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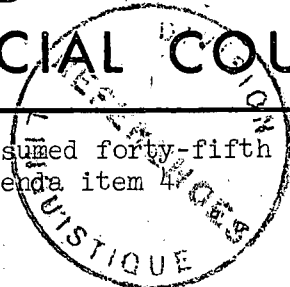


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THE PROTEIN PROBLEM

Report of the Secretary-General

Addendum

Letter to the Under-Secretary-General for Economic and  
Social Affairs from the Director-General of the  
World Health Organization

As you are aware, the Secretariat of the United Nations Advisory Committee on the Applications of Science and Technology to Development has made available to the agencies concerned the report on the protein problem, which is to be submitted by the Secretary-General to the General Assembly in pursuance of General Assembly resolution 2319 (XXII). We have now had an opportunity to review this report, together with the comments on it made by ..... the Protein Advisory Group. You will find the WHO comments attached. We understand that the report was based on the answer to a questionnaire sent by the Secretary-General to Governments.

I wish to assure you that the World Health Organization is doing everything possible within the limits of its budgetary resources to meet the priority needs in the fields of nutrition and health. I consider the report a useful document and have noted the recommendations which have been made, including the preparation of another review of the world protein problem to be made in two years.

WHO, together with FAO and UNICEF, and with the advice of the Protein Advisory Group where appropriate, can continue to assume responsibility within their respective mandates and resources for the further promotion and activities in the field of protein.

I would appreciate your bringing this letter and the attached comments to the attention of ECOSOC and the General Assembly when this matter is discussed.

COMMENTS OF THE WORLD HEALTH ORGANIZATION ON THE SECRETARY-GENERAL'S  
REPORT ON THE PROTEIN PROBLEM

The Secretary-General's report on the protein problem to be submitted to the General Assembly in pursuance of General Assembly resolution 2319 (XXII), together with the questionnaire to Governments on which it is based, has undoubtedly served a useful purpose in focusing the attention of Governments on this aspect of nutrition and health.

The Secretary-General's report makes a number of suggestions and contains much information which will further stimulate work in this field. These suggestions might be summarized as follows:

- (1) That a review be made of the world protein problem in two years' time;
- (2) That the approach to the protein problem be considered from a multidisciplinary point of view;
- (3) That there be developed a systems approach to the protein problem;
- (4) That measures for the classification, storage and retrieval of information related to the protein problem be undertaken;
- (5) That there be stimulated a wider dissemination of information in the protein field;
- (6) That regional centres for research and development work in the fields of nutrition and food research be stimulated.

Among the organizations of the United Nations system, FAO, WHO and UNICEF are the ones most directly engaged in work in the field of protein. These agencies, on behalf of the Secretary-General, with the assistance of the Protein Advisory Group (PAG),<sup>1/</sup> should be given the task of taking the necessary measures to carry out any further reviews which the Economic and Social Council and the General Assembly might wish.

Protein supplies and consumption could best be improved if many different departments at the national government level co-ordinated their efforts. The need for a multidisciplinary approach, however, extends beyond efforts to improve protein supplies and consumption. Protein-calorie malnutrition is due to an insufficient intake of dietary proteins and other nutrients but it is also associated with other factors, more particularly infectious diseases so common in childhood. Efforts to prevent the common infectious diseases, therefore, are

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<sup>1/</sup> A document describing the role and responsibilities of the PAG is reproduced as an annex.

equally necessary in any approach to the protein-calorie malnutrition problem. WHO is actively engaged both in improving nutrition and in preventing infectious diseases. WHO's efforts and those of Governments in both these fields need to be strengthened if the situation is to be substantially improved.

WHO has for many years recommended that a co-ordinated attack on the many facets of the protein problem be undertaken at the international as well as the national level. For this reason WHO established the Protein Advisory Group in 1955 and later invited FAO and UNICEF to participate in its work. The number of disciplines represented in the PAG has been progressively extended to include not only human nutrition and public health but also food technology, agricultural economics, management, marketing, sociology and government food policy. The Protein Advisory Group with its present membership and its extended terms of reference is an instrument well suited for advising the three agencies concerned on a systems approach to the protein problem.

