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Technical Assistance Committee

THE EXPANDED PROGRAMME OF TECHNICAL ASSISTANCE

A FORWARD LOOK

Report of the Technical Assistance Board

With the Comments thereon of the Administrative Committee
on Co-ordination

- 3 -

COMMENTS ON THE REPORT OF THE TECHNICAL ASSISTANCE BOARD PRESENTED
BY THE ADMINISTRATIVE COMMITTEE ON CO-ORDINATION

Extract from the nineteenth report of the ACC to the Economic and Social Council
(E/2884, paras. 13-16):

.....

"13. The last report of the ACC, adopted at the session in April 1955 (E/2728) contained the following paragraph:

'10. The ACC took note of the fact that the Expanded Programme of Technical Assistance had been in operation for five years. It considered that it might be useful, therefore, to review the experience gained thus far and to consider plans for the future development of the programme. It therefore requested TAB to make a study of this matter and report to the ACC at its meeting in the spring of 1956.'

14. On 11 July 1955, the Technical Assistance Committee adopted the following resolution (E/2779, paragraph 27):

'The Technical Assistance Committee

Considering that the arrangements regarding the organization and administration of the Expanded Programme of Technical Assistance approved by Council Resolution 542 B II (XVIII) offer a satisfactory basis for the conduct of the programme,

Noting that the Administrative Committee on Co-ordination has requested the Technical Assistance Board (E/2728, paragraph 10) to prepare a review of experience gained under the Expanded Programme and to consider plans for the future development of the programme,

1. Requests that TAB in preparing the review requested by ACC take into consideration the pertinent comments made during the present session of TAC regarding such matters as the concentration of resources, recruitment, methods used in the implementation of the programme and other relevant issues,

2. Requests further that the review include concrete recommendations for subsequent action, as appropriate, by TAC, the Economic and Social Council or the General Assembly, and that it be submitted to TAC, together with the comments of ACC thereon, in time for consideration at the meeting of TAC next summer, ...'

15. The review requested, under the title "A Forward Look", was completed by the TAB on 3 May 1956 and transmitted to the ACC. The ACC now submits it to the Economic and Social Council and the Technical Assistance Committee. In doing so, it wishes to put forward the following general observations:

- (i) The programme, even on the modest scale on which it has been operating during the past six years, has made and is making a substantial contribution towards the fulfilment of the objectives of the United Nations family and notably towards the achievement of 'higher standards of living, full employment, and conditions of economic and social progress and development' as well as 'the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations'.
- (ii) It is clearly of cardinal importance to ensure greater stability in the programme as well as increased financial resources, which would make it possible to fill part at least of the gap between urgent and proven technical assistance needs of the under-developed countries and the means now available for meeting them.
- (iii) It is becoming increasingly evident that some extension in the range of the assistance supplied must take place if full benefit is to be derived from the gains which the programme has already brought. Side by side with assistance of the present type, much more should be done in the way of organizing practical demonstrations, organizing national and regional training centres, providing equipment, etc. How far such an evolution and strengthening of the programme will be possible depends primarily on the extent to which present financial resources can be increased.
- (iv) The programme must play its part in a wider setting of international activity and financial commitment in favour of economic and social development. Its future must be considered in relation to the decisions to be taken on other aspects of this great problem, including the provision of capital to the under-developed areas.
- (v) It is important to bear constantly in mind that the Expanded Programme of Technical Assistance is a co-operative programme in which almost all countries are both benefactors and beneficiaries and have, in both capacities, responsibilities which must be fulfilled.
- (vi) The ACC wishes to emphasize once again that the Expanded Programme of Technical Assistance is not merely a series of projects operated by a number of separate agencies, but a composite whole planned jointly, in an increasingly effectual manner, within the participating agencies and in the countries concerned under the guidance of TAB and TAC.

16. The members of the ACC participating in the programme endorse the conclusions of TAB's review, commend them to the special attention of the Council and the TAC, and emphasize the readiness of their organizations to undertake, on the basis of the experience which they have now acquired, any larger tasks which it may become necessary to discharge as international action develops. Well-tested and proven international machinery now exists for this purpose."

THE EXPANDED PROGRAMME OF TECHNICAL ASSISTANCE

A FORWARD LOOK

Report of the Technical Assistance Board

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CHAPTER I

THE PROGRAMME IN ACTION

1. Seven years have now elapsed since the debates in the Economic and Social Council which led to the establishment of the Expanded Programme. The compelling ideas which dominated these debates have lost nothing in force or relevance with the passage of time. Poverty, ignorance and disease are still the lot of millions throughout the less developed areas of the earth. The gap between the standard of life of the less developed lands and that enjoyed by economically more advanced countries is probably wider than ever. Yet some real progress has been made. Most of the less developed countries themselves have made remarkable efforts to raise their own economic and social standards and significant improvements have in fact taken place in many lands. Planning and financing institutions have been established or, where they already existed, strengthened in many countries. More domestic savings have been mobilized, and they have been used increasingly to finance investments essential for economic development. In this situation the Expanded Programme has played a modest but constructive role. Within the limits of its resources it has been able to be of some service to the Governments of over one hundred and thirty less developed countries and territories which have asked for help in many fields. It is now possible to look back over five full years of international technical assistance and - in the light of this experience - to take a forward look.

2. The objects and principles of the Expanded Programme were first set out by the Economic and Social Council in the preamble and Appendix I to resolution 222 (IX) which was adopted at its Ninth Session in August 1949. Re-examined in the light of experience, these objects and principles do not seem to call for any restatement, except, possibly, to make more explicit the social purposes of the Programme. They provide an admirable Charter for the Programme in action.

3. Events have shown that "a valuable contribution to economic development can be made by an expansion of the international interchange of technical knowledge through international co-operation among countries". The Programme has in fact "combined and made use of the experience of many nations, with different social

patterns and cultural traditions and at different stages of development, so as to facilitate progress in the less-advanced countries and to help to solve their technical and economic problems". These are no longer theoretical concepts. They are now supported by a solid body of experience.

4. During the last six years seventy-eight countries have pledged over \$142 million to the Special Account by which the Expanded Programme is financed. This has made it possible to recruit experts from seventy-seven countries and to make use of the institutional facilities and experience of 105 countries and territories in order to provide training in various forms. It may safely be said that never before have the resources of so many countries been mobilized for a world-wide co-operative enterprise. While most of the Experts and fellowship training opportunities were, in fact, found in the economically more advanced countries of Western Europe and North America, the contribution, in technical knowledge and experience and in training facilities of many of the less-developed countries themselves has proved to be an important asset and one of the distinctive features of the Programme. Certainly the possibility of responding flexibly to special linguistic and cultural requirements, to the need for particular background knowledge, and, occasionally, to politically sensitive situations, has contributed greatly to the effectiveness as well as to the acceptability of the work.

5. The geographical range of the countries and territories which have received technical assistance under the Expanded Programme has been remarkably wide. At one time or another some 131 countries and territories have been helped. No exclusive definition of eligibility for assistance has been adopted, and in a very few cases help has been given on a small scale to countries not normally thought of as being economically under-developed. The overwhelming majority of the countries assisted have, however, been countries with an estimated per capita national income of less than the local equivalent of \$150. Geographically they have been distributed as follows:

TABLE I

	Number of Countries and Territories Assisted <u>1950-1955</u>	Percentage of Total Assistance Provided <u></u>
Africa	39	8.2
Asia and Far East	29	31.1
Europe	13	8.8
Latin America and the Caribbeans	39	26.1
Middle East	11	21.5
Inter-Regional	<u>-</u>	<u>4.3</u>
Total	<u>131</u>	<u>100.0</u>

6. One of the most interesting trends during the last five years has been the increasing amount of technical assistance provided to dependent territories. In 1952, assistance amounting to \$343,596 was given to twenty-one dependent territories. By 1955, the number of such territories assisted had increased to thirty-eight and the value of the assistance given had increased to \$884,668. In 1956 the corresponding figures are thirty-nine and \$1,396,535 for projects included in the Category I approved Programme.

7. The extraordinarily wide distribution of the technical assistance provided under the Expanded Programme has not been without its drawbacks. It has meant that the limited financial resources of the Programme have had to be spread very thin, and it might be argued that greater concentration of effort on a smaller range of countries and territories would have produced more effective results. On the other hand, it is not easy to see on what basis an international Programme, enjoying such wide financial support, could have restricted the eligibility of countries for receiving its services. Theoretically a strict, but necessarily arbitrary definition of under-development might have been used, or a limit based on per capita national income. In practice neither method of limitation would have been satisfactory. Moreover, any disadvantages of an approach which has left it to Governments to decide for themselves whether they are eligible for assistance have, almost certainly, been more than compensated by the fact that the Expanded Programme has

become a world-wide co-operative service for the exchange of technical skill and experience to which all nations may make a contribution, and from which all may request whatever technical help they feel they need.

