

Small powered boats or launches now make night fishing possible. A powerful petrol light is mounted on a spar or oar and placed overhead, to attract the fish to an anchored or drifting boat. In a short time, large quantities of bait fish can be seen in the surrounding area covered by the light. Larger fish shortly appear in the area and are attracted by both the bait and the glow of light. Bait is free and is easily dipped with a net. A live fish is usually used on the hook for this operation, and strikes are frequent. Some very good catches have been made, especially on dark nights. It is not unusual for 200 or more pounds of fish to be taken in four to six hours fishing time by just two men.

When one is dealing with the development of a fishery which for years has been operated by poor fishermen, it is necessary to restrict the introduction of new gear or methods to a cost that can be met by the men in their respective fishery. It has been found that a gradual release of the results of gear development has a better chance of being accepted, than if several developments are released at the same time. Fishermen who have never had much can be encouraged, but they cannot be forced in any way. One or two pieces of gear successfully developed for a fishery often places the research officer in a favorable position with respect to the introduction of other new techniques. To end on a personal note, any research officer must have faith in the method he is introducing, and must never lose his patience.

The Human Side of Technical Assistance

WILLIAM ELLIS RIPLEY
U.S. Bureau of Commercial Fisheries
Washington, D.C.

Abstract

The contribution of technical assistance to the growth of the developing nations has been of mounting interest since World War II. Considerable information has been written about the scientific, economic, and administrative phases of the subject. Although some consideration has been given to the effect of the non-technical factors of assistance, there is an increasing realization that the social side plays an important part in the success of development programs.

To be successful the aid furnished must satisfy both the human and the technical requirements of the problem. Among some of the human phases discussed are personal interest and social acceptance and their relation to technical assistance.

IN THE YEARS since World War II technical assistance has commanded increasing world attention as an aid to the development of the resources of many nations. Much has been written on the scientific, economic, and administrative side of the subject. In fact, hardly a day goes by but what interesting comments are seen in the newspapers regarding the merits of foreign aid, technical assistance, and its effect upon the domestic and world scene. Much less is seen of the human side of technical assistance.

Population growth has contributed to the problems of this world. Intensified

effort in research is contributing to the solution of some of the problems. Much broader horizons have been created through the knowledge of science and its application. In one sense, however, it is unfortunate that rapidly expanding scientific knowledge requires more and more of the classroom time of the student to absorb the mass of subject matter. Often the scientist is forced to specialize so highly that his formal education can include only a limited study of the humanities.

The urbanization of our society has also tended to limit the individual's exposure to broader cross-cultural contacts. Thus, while technical knowledge expands and the material benefits of society increase, in some respects human horizons shrink.

In my researches for this paper, I have found that one author indicated that only one-third or so of the technical development programs initiated could be expected to be successful. Such a pessimistic pronouncement, although perhaps true at one time, no longer need be accepted as inevitable. If there be failure it is not science that fails, but the application of the science, at the time, place, and under the conditions and circumstances surrounding the application. Paraphrased in the jargon of the biologist—the survival of the organism (technical assistance) within any given environment depends upon the organism's ability to adapt to the peculiar circumstances in which it finds itself.

This then sets the climate for this talk—when referring to technical assistance henceforth we will consider the total environment, the development project in its setting, not just an isolated segment of an industry, culture, economy, or country.

To further delineate this discussion there are quotations, questions, philosophy, and basic assumptions that have been stated, so that all will proceed from the same base line. I might also say that the statements made here do not necessarily represent the views of the Institute, the authors from whom I have liberally drawn, nor the U.S. Bureau of Commercial Fisheries. They do represent, however, my views.

First, let's consider one of the basic premises of technical assistance. What should be the goal of a development program? Capital goods may be important aids to development, but they are not the basic commodity out of which economic growth is formed. The real resource of any nation is the people who make up that nation—the human resources. The skills of the people and how those skills are used determine the effectiveness of that resource. Every successful program of lasting worth has resulted in an increase of technical skills.

In dealing with the great variety of human societies, the development scientist must recognize the importance of local cultural patterns. The greater the breadth of understanding, the greater will be the success in marketing the product of technical assistance or development. Underlying the adjustments that different groups have made to their environment are several basic motivating forces common to all individuals regardless of cultural background. Three of these forces are: (1) personal interest, (2) social acceptance, and (3) feasibility.

