue, Amin asserts that in order for West African countries to achieve higher growth rate, they must promote the concurrent development of the agricultural and industrial sector. This strategy constitutes Amin's global model of development and is organized around three major recommendations: first, the expansion of the use of draft animals; second, building up a machinery industry to produce investment goods; and third, change fiscal policy.

The second issue relates to the types of agricultural production systems. In 1965, Amin favored the development of a system where the production unit is a family "weaned from the social values." Later, in 1973, Amin reversed his position and argued that the "correct" ideology and the "correct" organizational structures, is the Tanzanian example of rural collectivization. According to Amin rural collectivization will not lead to inequalities but will bring about harmonious development.

Turning to the third issue--trade-off between food crop and cash crop--, Amin contends that specialization in cash crop is the main cause of the economic difficulties of West African countries. Amin argues that West African countries should diversify their economy in order to produce more food. Moreover, Amin asserts that production of cash crops will not increase domestic savings but will simply put them in even greater problems of balance of trade.

The fourth issue relates to agricultural marketing. Amin believes that the state must play the most important role in marketing. Moreover, he contends that the private businessmen do not have financial means and the human capacity to ensure effective marketing. Therefore, he concludes, the only alternative is socialism.

On migration, Amin argues that the problem should be seen in terms of the modes of production and the organization of the society rather than the individual choice of the migrant. Amin contends that cultivation of new land in the departure regions is eliminated by the "very fact of migration" and migration will only lead to impoverishment of the departure areas.

Concerning international migrations, Amin uses income per capita indices to show that international migration does not benefit the source area. Finally, on the question of migrants' remittances which neoclassic economists play up, Amin believes that the amount of money involved is often "so small as to be laughable and for the most part serves only to pay taxes."

The critical examination of Amin's publications, both on his general theory of the effects of world economic development on and within the underdeveloped nations, and on the economic situation in various parts of Africa, has adequately demonstrated that most of his policy recommendations are not derived from empirical studies. Obviously, a world level analysis leads to a better comprehension of the basic transformations brought about by expansion of capitalism. But, if we perceive that states and nations are organic units or entities, and if our objective is to take actions aimed at bringing about economic development, we must diagnose the constraints faced by small farmers in site-specific locations and come up with thoroughly tested technology appropriate to the given area.

As a matter of hard empirical fact, studies have consistently found that in most West African countries, an animal traction package which has been tested and proven at the farm level is not available for widespread adoption. On the other hand, though tractors have been demonstrated to be greatly useful and appropriate in the U.S. context, there is not enough evidence to advocate its widespread adoption in West African countries. Besides, inherent problems of technological transfer, there may be serious technical as well as cultural reluctance to the hasty generalization of such technology. The Ghanean experience is illustrative in this regard since only large farmers did benefit from the scheme to the detriment of the majority of the smaller farmers.

Concerning the types of agricultural production systems, Amin's predictions about rural socialism in Tanzania are not materializing. A number of scholars are providing evidence that rural socialism in Tanzania is not meeting food production goals.

Another important issue raised by Amin relates to the trade off between food crops and cash crops. It goes without saying that endeavors should be made to increase food crop production in an environment such as Africa where populations depend on agriculture for a livelihood. It should be remembered though that the West African countries cannot rule out foreign trade. They need foreign exchange earnings, obtained mostly through cash crops, to finance their imports. Therefore, far from ruling them out, cash crop productions should be encouraged provided that international market fluctuations should be checked by means of an appropriate diversification policy.

Concerning marketing, evidence has shown that the small businessmen in the African rural areas are cautious operators and are as humanly capable of doing marketing as anyone else. Moreover, a number of studies are providing evidence that the experience with state trading has not been very successful.

Amin's explanations of the causes of migrations are derived from his analysis of the modes of production and the organization of the society. The superiority of such an approach lies in its insistence that the material living conditions of a given society determine the social and behavioral responses. However, Amin's "simple economic growth" analysis fails to demonstrate that migration benefits only the host areas because of its logical inconsistencies and conceptual shortcomings.

Overall, Amin's views on agriculture are incorporated into his broader concern with the center and periphery. These views are changing; moreover they are scattered and difficult to put together for an overall appraisal. There is no doubt about Amin's concern with development problems in the Third World countries both as an economist-theoretician and a decision maker involved in concrete situations. His doctoral dissertation and all his publications have consistently focused on the major controversial issues and policies of development facing the emerging nations. Although world economics does not owe him the invention of the concepts of periphery-center and unequal exchange his contributions to this field have been substantial and authoritative. Though intellectually stimulating, his global approach has led him to embark upon a world level theorizing that has overlooked national peculiarities and generated inappropriate solutions to the issues analyzed in this paper.

APPENDICES

APPENDIX A

APPENDIX A

THE SENEGALESE FOOD SELF-SUFFICIENCY STRATEGY[1]

Agriculture is the primary activity of approximately 70 percent of the 5.1 million Senegalese. The country's main crops are groundnuts, millet/sorghum, maize, cotton and cassava. Groundnut production is the single most important agricultural activity which constitutes Senegal's major source of foreign exchange earnings. Millet is the principal grain in the diet of most rural people, and is grown throughout the country. More than 85 percent of the cultivated land is diverted to millet and groundnut cultivation. In a good year, Senegal is self sufficient in millet production but the country will still have to rely on import or foreign aid to compensate its cereal deficit estimated at an average of 300,000 metric tons a year. The deficit in rice accounts for the two-thirds of this amount. Urban inhabitants consume mainly imported rice since locally grown rice covers only 25 percent of the total consumption.