The Secretary-General's report calls for measures for the classification, storage and retrieval of information related to the protein problem. In so far as the medical field is concerned, large national centres such as that of the National Library of Medicine in the United States of America are already carrying out such work and make their data available internationally by the distribution of their retrieval material. For unpublished work, the WHO documentation centre has begun a similar service. This work is being supplemented by the documentation centre of FAO. Through its publications, meetings, training centres and expert advisory services, WHO is already engaged in the wider dissemination of information in the protein field. In addition, the PAG has the responsibility to ensure the dissemination of information directly related to protein problems. It would therefore be desirable to consider what further measures are necessary for the intensification of activity related to the classification, storage, retrieval and dissemination of information.

WHO has supported the concept of regional centres for research and development work in the field of nutrition and food research in different regions with advice, personnel and, in some of them, with substantial financial assistance. It is believed that more regional centres are necessary and desirable and WHO is prepared to give whatever assistance is necessary to their extension and further development.

All possible efforts designed to assist Governments to undertake co-ordinated planning, which would include agriculture, food supplies, nutrition and health considerations, should be made and would represent a great step forward to the solution of the protein problem. WHO, together with other interested agencies in the United Nations system, has for many years been active in promoting active co-ordination at the national and international level.

The comments of the PAG on the Secretary-General's report have already been transmitted to the United Nations with the agreement of the three agencies concerned. In the foreseeable future the largest volume of protein must come from conventional sources but these need to be supplemented by new and unconventional approaches. The work of the WHO-supported Nutrition Institute for Central America and Panama in the development of Incaparina is one of the best known efforts in the development of such a source of low-cost protein food. Work in this field has been promising but much needs to be studied further. WHO is continuing its responsibility for the testing of the safety and wholesomeness of non-conventional low-cost protein foods developed within the framework of the WHO/FAO/UNICEF programme, and is increasing its financial support. Five centres for the human testing of protein food mixtures are now co-operating with WHO, and further consideration is being given to the extension of this work.

It should be emphasized that the Protein Advisory Group has focused attention to the protein needs of infants, pre-school children and pregnant and nursing mothers. These groups have always been and will continue to be given high priority in WHO's activities in this field.

Annex

THE ROLE AND RESPONSIBILITIES OF THE PAG, 1968

1. The recognition in the early 1950's of the widespread occurrence of protein-calorie malnutrition in many developing nations led to the protein-rich food programmes of the Food and Agriculture Organization (FAO), the World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF).<sup>a/</sup> Many aspects of this work are being carried on by joint efforts of the three agencies. The need for harmonized views concerning protein nutrition led to the appointment in 1955 of a Protein Advisory Group by WHO. In 1960, this was expanded to the present tripartite FAO/WHO/UNICEF Protein Advisory Group (PAG). During the early 1960's, the PAG consisted of a small group of nutritionists and pediatricians of world-wide reputation and broad experience, who meet once a year with temporary advisers, consultants and the representatives of the three agencies to discuss problems and to formulate recommendations on questions presented to them by FAO, WHO and UNICEF.

2. In its early years, the PAG dealt predominantly with the nutritional usefulness and safety of proteins particularly from sources not previously used as human food. By 1964, the scope of the subjects brought before the PAG broadened significantly. Whereas the nutritive value and safety of protein foods always remained primary concerns of the Group, now increasing emphasis was placed not only on uncovering and testing new or unused sources of protein foods, but also on dealing more extensively with the problems of formulation and processing of protein foods and food mixtures. This change was also reflected by the membership of the PAG, which from 1965 included food technologists and by the increasing number of invitations to the meetings issued to specialists other than those concerned with pediatrics and nutrition. Those participants, in recent years, included specialists in industrial research, product development, manufacture and marketing of protein foods, experts in plant breeding and agricultural production, those dealing with governmental policies concerning the manufacture, control and distribution of high-protein foods, and persons concerned with factors of food acceptability and marketing.

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<sup>a/</sup> Later changed to "United Nations Children's Fund" but retaining the abbreviation UNICEF.

3. The emphasis in the work of the PAG has been to a great extent on the unused and new sources of proteins rather than on the traditional sources such as meat, fish and poultry. There is a solid body of scientific knowledge on the proteins of the latter products and extensive research and testing is in progress in dozens of institutions on the problems concerning meat, fish and poultry. This is not the case with new sources of proteins - the oilseed cakes, fish protein concentrate, the single-cell organisms etc. - which are potential sources of protein. Thus, although the PAG keeps itself informed concerning developments in the conventional sources of protein, it concentrates on the new and unconventional sources, complementing rather than duplicating current efforts by Governments, universities and commercial research organizations.

