



**REPORT OF THE COUNCIL
OF THE UNITED NATIONS UNIVERSITY**

GENERAL ASSEMBLY

OFFICIAL RECORDS: THIRTY - FIRST SESSION

SUPPLEMENT No. 31 (A/31/31)

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New York, 1976

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

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I. INTRODUCTION

1. The Charter of the United Nations University (see A/9149/Add.2) states that the Council of the University shall report annually to the General Assembly, the Economic and Social Council and the Executive Board of the United Nations Educational, Scientific and Cultural Organization (UNESCO), through the Secretary-General of the United Nations and the Director-General of UNESCO, respectively, on the work of the University (article IV, para. 4 (h)).

2. In the past, the annual report of the Council consisted mainly of the reports of the Council as they were adopted at each session. 1/ It was the view of the Council that, at that stage, these Council reports most adequately reflected the work of the University. But since the Rector had assumed his office on a full-time basis, and as the work of the University was rapidly developing in several areas, an annual report which described University activities in more detail, summarizing all aspects of the University, had become necessary. Accordingly, the Council decided at its fifth session to adopt a procedure whereby an annual report would be prepared and adopted during the first of the Council's regular sessions every year for submission to the above-mentioned organs of the United Nations and UNESCO. 2/ The present document is the first report to be prepared in accordance with this Council decision.

3. The last report submitted to the General Assembly at its thirtieth session, 3/ the Economic and Social Council at its fifty-ninth session, 4/ and the Executive Board of UNESCO at its ninety-eighth session 5/ contained information covering the period from July 1974 to June 1975. The present report, although recounting briefly the principal achievements of the past year as a whole, focuses its attention mainly on activities from July 1975 to the end of January 1976, i.e., the completion of the sixth session of the Council of the University. During that session, which took place at Caracas from 27 to 30 January 1976, the Council held its 31st to 35th meetings. 6/

1/ Prior to the establishment of the Council of the University, the Secretary-General and the Director-General prepared a series of reports and submitted them to the above-mentioned United Nations bodies.

2/ Official Records of the General Assembly, Thirtieth Session, Supplement No. 31 (A/10031), para. 66.

3/ Ibid., Supplement No. 31 (A/10031).

4/ E/5717 and Corr.1.

5/ 98/EX/11.

6/ For the report on the proceedings of the sixth session of the Council, see A/AC.169/L.7.

II. ESTABLISHMENT OF THE UNIVERSITY CENTRE: THE UNIVERSITY HEADQUARTERS

4. At its twenty-eighth session, the General Assembly decided by resolution 3081 (XXVIII) of 6 December 1973, that the University Centre of the United Nations University should be located in the Tokyo metropolitan area in Japan. Following this decision, a provisional office was opened on 2 December 1974 in Tokyo to begin the preparations for the establishment of a University Centre. The Rector of the University took up his duties on a full-time basis starting in September 1975 and the University Centre, at its new location, commenced its full operations. 7/

5. Since January 1975, the basic organization, approved by the Council at its fourth session, has developed strength through the appointment of two Vice-Rectors and staff members in various positions. Dr. Ichiro Kato, former President of the University of Tokyo, commenced service as Vice-Rector for Administration and General Counsel beginning last April, and Dr. Alexander A. Kwapong, Vice Chancellor of the University of Ghana, began assisting the University in the autumn of 1975 prior to joining the University officially on a full-time basis in January 1976 as Vice-Rector for Planning and Development. The Professional staff in Tokyo in January 1976 was 15. The budget for 1976 provided for an increase of the Professional staff to 34 by the end of the year. 8/ Increases would be limited to minimum staff since a fundamental operating principle of the University is to develop and implement its programmes by maintaining frequent communication with experts around the world rather than by establishing a large staff of experts of its own.

6. In establishing the University Centre, a Headquarters Agreement had been under negotiation between the Government of Japan and the United Nations since March 1974. In this connexion, the University Council, during its sixth session, was informed by the United Nations that an agreement in substance had been reached between the two parties (the Government of Japan and the United Nations). The Council of the University was further informed by the United Nations of the great effort made by the Government of Japan to overcome various difficulties that existed. The Council expresses its sincere appreciation and gratitude to the Government of Japan for its efforts to provide the University headquarters with the conditions necessary for its functioning.

7. In accordance with article IX, paragraph 7, of the Charter of the University, the budget of the University for 1976 was submitted to the Advisory Committee on Administrative and Budgetary Questions and was discussed by the Advisory Committee

7/ Currently the University is located at: 29th floor, Toho Seimei Building, 15-1-2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan.

8/ Proposed budget for 1976, Advisory Committee on Administrative and Budgetary Questions paper No. 1953.

on 24 November 1975. 9/ The Council of the University took the Advisory Committee's comments and recommendations into consideration and approved the budget for 1976 at its sixth session. Further development and organization of the University Centre, as well as of University activities as a whole, will take place in accordance with this approved budget.

9/ For the report of the Advisory Committee, see A/AC.169/L.6 and Corr.1.

III. INSTITUTIONAL RELATIONS

8. At its fifth session, the Council of the University expressed its agreement with the formulation of the types of institutional associations proposed by the Rector. These types were basically defined as: (a) incorporated institutions, (b) associated institutions and (c) contractual relations.

9. Since the various institutional relations envisaged clarify the concept of the University, further detailed explanations concerning some of these types are given below:

(a) Incorporated institutions would have the same status as institutions set up entirely by the University, e.g., whatever their previous governance, after they were incorporated into the University the University would be solely responsible for them. The University is likely to establish a new centre only when no suitable institution exists to meet a particular programme purpose or when a local or regional developmental need strongly justifies so doing.

(b) Associated institutions are those with which the University would enter into an agreement to participate in the work of the institution in certain ways, for a stipulated period of time. The policy of the University is to remain as flexible as possible in drawing up such agreements. Depending on the needs of particular institutions with regard to fulfilling specific research or training objectives, the University might, by agreement, for a specific period supply staff to strengthen management, programme planning, research or training capabilities, provide for staff and/or information exchanges with other institutions, and help to increase financial support. The University will enter into an association with another institution when: (i) a duplication of effort can be avoided, (ii) a better and quicker result can be achieved through an association than through a new unit, (iii) association can lead to desirable further development of the existing institution, and (iv) association provides a useful presence for the University.

(c) Contractual relations will make it possible for the University to organize internationally co-ordinated research with appropriate institutions and individuals in various parts of the world.

10. While the Council of the University considered closer co-operation and systematic information exchanges with various organizations of the United Nations system to be one of the most urgent tasks of the University, it also suggested that a careful examination be made of the University's participation in meetings or conferences of United Nations bodies. The Council emphasized that the University was an institution very different in character from the other organizations and programmes related to the United Nations. During the fifth session of the Council, the members emphasized that the character of the University was not administrative or operational. The Council report further stated that its independence and academic autonomy should be reserved for the pursuits for which it was created and which were reflected in the Charter adopted

by the General Assembly at its twenty-eighth session in 1973. 10/ With these points in mind, the Council fully took into consideration the views expressed by the Directors of the Institutes within the United Nations Family at their 10th annual meeting, held at Geneva on 3 and 4 July 1975, 11/ and endorsed strongly the idea of establishing effective co-operation and communication. On the same subject, the Preparatory Committee of the Administrative Committee on Co-ordination, which met in New York from 9 to 16 October 1975, expressed the view that the University should have full knowledge of what was being done in the United Nations system so as to ensure full complementarity of effort. The Council of the University strongly endorsed the suggestion.

10/ Official Records of the General Assembly, Thirtieth Session, Supplement No. 31 (A/10031), para. 63.

11/ M/UNITAR.75/5, p. 1, para. 3.

IV. FORMULATION OF PROGRAMME PRIORITIES

11. At its fourth session, the Council agreed that the following three broad areas should be identified as providing a mandate for the Rector in drawing up more detailed initial programmes: (a) world hunger; (b) management, use and proper distribution of natural resources; and (c) human and social development. ^{12/} During the same session, the Council considered the question of deciding how to respond to numerous requests from Governments, institutions and universities to participate in the network through which the University will eventually work. The Council agreed that before responding to such requests, the University should set priorities and consult experts so that its activities would follow a coherent pattern and would not unnecessarily duplicate work already being done through other United Nations agencies and elsewhere.

12. The Rector's subsequent proposal to hold three meetings of experts corresponding to three areas of programme priorities was approved by the Council. Accordingly, the United Nations University held three working meetings of international experts at its Tokyo headquarters during the autumn of 1975 to explore strategies for its initial work in these three priority areas. The reports on these meetings provided the background for the first programme recommendations of the Rector of the University to the University Council. Each of these working meetings consisted of approximately 25 participants and lasted five days: World hunger, 22 to 26 September; Human and social development, 10 to 14 November; and Use and management of natural resources, 1 to 5 December. The attention of the participants was drawn to three basic questions with regard to their areas of expertise:

(a) What is the present position with regard to world-wide problems and activities in this field?

(b) What are appropriate strategies for the United Nations University to follow in commencing work in this field?

(c) What are the most urgent projects the University should undertake?

13. On the basis of recommendations received at these working meetings, the Rector submitted his policy and operational recommendations on the Council's programme priorities to the Council at its sixth session (see annex). The Council discussed his report as well as the reports of the three meetings of experts mentioned above. The Council was pleased with these reports for their review of the current status of each field and their contributions to programme formulations. It particularly emphasized the need to establish programmes which had both programmatic and operational linkages among all the priority areas. It was also the view of many Council members that the principal characteristic of the University's programme should be that it was problem-oriented. In discussing the three programme

^{12/} Official Records of the General Assembly, Thirtieth Session, Supplement No. 31 (A/10031), para. 19.

priorities, the Council agreed that human and social development was the most inclusive of the subject areas. The Council, therefore, took up this subject first.

14. With reference to human and social development, members felt that among the topics recommended by the expert groups there were two important matters on which work could start. These were the transfer and transformation of technology and the elaboration of development indicators. However, the Council felt that it was necessary to conduct further explorations to determine appropriate programmes. In regard to technology, the appropriateness of existing technology, its use and adaptation, the development of endogenous technology and the consequences of different alternatives should be studied. In regard to development indicators, emphasis should be given to indicators other than the usual economic ones, especially in the social fields, including indicators of qualitative changes and structures, taking into account work being initiated by other institutions and agencies dealt with in the present report. The Council recommended the establishment of two task forces on the subjects mentioned, aimed at making specific programme proposals. The Council also agreed that child development should be given special consideration with regard to human development.

15. In regard to hunger, the expert group recommended that the United Nations University initiate programmes in post-harvest food conservation, nutritional needs, the relationship of nutrition to national planning, and the interface between nutrition and agriculture, with research, training and communication components in each case. These recommendations took account of the fact that agricultural production and population aspects of hunger were already receiving much attention from other agencies and institutions. A task force had met in November 1975 to discuss ways of implementing the suggested programme and had recommended that two institutions be associated with the United Nations University: the Institute of Nutrition of Central America and Panama (INCAP) in Guatemala, and the Central Food Technological Research Institute (CFTRI) in Mysore, India, both of which were outstanding in their fields.

16. After listening to a detailed explanation of the proposal by a United Nations University Consultant, as well as reading supporting papers circulated to the Council members, the Council agreed with the recommendations of the expert group as well as these of the task force as presented by the Rector.

17. The Council recognized that the group of experts had identified many important topics in the field of use and management of natural resources. In the light of discussion by the Programme Committee and later by the Council, the Rector proposed that further study of these recommendations be made by a Programme Vice-Rector for Natural Resources to be appointed later in the year and, in the meantime, preliminary work could be done by several consultants.

