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United Nations Conference
on
Food and Agriculture

HOT SPRINGS, VIRGINIA, MAY 18 - JUNE 3, 1943

FINAL ACT
AND
SECTION REPORTS

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United Nations Conference
on
Food and Agriculture

HOT SPRINGS, VIRGINIA, MAY 18 - JUNE 3, 1943

FINAL ACT
AND
SECTION REPORTS



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III

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United Nations Conference on Food and Agriculture

SUMMATION OF THE WORK OF THE CONFERENCE BY THE SECRETARY GENERAL

The United Nations Conference on Food and Agriculture met to consider the goal of freedom from want in relation to food and agriculture. In its resolutions and its reports, the Conference has recognized that freedom from want means a secure, an adequate, and a suitable supply of food for every man.

All men on earth are consumers of food. More than two thirds of them are also producers of it. These two aspects of gaining subsistence from the soil cannot be separated. Men cannot eat more foods and more healthful foods unless these foods can be obtained from the land or the sea in sufficient quantities. If more and better food is to be available for all people, producers must know what they are called upon to do. They must equally be assured that their labors will earn them an adequate livelihood.

The work of the Conference emphasized the fundamental interdependence of the consumer and the producer. It recognized that the food policy and the agricultural policy of the nations must be considered together: it recommended that a permanent body should be established to deal with the varied problems of food and agriculture, not in isolation but together.

The work of the Conference also showed that the types of food most generally required to improve people's diets and health are in many cases those produced by methods of farming best calculated to maintain the productivity of the soil and to increase and make more stable the returns to agricultural producers. In short, better nutrition means better farming.

The Conference declared that the goal of freedom from want can be reached. It did not, however, seek to conceal the fact that it will

first be necessary to win freedom from hunger. In the immediate future, the first duty of the United Nations will be to win complete victory in arms: as their armies liberate territories from tyranny their goal will be to bring food for the starving. The need to reach freedom from hunger before seeking freedom from want was understood, and resolutions were adopted on this subject. These covered both the planning of agricultural production and the adoption of measures to prevent violent fluctuations in prices resulting from the shortages of the transition period.

Many delegates informed the Conference about the state of health in their respective countries. It was made clear that there was a close connection between many prevalent diseases and deficiency in diets. It was established that malnutrition was a leading cause for the high level of child mortality. It was apparent that in all countries there are large sections of the population who do not get adequate and suitable food for health; in many countries the majority of the people are in this situation.

The Conference has not attempted to lay down ideal standards of nutrition for all peoples. It has recognized that, while the ultimate objective must be a world in which all people are fed in full accordance with the requirements of good health, it will be necessary as a practical measure to concentrate on intermediate goals which can be progressively raised as conditions improve (Resolution IX). These intermediate goals must differ from region to region according to climate, taste, social habits, and other circumstances. These goals are there-

fore primarily a matter for individual governments to determine.

One of the most important recommendations of the Conference is that the governments and authorities represented should declare to their own people and to one another their intention to secure more and better food for the people (Resolution III). Various measures which might be taken for this purpose were discussed. These included education, special provision for particular classes of the population, and the improvement of the quality of food available (see the report of Section I¹).

The Conference recognized (Declaration, par. 3) that a great increase in the production of food would be needed if progress is to be made toward freedom from want. Section II discussed how this increase could be brought about. It was recognized, however, that to a varying extent in different countries and at different times there would be insufficient food of the kind required for health. It might therefore be necessary to take measures to see that special groups of the population, such as young children and pregnant women, who most need these foods, obtain at least their minimum requirements, even if this means reducing the supplies for the rest of the population below what they would otherwise consume (Resolution XXVI).

In Section II, the Conference considered how agricultural production could be increased and adapted to yield the supplies most needed by consumers. It began its work with the assumption, which was confirmed by the conclusions of Section I, that more production was needed if the people of the world were to have sufficient food for adequate nutrition and that both new and existing production would have to be adjusted to secure more of those "protective" foods which are most necessary for good health.

Before discussing methods by which these changes could be brought about, the Section examined the short-term position immediately

after the liberation of occupied territories. It was generally agreed that this period will be one of shortage, the exact incidence and extent of these shortages being governed by the circumstances in which various territories are liberated from the enemy. During this period the first call will be to reach freedom from hunger in areas devastated by the war. Until these lands themselves are able to produce a harvest, the most urgent demand will be for cereals and other foods which maintain human energy and satisfy hunger.

The Conference agreed (Resolution XIII) that, while shortages lasted, there should be coordinated action by governments both to secure increased production and to prevent speculative and violent fluctuations in prices.

The conditions of shortage existing at the end of hostilities will be exceptional, and it should not be too long before the production of the basic energy foods is sufficiently restored to provide for freedom from hunger. When that state is reached it will be necessary to increase wherever possible the emphasis on production of foods containing first-class protein and other protective qualities necessary to good health, according to the standards considered by Section I of the Conference.

There is danger that the heavy demand for energy foods which will arise from the immediate period of shortage may lead, as the shortages are overcome, to overproduction of these foods unless governments act with foresight in guiding producers to alter their production programs in accordance with the long-term requirements. The actual programs must be drawn up to suit the particular circumstances of each country, but the Conference agreed upon broad general principles which should serve as a guide in making these programs in all countries. These principles cover not only the adjustment of production to fit the long-term requirements of a better diet but also improvements in the general efficiency of production. The Conference also recommended certain particular measures of more general application for carrying them out (Resolutions XVI-XX).

¹ Appendix 1, post p. 35.

In addition, the Conference recommended measures (Resolution XXI) for new agricultural development. It was the opinion of the Conference that some parts of the world which at present are unproductive could be brought into agricultural production if the appropriate measures were applied. At the same time, it was recognized that, in some areas of rich potentialities, development is impeded by overcrowding of farmers on the land. While something can be done to increase the productivity of these areas by improving methods of farming, by drainage and similar measures, it was recognized (Resolution XXII) that in some cases the development of industry to provide employment for agricultural populations or emigration to other areas were the only measures likely to offer any significant contribution to a solution of the problem.

The Conference recognized that it is useless to produce food unless men and nations have the means to acquire it for consumption. Freedom from want cannot be achieved unless there is a balanced and world-wide expansion of economic activity.

The deliberations of the Conference in Section III, which was set up to investigate the improvement of distribution, clearly showed that consumers would not be in a position to buy the food they needed, and producers of food could not be assured of adequate returns, unless progress was made through national and international action to raise the general level of employment in all countries. Moreover, as discussions in Section I emphasized, poverty is the first cause of malnutrition and hunger.

The work of Section III established the close interdependence between the level of employment in all countries, the character and extent of industrial development, the management of currencies, the direction of national and international investment, and the policy adopted by the nations toward foreign trade. The Conference was not called upon to conduct a detailed investigation into the policies which should be adopted by the governments of the world in order to promote an expansion of economic activity; but it declared that freedom

from want of food could not be fully achieved without such an expansion and urgently recommended the governments and authorities represented to take action individually, and in concert, in order to secure this objective (Resolution XXIV).

Having drawn attention to the fundamental importance, in the approach to freedom from want of food, of policies to expand and quicken economic activity, the Conference discussed the place and functions which might be given, within the framework of such policies, to international arrangements for the control of basic staple foodstuffs entering international trade. There was agreement that the object of any such arrangements must be to eliminate excessive short-term movements in the prices of food and agricultural commodities, to mitigate general inflationary or deflationary movements, and to facilitate adjustments in production which may be necessary to prevent economic dislocation. The Conference agreed that any such arrangements should include the effective representation of consumers as well as producers. It was not possible for the Conference, in the time available, to discuss future international commodity arrangements in detail. Discussion in Section III was directed to general questions of principle affecting the operation of such arrangements as might later be made. The two questions to which most attention was paid were:

- (a) The place which buffer stocks should occupy in these arrangements; and
- (b) How far it would be necessary to achieve the desired objectives to include within the general arrangements agreements for the regulation of production.

The Conference agreed that further international discussion of these questions ought to take place with a view to the establishment of broad principles to govern the formulation and operation of future commodity arrangements.

There was general agreement that, whatever the nature of the arrangements eventually made for individual commodities, machinery would be needed for coordinating their operations in

the light of the broad principles to be agreed upon (Resolution XXV).

It became clear at a comparatively early stage of the Conference that there was general agreement that the nations represented at the Conference should establish a permanent organization in the field of food and agriculture. It was also generally agreed that this organization should act as a center of information and advice on both agricultural and nutrition questions and that it should maintain a service of international statistics. The Conference did not, however, attempt to lay down in detail what the scope and functions of such an organization should be or its relation to other national or international bodies. It was agreed that these questions would have to be worked out in detail between representatives of the participating governments. Accordingly, the Conference recommended the establishment in Washington of an Interim Commission, one of the functions of which would be to draw up for submission to the governments and authorities represented a

detailed plan for the permanent organization (Resolution II).

The United Nations Conference on Food and Agriculture has shown that the governments and authorities represented are agreed upon the necessity of their taking action individually and in concert to achieve freedom from want of food. The reports and recommendations of the Conference indicate further agreement on the methods to be followed. The Conference has accordingly recommended that the governments and authorities represented should recognize their obligation to their own people and to one another to raise the levels of nutrition and the standards of living of their citizens, to improve the efficiency of agricultural production, and to cooperate one with another for the achievement of these ends. The Conference resolved that the Interim Commission to be established in Washington should prepare such a declaration or agreement in this sense for the consideration of the governments and authorities represented.

TEXT OF THE FINAL ACT¹

The Governments of Australia, Belgium, Bolivia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechoslovakia, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia; the French Representatives; the Governments of Great Britain, Greece, Guatemala, Haiti, Honduras, Iceland, India, Iran, Iraq, Liberia, Luxembourg, Mexico, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippine Commonwealth, Poland, Union of South Africa, Union of Soviet Socialist Republics, United States of America, Uruguay, Venezuela, and Yugoslavia;

Having accepted the invitation extended to them by the Government of the United States of America to be represented at a United Nations Conference on Food and Agriculture;

Appointed their respective delegates, who are listed below by countries in the order of alphabetical precedence:

AUSTRALIA

- H. C. Coombs, Director General of Post-War Reconstruction; *Chairman of the Delegation*
F. L. McDougall, Economic Adviser to the High Commissioner, London
E. McCarthy, Assistant Secretary, Department of Commerce and Agriculture
J. B. Brigden, Financial Counselor, Australian Legation, Washington
J. W. Burton, Department of External Affairs

BELGIUM

- Viscount Alain du Parc, Minister Plenipotentiary, Commercial Counselor, Belgian Embassy, Washington; *Chairman of the Delegation*
L. Borremans, Commercial Adviser of the Ministry of Agriculture; Agricultural Attaché, Belgian Embassy, London
Edouard J. Bigwood, Professor of Physiological Chemistry and Nutrition of the Faculties of Medicine and Sciences, University of Brussels; Adviser to the Belgian Government

BOLIVIA

- Miguel Etchenique, General Representative of the Banco Minero de Bolivia in the United States; *Chairman of the Delegation*
René Ballivián Calderón, Commercial Counselor, Bolivian Embassy, Washington
Jorge Alcázar, Member of the Sociedad Rural Boliviana
Enrique Tardio Guzman, Agricultural Engineer

BRAZIL

- João Carlos Muniz, Ambassador to Ecuador; *Chairman of the Delegation*
Eurico Penteado, Commercial Counselor, Financial Attaché, Brazilian Embassy, Washington
José Garibaldi Dantas, Superintendent of the Production Financing Committee, Ministry of Finance
Newton de Castro Belleza, Assistant to the Minister of Agriculture; Director of the National Defense Section, Ministry of Agriculture
Jorge Kafuri, Head of the Price Control Division, Office of Brazilian Economic Mobilization
Walder de Lima Sarmanho, Commercial Counselor, Brazilian Embassy, Washington
Alfeu Domingues da Silva, Agricultural Attaché, Brazilian Embassy, Washington
Paulo Fróes da Cruz, Agricultural Attaché, Brazilian Embassy, Washington

CANADA

- G. S. H. Barton, Deputy Minister of Agriculture; *Chairman of the Delegation*
Georges Bouchard, Assistant Deputy Minister of Agriculture
T. W. Grindley, Secretary, Canadian Wheat Board
H. F. Angus, Special Assistant to the Under Secretary of State for External Affairs and Chairman of the Canadian Food Requirements Committee
L. B. Pearson, Minister Counselor, Canadian Legation, Washington
D. B. Finn, Deputy Minister of Fisheries

CHILE

- J. Manuel Casanueva, Director General of Agricultural Services of the Ministry of Agriculture; *Chairman of the Delegation*
Carlos Campbell del Campo, Commercial Counselor, Chilean Embassy, Washington
Vicente Izquierdo, Corporation for the Promotion of Production

¹ All footnotes in the Final Act appear in the original.—EDITOR.

CHINA

Kuo Ping-wen, Vice Minister of Finance; *Chairman of the Delegation*
 Hsi Te-mou, General Manager, Central Bank of China
 Tsou Ping-wen, High Adviser to the Ministry of Food
 Liu J. Heng, National Health Administration
 Yang Shi-Tse, Director, Department of General Affairs, Ministry of Food
 Chao Lien-fang, Ministry of Agriculture
 Shen Tsung-han, Ministry of Agriculture
 Lee Kan, Commercial Counselor, Chinese Embassy, Washington
 Yin Kuo-yung, Ministry of Economics
 Chu Chang Keng, National Health Administration

COLOMBIA

César García Alvarez, Minister Plenipotentiary, Economic Counselor, Colombian Embassy, Washington; *Chairman of the Delegation*
 Luis Tamayo, Colombian Consul General, New York, New York
 Mario Camargo, Representative of the National Federation of Coffee Growers of Colombia, New York, New York

COSTA RICA

J. Rafael Oreamuno, Vice Chairman of the Inter-American Development Commission, Washington; *Chairman of the Delegation*

CUBA

Amadeo López Castro, Secretary of the Presidency; *Chairman of the Delegation*
 Arturo Mañas y Parajón, Executive Committee of the Cuban Sugar Stabilization Institute; Secretary of the Asociación Nacional de Hacendados of Cuba
 Félix Hurtado y Galtés, Under Secretary of Public Health
 Ramiro Guerra y Sánchez, Honorary Representative on the Inter-American Financial and Economic Advisory Committee
 Felipe de Pazos y Roque, Commercial Attaché, Cuban Embassy, Washington

CZECHOSLOVAKIA

Jan V. Hyka, Commercial Counselor, Czechoslovak Legation, Washington; *Chairman of the Delegation*
 Emanuel Sahánek, Acting Chief of the Section of Agriculture and Economics, Secretariat of the Council of Ministers

DOMINICAN REPUBLIC

J. M. Troncoso, Ambassador to the United States; *Chairman of the Delegation*
 Rafael A. Espallat, Commercial Attaché, Embassy of the Dominican Republic, Washington; *Vice Chairman of the Delegation*

Anselmo Copello, Member of the Board of Directors of the Banco de Reservas
 E. I. Kilbourne, Member of the Board of Directors of the Banco de Reservas
 Andrés Pastoriza, Deputy to the Congress, and Comptroller of Cocoa and Coffee
 J. M. Bonetti Burgos, Deputy to the Congress, and Comptroller of Flour
 Harry E. Henneman, former Vice President, National City Bank

ECUADOR

Alfredo Peñaherrera Vergara, Sub-secretary of the Ministry of Agriculture, Industries, and Mines; *Chairman of the Delegation*
 Gustavo Adolfo Fassio, Ex-President of the Medical Surgical Society of Guayas
 Arturo Meneses Pallares, Research Assistant, Office of Labor and Social Information, Pan American Union, Washington
 Pedro Leopoldo Núñez, Ex-Minister of Public Credit and Finances

EGYPT

Hussein Bey M. Enan, Under Secretary of State, Ministry of Agriculture; *Chairman of the Delegation*
 Hussein Bey Fahmy, Under Secretary of Supplies

EL SALVADOR

Héctor David Castro, Ambassador to the United States; *Chairman of the Delegation*
 Víctor C. Barriere, Director General of the Budget
 Miguel Angel Gallardo, Office of the Director General of Health

ETHIOPIA

Yilma Deressa, Vice Minister of Finance; *Chairman of the Delegation*
 Araya Ababa
 Berhanu Tesamma, Secretary to the Governorate of Harar

FRENCH DELEGATION

Hervé Alphan, Inspector of Finance; Director of Economic Affairs of the French National Committee; *Chairman of the Delegation*
 Pierre Berthault, Member of the Academy of Agriculture of France
 André Mayer, Vice President of the College de France, Paris; Member of the Academy of Medicine of France

GREAT BRITAIN

Richard Law, Parliamentary Under Secretary of State for Foreign Affairs; *Chairman of the Delegation*
 J. P. R. Maud, Ministry of Food
 J. C. Drummond, Ministry of Food
 R. R. Enfield, Ministry of Agriculture and Fisheries
 G. L. M. Clauson, Colonial Office

GREAT BRITAIN—Cont.

