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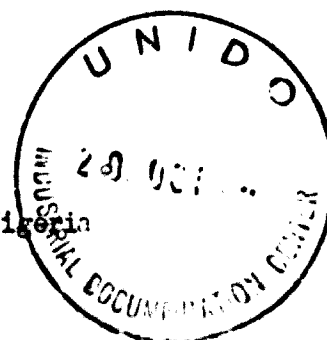
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Paper for Tangiers Conference

"Industrial Services"

by E. G. Rothblum, Industry Officer, USAID/Nigeria



INTRODUCTION

In all emerging countries, the development of human resources remains a priority task since without exception, there is still a lack of vital entrepreneurship, the product of initiative, drive, ambition and managerial talent; there are still attitudes which do not permit the advancement of the best suited; and there is still the mix of traditional behavior patterns and motivation which have been denying the emergence of a suitable environment for industrialization.

The task of developing human resources in an environment of an emerging country by attempting to mold attitudes and change motivation is most complex. Yet, it seems that donors of technical assistance can play an important role in developing human resources, not only by creating opportunities for work and profit, but also by providing industrial services in an attempt to shape the motivation of those who are already in the manufacturing process as well as of those who because of association or study constitute a potential managerial resource.

In the following, I will describe some of the industrial services with which I am familiar. In doing so I will lean heavily on experiences gathered during the last four years in Nigeria and wherever feasible, I will give data on the input of resources and the number of people reached. At the same time, I will also refer to industrial services projects of this type in three other countries (Brazil, Spain and Yugoslavia) in which I have been associated with similar exercises.

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

Industrial Newsletter

If popularity is a yardstick for the usefulness of certain industrial services, the Industrial Newsletter would certainly rank first. In Nigeria, the Industrial Newsletter has gone every other week to more than 9,000 Nigerians connected in one way or another with Industry. This number is growing by between 100 and 200 new recipients for each new issue. While the first 150 recipients of the Industrial Newsletter were selected by us when the Newsletter was started in September, 1963, subsequent additions were mainly made in response to specific requests or suggestions by established recipients although occasionally we added some names of our own choice.

Because of the wide variety in occupation and background and because of our wish to serve as many needs as possible, the Newsletter had from the beginning included many amorphous subjects ranging from topics designed for village use such as how to build Solar Water Heaters to such sophisticated discussions as the importance of human relations in modern industry. Other subjects which were included recently were: Small Plant Lay-Out; Employee Training; Human Relations in Management; Glossary of Management Terms; Starting and Managing a Small Business of Your Own; Personnel Practices; Distribution and Sales; Records and Reports; Enterprise Organization; Financial Management; Research and Public Relations; Fundamentals of Accident Prevention; Mechanical Handling of Materials; Control of Electrical Shock Hazards; Proper Use and Maintenance of Tools; and Corrosion and Its Prevention.

This is obviously a broad range of subjects but then the Newsletter is not really designed to provide information which can be translated in all instances

into actual operations. Instead, it is to whet appetites for better things and shape attitudes conducive to creating a state of receptivity for new approaches. In other words, the real purpose of the Newsletter is to encourage recipients to do something new or to do something better than before. At the same time, the Newsletter continuously introduces standards of performance and excellence and encourages people to compare their performance with these standards and try to compete with them. In doing so, the Newsletter recognizes the frustrations that are being encountered in the environment of an emerging country and partly by attempting to come to grips with specific problems, but in any case by the mere fact of its scheduled appearance lends support to those in whom a wish for achievement can be awakened. Thus, the Industrial Newsletter like the other industrial services which I will discuss subsequently assumes that this wish for better things, the desire for improvement per se, in fact the entire motivation process for achievement is not necessarily a product of the existing environment in an advanced society, but can be generated and developed as an acquired characteristic in an emerging country.