18. Article I, paragraph 4, of the Charter of the University states that the University shall disseminate the knowledge gained in its activities to the United Nations and its agencies, to scholars and to the public, in order to increase dynamic interaction in the world-wide community of learning and research. In order to accomplish this mandate and to increase information for policy-makers as well, the University is considering the establishment of the United Nations University Press at its Centre in Tokyo. The Guidelines and General Policy for the University Press were submitted to the Council at its sixth session and the Council agreed that the document provided good guidelines for the future development of the University Press.

V. FUND-RAISING

19. The fund-raising efforts and the status of contributions covering the period up to the end of September 1975 were set forth in the Secretary-General's report (A/10237). Since then, the University has received the following contributions: \$US 20,000 from the Government of Greece in December 1975, \$US 20 million from the Government of Japan on 22 January 1976 and \$US 2 million from the Government of Venezuela on 29 January 1976. The contribution of Venezuela is the first instalment of its pledge of \$US 10 million over five years. The Government of Norway made a pledge of 1 million Norwegian kroner to be paid at the beginning of the fiscal year 1976. In accordance with paragraph 7 of General Assembly resolution 3439 (XXX) of 9 December 1975, the Secretary-General will submit a report on this matter to the Assembly at its thirty-first session.

20. The University is seeking an endowment fund of \$500 million. That will provide basic annual operating income in the range of \$25 to \$40 million, which the Council does not consider excessive for an institution that can be of such distinctive value to the world. The Rector, together with the University staff members as well as the members of the Council, will continue vigorous efforts to raise contributions from various Governments, institutions and private foundations.

VI. CONCLUSIONS

21. The experience of the University reveals, on the one hand, an enthusiastic endorsement of the concept of and need for the University by those who have given thought to its potentialities. This is evidenced by the large number of offers of co-operation that have already been received. On the other hand, there was still need for considerable efforts to increase understanding of the University within many Governments to stimulate contributions to the Endowment Fund. The Council hopes that this increasing understanding and support of the University will be achieved during the coming year. In this connexion, the Council is encouraged by the discussions that took place in the Second Committee at the thirtieth session of the General Assembly 13/ and in the Executive Board of UNESCO at its ninety-eighth session. 14/

22. At its 35th meeting, on 30 January 1976, the Council of the University adopted the present annual report and requested the Chairman of the Council to take appropriate steps in submitting it to the General Assembly at its thirty-first session, the Economic and Social Council at its sixty-first session and the Executive Board of UNESCO at its ninety-ninth session.

13/ A/C.2/SR.1701, pp. 10-24, A/C.2/SR.1702, pp. 13-15; and General Assembly resolution 3439 (XXX).

14/ See "Resolutions and decisions adopted by the Executive Board at its 98th session", resolution 5.2.2 (98 EX/Decisions, Paris, 17 November 1975).

ANNEX

The United Nations University: Recommendations from the
Rector to the Council on programme recommendations and
institutional relations

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Part One

PROGRAMME RECOMMENDATIONS

I. INTRODUCTION

1. The United Nations University conducted its first operations during the autumn of 1975, when three five-day working meetings of leading international experts were held at its headquarters in Tokyo to obtain guidance on strategies it should follow and projects it should undertake in three priority areas: world hunger; human and social development; the use and management of natural resources. What follows are summaries of the experts' reports to the Rector, and his recommendations to the Council of the University on the initial programmes the University should undertake to give substance to the far-reaching Charter concept of a world-wide network of research and training programmes concerned with pressing global problems of human survival, development and welfare.

2. Approximately 25 experts selected in their individual capacities rather than as organizational representatives attended each of the five-day meetings. They came from 39 different countries. An attempt was made to include participants from as many parts of the world as possible, but unfortunately some of those invited were unable to attend. The meetings were organized in some haste since the plan for them was approved by the Council in late June 1975, only three months before the first of the meetings was held. Haste was deemed necessary since there are many urgent reasons to get the work of the University under way as quickly as possible.

3. The meetings were not designed to produce comprehensive statements. Rather, their purpose was to provide key points of departure that will be modified subsequently through experience and through the advice of the Council and other groups of experts the University will consult. The meetings were useful and important because they elicited a variety of informed opinions and much creative thought about both what needs to be done in the three priority areas and what the University can do most effectively.

4. This is a most critical phase in the evolution of the University. Despite the need for haste to demonstrate its value, those concerned with developing the University must give careful consideration to the concepts that will guide its progress and distinguish it from other institutions. The need for haste must not become an impelling reason to adopt inadequately considered or inappropriate programmes. It is important now at the outset to choose carefully so that the University's programmes will be fully consistent with its distinctive purpose and based on sound conceptual foundations. This is crucial to developing a coherent and valuable institution and also to earning the recognition and respect essential to gaining substantial financial support, without which significant work will be impossible. This report seeks to help in advancing the formulation of the concepts that will guide the University in its future development.

5. The Charter of the University (see A/9149/Add.2) and the previous deliberations of the Council have provided valuable basic guidelines, but it is now necessary to become more precise about the purposes the University will serve, the policies it will follow and the projects it will undertake. The experts at the three working meetings were asked to provide advice on these subjects. Specifically, they were asked to respond to three basic questions with respect to their areas of expertise.

1. What is the present "state of the art" with regard to world-wide problems and activities in your field (i.e., world hunger, human and social development, the use and management of natural resources)?
2. What are appropriate strategies for the United Nations University to follow in commencing work in this field?
3. What are the most urgent projects the University should undertake in this field?

6. Each of the meetings began with a discussion of guidelines for the University (see appendix IV) with the experts. Invariably, the experts reaffirmed the urgent need for the University to assume intellectual and practical responsibilities in helping to define and solve world-wide problems. With respect to defining problems, they urged the University to concern itself with the anticipation and clarification of issues before they became crises. With respect to solving problems, they urged the University to be particularly concerned with the practical application of knowledge. They advocated that the University become an instrument for innovation in organizing subject-matter and methods of inquiry and training. Moreover, they urged it to be deeply concerned with conserving the cultural and physical inheritance of humanity. They strongly endorsed the Charter's mandate to establish networks among institutions and scholars. They saw this as the unique organizational opportunity for the University, which they believed the world now urgently needs.

7. This analysis is presented in three parts: (a) a discussion of University purposes reflecting the comments of the participants; (b) summaries of the discussions and recommendations of the three working meetings; and (c) the Rector's programme recommendations based on the deliberations of the working meetings. In preparing summaries of the reports, emphasis has been given to highlighting those comments directly related to specific recommendations to the University. The reports contain many valuable comments on past experience and existing conditions that will guide the University but could not be included in brief summaries.

II. PURPOSES OF THE UNITED NATIONS UNIVERSITY

8. The three working meetings were exceptionally useful in adding substance to the guidelines for the University set forth in the Charter and shaped by the deliberations of the Council. The Charter gives the University three kinds of purposes:

(a) Substantive: to engage in research, training and dissemination of knowledge concerned with urgent problems of survival, development and welfare

(b) Methodological: to institutionalize international intellectual collaboration;

(c) Special: to be particularly concerned with problems of developing countries.

9. Ultimately, the success of the University must be judged by its achievements in fulfilling each of these three purposes. They are, of course, intimately interrelated.

10. The institutionalization of international intellectual collaboration is the method the Charter prescribes for achieving the University's substantive objectives. Because so many of the most serious problems of survival, development and welfare are concentrated in the developing countries, and because one of the primary reasons for institutionalizing international intellectual collaboration is to strengthen resources in developing countries, the first and second purposes are closely related to the third.

11. The developing nations are the special focus because their problems are deemed the most important of the present era. This focus does not exclude concern with the problems of the industrialized world, which shares many of the problems of the developing nations. The University's work will inevitably produce much data and many findings of great value to the industrialized world both for dealing with its own problems and for planning programmes to assist developing nations.

12. It is this combination of substantive, methodological and special purposes that gives the University its distinctive mandate. Its fulfilment will require not only significant practical contributions to solving problems through research, training and dissemination of knowledge, but also success in establishing a system of vigorous processes that institutionalize international intellectual collaboration on a scale that has never before been attempted.

13. The participants in the working meetings gave considerable attention to a wide variety of considerations concerning fulfilment of the University's mandate. In addition to making proposals for meeting its substantive purposes, they expressed strong views about how the University should fulfil its methodological and special purposes.

14. Among the themes that stand out from the discussions in all three meetings, the most emphatic was lack of confidence in existing institutions as effective instruments for coping with the complex problems in the three priority areas. The experts seemed to believe that few existing research and training institutions possess the capacity to bring together the full range of perspectives and expertise needed to cope with critical issues of world hunger, development and natural resources. They expressed hope that the United Nations University would become an instrument for putting knowledge together in more comprehensive and useful forms because it is not shackled by the organizational and philosophical restrictions that have grown up in most academic institutions and other research and training organizations. Repeatedly the University was urged to innovate in organizing new combinations of disciplines and expertise and new multidisciplinary and transdisciplinary methods of inquiry and training.

15. In what might seem a contrasting frame of mind, the experts also strongly emphasized that the University should be deeply concerned with conservation

of inherited cultures, indigenous technologies and natural environments. There was considerable reflection in the discussions of disenchantment with indiscriminate "modernization" and with wholesale importation of popular values and practices of the most aggressive and highly publicized cultures. The meetings revealed strong feelings that humanity is in danger of losing the richness of its civilizations along with the beauty and vitality of its natural environments. The University was urged to become an innovative force in helping to conserve local cultures, values and natural settings. Many of the programme recommendations reflect this concern.

16. The experts urged the University to become an agency for the improved anticipation and conceptualization of problems, to provide forums for asking important questions and seeking clear, useful definitions of major problems confronting the world. The University was thus urged to become an agency through which the world would be helped to anticipate problems before they become crises.

17. Another strong emphasis in the meetings was concern with the practical application of knowledge. The University was urged to make itself into an agency for finding out why knowledge is not more effectively applied and what is needed to remove impediments to the application of knowledge. The scientists, scholars, educators and officials gathered at these meetings believed that there is much important information already generated that has not been applied to serious problems confronting humanity.

18. It was repeatedly pointed out that academics tend to consider their tasks completed when results of their work are published in scholarly journals and tend to feel little responsibility for seeing that their contributions are made available in forms decision-makers find useful. The University was urged to assume responsibility for digging out and communicating valuable information. It was also urged to concern itself with helping to overcome the political, administrative and economic barriers that prevent practical applications of useful knowledge. The most dramatic example cited was the failure to prevent the ravages of the Sahel drought after decades of research on arid zone problems. It was proposed that the University should make this an example and organize studies to determine why so much information has been of such little use.

19. The experts were deeply concerned about the problems of educating decision-makers. They advocated that the University include multidisciplinary training of decision-makers and more effective informing of decision-makers among its major responsibilities. Great stress was thus placed on the potential role of the University as a source of communication. Unlike many scholarly presses, whose principal audience is made up of scholars themselves, the United Nations University Press was seen, at least in part, as an instrument for reaching those with the power to make policy decisions, who, it was stated, are often not properly informed about world conditions.

20. At all three meetings, the participants strongly endorsed the methodological purpose of the University, i.e., to accomplish its work through creating networks and linkages among institutions and scholars around the world. The thought was emphatically expressed that a genuine need now exists for a world-wide institution that can create and sustain effective opportunities for scholars to collaborate on major world problems through networks and linkages.

