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NOTES ON PROCEDURES FOR EVALUATING TECHNICAL CO-OPERATION PROJECTS
AND SOME NEW DIRECTIONS IN TECHNICAL CO-OPERATION IN STATISTICS

Report of the Secretary-General

SUMMARY

At the seventh session, the Statistical Commission's Working Group on International Statistical Programmes and Co-ordination requested the Secretariat to prepare a supplement to the report entitled "International technical co-operation in statistics, 1979-1983", outlining the procedures followed both by the United Nations Development Programme and the Department of Technical Co-operation for Development for evaluating technical co-operation projects at their various stages. It also requested the Secretariat to review new directions in technical co-operation in statistics.

The present document outlines the procedures followed by UNDP and TCD for evaluating technical co-operation projects, describes the purpose of evaluation and lists the circumstances under which an evaluation is undertaken. The document also provides some examples of new directions in technical co-operation in statistics, namely, multidisciplinary and co-ordinated approaches, technical co-operation among developing countries and training.

The Commission may wish to comment on the document and suggest further means of improving the evaluation work and additional areas in which new directions in technical co-operation could be explored.

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INTRODUCTION

1. At the seventh session of the Statistical Commission's Working Group on International Statistical Programmes and Co-ordination, it was decided that the Secretariat should prepare a supplement to the report entitled "International technical co-operation in statistics, 1979-1983" (E/CN.3/523), outlining the procedures followed by both the United Nations Development Programme (UNDP) and the Department of Technical Co-operation for Development (TCD) for evaluating technical co-operation projects at their various stages and for reviewing new directions in technical co-operation in statistics (E/CN.3/502, para. 69). The present document was prepared in response to these requests. In respect of evaluation, its main purpose is to outline the procedures followed by UNDP and TCD in evaluating projects. In respect of new directions, it was hoped to have the material on a number of country reports, of which only one had become available at the time of writing. As a result, the present document provides only a very brief account of some of the new directions. The country report referring to one of these new directions - a multidisciplinary project - is annexed to the present document.

I. ACTION BY THE COMMISSION

2. The Commission may wish to comment on the document and suggest further means of improving the evaluation work and additional areas in which new directions in technical co-operation may be explored.

II. PROCEDURES FOR EVALUATING TECHNICAL CO-OPERATION PROJECTS 1/

A. Definition

3. Evaluation is the critical examination of an ongoing or completed project's design, experience, results and actual or potential effectiveness. It calls for a fresh and independent assessment of the project's design, implementation and effectiveness, aimed not only at determining the progress made and identifying the causative factors but also at verifying whether the project was properly conceived and designed in the first place and whether it is so at the time of the evaluation. Evaluation must be distinguished from monitoring, which is the review of the progress of a project in the light of parameters established in the project document. It must also be distinguished from appraisal, since appraisal is undertaken prior to the approval by UNDP of the assistance requested for it, whilst evaluation is undertaken after the approval, at any time during the project's implementation or after its completion.

1/ The material in this section has been drawn mainly from United Nations Development Programme, "Policies and procedures manual" (mimeo.).

B. Purpose

4. The purpose of project evaluation in a country context is to provide a basis both for undertaking needed initiatives or corrective measures to improve the effectiveness of a project and also for preparing a synthesis of the various projects included in a country programme that would assist in effecting appropriate changes in that country programme or in formulating and implementing the next country programme.

5. Any UNDP-assisted project may be considered for evaluation during its implementation. Provision for evaluation is agreed upon during the formulation of a project and scheduled in the project document. Generally, provision for evaluation is made for projects receiving large-scale assistance, such as the project of assistance to the Central Bureau of Statistics in Indonesia, the Statistical Centre project in Iran etc. It is not necessary that evaluation should be carried out in every case. There is a degree of flexibility in that a scheduled evaluation can be deferred and need not be undertaken if all parties agree that it is not necessary.

6. The monitoring process or else the initiative of the Government or executing agency or UNDP may indicate a need for an evaluation. If no provision for evaluation is built into the design of a project, an evaluation may subsequently be proposed and carried out by mutual agreement among the parties concerned.

C. Scope of evaluation

7. The evaluation of a project normally includes:

(a) A re-examination of the design of the project;

(b) An assessment of the progress achieved in relation to established schedules and targets for activities, outputs and immediate objectives;

(c) An assessment of the substantive elements of the project's results and also of their timeliness;

(d) An assessment of the extent to which these results contribute effectively to the realization of relevant development objectives, i.e., the extent to which these results appear likely to be utilized or have actually been utilized in the over-all efforts to achieve such objectives;

(e) The identification and assessment of the factors that facilitate or impede the achievement of the project's immediate objective and contribute effectively to the relevant development objectives; and

(f) The prescription of specific recommendations concerning the future of the project or concerning a possible successor project, including recommendations for overcoming factors adversely affecting the project's effectiveness.

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D. Tripartite evaluation

8. Evaluation of ongoing projects is a tripartite process involving the Government, the executing agency and UNDP. To the extent possible, the members of the evaluation team should provide independent evaluation and therefore should not have been directly concerned with the project's formulation and implementation. As necessary, additional expertise can be provided through the recruitment of consultants.

