

*The American Assembly  
Columbia University*

*Overcoming  
World Hunger*

*Report of the  
Thirty-fourth  
American Assembly  
October 31-  
November 3, 1968  
Arden House  
Harriman  
New York*



*Overcoming World Hunger* will be published by Prentice-Hall, Inc., Englewood Cliffs, New Jersey, in January, 1969.

## PREFACE

On October 31, 1968, 73 persons from the worlds of agriculture, law, business, government, education, communications, the clergy, the military and other pursuits gathered at Arden House in Harriman, New York, for the Thirty-fourth American Assembly, on *Overcoming World Hunger*.

Background reading for the Assembly had been prepared in advance under the editorial supervision of Chancellor Clifford M. Hardin of the University of Nebraska, with chapters and authors as follows:

1. *Population Growth and Its Control*, by Frank W. Notestein
2. *Food for More People and Better Nutrition*, by Don Paarlberg
3. *Expanding Food Production in Hungry Nations: The Promise, The Problems*, by J. George Harrar and Sterling Wortman
4. *Hope for the Hungry Nations: Fulfillment or Frustration?*, by David E. Bell, Lowell S. Hardin and F. F. Hill

For three days the Assembly participants, in small discussion groups, considered in depth the problems of increasing the world's food supply. They heard addresses by Lady Jackson, General Carlos P. Romulo, president of the University of the Philippines, and William S. Gaud, administrator of the Agency for International Development.

On the fourth day in final plenary session participants reviewed and approved the statement which follows on these pages. The opinions contained herein are those of the participants in their individual capacities and not necessarily of The American Assembly, which takes no position on matters it presents for public discussion, nor of the W. K. Kellogg Foundation whose generous grant, gratefully acknowledged herewith, made this Assembly program possible.

CLIFFORD C. NELSON  
President  
The American Assembly



## FINAL REPORT

### of the

### THIRTY-FOURTH AMERICAN ASSEMBLY

At the close of their discussions the participants in the Thirty-fourth American Assembly on *Overcoming World Hunger*, at Arden House, Harriman, New York, on October 31 - November 3, 1968, reviewed as a group the following statement. The statement represents general agreement; however no one was asked to sign it, and it should not be assumed that every participant subscribes to every recommendation.

As a result of dramatic declines in death rates without corresponding decreases in birth rates, the world's population in the year 2000 may be double that of 1965, or six to seven billion people. To provide nutritionally adequate diets for this many people will require much more food, especially more protein. The developing world needs at least a 4 per cent annual increase in food production over the next 25 to 30 years.

Hope that the world's population of 2000 A.D. can be fed and fed better than in mankind's entire history arises from dramatic breakthroughs achieved in the 1960's. This hope can be realized with technology now available, and with continuing research. But the necessary widespread and effective application of this technology will require major economic, social and political changes in developing countries, and a much larger scale of effort. Such efforts must be accompanied by continuing, concerted and expanded assistance from advanced nations.

We recognize that no analysis of world food and population problems is complete without taking into account the substantial portion of the human race that dwells in Mainland China. The Assembly regrets that lack of information on Mainland China prevents analysis of the food and population situation in that country. We recommend that these problems be given special attention in a future American Assembly.

Favorable weather, the wider adoption of higher yielding food-grain varieties and related production practices, and greater emphasis upon agricultural development in *some* food-deficit nations have provided *some* lead time in which to solve the food and other problems associated with more and more people. This temporary reprieve from food crises does not permit a return to complacency. Food shortages with attendant social and political unrest are grave continuing problems. It is also recognized that while a major

breakthrough is possible, it is probable that, for the remainder of this century at least, most of the increased food consumed by the world's people will come from farm land and most of the food needed in countries with rapidly growing populations will come from the agricultural resources of those same nations.

While the emphasis of this Assembly was upon food, population and economic growth in the developing nations, it is recognized that other serious problems arise as populations grow, both in the advanced and developing countries. Rural-urban migrants often are poorly prepared for the stress of urban living. As people crowd into cities, problems such as those of employment, education, health services, and housing, grow and intensify.

