

THE EDUCATION OF ADULTS AT ALL LEVELS

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PREAMBLE

1. This paper, the contents of which do not necessarily reflect the views of the ILO, is intended to deal particularly with provision for the cultural, economic and intellectual needs of rural communities and the appropriate vocational training. It would suggest a very general approach to this topic covering a wide range. Already much has been written on the education of adults and even a summary of the major aspects would itself be superficial. Therefore it is intended in this paper:

- to draw attention to the actual situation in rural areas;
- to highlight some of the problems which affect adult education;
- to discuss various methods currently used and to offer suggestions as to how adult education might help to alleviate the serious educational and employment problem in developing territories, without attempting to exhaust the topic.

2. These comments are made after thirteen years in West Africa in which the writer has been working mainly on problems of education and rural development with a view to promoting employment.

Defining "Adult Education at all Levels"

3. For this paper, adult education is defined as covering all systems which help people who have finished formal schooling - at whatever stage - or who have passed the generally accepted age-range for school children, to improve or develop any or all aspects of their lives. It ranges from institutional courses to

the impact of political, social and infrastructural changes which impinge upon them. It covers the planned and unplanned methods, balanced and unbalanced, social and economic development - indeed everything resulting in a valued change for the individual and the community.

## THE SITUATION AT PRESENT

### Traditional African Society

4. Many books have been published describing the present position in certain parts of Africa (1). Nevertheless, it is important to restate some of the aspects profoundly influencing the African's reaction to educative forces at work in his daily life (2). Unlike much of Europe, the natural evolution of African society has been confronted with a way of life introduced from outside and different, particularly in its use and understanding of the material world. Naturally, the African was able to reconcile his religious concepts and the forces controlling material functions in and around him in an empirical and spiritual approach. However, a new scientific approach was thrust upon him and he had to acknowledge the control of his material world by laws and limits discovered and formulated elsewhere. The impact of this new approach on young

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- (1) Among them, Guy Hunter's 'Best of Both Worlds', Rene Dumont's 'False Start in Africa' and Andreski's 'The African Predicament' in one way or another describe the Africans' position as seen by the outsider, while Chief Awolowo, President Nyerere, Dr. Nkrumah and many others have written as Africans on the subject.
- (2) In this paper the writer uses African examples because of his experience in Sierra Leone and Nigeria. They would appear to be similar to examples from other developing countries.

educated Africans has been to create an over-materialistic emphasis of the facts of life. But, as in other societies, the pendulum will swing back from this extreme. In West Africa there are examples of the conflict between the "new" and the "old" pattern of life. One tribe had the custom of blessing new born babies in a ceremony in which the elders of the village entered the home of the child and scraped mud from the threshold. This was made into a mud plaster and placed on the umbilical cord of the newly born baby, with a spoken blessing "that all that was good from the child's ancestors, who had passed over the threshold, should fall upon the infant". Often the child contracted a fever from an infection due to the mud pack and died. This was attributed to some evil curse which had been put on the family by an enemy. The desire of the elders in their blessing was good; their deductions about the cause of death were understandable. Later when medical missionaries taught that the death was not due to an enemy's curse but to bacterial infection, the elders asked to see this "thing". But it was too small to see and thus the elders retorted "All you foreigners want to do is to break the bonds of our custom and culture for your own ends". Nevertheless, subsequent educational processes have enabled such village leaders to a clearer understanding of the material world.

Imbalanced Changes, Introduced from Outside,  
through Formal Education and Population Growth

5. From mission school, colonial administrator and trading company the man of the "third world" was not slow to see the advantages of knowing how to read and write. Unfortunately the imported picture of the white man's social structure was incomplete; there were missionaries, doctors, administrators, "desk" workers, but few if any builders, sewage workers, carpenters, road cleaners, farmers, gardeners. So the quest for formal education grew tremendously in little more than a hundred years. However, one kind of education - the formal Western type - has been overemphasised, and the growth of other forms of education and economic needs have been neglected.