9. The terms of reference for the evaluation of a project incorporating the elements mentioned in paragraph 7 above, may be prepared by the executing agency in consultation with UNDP. The terms of reference should identify those aspects of the project specific to it, especially the technical aspects that need to be evaluated.

10. The evaluation team is normally given two to three weeks for completing the work in the field, including the drafting of its report. Following the submission of the evaluation report to the Government, the UNDP resident representative consults with all parties involved to secure agreement on action to be taken on the recommendations of the evaluation team.

11. After a project's completion, an evaluation may be carried out, if the Government agrees, to determine the effectiveness of the project and to learn from the experience for application elsewhere.

E. Department of Technical Co-operation for Development of the United Nations Secretariat

12. The Department of Technical Co-operation for Development (TCD), the management arm of the United Nations as an executing agency, has been responsible for evaluation activities principally as they concern aspects of the process of project implementation, rather than for substantive matters, which have been the responsibility of the relevant substantive office, such as the Statistical Office. However, TCD must also ensure that any evaluation activity involving the executing agency has the requisite scope and fully utilizes all available expertise.

13. At the pre-implementation stage TCD, upon receiving a project proposed for United Nations execution, appraises the project design in terms of operational feasibility, adequacy of proposed financial resources, possible linkages with other agencies etc.; TCD also co-ordinates appraisal inputs from all other concerned offices. During the implementation stage, TCD may be a participant (in addition to the substantive office) in a tripartite evaluation organized by UNDP or it may undertake evaluation on its own initiative. In either case, the evaluation exercise essentially follows the procedures used by UNDP, although the evaluation may focus specifically on an already identified problem or need.

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F. Evaluation of technical co-operation projects in statistics

14. Statistical projects have been developed over the years in all the regions of the world. Most projects are country projects for which individual experts or teams are provided. Some of the country projects are of a multidisciplinary nature and involve the provision of a large number of experts and considerable equipment. Examples of such projects are in Brazil, Indonesia, Iran and Malaysia. Other projects are intercountry projects consisting mainly of regional training institutes such as the Statistical Institute for Asia and the Pacific, in Tokyo, the Arab Institute for Research and Training in Statistics, at Baghdad and the Institute of Statistics and Applied Economics at Makerere University, Kampala.

15. All statistical projects, country or intercountry, like other UNDP-financed projects, are evaluated regularly. There are periodic evaluations of all projects to review the progress in implementation and there are in-depth evaluations of selected projects, usually carried out at the request of Governments. The evaluation reports of individual projects in statistics, e.g., in Indonesia, bring out the strengths and weaknesses in the delivery and impact of technical co-operation in statistics. Information so gained is added to the foundation upon which future project appraisal and evaluation is built.

16. In addition to the regular evaluation of statistical projects, the work of country experts and regional and interregional advisers is also evaluated. Evaluation by a team composed of members from UNDP, the United Nations and the Government is usually carried out for large-scale projects and regional training institutes. In the case of country projects with one expert or a small number of experts only, the evaluation is usually carried out in a meeting of the representatives of the three concerned bodies, i.e., UNDP (the resident representative), the co-operating agency of the Government and TCD or the substantive division at United Nations Headquarters or sometimes the expert(s) representing TCD.

17. Evaluation of the work of an expert in a country is necessary to assess the impact of the assistance provided by the expert and the extent to which he has been able to transfer his knowledge to his counterpart. Evaluation is also necessary to ascertain the usefulness of continuing the expert in the assignment if the project is extended or to assess his/her suitability for similar assignments in other countries needing similar assistance.

18. In the case of regional advisers, the evaluation of their work is carried out jointly by the United Nations and the relevant regional commission and, in the case of interregional advisers, jointly by TCD and the Statistical Office of the United Nations.

19. Paragraphs 20-31 below, give certain guidelines which evaluation missions are expected to follow in evaluating statistical projects.

1. Country projects

20. As has already been pointed out, in the case of country projects for which there are only a few United Nations experts, co-ordination of the work of these experts is not a problem. However, in cases in which a large number of experts is involved, the evaluation mission is expected to ensure that procedures for co-ordinating the experts' activities have been established. Where there are duplications in the work of experts from different executing agencies, the evaluation mission should point these out in its report and suggest suitable measures. It must also ensure that a project manager with sufficient authority has been designated so that the project team and their activities are well co-ordinated and integrated. It must also ensure that there are cordial, harmonious relationships between the experts and their local counterparts.

21. An important element which an evaluation mission should look into is whether the transfer of know-how has been effected and whether the expert has developed a proper system of documentation to leave behind at the termination of his assignment. Such documentation should be both comprehensive and clear, so that local statisticians can utilize the document in future.

22. Missions evaluating country projects are also expected to examine in detail the criticisms that have often been levelled against the executing agencies; these criticisms are:

(a) The procedures for recruiting experts are lengthy and time-consuming;

(b) The evaluation and screening procedures followed in selecting experts need improvement;

(c) Experts often try to transplant systems and procedures from their own countries without taking due account of the particular conditions and circumstances that prevail in the recipient country. Instead of relying on international guidelines, they tend to utilize their own country experience;

(d) In some cases experts display an unwillingness to get involved with statistical operations and confine themselves to rendering general advice.