21. In summary, the guidelines proposed for the University by the experts contained these emphases:

- (a) Innovation in organizing research and training, avoiding the disciplinary restrictions that limit the effectiveness of much academic work and exploiting the freedom the University enjoys to depart from tradition;
- (b) Conservation of inherited cultures, technologies and environments;
- (c) Anticipation and conceptualization of problems;
- (d) Practical application of knowledge;
- (e) Communication, particularly to decision-makers;
- (f) Networks and linkages among institutions and scholars.

22. These emphases can be classified in two categories of processes for the University: those having to do with defining problems and those having to do with solving problems, both of which are eminently germane to an intellectual institution established for the practical benefit of humanity.

Helping to define problems

23. Logically it is part of the University's task as a world-wide intellectual resource to take initiatives in seeking to anticipate, conceptualize and define major problems. If any organization should help perform such functions for the world, an institution called the United Nations University should surely do so. A strong emphasis on seeking to help in clarifying major conceptual problems is essential to the distinction between a university and other types of agencies that are responsible for coping with current issues.

Helping to solve problems

24. In addition to helping to define problems, the University is urged to help solve problems through the practical application of knowledge in research, training and communication programmes. It is taken for granted that through research the University will help to create new knowledge. What the experts expressed particular concern about was the failure of many existing institutions to attend to the application of the knowledge they create. They repeatedly emphasized the need for the United Nations University to set an example to other universities, particularly in developing countries, in this respect. The problem-solving approaches the experts felt most relevant are the need to be innovative in handling subject-matter and methods of inquiry and training and the need to be concerned with conserving the cultural and physical inheritance of humanity.

25. The distinctive procedures suggested to the University for implementing these processes are the development of strong and active linkages among scholars, institutions and policy-makers and a very deliberate effort to communicate through an effective programme of meetings and publications. The work of the University can thus be seen in a continuum commencing with the definition of

problems to vigorous efforts to help solve them through research and training and by making knowledge more readily available where it is needed.

III. SUMMARIES OF WORKING MEETINGS

A. World hunger

1. "State of the art"

26. The report on the Working Meeting on World Hunger states that increased agricultural production and reduction in the rate of population growth are already receiving high priority attention within the United Nations system, but that serious deficiencies exist in training of specialists in areas of post-harvest food science and technology and nutrition and in communication of information in these fields.

27. The "state of the art" is described in these terms: "quantitative and qualitative food losses are estimated to be between 20 and 40 per cent in developing countries"; food science and technology institutions in those countries lack sufficient competent research workers; there is "a world shortage of persons especially trained in nutrition needed for teaching, research and for the execution of nutritional programmes" including persons who can "further nutrition and food objectives in national planning"; "critical communication gaps between basic and applied scientists and between scientists and decision-makers".

28. The report also states that "food production is not enough. Food must be effectively conserved, distributed and consumed if hunger is to be prevented and health maintained". It points out that "low income groups in many areas simply have so few resources that they cannot buy or produce enough of even the simplest foods to satisfy their nutritional needs ... Clearly, such low income groups can only be helped by increasing their income or by providing them greater access to the means of food production". It argues that "in addition to present large-scale efforts to improve primary food production, there is an urgent need to consider other means of achieving increased food supplies and to ensure the adequate distribution and consumption of food".

2. Strategies for the United Nations University

29. The report urges that the World Hunger Programme of the United Nations University concentrate on the better conservation and utilization of food already produced through the application of technology to prevent post-harvest losses, as well as measures to improve the distribution and consumption of food. In addition, the report proposes that the University promote "active co-operation among agriculturalists and nutrition and food scientists ... to relate agricultural improvement programmes more closely to human nutritional needs, and the greater introduction of nutritional considerations into national planning and social development".

30. The meeting on hunger recommended that these objectives be pursued through "a world-wide network of associated international training and research centres, along with a series of applied, operational or mission-oriented research programmes". It suggested that "the network of training and research centres

should consist of a core of associated institutions with clearly multi- and inter-disciplinary capabilities for providing advanced training and experience. The University's research programme should consist of activities in both associated and related institutions particularly able to address specific problems". The report specifies four priority areas for training and research:

- (1) Human nutritional needs and their fulfilment;
- (2) Post-harvest food conservation;
- (3) Nutrition and food objectives in development planning;
- (4) Agricultural production/food and nutrition interfaces.

The major functions of the network would be "(a) to provide advanced training for fellows and scholars; (b) in appropriate geographic areas, to promote the development of a core of associated institutions with multidisciplinary food and nutrition capabilities for advanced training and research; (c) to improve disciplinary research competences in areas germane to food and nutrition in related or potentially related institutions and provide more advanced training for their personnel; (d) to promote and support excellence in applied, operational or mission-oriented research; and (e) to promote technology and knowledge transfer in the priority areas of the programme".

31. The report on world hunger gives detailed recommendations for the implementation of the programme. It recommends that the University move quickly to establish peer review mechanisms for designating associated institutions, for the award of fellowships and scholarships, and for the support of research activities. It also recommends the establishment of a technical advisory committee to provide continuing review of the University's ongoing world hunger programme.

3. Programme recommendations

Post-harvest food technology

32. The report defines post-harvest food technology as "an interdisciplinary application of science and technology and management practices ... to conserve food and improve, to the extent possible, its nutritional quality to meet human needs". It points out that there are many traditional technologies for preparing and processing food that could aid in solving the problem and that "these deserve increased attention before new technologies are introduced". It suggests that it would be desirable to survey, identify and seek to understand these technologies "with a view to transforming them into modern science-based ones".

33. The report proposes that "high priority be given to determination of the nature and magnitude of food losses" because "information available on the nature and magnitude of food losses is limited". It recommends that a study of this problem be made in selected countries to help policy-makers understand its importance.

34. The report suggests that "the marketing system should also be considered in plans for preventing food wastage". It suggests the "need to develop a system of

marketing and/or physical distribution to reach the large majority in developing countries who are outside the market economy".

35. The report recommends other specific research topics in post-harvest technology: increasing the direct use of agricultural products for human consumption and developing foods and food mixtures of high biological value; utilization of the by-products of food and agricultural processing industries.

36. With regard to training in the field of post-harvest technology, the report states:

"Many food science and technology training, research and development institutions in the developing countries have not been able to make significant contributions to the solution of problems of hunger for want of competent research workers capable of identifying problems of socio-economic significance, undertaking well-organized interdisciplinary projects for their solution, and completing work within a time target ... A sound programme for training research workers and teaching staff should be organized by the United Nations University ... to help overcome manpower shortages and help to accelerate the development of needed training and research institutions and industries."

Nutritional needs

37. With regard to human nutritional needs, the report points out that "major gaps remain in our knowledge of the quantitative relationships between the intake of energy and individual nutrients and human health and performance" and that "such quantitative information is needed in planning measures to ameliorate present world problems of hunger and malnutrition". Specific research projects proposed are: human nutrient requirements and the capacity of food to fulfil them, nutritional needs of mothers and children, and determinants of food habits and methodologies for their improvement. With regard to training in this area, the report states:

"It is well recognized that there is a world shortage of persons especially trained in nutrition needed for teaching, research and for the execution of nutritional programmes. The United Nations University should accept this as one of its main responsibilities, with an emphasis on quality and standards of training."

Development planning

38. In connexion with nutrition and food objectives in development planning, the report states: "It is essential that economic planning concerned with micro-goals such as increasing the gross national product and improving the balance of trade also take into account micro-consequences for nutrition, health and social welfare of individuals. These consequences are often ignored or not given sufficient attention". The report argues that "the United Nations University has an important opportunity to further nutrition and food objectives in national planning ... by sponsoring multidisciplinary training centres concerned with nutrition planning, supporting specific research projects that contribute to the development of mechanisms for introducing nutritional objectives into development planning, and assisting in the exchange of relevant information among planning agencies and academic institutions".

Nutrition and agriculture interfaces

39. Concerning interfaces between food science and technology, nutrition and agricultural production, the report suggests that the primary need is communication: "making available knowledge of nutritional needs and of applicable food science and technology to agricultural economists and production planners" ... and transferring "information on primary food production possibilities and limitations to experts in the fields of human nutrition, food technology, agricultural economics, development planning, plant crop science, animal husbandry, animal product processing and fisheries". The report suggests workshops, short courses, seminars, conferences and provision for visiting lecturers as useful devices.

40. For all the subject areas in which research and training are recommended, the importance of a vigorous communications programme to the realization of United Nations University objectives is stressed. The report discusses various training activities, fellowship programmes, continuing education, and communications. In emphasizing the role of communications in accomplishing the University's responsibilities it states:

"The encouragement of the transfer of basic information needed for the identification of problems in need of attention, for the development of solutions and for the implementation of solutions to problems of world hunger, and for the stimulation of individuals needed for advancement in the conquest of world hunger should, therefore, be major thrusts of this central activity ... There are critical communication gaps between basic and applied scientists and between the scientists and decision-makers that need to be filled by organizing multidisciplinary group meetings, bringing together knowledge from different disciplines to bear on the resolution of human food and nutrition problems."

4. Rector's comments

41. The report on this meeting provides the University with a specific and coherent set of recommendations that coincide to a high degree with criteria set forth in the Charter and the deliberations of the Council for the work of the University. Pressing world problems are identified, other United Nations work is taken into account, a programme of research, training and dissemination of knowledge is proposed that requires the use of multidisciplinary international centres organized into mutually-supporting networks. The needs of the developing countries are foremost and the initial work proposed would be undertaken in developing countries. The United Nations University is urged to move quickly and decisively in a field in which the experts who attended the meeting believe there are serious deficiencies in knowledge, training and communication that have serious impacts on human welfare. This would seem to constitute an exceptionally strong case for a United Nations University programme as well as an effective demonstration of the need for an organization with the mandate of the University.

42. There are other points of view about this subject. As stated above, the report says that "low income groups in many areas simply have so few resources that they cannot buy or produce enough of even the simplest foods to satisfy their nutritional needs" and that "such low income groups can only be helped by increasing their income or by providing them greater access to the means of food production". It proposes that "the marketing system should also be considered

in plans for preventing food wastage" and points out "the need to develop a system of marketing and/or physical distribution to reach the large majority in developing countries who are outside the market economy". But this is not the main thrust of the report, which it might be for others concerned with the problem of world hunger.

43. This report is concerned largely with nutrition and with post-harvest food technology, which, as noted above, it defines as "an interdisciplinary application of science and technology and management practices ... to conserve food and improve, to the extent possible, its nutritional quality to meet human needs", and it advocates giving first consideration to the study and improvement of traditional, indigenous technologies. Some might argue that developing countries would be better off without importing post-harvest technologies from abroad or trying to transform their traditional technologies "into modern science-based ones". Whatever its merits, this point of view would seem to be inconsistent with at least one of the basic purposes of the United Nations University, which is to help the developing countries make effective use of the technologies of the industrialized world for their own needs and conditions.

44. It would seem, in fact, that post-harvest food technology meets the specifications for the work of the United Nations University exceptionally well and that, tied in as it is with a world-wide need to increase knowledge about quantitative nutritional requirements, the proposed programme provides an excellent starting point for the work of the University in this area. The programme can be broadened later in light of other considerations and points of view, but initially what is proposed seems well suited to the basic purposes and present capabilities of the University.

B. Human and social development

1. "State of the art"

45. The members of the Working Meeting on Human and Social Development were quite specific with regard to the "state of the art" in this field. The report states simply that "research on development is in disarray":

"Import substitution versus export promotion, industry versus agriculture, formal versus non-formal education, physical investment versus investment in human capital, free international trade versus regional integration and protection, triage versus aid to the neediest, balanced versus unbalanced growth, growth versus redistribution, employment versus environment, centralization versus decentralization, mass participation versus professionalism, schooling versus deschooling, these and many other areas are under dispute."