6. This situation can be well illustrated from the Western State of Nigeria which has perhaps the most advanced educational system in tropical Africa. At present the schools in Western Nigeria turn on to the labour market 200,000 school leavers each year, as follows:-

Primary school leavers (after 6 years of schooling)	75,200
Secondary Modern leavers (9 or 10 years)	15,100
Secondary Grammar leavers (11 or 12 years)	6,500
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Sub-Total A	96,800
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Primary school drop-outs	114,000
Secondary Modern "	8,600
Secondary Grammar "	1,500
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Sub-Total B	124,100
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Total annual school leavers (A + B) 220,900. Of these approximately 20,000 enter further education.

7. Since 1960, Western Nigeria has produced 1.85 million school leavers and of these at the moment it is estimated, that 900,000 are unemployed or at best grossly underemployed. A.Lewis (1) has already shown that of these job-seeking school leavers, the modern non-agricultural sector of the economy is unable to absorb, at best, more than half. The rural aspect of this situation has been shown in an I.L.O. survey within a rural area of the Western State which reveals that 60 per cent of the youth between 15 and 29 years have left the villages, leaving the countryside denuded of its most virile and educated people. Indeed the same survey shows that the average age of the farmers is 35 years and over. The results are obvious - an ageing rural population comprising the least progressive sector - not an attraction for ambitious youth.

8. To this changing social pattern must be added the rate of population growth which in most of the "third world" is certainly higher than 2 per cent and in Nigeria may be close to 3 per cent. At the moment at least 35-40 per cent of the population is of school-going age, i.e. younger than 15 years. Well over 50 per cent is below 25 years and thus falls within the most fecund period of human reproduction. It has been adequately shown in many publications, and recently in the I.L.O.'s Report to the International Labour Conference by the Director-General (2), that unless there is a sharp increase in production it will be difficult to maintain, let alone improve, living standards. Thus, economically, the developing countries are having to run fast even to maintain their present position.

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- (1) Lewis A. 'Aspects of Economic Growth': Nigerian Opinion Vol. 2, No.12, Page 138; Ibadan, December 1968.
- (2) The World Employment Programme, I.L.O., Geneva 1969.

## The New Elite in a Dual Society

9. With the development of education, a small percentage (e.g. 4 per cent of the labour force in Nigeria) has entered what is now popularly known as the "elite" of developing countries. We have the phenomenon of the dual society or as Malcolm D. Rivkin has called it, "the floor and the ceiling" of society in the "third world". What is important is that the ceiling has not evolved from the floor. By the forms of education introduced from outside, the ceiling has been propelled out from the "floor" of the subsistent traditional masses. Thus educated persons, and in particular the young people, find a growing conflict between their traditional home and an acquired modernism with conflicting systems of reasoning. The former uses spiritual and fatalistic concepts - the latter rational and scientific modes of thought. This explains and justifies a flight - especially by the youth - from the rural stagnation to the relatively dynamic development of urban areas. This flight has superficially been called the "quest for the good life".

10. Young people, particularly those who have had some acquaintance with educative processes, realise that the urban area presents a more advanced opportunity than the cutlass and hoe of the farm. Professor F.H. Harbison has rightly said: "In this age of rising aspirations and spreading mass communication, the sons of farmers are not going to sentence themselves to traditional agriculture if they can possibly avoid it".

## Planned and Unplanned Development in Education, Economics and Politics

11. Any planning, particularly in education, has to start from what exists, and not from what would be nice to have. Much of the literature on education and development for the "third world" becomes unhelpfully critical when it analyses the past fifteen to twenty years of the growth of independence with "if this and that had been done" or in suggesting development levels in the future for which there are insufficient funds within the developing world. Certainly at present there is a decreasing contribution from the more developed countries. The UNCTAD Conference of 1968 in Delhi with its 55 tons of documents and mimeographed statements, failed to find a way of bridging the chasm between rich

and poor countries. Thus while educating the adult populations of rural areas we must simultaneously endeavour to implement comprehensive long-term development plans for the control of population growth, the promotion of employment, balanced urban and rural development, the improvement and spread of education, and to facilitate the transition from tribal to modern forms of social and economic organisation. Yet at the same time the growing social pressures and inequalities which disrupt organised and planned development must not be overlooked. Indeed so great are the problems that all our present planning and educational methods have failed to mobilize society into an ordered development. However, the unplanned forces also create social mobilisation and human nature has constantly used explosive pressures to bring about change.