Having always been pressed for funds and staff time required by the growth of the Industrial Newsletter as well as the other industrial services, we have over the years developed certain techniques which permit us now to perform these services with what we believe is a minimum of resources. In the case of the Industrial Newsletter as it appears in Nigeria, the typing of the "multilyth" stencil (eight pages) and the addressing of envelopes on an addressograph machine is carried out on the premises of our offices with the printing, collating, folding and "stuffing" of envelopes handled by a contractor.

In the past envelopes were then returned to the Mission solely for postage metering but more recently we have been compelled by the Nigerian postal authorities to sort envelopes by region and major cities and towns, an additional burden that we had to absorb. American staff time (largely my own) is about two hours per Newsletter which includes the occasional selection of texts -- subjects run in installments--the drafting of the first paragraph and dictation of special replies to other than routine mail. Staff time of local associates for the Newsletter is 60 hours per week.

The technique most responsible for the reduction in staff time needed for industrial services, is a very simple coding system geared to technical sectors (e.g., metal processing, automotive repair, leather, textiles etc.) as well as to an indication whether we deal with private entrepreneurs, employees in private firms, employees in government-owned corporations or civil servants. We have learned, however, not to allow in this code system for location (because of the considerable mobility of recipients) and instead indicate region of domicile by the color of the addressograph plate. Since these plates can be replaced (and then reused) with relative ease, this turned out to be a better approach than a reassignment of code numbers every time a recipient of the Newsletter moves to a new address.

Recipients of the Newsletter are being encouraged to refer to their code numbers not only when writing to us on matters pertaining to the Newsletter, but also if requesting assistance in the form of some of the other technical services which we provide and which I will describe later on. These recipients

have been using their code number with considerable enthusiasm giving us reason to believe that a prestige association has entered the picture.

As I have indicated, the response in Nigeria (as well as in the other countries in which a Newsletter of this type had appeared) has been most encouraging as evidenced by the "fan mail" which we have been receiving. In fact, it seems that the Newsletter has been appreciated more than the other industrial services as an expression of goodwill. The Industrial Newsletter has also played an important role in offsetting disappointment on the part of those many Nigerians who have come to us with requests for such specific technical assistance as training abroad, grant or loan assistance and even jobs; after being compelled to turn them down, we could at least offer some modest help in the form of placing them on the mailing list of the Newsletter.

There has been not only the problem of a considerable amount of mail but also the walk-in trade, a condition which predictably increases as the Newsletter becomes more "personal" and covers subjects of general interest. For instance, in Yugoslavia we had to delete a series of the close support given by industry in general to surgical techniques and the treatment of the sick because so many individuals came to see us to describe their medical problems and to ask for additional details. Yet, obviously it would defeat the purpose of this service of developing motives were it to become completely impersonal. Under the circumstances, we have tried to answer every incoming letter and in the process found that some twenty standard replies take care of about 90% of issues raised leaving the remaining 10% to "individual treatment" replies.

At the same time we have developed a preinterview questionnaire with the help of which we have been able to keep visits by the walk-in trade to less than ten minutes each and still have most visitors depart cheerfully. (A sample of the Industrial Newsletter is attached).

Technical Newsletters.

Needless to say, the range of general subjects included in the Industrial Newsletter has led to suggestions from many recipients to pay more attention to certain specific technical subjects. Therefore, as an experiment to determine how a technical letter would go over, we began about eighteen months ago with a bimonthly Woodworking Letter which after it turned out to be very successful — it now goes to 1,000 recipients in Nigeria — was followed by an Automotive Maintenance and Repair Letter (900 recipients); a Shoemaking Letter (800 recipients); and finally a Metal Processing Letter (600 recipients). These technical letters go only to individuals who are specifically concerned with the technical subjects covered and in contrast to the Industrial Newsletter, the technical letters are quite impersonal; and while the accompanying transmittal letter solicits opinions and views, it does so in low key.