Furthermore, it is recognized that even in the United States pockets of poverty and poor nutrition persist in large cities and depressed rural areas. The political-economic system of any country must assure that the poor, the rural, the aged and the sick also have access to adequate food supplies the year round.

All of these problems must be worked on simultaneously. Significant progress is attainable but it will take long-range, coordinated efforts of unprecedented magnitude by the world's community of nations as well as within each affected country.

The temptation is strong in the United States to turn inward, to concentrate primarily on domestic problems while relying upon our geographical location and military strength to protect us from social and political disturbances elsewhere. We reject this temptation as unrealistic in today's world. The magnitude of the need requires contributions from all advanced countries including the U.S.S.R. and Eastern European countries. The Assembly urges lower expenditures for armaments by all countries—and more expenditures for population control and agricultural development.

We realize that the essential elements to eliminate hunger from the earth are:

- Effective measures to reduce population growth;
- Effective measures to increase food production in hungry nations, and to assure its effective distribution to all persons in the population of each country, with interim food aid from advanced countries;
- Economic, political and social changes in developing countries designed to promote total economic development, without which the above cannot be achieved; and
- Substantial assistance toward all these objectives by the advanced countries.



Thus, the objectives are recognized. *But effective action is urgently needed now.*

The Thirty-fourth American Assembly therefore recommends:

1. There should be immediate expansion of programs to reduce population growth. It is on the success of these, among other efforts, that the hope for civil order and political coherence depends. Reductions in the rate of population growth are as important in fostering economic and human development generally as they are in reducing the strain on national food supplies.

Present programs to reduce birth rates in developing nations should be expanded and new programs initiated emphasizing voluntary family planning.

Research in reproductive biology and contraceptive technology should be greatly enlarged and accelerated. Also essential are greater understanding of the social, economic and health conditions that will lead to smaller families. Most of the funds for this research must come from the governments of the United States and other industrialized countries, but additional funds should come from foundations and other private sources.

It is also important that the U.N. and its specialized agencies assume a leadership role in the global efforts to reduce the rate of world population growth.

2. There is an urgent need for coordinated and greatly expanded national and international research efforts. These must be focused on those problems inhibiting increases in productivity and profitability of most crop and animal species in most areas of most developing countries. This is a prerequisite in most situations to modernization of agriculture and the achievement of substantial increases in income for vast numbers of rural people.

2. The developing nations, with assistance from advanced nations, should take the needed steps to achieve large increases in:

a. The availability and use of such production inputs as improved crop varieties (especially those with higher protein content and quality), water, arable land, and fertilizer, pesticides and machinery, locally produced where possible;

b. Protein consumption from low cost sources such as fish and oil seeds, as well as livestock and poultry;

c. The enrichment of foods with essential minerals and with chemically produced nutrients such as vitamins and amino acids;

d. Public and private investment in marketing and processing systems to move food from the farm to all consumers;

e. Communication media, private as well as public, to provide information to producers and consumers.

4. To achieve at least the 4 per cent annual rate of increased food production in the developing countries, both the amount of total investment and the effectiveness with which it is applied for overall economic development must be substantially increased.

5. Advanced nations should continue to make food aid available to the hungry nations but in such a manner that agricultural development among the recipients will not be retarded. Future emphasis should focus upon improved nutrition through more protein and upon sound economic growth and less upon total food tonnage and surplus crop disposal.

6. International trade and monetary policies should be modified to encourage balanced economic growth in all countries and to permit developing nations to earn foreign exchange increasingly through commercial trade rather than through grants and concessional loans. At a minimum, the discriminatory barriers to imports from developing countries should be removed by the United States and other advanced nations with appropriate adjustment assistance to those adversely affected.

7. Qualified technical personnel to conduct the wide variety of activities related to food production, marketing and distribution, and to improve nutrition, will be required in greatly increased numbers. In the long run, first-rate national institutions in each country should meet these needs.

For the foreseeable future, American universities are capable of making a unique contribution, both through properly adapted programs of education and training in the United States, and in helping to build institutions to meet these needs in the developing countries. To be more effective, there must be long-range policy and financial commitments from the United States government for programs of agricultural research and training related to the problems of developing countries, and the continuing support of experts and specialists prepared to devote a major part of their careers to this vital work.