4. In 1963, the United Nations Economic and Social Council (ECOSOC) established an Advisory Committee on the Application of Science and Technology to Development (ACST). This Committee has submitted to ECOSOC a number of detailed reports dealing with world-wide problems in science and technology as they concern the developing nations. In its third report to the ECOSOC, the ACST identified a large number of problems which eventually were boiled down to a few key questions on which the Committee felt that immediate action should be started. The list included the urgent problem of protein malnutrition. In 1966, the ACST appointed an ad hoc Working Group on Proteins which selected a panel of three specialists, recruited by FAO, WHO and UNICEF, to draft, with the assistance of the technical staffs of the three agencies, a plan for action. Their report (E/4343)

"Increasing the production and use of edible protein. Feeding the expanding world population: recommendations for international action to avert the impending protein crisis" defines seven policy objectives, fourteen specific proposals and a number of recommendations and suggestions for the implementation of the plans.<sup>b/</sup>

5. The ECOSOC, in August 1967 and the United Nations General Assembly, in its resolution 2319 (XXII) of 22 December 1967, endorsed this report and requested follow-up action. The latter resolution welcomed "the intention of the Food and Agriculture Organization of the United Nations, the World Health Organization and the United Nations Children's Fund to enlarge the scope and functions of the

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b/ The printed edition of the report has the title International Action to Avert the Impending Protein Crisis (United Nations publication, Sales No.: 68.XIII.2).

Protein Advisory Group and their participation in it". The General Assembly resolution also expressed "the hope that the services and advice of the Protein Advisory Group will be utilized to the fullest possible extent by the organizations of the United Nations system to assist and co-ordinate work on projects involving the supply and human consumption of protein". In harmony with this approach, the General Assembly resolution requested that the PAG provide comments on the report of the Secretary-General dealing with the activities reported by Governments and the work undertaken within the United Nations system in the protein-food field.

6. Interagency discussions concerning the broadening of the scope and functions of the PAG to advise FAO, WHO and UNICEF and, through these organizations the other members of the United Nations system, were in progress by mid-1967 and were formalized at the beginning of 1968. There are four major aspects of the role, responsibilities and functioning of the PAG, namely, its terms of reference, membership, mode of operation and the PAG secretariat. These subjects will be discussed below.

7. Terms of reference. In the past, the terms of reference of the Group were simply "to advise the Directors-General of WHO and FAO and the Executive Director of UNICEF on appropriate technical and ancillary aspects of the joint programmes for the improvement of protein nutrition which concern them and on related questions". The terms of reference agreed upon in 1968 are much more explicit:

"The protein Advisory Group shall function in an advisory capacity to the Directors-General of FAO and WHO and the Executive Director of UNICEF. Its terms of reference shall include:

(a) To advise on the technical and related aspects of the joint FAO/WHO/UNICEF programme for improvement of protein nutrition;

(b) To advise on current programmes and on new areas of activity;

(c) The provision of guidelines for the formulation of the broad programmes of the United Nations system of organizations involved in the various aspects of the protein problem;

(d) The dissemination of new information on the protein problem;

(e) To advise on improvement of procedures for project evaluation and feasibility studies; and

(f) To advise on such matters as the Directors-General of FAO and WHO and the Executive Director of UNICEF may from time to time refer to the Group."

The PAG thus remains a tripartite group. However, by agreement, other United Nations bodies will be invited to its meetings when subjects of interest to them are discussed or when they wish to be invited. For instance, for the September 1968 PAG meeting, invitations have been sent, on behalf of FAO, WHO and UNICEF, to six other United Nations bodies or agencies.

To agencies and United Nations units other than FAO, WHO and UNICEF, as well as to Governments, the advice of the PAG is transmitted through the three agencies.

8. Membership. Whereas the "disciplines" to be represented on the PAG were not specified in the past, the current interagency agreement states that the PAG should consist of not more than twelve members and should include persons of the following specializations:

- (a) Human nutrition and pediatrics;
- (b) Public health and food hygiene;
- (c) Sociology;
- (d) Food technology, engineering and packaging;
- (e) Agricultural economics;
- (f) Management and economic feasibility;
- (g) Marketing, including advertising, promotion, distribution systems and consumer studies;
- (h) Government food policy.