While the Industrial Newsletter relies heavily on U. S. Government publications which are not protected by copyrights, the technical letters must as a rule use copyrighted material. However, after describing to publishing houses what we are trying to do, we have with practically no exception received permission to use their material, although with the obvious stipulation that we give credit to the source. (Samples of the four technical letters are attached) (Staff time: 60 hours of local associates, weekly.)

Technical Inquiry Service

Established in the mid-1950's as a joint venture between AID and the U. S. Department of Commerce, a cooperative effort which was later joined by the U. S. Department of Labor, the Technical Inquiry Service (TIS) has turned out to be a most useful device. As its name indicates, the Technical Inquiry Service was designed to provide replies to technical inquiries emanating in the field. To be in a position to provide suitable answers, the Technical Inquiry Service has at its disposal a list of 5,000 American engineers, consultants, scientists and technicians to whom it can turn for assistance. During recent years, however, TIS procedures were sharpened at the Washington end and as inquiries from the field became repetitive and increasingly involved relatively simple questions, the TIS seems to have begun to process many inquiries under its own steam and also relies increasingly on basic textbooks which are now being sent out in lieu of specific replies. As far as our own staff is concerned, a total of about forty man-hours weekly by a local associate have been required to process 730 inquiries and repack and ship out incoming replies from TIS headquarters.

This TIS has been a most useful program. Unfortunately, however, it is also a relatively expensive program. Although paid by AID on a worldwide basis and therefore not charged against program funds of a given country, the relatively high expense compels AID to continuously have a hard look at the usefulness of this program and to audit results. Since the cause-and-effect sequence of TIS assistance rendered and beneficial results gained — and I will say more about this problem later on — is most difficult to trace, there

has been a considerable amount of soul searching recently both at AID's Washington headquarters as well as in the field, the outcome of which is still uncertain. In any case, I believe it is safe to predict that a clearing house of some sort for technical questions will continue to exist under AID's auspices although its shape and form may be modified.

Technical Book Program

One of the services which has always been very popular is the Technical Book Program which AID has carried out in a number of Missions to which I have had the privilege of having been assigned. The function of this program is simple: Individuals who come or write in for assistance such as on new technical processes or managerial techniques are given a technical book which covers the subject of interest and this book is expected to meet or round out requirements. However, the Technical Book Program has posed a considerable administrative burden on us in tracing certain titles, frequently given incorrectly by would-be recipients, to publishing houses, then ordering and finally paying for these books, receiving and distributing them after they arrive several months later. In Nigeria, our code system has helped and we have streamlined procedures of the Technical Book Program to a point where it calls now for only five hours weekly of staff time of our local associates. However, because of funding problems we do not publicize this program any longer and process not more than about three hundred titles annually.

Technical Film Program

While a short discussion of the Technical Film Program belongs in this series, I would like to recommend that if a program of this type is adopted at all that this be done with a clear understanding that only institutions in a host country which have experience in disseminating visual aids be considered as recipients of films. Experiences in a number of countries indicate that the administrative burden of distributing films followed by the difficulty of getting them back on time and last but not least the frequent need to splice and repair damaged films cause this to be a very expensive service.

Correspondence Courses

AID's Mission to Nigeria introduced in 1965 a pilot project in the form of correspondence course training of Nigerians now in management positions or expected to assume management positions in the foreseeable future. I believe this was a first attempt of this sort as far as AID is concerned. This pilot project was limited to sixty-four Nigerians and was carried out by the International Correspondence School of Scranton, Pennsylvania, and LaSalle University Extension in Chicago, Illinois. It has been unusually successful; a success which can be measured in quantitative terms. While correspondence students in the United States drop out at the rate of up to 80 per cent, we have had in Nigeria only 20 per cent dropouts, involving largely those who were affected by the political events of the last eighteen months. The two correspondence schools also assured us that in terms of grades, Nigerian students do much better than their American counterparts.

The general management subjects which turned out to be most popular were Complete Business Management, Personnel Management, Office Management, and Production Management. The specific administrative subjects chosen were Inventory Control, Advertising and Sales Promotion, Marketing, and Industrial Supervision. Finally, a number of individuals selected accounting subjects.

