

SCHOOLS FOR RURAL TRANSFORMATION IN AFRICA

Will P. Saunders

Much has been written, and said recently on the subject of Rural Transformation as a major element in development. This reflects a growing awareness of the importance of the rural sector in any development effort. There is a general agreement that education will play a major part in bringing about Rural Transformation, but just what education's role will be is not very clear. A recent report on **Human Resource Development and Utilization in Nigeria** indicates that the solution of that nation's most pressing problems requires the design of a "development-oriented" educational system. Such a "system must incorporate two vital elements: (1) an employment orientation whereby the educational and training system prepares Nigeria's youth to serve as productive members of society, and (2) service to national goals (social, political and economical.)"¹

President Nyerere of Tanzania, in his **Education for Self-Reliance** is a bit more specific in what he considers the role of education in development. He says, "... improvement in village life will not, however, come automatically... Our people in the rural areas must organize themselves cooperatively and work for themselves through working for the community of which they are a part... This is what our educational system has to encourage... Our education must therefore inculcate a sense of commitment to the total community and help the pupils to accept the values appropriate to our kind of future."²

The Conference on Education, Employment and Rural Development held at Kericho, Kenya in 1966, proposed a "Pilot Program in Rural Transformation... designed to enhance rural productivity, create employment, educational and training opportunities, offer an experimental and research atmosphere in land reform and use, cooperative farming, processing and marketing, leadership training, new forms of extension services..."³ This group also suggested that in order to raise the age of primary school leavers and prepare them for training (or work) two years should be added to the primary program or else entry into the program should be delayed a year or two.

Though all of the above have pointed to the vital role education must play in rural transformation they have not suggested **how** the education system can fulfill the role it has been given. The major challenge to the educational lea-

1. Education and World Affairs, Committee on Education and Human Resource Development, Nigeria Task Force, Nigerian Human Resource Development and Utilization, Education and World Affairs, 522 Fifth Avenue, New York, N.Y. 10036, December 1967, \$5, p. 14.

2. Nyerere, Julius K., **Education for Self-Reliance**, The Government Printer, Dar-es-Salaam, Tanzania, March 1967. Two Shillings, p. 7.

3. "Rural Transformation?" A Summary Report on the Conference on Education, Employment and Rural Development held at Kericho, Kenya from September 25 to October 1, 1966, as reported by Albert J. Maleche, **Africa Today**, Vol. XIV, No. 2, Special Issue, 1967, pp. 29-31.

dership of Africa thus becomes the development of an educational system that can fill its proper role in national development. The "development-oriented" educational system must be conceptualized within the major constraints imposed by the African scene. Five major restraints seem most important.

The first restraint of education in Africa, quite frankly, is too many children. The demand for education in Africa is great and growing. One of the first acts of the newly independent countries has been to commit the government to universal primary education. Only a cursory look at enrollments versus school age population indicates how far most countries have yet to go to reach this goal. These facts, however, do not diminish the hopes of the people. Quite the contrary. The demands for education in Africa are rising. The question is, how can these demands be met? And in time?

A second restraint facing education in Africa is too little money. In spite of the fact that African nations allocate disproportionately large amounts of their revenues to education the total amount available falls far short of meeting even the most basic needs. A system of education patterned after education in developed countries cannot be created or maintained in an economy with a \$100 - \$ 300 per capita Gross National Product. If Africa is to reach its goal of universal primary education and provide reasonable programs at subsequent levels, a system which requires a much lower level of financial support must be developed.

A third problem facing African education is too few qualified and dedicated educators. Slightly less than one-half of the primary teachers do not meet the established minimum qualifications. At the secondary level the situation is better simply because half or more of the teachers are expatriates. Until recently African universities and colleges paid little attention to the education of teachers and none at all to the development of educational administrators and supervisors. If Africa is to educate its people some way must be found to do it effectively with existing teachers, many of whom have had only meager training for the task, until such time as functional programs are developed in colleges and universities which can provide well qualified teachers in adequate numbers.

Lack of facilities pose a fourth restraint. Though there are a number of modern school facilities in Africa, most of them are at the secondary college and university level. The primary age pupils, which constitute the bulk of the school age population attend school in buildings that are less than satisfactory. In the matter of buildings Africa faces two options. Either an educational system must be developed that requires little in the way of facilities or some way must be found to provide the required facilities at little or no cost to the government. A growing number of African communities are providing their own buildings. In a few instances the students have constructed the buildings they require. Whatever the solution to this problem no opportunity should be lost to capitalize on the learning opportunities that would be a part of a school building program, whether done by the community, the students, or by a contractor.