8. As any project which contributes to the economic and social development of a country making a request is eligible for technical assistance under the Expanded Programme, it is not surprising that the range of subjects in which help has been given is extensive. The co-operation of eight participating organizations - seven of them specializing in particular fields - has ensured that there has been no lack of choice of possibilities. Classification is not easy and every system has its pitfalls, but the following table is regarded by the Technical Assistance Board to be a useful analysis of the principal subjects in which help has been sought and provided:

TABLE II

DISTRIBUTION OF PROJECT COSTS BY MAJOR FIELD OF ACTIVITY
(Expressed in US dollars)

	1954		1955		1956	
	\$	%	\$	%	\$	%
I. Assisting Governments with the formulation and implementation of development plans - Basic surveys of resources and building up of administrative services	1,977,536	13.1	2,551,948	12.3	3,010,680	11.8
II. Development of public utilities - Power, transport and communications	1,279,924	8.5	1,625,330	7.8	2,005,466	7.8
III. Industrial Production	1,172,374	7.8	1,846,311	8.8	2,445,879	9.5
IV. Agricultural Production	3,033,817	20.1	5,349,457	25.9	6,004,460	23.0
V. Auxiliary services to industry and agriculture	1,420,055	9.5	1,690,652	8.2	2,681,051	10.3
VI. Health Services	3,112,941	20.5	3,529,824	17.0	4,721,744	18.1
VII. Education	1,087,458	7.2	1,657,229	8.1	2,373,053	9.1
VIII. Community Development	1,348,558	8.9	1,553,844	7.5	1,628,225	6.2
IX. Other Social Services	678,563	4.4	894,783	4.4	1,089,842	4.2
Total	15,111,226	100.0	20,699,378 ^{1/}	100.0	25,960,400	100.0

1/ Excluding an amount of \$610,623, consisting of \$533,427 for local subsistence costs, in excess of payments by Governments, not distributed to project accounts and of \$77,196 for miscellaneous costs of UNTWA not allocated to specific projects.

9. It will be observed that this table covers a range of activities which may be broadly considered as "social" in character. The Expanded Programme has in fact followed closely the intention of the Economic and Social Council that technical assistance should be given "to Governments desiring to undertake the specific social improvements that are necessary to permit effective economic development and to mitigate the social problems - particularly problems of dislocation of family and community life - that may arise as a concomitant of economic change". The importance of education, health, community development, and social welfare - and of the institutions which sustain them - as part of the essential infrastructure of economic development has been recognized from the outset both by Governments asking for technical assistance and the participating organizations. It would be for the Technical Assistance Committee to decide whether, in the light of this clarification, any change in the text of the basic legislation is called for.

10. The "media" of technical assistance may be summed up as "Experts, fellowships, supplies and equipment". Since the inception of the Programme in 1950, some 5,000 Experts have served in capacities ranging from advice on a narrow technical problem to assistance in the formulation of over-all national economic and social plans. Over 10,000 fellowships have been awarded for study abroad ranging from training on the job in industrial enterprises to long-term study at advanced educational institutions. Equipment and supplies amounting to about \$10 million have been provided as part of approved projects. Cutting across this classification, however, are the training institutions, regional training centres, seminars, and group study tours which draw upon the service of "Experts" in the form of leaders, instructors or demonstrators; provide training opportunities for "Fellows"; and, in some cases, use supplies and equipment for teaching or demonstration purposes. Technical assistance projects may range from a single "Expert" spending a few months in a country advising on the solution of specific technical problems in an individual enterprise, or a single "Fellow" studying a particular manufacturing process or administrative technique, to a large regional training centre combining many forms of assistance over a period of years. The adaptability of the Programme to many varied and changing needs has been abundantly demonstrated.

11. It has been a cardinal principle of the Programme that technical assistance can be given to a country only as a result of requests for such assistance submitted

by the Government. Under the rules and regulations of the Programme which they themselves have established, Governments therefore prepare the requests for the various types of assistance which they wish to receive. Starting with individual requests for technical assistance in isolated fields, many Governments have gradually increased their participation in the Programme to the point where full responsibility for a comprehensive country Programme of technical assistance rests with a central co-ordinating body established by the Government for this purpose. This development has been encouraged by the introduction of country programming procedure (under ECOSOC resolution 542 B (XVIII)). At the same time, Governments have increasingly recognized that in return for the assistance which they request they must undertake certain obligations which include the provision of local personnel, working facilities, and administrative services. It is difficult to put a monetary value on these contributions but an annual figure equivalent to \$60-\$65 million would not seem to be too high an estimate.

12. While requests for technical assistance originate with Governments, the international organizations participating in the Programme are responsible for ensuring that the projects which are planned in response to these requests are technically sound as well as, of course, for their implementation in the field. In carrying out these responsibilities, the participating organizations have been able to draw upon the technical knowledge and experience of their own specialized staffs, their established administrative services, and the wide range of professional contacts which they have made throughout the world over the years. They have strengthened these facilities, both at headquarters and in the field, as the needs of the Programme have grown. This has been reflected in their administrative and operational service costs, the appropriate level of which has not always been easy to determine in view of the competing claims of effective service and administrative economy. However, experience has shown, beyond any shadow of doubt, that adequate support and services from headquarters in the provision of technical assistance are no less important in the case of international organizations than for private consulting firms engaged in comparable activities.

13. From the outset inter-organizational planning and co-ordination at headquarters level has been the responsibility of the Technical Assistance Board which was established under the original ECOSOC resolution 222 (IX). In 1952 the Board was

strengthened by the appointment of a full-time Executive Chairman with a modestly enlarged headquarters secretariat. During the last five years the effectiveness of the Board has greatly increased as ways have been found to reconcile the various points of view which inevitably arise from important constitutional differences, from procedures and practices already established among the participating organizations, and from special problems often peculiar to individual agencies. Voting procedures have occasionally been used, but a tradition has been established of reaching decisions by consensus or compromise, minority reservations being recorded when this is unavoidable. It was at one time believed that the Board should exercise far-reaching programming functions directly from its headquarters in New York, and some attempt was in fact made to do so in 1952 with the help of a working group of expert advisers. Experience proved that this was not practicable and the emphasis in programming was consequently shifted from headquarters to the field. To further this development the appointment of Resident Representatives of the Board, begun experimentally in a few countries in 1951, has been extended to twenty-six posts, covering forty-five countries and territories in 1955. The value of these field posts is now generally recognized although the extent to which the participating organizations make full use of their services varies considerably. Their importance has greatly increased as new responsibilities have been placed upon them in connexion with the country programming procedures introduced under ECOSOC resolution 542 B (XVIII).

14. The new country programming procedures are based on the principle (already explicit in resolution 222 (IX) that it is for each requesting country to determine its own priorities for international technical assistance, within the limits of available resources, and in the light of its over-all plans for economic and social development. It is too early to judge the results of the new system of programming which is still only in its second year of full operation. It may be said, however, that it has encouraged requesting Governments to review their needs for technical assistance of all kinds, and in many cases to set up the administrative machinery to make such a review. This has undoubtedly made it easier to obtain a broad conspectus of technical assistance needs, and to examine these in relation to the possibilities offered by various sources of aid - bilateral as well as multilateral. Co-ordination between the activities of all the different bodies engaged in

technical assistance has greatly improved over the last five years. It is hoped that the new procedures for planning the United Nations Expanded Programme at the country level will lead to even more effective co-ordination under the aegis of the requesting countries themselves.

15. This is not the occasion to make a comprehensive assessment of the accomplishments of the Programme. In many cases insufficient time has elapsed to judge the impact of technical assistance projects on the economic or social development of a country. Frequently it is difficult, if not impossible, to disentangle their effects from other more important factors or to find a yardstick to measure the effects. There are, however, good grounds for belief that solid results have already been achieved and that most countries receiving assistance have come to regard the Programme as valuable reinforcement - particularly in certain critical sectors - of their own efforts to raise the economic and social standards of their people. Year by year, the Reports of the Technical Assistance Board to the Technical Assistance Committee outline the progress of the work throughout the world, and give some account of concrete results already achieved. Similar reports concerning particular segments of the work are to be found in the periodic reports of the participating agencies to their own governing organs and to the Economic and Social Council. From the side of the countries receiving assistance encouraging testimony is to be found in the statements of Government delegations at meetings of the United Nations and of the Specialized Agencies. Most recently the inter-governmental Working Group on the Evaluation of the Expanded Programme has "noted with gratification" in its Report to the Technical Assistance Committee that "significant results had been achieved in a large proportion of the technical assistance activities undertaken in the past five years; and especially in terms of human welfare, the catalytic effects of introducing new ideas and stimulating new efforts were evident over a wide range of activities". Meanwhile, the demand for new projects and for the extension of those already in operation continues to outrun the resources of the Programme. The extent to which this is so is hidden by the new country programming procedures which set conservative limits upon the volume of requests which can be considered even at the planning stage. These limits are essential for country programming purposes. If they were not imposed the excess of requests would certainly lead to much disappointment and frustration.

16. Considerably increased financial resources are the essential condition of any significant expansion of the Programme, whether to meet the growing demand for its existing services or to broaden the scope of its activities to give more effective help to the less-developed countries which it serves. Indeed, the intentions of resolution 542 (XVIII) are partly frustrated by the fact that almost three-quarters of the Programme consists of continuing commitments; and, therefore, unless there is a considerable increase in the funds available, Governments have only a small margin in which to choose or add new projects.

CHAPTER II

CHANGING NEEDS AND PROBLEMS

17. No task of the Technical Assistance Board is more difficult than that of setting the annual planning target figures which, in effect, determine within fairly narrow limits the amount of technical assistance which can be provided in each country and territory. The over-all limits of the exercise are set by an estimate of the resources which are likely to be available to meet the target figures after provision has been made for overhead expenses and special requirements.^{1/} Despite the year by year increase in contributions which has, after some periods of acute uncertainty, taken place, the Board has never, since the early days of the Programme, been able to count on resources sufficient to meet all the well-considered requests for assistance which were addressed to it. The growth in demand has, in fact, been greater than the increase in available resources, and today's needs far outstrip the planning limits which the Board is bound to set.