12. To illustrate this, we have the rapid growth of political awareness in rural people over the past fifteen years in West Africa, starting with the simple belief that their first African leaders would and could lead them from political independence to a more prosperous life. Such leaders have been followed in many areas by military men. The early hope that they, with absolute power, could eradicate social evils has once again turned to disenchantment and the realisation that perhaps the road to economic "take-off" is longer and more arduous than was at first expected. If anyone had set out to teach the fundamentals of political and economic stability in a series of adult classes, there would have been no success. In aiming to bring about an objective understanding of politics by rural populations we must make use of what have been unplanned and irrational trends and movements.

#### SOME PRESENT SYSTEMS OF ADULT EDUCATION FOR RURAL AREAS

13. Most of the methods used currently for adult education with any measure of impact can be divided into two groups:
- I those which originated from concepts introduced from "outside";
  - II those which arise from existing rural structures, or seek to develop what is evolving within the rural areas.

## I Introduced Systems of Adult Education

### A. Governmental Rural Programmes

14. Governments have become increasingly alarmed by the migration to urban areas of mainly young people who are unable to find adequate employment. Politicians have had to pay heed to the cry of their constituents for jobs, and many governments became directly involved in creating job places through the establishment of industries, settlement schemes, special youth employment and training schemes.

15. Unfortunately many of those schemes were not only initiated by the governments but also managed by them. Thus many failures occurred, since the civil service hierarchical delegation of responsibility and public administration methods are incompatible with the need for quick and flexible decision making and entrepreneurial initiative required for economic productivity in a competitive world. Thus, governments should aid, advise and help to provide the wherewithal in the form of expertise, credit and inspection etc., but should not shoulder the actual running of production schemes which is best left to commercial entrepreneurship, otherwise they remove the very elements that can educate the participants towards economic production.

16. Some governments have mainly emphasized the large-scale type of industry, often setting up factories in rural areas on the ill-advice of contractor-financiers or for political reasons. However, even where they are successful they mostly fall within the capital-intensive low-labour-intensive type of industry and have been disappointing in their labour absorption. Nevertheless, industrialisation will increase; it is only the rate of increase that is in question.

17. Farm Settlement Schemes: Nigeria is a leading example of an attempt to educate young people towards a better rural life through the various farm settlement schemes. In the Western State alone, the Government has spent over £10 million, devoted the major part of its extension service to the setting up of school leaver farm settlements and drawn heavily upon F.A.O. and U.S.A.I.D. advice and assistance. As yet the viability of the settlement schemes is unproven. In principle they could have taught rural communities much

about the advantages of a change in land tenure; and they could have been a means of introducing greater energy inputs into peasant agriculture. But they suffer from a government's inability to run commercial concerns efficiently. It also became clear that, even when faced with continual unemployment, a young man will not readily turn to farming just to have a job. In fact some of these settlements in Nigeria had more success when they recruited their participants from among maturer and in many cases illiterate farmers who then eventually proceeded to employ their younger school-leaver brothers.

18. In the Nigerian example both "on-the-job" and formal farm institute training were given to the young men, many of whom absconded from the farm settlements in the early weeks of their post-training period. Even now there are only approximately 1,500 to 2,000 settlers and of these only a few have taken root. This illustrates that adult education in farming was not enough to bring the will to work. For such young men, the social pressures had not reached a state which together with their training convinced them of the advantages of farming, as opposed to urban un- or under-employment.

19. This can be contrasted with the co-operative farm settlements in Israel (the Nigerian schemes were originally modelled after the Moshavim). There the social pressure to survive brought the will to take up farming and to undergo the necessary training at all levels, by all kinds and ages of people. Their success in agriculture was the basis on which diversified and specialised industries have been built. Here adult education was successfully married to social pressure. It is indeed a fundamental principle that the participating people must identify themselves with the subject to be taught. To find and maintain the needed underlying desire usually requires compelling circumstances, though it is recognised that desirable concepts are often not accepted because of "blind spots" in the make-up of the participants and methods must be adopted to remove these. A good example of this is seen in social hygiene habits in a community where pollution of a communal water supply is not recognised as a personal or social danger.