L. C. Robbins, Economic Secretariat of the War Cabinet Offices
 J. H. Magowan, Board of Trade
 Sir Kenneth Lee, Ministries of Production and Supply
 E. Twentyman, British Food Mission

GREECE

Cimon P. Diamantopoulos, Ambassador to the United States; *Chairman of the Delegation*

GUATEMALA

Julio Gómez Robles, Under Secretary of Finance; *Chairman of the Delegation*
 Luis Beltranena, Dean of the Faculty of Economic Sciences
 Arturo A. Bickford, Mayor of Guatemala City and Chief of the Office of Economic and Financial Coordination

HAITI

André Liautaud, Ambassador to the United States; *Chairman of the Delegation*
 Pierre Chauvet, Chief of the Service of Control of Industrial Development, Department of Commerce and National Economy
 Edouard Baker, Agronomist, Department of Agriculture

HONDURAS

Marcos Carías Reyes, Private Secretary to the President; *Chairman of the Delegation*
 Gregorio Reyes Zelaya, Collector of Customs
 Colonel José Augusto Padilla Vega, Military Attaché, Honduran Embassy, Washington

ICELAND

Thor Thors, Minister to the United States; *Chairman of the Delegation*
 Olafur Johnson, Director of the Iceland Purchasing Commission in New York
 Helgi Thorsteinsson, Director of the Iceland Purchasing Commission in New York

INDIA

Sir Girja Shankar Bajpai, Agent General for India, Washington; *Chairman of the Delegation*
 P. M. Kharegat, Vice Chairman, Imperial Council of Agricultural Research
 Sir David Meek, Trade Commissioner, London
 H. S. Malik, Trade Commissioner, New York
 W. R. Aykroyd, Director of the Nutrition Research Laboratories, Coonoor, S. India

IRAN

Mohammed Shayesteh, Minister to the United States; *Chairman of the Delegation*
 Hossein Navab, Iranian Consul, New York, New York
 Sultan Mahmoud Amerie, Iranian Trade and Economic Commission
 Taghi Nassr, Economic Commissioner in the United States

IRAQ

Ali Jawdat, Minister to the United States; *Chairman of the Delegation*

LIBERIA

Gabriel L. Dennis, former Secretary of the Treasury; *Chairman of the Delegation*
 Leo Sajous, Director of Public Health and Sanitation
 George A. Dunbar, former District Commissioner

LUXEMBOURG

Hugues Le Gallais, Minister to the United States; *Chairman of the Delegation*
 Léon Schaus, Counselor and Secretary General of the Luxembourg Government

MEXICO

Manuel J. Zevada, Under Secretary of National Economy; *Chairman of the Delegation*
 Eduardo Morillo Safa, Assistant Secretary of Agriculture
 Luis Padilla Nervo, Assistant Secretary of Labor
 Manuel Martínez Báez, Assistant Secretary of Public Health
 Roberto López, Director of the National Bank of Foreign Trade

NETHERLANDS

M. P. L. Steenberghe, President of the Economic, Financial, and Shipping Mission of the Kingdom of the Netherlands in Washington; *Chairman of the Delegation*
 G. H. C. Hart, Vice President of the Economic, Financial, and Shipping Mission and Chairman of the Board for the Netherlands Indies, Curaçao, and Surinam; *Vice Chairman of the Delegation*
 P. Honig, Member of the Board for the Netherlands Indies, Curaçao, and Surinam
 L. A. H. Peters, Agricultural Attaché, Netherlands Embassy, Washington
 A. H. Philipse, Member of the Economic, Financial, and Shipping Mission
 I. Snapper, formerly of Amsterdam University and Peiping Union Medical College

NEW ZEALAND

Richard Mitchelson Campbell, Official Secretary, High Commissioner's Office, London; *Chairman of the Delegation*
 George Andrew Duncan, Director, Export Division, Marketing Department
 Ernest James Fawcett, Director General of Agriculture

NICARAGUA

León DeBayle, Ambassador to the United States; *Chairman of the Delegation*
 Guillermo Tunnermann López, Manager, National Bank of Nicaragua

NORWAY

Anders Fjelstad, Cabinet Minister of State (without Portfolio); *Chairman of the Delegation*
 Hans Ystgaard, Minister of Agriculture
 Karl Evang, Surgeon General, Public Health Services
 Kristian Fivelstad, Commercial Counselor, Norwegian Embassy, Washington; Representative in the United States of the Ministry of Supply and Reconstruction
 Arne Skaug, former Chief of Statistical Division, Ministry of Supply and Reconstruction; Acting Manager of the Norwegian Government Disability Services, New York, New York

PANAMA

Ramón Antonio Vega, Manager of the Banco Agro-Pecuario e Industrial; *Chairman of the Delegation*

PARAGUAY

París E. Menéndez, Director of the Central Laboratory, Ministry of Agriculture, Commerce, and Industry; *Chairman of the Delegation*

PERU

Gerardo Klinge, Editor of *La Vida Agrícola*, Director of the Banco Agrícola; *Chairman of the Delegation*

PHILIPPINE COMMONWEALTH

Joaquín M. Elizalde, Resident Commissioner of the Philippines to the United States; *Chairman of the Delegation*
 Major General Basilio J. Valdés, Chief of Staff of the Philippine Army
 Arturo B. Rotor, Secretary to the President of the Philippines

POLAND

Wiesław Domaniewski, Commercial Counselor, Polish Embassy, Washington; *Chairman of the Delegation*
 Tadeusz Lychowski, Chief, Economic Section, Polish Ministry of Commerce, Industry, and Shipping, London
 Stefan Krolkowski, Deputy Chief, Agricultural Section, Polish Ministry of Commerce, Industry, and Shipping, London

UNION OF SOUTH AFRICA

Andrew T. Brennan, Commercial Counselor, South African Legation, Washington; *Chairman of the Delegation*
 Andries P. van der Post, Senior Trade Commissioner of the Union of South Africa, London
 Robert Webster, Consul of the Union of South Africa, New York, New York
 Johan A. Siegruhn, Commercial Attaché, South African Legation, Washington
 William C. Naudé, Attaché, South African Legation, Washington

UNION OF SOVIET SOCIALIST REPUBLICS

Alexey D. Krutikov, Deputy People's Commissar for Foreign Trade; *Chairman of the Delegation*
 Vassili F. Starchenko, Deputy Chairman of the Council of People's Commissars of the Ukrainian S. S. R.
 Vassili S. Nemchinov, Professor, Director of the Timiryazev Agricultural Academy in Moscow
 Dmitri D. Mishustin, Professor, Member of the Collegium of the People's Commissariat of Foreign Trade
 Georgi F. Saksin, Assistant Secretary General of the People's Commissariat for Foreign Affairs
 Pavel I. Chtchegoula, Chief, Foodstuffs Division, Government Purchasing Commission of the U. S. S. R. in the United States

UNITED STATES OF AMERICA

Marvin Jones, Judge of the United States Court of Claims and Assistant to the Director of Economic Stabilization; *Chairman of the Delegation*
 Paul H. Appleby, Under Secretary of Agriculture
 W. L. Clayton, Assistant Secretary of Commerce
 Thomas Parran, Surgeon General, United States Public Health Service
 Murray D. Lincoln, Executive Secretary of the Ohio Farm Bureau Federation
 Miss Josephine Schain

URUGUAY

Roberto E. MacEachen, Minister to Cuba; *Chairman of the Delegation*
 Francisco Gómez-Haedo, Professor of Political Economy, University of Montevideo

VENEZUELA

José Joaquín González Gorrondona, President of the Import Control Commission; *Chairman of the Delegation*
 Rafael Cabrera Malo, Chief of the Nutrition Section, Ministry of Public Health and Social Assistance
 Roberto Alamo Ibarra, Institute of Immigration and Colonization

YUGOSLAVIA

Branko Cubrilovic, former Minister of Agriculture; *Chairman of the Delegation*
 Mirko Mermolja, Economic Adviser to the Yugoslav Government

Who met at Hot Springs, Virginia, on May 18, 1943, under the temporary Presidency of The Honorable Marvin Jones, Chairman of the Delegation of the United States of America.

The Honorable Henrik de Kauffmann, Danish Minister at Washington, attended the ses-

sions in response to an invitation of the Government of the United States to be present in a personal capacity.

Warren Kelchner, Chief of the Division of International Conferences, Department of State of the United States, was designated, with the approval of the President of the United States, as Secretary General of the Conference, and Ralph H. Allee, Chief, Division of Latin American Agriculture, Office of Foreign Agricultural Relations, United States Department of Agriculture, as Assistant Secretary General.

The Honorable Marvin Jones, Chairman of the Delegation of the United States of America, was elected permanent President of the Conference at the Plenary Session held on May 18, 1943.

The Executive Committee of the Conference, composed of the Chairman of the Delegations, and presided over by the President of the Conference, constituted a Steering Committee of its members composed of the following:

Marvin Jones (U.S.A.), President of the Conference, *Chairman*

João Carlos Muniz (Brazil)

G. S. H. Barton (Canada)

Kuo Ping-wen (China)

Richard Law (Great Britain)

Sir Girja Shankar Bajpai (India)

Ali Jawdat (Iraq)

Manuel J. Zevada (Mexico)

M. P. L. Steenberghe (Netherlands)

Alexey D. Krutikov (U.S.S.R.)

Branko Cubrilovic (Yugoslavia)

The following three members of the Executive Committee served on the Committee on Credentials of the Conference:

J. Rafael Oreamuno (Costa Rica), *Chairman*

Mohammed Shayesteh (Iran)

Anders Fjellstad (Norway)

The Drafting Committee, composed of the Chairmen of the Technical Sections and three additional members appointed by the President of the Conference, was constituted as follows under the ex-officio Chairmanship of the Conference President:

João Carlos Muniz (Brazil)

G. S. H. Barton (Canada)

Kuo Ping-wen (China)

Héctor David Castro (El Salvador)

Richard Law (Great Britain)

Hugues Le Gallais (Luxembourg)

Alexey D. Krutikov (U.S.S.R.)

In accordance with the regulations adopted at the opening Plenary Session, held on May 18, 1943, the Conference was divided into four Technical Sections, with Committees, as follows:

SECTION I

Consumption Levels and Requirements

Chairman: Kuo Ping-wen (China)

Vice Chairman: Manuel J. Zevada (Mexico)

Reporter: W. R. Aykroyd (India)

Secretary: Frank G. Boudreau (U.S.A.)

Assistant Secretary: E. F. Penrose (U.S.A.)

COMMITTEE 1

Chairman: Karl Evang (Norway)

Vice Chairman: Tsou Ping-wen (China)

Vice Chairman: Miguel Etchenique (Bolivia)

Secretary: Hazel K. Stiebeling (U.S.A.)

Assistant Secretary: Katherine Bain (U.S.A.)

A. Food

1. Character and extent of consumption deficiencies in each country

2. Causes and consequences of malnutrition

3. Reasonable national and international goals for improved food consumption

COMMITTEE 2

Chairman: Roberto E. MacEachen (Uruguay)

Vice Chairman: Edouard J. Bigwood (Belgium)

Vice Chairman: J. Manuel Casanueva (Chile)

Secretary: Harold A. Vogel (U.S.A.)

A. Food

4. Measures for improving standards of consumption (education, etc.)

COMMITTEE 3

Chairman: José Garibaldi Dantas (Brazil)

Vice Chairman: Cimon P. Diamantopoulos (Greece)

Vice Chairman: Gabriel L. Dennis (Liberia)

Secretary: A. W. Palmer (U.S.A.)

B. Other essential agricultural products

1. Pre-war consumption levels in various countries as influenced by prosperity or depression and by buying power of the population

2. Reasonable national and international goals for improved consumption with sustained employment and expanded industrial activity

SECTION II

Expansion of Production and Adaptation to Consumption Needs

Chairman: Alexey D. Krutikov (U.S.S.R.)
Vice Chairman: Sir Girja Shankar Bajpai (India)
Reporter: Murray D. Lincoln (U.S.A.)
Secretary: F. F. Elliott (U.S.A.)
Assistant Secretary: Clayton Whipple (U.S.A.)

COMMITTEE 1

Chairman: G. S. H. Barton (Canada)
Vice Chairman: J. M. Troncoso (Dominican Republic)
Vice Chairman: Yilma Deressa (Ethiopia)
Secretary: Bushrod W. Allin (U.S.A.)

- A. Measures for direction of production toward commodities, the supply of which should be increased
- B. Measures for shifting production out of commodities in chronic surplus

COMMITTEE 2

Chairman: Héctor David Castro (El Salvador)
Vice Chairman: Stefan Krolkowski (Poland)
Vice Chairman: César García Álvarez (Colombia)
Secretary: Philip V. Cardon (U.S.A.)

- C. Measures for improving agricultural productivity and efficiency

COMMITTEE 3

Chairman: Joaquín M. Elizalde (Philippine Commonwealth)
Vice Chairman: Roberto Alamo Ibarra (Venezuela)
Vice Chairman: París E. Menéndez (Paraguay)
Secretary: Mark L. Nichols (U.S.A.)

- D. Measures for development and conservation of agricultural resources

COMMITTEE 4

Chairman: E. McCarthy (Australia)
Vice Chairman: André Liautaud (Haiti)
Vice Chairman: Marcos Carias Reyes (Honduras)
Secretary: Conrad Taeuber (U.S.A.)

- E. Opportunities for occupational adjustments in agricultural populations

SECTION III

Facilitation and Improvement of Distribution

Chairman: João Carlos Muniz (Brazil)
Vice Chairman: Branko Cubrilovic (Yugoslavia)
Reporter: G. H. C. Hart (Netherlands)
Secretary: Howard S. Piquet (U.S.A.)

COMMITTEE 1

Chairman: J. P. R. Maud (Great Britain)
Vice Chairman: Jan V. Hyka (Czechoslovakia)
Vice Chairman: Gerardo Klinge (Peru)
Secretary: Frank A. Waring (U.S.A.)

- A. Relation of national and international economic policies to agricultural problems, with special reference to the facilitation of the movement of agricultural products in commerce
 - 1. Expansion of international trade
 - 2. Broad policies for assuring increased production and consumption in general

COMMITTEE 2

Chairman: G. A. Duncan (New Zealand)
Vice Chairman: Eduardo Morillo Safa (Mexico)
Vice Chairman: Ramón Antonio Vega (Panama)
Secretary: Frederick L. Thomsen (U.S.A.)

- B. Improvement of agricultural marketing, processing, and distribution

COMMITTEE 3

Chairman: Hervé Alphand (French Delegation)
Vice Chairman: A. P. van der Post (South Africa)
Vice Chairman: Alfredo Peñaherrera Vergara (Ecuador)

Secretary: Frederick V. Waugh (U.S.A.)
Assistant Secretary: Faith M. Williams (U.S.A.)

- C. Special measures for wider food distribution
 - 1. Improvement of consumption of low-income groups
 - 2. International disposition of commodities in over-supply

COMMITTEE 4

Chairman: M. P. L. Steenberghe (Netherlands)
Vice Chairman: Hussein Bey M. Enan (Egypt)
Vice Chairman: Julio Gómez Robles (Guatemala)
Secretary: Robert M. Carr (U.S.A.)

- D. Buffer stocks and commodity arrangements to assure equitable prices and adequate supplies

SECTION IV

Recommendations for Continuing and Carrying Forward the Work of the Conference

Chairman: Richard Law (Great Britain)
Vice Chairman: Amadeo López Castro (Cuba)
Reporter: F. L. McDougall (Australia)
Secretary: Loyd V. Steere (U.S.A.)
Assistant Secretary: Benjamin Gerig (U.S.A.)

The final Plenary Session was held on June 3, 1943. As a result of the deliberations, as

recorded in the minutes and reports of the respective Committees and Sections and of the Plenary Sessions, the United Nations Conference on Food and Agriculture approved the following declaration, resolutions, and recommendations.

I. DECLARATION

This Conference, meeting in the midst of the greatest war ever waged, and in full confidence of victory, has considered the world problems of food and agriculture and declares its belief that the goal of freedom from want of food, suitable and adequate for the health and strength of all peoples, can be achieved.

1. The first task is to complete the winning of the war and to deliver millions of people from tyranny and from hunger. During the period of critical shortage in the aftermath of war, freedom from hunger can be achieved only by urgent and concerted efforts to economize consumption, to increase supplies and distribute them to the best advantage.

2. Thereafter we must equally concert our efforts to win and maintain freedom from fear and freedom from want. The one cannot be achieved without the other.

3. There has never been enough food for the health of all people. This is justified neither by ignorance nor by the harshness of nature. Production of food must be greatly expanded; we now have knowledge of the means by which this can be done. It requires imagination and firm will on the part of each government and people to make use of that knowledge.

4. The first cause of hunger and malnutrition is poverty. It is useless to produce more food unless men and nations provide the markets to absorb it. There must be an expansion of the whole world economy to provide the purchasing power sufficient to maintain an adequate diet for all. With full employment in all countries, enlarged industrial production, the absence of exploitation, an increasing flow of trade within and between countries, an orderly

management of domestic and international investment and currencies, and sustained internal and international economic equilibrium, the food which is produced can be made available to all people.

5. The primary responsibility lies with each nation for seeing that its own people have the food needed for life and health; steps to this end are for national determination. But each nation can fully achieve its goal only if all work together.

6. We commend to our respective governments and authorities the study and adoption of the findings and recommendations of this Conference and urge the early concerted discussion of the related problems falling outside the scope of this Conference.

7. The first steps toward freedom from want of food must not await the final solution of all other problems. Each advance made in one field will strengthen and quicken advance in all others. Work already begun must be continued. Once the war has been won decisive steps can be taken. We must make ready now.

II. INTERIM AND PERMANENT COMMISSIONS FOR CARRYING OUT THE RECOMMENDATIONS OF THE UNITED NATIONS CONFERENCE ON FOOD AND AGRICULTURE

WHEREAS:

1. Freedom from want is difficult to achieve without concerted action among all like-minded nations to expand and improve production, to increase employment, to raise levels of consumption, and to establish greater freedom in international commerce;

2. The successful carrying out of the recommendations of the Conference in the field of production, distribution, and consumption of food and other agricultural products in the post-war period will be the most important prerequisite for the achievement of freedom from want, and requires the creation by the governments and authorities here represented of a permanent organization in the field of food and agriculture; therefore

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented recognize and embody in a formal declaration or agreement the obligation to their respective peoples and to one another, henceforth to collaborate in raising levels of nutrition and standards of living of their peoples, and to report to one another on the progress achieved;

2. That the governments and authorities here represented establish a permanent organization in the field of food and agriculture; and

RESOLVES:

1. That in order that every practicable step may be taken to attain these and the other appropriate objectives set forth in the declaration and specific recommendations of the Conference, an Interim Commission for carrying out the recommendations of the United Nations Conference on Food and Agriculture be established.

2. That each of the governments and authorities here represented be entitled to designate a representative on the Interim Commission, and that the Interim Commission be installed in Washington not later than July 15, 1943;

3. That the Interim Commission perform its work with due regard to the exigencies of the war, through such form of organization and personnel as it may deem appropriate; and formulate regulations covering its expenditures and submit to the member governments and authorities a budget and allocation of quota contributions;

4. That the functions of the Interim Commission be to formulate and recommend for consideration by each member government or authority:

(a) A specific plan for a permanent organization in the field of food and agriculture;

(b) The formal declaration or agreement referred to in the first recommendation, in which each participant shall recognize its obligation:

(i) To raise the levels of nutrition and standards of living of its own people;

(ii) To improve the efficiency of agricultural production and distribution;

(iii) To cooperate, so far as may be possible, with other nations for the achievement of these ends;

(iv) To undertake to submit periodically to the other participants, through the permanent organization, reports on the action taken and the progress achieved toward these ends;

(c) Such proposals or reports as are necessary to give effect to the recommendations of the Conference;

5. That in the preparation of a plan for the permanent organization the Interim Commission give full consideration to the following:

(a) The relation of the permanent organization to, and methods of associating it with, other institutions, national as well as international, which already exist or which may hereafter be established, in the field of food and agriculture and in related scientific, economic, and other fields;

(b) Provision for membership in the permanent organization, in due course, of governments not represented on the Interim Commission;

6. That in considering the functions and duties to be assigned to the permanent organization the Interim Commission take into account:

(a) The promotion of scientific, technological, social, and economic research;

(b) The collection and dissemination of information and provision for the exchange of services;

(c) The submission to member governments and authorities of recommendations for action with regard to the following:

(i) Nutrition;

(ii) Standards of consumption of food and other agricultural products;

(iii) Agricultural production, distribution, and conservation;

(iv) Statistics and economic studies in the field of agriculture and food, including the

study of the relation of agriculture to world economy;

(v) Education and extension work in the field of food and agriculture;

(vi) Agricultural credit;

(vii) Problems of agricultural population and farm labor;

7. That the Interim Commission further consider the desirability of assigning to the permanent organization functions in the field of:

(a) Development of agricultural resources and orientation of production, where necessary;

(b) Agricultural commodity arrangements;

(c) Agricultural cooperative movements;

(d) Land tenure;

(e) Other subjects on which recommendations have been made by the Conference;

8. That the Interim Commission also consider the initiation of preliminary statistical investigations and research into the problems with which the permanent organization will deal;

9. That the Interim Commission be deemed to have been dissolved when the permanent organization has been established;

10. That the Government of the United States of America be invited to take whatever preliminary action may be necessary for the establishment of the Interim Commission after the United Nations Conference on Food and Agriculture has completed its work.

III. IMPROVEMENT OF NATIONAL DIETS

The United Nations Conference on Food and Agriculture

Having reviewed the information submitted by the several delegations on consumption deficiencies and the relation of food to health throughout the world and being deeply impressed by the dominant role played by adequate food in the reduction of sickness and death rates and the maintenance of health,

DECLARES:

1. That the first essential of a decent standard of living is the provision to all men of those

primary necessities which are required to promote freedom from disease, and for the attainment of good health;

2. That the most fundamental of these necessities is adequate food which should be placed within the reach of all men in all lands within the shortest possible time;

3. That ample evidence has been presented revealing the existence of malnutrition in every country, with its inevitable consequences of preventable ill health; and

RECOMMENDS:

1. That the governments and authorities here represented:

(a) Immediately undertake¹ the task of increasing the food resources and improving the diets of their people in accordance with the principles and objectives outlined in the findings of the Conference, and declare to their respective peoples and to other governments and authorities here represented their intention of so doing;

(b) Undertake periodically to report to one another through the permanent organization recommended in Resolution II on the state of their national nutrition and on the steps being taken for its improvement.