18. There are several reasons for this growth in demand. In the first place there has been an intensification of interest on the part of many governments which have come to value the assistance which they have already received, and have improved their own organization for taking advantage of the possibilities which it offers. Operating experience has shown the need to increase the assistance to many projects which have been started on a bare minimum basis. Moreover, the number of countries and territories which show a serious interest in the wide range of services which the Programme offers has steadily increased, and is likely to increase still further. The problem has always been to provide the means to meet the requests of newcomers as well as other new requests. It is a problem which is certain to become increasingly difficult during the next few years, unless there is a marked expansion in the resources of the Programme.

^{1/} In 1956, these include administrative and operational services costs; Technical Assistance Board expenses; the Working Capital and Reserve Fund; and the Programme Contingency Fund.

19. It is not easy to give any exact measure of the extent to which resources of the Expanded Programme fall short of what is needed, still less so to forecast future needs. There are, however, certain indications which afford some basis for a judgement concerning the scale of what is required.

- (i) In planning the programme for 1957 the participating organizations reported urgent needs arising out of continuing projects and new "requests" already under discussion, which would have called for an over-all increase of \$3,000,000 in the target figures. This, of course, takes no account of new requests which are certain to emerge when governments begin to draw up the programme for 1957. The programming procedures provide that each country may present a reserve list of Category II projects amounting to 50 per cent of its Category I total. It is already known that the urgent needs of some countries are such that they are likely to go beyond what the procedures officially permit by indicating a number of requests which exceed their Category II target figure. One important country with a large programme has already unofficially communicated a carefully prepared survey of its needs for 1957 which amount to more than double the target figures which have been allotted to it. There is no doubt that if countries were encouraged to submit their requirements without regard to the target figures the volume of well-considered requests would greatly exceed available resources.
- (ii) Judged from the point of view of theoretical equity (i.e. taking into account population size, per capita national income, health and educational needs, etc.) the country target figures for a number of countries allow them considerably less than their "fair" share of the resources of the Programme. This is particularly true of large countries with great populations, such as India, Pakistan, Indonesia and Brazil, but it is also true of many small countries whose interest in technical assistance has awakened slowly. If the target figure of every country (other than dependent territories) fixed below its theoretically "fair" share of funds available in 1956 had been raised to its theoretically "fair" share without reducing the target figure for other countries, it would have been necessary to find an additional \$8,000,000 to meet the cost.

- (iii) The experience of recent years suggests that constitutional evolution of dependent territories into self-governing or independent status leads to increased interest in the possibility of obtaining technical assistance through international institutions. Since the creation, through the action of the United Nations, of the independent Kingdom of Libya, technical assistance provided to the new state under the Expanded Programme has played an important part in the development of its economic life, social institutions, and public administration. More recently increased help has been given to the newly independent states of Viet-Nam, Cambodia, Laos and the Sudan. During the next few years political developments in Morocco and Tunisia, Malaya, the Gold Coast, and the British West Indies, may well be followed by an increase in the interest which is shown in the services which the Expanded Programme offers. If the ceilings assigned to the countries mentioned above were increased to the level of those now assigned to countries of comparable size and development, without making corresponding reductions elsewhere, it would call for an increase of several million dollars in the resources of the Programme. Developments in other territories might well call for additional resources.

20. While it would be imprudent to attach precise weight to the figures used in the above paragraphs they do, taken together, give a clear indication that considerably expanded resources will be needed over the next few years if the field programme is to keep pace with the volume of requests. An increase to \$50,000,000 spread over a period of years might be enough to enable the participating organizations to meet a considerable part of what was asked of them within the present scope of the Programme. It would not, however, make it possible to enlarge the scope of the Programme or to give it the means to make that important impact on the problems of economic development and social welfare which experience has shown is possible. Before considering such far-reaching possibilities, it might be wise to consider what improvements may be called for in the Programme within the limits of its present scope and practices.

The changing character of projects

21. The technical assistance needs of the countries requesting assistance vary greatly according to extent and character of their resources, to the stage of development which they have reached in different sectors of their national life, and to the possibilities which are open to them of obtaining help from outside their own borders. So far as the Expanded Programme is concerned, the new country programming procedures make it possible for governments to establish their own priorities, year by year, and to adjust their requests for technical assistance to the changing requirements of their national development policies. A review of some of the changes in emphasis which have already been observed may be of some interest in pointing to the directions in which the Programme is now moving in the countries receiving assistance.

22. Perhaps the most striking change in the development of the Programme has been the shift away from survey and study to direct participation by the international expert in development projects, public administration and training activities. Survey and study, whether by teams or single experts, continue to have their useful, indeed essential place (especially in the early stages of work in particular countries) but increasing emphasis is now being placed on making the most of the international experts' practical experience in putting policies into effect. That this development has occurred is evidence not only of progress in implementing technical assistance projects, but also the growing confidence in the services of the international experts arising quite naturally from closer contacts between these experts and the officials in the recipient countries.

23. Another important development has been a movement away from isolated "ad hoc" requests to a series of carefully planned projects related to one another. Thus, for instance, the assistance which is being provided by the FAO to the Government of Brazil in the development of the vast forestry resources of the Amazon basin was in the first year largely concerned with the carrying out of an aerial survey of the forest and land resources in this area. In the second and third years, attention was paid to the establishment of mechanical logging and sawmilling

demonstration centres to train the nationals of the country in improved methods of the utilization of the forestry resources. The stage has now been reached when the establishment of a paper and pulp factory has become possible. The importance of continuity in operations has, in fact, come to be recognized in many segments of the Programme, and experience has shown how many technical assistance projects, containing within themselves the seeds of their own growth, gain greatly in effectiveness if they are linked together as part of a long-term plan assured of continuing support.

24. Greater attention is also being given to the need to relate activities in different fields to each other at the same time. The most striking examples of this are to be found in important regional inter-agency enterprises, such as the Central American Economic Integration Scheme, and the Andean-Indian Project, in both of which several agencies contribute their special knowledge and skill. In Yugoslavia a UNTAA project, designed to improve the industrial production of ceramics and refractory materials, was linked directly to the work which a UNESCO expert had carried out at the Technological Institute in Belgrade. In this way, the relationship between research workers and those responsible for industrial production in this field, has been greatly strengthened. In Ceylon, a combined approach to the development of cottage and small industries was made in 1955, when UNTAA sent an industrial economist and an industrial engineer; FAO provided an expert in the utilization of local agricultural products, and the ILO contributed a specialist in the organization and use of manpower in small industries.

25. In many different fields there has been a tendency for the individual expert to give place to the team of specialists both at the survey and at the active stage. The land and water use teams in Ceylon, Iran and Pakistan are engaged not only in exploring and advising the governments on the development of the water resources, but also in assisting in carrying out soil surveys and the possibilities of developing suitable alternate crops in the areas which will receive irrigation. The exploratory missions carried out by a small number of educational experts are now followed by the provision of a team of three or four specialists to strengthen science teaching in schools or colleges or to develop model primary schools, or teacher training institutions. The ICAO missions in Afghanistan, Ethiopia, Iran

Iraq and Syria are notable examples of a team of experts providing assistance in tackling different aspects of the development and efficient operation of civil aviation services.

26. Perhaps the most important and, indeed, the most encouraging development in recent years has been the growing emphasis on training. This is, of course, the very heart of technical assistance - the principal means whereby less developed countries can make themselves self-reliant. The importance of training given in the country itself is increasingly being recognized, although the award of fellowships and scholarships for training abroad has also produced some excellent results. Industrial training is needed in fields ranging from apprenticeship to the training of supervisors and management; in agriculture it will extend from the use of modern agricultural machinery to the control of foot-and-mouth disease. Numerically speaking, the need for training is greatest in industry where the creation of new factories and the expansion of existing ones is critically obstructed in a majority of the less developed countries because they lack semi-skilled and skilled workers, foremen and supervisors and personnel trained in middle and higher management. There is a corresponding shortage of teachers and instructors for vocational training. There is, in addition, a shortage of personnel trained in other techniques required for putting economic development programmes into effect, such as veterinary assistants, fishery technologists, nurses and teachers for general education. To attempt to meet industry's demands for skilled men the ILO assists countries to create apprenticeship schemes, as in Pakistan; sets up centres to train supervisors and managers as in Yugoslavia; advises on the establishment and initial operation of centres for instructor training, often linked to courses of accelerated training for adults, as in Indonesia; sets up productivity centres as in Egypt and India. Other examples of training projects for other types of personnel are the public administration schools operated under the leadership of UNTAA in Libya and in Costa Rica for the Central American States; the civil aviation training centres of ICAO in Indonesia, Iran and Ethiopia and the teacher-training facilities provided by UNESCO in Liberia, Libya, the Philippines and Thailand. Nevertheless, useful as these activities have shown themselves to be, they still do not touch more than a fraction of the need in many

countries. It is essential that they should be extended and strengthened and that other means of increasing the productivity of trained men and women should be explored. Many more new training facilities of all kinds need to be set up and many existing training services need to be expanded and their training directed along more effective lines.