20. Advisory or Extension Services in Rural Areas:  
There are many types of extension services carried out by governments whose major aim is to educate the people in rural areas to improved standards of living, higher productivity and better marketing. Of these services the most important are those dealing with agriculture and marketing, health and community development, small-scale industries and infrastructural development such as roads, water and power supplies. The extension officer is involved in all these cases. The extension officer - expected to act as an "innovator" in all these services - is facing built-in problems related to communicating. Very often such extension personnel receive their training in specialised institutions such as universities or schools of agriculture. Certainly all expatriate officers and many nationals have received all or part of their training in a developed country. Having trained in isolated or artificial conditions where the level of development is high, extension officers are often thrust out into raw rural conditions where their ability to communicate is greatly diminished. They may know how to tackle technical problems and they may well have the will to help the rural communities, but more often than not there is no supporting infrastructure in terms of transport, supplies, power and communications systems which they are accustomed to consider as essential and necessary prerequisites for the transmission of improved methods. Thus either willingly or reluctantly, the extension officer hibernates in his office or agricultural extension station and joins the ranks of the file-moving, report-writing pseudo-innovators who rarely come to grips with the rural people and their problems. Furthermore, this extension officer faces a conflict pertaining to his social position, which is midway between the civil service bureaucracy to which he is responsible and the client system in which he works. Research has tended to indicate that innovators who disregard the expectations of their bureaucracy in favour of those of their local client system are more successful in introducing improvements. But such is the pressure in developing countries that most field workers defer almost exclusively to their superiors, fearing loss of promotion or increment should disfavour be incurred. This, of course, cripples real extension work and develops the all too common "shadow service".

21. The problem of transfer of concepts embedded in the terms and background of developed countries is acknowledged

by expatriates and nationals. Yet in the majority of cases ideas are shipped almost unaltered from the originating country. Tractor-driver instruction books complete with comic illustrations are seriously given to semi-literate tractor drivers who neither understand the idiom nor the illustrations. Industrial news notes with work flow charts, management diagrams, European slogans and complex technical drawings are distributed to wayside entrepreneurs. Governments of developed countries and other organisations have handed over countless books which have no point of contact with the unfortunate reader. How often has the basic principle in education of moving from the known to the unknown been violated! In transferring ideas, especially on paper, the following steps should be taken:-

- (a) Establish friendly and trustful relations with the people to be influenced.
- (b) Come to an understanding on what is to be taught or changed.
- (c) Discover the levels and methods of intellectual perception currently used.
- (d) When written or illustrated material is used, each idea and drawing must be pilot tested with the people to ascertain that the feed-back is correct. (In a series of flip charts used in cotton growing with farmers, the innovator was unable to get acceptance of the improvements until he discovered that the cotton-growing audiences all thought his drawings of cotton plants were trees. He had not pre-tested his charts to know their effectiveness).
- (e) Such visual material must apply one single concept at a time; multiple concepts must be built up step by step from previously known ideas.

22. Self-help Community Development: Rural people usually are astute in assessing their own socio-economic situation and in setting realistic priorities. The following table indicates the importance attributed to certain self-help projects which depended entirely on the input of the rural people concerned. In 140 such projects carried out in Western Nigeria there were 17 different types. However,

the five most frequently mentioned were either directly linked to increasing the productivity (road building, market stalls, postal agencies), or concerned their social welfare (community halls, dispensaries).

<u>Priority</u>	<u>Kind of Project</u>	<u>Number of Projects</u>	
1	Roads	66	)
2	Community Halls	22	)
3	Market Stalls	13	) 82% of all projects
4	Postal Agencies	7	)
5	Dispensaries	7	)
	Misc.Other Projects	25	)
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	Total	140	
		<hr/>	

23. Literacy Classes: The principle of functional literacy has been overwhelmingly established. After the first rush by politicians to run literacy programmes, it was realised that very often there was almost nothing of interest for the people to read and thus their newly acquired skill was generally lost through lack of use. In an extensive literacy programme to tobacco farmers which was aimed at improving their understanding of the production of high quality tobacco; it was found essential in the early stages to pilot test each illustration until an ability to understand illustrations had been built up in the readers.