46. The report dramatizes this point by stating that "not only are changes which are suggested opposed bitterly by interest groups likely to lose privileged positions, but there is often doubt about the right course to take and this doubt arms those opposed to change".

47. Against this background, a variety of development needs that are not now adequately met and that should become objectives of the work of the United Nations University are set forth:

(a) Enlargement of research and development resources directed to specific technological problems of poor countries;

(b) Enlargement of knowledge about the social and cultural impact of the spread of science and technology throughout the world and how that impact can best be accommodated to the maintenance and advancement of human values;

(c) Unbiased and constructive reappraisals of present educational strategies and approaches world-wide;

(d) Definition of "a better life" for various societies and determination of factors that facilitate or hinder the realization of improved life styles;

(e) Assessment of the changing world role of the nation-State;

(f) Co-ordination of studies of world models and global issues;

(g) New studies of present and future world problems using more systematic research.

2. Strategies for the United Nations University

48. The report states that "the United Nations University has a unique opportunity to clarify thought and action". This uniqueness is derived from the University's lack of disciplinary restrictions and its world-wide mandate. Great emphasis is placed on the need for the University to break down barriers - barriers between disciplines, nations, societies and cultures; between international agencies, intellectuals, creative artists and ordinary people; between those who think about the development process and those who are involved in it.

49. The report states:

"The fragmentation of the United Nations system, which for historical reasons is made up of a number of specialized agencies and other organs responsible for education, health, agriculture, industry, labour, the environment, peacekeeping etc., has been an obstacle to viewing development as a unified system, in which all these factors act upon one another. We see the University as an integrating force that will not respect boundaries imposed either by existing disciplines or by established administrative agencies. In this way, the University can make an important contribution to the work of the United Nations, to the various forthcoming world conferences and, beyond that, to our understanding of development and to the effectiveness of development policies."

50. The group considered the United Nations University well placed to conduct and encourage work that will break down barriers because it can bring together teams of scholars from different disciplines to undertake work that ignores the existing limits of academic subjects and is aimed at practical results. The University's autonomy and academic freedom are viewed as unique assets for assembling groups that include younger people as well as established professionals, thus increasing the possible relevance, practicality and realism of perceptions of world conditions. The fact that the United Nations University must take a global rather than national

or regional perspective enables it to conduct work that would "transcend the limitation imposed on our perception both by over-simple world images and by the fragmentation of the world into separate units".

51. The report stresses the importance of the University's "intellectual independence and academic freedom in a world where these vital attributes are becoming increasingly rare". It argues that the United Nations University "would defeat its very reason for existence if it did not use its unique position as a world-wide forum and meeting ground for the articulation, comparison and confrontation of different ideas and approaches". The University is seen as "especially fitted to investigate the world's variety and diversity of ways of living and styles of development and to explore alternatives imaginatively, but in hard detail, and so to counteract the trend toward uniformity and conformity". It says:

"As an essential basis of this, it should set itself as one of its major aims the careful and critical assessment of existing facts and figures (often biased, unreliable and deficient) and the collection of new, more reliable and more usable statistics."

The report adds:

"Much of this is controversial and we are not all in agreement. But the University should not be afraid of controversy; on the contrary, it should encourage it. It should serve as a meeting ground for the articulation, comparison and confrontation of different approaches."

3. Programme recommendations

52. The report on human and social development recommends four areas of concentration for the University:

- (a) Improving the social relevance of science and technology;
- (b) Education for development;
- (c) Ways of life, communities and the nation-State;
- (d) World models and global issues.

53. Two of these areas are directed at immediate problems in the developing countries - the spread of science and technology and education for development; and two areas are concerned with topics which have profound long-range implications for societies and individuals everywhere.

Improving the social relevance of science and technology

54. With regard to its recommendations in the field of technology, the report states:

"The basic question we suggest that the University address is what it can do to encourage the application of science and technology to reduce poverty, disease, and others of the world's ills and to encourage independence,

equality and progress among the world's societies ... This question applies to all countries, although the University will naturally concentrate initially on the problems of poorer countries."

The report continues by pointing out that "the capacity to produce useful technology is heavily concentrated" and that "much more research and development work needs to be done on alternative modern technologies appropriate to the needs of developing countries" and that "much of this work, although not all, should be done where the problems exist because of the value of learning by doing and because of the specific personal, social, climatic and ecological conditions which the technology must serve". It states:

"Therefore, we see as one main objective for the United Nations University the enlargement of research and development resources directed to specific problems of poor countries. In addition, the University should investigate the social and cultural impact of the spread of science and technology throughout the world and how this impact can best be used or modified to serve the values and aspirations of human beings.

"The University should aim at research and training programmes which perform the same functions that are now performed (still imperfectly) by the international network of agricultural research centres - that is, to cluster at one place scientists working on a specific problem area, to use that place as a centre for training additional scientists mainly through their participation in the research, to link the research at the centre with the best relevant fundamental research going on in the world, and - most important of all - to link the research at the centre with continuous testing and application of the results so that the work of the researchers is constantly measured against the real improvement in the level of the people affected."

55. The report suggests that the United Nations University should attempt to speed up the process of adapting existing modern and traditional technology and inventing new technology by increasing and concentrating research resources, to increase the speed and effectiveness of the dissemination of the results of research, and to improve communications between researchers and those using the results.

56. The experts recommended that the University should concern itself with the varied effects of the introduction of science and technology through studies involving philosophers, historians, sociologists, engineers and other scientists.

57. The report proposes that the University commence its work in this area by appointing a leading expert to organize and lead exploratory work on the production of better technology. It suggests selecting two or three subjects concerning the diffusion of technology and establishing a task force for each. These task forces would examine what is presently being done in the world in the subject area, would assist the best work, would identify fields in which additional work seems promising, and would design research and training programmes accordingly. The report suggests that this exploratory work would likely require most of 1976.

58. In approaching questions concerning the social impact of the importation of science and technology, the report suggests beginning with a continuing study

group charged with the responsibility for designing a suitable research and training programme and including "widely informed historians, sociologists and economists who have thought deeply about the process of absorbing modern science in different societies, rather than persons whose main experience has been in thinking about science policy as governmental laws and regulations".

59. In concluding this section, the report recommends that the University "take a world-wide initiative in supporting and encouraging bodies concerned with social responsibility in science ... and launch an inquiry into possible definitions of limits to, or danger areas in, various fields of scientific and technological inquiry, and attempt to formulate criteria for the limits of scientific inquiry in the light of explicitly formulated human values".

Education for development

60. With regard to the deficiencies of education in the developing countries, the report cites:

"... the failure to eradicate illiteracy and to create relevant skills and motivations, the financial constraints that hamper the spread of basic schooling, the unbalanced nature of many educational efforts ..., the result in serious shortages of skilled manpower and the imbalances now so evident in several areas, the equally serious lack of trained managers and adequate organizations such as co-operatives leading to a lag in agricultural development, the extent to which all this has contributed to growing unemployment and to internal and external brain drains."

61. The report states that "whether it be in the developed or developing worlds, one fact is evident - that, in varying degrees, neither world has educational systems properly equipped to handle today's dynamics of change and to respond to the immediate needs of mankind". Despite the great amount of attention already being given to this subject, the report states that "there is a major role here for the United Nations University. This is so because its autonomy should enable it to formulate research programmes that have as their goal the unbiased and constructive reappraisal of present educational strategies and approaches".

62. The University is urged to investigate problems arising from the conflicting needs for use of world languages and desire to teach and communicate in indigenous tongues. The report states: "The impact of such choices on societies and social groups needs urgent consideration". The University is urged to examine non-formal education and to "act as a major initiator and facilitator" of innovations that aim at improving existing strategies, filling lacunae and suggesting alternative approaches. The report recommends that the University undertake experimental work, seeding programmes and research on the adequacy of formal schooling. It states:

"It is here that the basic reappraisal of the present curriculum with regard to classification and categorization of subjects as well as of content is so badly needed in order to produce the skills and motivations relevant to our world."

63. The report recommends research on curriculum, educational outcomes of schooling, a new approach ignoring existing barriers between disciplines, the

relevance of teaching, training programmes for teachers and educators, the training of managers in several areas, and the more creative use of physical facilities. The experts proposed that to begin this work, the University should establish a committee to identify individuals and institutions with relevant competences. They also recommended a fellowship programme to enable individuals to gather and communicate information concerned with improving education for development. They urged the University to utilize existing research and training centres and to consider the eventual establishment of its own institutes to undertake work not covered by existing centres.

Ways of life, communities and the nation-State

64. While the proposals in technology and education require sophisticated conceptualization and vigorous exercise of the creative imagination, they are focused on immediate problems. The second two programmes are concerned with problems of a more conceptual and less immediate nature. They are not, however, lacking in ultimate practical consequence to humanity. As the report points out:

"Within the context of known natural resources and technology, it is physically impossible for everybody in the world to achieve the level of consumption now enjoyed by large segments of rich societies and small minorities in developing countries."

New life styles will be required, and towards this end the report proposes three questions for United Nations University research: (a) determination of what constitutes a better life for people in different societies, (b) determination of the factors that facilitate or hinder the realization of a better life, and (c) determination of means for removing restraints on equitable access to social resources. (The study of life styles was also recommended by the Working Meeting on the Use and Management of Natural Resources, this time with a more specific focus on new life styles involving less resource use.)

65. Research on life styles is recommended on both a comparative and historical basis. The University is urged to identify scholars and institutions and to constitute groups to undertake research designs. Responsibility for implementing research projects would be allocated to institutions whose activities would be co-ordinated by a committee set up by the University. The work would be based on comparative studies of different societies at various stages of economic growth. In addition, suitable scholars and institutions would be commissioned to conduct inventories of existing literature on styles of living and analyses of the data in this field.

66. In addition to the recommended study of new ways of living there is another topic of great significance: the nation-State. The report points out that "in the search for the kind of world community that could best serve the interests of human and social development, the nation-State is bound to continue to play a central role". Therefore it recommends that this be an area of major programme emphasis, particularly since the nation-State is now subject to many pressures which may change its role over a period of time. The report recommends a research programme to examine "ways in which the international system, the life of the nation, and the life of the individual and groups of individuals within the nation, act upon each other". It proposes that the University establish a working group to

explore the desirability and feasibility of a new international centre for the comparative study of national socio-economic structures. It suggests commissioning research papers from existing research institutes and regional centres for the purpose of "documenting and analysing recent developments, especially in technology and in the distribution of power in various dimensions, between and within countries".

World models and global issues

67. The fourth programme recommended has to do with understanding world models and global issues. It is first noted that there is a new awareness of "the global character of certain vital, pressing and interdependent issues confronting mankind". The report states that:

"The United Nations University, by virtue of its very position within the United Nations family as well as the multidisciplinary approach, has a unique role to play in co-ordinating, encouraging and stimulating programmes both with regard to latent issues that have not yet reached global attention and at the interface between issues, old as well as new."

The report points out that many of these issues have been combined into models of the future world based on a variety of assumptions. The report states:

"With the purpose of helping national institutions and policy-makers to use research more effectively, we propose a programme to clarify and evaluate the assumptions on which various types of models which are influencing policy decisions around the world are based."

The report proposes that the United Nations University "should put special emphasis on launching new research programmes for a more systematic treatment of present and future global issues", including such topics as violence, poverty, repression and environmental deterioration. In connexion with world models, the experts suggested that "the function of the United Nations University might be to serve as an umbrella wide enough to cover all approaches, comparing them, clarifying and broadening them and stimulating new approaches, especially those including qualitative and structural variables". The report states that "four areas - the new international economic order, self-reliance, over-consumption and a disarmed world - should serve as a guide to model-builders".