23. At the same time, the mission is also expected to see whether the recipient country has fulfilled its obligations. Frequently a recipient country finds it difficult or impossible to make proper counterpart arrangements for the expert. In such cases the valuable work the expert has been able to initiate is often not continued since no local counterpart becomes trained during the expert's tenure. The mission should also examine whether the recipient country has made a concerted and realistic effort to map out an over-all programme of statistical development, with the assignment of due priorities.

2. Regional training institutes

24. In the case of regional training institutes, the evaluation mission may also examine the system adopted by the institute in evaluating the trainees' performance. The system consists of diagnostic tests, periodic evaluation and final evaluation.

25. The evaluation mission is expected to discuss with the institute faculty the performance of the trainees. It is also expected to examine, through discussions with the statistical offices of selected countries, whether the training received by the trainees was relevant and useful and, if it was, in what way. In particular, it is expected to examine whether the trainees have shown a better familiarity, understanding and appreciation of statistical principles and methods after their return from training at the institute and whether the training received at the institute has had an impact on their practical work.

26. One index of the usefulness of a training institute is the extent to which countries make use of its facilities. The evaluation mission is expected, therefore, to examine how much the countries intend to utilize the training facilities provided by the institute during the next, say, five years. It is also expected to ascertain the requirements of the countries in the different types of courses given at the institute.

27. Over time, the needs of countries and their emphasis on different subject fields will change. The evaluation mission is expected to examine the curricula followed in different courses and see if they meet these changing needs. An example of adaptation to changing needs is shown by the Statistical Institute for Asia and the Pacific which, since its inception in 1969, has been offering a general course whose objective is to enable participants to gain an insight into the data needs of the countries of the region that the Institute serves and into the methodologies appropriate for collecting, processing and presenting data useful for economic and social planning and policy making. In keeping with this objective, the syllabus of the general course has been kept under constant review; revisions have been made from time to time in the light of changing circumstances and as experience in implementing the programme has been gained. During the second phase of the Institute, partly as a result of the ongoing evaluations, the duration of the general course was reduced from 10 months to 6 months to enable the Institute to conduct a greater number of advanced and country courses each year. A number of modifications have been introduced in the seventh general course to give participants an opportunity to get not only a broad-based training in applied statistics but also more intensive training in some speciality, preferably the one in which they are currently engaged in their offices.

28. In some training institutes there may be a problem as to what should be the language of instruction. If most participating countries do not have a common language, the language of instruction at the institute will pose a problem. The mission is expected to examine how effective the language of instruction is in imparting training. It is also expected to examine approaches to the solution of this problem, such as giving crash courses in the language of instruction before the trainee joins the institute.

29. In any institute of a regional character, there are bound to be differences in the trainees' levels of education. Since trainees' first degree could be in any subject there is some heterogeneity in the academic background of the trainees. The mission is expected to examine whether the institute has kept close watch on the trainees in the first instance, identifying the trainees deficient in basic knowledge of elementary mathematics and general economics to enable the faculty to give them remedial courses or special attention.

30. Trainees' evaluation of the course is a factor that the evaluation mission should not miss. The mission is expected to examine whether at the end of each course conducted by an institute, the trainees are given an opportunity to comment on the design of the course, its content and the institute's facilities. This is usually done by the institute's giving trainees a questionnaire that includes items on the relevance and adequacy of the subject coverage, the distribution of course time between lectures, workshops and seminars, the usefulness of the knowledge gained during the course, living conditions, the institute's facilities and the staff.

31. Another factor that the evaluation mission is expected to examine is the follow-up of former trainees of the institute. The mission should see whether the institute is maintaining a roster of former fellows in order to follow their progress in their careers after they have received their training and whether it is periodically sending a questionnaire to the trainees to get the required information - and what the response is from the trainees. It will be useful for the institute to have not only feedback from the trainees but also information on the progress of the trainees as evaluated by the supervisory officers. For example, the supervisory officers have generally expressed satisfaction with the improved quality of work turned out by those trained at the Statistical Institute for Asia and the Pacific and have reported promotion of some to jobs of higher responsibility.

III. SOME NEW DIRECTIONS IN TECHNICAL CO-OPERATION IN STATISTICS

32. In June 1975 the UNDP Governing Council approved "new dimensions" in technical co-operation and defined UNDP's role as follows:

The basic purpose of technical co-operation should be the promotion of self-reliance in developing countries, by building up, *inter alia*, their productive capability and their indigenous resources - by increasing the availability of the managerial, technical, administrative and research capabilities required in the development process. ^{2/}

Since June 1975 UNDP's "new dimensions" policies have considerably expanded the range and flexibility of technical co-operation activities.

^{2/} See United Nations Development Programme, 1975 Annual Report: Building Self-Reliance in Developing Countries, p. 8.

33. In addition to defining the basic purpose of technical co-operation in terms of building self-reliance, the Governing Council also expanded UNDP's mandate in respect of the following:

(a) In contrast to the past emphasis on inputs, technical co-operation should be seen in terms of output or the results to be achieved;

(b) In this sense, UNDP should provide, where appropriate, equipment and material resources and adopt a more liberal policy towards local cost financing and it should be flexible in its requirements for counterpart personnel;

(c) UNDP should give increased support to programmes of technical co-operation among developing countries and should procure as much equipment and service as possible on a preferential basis from local sources or from other developing countries;

(d) Governments and institutions in recipient countries should increasingly assume responsibility for executing UNDP-assisted projects;

(e) Technical co-operation, including investment support efforts, should be provided at any level and stage of the development process, including assistance for project planning, pre-feasibility studies etc.; and

(f) Special attention should be paid to the requirements of the least developed among the developing countries.