#### B. Special Youth Employment and Training Schemes

24. Special youth employment and training schemes have been established by governments faced with growing unemployment among youths as an attempt to avert critical situations. At the same time they have endeavoured to mobilise the potential of such disadvantaged adolescents and young

adults for national development. These schemes can be broadly divided into two categories :

- (a) those which emphasize training and productive employment for unskilled unemployed youth ;
- (b) those which emphasize service to the community by educated youth.

The majority of programmes fall into the first category. At present in Africa there are about 60,000 young persons participating in this type of programme, which are operating in 18 countries (1).

25. Frequently emphasis is laid on modern agriculture with a view to encouraging youth to settle on the land after service and to prevent or absorb urban unemployment as well as to reverse migration to the cities. Sometimes an endeavour is made to promote a feeling of national solidarity and of civic responsibility. Generally, participants' ages range from fourteen to twenty-five years and they are selected from the unemployed who have little or no education or vocational training. Many developing countries seek by these means to utilise their manpower resources better for economic and social development. However, often there are more applicants than they can either administer or finance. Indeed a total of 60,000 is but a miniscule part of the available African youth.

26. There is a great variety of types of programmes and of objectives with different emphasis on training, employment and/or development. They cover in general :-

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- (1) Cameroon, Central African Republic, Chad, Congo (Kinshasa), Dahomey, Gabon, Ghana, Ivory Coast, Kenya, Liberia, Malagasy, Malawi, Mali, Senegal, Tanzania, Togo, Uganda and Zambia.

- (a) multi-purpose schemes such as the Kenya National Youth Service where participants serve for two years, six months of which are given over to full-time education;
- (b) rural programmes which aim at settling new villages or new co-operatives or improving existing villages. The Jamaican one-year residential programme has helped to restore public esteem for manual labour and agricultural work;
- (c) settlement schemes such as the Israeli specialised Nahal youth service units which have enabled young people to develop agricultural settlements under frontier conditions;
- (d) training programmes for rural animators where the concept is to train young villagers who will return as innovators to their homes. At present Mali is training 2,000 such catalysers of action;
- (e) urban programmes of a more limited nature and often consisting of a specific type of training for future long-term employment. This is the case in the United States' Jobs Corps;
- (f) programmes for young women. These are not very common owing to traditional social and cultural factors and the desire to use limited financial resources on schemes which mobilise young men. The Ivory Coast Women's Civic Service is designed as a type of "animator" scheme in which trained girls return to their village to spread knowledge of hygiene, diet, sewing and gardening;
- (g) civic employment and training programmes within military forces. With the spread of military regimes in the developing areas there has been a tendency to use their training facilities and manpower for economic and infrastructural development, particularly in building and road projects.

27. The second category of youth schemes is aimed at young people already possessing secondary or higher education or special skills. It is found both in developed and developing countries and can comprise service at home or overseas. The goals of such programmes include:-

- (a) the rendering of service to the community;
- (b) further education for the participant;
- (c) the reduction of high levels of unemployment among educated youths in urban areas.

An example of service within the home country is the Education Corps of Iran where appropriately trained youths are conscripted for 18 months to serve as teachers in rural villages. The well-known U.S. Peace Corps, the British V.S.O. and the Canadian C.U.S.O. are but three of the examples of service abroad.

28. In order to be effective as adult education programmes and to contribute to the national welfare in a real way, such special programmes have to follow certain principles:-

- (a) they must be integrated into overall national development plans. Hasty emergency reactions often lead only to failure, a disruption of the economy and of the employment market, and to disenchantment of the young people;
- (b) programmes must not be started on a large scale before pilot projects have tested their reception and effectiveness;
- (c) all schemes should aim at improving the participants' vocational qualifications;
- (d) the schemes should include methods whereby participants are encouraged and helped to return to normal economic activity.