68. The report recommends research on world indicators, on new issues facing humanity and on cultural dimensions. Finally, it suggests a programme of training and communication related to all four programme areas, including the publication of a yearbook on world issues and the use of television techniques for communicating key ideas to remote areas of the world.

4. Rector's comments

69. The charge to the University in this report is strong. The United Nations University is urged to assume responsibility for "clarifying thought and action" in the complex field of research on development, which, it states, is "in disarray". The University is deemed qualified to develop this capability by its potential multidisciplinary and inherent international nature. The report attaches profound importance to the value of these qualities. It asks the

University "to break down barriers" not only between disciplines and nations and international agencies but also between thinkers and doers throughout the world.

70. It is widely agreed that solutions to many of the world's most serious problems are hampered by inadequate multidisciplinary capabilities in the organizations that seek to cope with them. The amount of successful multidisciplinary work in the world is very limited. Organizing such work effectively requires very solid commitments, outstanding talent and substantial support. If the United Nations University is to make the promotion of multidisciplinary training and research one of its principal characteristics, then it will have to give careful and sustained attention to finding ways to facilitate such work. Multidisciplinarity is, of course, a means and not an end in itself. But it entails such major departures from the ways in which most of the world's scholars and scientists have been trained and continue to work that its implementation entails far more than a willingness to try new approaches. To employ this method effectively, the University will have to be on its guard to prevent the heavy tradition of the divisions among disciplines from dominating its work through sheer force of habit among scholars and scientists. This will be a complicated assignment. But if the University can demonstrate new and effective ways to conduct multidisciplinary research and training, its work can be of great value in helping to solve not only substantive problems but also conceptual and administrative problems that beset academic institutions around the world.

71. The report urges the University to take full advantage of its intellectual independence and academic freedom to develop its potentialities to provide non-political forums for the examination of new and controversial ideas. This conception of the potential "platform" of the University is highly consistent with the guidelines already set forth by the Charter and endorsed by the Counsel. What must be determined is the strategy the University is to follow in attempting to realize the full potential of this freedom.

72. Academic freedom, like multidisciplinarity, is a means by which the University will achieve its substantive purposes of helping to define and solve pressing global problems. In both cases, these are critical means and there are many potential obstacles to their full realization. Freedom to select topics for discussion, for research and training and for publication, and freedom in carrying out these functions must characterize the University's work or else the very point of creating a United Nations University will be lost. The University must be willing to bear the burdens of encouraging controversy or else its chances of making original contributions to the anticipation and solution of major problems will be nullified.

73. The recommendations with regard to technologies are specific: the appointment of an expert to organize and lead exploratory work on the production of better technology; the appointment of task forces for two or three subjects to determine what is being done and what is promising and to design research and training programmes in particular areas of technology diffusion; and the appointment of a study group to design a research and training programme on the impact of the spread of science and technology. It would seem appropriate to follow these recommendations.

74. The section of the report dealing with education for development proposes the appointment of a committee to identify individuals and institutions to undertake work on curriculum, educational outcomes, new approaches ignoring existing barriers between disciplines, the relevance of teaching, etc., which, again, would seem to be a logical way to begin work in this complex field. It also urges investigation of the impact of the conflict between use of world languages and indigenous languages, a subject which warrants much further consideration.

75. Considerable attention was given during the meeting to whether the United Nations University should enter the field of education when so many other agencies have been working in it. The response was emphatic, particularly from those most familiar with work being done by other organizations. The response was that no organization is undertaking the kind of fundamental examination of the purposes, conduct and results of education the participants had in mind. Other groups are too closely tied to existing educational systems, it was reported, to be able to conduct the fresh examination of conditions in education that is suggested. This would mean, of course, that great care and ingenuity will have to be exercised in the selection of individuals and institutions to conduct studies in this field since most of those "professionally qualified" are parts of the very systems in question.

76. There is a utopian aura to the study of new life styles which is apt to incur negative responses from those whose attention is necessarily focused on meeting the demands of daily existence and of those who are skeptical about the ability of intellectuals to change the ways people behave. And yet life styles do change and have changed dramatically in recent decades. Many of these changes are leading towards dead-ends.

77. The challenge to an institution charged to be concerned with "pressing global problems of human survival, development and welfare" is whether it can organize the work of talented people - "intellectuals" and others - to have significant constructive effects on the ways people live. It could be exactly the kind of assignment that would make maximum use of the University's differences from traditional universities and other international agencies. If it were undertaken successfully with dramatic practical results, there would be no question that it was a major fulfilment of the purpose for creating the University. If it were handled as an "academic" exercise that had little impact on thought or action around the world, it would be an example of exactly the kind of dry "academic" research the University has been urged to eschew.

78. In examining this proposal, the University must exercise extraordinary care, because this would seem to be the kind of project that runs heavy risks of failure but contains the possibility of making unusually valuable ultimate contributions to human welfare. The Working Group on the Use and Management of Natural Resources also made a recommendation for a study of life styles (focused on resource conservation), and when further consideration is given to these proposals, they should obviously be considered together. The report makes the logical proposal that the University identify scholars and institutions to conduct research and constitute groups to undertake research designs. It also suggests a research programme on the changing role of the nation-State and a study of the feasibility of a new international centre for the comparative study of basic national socio-economic structures. These suggestions would seem to warrant careful examination.

79. The proposals with regard to world models and understanding global issues provide a conceptualizing project on a grand scale that could establish the University as a prime intellectual resource for the world. Unquestionably there is enormous confusion among policy-makers, and others, about the conditions in the world and directions for the future. Unquestionably the chances of errors of judgement could be reduced if there were a reliable world-wide agency able to supply accurate data and predictions and clear explanations, and able to conduct studies of policy alternatives without bias. Unquestionably, this could be the responsibility of the United Nations University, but it would have to be a major commitment and its value would have to be thoroughly demonstrable. Much more study must be given to this proposal before it can reach the state of a programme recommendation.

C. Use and management of natural resources

1. "State of the art"

80. The members of the Working Meeting on the Use and Management of Natural Resources observed that limitations on the amount of resources available in the world and the nature of resource consumption patterns dictate that changes in life styles must be made. They emphasized that life style changes will be extremely difficult and will require extensive investigation, analysis and experimentation. Because research capabilities are concentrated in the industrialized world, they felt that a very deliberate effort needs to be made to direct research attention to resource problems of developing countries to help them acquire the capacity to adapt technology from abroad and to preserve and enhance useful indigenous technologies. They believed that the economic problems of resource management in developing countries require deep study and will require new conceptual approaches. They perceived formidable obstacles - social, cultural, political and economic - to the effective utilization of scientific knowledge in decision-making and a lack of understanding on the part of decision-makers of the full implications of many resource problems.

81. However, the experts took an optimistic position on the ability of humanity to cope with natural resource problems:

"We believe the proper institutional, political, attitudinal, technological and economic changes can be undertaken and that man will be able to devise development options for the use of resources that can not only help him to meet a wide variety of human needs but also will be compatible with ecological potentials and constraints. ... It is this confidence in ultimate management possibilities, in the feasibility of change, in direction, in imagination, that underlies the efforts of the United Nations University."

82. This optimistic view is conditioned by warnings of the difficulties of the changes that must be made, of dangers in changing too fast and indiscriminately, and of the need to combine willingness to innovate with respect for existing achievements. The report points out that "a transition period to what is nowadays referred to as 'new life styles' is likely to be extended and beset by problems". It is important, therefore, "that experimentation and forward movement, which must occur at the risk of worse dangers, be done with constant attention to both the time scales and locations involved". ... "Change is a must. But while various

parts of the world evolve toward new forms of social organization and a different relationship to the natural environment, we must also be conscious of our achievements to date and make the best use of their valuable elements." ... "The task, therefore, is to combine a healthy respect for innovative thinking and doing, and a questioning attitude toward received doctrine, with determined attacks on ailing components of contemporary structures and practices that seem to impede a fuller and more efficient, i.e. less resource-demanding satisfaction of human needs".

83. The report states:

"What we must ultimately strive for is a sustainable level and pattern of living. In that context, the notion that the major limiting factors to man's achievements are socio-political, institutional and behavioural does not exclude that there are biological and physical outer limits beyond which man must not go if the integrity of the carrying capacity of ecosystems is going to be preserved."

84. The report draws attention to "the damage that can be - and has been - caused by the replacement of indigenous practices in the developing countries by technologies from the industrialized world". It states that "this contrasts with an approach that would search for the roots of local practices and beliefs, test their validity and combine them with the best that modern science and technology have to offer". ... "Essential to progress in this field is a strengthening or, when it does not exist, the establishment of the capacity in developing countries to receive and digest the scientific and technological information that is available in the world."

85. Among the main emphases in the report is the point that concern over resources has stimulated an enormous amount of research, but that "the momentum behind this mass of studies is centred in the developed countries" and "the questions asked and the answers and knowledge forthcoming are appropriate to their circumstances and needs". The report continues:

"Only through a deliberate effort will it (the research enterprise) attend to locally conditioned needs, such as, for example, the broad area connoted by the term 'intermediate technology', problems centred on tropical soils and forests, and so forth. At the same time, research workers across the developing regions who are dealing with such problems directly suffer from inadequate contacts with each other."

86. The report draws attention to a number of specific problems facing the developing countries in attempting to cope with resource problems:

"Impediments ... may lie in the field of technology, economics and management, sociology, or elsewhere. They may be rooted in failure to formulate the right questions; lack of success in finding the answers; poor choice of incentives to apply knowledge; or the overriding importance of some societal objective other than the steady improvement of human welfare."

87. The report suggests that attention needs to be given to "the great likelihood of increased capital investments that many developing countries will be unable to afford without aid". It points out the importance of studying price formation for resources and that the need for "proper distribution" offers "significant

opportunities for research, the results of which can prevent costly and perhaps persistent dislocations in the production and consumption of resources". For these reasons, "it is important to integrate resource management policies with development strategies".

2. Strategies for the United Nations University

88. The report provides the University a clear rationale for work in this area, namely, that there are important research and training needs in the use and management of natural resources that are not now adequately served and therefore need the University's attention. These include conceptual problems, problems in the application of existing knowledge, problems in policy-making and management, problems concerning the development of the research and administrative resources in developing countries, and technical problems concerning specific natural resources: land, water and energy.

89. The report states that:

"Growing numbers of private and governmental groups and organizations have pointed to the complexities associated with natural resources problems - the depletion issue; the common property nature of much of the environment and the consequent tendency to overstress ecosystems; the interaction between the different resources illustrated by energy flows or ocean-atmosphere-land surface connexions; and the variety of remedies and improvements that reside in changing patterns of production, consumption and distribution as well as changing social, political and institutional modes."

In recognizing the role the University could play in meeting the challenges that these complexities represent, the report adds:

"We cannot emphasize too strongly that good resource management must be a central preoccupation for the United Nations University, and it should be reflected in the University's strategy to project closer relationships between resource management and over-all development policies."

90. The conceptual problems to which the University is urged to give attention are those concerned with "integrating resource management policies into a wide variety of development strategies", for which a specific project (Comparative studies in decision-making and "economic" resource management) is proposed, and new life-style analysis, for which a specific project is also suggested.

91. The report reveals deep concern with the problem of the failure to apply knowledge effectively. It proposes that the University make this problem a major subject for its attention. It urges the University "to examine ways to identify and surmount obstacles - social, cultural, political and economic - to the effective utilization of scientific knowledge in decision-making" and suggests a specific study (Assessment of the application of scientific knowledge to arid lands problems) to provide a dramatic example.