34. During the past decades, the demand for technical co-operation has become more complex, diversified and sophisticated. With respect to personnel, there has been a shift from a demand for general-purpose administrators and middle-level experts to a demand for specialists, technicians and top-level advisers. The need for short-term, high-level consultants has been growing, with less demand for resident experts. Person-to-person transfer of skills and know-how has been giving way to technology acquisition through institutions. In addition to the need for dissemination of available knowledge and standard international technology, there has been a growing demand for assistance in methodological research and for development of technologies more relevant to the needs of the developing countries.

35. Against this background, UNDP is working towards:

(a) Developing human resources through the transfer of skills and know-how and through training;

(b) Preparing development plans, strategies and feasibility studies together with the acquisition of the basic data and information required;

(c) Developing an institutional infrastructure for the support of self-sustained development efforts;

(d) Developing services towards the same end; and

(e) Building and carrying out programmes and experimental models using innovative and interdisciplinary approaches to development goals.

A. From a piecemeal to a multidisciplinary and
co-ordinated approach

36. In the past decades, concepts of providing assistance in different fields of statistics have changed. In earlier years, the concept of assistance was one of providing statistical expertise to individual countries in different subject fields. However, it was often found that the work of the different experts was not co-ordinated, which resulted in piecemeal efforts. More recently a number of projects have been developed with co-ordination as a priority from the outset and, where feasible, with a provision of a team of experts with a project manager to co-ordinate the programme. An illustration of this new direction in technical co-operation is given in the annex to the present document.

37. One area in which multidisciplinary integrated support could be provided is in the creation of a national household survey capability and the establishment of institutionalized arrangements for directing the information from these surveys into policy-making procedures. With regard to the creation of a national household survey capability, it may be noted that the Statistical Commission at its nineteenth session ^{3/} stressed the importance of countries developing permanent field-survey organizations to produce integrated data on such important characteristics as employment, income, levels of living and related social and demographic statistics on a continuing basis. The Commission emphasized that the programme of technical co-operation in developing a household survey capability should be country-oriented in that it should aim at improving the capacity of countries to produce integrated statistics for their own needs. In particular, it recommended a draft resolution entitled "National Household Survey Capability Programme", which was adopted by the Economic and Social Council in May 1977 (resolution 2055 (LXII)). For further details, see the "Progress report on the National Household Survey Capability Programme" (E/CN.3/527), which will also be before the Commission.

38. Although as a global activity the programme has only recently begun, current activities in a number of countries provide a clear indication of national interest and of initiatives directed towards the implementation of the programme. In Africa, many countries - e.g., Algeria, Kenya, Liberia, Nigeria, Sierra Leone, Somalia, United Republic of Cameroon, United Republic of Tanzania - have indicated their intention of establishing or improving their survey-taking capability. In other regions, too, a number of countries have established or expanded their survey-taking capability - e.g., Brazil, Colombia, Malaysia, Republic of Korea - or have expressed an interest in such an improvement - e.g., Bolivia, Iraq, Peru, Thailand.

39. Technical co-operation provided to developing countries in this new way, with the evolving of the countries' survey-taking capabilities, represents an effort to help achieve self-reliance in the sphere of national statistics.

^{3/} Official Records of the Economic and Social Council, Sixty-second Session, Supplement No. 2 (E/5910), paras. 162-174.

B. Technical co-operation among developing countries

40. Co-operation among developing countries has been receiving increasing attention over the past few years in the UNDP programme. The General Assembly at its seventh special session laid special emphasis on the intensification of co-operation among developing countries (resolution 3362 (S-VII), sect. VI). There is great potential for technical co-operation among developing countries (TCDC) in the various regions of the world, not only through traditional forms of mutual co-operation but also through innovative approaches in matching the capabilities and requirements of developing countries, taking into account the need to maintain quality and standards, and through co-operative efforts to solve specific common problems and needs. TCDC as described in this section of the present document, is a new dimension in technical co-operation that has appealed strongly to Governments.

41. TCDC implies the provision and utilization of the available know-how, expertise, consultancy services, training facilities, equipment and supplies among developing countries for their mutual benefit. Such co-operation may be on a bilateral basis, i.e., between two countries or on a triangular basis, i.e., between the developing donor countries, the United Nations executing agencies and the recipient countries.

42. TCDC should be as broad and flexible as possible to accommodate innovative approaches while at the same time utilizing all existing forms of co-operation. One of the principal criteria is mutual benefit; in this respect the distinction between donor and recipient countries can only be vague. Areas in which the principles of TCDC can be applied are: provision of facilities for meetings and seminars, participation in international meetings, seminars etc. at own cost, establishment of training fellowships and provision of experts. Some illustrations of projects suitable for TCDC in the field of statistics follow.

43. The United Nations and the specialized agencies have issued manuals on standards and classifications. Although these classifications are usually based on global or regional practices, there is always room for country adaptations to meet specific conditions and needs, e.g., some countries have adapted the International Standard Classification of Occupations (ISCO). These countries could now provide their expertise to other countries contemplating the adaptation of ISCO.