29. Nevertheless, because most of these schemes are financed and administered by central governments, it is questionable whether their high public cost is not diverting scarce capital and administrative resources away from more important development needs. The problem of employment for

the participants after the scheme in practice often remains unsolved, and whether they are able even in part to stem the migration to the cities and improve the rural areas is still an open question. However, these schemes appear to have value in respect of political education.

### C. Mass Media

30. The value of the press, film, radio and television for adult education has been well demonstrated. It is disheartening, however to find that the vested interests of politics and commerce often misuse the immense advantages of mass media among their people who are at a disadvantage because they lack discrimination. Few governments in developing countries make effective use of mass media to overcome the shortage of good teachers. Thousands of young adults in the "third world" struggle to qualify themselves, using inadequate correspondence courses or self-study systems, and nearly always have little - or unhelpful - guidance in their studies. Much could be achieved in government-run teaching centres using radio and television educational programmes.

31. Furthermore, there is perhaps no field in which the developed countries have failed so much to help the developing countries to make fuller use of one of the best tools of education. Insufficient aid funds and lack of help in research has resulted in the production of very little material suitable for rural areas. There has been inadequate training both in the technical fields and in the use of the media, and there has been a lack of control on the type and quality of material transferred. In most cases educational material is coughed up in an undigested, unedited, untested manner. There has been an excessive use of material offered to project the image (often an artificial one) of the donor country. Of mass media, it can be said, "never has such a good tool of enlightenment been so badly handled, misused and neglected".

### D. On-the job Training in Private Concerns

32. In the past, large firms have found it necessary to establish their own training programmes owing to a lack of qualified technicians. These "on-the-job" courses have proved highly successful, no doubt because they were on a commercial "hire and fire" basis which produced rigid incentives and standards of work. These have been continued

even in the face of the development, by governments, of sponsored trade schools and technical colleges. By the end of a three- or five-year course the products of such institutions are often unwanted by the industries because they have the wrong kind of training and the artisans' expectations are already too high. Indeed it would be better to encourage firms and industries to run and pay for their own training courses while governments should give more attention to adequate inspection and control of standards in employment conditions and training facilities.

33. It is through industrialisation that we also witness a rapid peaceful educative means towards building a national spirit and reducing the undesirable effects of tribalism. For, in working to achieve a saleable product, the workers must have a cohesion. Tribal and language differences diminish and mutual respect is built on ability to do a good job. Each man in a production line learns his interdependence.

E. The International Labour Office and other United Nations Agencies

34. The United Nations through its specialised agencies is endeavouring to meet the rising need for adult education and training at all levels. In particular ILO, FAO, and UNESCO have through their Administrative Committee on Co-ordination reached agreement whereby they share and co-operate in the work of agricultural education and training. Under this agreement FAO will promote the agricultural aspects, UNESCO the educational and ILO the rural employment.

35. Furthermore, ILO has in its vocational training for rural areas placed great emphasis on training artisans, rural youth, women and young girls. Also, wherever aspects of employment promotion concern farmers and agricultural workers, ILO has endeavoured to provide the necessary training. Some examples of the vocational training programmes organised with the help of ILO can be cited. In Senegal a rural vocational training project is producing graduates who within their rural communities are then able to inject new methods among farmers, artisans and women. In Chad rural artisans are being trained for the southern part of the country and, to assist this programme, mobile units have been introduced which can inspect and advise the craftsmen in their work places.

The solution adopted in Niger takes into account the very low level of rural development and agricultural techniques. In this case mobile workshops travel from village to village helping to repair tools and implements at an agreed price. In Nigeria a pilot project is starting which is designed to upgrade existing entrepreneurs in rural areas by providing common facilities of skill, equipment, management, bulk-buying and marketing. The improvement of the skill of instructors is a key element of any training scheme, and in Mali the ILO has introduced a programme for the training of agricultural instructors and extension workers. In addition, ILO has developed prevocational training schemes in several African and Asian countries to provide school leavers, both boys and girls, with practical training in agriculture and other rural trades in order to facilitate their adjustment to the rural environment. This is to mention but a few of the vocational training programmes. Perhaps most significant of the ILO plans and policies is the approach given on the 50th Anniversary of the ILO when the Director-General presented his report to the International Labour Conference entitled "The World Employment Programme". In it the ILO sets itself the task of making productive and remunerative work available for ever larger numbers of people.