Some of the experiences which we have gathered might be of interest. In the first place, we believe that the success of this project can be traced to rigorous selection procedures. After publicizing in the Industrial Newsletter our intent of introducing this pilot project, we requested that individuals who were interested complete questionnaires, and at the same time obtain a recommendation from their employers, as well as a written statement that their immediate supervisors would guide participants through the course and lend a helping hand if needed. We believe that the involvement of supervisors has kept the interest of those participants alive who otherwise might have thrown in the towel.

Another feature which we believe has had a positive effect on this project is the requirement to return completed lessons through our office. This permits us to keep track of progress made (and as a side effect reduces the postage fee to participants from international air mail postage to local surface postage). Progress made by individuals is being recorded on a large wall chart and stragglers (those who do not complete a lesson in a month) are first being encouraged by us by a letter; and if this has no results, a second communication is being addressed to their supervisors asking for their interest.

Staff time of local associates has averaged 30 hours.

Finally we hand out Certificates of Completion (copy attached) to individuals who have finished a course, a feature which as a rule is being covered by local news media and thus encourages those who are still in midcourse. While this project worked out well at our end -- local staff time requirements have been in the order of 30 hours weekly -- some difficulties have been encountered, however, at the Stateside end since we had not allowed for the reluctance of the correspondence schools to change their procedures which at times appeared to be set in concrete. This lack of flexibility is no doubt tied in with the need on the part of these schools to reduce costs and turn out a "mass product".

While I foresee a great potential for management training through correspondence courses, the difficulty of tying it in with a permanent institution is considerable. While I will touch on the general difficulty of institutionalizing technical services later on, it might be of interest to note that we have tried to establish a procedure whereby the grading of lessons would be done by one of the two Industrial Development Centers in Nigeria which we have supported actively with AID personnel and equipment. Unfortunately, however, and in spite of the schools' willingness to help us in trying out this approach, the recent political events in Nigeria put what we hope is only a temporary stop to this plan. For the same reason, our attempt to branch out into technical correspondence courses such as for electricians, automotive repairmen,

carpenters, etc., also came to a halt. However, at this initial stage it can be said that in the technical fields where it is most difficult to provide inplant training abroad, correspondence courses may represent a stopgap measure of considerable interest.

Management Seminars

During the last three and one half years, we have held twenty-six Management Seminars in Nigeria at intervals of about six weeks (no Seminars are being held during the Christmas season or during the summer months). Although initially designed for twenty-five individuals the average attendance for all Seminars has grown to forty-one, with the last ten Seminars having an average attendance of fifty participants. These Seminars are held by American lecturers who are in Nigeria either under AID contracts or under a contract with the United Nations or such institutions as the Ford Foundation. Seminars are programmed for one working week consisting of ten lectures, one in the morning and one in the afternoon. Topics discussed have one common denominator; Management Techniques. During a recent Seminar, the following subjects were discussed: Centralization and Decentralization; Delegation and Control; Managerial Uses of Accounting; Engineering Aspects of Management; Psychological Factors in Management; and Organization Planning. (A copy of a recent schedule is attached.)

This has been my first association with scheduled Seminars of this type and it is still difficult for me to say why these Seminars have been so popular as they have been in Nigeria as evidenced by the increasing number of people

who want to attend — at one instance we had to turn away fifteen applicants while an additional five "crashed the gate". Even the anonymous evaluations which we request from all participants at the end of each Seminar on hand of a carefully prepared questionnaire (sample attached) do not seem to provide the answer although it seems that these seminars awaken an awareness on the part of participants that there are certain techniques and methods in management which they should study and get familiar with. An attractive feature of these seminars has been the awarding of Certificates of Attendance signed by both the Mission Director and the Chairman of the Nigerian Institute of Management. It should be added that beginning with the last four Seminars the Nigerian Institute of Management had begun to co-sponsor them and thus introduced institutional aspects which we hope will eventually lead to an assumption of the responsibility for holding these Seminars by the Management Institute.