Furthermore, United States universities in cooperation with host universities could undertake major research programs directed to the problems of developing countries. However, this can be done only with adequate long term financing.



8. Strong incentives should be established and maintained in hungry nations to accelerate the adoption by farmers of techniques which will increase production. These incentives include price guarantees and subsidies to encourage the use of improved production practices and of improved seeds, fertilizer and insecticides.

9. Supply of critical goods and services by local and other industry is vital to intensification of agricultural production. It is also vital to increase United States private foreign investment and efforts of private, non-profit organizations to transfer capital, skill and know-how. The United States government is urged to seek arrangements by which United States industry can invest, usefully and safely, wherever needed.

The United States government should provide more incentives for expanded activities and investment through such policies as risk insurance, tax incentives and encouraging foreign governments to create more favorable business climates. Investments made by United States corporations in less-developed countries in agricultural development should be exempt from United States government controls on capital export and repatriation of earnings. There must be closer cooperation with governmental agencies; private agencies need to be brought very early into planning and feasibility studies.

10. The United States should press for international arrangements to insure that the oceans, outside reasonable territorial limits, be available for the use and benefit of all mankind. We acknowledge the importance of marine products as a source of protein and we urge continued and accelerated research on its economic feasibility and consumer acceptance. It should be emphasized, however, that for the remainder of this century at least, most of the increased food consumed by the world's people will come from farm land.

11. We recommend that the search be more vigorously pushed for new plants, and for possible uses of wild animal life. We applaud the establishment of research centers which are assembling and classifying valuable plant and animal genetic material useful in producing new and improved foods.

12. Farmers of developing nations should be encouraged and assisted in establishing cooperative organizations so they can share in the investment and in the use of needed inputs more advantageously, promote better markets for their products, and obtain credit on more favorable terms.

13. While further improvement can be made in United States aid and the coordination of government, voluntary and private activities, it is important to move forward from where we are. The ground that has been gained in the administration of United States assistance efforts should not be lost by the new administration.

Greater efforts must be made by churches, public information media, universities and other concerned organizations in the United States to increase public awareness of positive accomplishments of United States foreign assistance and of the need for continuing and greatly enlarged commitments of resources to this purpose in the future.

14. In dealing with all aspects of agricultural development and population growth, the Assembly recognizes the values of multilateral effort. The Assembly urges the United States government, in concert with other governments, to give increased support to the United Nations and its specialized agencies, and to international institutions, and to encourage steadily more effective work on their part.

The advanced nations have a common interest in providing technical and capital assistance to the developing nations. We deplore the fact that, in recent years, while other developed nations have been increasing their aid, assistance by the United States has been drastically reduced. We now rank seventh in the percentage of national income that we devote to foreign aid. We recommend that the level of United States assistance should not only be returned to earlier levels, but should be further increased by about 50 per cent. Such assistance from the developed countries is essential to achieve the goals outlined above.

An effective political constituency for foreign aid is needed and can be developed in this country through the traditional American mechanisms, with public discussion and confrontation among groups having diverse interests leading to agreement on common goals and policies.



PARTICIPANTS  
THE THIRTY-FOURTH  
AMERICAN ASSEMBLY

††JOSEPH ACKERMAN  
Managing Director  
Farm Foundation  
Chicago

†DANIEL G. ALDRICH, Jr.  
Chancellor  
University of California (Irvine)

AARON M. ALTSCHUL  
Special Assistant for International  
Nutrition Improvement  
U.S. Department of Agriculture  
Washington

SIRI VON REIS ALTSCHUL  
Research Fellow  
Botanical Museum  
Harvard University

HENRY B. ARTHUR  
Moffett Professor of Agriculture  
and Business  
Harvard University

DAVID E. BELL  
Vice President  
The Ford Foundation  
New York

GEORG BORGSTROM  
Professor of Food Science  
and of Geography  
Michigan State University