## II. Existing and Evolving Rural Structures

36. In the dual society it is the ceiling which possesses the main institutions of formal adult education - universities, colleges, trade centres, institutes - all "introduced", all without origins in traditional rural life, all urban orientated. In time they will expand downwards, changing the very roots of society. This trend is inexorable. But if the present excessive quest of the masses for all to become educated leaders and top level salary earners is to be contained and converted into extensive social development, then more attention must be given to the existing rural systems.

### A. The Farmers

37. Research has shown that improvements in agriculture must not over-reach the farmers' capacity to accept or utilise them. There are two conflicting forces in man - the need for security or preservation and the desire for adventure or inventiveness. In societies which are homogeneous and physically isolated, the tendency is for self-preservation to dominate. In the course of time, this instinct becomes

"fossilised" into traditional patterns and the urge for adventure is dormant. Thus "I grow this crop in this way to survive" changes to "I grow this crop in this way because my fathers have always done it so", and inventiveness is lost. Stranger elements entering that society may re-awaken the instinct for adventure. Farmers are notoriously conservative, and those who introduce improvements to peasant farming must not initially expect of the farmer greatly increased inputs of labour or money, particularly if the returns as compared to the costs involved are only slightly better than those resulting from his present method.

38. Thus five steps of educating the farmers to increased productivity can be defined:

- (a) Breaking into the traditional pattern and gaining acceptance of improvements. The most successful first step improvements usually are those of substitution: "you grow rice - then why not grow some of this improved variety?" (it is of course understood that the new variety has been tested for acceptability, growth, palatability, storage and processing qualities as well as marketing acceptance). The resultant improved yield encourages the farmer to attempt other improvements. Changes in cultural methods and the application of fertilizer and pesticides often come later;
- (b) the development of improved marketing through co-operation and effective thrift and credit facilities;
- (c) with growing farm incomes there can be an introduction of improved tools, cultural and storage practices, and the use of fertilisers and pesticides can be started;
- (d) developing the ability to invest capital in farming, making efforts to change the land tenure system in order to meet the needs for increased productivity and for diversification and specialisation of production;
- (e) the introduction of increased energy inputs through the use of tractors and maintenance of machinery.

39. It is not to be imagined that these steps always follow in a sequence. But no step, however effective it may appear to the innovator or research worker, must be pushed upon the farmers until they want it and can afford it. A great deal of initial adult education is involved in creating the "want". Research on agricultural innovation acceptance in the United States has shown that it takes up to three years before the most progressive farmers fully adopt an improvement, while the more conservative may take up to ten years before adopting it. How long will it then be in developing areas?

#### B. The Entrepreneurs-Craftsmen and their Apprentices

40. It is unfortunate that the smoke-stacks and humming dynamos of modern industry have so captivated the vision and imagination of governments and politicians from the "third world" that in many cases they have left out of their plans and even disdained the thousands of small indigenous privately-owned businesses. In Nigeria some two million people or more are engaged in productive activities in shanty huts on roadsides, while there are only some 700,000 engaged in wage and salary employment in government, commercial firms, large industries and professions.

41. These producers are pivotal for solving some of the problems of unemployed school leavers. In days now fast disappearing, both master and apprentice were often illiterate. Today in any market street can be seen notices outside workshops: "Wanted: smart boy who can read and write". Indeed, many of the apprentices are literate to some degree. It is in these side-street workplaces that large numbers of young adults are trained as mechanics, welders or carpenters, and in an endless variety of other crafts and trades. There are no formal programmes of apprenticeship. Entry requirements are based on personal judgement and social relationships. The final evaluation of an apprentice and his qualification is in the hands of his own master.

42. The development of this sector of the community and the rate of its progress is in no means limited by the desire, intent and energy of those who make up this group. Here are the inventors, those who by dint of trial and error have achieved a modest progress; they have the eyes and minds of the natural designer and business man. In the hard school of survival, they have been able to scrape together a living.