From the administrative point of view, the Management Seminars have been relatively easy to introduce, organize and hold. On the average, they have called for about twenty hours weekly of the time of a local hire secretary who after some training handled all correspondence. (The average figure is misleading, however, since just prior to and right after the Seminars, that is during peak period of activity, this secretary has been busy on a full-time basis working on management seminars while during the remainder of the time she works on other matters.)

An important factor facilitating the holding of these Seminars has been the cooperation of the various institutions providing lecturers. These have included the University of Nigeria, the University of Lagos and other Nigerian academic institutions. Equally important has been the cooperation of public corporations and private firms in nominating suitable personnel to attend. This cooperation was only gradually achieved by us as the value of the seminars could be assessed.

Technical Seminars

I would like to mention briefly technical seminars but I do not propose to describe these technical seminars since in Nigeria they have been conducted within the framework of two Industrial Development Centers without an input of the group of people who are responsible (at the headquarters office in Lagos) for the implementation of those industrial services I have mentioned before. In fact, I believe Technical Seminars do not belong within the context of industrial services, as discussed here, since they cannot be held outside an institutional framework within which demonstration equipment can be provided and an organized follow-up activity can be introduced.

Summary and Evaluation

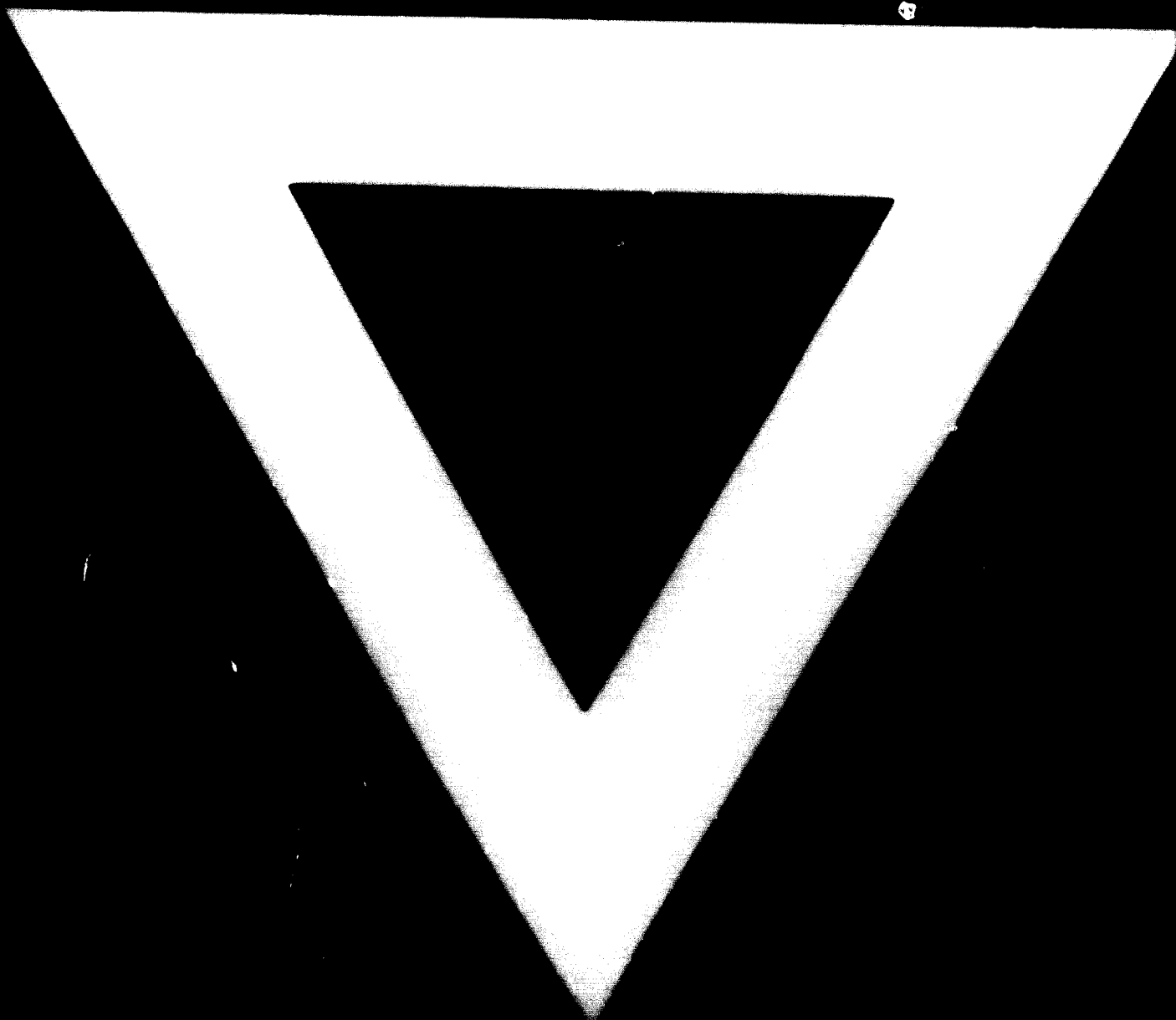
In describing the various industrial services I have indicated on a number of occasions that certain services have been quite popular and useful. Yet, before summarizing these favorable facets, several negative aspects should be mentioned.