The performance of the Senegalese agriculture depends on weather conditions and international prices. And, since more than half of the earnings obtained from groundnut exports are used to finance cereals import, a bad agricultural year and an increase in the international prices of cereals would have very bad effects on the Senegalese economy. This has led the Senegalese government to promote a food

[1]The data are given by the V$^{\underline{e}}$ Senegalese Development Plan.

self-sufficiency strategy by increasing domestic rice, millet and maize productions.

Senegal's overall objective is to stabilize groundnut production at 1,200,000 metric tons, increase other export products, diversify and increase food crop production with a view to restricting to 75,000 metric tons rice and flour imports by 1985. Thus as regards grains, objectives aim at a gross production of 1,221,000 tons in 1981, i.e., a net production of 1,000,000 tons one loses and seeds have been removed. (See Table A.1.)

In order to ensure adequate nutrition, the Senegalese government wants to increase daily per capita consumption of cereals, fruits and vegetables. (See Table A.2.)

In order to achieve its goals the Senegalese government is revising its agricultural policy. Studies are presently being done by national and international agencies to solve the country's food problem. Attention is particularly given to the storage and distribution schemes, the transportation system, the pricing policy and to the type of marketing assistance that the state provides.

TABLE A.1

Projected Production by Regions
(in thousand metric tons)

Produces	Maize		Rice (Paddy)		Millet/ Sorghum		Wheat		Total Cereals	
Regions	1981	1985	1981	1985	1981	1985	1981	1985	1981	1985
Copvert	--	--	--	--	0.7	0.7	--	--	0.7	0.7
Casamance	43	60	153	175	100	112	--	--	296	347
Diourbel	--	--	--	--	82	95	--	--	82	95
Fleuve	20	80	114	136	40	45	28.7	42	202.7	303
Louga	--	--	--	--	71	82	--	--	71	82
Sine Soloum	30	55	2.5	3.5	295	344	--	--	327.5	402.5
Senegal Oriental	49	70	30	35	64	76	--	--	143	181
Thies	--	--	0.5	0.5	97	115	--	--	97.5	115.5
Total	142	265	300	350	749.7	869.7	28.7	42	1220.4	1526.7

SOURCE: V^{e} Development Plan.

TABLE A.2

Projected Daily Consumption per
Capita in Cereals
(average)

Produces	Consumption
Millet	57.8 kgs.
Rice	52.0
Maize	12.7
Wheat	18.7

Source: Soned (1977)

APPENDIX B

MIGRATION IN WEST AFRICA

TABLE B.1

Demographic Indicators of Nine West African Countries

Country	Estimated Population in 1975 (Thousands)	Recent Intercensal Growth Rates		Estimated Vital Rates 1970-75		
		Period	Percent	Rate of Natural Increase	Birth Rate	Death Rate
Gambia	522	1963-73	4.5[a]	2.0	50	30
Ghana	9,868	1960-70	2.4	2.7	49	22
Ivory Coast	6,770	1965-75	5.2	2.9	50	21
Liberia	1,572	1962-74	3.4	3.2	50	18
Mali	5,859	1965-75	1.8[b]	2.4	50	26
Senegal	4,973	1960-70	2.7	2.6	48	22
Sierra Leone	2,792	1963-74	1.9	2.4	45	21
Togo	2,272	1960-70	3.0	2.7	50	23
Upper Volta	5,232[c]	1961-75	1.7	2.3	49	26
All Countries	39,860		2.8	2.6	49	23

SOURCE: Zachariah and Condé (1981) p. 15.

TABLE B.1 (continued)

Footnotes:

[a]About 1.9 percentage points are attributable to the relative undernumeration in the 1964 census.

[b]Rough estimate.

[c]Based on the resident population present and enumerated in the 1975 census.

TABLE B.2

Employed Immigrants Aged Fifteen Years and Over by
Country of Residence and Sex, Circa 1975

Country	Total	Male	Female
Ivory Coast	698,800	580,900	177,900
Ghana	224,300	165,400	58,900
Senegal	157,200	116,600	40,000
Togo	49,800	33,900	15,900
Sierra Leone	43,700	35,800	7,900
Upper Volta	38,200	25,100	13,100
Liberia	35,400	28,300	7,100
Gambia	32,700	26,600	6,100
Total	1,280,100	1,012,600	267,400

SOURCE: Zachariah and Condé (1981) p. 50.

TABLE B.3

Net Migration Estimate, Circa 1965-75

Country	Foreign Nationals in the Country Minus Nationals Abroad[a]	Lifetime Net Migration[b]	Net Decadal Migration		
			Period	Net Migration	Percentage of Intercensus Growth
Gambia	2,500	16,400	1963-73	100,000	55
Ghana	463,200	181,400	1960-70	-400,000	-22
Ivory Coast	1,340,000	958,600	1965-75	1,000,000	56
Liberia	34,000	37,300	1964-75	12,000	2
Mali	-318,100	-199,100	1966-76	-250,000	-20
Senegal	296,800	215,100	1961-71	70,000	8
Sierra Leone	-67,400	68,400	1964-74	18,000	3
Togo	-199,700	-2,500	1960-70	70,000	14
Upper Volta	-862,100	-572,300	1965-75	-500,000	-40
All Countries	701,100	699,700	---	120,000	5

SOURCE: Zachariah and Condé (1981) p. 45.

TABLE B.3 (continued)

Footnotes:

[a]Foreign nationals include those from outside West Africa; nationals abroad include only those enumerated in the nine countries of West Africa.

[b]Immigrants include those from outside West Africa, but emigrants exclude those who went outside the region.

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