27. An essential factor in economic development is the assurance of good public administration; the need for this is cumulative for an expanding economy itself raises problems in public and fiscal administration. From the beginning of the Programme this has been recognized and there has been a continuous growth in the number of experts and fellowships in the field. There is, however, need for a far more generous provision of training and for the exchange of information either through permanent institutes (to be progressively taken over by the Governments concerned) or through seminars, expert visits and individual fellowships. Requests are accumulating for further assistance both in central and in local administration. The especial relevance of this to newly independent countries is evident.

28. None of the trends which have been noted in the previous paragraphs involve any basic change in principle or even the abandonment of any tried method of approach. They are a reflection of greater knowledge and experience, and a deeper appreciation of the value of good planning, team work, continuity of effort and patient long-term application, and better training at every level. Projected into the future they are a challenge to the Programme to provide assistance on a rather less hand-to-mouth basis than has been the case in the past, and to give some assurance of steady growth.

Equipment and supplies

29. It seems to be generally agreed that the provision of equipment and supplies in connexion with technical assistance projects under the Expanded Programme, has been inadequate. The record since the establishment of the Programme has been as follows:

TABLE III
EXPANDED PROGRAMME OF TECHNICAL ASSISTANCE
Cost of Equipment and Supplies, 1950-1956
(Expressed in thousand US dollars)

<u>Year</u>	<u>Cost of Equipment and Supplies</u>	<u>Cost of Equipment and Supplies as Percentage of Total Project Costs</u>
July 1950 to December 1951	304	6.7%
1952	2,644	14.1%
1953	1,701	9.5%
1954	1,377	9.1%
1955	2,390	11.2%
1956 (Approved Programme)	2,720	10.5%

30. These proportions fall considerably short of the "rule of thumb" limit of 25 per cent which the TAB adopted some years ago in the interests of a balanced Programme. It will be recalled that the TAC Working Group decided to request the TAC to draw the attention of governments to several aspects of this situation (E/TAC/48).

31. The basic legislation on this subject is found in resolution 222 (IX), Annex I: "Requests for the furnishing of equipment and supplies may be considered in so far as they form an integral part of a project of technical assistance."

The Technical Assistance Board has always taken this to mean that requests for equipment or supplies not related to an internationally assisted project could not be legitimately entertained; and this indeed has been the policy which has been adopted, except in a few very exceptional cases involving the use of currencies presenting difficult convertibility problems.

32. This, however, does not provide a complete answer to the question why so small a proportion of the available resources of the Programme has been devoted to equipment and supplies. The main explanation is probably that, in the last

resort, Governments and agencies faced with the need to trim requests for assistance to the limits imposed by the availability of resources, have preferred to concentrate on experts and fellowships awards. The amounts which would in any case have been available for the purchase of equipment and supplies were too small to stimulate much interest, and the presumption is that this has often gone by default.

33. Under the new country programming procedures, it is open to recipient Governments to request whatever equipment and supplies they believe to be a necessary component of any technical assistance projects, and there will be no disposition on the part of the agencies to discourage such requests. It is very doubtful, however, whether there will be any appreciable increase in the volume of requests for equipment and supplies, unless there is a substantial increase in financial resources. The first year's experience of country programming suggests that requests for experts and fellowships will generally be given priority if country target figures are not increased.

34. Yet there is a real need for additional equipment and supplies in connexion with technical assistance projects. Schools, hospitals, training centres and clinics cannot operate without training materials, instruments, laboratory apparatus and demonstration equipment. Productivity centres are of little value if new methods, new tools, new machinery and so on cannot be demonstrated. The repair, maintenance and efficient use of modern agricultural machinery cannot be taught in theory. Improved stock-breeding wins more supporters by demonstration than by hearsay - and demonstration in this case calls for animals of the appropriate breeds.

35. It is sometimes argued that the provision of the equipment and supplies furnished in connexion with technical assistance projects should normally be a local responsibility. It is indeed true that considerable sums - equivalent to many millions of dollars - are being provided for such purposes by the Governments of countries receiving assistance. Exchange problems plague nearly all of them, and the purchase of foreign equipment and supplies has to surmount these as well as budgetary difficulties.

36. It is difficult or impossible for some countries to develop certain essential technical assistance projects owing to a deficiency in supplies, equipment and local personnel. The cost of these is often only a small element in the total cost of the project but, for budgetary and other reasons, cannot be provided by the local authorities concerned. The question was raised therefore by some agencies as to whether in such exceptional circumstances limited amounts could not be made available to these projects from Expanded Programme funds under conditions to be laid down by the Technical Assistance Board.

37. In any event it would seem important, when considering the future needs of the Programme, to make generous provision for the purchase of additional equipment and supplies, including limited amounts for selected fellows returning from training abroad.

Planning of projects

38. It is one thing to make a request for technical assistance - it is another to plan an effective project. This is the joint responsibility of the Government asking for help and of the international organization concerned. As experience is increasingly gained, the joint planning of individual projects, as well as of groups of projects forming "programmes" of technical assistance, has much improved. Ideally, such planning should take account not only of the various technical and financial considerations involved, but also of the time-tables of experts and fellows, and the provision of facilities and personnel by the Government and local authorities at the right time and in the right place. If in practice planning has sometimes suffered from hasty improvisation, this has for the most part been due to the constant uncertainties about the amount of money that would be available to finance the Programme. This has been particularly the case when periods of acute stringency have been followed by others of comparative affluence (usually towards the end of the financial year), and there has been a strong inducement to make up for lost time. Faults due to inexperience or lack of co-ordination on the part of both the participating organizations and the Government departments in the under-developed countries with which they deal, are still occasionally to be found. However, the principal enemy of careful planning continues to be financial

uncertainty. This is especially the case when long-term planning is called for. Nothing would do more for the health of the Expanded Programme than the assurance of steady financial growth on which the planning of individual projects and of country programmes as a whole could be securely based.

Recruitment and briefing of Experts

39. The most important factor in the success of the Expanded Programme has been the achievement of the participating organizations in recruiting an exceptionally able and devoted body of international experts for service in the field. This achievement would not have been possible without the co-operation of a large number of contributing Governments, and of many private institutions and enterprises, which have been prepared to release or arrange for the release of suitable men and women for short or long periods. The work of National Committees for Technical Assistance in some countries, and of other official bodies elsewhere, has been of great assistance, and it may be said that considerable improvement in the machinery of recruitment has taken place. Mistakes have of course been made, and increasing emphasis is now being placed on the selection of experts with the appropriate personal qualities as well as good professional standing for service in less developed countries. The least successful experts have rarely lacked the necessary technical knowledge and skill. Their failure has generally been due to faulty social attitudes, to inability to adjust themselves to strange conditions of life and work, or to some lack of humility in the presence of problems which do not yield to dogmatic assertion.

40. In the early days of the Programme, many requests for technical assistance were far from well defined, and it was sometimes found that they were unrelated to the work the experts were actually called upon to do when they reached their country of service. With more careful planning of projects and more precise definition of the work to be accomplished on the one hand, and with greater experience of "all that it takes" to qualify as a good technical assistance expert on the other, there is every reason to believe that the standard of recruitment will continue to improve. Except in a few specialized fields, there is nothing to suggest that a limit to the supply of suitable experts is yet in sight, especially

when the wide geographical range of recruitment possibilities open to the Expanded Programme is taken into account. There are few cases where a choice of suitable candidates is not possible, though here again more careful long-term planning based on assured financial resources would greatly facilitate the appointment of the most suitable men or women at the most convenient time.

41. Broadly speaking, the financial inducements (including the present scale of allowances) offered to experts in the Expanded Programme appear to be adequate to attract suitable candidates, except in a few fields - particularly certain technical branches of industry. It is possible, however, that recruitment in some countries enjoying high economic standards has been affected by this factor, especially when there has been competition from other aid programmes offering rather more favourable inducements.

42. While there is much to be said in favour of uniformity, some measure of flexibility is essential and this has indeed permitted the participating organizations to meet their own special problems. It might be worth considering whether further flexibility should not be provided, possibly by introducing some additional types of contract in certain cases. An experiment has already been approved which will permit organizations to offer continuing contracts to a limited number of experts who have proved their quality over a period of years, the demand for whose expertise is assured, and who would, in effect, form the nucleus of a long-service corps of men and women available for use in any country which requests the kind of help they are qualified to give. Given the assurance of continuing financial support this limited experiment might be gradually extended, though it is unlikely that it would at any time apply to a large proportion of the total number of experts needed by the Programme.

43. While good selection is all-important, it is probable that more could be done to prepare experts - however well selected - for the tasks ahead of them. Most experts are now given some briefing by their organizations. This is sometimes too hurried to be very helpful. Elaborate systems of briefing are scarcely practicable, but some improvement on the present arrangements should be possible.

All too frequently last-minute recruitment due to financial exigencies make it desirable that experts should reach their field post as quickly as possible, leaving little or no time for preliminary briefing. In this case, too, some assurance of financial stability over a reasonable period ahead would make it possible for organizations to make adequate provision for briefing as part of an orderly time-table of operations. There can be no doubt that the effectiveness of those experts who have had no previous experience of international technical assistance would be greatly enhanced if they were suitably briefed before going out to their country of service and on their arrival in the field.