Along with buildings, the problem of appropriate textbooks and teaching materials in adequate supply must be faced and dealt with. More African writers must devote their abilities and energies to the development of textbooks that have relevance to the African scene. Ways of publishing such textbooks that will price them within the capabilities of the people or government must also be found. New approaches to the provision of teaching materials must be explored. It seems improbable that the firsthand learning situations now extant in Africa

should be canned into films, posters, booklets, exhibits, etc. and brought into classrooms which often have no walls, few cabinets and lockers and little or no mechanized equipment for their utilization. If Africa is to use its environment to enrich the learning process of its children the environment must be used as it is and where it is.

The fifth and last restraint that will be discussed here is the gulf that exists between the school and its community. The colonial pattern as developed in Africa isolated the child from the community in order to educate him in the ways of western man. Schools assigned to themselves the task of educating the child out of the community and into the establishment. The implication was that nothing of educational value could be learned from the community, so it should be ignored. There were no apparent jobs in the community for an educated person so no attempt was made to produce youth who had a concern for his community and a desire to be of service to it. Nyerere discusses the characteristics of the traditional African school as "First, . . . it is basically an élitist education designed to meet the interests and needs of a very small proportion of those who enter the school system . . . second . . . it divorces its participants from the society it is supposed to be preparing them for . . . third . . . encourages school pupils in the idea that all knowledge which is worthwhile is acquired from books or from 'educated people' — meaning those who have been through a formal education . . . (and) Finally, (the school takes) out of productive work (force) some of its healthiest and strongest men and women."²

A development-oriented education program which is to function effectively in Africa must do so within at least these five restraints. It must serve the dual purpose of creating demands on the part of people which will provide the incentives for increased production of wealth-producing goods and at the same time produce the goods and services required to meet those demands. Serving as an innovator, the school must at first produce services and goods for local markets until such markets are firmly established, then become employment generating, and thus begin providing job opportunities for the school output. And, equally important, the school must provide quality education to the students at all levels.

A development-oriented system of education must be academically strong. It must enable the students to develop skill in the use of reading, writing, arithmetic, and science in the solution of everyday problems. This means that children must be able to read, write and compute more skillfully than they now are able to do. The school must develop the social skills and attitudes that are the keystone of an entrepreneurial enterprise complex owned and operated by the private sector. The significant difference between the present system of education and the system that must be developed will be the purpose for which learning takes place. Rural transformation will take place only as and when the youth of the land master the skills and develop the attitudes that will bring about their own improvement and the improvement of their communities.

But a strong academic program is not enough. The school, at all levels, must concern itself with the real problems of Africa today. It must provide meaningful and worthwhile educational experiences for all of the children of Africa, not just those with strong academic bents. To the degree possible the school program must be revenue-producing rather than revenue-demanding. Programs must be developed that do not rely on pretentious structures and complicated gadgets but when such are required the school must be able to provide them. The devel-

opment-oriented system must be able to function for the time being with the present teachers and administrators and engage itself in a "boot-strap" operation of gradual improvement. There must be adequate incentives for administrators, supervisors and teachers as well as sufficient freedom and flexibility to elicit and merit wholehearted dedication to the program. It may be necessary to lengthen the school day, the school year and indeed the school life so that there is adequate time for a full and rich academic experience and a practical and satisfying experience in participating in the growth and development of the community and the nation. Most important of all, if the school is to perform its proper role in rural transformation, it must be rooted in the community which it serves, drawing strength from the resources of that community and contributing its strength to that community.

The question then arises, what sort of school can meet all of the criteria of a development-oriented education system. There is, of course, no one answer to so complex a problem. As a beginning, however, I would like to suggest the idea of system in which the school becomes the center of an ever-changing and ever-widening complex of student enterprises which are planned, organized, managed, and staffed by students and which become the focus of all or most of the learning experiences of the school. Initially these student enterprises would be relatively few and simple and would cater either to already established demands or to demands that are easily created. Students in many schools in Africa operate banks which handle both student and school funds. In a school in Addis Ababa the senior scouts operated an elementary school during the long vacation which was attended by 500 pupils. Monies from the fees charged to the pupils provided the scouts with revenue for their program as well as funds to help the school defray some of its expenses.

Within this context it would be expected that the student enterprises would initially operate under the existing staff. This will require an intensive and continuous program of in-service training to enable the present teachers to extend their concepts to this more functional approach to education. The in-service program would place major emphasis on improving the academic abilities of existing staff members and in developing an appreciation of the role of student enterprises in the education program. But more important would be the redirection of pre-service teacher training programs. These programs should be made much stronger academically and they should be developed along with student enterprises so that the teachers entering the school system from the teacher education institutions would be fully committed to the student enterprise emphasis of the educational system.