3. Programme recommendations

92. The projects recommended in this report refer to both general problems of resource use and management and to problems related to specific resources. Projects that deal with general problems are: (1) assessment of the application of scientific knowledge to arid lands problems (a particular example of a general problem); and (2) new life styles involving less resource use. Several of the projects recommended are concerned with resource management: (1) comparative studies in decision-making and "economic" resource management; (2) coastal zone management and development; (3) water resources management; and (4) management of natural areas. Recommended projects having to do with specific resources are: (1) non-conventional energy sources and (2) non-energy use of fossil fuels: alternative and competitive uses; as well as the studies involving water resources mentioned above. Several recommended projects are concerned with specific types of areas: (1) ecological basis for rural development in the humid tropics; and (2) non-intensive poor-land agriculture; as well as studies involving arid lands, coastal zones and natural areas included in other topics.

93. A brief description of each of these proposed projects is given below:

Projects concerned with general problems

1. Assessment of the application of scientific knowledge to arid land problems

Despite a great deal of research over the past 25 years on arid land problems, major mismanagement and disastrous droughts continue to occur. Arid land research represents an area in which audit on past research could be valuable and indeed essential, both for its own sake and as a pointer for the future. The United Nations University could be in a unique position to carry out this kind of audit, identifying the reasons why scientific findings for coping with arid land problems were successfully implemented in some countries but failed in others. As well, this research audit might be regarded as a prototype for continuing investigations by the United Nations University into the reasons why scientific and technological findings that can improve man's lot are neglected or fail to be adequately implemented in some countries, but succeed in others.

2. New life styles involving less resource use

Triggered partly by the oil crisis, a number of socially innovative experiments have been initiated in different parts of the world with the explicit aim of achieving less wasteful resource use through the exploration of new life styles and consumption patterns. Most of these "social experiments" are carried out in isolation, however, and it is seen that the United Nations University may have an important and very timely role in bringing together some of the most significant proponents of these experiments so as to provide coherence, discipline and a forum for exchange of experience. Experiments of particular interest would include aspects of recycling production patterns, miniaturization, increased durability of goods, low-energy farming, zero-energy growth, self-reliant decentralized production of food, goods, and health delivery patterns.

Projects concerned with resource management

1. Comparative studies in decision-making and "economic" resource management

All countries are confronted by the need to make choices about the use of resources and, in doing so, to deal with a variety of economic, political, social and environmental goals. The United Nations University could be instrumental in co-ordinating a programme which would enable various countries to learn the analyses and practices of others, thereby enriching the decision-making process in all. There is a large number of important cases that could benefit from this comparative studies approach. Of special concern would be the evaluation of the potential for the reduction of inefficiencies by better resource management, particularly through the elaboration of non-waste technologies, more efficient production-consumption cycles, and energy conservation systems.

2. Coastal zone management and development

Planning for optimum use of the resources of the oceans, the sea-beds and the littoral is an urgent world need to which the United Nations University could admirably respond. Coastal zone management requires a multisectoral approach in dealing with many varied and controversial issues, ranging from the control of resources on the continental shelf and environmental impact of coastal development to the socio-economic effects on large segments of the world's population who live in these zones. The United Nations University could establish, in conjunction with other agencies, broad multisectoral projects to identify problem areas and to propose studies that involve co-ordination of institutions and individuals engaged in research on the continental shelf, the waters and bio-mass over the shelf, the coastal margins, the littoral, and socio-economic studies concerning the impact of natural resource development.

3. Water resources management: guidelines for water strategies

Water looms as perhaps the biggest potential resource problem in the decades ahead. In line with the strategy of preventing crises rather than responding to them, now is the time to face up to these issues, particularly in view of the long time-scales and large energy requirements involved. With many of the problems becoming increasingly complex and wide-ranging and hence necessitating broad-based, often international solutions, the United Nations University could assume a useful role in water management by seeking to provide guidelines for national strategies and international co-operation. A United Nations University programme in this area should concern itself with developing methodologies for elaborating national comprehensive strategies for water use, as well as stimulating training in certain key aspects, including the familiarization of decision-makers with key water management issues.

4. Management of natural areas

With man's continuing rapid encroachment upon the natural areas of the world, there is a growing need for the establishment of globally accepted criteria as a basis for co-ordinated international action and co-operation in the management of natural areas. Because of the unique international position of the United Nations University, it could be instrumental in organizing and co-ordinating studies on the

proper management and development of the multiple roles of the earth's wilderness areas. In particular, such studies could attempt to design definite criteria for the selection, establishment and maintenance of viable natural areas in representative ecosystems as well as to seek ways and means for providing adequate interplay and minimizing conflicts in usage.

Projects concerned with specific resources

1. Non-conventional energy sources

Technological choice in the energy field has become a prime determining factor in the over-all direction of development of a given country or region. With the advent of the recent "energy crisis" and the consequent proliferation of new, innovative research in the application of non-conventional energy technology, there is an urgent need for the United Nations University to consider assuming a leading role in the co-ordination of energy planning policy, especially in the developing countries. The University could seek to provide a comprehensive policy framework for energy research and planning and, more specifically, could stimulate or sponsor continuous training in research and application of geothermal, solar and other technologies applicable to local conditions, a field in which there is a desperate world-wide shortage of competent people.

2. Non-energy use of fossil fuels: alternative and competitive uses

The multiple and increasing demands being placed on the finite and rapidly depleting world fossil-fuel reserves represent a complex and urgent global resource problem that could well benefit from the involvement of the United Nations University. While the growing rate of consumption for the direct burning of fossil-fuels to produce energy is of great concern, the reserves are now increasingly being threatened by the organic chemical industry - using fossil-fuels as the basic raw material in the manufacture of synthetic organic compounds such as plastics, pesticides and many drugs - and the agricultural fertilizer industry. Price-setting by supply and actual demand does not take into account future priorities, and it seems appropriate that the United Nations University should study the various options and trade-offs - substitutability of materials and processes, technologies and pricing structures - that need to be undertaken to prevent the total depletion of oil, natural gas and, in future, also coal.

Projects concerned with types of areas

1. Ecological basis for rural development in the humid tropics

A large part of the population of humid tropical regions lives in villages in the rural areas, and these areas form a substantial part of many countries. However, the villages are usually under-developed, and the present push to develop rural areas is being hindered by mismanagement and a lack of understanding of the rural ecosystems and the local knowledge systems at the village level. The United Nations University could be instrumental in developing approaches to research that could provide a better understanding of these rural ecosystems and knowledge systems which is essential to put development on a firmer basis for improving the living standards and well-being of the rural populations. While focusing specifically on the rural humid tropics - to discover the experience,

knowledge and wisdom of the villagers in exploiting the resources of their environment on a sustained yield basis, to systematize these into science, and to use it as a basis for development - the United Nations University could develop such a programme into a prototype for other rural development strategies, including the social aspects of the introduction of more broad-based, small-scale energy technologies, and the maintenance or upgrading of traditional village agriculture. Such a prototype could be further developed into a methodology for promoting holistic research on man-environmental relationships.

2. Non-intensive poor-land agriculture

Efforts to increase global food production by extending farming to new territories - in forests, river basins, areas where ground water is available or where technological or other changes make irrigation feasible, etc. - have been faced with many serious problems of ecosystem degradation. One source of this malaise is due to the indiscriminate application of concepts of intensive agriculture (often beyond the carrying capacity of the particular ecosystem) to newly reclaimed land. With newly reclaimed territories, marginal lands and ecological systems of similar fragility covering some 60 to 70 per cent of the earth's land surface, it would be extremely useful for the United Nations University to consider applying its multisectoral international approach to the development of successful scientific bases for non-intensive agriculture which could thus enable the world to expand its food-producing land area and to maintain the productivity of the new territories. The objectives of a United Nations University programme in this area would range from a review of existing knowledge of mechanisms of ecosystem degradation to studies on management aspects of non-intensive agriculture, and to methods for making non-intensive agriculture socio-politically acceptable.

4. Rector's comments

94. The recommendations in this report are clearly consistent with the University's general mandate to be concerned with "pressing global problems of human survival, development and welfare". They are also consistent with the Council's specification that priority attention be given to both the use and the management of natural resources. They provide general tasks of interest to all nations and also focus on special problems of the developing nations.

95. This report gives strong recommendations concerning the University's potential world-wide intellectual leadership. It urges the University to help in the conceptualization of problems that are of urgent interest world-wide - a task familiar to academic institutions, except for the global scale of the assignment. It also asks the University to concern itself with problems in the application of knowledge: "to examine ways to identify and surmount obstacles - social, cultural, political and economic - to the effective utilization of scientific knowledge in decision-making", which is a departure from most traditional academic assignments.

96. This is, of course, a big order. Not only does the recommendation call for identifying obstacles to effective utilization of knowledge, it also asks the University to examine ways to "surmount" such obstacles. In the same vein, the University is urged to present the results of its projects in forms that will make them most effective for decision-makers, to help local scientists to become

more effective in policy-making and to provide multidisciplinary advanced education for decision-makers. In other words, the United Nations University is urged to concern itself as directly as possible with the practical application of knowledge, particularly in the developing countries. This is, of course, the most original, difficult, challenging, perhaps controversial and, at the same time, potentially most useful responsibility the University could undertake.

97. The specific projects recommended to the University concerning land, water and energy are of great potential value but too general in their present form to warrant the calling together of task forces to recommend particular projects. The appropriate follow-up to them would seem to be to appoint individual investigators to study selected proposals among the recommendations and to suggest the appropriate next steps for the University to take.

IV. RECTOR'S PROGRAMME RECOMMENDATIONS

98. The following recommendations and schedule for implementing the University's work programme in 1976 are submitted to the Council after an assessment by the Rector of the reports of the three working meetings and in light of the University's staff and resource capabilities for the forthcoming year.

99. The deliberations of the three working meetings provide a wide variety of subjects on which programmatic work might begin. Most of these are concerned with the substantive purposes of the University but others are concerned with the methodological purposes of the University. Among the latter are:

- (a) Problems of organizing multidisciplinary and transdisciplinary research and training;
- (b) Problems of establishing and maintaining effective networks and linkages among institutions and scholars;
- (c) Problems of establishing effective communications with decision-makers.

100. These are among the major, complex methodological tasks the United Nations University faces. The University must give much thought and take great pains to deal with these problems successfully. Suggestions with regard to establishing networks and linkages (liaison officers and United Nations University travelling fellows a/) are made in the recommendations on institutional relations. At this time, the Rector does not have specific recommendations to make about projects that might be undertaken concerning these problems, but the importance of success in these areas is so great that in the future recommendations may well be made of projects to help the University approach these methodological responsibilities with maximum understanding of previous experience and existing wisdom.

Summary of Programme Recommendations

101. Before taking up the recommended schedule for programme implementation it might be useful to summarize the recommendations of the three working meetings:

1. World hunger

(a) Objectives

- (i) A world-wide multi- and interdisciplinary network of associated international training and research centres and a series of applied, operational or mission-oriented research programmes concentrating on post-harvest food technology, human nutritional needs and their fulfilment, nutrition and food objectives in development planning and agricultural production/food and nutrition interfaces;

a/ See A/AC.169/L.7, para. 27

- (ii) Establishment of a communications programme to assist in the exchange of information (1) on nutrition in development planning among planning agencies and academic institutions, and (2) on primary food production possibilities and limitations to experts in the fields of human nutrition, food technology, agricultural economics, development planning, plant crop science, animal husbandry, animal product processing and fisheries.