44. Most countries will be conducting population and housing censuses, agricultural censuses and industrial censuses during the 1980s. Some, especially the smaller countries and others that have limited experience with censuses, will require census expertise, e.g., census administrators, cartographers, data analysts, programmers and systems analysts. Some developing countries may have personnel with considerable experience in census matters. TCDC may be applied in these areas by those countries with expertise, making available people with experience of various aspects of census work as short-term or even as longer-term advisers.

45. Similarly, developing countries that are statistically well developed can second their subject-matter specialists, e.g., in sampling, questionnaire design, survey administration etc., to assist in developing a survey capacity in other countries.

46. Not all countries have data processing facilities. Some that have the hardware lack trained personnel, such as programmers, systems analysts and data processing managers. Countries that have effective data processing capabilities, with adequate hardware and software facilities and staff resources, can offer data processing services, especially for the forthcoming censuses. They can also offer on-the-job training to data processing personnel from other countries.

C. Training

47. Another new direction, or perhaps one with a new emphasis, concerns technical co-operation in the field of training. Training of statisticians and related subject-matter specialists in the variety of skills needed to carry out, for example, integrated household survey programmes is essential for building a sustained national capacity for carrying out the programme. Training is particularly needed in such areas as survey planning and management, applied sampling and survey design, organization of field operations, statistical administration, data processing, analysis and evaluation of data, and in the substantive skills necessary to ensure effective dissemination of survey results. Because the training needs in each country differ, considerable flexibility and diversity must be built into the training activity, which implies a high degree of planning and co-ordination to ensure that relevant and timely training services are provided to all participating countries.

48. In this connexion, it must be emphasized that the training of trainers is an important factor whose effect cannot be over-emphasized. The training of trainers has a multiplier effect and, for a given amount of money invested, can yield manifold and lasting results.

49. The shortage of trained statistical personnel is a perennial problem in many countries of the developing world. TCDC, discussed in paragraphs 40-46, above, can also be applied very profitably in the field of training. When regional training institutes offer country courses, the opportunity may be used to organize subregional training courses in which trainees from neighbouring countries may be invited to participate. Then the cost normally borne by the host country for the institute's country course may be shared.

50. The past and current trends in technical co-operation in respect of training are described in considerable detail in another document before the Commission, "Review of training of statistical personnel" (E/CN.3/525).

Annex

INTERNATIONAL TECHNICAL ASSISTANCE IN STATISTICS, WITH SPECIAL
REFERENCE TO THE MULTIDISCIPLINARY APPROACH: THE EXPERIENCE
OF MALAYSIA a/

Introduction

Although a Registry of Statistics was established in 1949 as the central statistical institution for the then Federation of Malaya, the range of statistical compilations undertaken prior to the attainment of independence in 1957 was extremely limited. Certain of the statistical series, particularly on external trade and plantation agriculture, preceded the establishment of the Registry. Most series that were being compiled were based on administrative procedures. By and large in the Federation of Malaya as in a number of colonial territories in the pre-independence period, statistics did not receive any major emphasis since the requirements of the then Government were limited. The philosophy of the then administration can be summed up in terms of its desire to maintain law and order and to collect revenues. Population censuses were undertaken regularly at 10-year intervals by ad hoc organizations that were established for the sole purpose of the taking of the censuses. Censuses were conducted by administrative officials of the Government who had little or no background in statistics or in demography.

In 1955 the then Federation of Malaya attained internal self-government, followed by full independence in 1957. During this period, national political leaders recognized that with the attainment of independence the Government needed to be much more development-oriented and needed to undertake national development planning to accelerate economic growth and improve the well-being of the population at large. This then was the background and setting against which statistical development took place in the post-independence era.

In August 1957, when independence was attained, the Department of Statistics, renamed as such in 1953, was headed by an expatriate official with three professional statisticians of national origin. Unit record data processing equipment was available for processing data. A total complement of approximately 110 persons constituted the staff of the Department. In terms of the activities of the Department it should be noted that there was neither a household survey capability nor a register of businesses for the conduct of establishment-type inquiries. The statistics compiled and published were based largely upon administrative records and procedures. The work being done covered external trade statistics (using a narrow classification), the compilation of retail price indices, the computation of vital rates based on the registration of births and deaths, the collection of production and acreage statistics for the plantation

a/ This note was prepared by R. Chander, formerly Chief Statistician, Malaysia.

sector of the rubber industry and the compilation of production statistics in respect of the tin industry. In addition, certain other series encompassing registration of vehicles, health, education, government revenues and expenditures were also being compiled. Thus the statistical system was in an embryonic form. Compilations of national accounts, balance-of-payments estimates, industrial production and other much needed series for national development planning were not in existence.