IV. DIETS OF VULNERABLE GROUPS

WHEREAS:

1. There are special needs of vulnerable groups, such as pregnant and nursing women, infants, pre-school and school children, adolescents, workers, and individuals receiving low incomes;

2. Families with numerous children in low-income groups are particularly vulnerable;

3. Social, economic, and health measures of various kinds are or should be provided for these groups;

4. Wide experience has shown that direct measures to supplement inadequate diets have been economical and fruitful;

¹ Obviously this is impossible for governments whose territory is entirely or partly occupied by enemy forces.

The United Nations Conference on Food and Agriculture

RECOMMENDS:

That the several governments and authorities here represented undertake positive measures for the improvement of the diets of the vulnerable groups enumerated above.

V. MALNUTRITION AND DISEASE

WHEREAS:

1. Malnutrition is responsible for widespread impairment of human efficiency and for an enormous amount of ill health and disease, reduces the resistance of the body to tuberculosis, and enhances the general incidence and severity of familiar diseases;

2. Mortality rates in infants, children, and mothers are higher in ill-fed than in well-fed populations;

3. Food consumption at a level merely sufficient to prevent malnutrition is not enough to promote health and well-being;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented:

(a) Initiate or continue the study of the relationship between malnutrition and impaired bodily health and vigor; and, in particular, investigate the role of inadequate food consumption in the causation of, and mortality from, all those diseases which constitute their most serious health problems;

(b) Direct their attention to the study of health and well-being and of the nutritional and related factors which are necessary to secure and maintain them;

(c) Consider the most effective means of disseminating knowledge of correct feeding among all sections of the population.

VI. DEFICIENCY DISEASES

WHEREAS:

1. The progressive improvement of diets will result in better health and eventually in the elimination of specific deficiency diseases, and

a great deal of unnecessary suffering could be avoided if an immediate and concerted attack were made upon them;

2. Progress in our knowledge of nutrition makes it possible to seek out, treat successfully, and prevent the recurrence of the common diseases resulting from specific deficiencies in the diet;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the several governments and authorities here represented undertake immediately:

(a) To ascertain the prevalence of specific deficiency diseases among their respective peoples;

(b) To deal with them by suitable dietary and therapeutic measures;

(c) To take appropriate steps to prevent their recurrence.

VII. NATIONAL NUTRITION ORGANIZATION

WHEREAS:

1. A sound food and nutrition policy must be adopted by each government if national diets are to be progressively improved, specific deficiency diseases eliminated, and good health achieved;

2. Such a policy requires the guidance of a central authority with special competence and responsibility to interpret the science of nutrition in the light of national conditions and to propose to the appropriate authorities practical means for extending its benefits to all sections of society;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented:

(a) Undertake to establish national nutrition organizations, if such do not now exist, entrusted with the responsibility of ascertaining food-consumption habits and the nutritional status of different sections of the population;

such organizations to be composed of authorities in health, nutrition, economics, and agriculture, together with administrators and consumers' representatives, etc.; to be provided with adequate funds and facilities for the efficient conduct of their work; and to have the authority to bring their recommendations to the attention of the public and to those agencies of government which deal with agriculture and the framing of economic and social policy;

(b) Re-examine and, if necessary, reorganize existing agencies and review legislation concerned with health, agriculture, and nutrition to the end that food and nutrition policies may be efficiently carried out.

VIII. EXCHANGE OF INFORMATION AND EXPERIENCE

WHEREAS:

1. Experience has shown that national nutrition organizations receive considerable benefit from periodic exchanges of views and information on methods employed, obstacles encountered, and progress achieved;

2. Governments participating in a common undertaking will wish to collaborate so that levels of food consumption may become more equitable not only among the different sections of the population in a given country but among the several nations of the world as well;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the several national nutrition organizations exchange information and experience and provide mutual assistance, both directly, when desirable, and through the permanent organization recommended in Resolution II, to which they should submit periodic reports on the results of their investigations into national dietary habits and nutritional status, and on the progress achieved in raising the level of food consumption throughout the population;

2. That representatives of the several national nutrition organizations meet regularly under the auspices of the permanent organization to exchange views and to make proposals for any national and international action necessary to facilitate the progress of their work.

IX. DIETARY STANDARDS

WHEREAS:

1. It is essential that there be some measure of the extent to which food supplies should be increased, and of the character and extent of the dietary improvements which need to be carried out;

2. This measure is best provided by dietary standards or allowances based upon scientific evidence;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

That the governments and authorities here represented adopt as the ultimate goal of their food and nutrition policy, dietary standards or allowances based upon scientific assessment of the amount and quality of food, in terms of nutrients, which promote health, and distinguish clearly between these standards and the more immediate consumption goals which necessarily must be based upon the practical possibilities of improving the food supply of their populations.

X. COOPERATION OF EXISTING AGENCIES

WHEREAS:

1. National nutrition organizations were established in many countries before the present war and various national and international health and nutrition agencies had achieved considerable progress in the study and improvement of diets and food-consumption levels in different countries and regions;

2. If no time is to be lost in moving toward the goals set out by the Conference, it is essential to make full use of the information and experience acquired by these agencies;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

That in the establishment of the permanent organization recommended in Resolution II, in any projected regional branches of that organization, and in any national nutrition organizations, due account should be taken of the work and experience of existing international regional or national agencies concerned with food, health, and nutrition; and in any such plans, the possibility of enlisting the cooperation of such agencies should be fully explored.

XI. NON-FOOD PRODUCTS

WHEREAS:

1. Many of the non-food agricultural and marine products are constituent parts of the means to human health and welfare to an extent which merits consideration for them on a plane with food;

2. It is of great importance to consuming countries that there should be a regular and adequate supply of these commodities, and to producing countries that they should be enabled to orient their agricultural enterprises to world demand;

3. The Conference has not found it possible to reach conclusions as to the effective capacity of the world to consume specific products in future years;

4. In many countries and regions which are not well adapted to the production of food, the production of other essential agricultural and marine products and their disposal on domestic and foreign markets provide a major source of income, and the income so derived determines to a large extent the abilities of these countries and regions to secure adequate quantities of the right kinds of food;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the permanent organization recommended in Resolution II:

(a) Investigate the possibility of the development by the nations of the world of national standards of minimum consumption of certain non-food agricultural and marine products, taking into account the varying climatic and other relevant conditions of the different countries;

(b) Arrange at an early date for comprehensive studies of the probable future capacity of the world to consume specific agricultural and marine products in this group, taking into account in this connection the probable effect of synthetic and other substitute products;

(c) Give special study to the development of means by which regions which are not well adapted to the production of food may share in a world-wide improvement of nutrition in keeping with the purpose of the Conference.

XII. CHANGES IN PRODUCTION IN THE SHORT-TERM PERIOD

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That, as a first step in overcoming the general shortage of food, every effort should be made by countries whose agriculture can be expanded in the short-term period, so long as this is required and so far as the conditions of individual countries require or permit, to increase the acreage under crops for direct human consumption and even to hold back the rebuilding of depleted livestock herds—essential though this rebuilding will ultimately be—as well as the production of other crops which compete for acreage with essential foods;

2. That countries whose agriculture has been impaired should, in the immediate post-war period, utilize to the full their agricultural resources to bring about a rapid increase in food production, even if this involves a departure from the use of the resources which in the long run will be required, and even if it delays a return to production policies which are desirable for technical, economic, or nutritional reasons (for instance, in Europe there may need to be a concentration in the first years on vegetables,

bread grains, and other products where production can mature quickly and which yield more calories per acre than livestock);

3. That, pursuant to the above purpose, countries which have been producing more than normal output because of freedom from enemy action should:

(a) In the short run maintain such production;

(b) Whenever possible, increase production further, provided transport and the means of production, etc., are available, to assist in meeting abnormal demands.

4. That, taking into consideration that the degree of shortage of foodstuffs which will develop after the war will depend upon the course of the war and on the harvests, it will be necessary during the period from the present until the termination of the war for each of the nations which has escaped enemy invasion to continue to stress the necessity of production of those products which are required by other nations during the war, and at the same time to produce sufficient quantities of products for home consumption, subject to the requirements of the war effort;

5. That every effort should be made now and immediately after the war by countries in a position to do so, to expand the production of farm machinery and implements, fertilizers, and other materials, including improved seeds, vital to the expansion of food production, and to cooperate in making these materials available to the agricultural producing countries, so far as the exigencies of the war permit.

XIII. COORDINATION IN THE SHORT-TERM PERIOD

WHEREAS:

1. It is the consensus of the Conference that, despite all efforts to increase production, supplies of essential foodstuffs and certain other agricultural and marine products and of the necessary instruments of production, such as fertilizers and machinery, and the means of international transportation will all be inadequate to meet basic requirements in the transition period, which may extend for several years after the cessation of hostilities;

2. It is essential for the preservation of life to secure, through equitable distribution, the maximum advantage from such supplies as may be made available;

3. It is in the interest of producers and consumers alike to avoid social and economic ills due to monopolistic practices or to violent fluctuations arising from unrestrained competition for inadequate supplies, in the prices of food, the instruments of production, and other necessities, including industrial goods;

4. It is in the common interest of all that agricultural production be soundly reestablished and expanded with all possible speed in countries now temporarily occupied by the enemy as soon as they have been liberated;

5. These objectives can be achieved only by the concerted action of governments in the stimulation of production and in the allocation of supplies;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented, for so long after the war as shortages continue, affirm the principle of mutual responsibility and coordinated action for:

(a) The increased production of necessary foodstuffs and other essential agricultural and marine products by all possible means, subject only to the exigencies of war, in each country where such expansion can be accomplished economically, either now or in the future;

(b) The transportation, distribution, and utilization of such products;

(c) The prevention of speculative and violent fluctuations in the prices of food, the instruments of production, and other necessities, including industrial goods, under the conditions of scarcity that appear certain to prevail after the war;

(d) The post-war readjustment of agriculture to achieve a progressive and balanced expansion of production and consumption throughout the world;

2. That these governments and authorities take, individually and in concert, whether by

conference or otherwise, all necessary measures, both domestic and international, to secure the application of this principle and the achievement of these objectives.

XIV. ADJUSTMENT OF PRODUCTION IN THE TRANSITION FROM THE SHORT-TERM TO THE LONG-TERM PERIOD

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That countries whose agriculture has been impaired should progressively modify their short-term allocation of resources to conform more closely to the long-term plan aimed at better nutrition and greater efficiency in production (for instance, in certain parts of Europe this might mean increasing the production of milk products as herds can be reestablished, accompanied by declining production of grains);

2. That countries which will have been producing during the short-term period more than normal output because of freedom from enemy action in the war or which have undertaken new lines of production, should progressively adjust the allocation of agricultural resources to conform to a long-term coordinated production plan for the best use of these resources on a world scale, based on better diets for their own people and on the international demand for nutritionally better food.

XV. LONG-TERM PRODUCTION POLICY

WHEREAS:

1. It is recognized that a secure, adequate, and suitable supply of food should be a cardinal aim in every country;

2. It is recognized that this can be achieved only as part of a world-wide policy of industrial and agricultural expansion;

3. It is recognized that in order to secure this result producers should receive a fair return for their products;

4. In order to attain the highest nutritional standards, a progressive expansion and, where necessary, reorientation in agriculture will be required;

5. It is desirable to formulate a body of principles which are applicable to agricultural policy in appropriate form in all countries;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. (a) That the inherent natural and economic advantages of any area should determine the farming systems adopted and the commodities produced in that area;

(b) That farming systems should be so designed as:

(i) To maintain soil fertility at levels which will sustain yields and ensure adequate return for labor;

(ii) To protect crops and livestock from major pests and diseases;

(iii) To favor steady employment throughout the year;

(These three ends, in general and save in exceptional circumstances, can best be assured by balanced mixed rotational farming and by avoidance of single-crop production, or monoculture);

(c) That production of nutritionally desirable foods which can be obtained from elsewhere only with difficulty or not at all is a special obligation of the agriculture of every country;

(d) In every region subject to drought (occasional or in the form of sharply marked periodic dry seasons) suitable measures should be undertaken, partly by storage and partly by diversification of production and development of water resources and cultural practices;

(e) Land used or likely to be required for agriculture should be protected from erosion;

(f) The spread of existing knowledge by education and the development of new knowledge by research should be constantly promoted, and that in these matters nations can cooperate to great advantage;

2. That, subject to these principles and with the object of expanding production of the foods needed for its people, each nation should undertake to direct its policies toward:

(a) Increasing the efficiency of production in present producing areas through the introduction, as rapidly as conditions permit, of better farming methods, suitable modern equipment, improved varieties of crops and strains of livestock, and soil conservation practices;

(b) Developing any suitable undeveloped areas, where this is economically feasible, through the use of such measures as clearing the land and large-scale drainage and irrigation projects;

(c) Fostering desirable changes in the pattern of production, designed to give greater emphasis to foods rich in vitamins, minerals, and proteins:

(i) By encouraging the production, particularly in areas near consumption centers, of such products as vegetables, fruits, milk, eggs, and meat, which are relatively perishable and high in value and which are also the foods required in greatly increased quantities for better nutrition;

(ii) By encouraging the expansion of livestock production in areas capable of growing or economically shipping in the necessary feedstuffs;

(iii) By limiting the production of bulky, easily stored and transported energy foods, in areas where they cannot be produced efficiently;

(iv) By encouraging the production in single-crop areas of a greater diversity of foods for home use, since these areas are, in general, distant from the sources of perishable products and are particularly in need of improved diets;

(v) By likewise encouraging more diversified and adequate home food production in all farming areas, so that rural people may have more and better food, while eliminating the margin between producer and consumer;

3. That, to implement these aims, having regard to its individual circumstances, each country should adopt the following measures:

(a) The framing of policies designed to encourage production within the country of commodities that need to be produced there in greater amounts and limit production of those

that should not be produced within the country or should be produced in smaller amounts;

(b) The supplying of low-cost credit or other aids that would help producers to acquire necessary materials, equipment, and machinery for more efficient production and better use of the land;

(c) The furnishing of technical assistance to producers where this is needed;

(d) The development of a program of education to help producers understand better farming methods and put them into practice;

(e) The development of a program of research designed to meet the continuing problems of agriculture within the country;

4. (a) That each nation consider the possibility:

(i) Of drawing up periodic reports on steps taken to implement the recommendations set out above, with particular reference to production, exports, imports, and consumption of food and other agricultural and marine products. These reports should, where practicable, be on a statistical basis;

(ii) Of submitting these reports to the permanent organization recommended in Resolution II;

(b) That, with a view to balancing production and consumption, the permanent organization consider to what extent and by what means such reports might contribute to international collaboration both on a regional and on a world basis in the field of agricultural production.

XVI. AGRICULTURAL CREDIT

WHEREAS:

1. Capital development and adequate credit facilities are necessary if agricultural production is to be restored, increased, and intensified;

2. Agricultural credit in some countries has frequently been obtainable only at rates which the farmer could not afford to pay;

3. The agricultural communities in many countries have been unable to obtain information on the organization and development of agricultural credit systems in other countries;

4. In some countries full agricultural development has been or may be obstructed by difficulties in providing adequate capital;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That every endeavor be made to ensure an adequate supply of credit to agriculture;

2. That to this end full use be made of all types of suitable private, cooperative, and public credit institutions;

3. That the rate of interest be as low as possible and the conditions regarding initial cost, redemption, etc., be as favorable as possible for the borrowers, particularly with a view to helping the small farmer;

4. That, in view of the importance of agricultural credit, its requirements be duly recognized by international action taken as a result of this Conference.

XVII. COOPERATIVE MOVEMENTS

WHEREAS:

1. The cooperative movement has been of very great importance in many countries, both to urban and rural populations, especially in agricultural districts where farming is based on small units and in urban areas of low-income families;

2. The proper functioning of cooperative societies may facilitate adjustments of agricultural production and distribution, as members have confidence in the recommendations and guidance of their own cooperative organizations, which they know operate in the interest of their members and of society in general;

3. The democratic control and educational programs, which are features of the cooperative movement, can play a vital part in the training of good democratic citizens, and assist in inducing a sound conception of economic matters;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That, in order to make it possible for people to help themselves in lowering costs of production and costs of distribution and marketing;

(a) All countries study the possibilities of the further establishment of producer and consumer cooperative societies in order to render necessary production, marketing, purchasing, finance, and other services;

(b) Each nation examine its laws, regulations, and institutions to determine if legal or institutional obstacles to cooperative development exist, in order to make desirable adjustments;

(c) Full information as to the present development of cooperatives in different countries be made available through the permanent organization recommended in Resolution II.

XVIII. LAND TENURE AND FARM LABOR

WHEREAS:

Agricultural productivity and efficiency and the well-being of the tiller of the soil depend largely upon the system of land tenure and conditions of farm labor;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That each nation make a careful survey of existing systems of land tenure and the other conditions of agriculture within its boundaries to ascertain whether changes in these systems and conditions are necessary or desirable to promote the productivity and efficiency of agriculture and the welfare of its workers and that special attention be given to the position of the agricultural worker as compared with that of the worker in other industries;

2. That the permanent organization recommended in Resolution II give every assistance in this study.

XIX. EDUCATION AND RESEARCH

WHEREAS:

1. Through the inadequacy of agricultural education, existing knowledge is being very imperfectly applied to agricultural production;

2. Man's increasing demands upon the soil can be met only by the increase of knowledge;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That each nation adopt, and carry out as rapidly as conditions may permit, a policy for:

(a) Strengthening and expanding the educational system of its rural areas;

(b) Training scientific workers and rural leaders for service in agriculture;

(c) Establishing or developing systems of rural adult education (extension systems) designed to promote technical efficiency among producers, to develop understanding of rural problems, and to enrich rural life;

2. That each nation adopt a policy of promoting research in all the branches of science, including economics, which relate to food and agriculture, and to this end cooperate actively with other nations by the exchange of knowledge, materials, and personnel; and that, in particular, each nation agree:

(a) To promote research in the natural sciences and their application to problems of food and agriculture;

(b) To develop economic and sociological investigation of rural problems;

(c) To collaborate with other nations in the collecting and assembling of factual information and statistics of food and agriculture throughout the world;

3. That, as a necessary step in securing effective action in these directions, the permanent organization recommended in Resolution II be charged with the functions:

(a) Of providing advice, and technical and other assistance, to governments desiring this in connection with the establishment or improvement of agricultural research and education;

(b) Of facilitating international help and exchange in the supply of information, services, material, and personnel;

(c) Of assisting in the planning and conduct of any research programs upon which international collaboration has been agreed or desired;

(d) Of acting as a central agency for assembling, analyzing, and disseminating factual data on world agriculture;

(e) Of assisting in a comprehensive abstracting service covering the whole range of agricultural research;

(f) Of assisting scientific societies in the arrangement of international meetings.