(b) Immediate proposals

- (i) Establish a technical advisory committee to provide continuing review of the University's World Hunger Programme;
- (ii) Establish a peer review mechanism for designating associated institutions and for awarding fellowships and scholarships and support of research activities;
- (iii) Designate the first associated institutions to begin the establishment of the network.

2. Human and social development

(a) Improving the social relevance of science and technology

- (i) Appoint an expert to organize and lead exploratory work on the production of better technology;
- (ii) Appoint task forces on several subjects to determine what promising research and training programmes the University might undertake in technology diffusion;
- (iii) Appoint a study group to design a research and training programme on the impact of the spread of science and technology.

(b) Education for development

- (i) Appoint a committee to identify individuals and institutions to undertake work on curriculum, educational outcomes, new approaches ignoring existing barriers between disciplines, the relevance of teaching, etc.;
- (ii) Organize investigation of the impact of the conflict between use of world languages and indigenous languages.

(c) Ways of life and the nation-State

- (i) Identify scholars and institutions to conduct research on life styles;
- (ii) Appoint a study group to design research on life styles;

- (iii) Organize a research programme on the changing role of the nation-State;
- (iv) Establish a working group to explore the desirability and feasibility of a new international centre for the comparative study of basic national socio-economic structures.

(d) World models and global issues

- (i) Undertake research "to clarify and evaluate the assumptions on which various types of models which are influencing policy decisions around the world are based";
- (ii) Establish a programme for "co-ordinating, encouraging and stimulating programmes both with regard to latest issues that have not yet reached global attention and at the interface between issues, old as well as new", emphasizing "launching new research programmes for a more systematic treatment of present and future global issues";
- (iii) Establish a programme of research, training and communication on world indicators, new issues facing humanity, and cultural dimensions.

3. Use and management of natural resources

- (a) Objective: "Examine ways to identify and surmount obstacles - social, cultural, political and economic - to the effective utilization of scientific knowledge in decision-making."

(b) Projects concerned with general problems

- (i) Assessment of the application of scientific knowledge to arid lands problems;
- (ii) New life styles involving less resource use.

(c) Projects concerned with resource management

- (i) Comparative studies in decision-making and "economic" resource management;
- (ii) Coastal zone management and development;
- (iii) Water resources management: guidelines for water strategies;
- (iv) Management of natural areas.

(d) Projects concerned with specific resources

- (i) Non-conventional energy sources;

- (ii) Non-energy use of fossil fuels: alternative and competitive uses.
- (e) Projects concerned with specific types of areas
 - (i) Ecological basis for rural development in the humid tropics;
 - (ii) Non-intensive poor-land agriculture.

Recommend implementation schedule

102. The following schedule for implementing the University's programmes in 1976 is proposed on the assumption that it is important to commence the work of the University as quickly as possible and in the belief that the University should look upon its initial activities as experimental and be prepared to alter and refine them as experience suggests. Specific budgetary recommendations for these programmes will be presented at the meeting in Caracas.

World Hunger Programme

103. Of the three working meetings, the one that produced recommendations most readily implementable is the meeting on world hunger. Since this meeting was held in September, it was possible to hold a subsequent meeting of an Advisory Task Force for Initial Programme Planning in New York in November; and as a result of that meeting, the Rector has received specific recommendations to initiate agreements with two potential associated institutions: the Central Food Technological Research Institute (CFTRI) in Mysore, India, for training and research in post-harvest technology; and the Institute of Nutrition of Central America and Panama (INCAP) in Guatemala City, Guatemala, for training and research in human nutritional needs, evaluation of protein quality and certain aspects of food and technology. Information on these organizations will be provided at the Council meeting in Caracas.

104. In hopes of being able to present a concrete proposal with budget for the University's first association, the Rector plans to visit Guatemala City on the way to Caracas in the company of Dr. Nevin Scrimshaw, consultant to the University on the World Hunger Programme, and Dr. Alexander A. Kwapong, Vice-Rector for Development and Planning. If the Council approves, the Rector will visit Mysore in March in the company of Dr. Scrimshaw and hopefully will be able to make a concrete proposal with budget with respect to CFTRI at the June meeting of the Council. Dr. Scrimshaw is being invited to attend the Caracas meeting to explain his conception of the World Hunger Programme to the Council.

105. If the Council approves these initial associations, they could provide the beginning experience of the University in establishing such relationships and could also constitute the first substantive work of the University in one of its priority programme areas. These two institutions seem to possess many of the desired characteristics proposed for associated institutions of the University. Details of the proposed arrangement with INCAP will have to be provided at the meeting in Caracas since it has been impossible to visit Guatemala City earlier.

106. The Rector proposes to establish a Technical Advisory Committee on the World Hunger Programme, as recommended, and has already begun to institute a review mechanism.

Human and Social Development Programme

107. Of the three expert groups, the group concerned with human and social development had the most complex set of subjects to contend with, and quite naturally produced a report with more varied kinds of recommendations than the other two. The University has a rich field here to mine, but it is proposed - with the exception mentioned below - that work will begin when Professor Kinhide Mushakoji (who will attend the Caracas meeting) commences his duties as Programme Vice-Rector in April 1976. It is also proposed that task force advisory meetings be held in April and early May to seek more specific recommendations in these areas.

108. It is proposed, furthermore, that the Council discuss the report on human and social development at the Caracas meeting and make its own recommendations about areas the University might select for special attention at the task force meetings in April and May. On the basis of those meetings, programme possibilities can be discussed at the Council meeting in Tokyo in June, institutions could be visited during the summer and autumn of 1976, and specific associations or other relationships might be approved at the January 1977 meeting of the Council.

109. In the meanwhile, it is possible to proceed in the area of technology diffusion, where the recommendations are simple and specific. It is proposed that an expert be appointed to organize and lead exploratory work on the production of better technology and, hopefully, to make recommendations at the June 1976 meeting of the Council with regard to task forces to examine opportunities in several areas of this field and with regard to a study group to design a research and training programme on the impact of the spread of science and technology.

Use and Management of Natural Resources Programme

110. Candidates are being sought for an additional Programme Vice-Rectorship in which expertise in natural resources would be highly desirable. It is hoped that this position can be filled before the June meeting of the Council, though it may well take longer to obtain the full-time services of an appropriate person. While the selection is going on, it would seem desirable to appoint several consultants to undertake studies with regard to the many promising proposals made in the report on the use and management of natural resources. The topics to be assigned to these consultants can be determined through deliberations of the Council itself in considering the report on natural resources at the meeting in Caracas.

Exploration of institutional development and response relationships

111. The programme recommendations described above relate primarily to possible institutional relations of the programmatic type. It would also seem desirable to begin to explore possible relationships in the institutional development and response categories discussed in the recommendations on institutional relations.

112. An opportunity that shares characteristics of all three categories already exists in the proposals made by Dr. Eric Williams at the fifth session of the Council that the University sponsor a consortium of institutions in the Caribbean to be concerned with agriculture and technology problems of special concern to the island economies of that area. Contact has already been made with these

institutions, and Dr. Kwapong is planning to visit them on the way to Caracas. An exploratory meeting is proposed for April, and it is possible that a specific proposal could be made at the June meeting of the Council.

113. If the Council approves the concept of developmental and response relationships, explorations could begin in these categories from among proposals already made to the University and others. Thus far more than 100 unsolicited proposals have been received from around the world, and these are now being assessed. If the institutional relationship concepts now suggested are approved, it would seem desirable to make these opportunities known through advertisement or other communication so that all institutions that might qualify would have the chance to submit proposals. At the same time, it would be valuable experience to begin discussions with institutions that have already made known their interests to the University. The June meeting of the Council would probably be too early for the authorization of specific relationships of this kind, particularly if a review mechanism is to be employed, but explorations during the spring could provide useful information for discussion at that meeting.

Conclusion

114. If this programme implementation schedule is approved by the Council, the first association (INCAP in Guatemala City) might be inaugurated this spring, the second association (CFTRI in Mysore) might be inaugurated this summer, and the Council might receive reports on experience with these first two associations at its meeting in January 1977. In the area of human and social development, the appointment of a leader in the field of technology diffusion would commence work in this field and, following Dr. Mushakoji's assumption of duties in April, task force meetings would be held with a view towards providing specific programme suggestions in other areas of human and social development in June and institutional proposals by January. The same possibility exists in the area of the use and management of natural resources, provided an appropriate Vice-Rector can be appointed soon. In the meantime, studies within this area would be undertaken by several experts.

115. As mentioned above, specific budgetary recommendations for these programme proposals will be presented at Caracas.

Part Two

INSTITUTIONAL RELATIONS

I. Types of institutional relationships

116. There are at least three possible motivations for the United Nations University to establish incorporated institutions, associated institutions or contractual relationships with institutions. These motivations could lead the University to establish at least three different categories of such institutional relationships. These motivations for establishing institutional relationships could be:

(1) To pursue specific programme purposes of the United Nations University, i.e. programmatic relationships;

(2) To help develop institutions, i.e. developmental relationships;

(3) To respond to substantial relevant offers, i.e. response relationships.

117. The first category is the one to which most consideration has already been given, i.e. relationships established to further specific research and training programmes that fulfil priorities set by the Council of the University. While much consideration would be given to a variety of purposes in establishing such relationships (strengthening institutions in developing countries, encouraging multidisciplinary research and training, etc.), the major reason for selecting an institution in this category would be its contribution to a substantive programme purpose of the United Nations University. The relationship might be with a single institution or with a consortium of institutions. The distinguishing characteristics would be the same: programme fulfilment.

118. The second category, developmental relationships, would be those whose distinguishing characteristic is not support of a specific United Nations University-initiated programme, but the strengthening of an associated or contractual institution through relationships with the University and its networks of activities around the world. The selection of a group of institutions for relationships of this kind, distributed in developing countries around the world, perhaps on an experimental basis for a limited period of time, would give the University the world-wide presence that it will not obtain by the more incremental process of establishing relationships for specific programme fulfilment and would help to meet the Charter mandate to help to strengthen intellectual resources in developing countries. Presumably the costs of such relationships would be shared between the institutions and the United Nations University, or perhaps some other source would help meet them. Among the criteria for institutions entering into such relationships with the University could be interest in developing multidisciplinary capabilities in training and research concerned with hunger, human and social development or the use and management of natural resources and interest in becoming part of an international network of institutions concerned with these problems and with developing active linkages with institutions and scholars elsewhere.

119. A third category of institutional relationships, response relationships, could be established to take advantage of offers of institutes or support for institutes in areas of the University's priority concerns but not directly related to specific programmes the University has initiated. A number of countries and institutions have indicated their desires to provide or support institutes in areas of special interest to them, such as oceanography, geothermal energy, arid zone agriculture, etc., which are related to the priorities the University has chosen. There are more than 100 such offers from all over the world that are now being assessed. It might be desirable from the point of view of the development of the University as an effective world-wide institution to respond to some of these offers and to establish appropriate relationships, provided they meet the criteria suggested for developmental relationships and are fully or heavily supported by host countries or other sources. The relationship of such institutes to the United Nations University would enhance the capabilities of the networks the University is to establish and would extend the University's presence into many parts of the world.

120. It is anticipated that all relationships proposed above would be established for fixed periods, such as three years, which might be renewable for an additional period. The nature of any particular relationship - substantively and administratively - would depend on each situation and would probably differ widely among the three categories discussed above. Common to all would be the development of networks and linkages, though these would also vary depending on the institutions and the subject under investigation.