As the abilities of the students increase and as leadership develops experience and confidence, the sophistication of the student enterprises will rise. Leadership must be fully dedicated to the task of education and to the role of student enterprises in the educative process so that students will be fully involved in all aspects of the enterprise. Student participation is essential to the maintenance of the high level of motivation necessary to achieve success in such a radically new venture. Or is it so radically new? It has long been a tradition that when the students require funds for some special project they are fully committed to, they have shown entrepreneurial abilities. A rummage sale, a class play, a sports match, the making and selling of a variety of foods or articles, or other such activities are often used by students to raise funds required for projects in which they are interested. The key to the success of student enterprises will

ultimately depend on the extent to which the creative genius of children and youth are permitted a free range under the sympathetic guidance of teachers and administrators who are committed to the development-oriented approach to education.

Where are teachers and administrators that can function effectively in a development-oriented program to be found? In Africa it will be necessary to develop them from the resources now at hand. This will involve both pre-service and in-service programs which have strong academic offerings as well as a wide variety of student enterprises in which prospective teachers may develop the skills and attitudes that will be required in the development-oriented schools of Africa.

But what sort of student enterprises might a school develop? This, of course, will depend on many things. The size, age, and motivation of the students will determine the level of sophistication of the organization and management of the enterprises. At the primary level the enterprises should be simple and directed toward the meeting of easily identified needs and wants. As the students grow in age, size and understanding of the entrepreneurial process the complexity of the enterprises may increase. Generally speaking, the primary school serves a more restricted community than does a secondary school. And the college and university serve a larger and more complicated community than does the secondary school. The two significant determinants would be the level of sophistication of the enterprise and the potential market area that is to be served. However, the major determinant will still be the extent to which the creative energies and minds of the students are permitted to function freely.

Since one of the major practical purposes of the student enterprise is the production and management of capital for the school, a first enterprise for any school would be a bank. Initially the bank may serve only the school. Later it might serve the pupils and the other enterprises that they develop. Still later it would serve the community. In all of these situations it would serve both as a lending and as a borrowing institution and the sophistication of its operation would be determined by its capitalization and the imagination of its management. It might start with as simple a process as handling the finances of the CARE feeding program, move to the school budget, and later to the other enterprises.

Outside of the large towns and cities there are no banks and the farmers and small entrepreneurs must depend on the money lender for the funds required to produce the goods needed. More often than not the loan is made at usurious rates which ultimately impoverish the producer. A school bank, well run and with a small amount of seed capital, could provide a much needed service in many villages in Africa. Another somewhat obvious student enterprise would be a bakery. Bread is not eaten in many areas in Africa. Is this because there is no bread to eat? Probably. In his book **African Enterprise: The Nigeria Bread Baking Industry**, Peter Kilby states that "baking is an instance where the force of local supply worked to create a new consumer want."⁴ Could not the school begin a small bakery, even with a pupil-made dried-mud-brick oven and develop the habit of eating bread simply by making it easily available? As the demand is developed so are employment opportunities. Once a student who has worked in the bakery — not just the baking but the whole process of management, organization,

4. Kilby, Peter, **African Enterprise: The Nigerian Bread Industry**, Hoover Institution Studies No. 8, Stanford: Stanford University Press, 1965, p. 2.

selling, etc. — finishes school, he can start his own bakery to meet a demand that now exists. Of course, the bakery would do its banking at the school bank. The opportunities are limited only by the limitations that are placed on a creative mind. Again Kilby says "Of the many bottlenecks inhibiting the development of African economies none is narrower than the short apply of effective entrepreneurs."⁵ The range of opportunities is unlimited — a tourist agency, a school hotel/motel/guest house, a school restaurant, a village store (this might ultimately replace the expatriate who now operates the one in the village), a cabinet shop, a casket factory, a food processing facility, the village electric facility, the village water system, the village cooperative, a home loan association, a rice mill, a seafood processing facility, a seed and seedling nursery, brood stock for farmers, a printing press and village or provincial newspaper, communications facilities, bus lines, taxis.

These enterprises would provide first-hand problems the solution of which would require all of the academic skills the school can provide. Each enterprise would be made an integral part of the content of the academic program and would draw from these programs new ways to solve old problems. They would provide work opportunities for students and thus most or all of the funds they would require to pay for their education. The profits of well organized, managed and operated enterprises would provide some funds for the operation of the school. They would create demands in the towns, cities and villages, thus creating employment opportunities for students when they have finished school. They would create incentives in the people of the communities by generating demands which previously had not existed and which could only be met by increased productivity on the part of the villagers. It has been said, and I believe rightly so, that the African will produce what he requires to meet the demands he genuinely feels.