XX. CONSERVING LAND AND WATER RESOURCES

WHEREAS:

1. Soil erosion has in the past destroyed or severely limited the utility of vast areas of land and will in the future, unless checked, constitute the greatest physical danger to the world's food production;

2. Failure to conserve and control water supplies and to use them efficiently has, in many areas, precluded important potential increase in food production;

3. To meet the food needs of the growing world population and to ensure high nutritional standards, all land in agricultural use or suitable for being brought into agricultural use should be adequately protected from erosion and from any other serious damage by various measures, including structural work and the insurance of satisfactory agricultural systems and husbandry practices;

4. The conserving of land and water resources should be regarded as an obligation of governments as well as individuals;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That each nation undertake:

(a) To survey its land and water resources with the object of ascertaining:

(i) The extent and causes of soil erosion and water losses;

(ii) The soil and moisture conservation requirements of the areas covered and the types of conservation measures most needed;

(b) To develop soil and water conservation programs based on the findings of such surveys;

(c) To assist farmers in conserving and rebuilding the fertility of the soil;

2. That the necessary implementation of these policies be effected through appropriate economic and other measures such as:

(a) Assisting individual producers in planning and carrying out crop rotations, crop sequences, and other suitable practices;

(b) Protection of forest and afforestation of unprotected watersheds where necessary, including measures for the protection of food-producing wild life, to prevent flood damage and to conserve water needed for direct human consumption and for irrigation;

(c) Building, or assisting in building, dams, terraces, and other structures to minimize the loss of soil fertility through erosion caused by wind or water;

(d) Making readily available to individual producers soil amendments, particularly phosphates and lime, that will make possible expanded production of leguminous and other soil-building crops;

(e) Development and employment of farming systems and husbandry practices which ensure soil conservation;

(f) Developing a program of research designed to determine the best methods and practices for bringing about conservation of land and water resources under various conditions;

(g) Developing a program of education to inform the public generally of the importance and need of conservation and to help producers to understand and put into practice better farming methods;

3. That the permanent organization recommended in Resolution II provide assistance by such means as:

(a) Formulation of a body of principles for the conduct of soil-conservation work;

(b) Collection and interchange between nations of data and information on erosion, erosion-control methods, and other pertinent matters;

(c) Interchange between nations of personnel technically trained in the development of conservation research and in the application of its findings.

XXI. DEVELOPMENT AND SETTLEMENT OF LAND FOR FOOD PRODUCTION

WHEREAS:

1. If freedom from want is to be achieved throughout the world by full development of food-producing resources, conservation of existing lands and the development of new areas must be given primary consideration;

2. There are large areas of land capable of materially adding to the world's food supply which can be opened to food production if transportation facilities were made available and insanitary conditions and other deterrents corrected;

3. There are many areas of great extent not now producing or in a low state of production because of lack of water-conserving and storing facilities for irrigation, lack of drainage, frequent flooding by rivers, wastage by erosion, deficiencies of plant food, accumulation of alkali, or improper development;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That each nation undertake:

(a) To survey its land and water resources to determine (1) in what areas, if opened to settlement, production of food could materially be increased; (2) what areas, if supplied with additional production facilities, such as water supply for irrigation, improved drainage, or by the correction of deterrents to production, could materially increase their production of food; (3) the kind, extent, and economic possibility of developments necessary for this increase in food production;

(b) To develop on the basis of these findings policies of settlement and development of a program applicable to the economic, social, agricultural, and geographical needs of the nation of which it is a part, considering:

(i) Physical conditions including (1) soils and climate, (2) health conditions, (3) transportation, and (4) clearing, irrigation, or drainage needs;

(ii) Settlement policies, including (1) the type of farming systems to be established, (2) the scale of working by plantations, small holdings, or cooperative organization of areas for production, (3) measures to prevent speculation and exploitation, and (4) financial and other assistance;

(iii) Conservation measures for sustained production of the area, including (1) agronomic and management practices, (2) conservation structures and practices, (3) protection against alkali accumulations, and (4) measures of forest conservation and reforestation;

2. That the necessary implementation of these policies and programs be given through appropriate measures applicable to conditions and needs of each region or area, including:

(a) A comprehensive engineering service providing for developments affecting the entire area, such as transportation, improvement of sanitary conditions, water-storage reservoirs, drainage channels, and flood protection;

(b) Development of a program of sound land use, including conservation measures;

(c) Provision for technical assistance to individual producers in planning and developing the areas under their supervision;

(d) Provision for financial assistance to settlers for further development and operation;

(e) Provision for marketing produce, including necessary processing and preservation;

3. That the permanent organization recommended in Resolution II provide assistance by such means as:

(a) The interchange between nations of pertinent data and information on erosion and methods of control, land improvements, etc.;

(b) The interchange between nations of technically trained personnel to assist in the development of conservation research, etc.

XXII. OCCUPATIONAL ADJUSTMENTS IN RURAL POPULATIONS

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That, in order to effect the necessary occupational adjustments in agricultural populations:

(a) Agricultural efficiency should be improved and new lands brought under cultivation wherever possible;

(b) Areas which have a large agricultural population in relation to their agricultural resources should:

(i) Develop industries suitable to the area, particularly for the processing and preserving of the agricultural produce of the country, and, where feasible, for the manufacture of machinery, fertilizer, and equipment needed for agriculture;

(ii) Be encouraged, wherever it is economically sound, to export processed articles instead of the raw product, and in particular to take advantage of any reductions of trade barriers in the importing countries;

(iii) Be assisted in securing capital for the development of industrial and transportation facilities and for the development of export outlets for processed products;

(iv) Be assisted in securing facilities for the importation of machinery and tools where such are necessary;

(v) Be assisted in securing and training technical personnel;

(vi) Undertake programs of public works and, where necessary, be assisted in securing technical advice and access to capital;

(vii) Develop sources of employment in public and private services;

(c) Where agricultural settlements are possible, appropriate steps should be taken to facilitate the movement of people from overmanned agricultural areas;

(d) In order to help in intra-national and international migration where these are feasible:

(i) Occupational training should be provided;

(ii) Labor bureaus should be set up where necessary;

(iii) Transportation, communication, housing, sanitation, health, and other public facilities necessary to effective settlement should be provided by the country receiving the migrants;

(iv) Steps should be taken to provide for the economic security of the migrants;

(e) Where emigration is possible, an international organization should support arrangements to provide adequate safeguards for the settlers and for the countries concerned, and to facilitate the movement through other appropriate means.

XXIII. INTERNATIONAL SECURITY

WHEREAS:

1. Freedom from want cannot be achieved without freedom from fear;

2. Policies of aggression and the fear of aggression have induced the uneconomic employment of human and material resources, the development of uneconomic industries, the imposition of barriers to international trade, the introduction of discriminatory trade practices, and the expenditure of huge sums on armaments;

3. These obstructions to a progressively expanding economy cannot be removed without effective collaboration among nations;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented, by virtue of their determination to achieve freedom from want for all people in all lands, affirm the principle of mutual responsibility and coordinated action to establish such conditions of international security as will

make possible an expanding and balanced world economy;

2. That these governments and authorities take in concert all necessary measures to secure the application of this principle and the achievement of this objective.

XXIV. ACHIEVEMENT OF AN ECONOMY OF ABUNDANCE

WHEREAS:

1. The first cause of hunger and malnutrition is poverty.

2. The promotion of the full employment of human and material resources, based on sound social and economic policies, is the first condition of a general and progressive increase in production and purchasing power;

3. The sound expansion of industry in undeveloped and other areas, with equality of access to materials and markets, serves also to expand production and purchasing power and is therefore indispensable to any comprehensive program for the advancement of agriculture;

4. Tariffs and other barriers to international trade, and abnormal fluctuations in exchange rates, restrict the production, distribution, and consumption of foodstuffs and other commodities;

5. Progress by individual nations toward a higher standard of living contributes to the solution of broader economic problems, but freedom from want cannot be achieved without effective collaboration among nations;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented, by virtue of their determination to achieve freedom from want for all people in all lands, affirm the principle of mutual responsibility and coordinated action:

(a) To promote the full and most advantageous employment of their own and all other people and a general advance in standards of living, thereby providing for an increase in both production and purchasing power;

(b) To promote the uninterrupted development and most advantageous use of agricultural and other material resources for the establishment of an equitable balance between agriculture and industry in the interest of all;

(c) To secure for agriculture the stimulus of additional purchasing power through the sound development of industry;

(d) To assist in the achievement of these ends by all appropriate means, including the supply of capital, equipment, and technical skill;

(e) To maintain an equilibrium in balances of payments, and to achieve the orderly management of currencies and exchange;

(f) To improve the methods and reduce the cost of distribution in international trade;

(g) As an integral part of this program, to reduce barriers of every kind to international trade and to eliminate all forms of discriminatory restrictions thereon, including inequitable policies in international transportation, as effectively and as rapidly as possible;

2. That these governments and authorities take, individually and in concert, whether by conference or otherwise, all necessary measures, both domestic and international, to secure the application of this principle and the achievement of these objectives.

XXV. INTERNATIONAL COMMODITY ARRANGEMENTS

WHEREAS:

1. Excessive short-term movements in the prices of food and agricultural commodities are an obstacle to the orderly conduct of their production and distribution;

2. Extreme fluctuations of the prices of food and agricultural products aggravate general deflationary and inflationary tendencies, which are injurious to producers and consumers alike;

3. The mitigation of these influences would promote the objectives of an expansionist policy;

4. Changes in the scale and character of production to meet more effectively the world's need for food and agricultural products may in certain instances require a period of transition and

international cooperation to aid producers in making necessary readjustments in their productive organization;

5. International commodity arrangements may play a useful part in the advancement of these ends but further study is necessary to establish the precise forms which these arrangements should take and whether and to what extent regulation of production may be needed;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That international commodity arrangements should be designed so as to promote the expansion of an orderly world economy;

2. That, to this end, a body of broad principles should, through further international discussion, be agreed upon regarding the formulation, the provisions, and the administration of such international commodity arrangements as may be deemed feasible and desirable and should include assurance that:

(a) Such arrangements will include effective representation of consumers as well as producers;

(b) Increasing opportunities will be afforded for supplying consumption needs from the most efficient sources of production at prices fair to both consumers and producers and with due regard to such transitional adjustments in production as may be required to prevent serious economic and social dislocations;

(c) Adequate reserves will be maintained to meet all consumption needs;

(d) Provision will be made, when applicable, for the orderly disposal of surpluses;

3. That international organization should be created at an early date to study the feasibility and desirability of such arrangements with reference to individual commodities and, in appropriate cases, to initiate or review such arrangements to be entered into between governments, and to guide and coordinate the operations of such arrangements in accordance with agreed principles, maintaining close relations with such programs as may be undertaken in other fields of international economic activity to the end

that the objective of raising consumption levels of all peoples may be most effectively served.

XXVI. SPECIAL NATIONAL MEASURES FOR WIDER FOOD DISTRIBUTION

WHEREAS:

1. Even in the most prosperous countries there are many families which cannot afford to buy enough good food;

2. In some countries, and at some times, hunger and semistarvation have been widespread;

3. This situation has existed even when agricultural prices have been low and when large supplies of food have piled up in warehouses or rotted in the fields, and the problem will not be fully met by general economic measures to stimulate production and trade;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented accept the responsibility of making it possible, so far as it is within their power, for each person in their respective countries who is without an adequate diet, to improve his diet in the direction of obtaining the physiological requirements of health, adopting such of the following, or other, measures as are designed to fit local conditions and institutions:

(a) Adequate social-security measures, such as family allowances, social insurance, and minimum wages;

(b) Some form of direct action to make protective foods available free, or at low prices, to groups with inadequate diets;

(c) Special attention to assisting such groups as pregnant women, nursing mothers, infants, children, aged persons, invalids, and low-paid persons;

2. That the diets provided under these programs be based upon the best scientific information on nutritional needs;

3. That food-distribution measures be coordinated with programs to increase food production and to bring about adjustments in agriculture and fishing which will, on the one hand,

encourage the production and distribution of those foods most lacking in the diets of the country, and adapted to the soils and climates; and will, on the other hand, provide an adequate level of living to persons engaged in farming and fishing;

4. That the permanent organization recommended in Resolution II assist the several governments and authorities in making surveys of nutritional needs, in helping develop new food-distribution programs, in disseminating information concerning those programs, and in aiding to coordinate efforts in this field.

XXVII. SPECIAL INTERNATIONAL MEASURES FOR WIDER FOOD DISTRIBUTION

WHEREAS:

1. The provision of adequate food for all the people in each nation is primarily the responsibility of the nation concerned and that this responsibility will be met primarily by national measures;

2. Nevertheless, undernutrition may continue for long periods of time in certain countries, while they are developing their agriculture and industry, and before they are able to produce internally or acquire abroad adequate amounts of food to meet the needs of their people;

3. It is generally agreed that it would be desirable if arrangements could be made whereby a part of current world food supplies could be used to supplement the national food-distribution programs of certain countries;

4. Moreover, relatively little attention has been given in the past to the possibilities of developing special measures for wider food distribution in the international field;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the permanent organization recommended in Resolution II study the possibility of devising measures to meet the needs of countries with inadequate supplies, and the machinery needed for this purpose, distinguishing between methods which would be used in the case of famines following catastrophes, and in

the case of countries where the available food supplies are generally inadequate;

2. That the problems of developing special international measures for wider food distribution in the latter case be studied in connection with plans in the countries concerned for the long-term development of the national resources, and for raising the technical skill and the level of living of their workers, and that the above-mentioned permanent organization collaborate with the International Labor Office on this question.

XXVIII. GOVERNMENT AND OTHER NATIONAL SERVICES IN MARKETING

WHEREAS:

Improvements in the marketing of foods and other products of agricultural or marine origin are largely dependent upon certain basic government services, including the provision of quality standards, an efficient grading and inspection service, marketing research and education designed to promote improved marketing practices, and protection of the public, through the medium of pure-food laws, against impurities or adulterations and against unfair competition and undesirable trade practices;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the permanent organization recommended in Resolution II:

(a) Investigate the practicability, and, if practicable, assist in the adoption of international grade standards for agricultural and marine commodities and of providing machinery for controlling the use of any such international grade standards in international trade;¹

(b) Give assistance to governments and other national organizations looking to the establishment in each country of adequate

grade standards and technical advisory and inspection services covering appropriate products, and, if requested, advise in the promotion of the educative, administrative, and legislative action necessary to achieve this objective;²

(c) Promote standardization of containers, both nationally and internationally, along the lines suggested in connection with grades;³

(d) Assist governments to extend and improve standards of nutrient content and purity of all important foods, consider also the formulation and adoption of similar international standards to facilitate and protect the interchange of such products between countries, and agree upon international methods of determination;⁴

²The primary purpose of grade standards is to improve the quality and permit the purchase and sale of commodities by description rather than by inspection of each lot by buyers and sellers. Such standards (1) supply the basis for a common language for describing the product marketed; (2) facilitate trading by minimizing misunderstandings concerning the quality of the products; (3) reduce losses from rejections and costs of arbitration; (4) facilitate price quotations and other market information on the basis of quality; (5) reduce or eliminate the costs of re-sampling or inspection in various stages of marketing; (6) improve the collateral value of warehouse receipts and thus reduce financing costs; (7) help buyers to obtain the qualities of products they need; (8) permit the distribution of the various qualities on the basis of their most advantageous outlets; and (9) facilitate payments to producers on the basis of quality, which in turn would encourage adjustments in the qualities produced on the basis of consumer demand.

³Standardization of containers has not developed to the same extent as has standardization of grades. Lack of standardization gives rise to waste and confusion in the distribution of food.

⁴In order to protect health and improve nutrition, minimum standards for the nutrient content, and in certain cases for the methods of preparation and for the artificial enrichment of staple foods, should be prescribed by governments. These steps should be taken in addition to any measures designed to secure the absence of toxic substances and organisms from food under the usual type of pure-food laws. International standards of labeling and packaging can help, but in general the most effective action can be taken by individual countries themselves.

¹The use of any such standards should be voluntary on the part of individual countries and, if used, any one grade should apply uniformly throughout the world.

(e) Consider the formulation and adoption of international standards or minimum requirements for drugs, insecticides, fungicides, fertilizers, and other materials used by agricultural producers, in order to prevent misrepresentation in their preparation and sale, and to promote the purchase of products best suited to particular uses;⁵

(f) Consider whether existing international market news services adequately supply and coordinate information and statistics on prices and supply and demand; and promote any improvements considered necessary;⁶

(g) Urge upon governments the necessity, in the interests of better nutrition and better living, for further research into:

(i) Consumer needs, including palatability, packaging, food habits, shopping habits, shopping facilities, etc.;

(ii) Improved methods, with particular reference to perishable protective foods and any commodities of which buffer or other stocks may be held, of processing, preservation, storage, packaging, and transport;

(iii) Economics of marketing, including processing and retail distribution, consumer needs, and ways in which the shopkeeper, trader, and farmer can be helped to meet these needs;

(iv) The relation of food production on the farm to market demand and nutritional requirements; and

engage in the dissemination of the information so obtained, and urge on governments the need for education of the producer, the intermediary, and the consumer in the principles of good marketing, and in marketing technique, including processing and storage;

2. That the governments and authorities here represented take steps to ensure that producers

and consumers are adequately protected against trade malpractices and against exploitation in the purchase and sale of food and other products of agricultural or marine origin, and commend general and specific measures to prevent confusion as to quality and country of origin; and that the permanent organization above-mentioned assist, if requested, governments and authorities to this end, and, if appropriate, formulate international codes of trade practices.⁷

XXIX. ADDITIONS TO AND IMPROVEMENTS IN MARKETING FACILITIES

WHEREAS:

1. Many countries are lacking in adequate facilities for the preservation of essential foods for consumption throughout the year, and for the production, transport, and distribution of these foods to satisfy nutritional needs;

2. The destruction and disorganization of marketing facilities resulting from the war will make this problem particularly acute in countries which are the victims of hostilities;

3. Technological developments in food preservation, processing, and transport have been accelerated by the war and give promise of contributing materially to the solution of these problems;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented take steps to secure the provision of adequate processing, transportation, and distribution facilities required for improving the nutritional levels of their populations; and that the permanent organization recommended in Resolution II study the technical, scientific, and economic factors involved, with particular reference to developments during the war, arrange for the pooling of knowledge thus acquired, and

⁷ There is general approval in all countries of legislative and regulatory measures designed to protect both consumers and producers from exploitation arising from unfair trade practices, but some governments have been slow to act in such cases.

⁵ In some countries little has been done to protect agriculturists from exploitation in the purchase of materials used in agricultural production.

⁶ International machinery is desirable for the dissemination of such information and for the promotion of action by governments to make available comprehensive market data.

give all possible assistance to the governments and authorities in realizing these objectives;⁸

2. That steps be taken by each country to achieve full utilization of important new technological developments in food preservation, transportation, and marketing, including especially dehydration, freezing, and ocean and air transportation;⁹

3. That the permanent organization above-mentioned take steps to obtain, collate, and disseminate information regarding conditions of marketing, processing, and storage facilities in all countries, including those devastated by war, with particular reference to any increased facilities needed and to the rehabilitation of countries devastated by war, in order to promote the expansion of marketing facilities in a carefully planned rather than a haphazard manner;¹⁰

⁸ The methods of attaining these objectives will vary in different countries in accordance with circumstances and may include action by governments to establish in each country central organizations responsible for the work of carrying out these objectives by means of appropriate legislation designed to assist the production, processing, and distribution of the products of their economy, using the most up-to-date technological methods adapted to the conditions peculiar to each country. Among the objectives of this action are better utilization of foods not consumed in fresh form, the avoidance of loss of the nutritive value of perishable foods, the prevention of waste, and the stabilization of marketing conditions to induce so far as possible an adequate and even flow of foods to consumers. Special attention should be given to the establishment of local markets, which must be built up hand in hand with increased local production of protective foods to ensure the commercial success of both production and marketing.

⁹ The war has speeded up the development of new methods of preserving perishable foods, and of facilities for ocean and air-cargo transportation, which will have very important effects upon post-war national and international trade in foodstuffs. Many countries by means of air transport will be able to draw upon much wider areas of production for their supplies of the protective foods in concentrated form, and to transport and distribute such foods to presently inaccessible areas and among sectors of the national populations now having inadequate diets.