Selection and training of Fellows

44. Over ten thousand men and women have already received fellowships or scholarships under the Expanded Programme, which have enabled them to study, train or widen their experience in other ways in countries other than their own. In the early days of the Programme anxiety was sometimes felt concerning the suitability of some of those who had received awards as well as the quality of the training which they were receiving. Continuous efforts have been made by the participating organizations (with excellent co-operation from most of the countries concerned) to improve selection procedures, to draw upon more satisfactory study courses and training programmes, and to make more effective arrangements for supervising the training of fellows and scholars during their stay abroad. Nevertheless, it should be considered whether further improvements in methods of selecting fellows, and in the planning and supervision of training, are not possible.

45. The need has been felt for a longer period of training particularly in the case of fellows coming from countries where higher education facilities are limited, and extended use should be made of regional training institutions in view of the encouraging experience gained in training centres such as in Cairo and Mexico which served trainees from neighbouring countries with a common language background.

Obligations of Governments receiving assistance

46. The essence of a good technical assistance project is that it is a co-operative enterprise involving the participation at all stages of the Government receiving assistance, as well as that of an international organization. The devoted efforts of the most wisely selected international expert will have little, if any, value unless they secure the co-operation of the specialists of the country to which he is assigned and the active support of the branches of the Government which has requested his services. The obligations undertaken by the Government receiving assistance may be modest and simple (perhaps occasional secretarial help and a corner of a room in which to work); or something more considerable and complex may be required (perhaps the assignment of professional staff, the use of the facilities that scientific institutions alone can provide or even the provision of buildings, equipment and supplies). The assurance of some means of local transport is, for instance, essential. In view of the limited resources of the less developed countries, it is a matter for some gratification that most receiving Governments have found it possible to fulfil the greater part of the obligations they have undertaken without unreasonable delays. Many Governments have, however, found it difficult to provide all the facilities which they planned, and in some cases this has led to serious frustration, loss of time, and waste of effort on the part of the international personnel concerned. To some extent it should be possible to avoid or mitigate these difficulties by more careful joint planning. It is, however, doubtful whether they can be avoided altogether if the volume of technical assistance given to some of the least well-endowed countries is to be increased or even maintained at its present level. Serious consideration might well be given to the possibility of making a contribution from international resources towards the provision in such countries of services (such as transport and local staff) which under existing arrangements are the responsibility of Governments receiving help.

Support given to the field by the headquarters
of the specialized agencies

47. Five years' practical experience has shown that the effectiveness of technical assistance provided through international agencies has been greatly

enhanced by the professional support and guidance received by all experts in the field from their headquarters. At the planning stage, and throughout the course of most projects thereafter, the technical knowledge and expertise of agency headquarters is drawn upon. Even in the case of UNTAA, which is not a specialized agency and whose range of projects is exceptionally wide, a considerable part of the ground is covered by professional resources at headquarters in such fields as economic development, statistics, transport, social welfare and public administration. Where important gaps have existed, as, for example, in the field of water resources development, special measures have been taken to strengthen the appropriate unit. In addition, the resources of the three Regional Economic Commissions have been drawn upon when the need has arisen.

48. Basic documentary services, research, the comparative analysis of similar projects, the provision of highly specialized advice, as well as some over-all planning and supervisory service, are organized at headquarters from which visits to the field are frequently made by some of the specialists concerned to deal with special problems in which the field staff need additional help. It appears, in the case of private consulting firms, that the cost of these headquarters services accounts, on a pro rata basis, for more than 50 per cent of the total. In the case of the Expanded Programme, the ratio of headquarters expenses to field costs is not easy to establish as the agencies are able to draw substantially (though to a varying degree) on established services covered by their regular budgets. It is certain, however, that the ratio of headquarters costs (including those covered by regular budgets) to field costs never approaches the proportion normally experienced by private consulting firms. So far as headquarters costs directly chargeable to technical assistance funds are concerned, the international agencies have been under strong pressure to keep them as low as possible. Every effort to do this has been made, but some agencies (notably the FAO, whose regular budget is actually smaller than its share of Expanded Programme funds) find it difficult to cover the cost of what they consider to be adequate headquarters support services for their field projects within the allocations now made for this purpose. Any substantial increase in the size of the field programmes of the participating organizations

would call for some increase in the cost of headquarters services, but this increase should be a very much smaller proportion of the total funds available. It would probably be useful to make a thorough examination of this question; in making such a study consideration should be given to the use that could be made within the framework of the Programme - on a contractual basis - of the services of universities, research institutions, non-profit consultant organizations, and private firms.

Over-all planning and supervision

49. Under the new country programming procedures, the responsibility for the co-ordination of planning in countries accounting for over 85 per cent of the total field expenditures of the Programme is laid upon the Resident (or, in two cases Regional) Representatives of the Board, working in co-operation with the designated central government unit and with the local representatives of the participating organizations (whose relationship with the appropriate technical departments of government they must respect). In some other countries with relatively large programmes a representative of the Board makes a brief visit during the programming period. This is not altogether satisfactory and it is regrettable that, for financial and other reasons, it has not been possible to appoint a representative to such countries on a permanent basis. It is hoped that increased financial resources may make it possible to appoint representatives of the Board to cover all countries with annual programmes in excess of \$150,000, and also to strengthen the modest staffs now serving existing posts. It is desirable that the division of responsibility between the Resident Representatives of the Board and the local representatives of the participating organizations should be more clearly defined, and that closer co-operation between them should be actively fostered, especially during the period when programmes are being planned.

50. The Working Group on Evaluation of the Expanded Programme in its report to TAC (document E/TAC/48), noted that many countries had paid a tribute to the role of the Resident Representative in general country programme negotiations. Recognizing the technical responsibility of representatives of the participating organizations, the Group emphasized that the Resident Representative should act

as co-ordinator of the negotiations between the participating organizations and the designated co-ordination unit of the Government; that Resident Representatives should always be the principal channel of communication on general Programme matters.

51. The importance of selecting candidates who combine the personal qualities and professional capacity needed in these difficult key positions, can hardly be exaggerated. Their authority and influence - with Governments, agencies and experts - must almost entirely depend on the respect they earn as they go about their work. It is their opportunity not only to perform a number of useful though often humble administrative tasks, but to play a vital role in guiding the activities of the Programme in harmony with the national development plans of the countries to which they are accredited. Further consideration might well be given to the terms of appointment of these senior officers, and to the possibility of assimilating some of them into a regular international career service.

The financial setting

52. Financial anxieties which have beset the Programme from its inception have gradually lessened, although they have by no means disappeared. The main points of concern have been the adequacy of the level of financial support, uncertainty of funds for current Programme needs, the lack of financial security for longer-term planning, and the inflexibility and management difficulties resulting from financing in a variety of inconvertible currencies.

53. Although the financial resources have been, and continue to be, far below total needs, the increase in the number of contributors, as well as in the steady growth in the amounts of their contributions, provide evidence of widespread approval of the Programme's objectives and of the efforts which are being made to attain them. The group of fifty-five countries contributing in the first period of the Programme has since been joined by twenty-four others, and the level of contributions has increased steadily from \$18,800,000 in the first regular pledge year to \$28,000,000. The promptness with which contributors have followed their pledges with actual payments, is also worth noting. Of \$114,000,000 pledged in the first five financial periods, only 1.3 per cent remains unpaid.

54. Unfortunately, this steady and growing support which can be seen in retrospect, was not always evident during the period. Until 1955 the funds pledged to finance each year's activities was uncertain until the middle of the year. Consequently, operations were conducted in the shadow of financial crisis, and were slowed down and speeded up, as financial prospects dimmed and brightened, with resulting waste and loss of effectiveness.

55. For 1956, however, this phase of the problem has largely disappeared. The largest contributor (the United States) advanced the time of its appropriation, so that its pledge could be known several months before the year began. Coupled with this, the timely announcement of support by most other contributors, and the growing record of pledges and prompt payment of pledges have enabled careful and deliberate planning to be followed by orderly execution of the approved plans. Establishment of the Working Capital and Reserve Fund, now reaching \$12 million, has given further assurance and stability.

56. Progress toward security over a longer range has not gone so far: a few contributors have been able to pledge support at a definite level for one or two years in advance. Others, by expressing their faith in the Programme, supported by a record of contributions, are helping to build an atmosphere of confidence and an expectation of continuity. Still greater security must be achieved, however, before long-term projects can be planned with assurance, and the lines on which the Programme can develop be established for several years ahead.

Currency problems

57. Most of the countries supporting the Programme have made their contributions in their national currencies, usually with no provision for conversion into any other currency. The translation of these monetary resources into effective technical assistance to another country, perhaps in a distant part of the world, has required persistent effort, ingenuity, and time.

58. Inter-agency machinery for the joint planning of currency use, clearing and exchange arrangements, and the Working Capital and Reserve Fund have all been employed for this purpose. In certain cases, special attention at the stage of programme planning has made it possible to couple resources with need, and to establish patterns of utilization. With a very few exceptions, the problems have

been solved in the sense that most contributions are now fully used for worthwhile purposes. It is evident, however, that the selection and implementation of projects, and consequently the composition of the Programme are affected in some measure by the restrictions on the use of the resources at the disposal of the Board. The Technical Assistance Committee has asked the Board to suggest changes in procedure "to eliminate as far as possible distinctions with regard to contributions in the planning and presentation of the annual Programme" (E/2810). The Board, of course, will respond to this request as helpfully as it can.

59. At present, sixteen countries contribute in convertible currency, with no restrictions. Another fifteen countries contribute in their own currencies, but provide for conversion within certain limits or for certain purposes. The majority, over forty countries, contribute in their own currencies with no provision for conversion. Increased convertibility by the latter two groups would not only simplify financial administration, but would also lessen the extent to which currency restrictions affect the substance of the Programme.