Let's discuss each with some examples.

First, personal interest. The technical assistant usually is motivated by a desire to help others. To us it seems to be a worthwhile motive. Many people so moved, in many different times, have gone forth to help others gain a better life. In the past, the medical, spiritual, or technical work was generally done under the direction of a missionary, usually a man with considerable social

perceptibility. Now, most medical and technical assistance is conducted under the auspices of a scientist. Nevertheless, he is in fact a missionary in one sense of the term or another. In dealing with his clients, the successful technical assistant, like his missionary predecessor, must develop the ability to recognize value standards of many different kinds.

I think the importance of considering the personal interest factor was aptly expressed by J. H. Mensah, of Ghana, in his presentation at the World Food Congress in Washington, D.C., in June, 1963. Although speaking of farmers, his statement applies to fishermen as well. ". . . farming technology must be presented to the farmer not as something that will improve the country as a whole or even his district or village, but as something that will increase his own well being." Although basic and simple, it is sometimes overlooked that benefits to the individual in a society generally contribute to the society's benefit as well.

Just what will increase an individual fisherman's well-being, however, may well cover the range of human desires. Those things that people want, demand, or cannot be satisfied without vary from place to place and culture to culture. A simple illustration was given by one author, "Some people want radios instead of ice boxes." Measured by our value system it would seem that a radio would be less important than an ice box in a home that had neither. News and entertainment, though, have great value in many areas where these commodities contribute to education and meaning of life.

Not all values can be expressed in money. Often units of money must be used as a yardstick for report or budgetary purposes. The local value of a particular commodity ranges widely for many reasons. It is important, for instance, that the agricultural scientist have an appreciation of the cultural value of pork. Although pigs are pigs the world over, pork has a very different value for a Moslem than a non-Moslem. The same could be said for cows, wine, and snails.

Similarly one of the problems in development motivation involves the interpretation of what has been called "the local content of living." Practically, it has meaning to consider the contribution of technical assistance to contentment and happiness. Without contentment of the participants, sustained interest in a project may be lacking. In many societies industrial development may have the potential to create better housing, food, clothing, and income. It is important in planning for such development that the emotional needs of the people be taken into account as well.

The factory life with its whistle, confinement, and monotonous duties does not of itself appeal to some. Considering the independent nature of fishermen, project planning must contain adequate "contentment" compensation for the social changes that may be required for economic advancement. That some may prefer the traditional but less easy life, instead of an industrial one with greater material return, is a real factor of personal interest that should be fully evaluated to insure a properly oriented development program.

Then there is a reverse application of the personal interest factor. The behavior of the technical assistant himself must be in keeping with his mission. An example of this type has to do with the privileges extended to visiting experts. As most of you know, in some areas automobiles have a much higher local value than their original factory price. Some nations permit their technical guests to import automobiles duty free. Privileges of this nature

must be exercised with great discretion so as to maintain the maximum beneficial climate in the host country, lest the action of the individual speak louder than the words of his program.

An example of social acceptance involved the introduction of powdered milk in a school feeding program. The children in the schools had had little previous experience with milk. The new drink, even though palatably prepared and well served, was not acceptable to the children. The illnesses resulting from drinking unsanitary milk had left the local population milk-shy.

The project manager observed that the children liked soda pop as they do almost everywhere. The preferred local drink was orange crush, sweet and carbonated. However, the cost made it a treat that they seldom enjoyed. An experiment with a spoonful of milk mixed with the orange crush convinced the manager that the drink was neither unpalatable nor too great a change from the normal flavor. And to the kids, for free, it was more than welcome. Over a period of two weeks the orange crush was diluted more and more with reconstituted powdered milk. Pretty soon it was all milk and the transition had been made. The kids had developed a taste for it, and now accepted the white drink. Although the old folks never got around to drinking the product, milk was firmly established as a part of the local school feeding program. Just a bit of human engineering made the difference between a successful and unsuccessful introduction.

Another social practice in some cultures that could cause difficulty, if misunderstood, has to do with the hiring of relatives. In our society they call it nepotism. In some places nepotism is in reality a highly advanced form of social security. The unemployables, widows, and orphans are maintained through a well defined but informal system of spreading the work. The technical assistant in designing an acceptable program must be aware of the local practice requiring the successful to share the benefits of their success with their families. If not taken into account in the planning, the financial load of supporting a host of relatives selected without regard to their competence may sink a newly developing fishing or other business venture. Where local custom decrees that the rising entrepreneur secure the welfare of his relatives, non-conformity can be uncomfortable. I don't believe I need go into detail to explain the formidable social pressure that can be applied by an unhappy spouse, even in the most secure of patriarchies.