¹⁰ Much rebuilding and readjustment of plants and personnel required for the marketing of foodstuffs will be necessary after the war. This offers an opportunity not only to meet quickly the immediate post-war needs, but also to build a marketing system adapted to modern

4. That governments examine transport deficiencies, both internally and in connection with export and import trade, which may be hindering the development of adequate and efficient marketing of foodstuffs and other agricultural and marine products and take such steps as may be necessary to rectify deficiencies; and that any international body concerned with international transport assist to this end.¹¹

XXX. INCREASING THE EFFICIENCY AND REDUCING THE COST OF MARKETING

WHEREAS:

1. The maintenance of food consumption among the peoples of the world at levels sufficiently high to satisfy minimum health requirements calls for the provision of greater quantities of better food at reasonable prices;

2. Except in some countries where consumers largely produce their own food supplies, a substantial part of the total cost of food to the consumer consists of marketing costs (including the costs of assembly, grading, inland and sea transport, storage, wholesale and retail distribution), processing costs, and the rewards of enterprise;

3. In some countries, the provision of unessential services increases the margin between the producer and consumer;

4. Reduction in marketing costs and margins can benefit both producer and consumer alike;

needs, with particular reference to the attainment of increased consumption of essential foods. This will require foresight, planning, and action designed to forestall haphazard reconstruction based on temporary expediency rather than long-term efficiency and adequacy.

¹¹ Transportation charges frequently absorb a large or even a prohibitive part of the price of products, and ocean shipping or internal transportation charges may be so high as to prevent the interchange of products which is necessary if consumers are to be adequately supplied. The provision of transportation and storage services under present arrangements awaits the development of adequate volume of production, yet this volume cannot be built up without the transportation and other services necessary to encourage it. These difficulties cannot be solved by individual or private initiative alone; and governments should assume the responsibility by adequate action to overcome them.

The United Nations Conference on Food and Agriculture

RECOMMENDS:

1. That the governments and authorities here represented take all practicable steps to reduce marketing, processing, storage and distribution costs, and margins between producers and consumers, particularly by the elimination of unessential services not required by producers or by low-income consumers.¹²

2. That the permanent organization recommended in Resolution II collect and disseminate information on marketing costs and margins in different countries and in international trade, on the factors which determine or influence such costs and margins, and on the steps taken by governments, by cooperative associations, and by private enterprise to reduce them.¹³

¹² Most of the links in the chain from producer to consumer are essential but there is a tendency for extravagant services to develop. There is considerable scope for reduction of marketing costs by the elimination of unessential services, including unnecessary transport. Attention should also be directed to the possibilities of reducing marketing, processing, and distribution costs by:

(a) Assisting merchants in the adoption of more efficient methods of operation;

(b) Effecting such reorganization of marketing channels as may reduce to a minimum the number of steps involved in taking the products from the farms to consumers;

(c) Regulating the charges of transportation agencies or other factors in marketing if such charges are not kept at reasonable levels by competition;

(d) Assisting in establishing or financing on a sound commercial basis of new and more efficient processing, storage, and transportation facilities.

¹³ Although each country will seek to improve the efficiency of marketing in conformity with its economic and agricultural circumstances, there is a need for some international agency which can collect, analyze, and disseminate facts and experience relating to marketing costs and margins. Such data will assist not only governments but also cooperatives and private enterprises in formulating policies aimed at reducing marketing costs and hence the margin between producer and consumer.

XXXI. FISH AND MARINE PRODUCTS

WHEREAS:

1. Fish, marine animals, and marine products are essential in high degree to the diet of the people of many countries and play an important role in the nutrition of other countries;

2. The production of fish and marine products is vital to the economy of certain countries, and the adequate livelihood of the fisherman, like that of the farmer, depends upon a balanced world economy;

3. Consideration of questions relating to fish and marine products is important in any program designed to meet immediate and long-term food and other requirements;

The United Nations Conference on Food and Agriculture

RECOMMENDS:

That the general conclusions reached by this Conference apply, wherever appropriate, to fish and marine products, and that these subjects be considered by the permanent organization recommended in Resolution II.

XXXII. RESOLUTION OF APPRECIATION TO THE PRESIDENT OF THE UNITED STATES OF AMERICA

The United Nations Conference on Food and Agriculture expresses its gratitude to the President of the United States of America, Franklin Delano Roosevelt, for his initiative in convening the present Conference, for its preparation, and for his contribution to its success. This resolution is to be embodied in the Final Act of the Conference.

XXXIII. APPRECIATION TO THE OFFICIALS OF THE CONFERENCE

WHEREAS:

1. The United Nations Conference on Food and Agriculture was able to conduct its work under conditions of exceptional efficiency;

2. This efficiency and consequent good results, in no small measure resulted from the wisdom and talents of the Chairman, the Hon-

orable Marvin Jones, whose ideals of international solidarity were a source of inspiration and stimulus to all;

3. Without the previous and exhaustive preparation of documentary materials submitted to the Conference by the Secretariat and without its painstaking work, it would not have been possible for the Conference to attain in such a short time the results achieved;

The United Nations Conference on Food and Agriculture

RESOLVES:

1. To express to its Chairman, the Honorable Marvin Jones, its deep appreciation for the admirable manner in which he has guided the Conference and to pay to him the tribute of its gratitude; and

2. To express to the Secretary General, to the Press Relations Officer, to the Assistant Secretary General, to the Secretariat, and to the clerical staff its appreciation for the efficiency and diligence shown in preparing the numerous documentary materials and in assisting the Conference in attaining its objectives.

IN WITNESS WHEREOF, the following delegates sign the present Final Act.

DONE at Hot Springs, Virginia, on the third day of June, nineteen hundred and forty-three, in the English language, the original to be deposited in the archives of the Department of State of the United States, and certified copies thereof to be furnished by the Government of the United States of America to each of the governments and authorities represented at the Conference.

[Signatures follow here.]

APPENDIXES

Appendix 1

REPORT OF SECTION I

CONSUMPTION LEVELS AND REQUIREMENTS

PART I. FOOD

INTRODUCTION

The science of nutrition is largely a product of this century and has advanced rapidly since the last war. The work of scientists in many countries has produced a mass of new knowledge of the greatest practical significance. Its bearing on human affairs can perhaps be summarized in four sentences:

1. The kind of diet which man requires for health has been established.

2. Investigations in many parts of the world have shown that the diets consumed by the greater part of mankind are nutritionally unsatisfactory.

3. Diets which do not conform with the principles of satisfactory nutrition lead to impaired physical development, ill-health, and untimely death.

4. Through diet a new level of health can be attained, enabling mankind to develop inherited capacities to the fullest extent.

There is clear and convincing evidence of the association between faulty diet and ill-health. The ill effects of not eating enough of the right kind of food are manifold. In the first place, malnutrition leads to impaired vigor and lowered vitality, so that its victims cannot fully play their part as active and useful citizens. Secondly, the incidence of disease in general and the mortality rate among infants, young children, women in the childbearing period, and indeed among all age groups, are invariably higher in ill-fed than in well-fed populations. Recovery from disease is more prolonged when the diet is defective. Countries which consume the best diets have the lowest rates of mortality and the highest expectation of life.

Thirdly, there are various common diseases, such as tuberculosis, which are directly associated with lowered resistance caused by malnutrition. Finally, there are a number of food-deficiency diseases, i. e., diseases directly due to lack of specific nutrients in the diet, which are prevalent in various parts of the world and lead to much unnecessary suffering since they are preventable but not prevented. Malnutrition in varying degrees is found in all classes and countries, but more particularly it is the close and constant companion of poverty, both national and individual. Poverty almost invariably means a poor and insufficient diet, and the latter is the main cause of the disadvantage of the poor in respect of health, so clearly shown by statistics of disease and mortality.

On the positive side, there is much evidence of the general improvement of health and physique which can be produced by the improvement of diets, and there are also striking examples of the successful prevention of deficiency diseases by appropriate measures. Maternal and infant mortality can, and has been, reduced by dietary means. In many of the poorer countries, deaths from tuberculosis number from 150 to 250 a hundred thousand, while among better-fed populations the mortality from this scourge has been reduced to 30 or 40 a hundred thousand.

Nutrition, therefore, becomes a primary concern of governments everywhere. To give conscious planned direction to mankind's need for food in the modern sense, each nation should develop a national food and nutrition policy, to the full fruition of which related social and economic policies will need to be adapted.

Recent experience has demonstrated how effective a considered food and nutrition policy, based on scientific knowledge and experience,

can be in safeguarding the health of a population. In Great Britain, for example, food imports have been greatly restricted in the war, and the Government found it necessary to assume control of food importation, production, and trade, and to institute strict rationing. The distribution of food was planned with the assistance of nutrition experts so as to assure to each section of the community an equitable share of the food needed for the maintenance of health. The needs of children, mothers, and heavy workers were given special consideration. The result has been that, in spite of a deterioration in housing and other social conditions, the health of the nation has been maintained at a high level, and in 1942 the infant-mortality rate was the lowest on record and the general death rate showed a fall.

Successes already achieved provide abundant hope for the future. But what has already been done is little in comparison with the tasks ahead. To paraphrase the words of the Mixed Committee on Nutrition of the League of Nations, written in 1937: The application of modern knowledge about nutrition has only just begun; it is opening up entirely new perspectives for the improvement of human welfare.¹

In all countries, the diet of large sections of the population does not attain the level needed for health. There has never been enough food in the world for the people of the world to eat. To provide the food-needs of mankind will require a vast increase in food production in every land. Each country is faced with problems of underconsumption and malnutrition, problems which differ in severity in different regions but which in general are everywhere the same. The 1937 report of the Mixed Committee on Nutrition may again be cited:

In the U. S. A. and Western Europe much malnutrition exists among the lower income groups. Available data suggests a figure of between 20% and 30% of the entire population. In the British Dominions, although food consumption is relatively high, malnutrition is not uncommon, especially among children. In Central and Eastern Europe malnutrition prevails extensively and there is often a lack of the staple foods as well.

¹ See League of Nations pub. A.13.1937.II.A.

The diets of the great mass of the population in the East are grossly deficient in terms of any standards of adequacy put forward by nutrition workers. Some 75% of the 1,150 million inhabitants in Asia have a diet far below the standard for health.

Reports considered by the Conference make it possible to amplify and extend this statement. In the United States of America the examination of military recruits has shown that more than one third are physically unfit for service. Those regions of the country known to be the worst fed contributed the highest ratio of rejections. Defective teeth were the most frequent cause. While the full effect of inadequate childhood nutrition cannot be measured, it is known that a large proportion of the defects had as their basis a faulty diet. In certain clinics in the Southern States, 35 percent of the patients were found to be suffering from nutritional anemia and 15 percent from nutritional oedema. Recent studies among workers in war industries show wide-spread inadequacies of diet, which impair their working efficiency. Yet the United States has been regarded as one of the best-fed nations in the world.

In India, with its population of nearly 400 million, a considerable proportion of the population does not get *enough* to eat. Typical Indian diets consist largely of cereals; milk, meat, fish, eggs, vegetables, and fruits are usually taken in small and insufficient quantities. In other words, they fail to supply enough of the various nutrients which are needed for health. Deficiency diseases such as keratomalacia, the commonest cause of blindness in southern India, beri-beri, which kills infants and paralyzes adults, and osteomalacia, often leading to an extreme degree of painful crippling, are serious public-health problems in certain areas. In China, the other great country of the Orient, including within its borders one fifth of the human race, much the same situation exists in normal times, and food problems have become more serious in China as a result of the war. Dietary surveys have revealed that average Chinese diets are deficient, and this is particularly true of the diet of the "vulnerable" groups, i.e., sections of the population which are most prone

to suffer from the ill effects of malnutrition. In all eastern countries very similar problems of nutrition are encountered. In all, there is a low expectation of life and a high mortality rate among infants, young children, and women in the childbearing period. Resistance to diseases of many kinds is low. Particularly striking is the high death rate among young children, who, after weaning, usually obtain only an ill-balanced and defective diet, with little or no milk. In India, for example, nearly 50 percent of total mortality occurs in children under 10 years of age (a percentage about five times greater than that in various countries of western civilization). There is a similar high-mortality rate among young children of the "pre-school" age group in Java. Numerous lines of evidence converge to suggest that malnutrition is an important cause of this rapid and tragic exit of young human beings from the world so soon after their arrival in it.

Turning to tropical Africa, there is abundant evidence of malnutrition and deficiency disease, and the same is true of colonial and other tropical areas of the world. Typically their peoples depend on a single crop for their main supply of food. They have little or no milk; intake of proteins is low, as is also that of fats of animal origin, calcium, and vitamins. When the main ingredient in the tropical diet is a starchy root, such as cassava, protein intake is particularly low, and the addition of other foods rich in protein is necessary to make good the deficiency. Cassava is a lazy man's crop and has been popular for many reasons with agriculturists. It is, however, a bad crop nutritionally and has been introduced far too extensively. In these areas malnutrition aggravates many diseases, such as tropical ulcers, skin infections, and malaria; cases of diseases in which healing or recovery cannot take place until adequate feeding has restored nutritional balance often crowd the wards of hospitals. Malnutrition also reduces resistance to tuberculosis, a problem which becomes of increasing importance as people previously dependent on agriculture turn to industry and urban life under unsatisfactory conditions.

In Egypt, undernutrition and malnutrition are found in both towns and rural areas, and pellagra is common. The population here, as in many parts of the world, is heavily infested with parasites. There is a close relation between such diseases as hookworm and malaria and malnutrition. In the first place, the economic efficiency of a population in which they are rife is reduced and with it their capacity to produce or purchase an adequate supply of food. Secondly, malnutrition decreases the power of the individual to carry the burden of blood-destroying diseases and impedes his recovery when the burden is decreased or removed by medical treatment. A vicious circle is thus created.

In Mexico, and in Central and South America, food deficiency and wide-spread malnutrition exist. Surveys in Mexico have shown that the diet of the poor is, in general, deficient in calories and protective foods. Infant and child mortality is high, and deaths from whooping-cough number some 15,000 annually. In Chile, low consumption of protective foods is also a fundamental defect in the diet of most sections of the population. The high death rate from tuberculosis is one of the most important problems of public health. Deficiency diseases, including beri-beri, pellagra, scurvy, and anemia are common in certain parts of Bolivia, and the results of malnutrition are seen in the high death rate in infants and young children after weaning, low capacity for work, and impaired resistance to infection. Data about food-consumption levels are not available for all countries in this group, but there is little doubt that they would reveal a similar situation.

Taking the world as a whole, the picture is one of world-wide underconsumption, leading to malnutrition and its attendant evils. It will be one of the tasks of the proposed United Nations food and agriculture organization to complete the picture in dismal detail and to replace it by a brighter one.

It should be clearly understood that the description of the problem of malnutrition given above does not refer to the situation created by the war, which has reduced the world's food supply, affected consumption in almost every

country, and led to scarcity and famine in countries occupied by the enemy. The task of producing enough food to meet the needs of the United Nations and to feed countries at present starving in bondage is a formidable one, which, as recovery from the war takes place, will merge into the broader problem of increasing production and raising consumption throughout the world as a whole. While the present report is not concerned directly with the existing situation and post-war relief, it is clear that the acute and immediate problem and the long-term problem are in many respects parallel, each calling urgently for concerted action.

Malnutrition leads to ill-health and disease and must, therefore, be eliminated. But there is a more positive goal which should never be lost to view. Good food means good health. It enhances the capacity of human beings to contribute to civilization and progress, and adds to human happiness. Given the will, we have the power to build in every nation a people more fit, more vigorous, more competent; a people with longer, more productive lives, and with more physical and mental stamina than the world has ever known. Such prospects, remote though they may be, should serve as a stimulus in undertaking immediate tasks and overcoming immediate obstacles.

Nutrition links up on the one hand with public health, on the other, with agriculture. The movement for better nutrition must take place with the full collaboration of public-health and agricultural authorities, and the former must play a prominent part in its guidance. It must also be closely associated with advancing research. While a good deal is known about nutrition, much remains to be learned. It is a dynamic science which is only now beginning to make clear how the human body is nourished. Further fundamental research is required to complete the picture. There is also need for investigation in various parts of the world where knowledge of nutrition problems is incomplete or absent. Close international collaboration in nutrition research is necessary, and it will be

another of the tasks of the proposed United Nations food and agriculture organization to secure it. National action alone is not enough. The efforts of each nation can be enhanced by international collaboration for the benefit of all.

SCOPE OF THE REPORT

The Committees of the Conference concerned with consumption deficiencies, malnutrition, and measures for improving standards of consumption have approached their task in the following way: The difficult problem of dietary standards and requirements has been considered, with particular reference to existing reality. No attempt has been made to put forward objectives beyond reasonable hope of attainment, although it is insisted that intermediate objectives should not obscure our view of the ultimate objective, which is a vastly different world fed in full accordance with the nutritional requirements of its population.

Certain specific measures for overcoming malnutrition have been dealt with as among the necessary steps toward the attainment of the goal. These include education and methods of improving the diet of vulnerable groups. Finally, brief allusion is made to a number of other questions which are of importance in the campaign for better food. Within the short space available, it is obviously possible only to outline the broad approach to the problem.

DIETARY STANDARDS AND THE PLANNING OF FOOD SUPPLIES

The ultimate objective of the United Nations Conference on Food and Agriculture is to insure an abundant supply of the right kind of food for all mankind. In this section of the report, the nature of the objective will be clarified. Other sections will deal with ways and means of attaining it.

Food habits differ greatly from one part of the world to another and have changed from period to period. Certain peoples rely on diets which are essentially a combination of vege-

table foods, the staples being cereals, roots, tubers, or certain kinds of fruit (e.g., plantain). Others consume, in addition to cereals and other vegetable foods, foods of animal origin, such as meat, milk, and eggs. Some live chiefly on animal products. In its fundamental composition, however, any combination of foods on which populations have survived must provide at least the minimum quantities of some three dozen chemical substances or nutrients, essential in varying degree for life, normal reproduction, the successful rearing of young, and the maintenance of adult strength and vitality.

In view of the wide variation in human dietary habits, and for a number of other reasons to be considered later, we cannot make specific recommendations which will be suitable for world-wide adoption and for providing a practical basis for economic and agricultural policy in all countries of the world. All we can do is to point out that sufficient knowledge of human dietary requirements is available and indicate how the problem can be approached by authorities in any country.

Human Dietary Requirements

There are certain "standards" of nutrition approved by nutritional scientists, which set out the amounts of nutrients insuring for human beings a high level of health and vitality so far as this can be insured by diet. These standards, drawn up by various authoritative

organizations, including the Technical Commission on Nutrition of the League of Nations, reflect the then-existing state of knowledge of nutritional requirements. Such standards differ in detail and require modification from time to time in the light of advancing research. A recent table of recommended allowances—that drawn up by the National Research Council of the United States of America in 1942—has been widely accepted and is given below as an example.²

Recommended allowances of nutrients can readily be translated into terms of foods in common use. The nutritive value of diets commonly consumed by any population group can be compared with such standards and deficiencies estimated. In addition, it is possible to estimate the amounts of different foodstuffs needed to bring the diet up to, or nearer, the level required for health. It follows that one of the most important uses of dietary standards is in the guidance of agricultural and economic policies concerned with improving diet and health of populations. Such standards provide a yardstick which can be applied not only on a national basis, but also on a family basis, or in improving the diet of limited groups, such as residents in institutions. Finally, they can be applied to the world as a whole.

² *Recommended Dietary Allowances* (National Research Council, Reprint and Circular Series No. 115), Jan. 1943, pp. 2, 3.