Where will the original capital be found to finance these student enterprises? This may prove the major restraint. Some student enterprises may be begun on a "shoe string." Some may be started with funds raised by a variety of means available to schools already such as a school play, a sports event, a carnival, etc. Others may be organized as partnerships, in which members of the community are shareholders. But it is most likely that the original capital will have to come from sources outside the school. Either the government, industrial complexes or donor agencies will be required to provide the seed capital for the enterprises. These inputs of capital may be in the form of loans, gifts, or loan guarantees. Once student enterprises are begun they will generate capital with which to expand the enterprises. And the bank, once it amasses some capital, may provide loans for the development of new enterprises. As a beginning, in schools where all or most of the students now receive government scholarships and/or stipends, these monies could be invested in student enterprises which would provide jobs for the students as well as produce goods and services for the school and community. (Ultimately, such a procedure might enable governments to phase out completely the debilitating system of student stipends.) Whatever the source of funds all monies should be channeled through the student bank and all accounting should be made public knowledge so that there is no chance for misappropriation or misuse of funds.

Another question which must be answered is, where will students find time to engage in student enterprise if a full academic program is to be maintain-

5. Ibid. p. 3.

ed? One way and the one most likely to be acceptable is to stretch out the school program. It is not uncommon for a student to require nine years to complete the primary school and seven to nine years to complete the secondary program. Given the motivation that would be derived from student participation in student enterprises one would expect that a program designed for nine and seven years respectively would provide adequate time for both academic excellence and participation in student enterprises.

Another method of providing for academic excellence would be to inaugurate a system of periodic aptitude and achievement examinations. High achievers should be speeded up the academic ladder while those with less achievement should be given slower programs. Such a plan would ensure that those students with an academic bent would proceed through school at an accelerated rate while those with other interests and abilities would proceed at a speed which would develop skills in areas of their particular interest. One advantage this plan would have over the present system is that even the drop-outs would be better equipped to participate in the development of their country than is now the case.

Can such a development-oriented education system be developed in Africa? Only time and much effort will tell. There are precedents in other areas. Berea College is probably the best known school to operate such a system. This school located in the mountains of Kentucky provided quality education to students from a low-income area by developing student enterprises, many of which are still operating even though much of the economic necessity that created them has passed. McCharen reports on twenty-two schools in America's rural South that developed programs which were instrumental in helping bring the communities of which they were a part into a more advantageous economic posture. Excerpts from this book may be helpful in gaining a better understanding of the contributions that a school may make to its community.

(One) of these schools consisted of one run-down brick building and a \$3,000 debt in 1929. Within two years... the entire debt... had been paid off and soon a girls' dormitory, a vocational building and a gymnasium were built by the boys as a part of their vocational training. Evening classes for adults resulted in an organization which promoted improvement of homes, farm buildings, gardens, and taught them how best to care for livestock and their own health. Eight of 36 homes were screened and a tuberculosis isolation house was built and operated by students.

(Another school provided) work and economic experience for the children through the farm shop, the cannery, the school lunchroom, a beauty shop operated by the home economics girls, a school store operated by the sixth grade, and a bank operated by the commerce department. The school bank handles all of the school accounts and some personal accounts which amount to more than \$ 10,000 per year.

(Still another school which) consists of approximately twenty buildings, (some of which were erected by the students, includes) the home economics cottage, the agriculture building, the cannery, the frozen food locker plant, the poultry house with hatchery and brooders, the gymnasium, a huge building housing a machine shop, an auto mechanics shop and a wood-working shop, a cafeteria... Boys and girls have had an opportunity to get actual work experiences in the feed and grist mills which are operated as a community service by groups of students on a rotating schedule. Other students from the commerce department do the book-keeping and clerical work for the mills. Similar arrangements are used in the cannery, the

food processing plant, the hatchery, the school store, the print shop, the beauty parlor, the motion picture show, and to some extent in the school shops. . . . The boys harnessed the water of seven springs, built an 18,000 gallon reservoir and piped water to the school supplying restrooms and all buildings, including the canning plant . . . there was a time in the early development of the program when the boys operated tractors, a peanut picker, hay press, power fruit tree sprayer, binder, and other power farm tools. At that time no such equipment was available to the farmers in the community . . . (so) . . . the school provided such equipment and made it available to the farmers at a price which they could afford and at the same time liquidated the investment the school had in the machinery . . . The commercial students under the direction of their teacher operate a school bank as part of their regular work in which all of the money and accounts of the different groups and activities of the school are handled. The bank handles an average of \$ 350 daily, and as much as \$ 750 some days. Commercial students work in the bank by twos and they are responsible for every transaction that is made while they are in charge. All books must be balanced before one force turns over the work to another . . . Some students serve as secretaries and stenographers for teachers, operate duplicating machines, work in the library, post office, and school lunchroom . . . Every Saturday night a full length movie is shown in the school auditorium for ten cents . . . The great number of activities of the Holtville School seems to stimulate rather than to interfere with their scholastic performance.