Now their limits are set by a lack of capital or credit facility and there is no one who will take time to teach them an improved skill. For them, better equipment and the use of power tools is almost a dream. They need to learn the advantages of bulk buying and improved marketing. They need an understanding of business management. Step by step they could be led towards a standardised apprenticeship scheme, and aspects of safety, good working conditions and labour welfare could be introduced. Two members of the Peace Corps in a few months helped 200 photographers in Ibadan, Nigeria, into such an effective association that they were making a profit of £44 per week out of bulk buying alone; from these profits they set about instituting a photographic training centre for themselves and their apprentices.

43. If in the next decade of development, governments, aid agencies and voluntary organisations can turn their attention to this important sector of producers, there is indeed hope that many of the young unemployed school leavers may find satisfactory jobs.

#### C. Women

44. "She who rocks the cradle, rocks the nation" is regularly lippered. But little is done to help the rural mother with her burden of work, her responsibility for rearing a family and her struggle with inadequate diets and health problems. Some would offer "the pill", others the "spiral" - birth control at any cost. She, the "ignorant, poor woman", is to be robbed of the one attribute for which her society values her - her children. Would not a growth of adult women's education help her in understanding and overcoming her problems? One effective "first step" has been the programme of "Home Gardens" which involves getting the family to grow a small plot of local high protein vegetables in the backyard right by their house, making use of the wastes which fall around the compound for watering and fertilising the garden. In Western Nigeria this idea has been successfully introduced; the 2 per cent extra protein in the soup has been reflected in improved baby health and a lowering of the incidence of kwashiokor. Simultaneously young women animators trained from the villages are helping the women to adopt hygienic feeding and cooking methods as well as a more balanced diet. On the other hand the fathers are asking in the local clinic "Now that my children are not dying, how can I stop having so many? I cannot educate all of them!"

## D. Voluntary Organisations

45. All over the world church groups of every kind are turning their attention to ways and means of helping to alleviate the problems they unwittingly started to create, in bringing "the Book". Mission workshops and Faith and Farm Organisations are beginning to help the young people to obtain a satisfying occupation. Many pastor-training institutions are introducing farming and technical subjects into their theological courses. Pastors are beginning to encourage their church members to cultivate improved crops or keep poultry or rabbits. Gone are the days when they were linked solely with spiritual matters. They are key educators; since they are from the same society, they - as innovators - have to overcome fewer psychological barriers than external agents. On the other hand they are less inhibited than the common farmer, craftsman or even government extension agent in calling upon or looking for advice and help from outside.

## CONCLUSION

46. Education has been seen as the springboard for modernisation in developing countries. For the politician, planner and common man this has meant formal educational systems - schools, trade centres and universities - to the neglect of other educational activities. The comparative ease with which it is possible to put a formal educational system into operation had brought about the explosive problem of the unemployed school leaver. What is apparent now is that education is powerless to promote employment in the absence of effective complementary economic policies. To advocate a "cold storage" policy of education for some sectors of the population would be untenable. The educational movement cannot be stopped nor appreciably slowed down - for, in the last resort, people will buy education for their children. This can only mean one thing - that the millions of unemployed school leavers are to increase unless much more attention is given to policies which stimulate production and marketing. One way in which this can be done is to accelerate rural adult education and "on-the-job" training. This takes people who are already engaged in work and enables them to improve. In rural areas this will result in an expanding production related to the economic level of the people. Furthermore, it puts the impetus for development back to the private sector from which the major thrust must come.

47. Governments in developing nations have over-committed budgets. The annual increase in their revenues cannot meet the demands. Thus all their systems of training and education are either being diluted to the point of ineffectiveness or are inadequate. The population cannot and will not shoulder a rapid rise in taxes to pay for desired improvements. Thus in the coming decade attention must be focused on self-help and commitment of the individual to the community. This concept is not alien to the rural African people. As the number of the educated increases, the premium for education diminishes. The present high value of the elite will either fall because their market value falls, or their price will be snatched down by force - the force of the frustrated masses.

48. It is often said that time is running out for us to meet the needs of the developing countries. This is only true, however, where our plans and methods are seeking evolutionary solutions. If we are unable to satisfy the needs, then unbalanced and unplanned developments will occur resulting in unbearable and thus explosive frictions. The time factor would then become meaningless.

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