The economic secretariat of the newly established Prime Minister's Department was charged with the responsibility of preparing a national five-year plan. Noting the large statistical gaps, it directed the Department of Statistics to expand its activities and to compile those series that were most critical for the needs of national planning. The existing professional staff did not have sufficient experience to embark upon the major activities that the principal users demanded. As a first step, the Department undertook a household expenditure survey for making estimates of household consumption and for reweighting the consumer price indices. It was against this background that a request was made to the United Nations for the services of a national accounts expert, who arrived in early 1958. Soon after, the services of a Colombo Plan adviser on industrial statistics were sought from the Dominion Bureau of Statistics in Canada. In early 1959 the then Chief Statistician left the service and was replaced by a United Nations-appointed official from the Programme for the provision of operational executive and administrative personnel (OPEX) to head the Department. Over the next four years the activities of the Department were expanded, additional staff was recruited and technical assistance sought from a multiplicity of sources. Apart from United Nations advisers, the services of advisers were obtained on a bilateral basis from the Governments of Australia and the United Kingdom and from various foundations. The basic approach adopted was to use advisers in developing new series and in improving existing series. In this task local professional officers who were designated as counterparts played a key role. However, recruitment of professionals was difficult as the statistical service lacked glamour and afforded little by way of career advancement. Not only was recruitment difficult but also professional staff tended to move on to other attractive positions in the rapidly expanding government and in the private sector. By late 1963 when the Federation was expanded to form Malaysia, the Department was beginning to provide users with a broader range of statistical series. Its staffing had improved and doubled both at the professional and non-professional levels. The data processing capability of the Department had been enhanced by the installation of 80-column punch card equipment. The total number of professionals was approximately eight. Although the Department was just about finding its feet, it was faced with a new challenge - that of expanding its activities to the newly incorporated States of Sabah and Sarawak. Hardly any statistical organization existed in those two States. But given the need to expand the scope of national planning and integration, the Department faced the large responsibility of extending its activities and coverage. Technical assistance continued to be obtained from multilateral and bilateral sources. A feature of the technical assistance received was that it was in specific statistical fields and of an ad hoc nature. The individual advisers operated in their respective fields with minimal co-ordination amongst themselves. In 1964, a Malaysian national was appointed to head the Department on an acting basis pending the recruitment of another OPEX official. However, difficulties in recruitment left the Department with an acting head for over four years; in 1968 the acting head was confirmed in the post.

Origin of the UNDP project

In 1968, the Department had a total staff of 580 and 5 advisers. Despite this, it was unable to cope with the rapid increase in the demand for its services. Its role in providing continuous support to the federal and State planning agencies had increased considerably; however, it could not adequately do all the necessary work. Recognizing the major needs of the Government and the rather unsatisfactory manner in which technical assistance was being obtained (i.e., in an unco-ordinated and ad hoc way, with no assurance of continuity), the Department of Statistics proposed that there should be a better co-ordinated and a systematic approach, directly related to the specific needs of plan formulation and implementation.

At that time the Department prepared a comprehensive and detailed programme for statistical development over the next five to seven years. The statistical development plan was for consideration for and incorporation into the national five-year plan. Apart from identifying priorities, it indicated the resources that were needed. It touched upon the long-term need for technical assistance. It was in that context that the Department proposed in 1968 that a United Nations Special Fund project be established to support statistical activities in the country. The objectives of the project were (a) to obtain sizable technical assistance and the services of a number of experts for a five-year period to assist in closing large gaps in the data needed by the central agencies responsible for plan formulation, monitoring and implementation and (b) to obtain fellowship funds to train the relatively inexperienced professional staff through an integrated programme of training.

The project proposal was submitted to UNDP in late 1969 and the Governing Council approved the project in 1970. However, owing to a number of amendments and clarifications the signing of the plan of operation was delayed until January 1973 although the project commenced in October 1970. The United Nations was designated as the executing agency for the project with the Department of Statistics as the co-operating agency. The project budget is indicated in tables 1 and 2, which show that the United Nations contributed \$US 1.1 million and the Government of Malaysia contributed the equivalent of \$US 9.2 million in the form of local counterpart staff, office premises, equipment - including electronic data processing equipment - and utilities (the amount corresponded approximately to those elements of the regular budget of the Department of Statistics directly related to the project).

Table 1. Project budget: UNDP contribution

(In US dollars)

	<u>Total project costs</u>
Project personnel	823,699
Training	120,505
Equipment	40,000
Miscellaneous	34,847
	<hr/>
Total UNDP contribution	1,019,051

Table 2. Project budget: Malaysian Government contribution
 (In Malaysian dollars)

	<u>Total project costs</u>
Project personnel	14,839,048
Equipment and supplies	2,045,750
Miscellaneous	6,038,932
	<hr/>
Total government contribution	22,923,730
	<hr/>

Kinds of assistance sought

The need for advisory support was identified in the areas of (a) national accounts, (b) industrial and distributive trade statistics, (c) agricultural statistics, (d) price statistics, (e) population, social and labour statistics, (f) regional statistics, (g) sample surveys, (h) data processing, (i) statistical training and (j) short-term statistical consultants. Advisers were to be obtained on a co-ordinated and programmed basis so that their various roles could be dovetailed. The advisory team was to be co-ordinated by a project manager. Provision was also made for training local professional staff both within the country and outside the country. Each adviser had local counterparts, the objective being for a transfer of technology to take place and at the same time for a long-term capability for over-all statistical development to be built up. The project provided for 216 work-months of training fellowships tenable at universities, statistical offices and other institutions in statistically advanced countries. The Chief Statistician of the Government was designated as the co-project manager.