Local costs payments

60. Under ECOSOC resolution 222 (IX) Governments contribute towards the local living costs of exports; the basis of assessment and payment was changed under Council resolution 470 (XV) and in 1956, they are expected to amount to the equivalent of \$2.4 million. The question now arises whether these cash payments should not now be considered as a part of these countries' normal contributions to the Special Account.

CHAPTER III

SOME BROADER PERSPECTIVES

61. The review of needs and of suggestions for the improvement of the operation and management of the Programme in the previous Chapter has been limited to what might be accomplished within the present scope of the Expanded Programme, provided that the resources available to it are expanded over the next few years. There is, however, a whole range of valuable projects which can be considered only if very much larger resources were available. Most of these possibilities have opened up other existing projects or services, and represent a logical, and sometimes vital extension of work already begun. They do, however, involve commitments of larger resources over longer periods of time than has so far been possible; and, in some cases, they imply the acceptance of rather more far-reaching responsibilities than most of the participating organizations have hitherto been able to undertake.

Surveys of basic resources

62. During the last five years, some of the most useful technical assistance projects under the Expanded Programme have been devoted to helping governments to survey some part of their basic resources. Inevitably, most of this work was limited and piecemeal, and in many cases its most important consequence was to draw attention to the need for more systematic and detailed surveys. Few under-developed countries have inventories of their natural resources or the institutions necessary to develop those inventories. Particularly in the field of mineral and water resources there is inadequate data for projecting the development of new raw materials, multiple-purpose water control programmes, highways, harbours and other public works. For this, mapping, geologic, hydrologic as well as man-power surveys are essential. These require experts from abroad, expensive equipment and training facilities.

63. In many cases where an intensive drive is being made to develop mineral resources on a large scale, the use of aerial photography for geologic surveys is essential. In such countries as Argentina, Bolivia, Burma, Indonesia, Iran and Ethiopia, to mention only a few, aerial survey techniques would provide data

vitally important for economic development. Some indication of the cost of aerial mapping is provided by the terms of a recent Colombo Plan agreement under which a private firm agreed to undertake a two-year aerial survey of Ceylon to provide an inventory of natural resources (geology, forestry, soils engineering), at a cost of \$500,000. The development of such high cost projects of aerial mapping is out of the question for many of the least developed countries without external help. However, the comprehensive uses to which data secured in this manner could be put are of such importance in the preparation of long-range plans for economic development that the Expanded Programme should give substantial assistance to such projects if enlarged resources made this possible.

64. Much more systematic and detailed surveys are also an essential precondition of far-reaching agricultural development in many countries. It is frequently the case that the information available is inadequate for sound agricultural planning. Indeed, in many countries there is no adequate description available of the crops and animals produced. Information on basic resources of land and water are even more inadequate. Therefore surveys and studies should be carried out to lay the basis for the selection and execution of development projects in all fields of agriculture, in such a manner as to ensure the most effective use of resources, the development of these resources at the lowest cost, and the prevention of loss of resources through erosion control and by other means. Emphasis would necessarily be placed on the physical resources and potentialities for development and on indicating the broad outlines within which development could effectively be brought about. Attention should be given to soil surveys and related problems of soil classification and fertility; to water resources, including both surface and ground water; to climatic factors affecting crop and livestock production; to hazards limiting the improvement of agriculture, such as insects and diseases of both plants and animals. Many limited surveys and studies have already been conducted (or assisted) under the Programme, but the systematic, nation-wide projects which are the essential basis for sound agricultural development, are still beyond the financial and technical means of many of the countries which need them most.

65. Basic surveys of the human resources needed for economic and social development programmes are also urgently in demand. Without basic data on

scientific and technical man-power needs and the various internal and international means available to a country to meet those needs, no satisfactory planning of development is possible. Such countries as Indonesia, Viet-Nam, Ceylon, Burma, Brazil, Ecuador, Panama and Pakistan have requested ILO and UNESCO to help in the urgent and complex process of assessing their needs for scientific and technical personnel for given programmes and plans for meeting these needs.

Statistics

66. In all countries where efforts are being made to construct an overall plan for economic and social development, and even in those where planning has so far been confined to individual projects, the need has been felt for more adequate statistical information, both as the basis for the plans and projects themselves as well as to enable decisions to be made as to the priorities of the different stages of the development plan. This need has become more evident under the system of country programming of technical assistance. There is little doubt, moreover, that the need for improved statistics will become more urgent as the economic and social changes resulting from economic development begin to be felt. The availability of a wide range of statistical information in the industrialized countries constitutes for the economic enterprises in these countries an important resource which is not enjoyed by the existing and potential enterprises in the under-developed countries. In many countries the Expanded Programme has been used to improve the statistical work of countries and to assist them in large operations such as population and industrial censuses, health and vital statistics. Help has also been given in the training of national officials in particular fields of statistics. In some countries, however, there is little possibility of making progress in assembling fundamental information of this kind unless much more substantial assistance can be given. Top level expert advice is needed by a number of countries, at least in the organizational stages, and it has frequently been found necessary that advisory services be provided, either continuously or intermittently, over a period of years. The basic need, however, is for national statistical training, particularly for junior and intermediate officials. Training institutes organized in connexion with universities or

government offices need to be established to provide training in statistics closely related to the national economic and social problems. Systematic training of this kind would also permit the selection of suitable candidates for advanced training.

Training services

67. The importance of the growing emphasis on training and hence on the development of training services of all kinds has been commented on in paragraph 26 above, and the need for expanding this aspect of technical assistance within the present scope and resources of the Programme, has been underlined. It must also be recognized, however, that the demands of growing industrialization and of the revolution in agricultural techniques are such that the network of training services required is on such a scale that a more radical approach is called for than has been possible hitherto. So far as industrial training is concerned the scale of assistance to be rendered in such fields as apprenticeship, supervisory and management training and instructor training needs to be vastly increased. In particular a substantial proportion of available resources should be devoted to promoting schemes of accelerated training in those trades for which workers are most urgently needed. So far as the training of engineers and technicians is concerned, there is evidence of a widespread demand for technological institutions. The success of the Indian Institute of Technology has shown what can be done with means and imagination. India has also requested long-term help for the establishment of a second Institute involving assistance in providing some thirty engineer-instructors, workshop equipment to the value of \$2 million, and about forty-fifty fellowships over a period of five years. Burma has requested similar assistance for an Institute of Technology, and so has Brazil. Within the financial limits of the present Programme little can be done to increase facilities for industrial training or to create technological institutes and the concentration of relatively large sums on a few favoured projects has been open to criticism. No greater contribution could be made to the economic development of the technically less advanced countries of the world than to give substantial international support to the establishment, equipment and operation of a wide range of training services, including, where

appropriate, technological institutions, carefully planned to meet the skilled and professional manpower requirements of the countries concerned over the coming decades.

Industrial research and productivity centres

68. An important field of future development is the creation of institutions designed to improve production through research applied to the special conditions and characteristic products of particular countries. Some progress has already been made by the establishment in Ceylon of an Institute of Scientific and Industrial Research with the joint help of the International Bank for Reconstruction and Development and UNTAA. This Institute will make field pilot plant and laboratory studies. It will serve both government agencies and private business and it is expected to become financially self-supporting. Similarly, the UNTAA - with the collaboration of governments and the ECIA secretariat - has recently established a Central American Institute for research in industry. It is expected that the future work of this Institute in the utilization of indigenous raw materials will lead to important new industrial developments in the region. Experimental centres along these lines have shown themselves to be particularly useful when a group of neighbouring countries using the same language (as in the Middle East and in Latin America) share common technical problems and needs. Their present effectiveness could be greatly increased if the support (staff, equipment, technical apparatus, books, etc.) which they receive from international organizations was reinforced with greater assurances of continuity.

69. In the special field of labour productivity, the ILO has already rendered valuable assistance in the establishment and operation of productivity centres in India, Yugoslavia and Israel. Teams of experts have conducted seminars and trained local staff; fellowships for study abroad have been awarded; and equipment has been provided. The expansion of this type of activity to other countries is under consideration but must wait upon the assurance of necessary financial resources. Similarly, emphasis being given to industrialization leads to requests from less developed countries for assistance in the field of labour relations.

Agricultural research and demonstration projects

70. Some of the most successful technical assistance in agricultural development has been given by means of research and demonstration projects. Unfortunately, projects of this kind are costly, and their widespread extension is beyond the present resources of the Programme. Given the necessary financial means the FAO would, however, be ready to co-operate with governments in the establishment of a wide range of such projects designed to demonstrate appropriate watershed management and soil conservation; water development for agricultural purposes, either of underground water resources or the development of river basin systems for water storage and control; the improvement of range management and forage production as a basis for improving livestock production; land colonization and settlement; methods of dealing with land tenure problems, including the consolidation of fragmented holdings, and problems of farm organization and management designed to develop the best combinations of crop and livestock production for particular regions. Each project would be of sufficient size to ensure an adequate demonstration of the possibility of development, and the resources contributed to it by the government or the group of governments and FAO would be the subject of a carefully worked out agreement designed to ensure both adequate technical planning and supervision, and the necessary financial support and training of national workers who would carry on the project.

71. The following examples give some indication of the type of project that might usefully be developed if resources were available:

(a) The establishment of soils laboratories combined with experimental development plots to determine the land use capabilities, will provide the necessary data for the diversification of agricultural production as an integral part of projects for the development of the water resources in countries.