First, it has been most difficult to trace the benefits of these services and follow a cause-and-effect sequence that would have a meaningful application to individual advantages derived. For instance, have the recipients become better managers? Have they been able to attain higher profits? Have they saved production time? Have they reduced accidents? To determine results, we have tried to encourage beneficiaries of these services to provide us with measurable success stories or submit critical comments to us. However with a very few exceptions, this approach has not had practical results.

Second, there has been the difficulty across the board of "institutionalizing" industrial service activities. True, as long as we or other foreign donors are engaged in providing these services, they may be expected to be carried out successfully and gradually increase in effectiveness and impact. However, at least in Nigeria, it has been difficult to generate host government interests in allocating counterpart personnel of required competence and dedication to be trained by us and even more difficult to find a host government institution which would be willing to carry on. In fact, with the only exception of management seminars (and the technical seminars which are carried out under a different project which is already part of a growing institution that we had helped to create in the first place) it must be expected that most of these industrial services will cease to exist after the foreign donor -- in this case the USAID -- terminates assistance activities.

While certain case histories and subjective assessments might be accepted as at least partial answers to questions asked in relation to the first problem and while benefits derived while the program lasts may be considered outweighing the inadequacy of an institutional tie-in as far as the second problem is concerned, there is a third problem area which I would like to touch upon. In providing these industrial services, as I have pointed out earlier, we proceed on the basis of the assumption that we can understand and therefore influence individuals in emerging countries by encouraging them to think and draw conclusions so as to generate wishes for finding and seizing opportunities. In doing so, however, we must not lose sight of the fact that individuals in more developed societies, let alone those in emerging countries, are guided to a considerable extent by emotions, desires, sentiments, needs and a range of attitudes which are generated by the immediate environment. Responses coming from this uncharted area may at times have a retarding effect on the best thought out industrial services program. Yet as man obtains a heritage from the environment into which he is born, he also learns by practice, his own and by observing others. Therefore, I am confident that the seed planted by these industrial services -- be it at the village level, in the small shop or in the larger plant -- will eventually grow to have the results which will contribute also to changing those facets of the environment which now have a retarding effect.

In summary, I believe the advantages and benefits of the industrial services are impressive. They fill in to some extent around the islands of activity generated by large scale industrial projects and they create no doubt an awareness of better things beyond the horizon of traditional orbits and thus awaken a desire for further achievements.



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