All these specializations are represented in the PAG membership appointed in 1968, "disciplines" (a), (b), (d) and (g) by two members each.

It is not always possible to find specialists within the above definitions who have both the qualifications and the interest to participate in the work of the PAG. Therefore, the above definitions of "disciplines" have to be applied with a broad interpretation. On the other hand, often persons involved in more than one of these fields can be appointed, as was the case for the 1968 PAG. This clearly enhances the desired interdisciplinary functioning of the PAG. The members of the PAG are selected in agreement by the three agencies and currently they are appointed in their personal capacity for two calendar years. The chairman and vice-chairman, are appointed by the three agencies.



9. Methods of operation. In the recent past, the PAG held one annual meeting, rotated between Rome, Geneva and New York. The PAG will continue to have at least one meeting per year. However, current arrangements allow much more extensive action than was possible before. The composition of the enlarged PAG is more heterogeneous from the standpoint of backgrounds and specializations than it was in the past. While this provides the possibilities for broad consideration of the issues brought before it by the agencies, in many cases the PAG does not include a sufficient number of specialists to deal with some of the highly specific questions in the required depth. Therefore it is now agreed that for such purposes ad hoc groups will be set up on recommendation of the PAG and with the participation of PAG members but including invited non-member specialists. Members of the PAG will act as chairmen of ad hoc groups. The ad hoc groups will be limited in membership and be dissolved upon completion of their specific mission. Currently, the appointment of three ad hoc groups is under consideration. ("International guidelines for the production and quality of fish protein concentrates", "Favism" and "Protein evaluation"). The September 1968 PAG meeting is expected to provide the specific assignments for these groups. Their recommendations will be brought before the PAG for final action. This final action may be taken either at a PAG meeting or by correspondence. Extensive use of ad hoc groups may be expected, inter alia, in connexion with questions arising through the increased United Nations and governmental interest in the protein problem.

10. The PAG secretariat. Since 1963, the PAG has a full-time secretary. The office of the secretariat is at UNICEF headquarters in New York. The operation of the secretariat is financed in equal parts by the three agencies. Until May 1968, WHO provided the administrative management for the secretariat. In rotating this responsibility, FAO took over this assignment in 1968. As a result of the greatly increased workload derived from the broader functions, increased membership and the expected activities of ad hoc groups, the number of professional staff posts in the secretariat was recently increased to two professional officers supported by two secretaries. The major functions of the secretariat are as follows:

(a) It provides a contact point between the three sponsoring agencies and members of the PAG on subjects related to the production and use of protein foods;

(b) It is responsible for the arrangement of the PAG meetings, including development of the agenda, invitations and other details. The secretariat is responsible for the assignment, editing, reproduction and distribution of the documentation for PAG meetings. It also prepares the reports of PAG meetings and after approval by the three agencies, assures their speedy reproduction and distribution;

(c) The secretariat is a focal point in the distribution of information, publications, reprints and references concerning the production and use of protein foods to the three agencies as well as to other United Nations agencies, outside organizations and others interested in protein problems. It responds to requests for copies of the over 300 PAG documents on hand and for the current and past issues of the PAG Bulletin;

(d) The secretariat prepares, and after approval by the three agencies, reproduces and distributes the issues of the PAG Bulletin. There are approximately 1,500 individuals, offices and institutions on the PAG Bulletin mailing address list;

(e) Servicing the ad hoc groups is a further function of the PAG secretariat. This involves the organization of such groups, the issuing of invitations to the proposed membership (after approval by the three agencies) and convening of the ad hoc group meetings or circulating the correspondence and documentation to facilitate the reaching of decisions by such groups;

(f) The secretariat also responds to any inquiries concerning proteins. With the approval of the agencies, members of the secretariat participate in meetings related to the protein problem where the attendance of secretariat personnel can either make a significant contribution to the subject matter or where it is in the interest of the PAG and its sponsoring agencies that the secretariat be present.

11. Thus the PAG will have both the capacity and the machinery to provide advice and information not only on the type of questions brought before it in the past but also on broader technical problems which may arise in connexion with the

interest in the protein problem created by the ACST document, "Increasing the production and use of edible protein". In the past, the PAG proved useful in facilitating the joint work of WHO, FAO and UNICEF. It is hoped that, with the new arrangements, the PAG will be able to meet in the future the much greater needs resulting from the intensified activities of the agencies of the United Nations system in the protein-food field.