(b) Experimental stations for determining the adaptability of hybrid grass seeds from different countries, with a view to reseeding the depleted grasslands in Asia, or bringing under plough the arid lands in the Middle Eastern countries, will increase the normal feed supplies and thereby help the production of essential nutritious foods.

(c) The establishment of veterinary laboratories with equipment for the production of adequate quantities of vaccines to control the prevalent animal diseases, such as rinderpest and foot and mouth disease, will result in gains in the efficiency of the draught cattle as well as the hygienic quality of the meat supplies.

(d) The establishment of forest research institutes, with the provision of necessary laboratory equipment, the setting up of demonstration centres for mechanized sawmilling and logging operations, and the provision of a pilot housing plant, will provide completed operational projects covering all phases of the operations of the development of the potential forest resources in different countries.

(e) In the fisheries field, more effective contribution might be made if full operational projects were developed, combining the initial survey of the untapped fisheries resources, with the provision of mechanized fishing boats for experimental work, and also the provision of cold storage plants as a demonstration unit for effective distribution of the increased supplies of fish, as a "showpiece" for similar work being undertaken on a larger scale in other parts of the less developed countries concerned.

Fundamental science research centres and institutes

72. An increasingly important field in which assistance is sought by many countries is in the establishment and operation of institutes and centres of fundamental scientific research. Limited assistance in research in industrial chemistry to the National Chemical Laboratories of India and Egypt, in research in electronics, wind and solar energy to the National Physical Laboratories of Israel and India, in research in drugs, pharmaceuticals, underground water, fuel sources, ship modelling to the National Research Councils of Pakistan, Mexico, and Brazil have been provided by UNESCO. The entire requests for help in the establishments of the new science research departments in these institutes, centres and councils involve the provision of high quality experts, supporting staff and essential equipment valued at \$500,000 each for three years for the centres in India, Pakistan, and Brazil and \$200,000-\$300,000 each in Egypt, Mexico, Israel and Turkey. Plans have also been developed by UNESCO with the help of its

International Advisory Committee for regional laboratories on Arid Zone Research dealing with problems of plant and animal ecology, water resources and use, etc. in the Middle East and Latin America, which call for an annual expenditure of one million dollars in staff, equipment and training facilities.

Universities and the training of teachers

73. Increased support should also be given to hard-pressed universities which, in many countries, provide the most hopeful source of enlightened social leadership. UNESCO has been asked several times to help in the establishment of university faculties or a complete university and has given some assistance to this. The United Kingdom of Libya has asked for help in the establishment of the University of Libya. For the library of the University, about \$700,000 would be needed. For the Science Faculty, twelve experts for a period of five years would be required. Equipment of the laboratories would involve an expenditure of more than \$200,000. Thirty to forty long-term fellowships of two-four years are needed for training future professors. The Governments of Indonesia and Turkey have asked for similar assistance for the establishment of a University in Sumatra, and for the Ataturk University in Turkey.

74. Universities and national technological institutions alike will always depend upon a yearly inflow of young men and women whose educational standard is sufficiently high for them to benefit by the courses they will be expected to follow. This in turn depends on the quality of the educational system as a whole, and in particular on the quality of the teachers throughout the systems. UNESCO has worked since the inception of the Expanded Programme in projects of teacher training. Everywhere the effort has been handicapped through lack of funds. Either the training college itself has been inadequate in buildings, equipment and staff or the provision of counterpart personnel and of training facilities have been inferior. A thorough programme, involving the establishment of appropriate colleges and practising schools, the supply of equipment, the provision of fellowships to local people during their training as teachers, and the necessary financial support to enable their children to study at school long enough to make the effort to teach them worthwhile, would require substantial funds. A request from Korea for the establishment of model primary school teacher training

institute calls for an expert staff of eight, about a million dollars in equipment and library material, and twenty-thirty fellowships for training national experts. Egypt has requested help for a technical school teacher training institute requiring four experts and a considerable amount of equipment. A request from Viet-Nam for help in the establishment of a pilot technical school for training instructors specifies the need for twelve experts and about \$800,000 for equipment. It is plain that each of these projects would require substantial assistance over a long period of time.

Community development

75. One of the most promising trends in plans to stimulate the growth of rural and agrarian economies which has been receiving attention from national and international authorities in less developed regions is the community development movement. An essential characteristic of this movement is its attempt to effect improvements in a number of closely related fields at once; agriculture, handicrafts and marketing, water supply, communications, sanitation and housing, and in medical and educational facilities. At once idealistic and practical, the aim is that members of a community should learn to work together and secure advantages available through better utilization of primarily local resources. The programme offers immense possibilities and is already being assisted through different forms of international technical assistance. There appears to be considerable scope for enlarging the scale of such assistance and also for devising certain new forms of such assistance to meet the exigencies of a developing situation. One way would be to assist in the setting up of regional and national institutions for research and training in the principles and techniques of this work. A technological problem associated with this work which demands increasing attention is the establishment of new designs for tools and equipment in agriculture and handicrafts for improvement of efficiency by stages, and also for provision of facilities for their local manufacture. An equally significant corresponding task is that of adapting advanced mechanical equipment to suit simpler local conditions. It is estimated that expansion of international assistance through such programmes could make effective use of a sum of the order of one million for each of the next five years.

Fundamental education

76. Fundamental education is an educational service of economic and social development. UNESCO's General Conference, with the support of the United Nations and other specialized agencies, approved in 1951 a plan for the establishment of six regional fundamental education centres over a period of twelve years for the training of various specialists in fundamental education, the experimental study of educational methods and communication techniques and the production of educational materials for illiterate and newly literate adults. Under the limits of the present programme, UNESCO in co-operation with UNTAA, ILO, FAO and WHO, has established only two regional centres - in Mexico for the Latin American States and in Egypt for the Arab States. Requests have been received for assistance to establish national fundamental education centres from seven countries (Greece, India, Peru, Turkey, Jordan, Pakistan and Syria) and from one Non-Self-Governing Territory (Malaya). The establishment and maintenance of regional or national centres (in most cases the latter) to meet the expressed demands of Member States will require annual expenditures of \$200,000 - \$400,000 for each centre by the participating organizations.

Integration of Aboriginal populations into national economies

77. Large sectors of the population of many countries still live completely outside the normal political, economic and social framework of their respective countries. They exist in a completely primitive state which affords none of the benefits of modern civilization. The joint efforts of UN, ILO, UNESCO, WHO and FAO in the Andean Indian Mission are directed towards integrating these populations in the countries of Bolivia, Ecuador and Peru, while at the same time preserving their culture. The project is a long-term one which requires substantial financing. Similar projects in other regions of the world could be undertaken if funds were available.

Housing, building and planning

78. The experience of countries undertaking large-scale development programmes has invariably revealed a growing housing crisis and the restricted capacity of

the housing and building industry of most countries to cope with the problem. Industrialization and urbanization have also dramatized the problems resulting from lack of town and country planning. The United Nations has been called upon continuously to assist countries in modernizing their building industries and finding cheaper indigenous materials to reduce the cost of housing, to help in planning and organizing housing programmes which fit into and contribute to economic development plans, and to assist in drafting master plans for their capital cities. The Governments of India and Indonesia are receiving assistance in establishing national building research centres, covering economic, social, and technological aspects of housing, building and planning. It is expected that these centres will be able to fill existing gaps in research, undertake practical demonstration projects, and train technicians throughout the region when they have acquired sufficient experience. Suggestions by governments or international bodies concerning the establishment of similar centres in other areas such as the Near East, Southern Europe and Africa have not been considered in the United Nations technical assistance plans, because of lack of funds.

79. It is estimated that a housing centre programme, based on seven such centres would cost \$2 million to establish and \$1,400,000 annually thereafter. After five years it would be expected that the participating governments would contribute the greater part of the operating cost.

The eradication of debilitating diseases

80. Modern public health programmes are based on recognition of the relation between disease and poverty, and are directed at breaking the vicious circle which they form. Men and women are sick because they are poor; they become poorer because they are sick, and sicker because they are poorer. Public health activities support economic development by reducing the losses of productive power arising from disabling illness, by decreasing premature deaths. Prevention of disease is important to the opening up, and providing a productive population for, new areas in the world, and thus directly related to their economic development.

81. During the last five years, the WHO has assisted governments with the help of Expanded Programme funds, to attack such communicable diseases as malaria,

tuberculosis, venereal diseases and yaws, trachoma, leprosy, rabies, yellow fever, smallpox, plague, cholera, and many others. Remarkable results have been achieved, but illness is still a serious handicap to economic and social development in all under-developed countries.

Malaria

82. This is particularly true in the case of malaria. A decade ago the complete eradication of malaria throughout the world would have seemed a utopian dream, but the intensification of the world-wide attack on malaria during recent years has produced almost unbelievable results. This has a direct bearing on economic development.

83. Malaria eradication, made possible today by DDT residual spraying, calls for a plan to eliminate the disease from an entire country within a period of ten years or less. Experience has shown that if control measures can be established to ensure the complete interruption of the transmission of malaria for a number of years, the disease will be eradicated and spraying operations may be suspended, provided an adequate system of checking and surveillance is instituted.

84. An important international obstacle to the eradication of malaria is the fact that vector mosquitos or human malaria carriers can easily cross national boundaries; hence the importance of regional and inter-regional programmes and the special significance of plans such as that to eradicate malaria from all the Americas.