Some problems encountered

As noted earlier, the project commenced in late 1970 and was expected to last for five years. Although the phasing had been carefully determined, in practice recruitment delays caused the project to extend into mid-1976. Indeed, recruitment delays were one of the most significant difficulties encountered in the implementation phase. Often specific advisers became available only after a considerable time-lag. On average, from the time a request was made to the time the adviser was in position, approximately 10 months elapsed. In some instances the delay was even greater. This meant that the team could not be constituted fully and thus that the major objective of a co-ordinated approach could not be met. In so far as training was concerned, delays in the placement of selected officials also disrupted the smooth implementation of the training programme. Also, the project had called for making available a total of 338 work-months of expert services, along with 216 work-months of fellowships over a five-year period. The impact of inflation was such that these targets were not fully achieved. Some problems arose in releasing officers for training, since care had to be taken to ensure that counterparts were in position to work with advisers.

Reference must also be made to the relationships between advisers and national officials. While at the working level there were no major differences of view and at the implementation stage no difficulties between advisers and counterparts, some problems existed between the project manager and the co-manager. Those differences of view were largely in the area of statistical management. The question of how the Department should be organized (whether on a functional or subject-matter basis) and what should be the functions and role of the project manager (what powers would be exercised in relation to the management of the Department) were amongst the issues that arose. Those issues undoubtedly affected the initial stages of the project. However, the problems were resolved when towards the end of the second year of the project a new project manager was appointed with a somewhat revised job description. An extremely cordial relationship developed. This led to a continuous and fruitful dialogue. The review of work programmes, setting of priorities, monitoring of the progress of the project and other aspects of the work that needed attention were smoothly executed. Equally, advisers were able to interact with officials of the Department. Above all, they were able to integrate their activities fully with those of the Department. From being a team of outsiders, the project team became part and parcel of the Department's professional core. This considerably hastened implementation and led to rapid progress in the development of new statistical series, the refining of ongoing series and the opening up of new opportunities for planning innovations.

The team itself was made up of advisers with a diverse background. It had members who had served in other developing countries and in international organizations and universities; there were members who came from the highly advanced countries with a strong economic planning bias and yet others who came with considerable administrative and statistical experience from relatively less advanced countries. Nationals of no less than six different countries were represented on the team. The composite experience and talents of the team was impressive. To their great credit the team members worked well amongst themselves and even better with their counterparts. Tribute must be paid to their dedication, to their ability to adapt to the local environment and to make a contribution to the over-all objectives of the project.

In a large and complex project it is essential to co-ordinate work programmes, to facilitate an exchange of views and to review problems and monitor progress. Therefore machinery to that end was established at various levels. At the highest level the project manager and the co-manager met frequently to consider all aspects of implementation. Advantage was also taken of the opportunity to review the quarterly and annual reports that the project manager was required to submit to the United Nations. The tripartite reviews called for under the terms of the plan of operations also provided an opportunity for a review of activities. In order to integrate the team into the Department more fully, the advisers were invited to participate in meetings of the Department's divisional heads with the Chief Statistician; these meetings constituted a forum that considered all aspects of the Department's activities and that met at intervals of four weeks. At the same time the project manager had his own series of meetings with the team. Individual advisers not only had regular working sessions with their counterparts, who were largely Division Chiefs, but often with the Chief Statistician.

An assessment of achievements

An exhaustive and full description of the achievements of the project will not be attempted in this paper. Readers wishing to pursue the matter are invited to refer to the "Final report on project findings and recommendations", copies of which are obtainable from the Department of Technical Co-operation for Development of the United Nations Secretariat. The brief review presented below will merely highlight the major achievements of the project.

In the area of national accounts, the project built upon the efforts of previous advisers and revised the earlier series. The series available were based upon the expenditure approach supplemented by GDP estimates by industrial origin. The accounts for Sabah, Sarawak and Peninsular Malaysia were not integrated, nor were estimates available in constant price terms.

Taking the new System of National Accounts as the framework, efforts were directed to the compiling of estimates using the commodity flow/balance approach. Some 750 commodity groupings were identified and balances built up. The data for this task were obtained from some 25 surveys covering agriculture, industries and the service sectors. In addition, public sector accounts and external trade data were analysed and utilized. The system led to the compilation of the full production accounts. The task of handling the compilation was computerized to a large extent and it became possible to generate interindustry input/output tables. These tables, which have a matrix size of 105 in the unpublished form and 60 in the published form, are generated as an end product of the system and are integral to the system. It should be mentioned that the compilation of these accounts on an integrated Malaysian basis has considerably assisted planners and indeed the current five-year plan (1976-1980) is based upon an input/output model utilizing the national accounts developed through the project.

The development of Producer price indices for the 750 commodity groupings along with refinements in the Consumer price indices, as one of the activities of the project, has enabled the Department to compile detailed national accounts in constant prices. At the same time the over-all framework enables "preliminary" estimates of GDP/GNP to be compiled speedily, thus improving timeliness. The methods employed utilize current data and assume fixed factor proportions and no change in technology.

Those developments took place in the context of a widely increased collection of data from establishments in the industrial, commercial, agricultural and service sectors of the economy, canvassed under the programmes of the project.