(Yet another), a two-teacher school . . . (with) an enrollment of seventy boys and girls in grades one through eight . . . that can be reached only by traveling a winding dirt road which is difficult to traverse during rainy weather . . . (serves a) community made up of forty Negro families with a population of approximately 240 . . . The first project developed . . . was the construction of a community canning plant on the school campus. It was a frame building constructed cooperatively by the men of the community and the boys of the school. A furnace, stove, a large pressure cooker and other equipment for canning were installed. Several thousand cans of fruit, vegetables, and meats were canned the first year . . . A church has been built of native stone . . . A stone butchering house with cement floor has been constructed on the campus . . . The spirit of . . . program has spread to every home in the community. There has been some mark of improvement in every home. The spirit has spread to adjoining communities . . . The local leadership is provided by the school.⁶

The foregoing accounts of schools which concerned themselves with the improvement of rural communities would indicate that it is possible, at least in rural America, for the schools to exert a positive influence in rural transformation. But will such an approach work in Africa? In Africa there are several instances where students have constructed their own buildings, grown their own food and engaged in other activities which either reduced the demands they made on the governments or else contributed to the economic improvement of their communities. It can be done. It has been done. At the Kenema Rural Institute in Sierra Leone the students have constructed some 25 permanent buildings including housing for staff. Much of the food used by the school is grown by the students and the surplus is sold in neighboring towns and villages, the proceeds going to

6. McCharen, W.K., *Selected Community Schools in the South*, Nashville, Tenn., Bureau of Publications, George Peabody College for Teachers, 1948, pp. 17-131.

purchase items that cannot be produced by the school. All food preparation and service at the Institute is done by the girls, there being no hired personnel other than students connected with the dining facilities. At a sister institute students build houses for villagers simply for the experience of learning to build. At least two graduates have gone into the construction business in their home village.

In Ethiopia all university students participate in the Ethiopian University Service Program for a full year following their penultimate year. Under this program the students serve as teachers in the primary and secondary schools for a nominal stipend. As this program has proceeded the enthusiasm of the students who participate has grown. These students are realising some of the satisfactions that come from helping one's own people solve some of the problems they face. This program also provides an opportunity for the young intellectuals to see, many of them for the first time, the problems of the rural areas. As a result new and more positive attitudes toward the rural areas are formed and a better understanding of the need for rural transformation developed.

Students in several general secondary schools in Ethiopia produce furniture in their school shops as part of their regular program. This furniture is sold in the community, thus providing a much needed service to the community but also providing funds for the students and the school. Cuttington College, Liberia; Njala University College, Sierra Leone; the College of Agriculture, Ethiopia; and other African institutions have inaugurated student work programs that provide the students with funds for at least a part of their college and personal expenses and at the same time have provided valuable learning experiences in first-hand situations.

The fact that some schools have made a beginning in the matter of rural transformation does not mean that the movement will develop rapidly nor that there will not be problems. Several forces are at work which may make the transition easier. Dr. Arthur Porter, Principal, University College, Nairobi, Kenya in a paper presented at the International Conference on the World Crisis in Education, held at Williamsburg in October 1967, discussed the Crisis in Education in Africa. Among other things he said:

"There is, in fact, a crisis in education in the newly developing countries of Africa . . . This situation is driving an increasing body of opinion . . . to the conclusion that the massive assistance from outside will not be forthcoming and that our development must be based on our own efforts, on self-reliance . . . It is clear that a massive and fundamental review of the whole system is urgently required if scarce resources are to be rationally utilized . . . Then there is the imperative that African governments undertake, in an imaginative and bold way, the kind of research necessary on the educational services required for the task of rural transformation."⁷

The development-oriented educational system may be at least a partial answer to this crisis in education in Africa and a vital part of such a system is a well organized and managed complex of student enterprises that provide at one and the same time valuable work experiences for the students, goods and services for the communities and funds for some part of the support of the school program. Such a system can be developed with the resources now available to African governments and can make a major contribution not only to rural transformation but to the total economic health of the continent.

7. Porter, A.L., "Africa: Crisis in Education", AAUW Journal, Vol. 61, No. 3, March 1968, pp. 109-112.