RECOMMENDED DIETARY ALLOWANCES¹

Food and Nutrition Board, National Research Council

	Calories	Protein grams	Cal- cium grams	Iron mg.	Vitamin A ² I.U.	Thiamin (B ₁) mg. ³	Ribo- flavin mg.	Niacin (nicotin- ic acid) mg.	Ascorbic acid (vit. C) mg. ³	Vitamin D I.U.
Man (70 kg.):										
Sedentary	2500	70	0.8	12	5000	1.5	2.2	15	75	(4)
Moderately active . .	3000					1.8	2.7	18		
Very active	4500					2.3	3.3	23		
Woman (56 kg.):										
Sedentary	2100	60	0.8	12	5000	1.2	1.8	12	70	(4)
Moderately active . .	2500					1.5	2.2	15		
Very active	3000					1.8	2.7	18		
Pregnancy (latter half)	2500	85	1.5	15	6000	1.8	2.5	18	100	400 to 800
Lactation	3000	100	2.0	15	8000	2.3	3.0	23	150	400 to 800
Children up to 12 years:										
Under 1 year ⁴	100/kg	3 to 4/kg	1.0	6	1500	0.4	0.6	4	30	400 to 800
1-3 years ⁵	1200	40	1.0	7	2000	0.6	0.9	6	35	(4)
4-6 years	1600	50	1.0	8	2500	0.8	1.2	8	50	
7-9 years	2000	60	1.0	10	3500	1.0	1.5	10	60	
10-12 years	2500	70	1.2	12	4500	1.2	1.8	12	75	
Children over 12 years:										
Girls:										
13-15 years	2800	80	1.3	15	5000	1.4	2.0	14	80	(4)
16-20 years	2400	75	1.0	15	5000	1.2	1.8	12	80	
Boys:										
13-15 years	3200	85	1.4	15	5000	1.6	2.4	16	90	(4)
16-20 years	3800	100	1.4	15	6000	2.0	3.0	20	100	

¹ Tentative goal toward which to aim in planning practical diets; can be met by a good diet of natural foods. Such a diet will also provide other minerals and vitamins, the requirements for which are less well known.

² Requirements may be less if provided as vitamin A; greater if provided chiefly as the pro-vitamin carotene.

³ 1 mg. thiamin equals 333 I.U.; 1 mg. ascorbic acid equals 20 I.U.

⁴ Needs of infants increase from month to month. The amounts given are for approximately 6-8 months. The amounts of protein and calcium needed are less if derived from human milk.

⁵ Allowances are based on needs for the middle year in each group (as 2, 5, 8, etc.) and for moderate activity.

⁶ Vitamin D is undoubtedly necessary for older children and adults. When not available from sunshine, it should be provided probably up to the minimum amounts recommended for infants.

Further Recommendations, Adopted 1942:

The requirement for iodine is small; probably about 0.002 to 0.004 milligram a day for each kilogram of body weight. . . . This need is easily met by the regular use of iodized salt; its use is especially important in adolescence and pregnancy.

The requirement for copper for adults is in the neighborhood of 1.0 to 2.0 milligrams a day. Infants and children require approximately 0.05 [mg.] per kilogram of body weight. The requirement for copper is approximately one-tenth of that for iron.

The requirement for vitamin K is usually satisfied by any good diet. Special consideration needs to be given to newborn infants. Physicians commonly give vitamin K either to the mother before delivery or to the infant immediately after birth.

Food Groups

Statements of man's need in terms of quantities of nutrients such as those given in the table can be of wide application, but no one set of recommendations in terms of food commodities can be. Fortunately, in view of the varying tastes and resources of people, innumerable combinations of individual foods may be devised, each of which can provide these nutrients in suitable proportions and form a nutritionally adequate food supply. To simplify planning and make it flexible, foods can be grouped into broad categories, each with distinctive

functions. Most of the great variety of foods of the world can find a place in the following classes:

Grain products.—Important as inexpensive sources of energy and protein. The lightly milled products are also good sources of iron and certain vitamins of the B group. When germinated, grains contain vitamin C.

Vegetables and fruits.—These differ widely in their nutritive value and may be subdivided into: (1) *starch-rich roots, tubers, or fruits*, such as yams, potatoes, and plantains, economical sources of food energy, and in some instances vitamins and minerals; (2) *leguminous seeds and nuts*, similar in some ways to the starch-rich products previously listed, but useful also as sources of protein and vitamin B₁; legumes, when germinated, are a good source of vitamin C; (3) *leafy, green, and yellow vegetables*, important for vitamin C and pro-vitamin A; (4) *vitamin-C-rich fruits*, such as citrus fruits or tomatoes; and (5) other vegetables or fruits.

Milk.—In fluid, evaporated, or powdered form, as *cheese*, or in various other forms preferred by different peoples, milk is an economical source of proteins of high quality, calcium, and riboflavin. It is also important for certain other vitamin and mineral elements. Milk is the most complete single food.

Meats, fish, poultry, and eggs.—Excellent sources of high-grade proteins and certain of the vitamins of the B group. Eggs are good sources of vitamin A, and certain fatty fish also contain this nutrient.

Fats and oils.—The most concentrated sources of food energy, yielding about twice as many calories per pound as protein or carbohydrate. Fats and oils add flavor and satiety value to diets. Red palm oil also furnishes pro-vitamin A, and fish oils and butterfat carry important amounts of vitamins A and D.

Sugar.—Sugar and related products, including syrups, molasses, honey, and sweet preserves, are of importance as a source of food energy and in adding flavor to the diet.

Beverages, condiments, sauces, and salts.—The items in this group have often an impor-

tance out of proportion to their nutrient content in that they increase the acceptability of diets. Some, however, also contribute significant quantities of nutrients to the diet.

Translation Into Food Requirements

Two translations of the nutritional recommendations of the National Research Council into quantities of foods of the several types are shown below. Plan I is relatively economical; plan II, relatively costly. The amounts are per person per year for the civilian population of the United States of America and refer to food as delivered to the kitchen (i.e., as sold in retail markets).

Food groups	Kilograms per person per year	
	Plan I	Plan II
Grain products	104	88
Milk (as fluid)	217	240 (liters)
Starch-rich tubers, roots, fruits.	82	68
Mature leguminous seeds and nuts.	11	6
Vitamin-C-rich fruits	36	43
Leafy, green, yellow vegetables.	36	70
Other vegetables and fruits . .	54	88
Meats, fish, poultry.	41	54
Eggs	228	276 (numbers)
Sugars	16	16
Fats	23	23

The above are only two of many possible food groupings. It is not intended that the quantities given should be regarded as absolute. Variations within certain limits may be made between the different food groups.

The combinations given above are adequate provided reasonably good choices, nutritionally speaking, are made within each food group. For example, a large proportion of the grain products should be in whole-grain, lightly milled, or enriched forms. Furthermore, methods of food preparation should be such as to retain nutritive value to the fullest possible extent.

Intermediate Objectives

The table of recommended allowances for nutrients drawn up by the National Research Council, which have been translated into terms of foods, represents the considered conclusions reached in 1942 by a group of experienced nutrition workers with regard to the best type of diet. It is, however, often necessary in practice to adjust dietary recommendations to existing economic and agricultural realities. On this point we cannot do better than to quote from a report of the Technical Commission of the League of Nations published in 1938. This refers to the dietary standard previously drawn up by the Technical Commission on Nutrition, but the conclusions are equally applicable to the recommended allowances of the National Research Council.³

... the dietary requirements of the populations of Eastern and tropical countries are not essentially different from those of the races of Western civilisation. Further comparative studies of physiological differences due to race and climate, and their possible bearing on food requirements, are indeed desirable, and it is recommended that the existing data be collated and a report prepared upon the subject. At the same time, however, it appears unlikely that such a study will disclose any such differences of racial physiology in this respect as will seriously modify the approach to the practical problems of nutrition in tropical countries.

The standards drawn up by the Technical Commission on Nutrition, considered in their physiological sense, are universally applicable and can be expressed in terms of the dietary habits of the various peoples. They represent the ultimate goal to be aimed at in all countries. At the present time, however, the diets of the vast majority of the populations of Eastern and tropical countries are grossly deficient when judged by these standards, which are obviously out of immediate reach. In these circumstances, it becomes necessary to set up some attainable goal for purposes of practical nutrition work. Recommendations for improvement must be so adjusted as to raise the existing level of diets to a degree which is not beyond the bounds of practical possibility and which, at all events, makes it less remote from the optimum standard.

³ League of Nations, *Bulletin of the Health Organisation*, vol. VII, no. 4 (Aug. 1938), pp. 670-671.

It is the task of nutrition experts in various countries to make recommendations as the basis for improved agricultural and economic policies in accordance with the considerations stated above. In practice, nutrition workers in the poorer countries of the world are often concerned with recommending diets which are just sufficiently satisfactory in quantity and quality to prevent serious undernutrition or malnutrition. While this may sometimes be expedient, too much importance cannot be attached to the need for insisting in all possible circumstances on improved diets above so low and unsatisfactory a level. These can be stated both in terms of food constituents and foods, due regard being given to the dietary habits and tastes of the country concerned. On this basis, the authorities in each country can assess the dietary requirements of the population and an estimate of the requirements of the world can be made. With the continued and expanding application of science to the development of the world's food resources, local intermediate goals can be gradually raised in the direction of the ultimate objective.

It is to be observed that during the years following the war the world will be short of animal food products, and food and nutrition policies will have to be adjusted accordingly. Emphasis will have to be laid on fulfilling calorie requirements and on the provision of a suitable assortment of vegetable foods to replace animal products so far as possible. This fact emphasizes the importance of establishing intermediate objectives.

Energy Requirements

The provision of foods of sufficient fuel value is recognized as being the first essential in a satisfactory dietary and is, generally speaking, an attainable goal. The energy requirements of the human body are assessed in terms of calories. The energy value of foods is also expressed in calories, conventionally as yielded by the food *actually eaten*, deductions having already been made for such wastage as may have occurred prior to consumption.

The calorie value of the food required to maintain health depends on the age, sex, and size of the individual and on the amount of muscular work performed. Taking all these factors into account, a figure useful for food planning—the calorie requirement per person of a population—can be derived. It is clearly impossible to give one universally applicable figure for the per-person calorie requirement, since the age and sex distribution of populations, racial and climatic factors, and energy expenditure on physical work vary so much.

It is, therefore, suggested that values should be selected within the range of from 2,200 to 3,000 calories per person daily, in accordance with the circumstances in any given country. The selected value can be checked by the investigation of the consumption of healthy groups whose food intake is not restricted by poverty. If a value is selected without such survey data, it may have to be revised later when these are available.

The Practical Approach to a Nutrition Program

The first step in planning a nutrition program for any country should be to determine the needs of the population for health in terms of the more important nutrients. Appraisal of the health of a population as related to nutrition requires that medical surveys of selected areas and groups be made by health or medical authorities from time to time in order to ascertain the prevalence and distribution of deficiency diseases and other signs of malnutrition. Clinical and laboratory methods are now available which permit the detection of many of the deficiency diseases at an early stage. These methods should be applied as fully as is practicable and the results correlated with the results of dietary surveys.

The determination of the needs for the more important nutrients involves a knowledge of the distribution within the population of infants, children, pregnant and nursing women, and occupational groups, and the selection of appropriate nutrient allowances for each of these groups. From these data a value for the per-person needs of the population can be de-

termined. The next step is to translate the nutritional requirements into terms of foods, and for this purpose knowledge of the customary foods of the people and the approximate amounts in which they are eaten is required. Knowledge of the chemical composition of food-stuffs is also necessary. Where, however, information about the composition of local foods is incomplete, representative values based on analyses of similar foods in other countries may be employed.

It is then necessary to obtain reasonably accurate data about existing food supplies, both home-produced and imported. Inevitable wastage and losses occur during handling, processing, storage, and distribution; suitable correction factors must therefore be applied to the gross supply data in order to be able to calculate the amounts of food available per capita of the population. If there are significant deficiencies in the aggregate supply, they will be revealed on comparison of the supply position with estimates made on the basis of nutritional requirements.

Conclusions drawn from this comparison involve the assumption that the food supply is distributed equitably throughout the population. This assumption is not generally justifiable. A food policy should therefore include provisions for insuring equitable distribution. If the estimates reveal major deficiencies in the food supply and there is no immediate prospect of improving it, then distribution should be ordered by a system of priorities and special allowances according to physiological needs.

Reasonably accurate statistics of food supply and production are required in order to be able to draw up a balance sheet of this nature. There are, however, huge areas for which there is little or no information about existing or potential agricultural production and but meager data on yields of food crops or essential nutrients per unit area. The relation between the area of land and labor costs required to produce, in terms of the various kind of foods, a given number of calories or given amounts of various nutrients, is of great importance in planning food policy.

Until a food policy is worked out along these lines, it may be found of practical value to provide food of sufficient calorie value in the form of a relatively wide variety of foodstuffs. This may give a certain measure of protection in regard to qualitative needs. An approach of this type may be particularly important in many eastern and tropical countries and in other parts of the world where a considerable proportion of the population does not get enough to eat. The first objective in such instances should be the provision of sufficient supplies of food to make up the deficiency of calories. Preferably, this should be done by means of such a variety of food that appreciable amounts of other nutrients are contributed to the dietary.

The methods of the approach to the problem of improving the *quality* of the diet must take account of many and varied factors, including the national resources of the country, climate, and dietary habits. Typical eastern and tropical diets do not contain milk, meats, and eggs, except in small or negligible quantities. The increased production and provision of the latter may present a problem of formidable difficulty. The introduction or increase of the number of different kinds of livestock, particularly in densely populated areas, must be carefully considered in relation, on the one hand, to dietary requirements and improved methods of farming, and, on the other, to the possible competition between livestock and man for food.

This competition should not be allowed wherever there is a risk of food supplies running short, particularly in view of the low efficiency with which animals convert their feed into food suitable for human consumption. It is fortunate, in view of the high nutritive value of milk, that milch animals can be recommended not only as animals valuable in a farm economy but also on the grounds of their relatively high efficiency as converters of feedstuffs into human food.

There are other foods, such as pulses, leafy vegetables, fish, and fruit, which may already be familiar and valuable ingredients in the diet.

The production of these should materially and rapidly be increased.

One other agricultural and economic consideration, which has received attention in other reports, is the need for shifting the emphasis in many countries from the production of cash crops to food crops for human consumption. Land, time, and effort should, in particular, be given to the production, near to the consumer, of those foods of high nutritive value which, at the same time, are perishable and difficult to transport and distribute.

Palatability.—There are certain foods and food preparations which do not usually figure prominently in the recommended diets and tables of nutrition workers and yet are of very great importance, particularly in countries in which the diet is based on a small number of foods of vegetable origin. We refer to condiments, beverages, or other products which increase the palatability or acceptability of monotonous diets. Some foods of this nature may be of nutritional value in that they supply some vitamins or mineral salts, but their main virtue lies in the fact that they increase the attractiveness of the diet.

There are many methods of preparing foods followed by peasant peoples, especially those living mainly on foods of vegetable origin, the importance of which in the nutrition of the consumer are at present scarcely appreciated and little understood. In particular, reference may be made to the enhancement of the nutritive values of grains, leguminous seeds, and other vegetable products following soaking and germination and the growth of micro-organisms, such as yeast and moulds. More research is needed on the problem of how such methods affect the composition of diets as consumed. It is essential, in considering plans for improving the diet of populations in any part of the world, that the factors of palatability and acceptability should not escape attention. Nutritional and agricultural policies which ignore traditional local methods of "enlivening" monotonous diets may defeat their own ends. Such methods should usually be regarded with re-

spect and should not be replaced by more sophisticated procedures unless and until it is quite certain that no loss of dietetic value will ensue.

Minerals.—The mixed diets consumed by peoples in the temperate zone probably supply common salt (sodium chloride) in sufficient amounts. But the quantity of sodium chloride supplied by a purely vegetable diet is much less and in such cases, as well as under circumstances where much sodium chloride is lost through sweat, the question of a sufficient supply of salt is of great importance for health.

Supplies of calcium and iron need to be safeguarded, the former more especially in diets in which there is little or no milk. Throughout the world contributions are made in numerous ways to the intake of calcium salts. These include the consumption of large quantities of green leafy vegetables; the use in cooking of "pot ashes", especially those obtained by burning swamp plants (Africa); the inclusion in fish dishes of the bones thoroughly cooked; and the use of lime in making cakes from maize (tortilla, Mexico), bread from rice ("banh duc", Indochina), soy-bean curd (China), betel leaf and nut (India, Burma, and Malaya), and other food preparations. Substantial quantities of mineral salts are also obtained when certain soils are eaten, and from water used for drinking and cooking.

Water.—For maintenance of health an adequate volume of water is necessary, the variations in amount depending mainly on the quantities lost in the sweat. The provision of good water supplies should be included in formulating nutrition policies. The provision of a good water supply must receive careful attention in formulating nutrition policies. The proper use of water in the development of food resources, dealt with in other reports, is an important consideration in connection with problems of water control and soil conservation. Another question of importance is the storage of water in the wet season for use during the dry, with special emphasis on the availability of fresh vegetables and fruits, and the supply of good water for the culture of fish.

PUBLIC-HEALTH AND SOCIOLOGICAL CONSIDERATIONS

Medical and health administrations have a primary responsibility in nutritional affairs. At all stages, from the recognition of the existence of malnutrition in a community to its elimination, knowledge of the behavior of the human body is essential. This emphasis on the medical aspects of the task is even greater, when, as is often the case, there is an interaction between improper feeding and many other causes of disease, followed by an increase in the severity and duration of illness.

Public-health agencies are entrusted with operating several services, as, for example, those concerned with infant and maternal welfare. Research on nutritional problems frequently arises out of a study of human disease. The application of the results of such research is generally a matter for the health authorities of a nation and should be carried out within the framework of existing administrations. The responsibility of medical men and their associates in all these matters cannot be too strongly emphasized.

Housing is, in many of its aspects, accepted as being the concern of public-health authorities. In a wide sense, the term "nutrition" includes the effect on the body of rest and sleep and of climate, noise, and other environmental factors. The careful design of housing to support good feeding is therefore desirable.

While housing should be adequate for health, it should not be so costly that it encroaches on the food budget. Good housing should provide suitable facilities for the storage of food. Attention needs also to be given to the design and supply of equipment for the preparation, cooking, and conservation of food. In the more primitive communities the lack of proper equipment increases the difficulty of preparing food.

Habits and customs.—Reference has already been made to the need for taking the dietary habits and tastes of a people into consideration in the planning of nutrition policies. The aim of those whose task it is to secure the improve-

ment of nutrition should be to frame their policies so that they are in tune with and can become part of the social tradition.

Traditional dietary practices are supported by the whole cultural complex of attitudes toward social class, religion, the rhythms of work and rest periods, the education of children, and formalized social ties between persons and groups. Many of these attitudes are often imperfectly understood and the imposition of practices foreign to a community may indeed have very unfortunate results on, for example, agricultural production and in turn on the supply of food. This is particularly true of measures which result in the break-down of unity and collaboration within a social unit.

EDUCATION

Education in nutrition is not simply a matter of urging the consumer to follow particular dietary practices. It is necessary to spread knowledge of nutrition throughout the whole community so that it may influence governmental action and all who are in a position to influence the consumer in his choice of food. Those directly concerned with technical problems of nutrition need, of course, a high degree of specialized knowledge. In the general instruction of the community, however, emphasis should be laid on certain simple ideas and subjects.⁴

⁴For example: (1) Food is important for health. The physiological requirements for health can be met only by selection of the right foods; (2) foods differ widely in their composition but can be roughly divided into certain main groups or categories, each of which includes foods of approximately similar nutritive value. By the appropriate selection of foods from these groups, nutritional requirements can be met and the groups should be used as the basis of popular education; (3) while governments have the general responsibility for directing food policy so that the requirements of the population may be met, families and individuals have the responsibility for making the best use of foods and food resources available to them. Rural families dependent upon the food which they themselves produce should be taught to produce the kinds and amounts of food required for a balanced diet. Where only a portion of the family food is produced at home, emphasis should generally be placed on perishable foods of high

Education on nutrition must be adapted to the circumstances of each country, and the emphasis on particular aspects of the subject will vary from place to place.

A variety of methods for spreading knowledge of nutrition can be employed. Simple facts about food and diet should be taught in all schools. In the case of older children, more extensive instruction may be given, supplemented by courses in home economics or domestic science for girls. Children teach their parents, and the education of children helps to spread knowledge of the subject throughout the country. Housewives may also be taught directly by home visits or group instruction.