121. If the Council approves the recommendation to begin to form associations in connexion with the World Hunger Programme, these associations would be the first programmatic relationships. Similar relationships would be proposed for additions to the network on world hunger and the programmes on development and natural resources. It is through these programmatic relationships that the University can take initiatives in fulfilling its substantive purposes.

122. If the Council approves the establishment of developmental relationships and response relationships, the University staff can begin to explore possibilities as suggested in the Rector's programme recommendations. A report on the progress of these explorations could be made at the June meeting.

123. For all three types of relationships, some form of systematic external evaluation prior to recommendation for approval by the Council would seem desirable. In the case of the World Hunger Programme, a peer review mechanism has already been employed in the consultation with the Advisory Task Force for Initial Programme Planning that recommended associations with INCAP in Guatemala and CFTRI in India. The University would seem to need the assurance and protection of an external evaluation mechanism if it is to invite proposals for such relationships on a broad and open basis. The nature of such mechanisms might be discussed by the Council in Caracas, and detailed proposals could be made by the Rector at the June meeting in Tokyo.

II. LINKAGES: LIAISON OFFICERS AND TRAVELLING FELLOWS b/

124. The establishment of networks and linkages is fundamental to the operation of the University. Presumably, only in rare instances would it support isolated

b/ See A/AC.169/L.7, para. 27.

enclaves of research in which there is not a significant potential for international collaboration. A great deal of experimentation must be undertaken to determine which types of networks are most effective. Careful consideration must be given to the duties of the persons in each institution responsible for liaison and to the processes through which communication and collaboration will occur.

Liaison officers

125. In any of the institutional relationships discussed above, it would seem that a specific individual should be charged with serving as liaison officer between the institution and the network of the United Nations University. The role of this liaison officer, who would most likely be someone from the institution itself, would be to help make use of United Nations University resources to strengthen the capacity of the institution to undertake multidisciplinary problem-oriented training and research directed towards improving local conditions and to make the resources and experience of the institution available to the United Nations University network. Within the institution, the liaison officer would help develop research projects and capabilities consistent with University objectives and priorities and would draw upon the University networks to provide relevant inputs. Outside the institution, he or she would share the perspectives and results of the institution's work with others through the United Nations University network. Thus the liaison officer would be a contact point for information (people and ideas) into the institution and from the institution to the outside.

United Nations University travelling fellows

126. A possible way to facilitate communication within networks might be through the mechanism of United Nations University travelling fellows. Perhaps at first four to six established scholars could be selected each year on the basis of their substantive involvement in priority areas and their philosophical commitment to the importance of establishing vigorous international networks among institutions and scholars. Two thirds of these might be from developing countries.

127. During the course of an academic year, each fellow would have three responsibilities:

(a) To spend a critical amount of time (perhaps one month) at four or five United Nations University related institutions (programmatic, development or response) to learn about their capabilities and needs and to share with them his or her knowledge and information obtained elsewhere:

(b) To visit other persons and institutions in the world where interaction might be productive.

(c) To prepare three reports at the end of the period:

(i) A report on the substantive area with recommendations to the United Nations University for future programmes and projects;

(ii) A report to the Rector of the United Nations University on institutions and individuals who might be contacted to establish future relationships;

- (iii) A report to the United Nations University liaison officer in institutions where he or she spent considerable time relating findings to their specific interests and needs.

128. Fellows would presumably be selected from nominations of persons in appropriate research areas from academic, research, or possibly governmental organizations (invited from around the world). Appointment as a fellow should be considered a high honour. Stipends would be provided on a "no loss" basis and travel funds would be provided the fellow and spouse. The request for nominations could begin in the summer of 1976.

129. These examples suggest only two of many possible mechanisms for establishing and utilizing networks for more effective international intellectual collaboration. As noted above, a great deal of exploration, imaginative thinking, and experimentation will be required to overcome the various obstacles that have thus far prevented the development of many such networks.

130. If these proposals for liaison officers and United Nations University travelling fellows are adopted, budget allocations will have to be made for the work of liaison officers (which might be part of the University's contribution to a developmental institution) and for the support of the United Nations University Travelling Fellows Programme.

APPENDIX I

The United Nations University Meeting of Experts on World Hunger, held in Tokyo from 22 to 26 September 1975

List of experts

George BEATON
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Moises BEHAR
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Stanislaw BERGER
Professor and Director
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Faculty of Food Technology
Warsaw Agricultural University
Warsaw, Poland

Ricardo BRESSANI
Head
Division of Agriculture and Food Sciences
Instituto de Nutrición de Centro América y Panamá (INCAP)
Guatemala City, Guatemala

Chauncey William Wallace COOK
Former Chairman
General Foods Corporation
Austin, Texas, United States

Sir John CRAWFORD
Chairman
Technical Advisory Committee (TAC)
(Consultative Group on International Agriculture Research)
Deakin, Canberra, Australia

Cutberto GARZA
Secretary to the Expert Meeting on World Hunger
United Nations University
Tokyo, Japan

Yujiro HAYAMI
Agricultural Economist
International Rice Research Institute
Manila, Philippines

Kenzo HENMI
Department of Agricultural Economics
Faculty of Agriculture
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Namet ILAHI
Joint Secretary in Charge
Nutrition Cell
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Mogens JUL
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APPENDIX II

The United Nations University Meeting of Experts on Human and Social Development, held in Tokyo from 10 to 14 November 1975

List of experts

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Chairman
Board of Directors
Bank Sanaye Iran
Teheran, Iran

Johan GALTUNG
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Inter-University Centre of Post-Graduate Studies
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Member, United Nations Advisory Committee on the Application of
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Sir Arthur LEWIS
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James Madison Professor of Political Economy
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Professor of Development Studies
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Santiago, Chile

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Institute of Commonwealth Studies
Oxford University
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Puey UNGPHAKORN
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APPENDIX III

The United Nations University Meeting of Experts on
the Use and Management of Natural Resources, held
in Tokyo from 1 to 5 December 1975

List of experts

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APPENDIX IV

United Nations University institutional guidelines

A. The Charter of the University prescribes the following characteristics:

1. The Charter specifies that "The University shall be an international community of scholars, engaged in research, post-graduate training and dissemination of knowledge" and "shall devote its work to research into the pressing global problems of human survival, development and welfare".

2. The Charter specifies that "the University shall enjoy autonomy within the framework of the United Nations. It shall also enjoy the academic freedom required for the achievement of its objectives, with particular reference to the choice of subjects and methods of research and training, the selection of persons and institutions to share in its tasks, and freedom of expression. The University shall decide freely on the use of the financial resources allocated for the execution of its functions".

3. The University is to be "a network ('world-wide system') of research and post-graduate training centres and programmes".

4. The University may set up research and training centres on its own; it may take over responsibility for already existing activities; it may make arrangements with "associated institutions", sharing responsibility in various ways; or it may contract with institutions or individuals to organize internationally co-ordinated research.

5. A central objective of the University is the continuing growth of vigorous academic and scientific communities everywhere and particularly in the developing countries. "It shall endeavour to alleviate the intellectual isolation of persons in such communities in the developing countries which might otherwise become a reason for their moving to developed countries."

6. The training functions of the University are to be designed to assist young scholars, in particular, to increase their capabilities, and may be used to acquaint technical assistance workers with interdisciplinary approaches.

7. Academic excellence, universality of approach and the highest standards for research and training are to be maintained in all aspects of the University's work and by those institutions and individuals associated with it.

8. The activities of the University are to be co-ordinated with those of the United Nations and its agencies and the world scholarly community.

9. The University is to promote exchanges of scholars, scientific and technical ideas and information using conferences and workshops as appropriate.

10. The University shall serve as a depository of information on expertise available on subjects of relevance to its work and maintain up-to-date rosters of qualified scholars.

11. The staff of the University shall be engaged with "due regard to" appropriate representation of geography, social systems, cultural traditions, age and sex.

B. The Council of the University has approved certain characteristics for the University's activities:

1. Arrangements with other institutions should be mutually beneficial partnerships.

2. Flexibility should be maintained in arrangements with other institutions to accommodate various options and situations. Rigid formulae should be avoided.

3. Arrangements should be evaluated periodically with the option of termination clearly understood.

4. Work undertaken by institutions associated with the United Nations University should reflect the following characteristics: the use of science for the sake of humanity; the interests and aspirations of underprivileged peoples, particularly in the developing world; concern with practical world problems viewed in relation to the future of mankind; concern with United Nations experience and objectives; concern with innovative and multidisciplinary methodologies for research and training and dissemination of knowledge.

C. The Rector has suggested guidelines with regard to the work of the University which the Council has approved. It includes these points:

1. The University must establish a very high standard of significance and effectiveness in all its work from the outset. Otherwise it will not gain the interest and participation of the people on whom its usefulness will depend: the world's leading scholars, scientists and thinkers.

2. The University must establish processes that will protect it against undertaking insignificant or ineffective activities, or making inconsequential affiliations.

3. The University must base its initiatives on thorough studies of relevant existing activities, comprehensive data collection, frequent consultation with the world's leading experts, and detailed analysis of programme proposals.

4. The University will define its own character through selecting priorities and seeking appropriate means of implementation rather than simply responding to proposals from other institutions.

5. Criteria for establishing priorities and programmes and for undertaking institutional associations, in addition to reflecting primary concern for meeting the whole world's greatest needs, must weigh in balance special regional needs for training and research activities to advance academic, economic and social development.

6. The University should avoid any unnecessary duplication of effort and resist any tendencies towards competition and rivalry with other institutions.

D. The Rector has proposed and the Council has approved various provisions with regard to establishing new institutions, incorporating existing institutions, or making arrangements with associated institutions:

1. The University should establish a new centre only when no suitable institution exists to meet the programme purpose in question or when a developmental need in a particular geographical region justifies so doing.

2. The University should enter into an association with another institution when:

(a) A duplication of effort can be avoided;

(b) A better result can be achieved through an association than through a new unit;

(c) Association can lead to the development of further capability within the existing institution;

(d) Association provides a desirable presence for the University.

3. Associated status should be a mutual exchange that results in significant benefits for the associated institution and for the fulfilment of the purposes of the University. Associated status should not be entered into merely to further the appearance of an international community of scholars without clear programme impact through the associated institution.

4. Involvement by the University with an associated institution could take the following or other forms:

(a) Sharing the governance on a limited basis for a specified period;

(b) Sharing in financial support;

(c) Supplying personnel to strengthen management, programme planning, research or training capability;

(d) Providing arrangements for personnel and information exchanges with other institutions.

5. Arrangements with associated institutions should make them as close to integral parts of the University as possible, since they will be the major manifestations of the University around the world, at least for some time to come. Their designation as associated institutions of the United Nations University should be prominently identified and agreements by which associated status is established should contain mutual commitments to University-wide principles and practices including academic freedom, academic excellence and, where possible, representativeness of staff and commitment to the University's general purposes and methodologies.

6. The United Nations University must judge academic excellence not just according to traditional academic practices but in relation to the capacity of an organization to accomplish important work in a particular location for the benefit of the region and those sharing similar problems around the world.

E. The following characteristics are generally assumed to be germane to the University's purposes and methods:

1. The University will be more directly involved in the application of knowledge to the solution of urgent practical problems than with long-term fundamental research.

2. The orientation of the University is towards the solution of problems rather than the development of academic disciplines. It is therefore assumed that most work will be multidisciplinary.

3. Scholars of the University bear a duty to help achieve solutions to world-wide human hardship, beyond all otherwise worth-while endeavours of the human mind.

4. The University's present endowment income is extremely limited. Therefore, proposals for activities must include consideration of possible operating support from host countries, donor agencies, foundations and other possible sources.

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