In the area of labour, household and social statistics, the household survey capability developed by a previous United Nations adviser on sampling and surveys was first further enhanced and refined. Improvements in sampling frames and design affected cost savings and improved the over-all capability of the Department to undertake surveys. Amongst the survey activities that were redesigned was the Annual Labour Force Survey; it was turned into a quarterly Labour Force Survey. The survey was developed as a multipurpose survey of households for canvassing

information on migration, incomes and educational attainment. At the same time, the procedures for making yield, production and area estimates for rice were improved, with the integration of two ongoing surveys. A farm economic survey covering small farms that attempted the collection of data on inputs and outputs was also launched. In addition, a Household Income and Expenditure Survey was carried out to obtain data for reweighting the consumer price indices, improving the estimates of household consumption and assessing the patterns of income distribution and poverty in the country amongst different socio-economic groups. Work on compiling wage and earning indices also commenced under the aegis of the project. Efforts to exploit various administrative records was fully met with some success.

Training received full attention. Apart from professional officers being trained abroad at universities and other training centres, in-service courses were run for both professional and subprofessional officers both in general statistics and in specialized fields such as sampling, economic analysis and social statistics. It should also be stressed that on-the-job training was an essential feature of the job of every adviser attached to the project.

A lasting benefit from the project was the building up of a library and the development of technical manuals and working documents. Lecture notes used in the general statistical course are available for future use. In all, 50 to 60 officers were exposed to training in one form or another.

Although analysis of data was not an objective of the project, it was undoubtedly facilitated; both advisers and their counterparts participated in this task.

An area of activity where the assistance received proved inadequate and ineffective was that of data processing. In the first place counterpart personnel were not available with any degree of continuity, as a result of a large turnover of staff. Equally, the changes in advisers affected progress in this area. A further point worthy of mention is that both the Department and the United Nations underestimated the amount of effort and resources needed to support the data processing activities of the Department and the demands made by the project's implementation.

The two general advisers attached to the branches of the Department performed as well as they could. Inadequate counterpart support, remoteness from the main centre of activity - a distance of some 1,000 miles - and the relative backwardness of development in the two states in question undoubtedly affected progress.

Over-all appraisal

That the project contributed significantly to statistical development in Malaysia is abundantly clear. The impact of the project can be measured in a number of ways:

(a) The major statistical gaps have been filled and the Department's output of statistical series is manifestly larger than it was at its inception;

(b) The planners and other users have expressed satisfaction at the manner in which their needs are being met. The increased sophistication in planning as reflected in the Third Malaysia Plan (1976-1980) bears testimony to the inputs of the Department in the preparation of the Plan;

(c) A core of trained professional staff exists in the Department and displays a degree of confidence in being able to launch new statistical projects;

(d) That no further technical assistance is now being sought in itself bears testimony to the success of the project;

(e) The modest involvement of the Department in a number of international projects and forums represents in a sense its coming of age.

As has been indicated earlier, problems were encountered in implementing this project. The lessons learnt are broadly summed up in the following paragraphs.

For technical assistance to be effective, the recipient agency must have a formulated plan for statistical development prepared in advance. At the same time, it must ensure that the necessary counterpart personnel and financial resources are available and committed. Indeed, technical assistance, it must be emphasized, should be viewed as one ingredient, but an important one, in the building up of a statistical system. Without the national commitments mentioned above technical assistance is likely to make little or no lasting impact in the longer term.

It can be said without reservation that the multidisciplinary approach in technical assistance, with proper co-ordination, has much greater impact than unco-ordinated efforts of individual advisers. If the Malaysian case, in which both approaches have been taken, is any guide, then clearly the superiority of the multidisciplinary approach cannot be questioned.

Improvements that appear to be necessary in order to make such programmes of technical assistance more effective need to be considered. In the first instance, for the team approach to be effective project personnel need to be recruited more speedily and in accordance with the phasing of the project. In the Malaysian project the inability of the then Office of Technical Co-operation to fulfil this requirement caused problems. Screening procedures need to be improved, particularly in respect of senior personnel such as project managers. Advisers need to be persons who are patient and who recognize that prevailing conditions in a developing country require solutions that are different from those appropriate in a developed country or in another environment. Indeed, these considerations, which are personality-related, are as important as is the technical competence of the adviser.

Two other considerations that should be borne in mind are that: (a) due care and caution should be exercised in the selection of the project manager, who should be an individual with multidisciplinary interests, who does not harbour prejudices against certain areas of development and who at the same time does not unduly favour other areas; and (b) the project should have built-in adjustment factors to take care of variations in costs due to inflation and the devaluation of the United States dollar, since each such project has a life-span of three to five years.

"Backstopping" of the project by the executing agency is important. While inadequate backstopping was not a problem in the Malaysian project, clearly a more active role taken by the executing agency would have enhanced the effectiveness of the project. Post-completion evaluation and some follow-up on the recommendations in the final report would not only be useful but might well considerably increase the long-term impact made by such projects.

Finally, it must be stressed that technical assistance must be geared to the needs of a given country, taking into account its stage of development and its ability to absorb assistance. There has to be some continuity in the provision of assistance and abrupt and premature withdrawal should be avoided. Given that in the final analysis technical assistance is directed at institution building, it must be viewed as something more than a short-term programme designed for developing a particular range of statistical series. It is in this context that the multidisciplinary team approach has distinct advantages.