Community services such as school lunches, the provision of meals to industrial workers, canteen services, maternity and child-welfare centers, etc., can make an indirect contribution to nutritional education. Communal meals which are well prepared and cooked and of high nutritive value teach by force of example. Such services may also provide opportunities for direct instruction; for example, mothers attending maternity and child-welfare centers may be taught how to feed themselves and their families.

Use can be made of printed and visual educational material to teach the public about food and diet. Under this head may be included pamphlets, posters, articles in the daily press and in weekly and monthly magazines, educational films, gramophone records, demonstrations, and exhibits. The radio can also be used for this purpose. In certain countries community groups can be encouraged to discuss nutritional questions and cooperative methods of dealing with problems of food production and distribution on a community basis.

nutritive value. Village and urban families should be encouraged to secure any available plots for growing fresh vegetables and fruits, with emphasis on the leafy green and yellow vegetables; (4) methods of processing, conservation, distribution, and cooking influence the nutritive content of food. Housewives should be taught methods of preservation and cooking which tend to preserve nutritive content and help to make the diet more varied and attractive.

Training of Personnel

Among personnel for nutrition work there are specialized workers directly concerned with nutrition and those who, while not specifically employed in nutrition work, are in positions which give opportunities for disseminating knowledge of the subject or which bring them into contact with problems requiring a knowledge of nutrition.

Specialists are needed to make surveys of food habits and consumption, to study food composition, and such subjects as the influence of processing, storage, and marketing on the nutritive value of foods, and numerous other problems. A worker or workers with specialized training in nutrition should be included in each major public-health department. Such workers require advanced training and wide knowledge of the subject, which can be attained only by special study and research experience.

In some countries considerable use has been made of "dietitians" who are responsible for the planning and preparing of meals or diets for groups and for supervising the preparation of food. These need training at the college level with less emphasis on technical detail and more opportunity for practical work under supervision.

In the second group may be included school teachers, domestic-science teachers, physicians, public-health workers, nurses, economic and social workers, and field workers associated with agricultural development programs. Instruction in nutrition for the second group must be adapted to their special responsibilities. The numbers and kinds of specialists needed in any country will naturally vary.

IMPROVING THE DIETS OF VULNERABLE GROUPS

Educational measures and general economic advances make an indirect contribution but do not in themselves insure that everyone will have an adequate diet, since their benefits may be spread unevenly among the population. Therefore, each government must seek to improve the diet of its peoples by providing for its

citizens whose need is greatest in proportion to their needs, however scarce or plentiful supplies of food may be. Moreover, direct acceptance of responsibility by public authorities for bringing the needed foods free or at low cost to the vulnerable groups is the most practical way of improving their nutrition. It also increases the total demand for food and the income of the producers, with resulting better health and capacity to produce. In these ways food is assured to those needing it, in the quantities and kinds adapted to their physiological requirements. Such measures should therefore form a part of national policy in every country. Already some countries have widely extended them, and the results in improved health and welfare are so impressive that their continuance and expansion should be an essential part of future policy.

Special attention should be given to expectant and nursing women, infants and pre-school children, school children, and adolescents.

The provision of extra foods of certain types during pregnancy and lactation can make a great difference to the health and even the chances of survival of both mother and child. As a matter of public policy, therefore, steps should be taken to make such foods available to them free or at low cost. The foods should be rich in those nutrients needed for fetal development and in even larger quantities for lactation. In some countries the extra foods might be milk, fish-liver oils, eggs, and certain fruits, but in other areas it may be necessary to find nutritionally equivalent substitutes for some of these. The special care of expectant and nursing women will benefit infants as well.

Too little attention has commonly been given to pre-school children. Yet measures for the improvement of the diets of children between weaning and school age will be amply repaid in improved mental and physical development and reduced sickness and mortality. Dietary advice and assistance in obtaining foods through child-health clinics is extremely important. In some countries day nurseries are used for this purpose; these need expert supervision. The National Milk Scheme in Great Britain has re-

moved all income barriers to the receipt of one pint of milk daily by each pre-school child, thus making a notable advance toward the improved nutrition of this group.

Carefully planned midday meals providing at least one third the daily food needs of the school child should be recognized as one of the greatest single steps to improve the health of the community. Special attention should be given to the inclusion in school meals of those nutrients which are lacking in the dietary and, so far as possible, local foods should be used. There is a trend throughout the world toward making school meals an integral part of free education. For example, Egypt has now introduced school feeding projects on a free and wide-spread basis by national legislation.

The requirements of adolescents for protective foods are greater than those of adults. Adequate nutrition helps to prevent the development of tuberculosis, to which adolescents are particularly susceptible. The special needs of adolescents should be recognized in school and college feeding and in workers' canteens.

Persons in receipt of pensions or other forms of public assistance should receive enough foods of the proper kinds to maintain health. In some countries orders for the buying of nutritionally suitable foods or cash allowances are preferred to direct food distribution. Nutrition workers should always be consulted when such measures are planned.

War experience has shown the great advantages of government assistance in the establishment of some types of large-scale food preparation and service. Collective-feeding arrangements are an economical contribution to the improvement of the diets of vulnerable groups, to industrial output and morale, and to general health. Such arrangements may be made in institutions in or near industrial plants, docks, mines, and building sites, and in commercial or public restaurants. Several countries have reported improved health and a decrease in accidents as a result of collective feeding. Advice and assistance on diet should be given to all residential institutions: colleges, orphanages, prisons, hospitals, etc.

In all collective-feeding arrangements it should be remembered that large-scale preparation without proper supervision can bring greater losses of nutrients than any other treatment that food may receive. Standards of supervision should be set up to cover all large-scale feeding arrangements. Special arrangements may be needed to provide the foods required in certain types of communal feeding.

IMPROVING THE QUALITY OF FOODS

A substantial contribution to improved nutrition can be made by the adoption of measures to improve the quality of foods. Such measures are wide in scope and may be applied at various stages, from the stage of production through the stages of storage, processing, and distribution, to that of preparation for final consumption.

Examples of methods of improving quality at the production stage may be found in the selection of milch cows and their proper feeding; the selection of varieties of certain vegetables and fruits, e.g., tomatoes, which have high contents of given nutrients; and the treatment of soils deficient in certain minerals. Further research is needed to extend our present limited knowledge in these fields.

Sanitary measures are necessary to prevent the contamination of certain foods with pathogenic micro-organisms or toxic substances. Such measures are particularly important in the case of certain protective foods of high nutritional value, the wide-spread consumption of which is desired on nutritional grounds, for example, milk and green leaves which are consumed in a raw state.

There is considerable scope in many areas for bringing the production of perishable vegetable products closer to the point of consumption, thus avoiding substantial losses of certain nutrients through oxidation and other causes. This may be achieved through encouragement by public authorities of the use of small gardens or plots of land for cultivation by householders for their own uses.

Processing should be carried out by methods which avoid or minimize losses in nutrients.

This is of the utmost importance in relation to wheat, rice, and maize. Recently processes for milling wheat have been introduced in Canada, Great Britain, and the United States of America which have the effect of producing a flour acceptable to the consumer, retaining a high proportion of the vitamins and other nutrients present in the original grain. In canning, dehydration, and preservation in brine, methods should be used which minimize losses of vitamins, both in commercial and household practice.

Since in marketing and distribution considerable deterioration in quality may take place, delay should be minimized in placing perishable products (for example, vegetables and fruits) in the hands of the consumer. Care should be taken to preserve the quality of milk during distribution, by the use of suitable containers, by maintaining it at appropriate temperatures, and by avoiding undue exposure to light.

Cooking and other preparation of foods for the table may be of great importance in relation to the preservation and assimilation of nutrients and palatability. Attention should be given to the length of time of cooking, the temperature, the amount of water and subsequent uses of it, the interval between cooking or other preparation and consumption, and the conditions under which the food is kept after cooking.

While it would seem preferable to retain nutrients in food rather than to remove them in processing and add them later, the latter may be necessary or desirable where obstacles exist to the adoption of the former, i.e., the use of enriched white flour and bread and restored cereals in the United States of America. Fortification of foods with additional nutrients is desirable to meet deficiency conditions; for example, iodine may be added to salt in areas where goiter would otherwise prevail. Again fortification may take the form of adding nutrients to foods devoid of or deficient in them where it otherwise may be difficult to secure

an adequate supply of such nutrients. The fortification of margarine with vitamins A and D is a case in point.

The indiscriminate distribution of synthetic vitamins is not to be recommended as a public-health procedure. However, synthetic vitamins are of great value in the medical treatment of deficiency diseases and may be useful for prophylaxis in certain special circumstances. Such products as yeast, wheat germ, and rice polishings may be regarded as foods as well as rich sources of certain vitamins. The possibility of producing dried yeast on a large scale in countries in which abundant supplies of sugarcane molasses, or other cheap sources of fermentable carbohydrates, are available should receive careful consideration. Cheap preparations of fish-liver oil, e. g., shark-liver oil, could be produced in various parts of the world and widely used to improve the health of children and of others who may need vitamins A and D.

Finally, it is the responsibility of governments to insure that the consumer is not misled as to the content of foods, vitamin products, food extracts and other preparations derived from foodstuffs. Regulations should be adopted to provide for correct labeling and to insure that numerical statements should not be such as to convey the impression that what are really negligible quantities of a nutrient make a significant contribution to human requirements.

PART II. ESSENTIAL AGRICULTURAL PRODUCTS OTHER THAN FOOD

Section I was charged with the duty of examining the levels of consumption of agricultural products other than food in the past, and with the consideration of reasonable goals for increased consumption in the future. For this purpose the Section has subdivided the field into the following groups:

- Clothing and household fibers
- Bagging and cordage fibers
- Inedible oils
- Tobacco

Beverage materials

Hides, skins, and other animal by-products

Other agricultural products used for industrial purposes

The Section observes that the problems of consumption levels for these products are more complex than for food products. The quantity and quality of food needed for maintaining health and strength has been made the subject of scientific study by experts, and there is reasonable agreement about the required levels of consumption. But the other agricultural products serve a wide range of dissimilar uses. Some of them, such as the clothing materials and the oils, are so associated with human health and dignity as to deserve consideration on a plane with food. Others constitute more the means to a full life, while still others, such as the hard fibers, seldom enter into human consumption at all but are consumed rather as production goods in such fields as shipping, mining, building, and agriculture. The consumption needs of the populations of the world for these groups of materials and for the particular products within them vary with climate, with custom or personal taste, and with the direction which the resources and genius of different peoples will give to their material development.

In respect to the past levels of consumption, the Section finds:

1. That, generally, though not universally, consumption of the non-food agricultural products has shown a rising trend. This rise in consumption has been particularly marked in respect to such commodities as tobacco, certain industrial oils, and some of the clothing fibers.

2. That with certain exceptions the consumption of products in this group is strongly influenced by general economic conditions. In periods of prosperity consumption tends to rise sharply, and in periods of depression the decline in consumption is equally marked. This is particularly true with respect to those agricultural products which are in themselves raw materials for the production of semi-durable or durable goods.

3. That the annual consumption of these products varies from country to country and

from region to region. For instance, consumption of cotton varies from less than 2 pounds per capita to about 24 pounds. The consumption of soap appears to vary from less than 1 pound per capita to about 25 pounds. The consumption of coffee, though this is more affected by substitutes, varies from a negligible quantity to about 16 pounds per capita. With a few noteworthy exceptions, the larger consumption is to be found in the more fully developed industrial countries, although in those countries the consumption varies greatly between different income groups within the population.

4. That there is a strong tendency for interchangeability between products in different categories of this general group. For example, in the case of vegetable, animal, and marine oils, not only are many of the products interchangeable for inedible uses, such as in the manufacture of soap or paints, but also most of the fats and oils can be used for edible purposes.

5. That there has been in recent years a tendency, which has been accentuated by developments during the war, toward the increase and cheapening of industrial products, which compete directly, and in some cases sharply, with many of the agricultural products in this general category. Outstanding examples of such products are the synthetic fibers, paper, plastics, and some of the metals.

6. That the expansion in consumption of these products has been impeded in differing degrees in different countries by barriers to trade including tariffs, quotas, and exchange control, by lack of facilities for economical transportation, by excessive costs of distribution, by sharply fluctuating prices, and by inadequate exchange and financing facilities.

In view of the complexity of the factors affecting the consumption of the non-food agricultural products, it was obviously not possible for the Section within the time and with the material at its disposal, to come to any specific conclusions, commodity by commodity, as to consumption potentialities in the years ahead. The Section looks forward, however, to the near-term period following the war as one likely to be characterized by great needs in many lines

in a disrupted world. But given an adequate and economical mechanism of distribution, these needs could supply the motivation of great economic activity.

For the longer term the outlook is less clear. Nevertheless, the Section, on the basis of the discussions and of the examples brought to its attention, feels prepared to suggest the following general conclusions:

1. That notwithstanding the competition of substitutes the consumption of virtually all of these products might be substantially increased if it were possible to maintain economic activity in the world as a whole at a relatively high level.

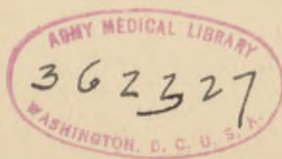
2. That even greater expansion in the consumption of many of the non-food products of agriculture could be achieved by narrowing the gap between consumption levels that have existed on the one hand in the highly industrialized sections of North America and of western Europe, and on the other, in vast regions elsewhere in the world, the populations of which are not only predominantly agricultural but also much larger. It would not be unreasonable, given a period of relatively high prosperity in the world at large and of increasing prosperity in the agricultural producing countries in particular, to anticipate an increase in consumption in some countries as much as two-fold or threefold. Increases in many cases could result from improvement of the facilities of transportation and methods of distribution, and from the development of new enterprises within the countries themselves, which would bring about a more effective utilization of local resources, increase employment and the productivity of labor, and accomplish a wider diffusion of purchasing power. Larger individual consumption of some important agricultural products could be encouraged in every country,

with advantage to both consumers and producers, by greater educational emphasis not only on the material but also on the esthetic and cultural rewards of greater attention to clothing and home surroundings.

3. That there remain significant opportunities for raising the levels of consumption, even in the more highly industrialized countries, by finding means for improving the purchasing-power of lower-income groups.

There is a further aspect of this problem of the consumption of non-food agricultural products which must not be overlooked. In many countries the production of these products provides a major source of income through their disposal on domestic and foreign markets. They are grown in many cases in regions and under conditions where food crops do not do well. Consequently, the ability of producers to dispose of their production at reasonable prices has a very great bearing on their ability to secure adequate quantities of the right kinds of food. This applies both within individual countries and between countries. Consequently, it appears necessary to give special consideration to the products of such regions in order that they may share in the improvement of purchasing-power, which will help to further the first high purpose of this Conference—the realization of adequate human nutrition throughout the world.

Finally, the Section believes that from the standpoint of producing countries and the orientation of their agricultural enterprises to effective world demand, it is of the highest importance that some arrangement be effected, and without delay, by which competent research may be directed to the problem of ascertaining as definitely as possible what the effective capacity of the world to consume specific products is likely to be in the years ahead.



REPORT OF SECTION II

EXPANSION OF PRODUCTION AND ADAPTATION TO CONSUMPTION NEEDS

Section II was directed to deal with that phase of the Conference agenda concerning expansion of production and its adaptation to consumption needs. Starting with the assumption that a marked expansion in agricultural production will be required if the peoples of the world are to be provided with the food products necessary for adequate nutrition, the Section has sought to ascertain the prospects for so organizing world agricultural production as to make possible the satisfaction of those needs and to explore the measures, both national and international, by which production can be increased and better directed in terms of consumption.

In the discussion of the problem it early became apparent that the circumstances prevailing in the years immediately following the end of hostilities are likely to be so dissimilar from those when more settled conditions have been reached that the action required both nationally and internationally in this earlier period will differ from that in the latter, not only in degree but in kind. It was decided accordingly to distinguish between the short-term period in the immediate post-war years and the long-term period in which the agriculture of the world may be expected to have returned to normal productivity.

The short-term period will be one of shortage. There are likely to be not only severe shortages of the principal foodstuffs but shortages of transport, including shipping, and of the means of production, including fertilizers, seeds, machinery, farming implements, gasoline, etc. These various shortages, furthermore, will be interrelated. The limiting factor on production will not always be the same. In some countries possibilities of production will

exceed possibilities of export; in many countries, however, the limiting factor will be means of production.

The magnitude of the food shortages after the war will depend upon the course of the war and the size of harvests and cannot therefore be estimated precisely; but, taking the world as a whole, it seems probable that there will be a shortage of livestock and livestock products, of oils and fats, and even of such high-calorie foods as rice and bread grains, in some cases, due to shortage of transport from those countries which may have surplus stocks of grain.

The dominant problem in this short-term period in the light of the shortages in prospect will be that of securing the most rapid alleviation of famine and hunger in the countries which have been devastated or in countries whose rural economy has been seriously dislocated by the war and of planning the production program on a realistic basis, which puts the elimination of hunger first and the nutritional improvement of diet second.

This, in general, will call, so far as the conditions of individual countries require or permit, for increasing the acreage under crops for direct human consumption and actually holding back the rebuilding of depleted livestock herds—essential though this rebuilding ultimately will be—and also for the production of other crops which compete for acreage with essential foods. This pattern of production will result in the most effective use of resources under the circumstances expected to prevail, since it will yield the largest amount of needed food nutrients a unit of resources used.

As agriculture is rehabilitated in devastated areas, it will be possible to devote more acreage in the world as a whole to the production of

livestock and livestock products, as well as of other protective foods essential to improved diet.

If these aims are to be achieved efficiently and equitably in the short-term period, it will be necessary to have international coordination to avoid monopolistic practices or an unrestrained competition for scarce supplies of foodstuffs, means of production, and transport.

The period of shortages will in due course come to an end, but, with the recovery of the devastated areas, coupled with intensified production elsewhere, there will be danger of a situation occurring similar to that which followed the last war leading to overproduction of cereals, sugar, and other products, accompanied by a heavy fall in prices, with attendant losses and hardship to producers. This danger can be avoided provided nations act with foresight and at the right time.

During this period of transition it will be important for each nation progressively to adjust the allocation of agricultural resources to conform to a long-term coordinated production plan for the best use of these resources on a world scale based on better diets for its own people and in the international demand for nutritionally better food. Such an adjustment toward higher nutrition would create a demand for the use of more farm resources and would tend automatically to prevent the accumulation of excess surpluses.

Long-term policies must be developed out of the existing agricultural structure and within the general framework of consumption and cultural habits of the peoples directly concerned. Each region or area thus becomes in a sense a special problem. However, there are certain basic principles governing the redirection of production resources that are just as applicable in one region as in another. In developing production programs these principles must be taken into account. It also must be recognized that the interests of the producer must be safeguarded to the extent of assuring him a fair return for his products.

Along with a program for redirecting production is the need for improving productivity

and efficiency in order that the essential task of producing adequate food for all people may be carried out with a minimum of human effort. That there is great scope for such improvement appears from the widely varying proportions of populations engaged in agriculture under different economies.

Measures, national or international, for improving productivity and efficiency must take into account (a) policies rooted in the customs, traditions, and historical background of the people; (b) existing cropping systems or husbandry practices; and (c) the physical or biological limitations imposed by soil, climate, and the adaptability of crops and animals to environment.

Most important among these measures are (a) improvement in farming systems and practices, (b) credit facilities, (c) cooperative services, (d) land-tenure systems, (e) educational procedures whereby knowledge may be effectively disseminated among agricultural producers, and, finally (f) research in unsolved problems that may constitute barriers to the most productive and efficient utilization of resources.

Wide opportunity exists in different parts of the world for increasing productivity through properly planned rotational schemes, including soil-restoring crops integrated with livestock production. Important biological risks, including disease and soil deterioration, are incurred in single-crop farming. Monoculture is particularly undesirable for the small farmer who depends for his living on the results of each particular season. The proper use of fertilizers, fungicides, insecticides, veterinary drugs, and improved equipment and the adoption of improved varieties of crops and strains of livestock, as well as cultural practices, would lead to vast increases in food production.