As a final case history I'd like to cite an example of feasibility. In a coastal state, and this incident could be set in many places in the world, the local fishermen are poor, live on a subsistence diet and fish the marginal seas. They go to sea on hand-constructed sailing rafts. The rafts are made of native balsa logs held together by long wooden pins. Metal is not used in construction because it costs too much and rusts away through constant exposure to sea water.

The fishermen measure the logs by span of hand, and tediously burn hoies through them with a piece of red-hot reinforcing iron to take the wooden pins. This activity was observed by a fisheries worker.

Many different things could have been done for the fishermen, but the assistant simply lent them a brace and bit and a measuring tape. The rafts were then built in about one fifth of the time. Although not at all a spectacular solution, a need was met, the technology of construction was advanced and

the fishermen could afford the cost out of the additional time they spend fishing.

The principles involved in the non-technical side of technical assistance are summarized quite concisely in one of the viewpoints of the Foreign Service Institute: "If one wishes to understand a member of another society, it is necessary to understand what his . . . beliefs and attitudes are. . . . Since everyone . . . examines . . . ways of doing things from his own cultural standpoint, communication will be difficult. Once a group's ways of seeing the world is known, behavior which might otherwise seem irrational becomes logical. It makes sense from a particular group's point of view. Since the individual receives psychological support from having his ideas shared by his group, it becomes understandable why people adhere so strongly to their values. . . ."

Whatever technical assistance offers, to be truly effective, it must be *en rapport* with the material environment, and the human side as well.

REFERENCES

ANNALES NESTLE

1961. Humanity and Subsistence, Symposium, Annales Nestle, 237 p., Switzerland (18 articles by 18 authors).

BOTTEMAN, C. J.

1961. Programs of Fisheries Development, Indo-Pacific Fisheries Council, 9th Session, 6 p., Jan. 6-23, 1961, Bangkok, Thailand.

FOOD AND AGRICULTURE ORGANIZATION

1962. Nutrition and Working Efficiency, Basic Study Series No. 5, 47 p., Rome.

FOREIGN SERVICE INSTITUTE

1963. A Statement of Perspectives Basic to Social Understanding, Pamphlet, 13 p., Department of State, Washington, D.C.

FOREIGN SERVICE INSTITUTE

1962. When Americans Live Abroad, Pamphlet, 12 p., Department of State, Washington, D.C.

GOETSCHALCKX, FATHER MARCEL

1963. He Is But A Link, Missionhurst, 15 (5): 26-28 (October), American I.H.M. Province, Inc., Arlington, Virginia.

HUMPHREY, HUBERT H., HON.

1963. A Report on the Alliance for Progress 1963, Senate Document No. 13, 88th Congress, 38 p., Washington, D.C.

MENSAH, J. H.

1963. Social Research and Rural Development, World Food Congress, Food and Agriculture Organization of the United Nations, 7 p., June 4-18, Washington, D.C.

SCIENTIFIC AMERICAN

1963. Technology and Economic Development, 209 (3): 1-308 (13 articles by 13 authors).

UNITED NATIONS

1962. Aspects of Economic Development, The Background to Freedom From Hunger, Basic Study Series No. 8, 84 p., New York.

UNITED NATIONS

1951. Formulation and Economic Appraisal of Development Projects, Books 1 and 2, 780 p., United Nations, Lahore, Pakistan, Oct.-Dec. 1950 (26 subjects by 19 authors).

VAN DEN BAN, A. W.

1963. Understanding People and Their Institutions, World Food Congress, Food and Agriculture Organization of the United Nations, 7 p., June 4-18, Washington, D.C.

WILSON, CHARLES MORROW

1962. Common Sense Credit, Devin-Adair Company, New York City, 180 p., Condensed in "Self Help for the Andean Indian," Catholic Digest, 7 (5), March 1963.

WORLD HEALTH ORGANIZATION

1963. Malnutrition and Disease, Basic Study Series No. 12, 47 p., Geneva.