85. Until recently the goal had seemed to become increasingly attainable, but it has now become apparent that there may be a time limit beyond which the new insecticides, which have made nation-wide malaria eradication projects financially feasible, may no longer kill the mosquitos that carry malaria. Resistance to DDT has appeared in several malaria-carrying species of anopheles after some six years of exposure; hence the present concern of WHO that nation-wide malaria eradication projects be pushed ahead with the utmost speed and vigour.

86. Today a number of wide areas of the Americas, Europe and Asia have been cleared of malaria by DDT residual spraying. Nation-wide malaria control projects are well advanced in a number of countries. In a total world population of just over 2.5 billions, some 600 million people are exposed to malaria, but of these

some 230 millions either have been freed from malaria or are now being protected chiefly by residual DDT spraying. Nevertheless, with an estimated 370 million people still unprotected against malaria, it is obvious that world-wide malaria eradication remains a great task.

87. Very tentative computations have been made of the cost of malaria eradication in a number of countries, taking into account the large amount of supplies and equipment required. For instance, the estimated total cost of malaria eradication in the following ten countries - Afghanistan, Brazil, Ecuador, Egypt, Greece, Indonesia, Iraq, Mexico, Syria and Turkey - amounts to some \$228 million. A similar tentative estimate for some twenty-eight countries and territories in the Middle East and Southern Europe, South-East Asia and the Western Pacific reaches a total of over \$470 million.

Environmental sanitation

88. In addition to campaigns directed against single diseases such as malaria, a broad programme of environmental sanitation is urgently needed to include disposal of wastes and refuse; the provision of safe drinking water and protection of milk and other basic foodstuffs, control of disease-carrying insects, rats and other animals; proper housing; protection of people from pollution and unhealthy environment. Unfortunately, any such programme would be greatly handicapped by an acute shortage of trained personnel. To meet this problem, regional training centres for sanitarians and engineers might be established in South-East Asia, Africa, and Latin America. The training courses provided would be carefully worked out to fit the needs of each region to be served, in terms of national programmes of sanitation, supply of qualified applicants, and adequate teaching or training facilities. Even when national programmes of sanitation are in existence and trained personnel are urgently needed for expansion, it is still difficult to draw students into training courses unless substantial financial aid is available to them as educational grants, subsistence allowances and travel funds. Adequate teaching and training facilities would include teaching staff, buildings, equipment, and field or demonstration operations.

89. Buildings needed in a regional training centre would include classrooms, offices, laboratories, storerooms, shops and living accommodation for students.

The equipment again will vary with the type of institution and would include a certain amount of field equipment for practical field training. Such field equipment might include construction machinery, ground-water investigation equipment and well-drilling machinery.

90. The improvement of rural sanitation depends not only upon the existence of trained staff but upon an organization which can operate on a sufficiently large scale to make a real impression upon the sanitary environment. To meet this problem, field demonstration and training projects might be established in a number of countries to demonstrate practical methods of organization, training, operations, and health education of the public. Rural sanitation projects should include certain fundamental elements; among these are proper organization, the provision of materials and equipment which are not locally available, the design and construction of simple, effective sanitation works adapted to the particular locality, a plan of health education work and organization for training a sufficient number of people to extend and expand a programme on a national basis. The major items of cost involved in such a programme are for imported equipment and materials, aid to individual householders or to small communities for the construction of sanitary installations such as wells, small piped water supplies and individual latrines. These projects can be used to give practical large-scale experience to national personnel who can be used in an expanding programme.

Public and fiscal administration

91. The philosophy of the Technical Assistance Programme is based upon indigenous governmental responsibility for developing effective economic and social programmes; playing an active role in the initiation and execution of these programmes. The assumption of such responsibilities places a heavy burden upon governmental services which many are not capable of bearing, at this stage, because of lack of trained personnel. In these circumstances assistance and advice by competent and experienced advisers on administration or technical experts assigned to government departments and autonomous agencies can provide the help which may ensure the successful launching and operation of government services and development programmes during their critical stage. The policy of the Technical Assistance Board is of course that such international staff should

always have local colleagues who will receive on-the-job training to prepare them to take over responsible posts. The range of subjects in which some governments requesting assistance need aid is wide and covers all the fields of the participating organizations. Key personnel already seconded to governments have shown that this is practical and apprehensions - based upon legal, constitutional, and other factors - have been removed because the governments have appreciated this type of aid. Much more, however, remains to be done both at the central and local government level in improving public administration techniques. This includes problems common to many governments: civil service reform, integration and control of government activities, budgetary and fiscal measures, and other aspects of public administration.

92. Experience with the few training programmes that it has been possible to develop in the past years (Brazil, Turkey, Libya, Central America, Egypt, Israel and Burma) has shown the magnitude of the problem.

The dissemination of information

93. One of the most effective methods of introducing new technical knowledge and skills in almost every field is by the use of illustrated textbooks and pamphlets, instructional films, and other visual aids. Much has already been accomplished in this way by several of the participating organizations, but more effective work could be done if means permitted. This is particularly true in the struggle against illiteracy where the absence of suitable books and papers for those being taught to read is often a crippling handicap. Primers and school textbooks are available, but not in sufficient quantity. A beginning has been made in the provision of elementary literature for adults in many of the vernacular languages in the under-developed areas. The problem of supply should be tackled in a number of different ways. The establishment of regional or national production centres (including modern printing plant) where simple texts can be produced in vast quantities is needed; the texts must be prepared and edited and machinery set up for their distribution to ensure that the texts reach the people who are learning to read.

CHAPTER IV

CONCLUSION

94. At the end of this review of past experience and future possibilities, two main conclusions stand out among the rest. On the one hand, the services of the Expanded Programme have proved themselves to be increasingly useful and well adapted to the requirements of countries and territories seeking help in the development of their economic and human resources. On the other, it is abundantly clear that the technical assistance needs of those countries far exceed the financial, though not the technical resources of the Programme. A beginning has been made; valuable experience has been gained; some useful results have been achieved; and the main lines of possible development have been laid down. But the surface of the great task has barely been scratched, and its long-term implications scarcely recognized. For years to come the spectacle of human poverty, hunger, disease, ignorance and social misery is likely to remain a challenge to the creative energies of nations and to their capacity for co-operation through international institutions. It is not too much to hope that the additional financial resources may be furnished which would make it possible for the Expanded Programme to make a much larger contribution to the task on the basis of the experience which it has already gained and the relationships with Governments which it has already established.

95. It is not possible to make any estimate of the financial resources which would be needed to satisfy all the technical assistance requirements of every less developed country. Obviously these requirements far outstrip the present resources of the Programme. Two possible levels of expansion might be considered, the first involving a modest increase in resources to finance limited expansion of activities within the present scope of the Programme; the second, looking forward to a much more far-reaching extension of the work.

(i) A limited advance

The first possibility would be to set a target figure of \$50 millions for the annual income of the Programme, a total which might be approached in stages over the next few years. Such an increase in resources is indeed essential if the most effective and economical use is to be made of the present arrangements for operating and managing the Programme. It would, however,

do no more than enable the participating organizations to maintain the momentum of present activities within the existing scope of the Programme, and to meet the more urgent requests of newcomers (including a growing number of formerly dependent countries). This would be an important advance, but it would not permit the participating organizations to follow up a great many promising technical assistance possibilities reviewed in this report which would be of great practical benefit to the less developed countries.

(ii) A broader perspective

Alternatively Governments might consider a more substantial expansion of the work envisaging some enlargement of its present scope to provide greater support in the form of equipment and supplies as well as expert personnel to national and regional research and training institutions, demonstration projects and a more systematic attack on some of the basic problems of low productivity, ignorance and disease. It would be too theoretical an exercise to make any estimate of the sum needed to finance an expansion of the Programme along these lines in the absence of guidance from the Technical Assistance Committee concerning the realistic limits which should govern the calculation. What may be safely said is that the implementation of the most important projects reviewed in this report would call for resources many times the size of those now available.

96. The size of an effective Technical Assistance Programme may be limited not only by the extent of its financial resources but also by the possibility of providing the necessary expert personnel and training facilities, and by the adequacy of its operational and administrative arrangements. The experience of the international organizations taking part in the Expanded Programme suggests that no serious difficulty would be encountered in recruiting the experts and arranging the training facilities needed for a substantially enlarged Programme with the help of the excellent co-operation which Governments throughout the world are now giving. Experience also suggests that, while many improvements in present arrangements and practices are possible along the lines indicated in this report, there are no organizational or administrative considerations which would impede a substantial expansion of the work. Perhaps the most important advance of the last five years has been the creation of well-tested and proven international machinery which is ready to cope with this task.

97. In making the suggestions contained in this report, the TAB recognizes that no expansion of technical assistance alone is sufficient to make a decisive impact on the massive problems of economic development and social welfare with which the less developed countries are grappling. Any programme of technical assistance must play its part in a wider setting of international activity and financial commitment. The vital need for much larger supplies of capital to finance industrial and agricultural development projects, essential public works, power and transport, schools, hospitals, disease control and social welfare institutions, is now generally recognized. The Expanded Programme, by helping less developed countries to increase the rate at which they can absorb capital investment, is already making a useful contribution. It is important, therefore, that the future activities of the Programme should be directed and sustained in such a way as will enable it to play an effective part in any wider responsibilities for furthering economic development which may be assigned to international institutions.