Fertilizers and other materials needed for increased production should be made readily available to farmers—nitrates preferably from natural sources where this is economically possible; and lime, phosphate, and potash from whatever sources are most economical. Standards and control regulations should be applied to fertilizers, insecticides, and other such materials to

protect farmers. Farmers should be able to purchase agricultural machinery at prices that will bring about a gradual increase in the use of mechanized means of agricultural production.

In any economy except one of subsistence alone, agriculture needs credit not only for its development but even for its efficient operation. It is also vitally necessary that the rates of interest at which agricultural credit is obtainable should be such as to permit a progressive improvement in the position of the industry as a whole and of the individual farmer and should not impose any burden which will interfere with the prosperity of the industry or the individual. The claims of agriculture should be fully recognized in the event of any international action being taken for the control or direction of international investment or the international use of capital and credit.

Cooperative societies can be of great help in stimulating adjustments in production and distribution and in improving productivity and efficiency. This is especially true in agricultural districts where individual-family producing units predominate and in urban areas of low-income families.

The system of tenure under which land is operated has an important bearing upon its productivity and the welfare of the producer. The two essentials to the producer are (a) security of tenure to insure maintenance and progressive improvement of productivity of the land and (b) opportunity for obtaining returns sufficient to enable him not only to maintain himself and his family at an adequate standard of nutrition and comfort but also to pay adequate wages to his laborers and to provide a margin for the development of the land and its resources.

The majority of the population of the world lives by the land. Most of this vast number are small individual producers. Many, if not most, of these producers could increase their production greatly if they applied the techniques best adapted to their farms. Like all modern technology, agricultural technology is a complex affair with many highly specialized aspects. Yet its practical implications must be understood by

farmers if it is to be applied effectively. This means that it must be interpreted, explained, taught, and demonstrated as widely as possible and in terms that common men can understand. This is done to some extent in most countries, especially those in which modern methods are most widely used. The need in this direction, however, is infinitely greater than the accomplishment, considering the world as a whole.

Science and the techniques resulting from scientific investigations are responsible for the advances in modern agriculture that have made it possible to increase the quantity and variety of foods available to human beings, and to improve their quality. The rate of advance, however, is very uneven in different parts of the world. If it could be stepped up, production would be immensely increased. What has been accomplished so far shows that if research is actively encouraged there will be still greater advances in the future.

The natural sciences are a particularly fruitful field for international collaboration because they are themselves international; basic physical and biological laws are the same everywhere and are universally accepted. There is already a good deal of collaboration but much more could be done. Joint planning and exchange of information services, materials, and personnel could and should be carried out in such a way that nations would be encouraged and assisted in enlarging agricultural research applicable to their problems, while costly duplication could be reduced.

Equally vital to encouraging greater world production of needed foods and other products is the collection and exchange of economic data regarding food and agriculture everywhere. In fact, this may be regarded as one of the first and most fundamental steps that would need to be taken. An agency with this function would furnish the facts on which intelligent international planning could be based.

In addition to the need for increasing agricultural productivity and efficiency it eventually will be necessary to bring under cultivation all the land that can be economically de-

veloped. This will be a gradual process, but beginnings should be made as soon after the war as possible.

In some parts of the world, mainly in the interior of continents and for the most part in the tropics, there are important possibilities for increasing the area of arable land for food production and settlement if good farming systems are used, including such measures as irrigation, fertilization, drainage, erosion control, and crops and livestock adapted to the regions. Developing these areas would require a high type of knowledge and skill, as well as careful planning. In other parts of the world—even where the most productive areas have already been developed—improvements are feasible which would open possibilities for a less costly expansion in production and consumption. For example, there are important possibilities in many countries for increasing the areas of arable land through reclamation, including irrigation, drainage, and clearing.

These developments for the most part demand large-scale works and structures, including transportation facilities in many cases, and also improvement of sanitation and health conditions; meeting such requirements while providing for settlement will likely require the sponsorship of government or semi-public agencies.

A great many programs for making over-all changes in land use and occupancy have been tried throughout the world. Some have succeeded, some have failed. Out of these experiences it is now possible to see the need for careful planning by specialists in all the sciences involved; cooperation by technicians, administrators, and local citizens for a common purpose understood by all; the highest possible degree of local responsibility; and the development of programs in the light not only of physical problems but also of the accepted national requirements.

Specific financial problems vary widely, but usually public aid in addition to private loans is required.

It is of vital importance to governments and to society as a whole that individual producers

understand the need, both in new developments and in improving older ones, for systems of farming that realize the ends of sustained production by utilizing conservation practices. The problem is one of maintaining the optimum level of productivity consistent with insuring the preservation of basic resources for future generations. Fortunately, many aids in doing this have been devised. Developments in crop rotation, new and locally adapted varieties of crops, fertilizers, improved tillage implements, conservation structures, methods for disease and insect control, and similar devices and procedures now make available a continually widening choice of management systems by which high productivity and conservation can be combined.

Finally, one of the major obstacles to increasing agricultural production in many parts of the world is the fact of agricultural overpopulation. Millions of people live on the land but are unable to wrest from it the essentials of adequate nutrition. Too many people on too small units, using inefficient methods of production and lacking occupational outlets for their expanding numbers—these are the characteristics of areas which include nearly half the world's population. Agricultural overpopulation hampers agricultural development by holding down the incomes of rural people. It forces the farmers to produce crops which will supply the minimum energy requirements of the rural inhabitants and does not provide sufficient scope for the production of protective foods.

The reduction of surplus agricultural population could be attained in several ways. No one of them is likely to be fully effective; rather a combination of several will be found necessary. To a large extent the solutions must be sought within the nations or the areas where the condition of agricultural overpopulation exists. The problem cannot be met by simply shifting the people somewhere else. Among the possible solutions which were considered by the Section are the wide-spread adoption of more efficient agricultural techniques and the shifting from extensive to intensive agriculture,

the development of owner-operated family-size units and the development of new lands through clearing, irrigation, drainage, and the like. All of these are important, but they offer only limited possibilities for absorbing populations now engaged in agriculture. Public works, especially long-time programs including the type of works that expand the opportunity for production and distribution of agricultural products, are one possibility which may be applicable in some countries.

The real clue to the solution of the problem of agricultural overpopulation lies in industrialization. This is not only the best means of providing opportunities for surplus manpower, but is also necessary if we are to raise the general level of living and enable those who remain on the land to obtain an adequate livelihood. Overpopulated agricultural areas are deficient areas for all types of agricultural and industrial products. Unless income levels can be raised, however, their potentialities as a market for foreign and domestic industrial products remain essentially undeveloped. Along with industrialization the development of public- and private-service occupations offers important employment possibilities.

A word should be said about emigration. In a world which has many restrictions on the free

movement of individuals from one country to another, large-scale migrations from areas of agricultural overpopulation to those needing more people are hampered, but even if these restrictions did not exist, emigration, while mitigating the difficulties, still would not in itself offer an adequate means of solving them. While this is so, the fact must not be lost sight of that there are some nations which could substantially increase their contribution to the world's food supply through the development of lands suited to agricultural production and now undeveloped. In many cases lack of a sufficiently large population to settle these areas or lack of capital, or both, prevents development by the countries in which the land lies. An international organization should have the responsibility for facilitating agricultural settlement in those countries where it is desirable.

During the discussions in the Committees, the importance of food-producing marine industries has also been considered. The Committees have, however, not had opportunity for discussing in detail the problems of these industries. The Section is aware of the importance of foodstuffs and other products from marine industries and believes that the permanent organization to be set up might wish to consider them in more detail.

REPORT OF SECTION III

FACILITATION AND IMPROVEMENT OF DISTRIBUTION

The Conference has determined as its aim the progressive expansion of the production of food and other agricultural and marine products and their fuller distribution to all people, particularly to those in greatest need. But aggression, and the fear of aggression, have induced the uneconomic employment of human and material resources, the development of uneconomic industries, the imposition of barriers to international trade, the introduction of discriminatory trade practices, and the expenditure of huge sums on armaments. These obstacles to balanced and progressively expanding world economy cannot be removed without effective collaboration among nations. The Conference, therefore, affirms the principle of mutual responsibility and coordinated action for the establishment of international security.

Only on such a foundation is it possible effectively to plan for progressively increasing production in the post-war period. Nevertheless, the most carefully prepared plans for expanding production will be nullified unless there is assurance that the people of the world will have ready access to the goods produced. Indeed, careful studies in the fields of nutrition and living standards become little more than academic exercises in the absence of adequate arrangements for distribution to the people of the products of field, sea, and factory.

Hitherto, in our anxiety to correct specific imperfections in the economic system, we have too often lost sight of the major objective and have placed undue emphasis upon induced scarcity to increase the purchasing power of specific groups. Although not too obvious at the time when such devices are introduced it becomes abundantly clear from the point of view of the economy as a whole that the multiplication of devices for restricting production is con-

trary to the general social interest. Discussions at the Conference pertaining to problems of distribution have been marked by an acute consciousness of this fact. Throughout, emphasis has been laid upon the desirability of a progressively expanding economy of plenty as opposed to a contracting economy of scarcity.

Several of the delegates voiced their conviction that the automatic equilibrium among economic forces that is supposed to assure the full and most advantageous utilization of the world's human and material resources is not based on fact. Among the forces that interfere with the maintenance of equilibrium, they specifically mentioned the natural differences between the conditions of production in agriculture and industry. The farmer is at the direct mercy of the elements and the seasons. Sudden fluctuations in the conditions of supply, or in demand, frequently lead to situations in which there is either too little or too much of his product.

Likewise, in the economic sphere, he is often in a disadvantageous position. Without governmental or cooperative assistance, the farmer can achieve very little in the way of adapting his production to requirements. The farmer must sell his product in a market and at a price over which he has very little control, but the industrialist may, within limits, control the price at which his product is sold and adjust his production schedule. In many countries the mass of individual farmers are relatively unorganized compared with industry. These differences—physical and economic—are sorely aggravated in the downward spiral of general depression.

It was stressed that with industry and agriculture so divergently organized, it is idle to expect a balanced economy to arise out of meas-

ures aimed at the general price level alone. Equally important is the relationship between individual prices and products. In this connection, basic requirements are: (1) National and international action to eliminate deflationary influences on agricultural income in order to maintain equitable balance between the purchasing power of agriculture and industry; (2) action to restrain monopolistic practices, the effect of which is to restrict production; and (3) machinery for taking care of the temporary gluts and shortages that are so typical of agriculture.

Even in the most favorably situated countries and even in times of prosperity many people are unable to afford adequate diets. One of the most important problems facing the Conference is that of developing measures that will help undernourished groups of people to get more and better food. As soon as people throughout the world get enough to eat, most agricultural "surpluses" will disappear.

Although international relief, the most pressing immediate problem next to the successful prosecution of the war, was excluded from the agenda of the Conference, it was clear that whatever was accomplished by the Conference with regard to long-run problems would be influenced by developments in the transition period.

The Conference recognizes that in the transition from war to peace there will be, despite efforts to increase production, an acute shortage of many essential agricultural and marine products, and of the necessary means of producing and transporting them. In this period, to achieve freedom from hunger, it is recognized that the production of these essential products must be stimulated by all possible means and that every effort must be made to avoid the social and economic ills of violent fluctuations in prices. The Conference also believes that as soon as the countries now temporarily occupied by the enemy can be liberated, their agriculture and industry must be reestablished and their position in international trade restored. The governments and authorities represented at the Conference are therefore urged to accept

mutual responsibility and to take concerted action for the achievement of these objectives.

In order to promote the long-term program of a balanced and progressively expanding world economy, coordinated and concerted action of nations will also be required to further various ends. These include (1) full and most advantageous employment of the people of the world and a general advance in their standards of living; (2) uninterrupted development and most advantageous use of agricultural and other material resources; (3) establishment of an equitable balance between agriculture and industry in the common interest; (4) stimulation of agriculture through the sound development of industry, and the supply of capital, equipment, and technical skill; (5) maintenance of an equilibrium in balances of payments and the orderly management of currencies and exchange; (6) improvement in the methods and reduction in the costs of distribution in international trade; and (7) reduction of barriers of every kind to international trade and the elimination of all forms of discriminatory restrictions thereon, as effectively and as rapidly as possible. The Conference affirms the principle of mutual responsibility and coordinated action for the achievement of those objectives.

Functional Disorders of International Commodity Distribution and Their Remedies

In their symptoms, the functional disturbances of commodity distribution have a common characteristic—there is an accumulation of stocks of some commodities that cannot be disposed of by the normal machinery of international trade. Whether it is because of social or technical defects that such machinery does not fully bring the goods to all potential consumers, or whether it is because of an actual discrepancy between production and real needs, the phenomena are identical—fall in prices, contraction of economic activity, unemployment, poverty, want, hunger.

Inquiry into the causes of these disorders, however, shows that they are not alike. The least virulent class is the short-period fluctuation of prices, due mainly to a natural or in-

cidental rise and fall of supply or demand, e.g., seasonal fluctuations, bumper crops, an acute collapse of demand.

The second species of functional disorder is a concomitant of general cyclical depression. This disorder is a phenomenon that has proved especially characteristic of the system of production obtaining in most countries where the natural indicator of demand is price, and where profit is the incentive to, and loss the deterrent of, production.

The third class of disorder is the outcome of structural modifications in relations between existing productive capacity and the need of society for certain commodities or groups of commodities.

The expedients to cope with the devastating effects of these disorders in the between-war period generally took the form of so-called "commodity agreements", which provide for quantitative control (i.e., by allocation to the collective producers of each of the participating countries of an agreed basic share of imports into the total available markets, with periodical adjustment of the total production to estimated requirements), and of so-called "buffer stock" arrangements (i.e., an arrangement under which goods are withdrawn from the market whenever available supplies exceed requirements and under which goods are released when prices indicate a shortage of supplies).

There was general agreement that during the transition period there will be no urgent need for either buffer stocks or quantitative control. It was suggested by several of the delegates that due regard should be given to problems arising from temporary expansion of production in certain countries in order to meet abnormal requirements during the transition period.

There was unanimity on a point that has been stressed repeatedly throughout the Conference; namely, that the world, after the war, should follow a bold policy of economic expansion instead of the timid regime of scarcity which characterized the 1930's.

Although there also was general agreement that international arrangements, at least for a number of commodities, are destined to play an important role in maintaining balance between supply and demand, opinions differed chiefly on the nature of the regulation that should be adopted.

Some delegates envisaged future arrangements chiefly in the field of the establishment and operation of buffer stocks, managed with a view, not to maintaining fixed prices, but rather to eliminating perverse fluctuations from the long-term trend. Resort should be had to quantitative controls only in exceptional cases after all other expedients had been tried. They conceded that, theoretically, quantitative controls could be operated in such a way as to adjust supply to demand with due consideration for the needs of expansion of consumption. It was their belief, however, that in practice the bodies administering them had in the past too often shown an inherent tendency to keep production at a low level in order to insure high prices.

The delegates voicing these views maintained, moreover, that for short-term fluctuations such quantitative agreements were unnecessary, as these very temporary maladjustments could be adequately met by the device of buffer stocks. It was further stressed that in the case of actual or threatening general depression as described above, quantitative control would, by its nature, have to cut down production to correspond with decreasing consumption. Such action could only cause further contraction. The desirable policy would be for some stabilizing body to continue purchases, in order to combat the deflationary tendencies.

Finally, in order to cope with the third type of disequilibrium (a more or less permanent gap between supply and demand, an eventuality which was considered to be exceptional) it may be necessary to institute quantitative control for a time. Even in such cases, however, they consider this expedient to be dangerous because in their view it tends to perpetuate the *status quo*.

Even when quantitative control could be accepted, it should be subject to stringent rules, designed to guard against restrictionist tendencies and to hasten the process of adjustment to the new conditions.

Another group of delegates, although not denying that in the past quantitative controls had sometimes shown a restrictive tendency, emphasized that such controls had always been instituted near the bottom of depressions when the position of the cooperating producing countries had already become desperate. They maintained that controls for agricultural commodities that are subject to serious cyclical influences should be established at a time when the situation is favorable and when excessive stocks have not yet made a policy of temporary contraction imperative. According to this view it is quite possible for an expansionist policy to be pursued within the framework of regulation, which can be so devised as to increase consumption. They agree that new arrangements for quantitative control will have to provide for adequate consumer representation, which will materially assist in eliminating any tendency toward unnecessary contraction.

It was upheld that the controls established in more recent years had, on the whole, served their purpose not too unsatisfactorily in that they brought about relative stability of prices and helped to dispose of oppressive world stocks, at the same time maintaining adequate supplies. These delegates were not opposed to the device of buffer stocks as such, but they believed that the operation of such pools without the backing of control arrangements would not prevent the disastrous situations to which agricultural countries have been subjected periodically. The fact that all nations in the future will be attempting to raise the level of consumption will not rule out the recurrence of serious cyclical disruptions.

It developed, however, that there was an important area of agreement regarding the need for international arrangements and for the establishment of principles and organization for

the guidance of their conduct. In order to facilitate further international consideration of the subject there are set forth in a resolution recommendations regarding the matter.

Measures for Wider Food Distribution

The discussions of the Conference made it very clear that positive measures were needed both to improve diets throughout the world and to expand and stabilize the markets for food.

The most important of these measures are those of a general economic character: for example, measures to stimulate production and trade and measures for fuller employment. It was generally agreed, also, that each nation should adopt adequate social-security measures, such as family allowances, social insurance, and minimum wages, in order to provide all groups of people a reasonable purchasing power.

In addition to such general economic and social measures, however, the Conference came to the conclusion that more direct national and international action was needed to enable particular groups of people to get the foods they need.

Although many countries have made substantial progress along this line, the Conference urged each national government to consider seriously the need for extending and strengthening its programs to provide food, either free or at low prices, to such groups as pregnant women, nursing mothers, infants, children, invalids, aged and low-paid persons. It recommended special emphasis upon protective foods and suggested the use of such outlets as school lunches, factory canteens, low-priced restaurants, milk stations, and stamp plans. It was generally agreed that such programs were primarily the responsibility of the national governments and should be financed largely through national taxation. A survey is being undertaken to determine the present status of these measures in each of the countries represented in the Conference.

In the international field little attention has as yet been given to developing special measures

to bring about a better distribution of the world's food supplies.

In the case of famines or semi-starvation conditions resulting from wars or from disasters such as floods and earthquakes, it has long been recognized that the nations of the world must cooperate with one another to provide food on a relief basis. Less consideration has been given, however, to the need for providing food for large numbers of people who may suffer from chronic undernutrition or who may have difficulty in getting enough foods of the proper kind during a period when steps are being taken to develop the agriculture and industry of the country and for raising the technical competence and the level of living of workers. It was generally agreed that the nations represented in the Conference should give serious attention to the problem of developing a cooperative international program for making food supplies available to those people and to those countries which are in greatest need of them.

The difficulties and complexities were quite apparent, and it was not possible during the Conference to outline in detail the measures which were best adapted to solving them. The Conference therefore recommended that the

permanent international food organization make a thorough and detailed study of all practicable methods which might be followed to bring about a better international distribution of food supplies with the dual objectives of improving world nutrition and maintaining adequate outlets for the products of our farms and fisheries.

Improvement of Marketing, Processing, and Distribution

The experience of many countries has demonstrated the need for improvements in the marketing, processing, and distribution of farm products. Although less spectacular than some other measures designed to raise nutritional levels, these marketing improvements constitute one of the effective methods of realizing the objectives of the Conference.

A number of recommendations were made for both national and international action. These include measures concerning (a) governmental services in marketing, (b) improvements in marketing facilities, and (c) increasing the efficiency of the distribution process. As these are elaborated at some length in the resolutions themselves, they are not discussed here.

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