MICHAEL F. BREWER  
Vice President  
Resources for the Future, Inc.  
Washington

JAMES P. BROWN  
Editorial Board  
The New York Times

LESTER BROWN  
Administrator, International  
Agricultural Development Service  
U. S. Department of Agriculture  
Washington

SIDNEY M. CANTOR  
Sidney M. Cantor Associates, Inc.  
Ardmore, Pennsylvania

HARVE J. CARLSON  
Director  
Division of Biological and  
Medical Sciences  
National Science Foundation  
Washington

JOSEPHINE YOUNG CASE  
Member, President's Advisory  
Commission on Foreign Aid  
New York

DARYL CHASE  
President Emeritus  
Utah State University

ROBERT B. CHOATE  
National Institute of Public Affairs  
Washington

PAUL CIFRINO  
Chairman  
Supreme Markets  
Dorchester, Massachusetts

WILLARD COCHRANE  
Dean, International Programs  
University of Minnesota

ROBERT C. COOK  
Senior Consultant  
Population Reference Bureau  
Washington

JAMES DANIEL  
Roving Editor  
*The Readers' Digest*  
Pleasantville, N. Y.

JOHN H. DANIELS  
Chairman of the Board  
Archer-Daniels-Midland Company  
Minneapolis

CHARLES S. DENNISON  
Vice President  
International Minerals and  
Chemical Corporation  
Skokie, Illinois

GENERAL WILLIAM H. DRAPER, Jr.  
National Chairman  
Population Crisis Committee  
Washington

NICHOLAS DYKEMA  
Harriman Scholar  
Columbia University

MARRINER S. ECCLES  
Chairman  
First Security Corporation  
Salt Lake City

WILLIAM J. ELKUSS  
Education Director  
Amalgamated Clothing Workers  
of America  
New York

SHIRLEY C. FISK, M. D.  
Associate Dean  
College of Physicians and  
Surgeons  
Columbia University

\*WILLIAM S. GAUD  
Administrator  
Agency For International Development  
Washington

LAWRENCE GUSSMAN  
President  
Stein, Hall & Co., Inc.  
New York

ALAN GUTTMACHER, M. D.  
President  
Planned Parenthood—World Population  
New York

CLIFFORD M. HARDIN  
Chancellor  
University of Nebraska

LOWELL HARDIN  
The Ford Foundation  
New York

J. GEORGE HARRAR  
President  
The Rockefeller Foundation  
New York

EDWARD K. HAWKINS  
Chief, Population Studies Division  
International Bank for Reconstruction  
and Development  
Washington

ELDRIDGE HAYNES  
President  
Business International Corporation  
New York

BENJAMIN HIGGINS  
Professor of Economics  
University of Montreal

ROBERT G. HOUGHTLIN  
Past President  
National Soybean Processors  
Association

Evanston, Illinois  
\*LADY JACKSON  
(Barbara Ward)  
Professor of International Economic  
Development  
Columbia University

†D. GALE JOHNSON  
Professor of Economics  
Dean, Division of  
the Social Sciences  
University of Chicago

JAMES B. LAMPERT, Lt. Gen. USA  
Office of the Assistant Secretary  
of Defense for Manpower  
Washington

THOMAS J. LAUGHLIN  
Harriman Scholar  
Columbia University

AARON P. LEVINSON  
President  
The Levinson Steel Company  
Pittsburgh

G. A. LINCOLN, Col. USA  
Professor of Social Sciences  
United States Military Academy

CALVIN C. LUTZ  
President  
Fruit Haven Nursery, Inc.  
Kaleva, Michigan

REV. HENRY A. McCANNA  
Director for Church and Community  
National Council of the Churches  
of Christ  
New York

RUSSELL MAWBY  
Vice President  
W. K. Kellogg Foundation  
Battle Creek

GEORGE L. MEHREN  
Executive Director  
The Agribusiness Council, Inc.  
New York

JAMES W. MICHAELS  
Editor  
*Forbes Magazine*  
New York

WILLIAM R. MORRIS, Jr.  
International Division  
General Mills, Inc.  
Minneapolis

\*Delivered formal address.

†Discussion leader.

†Discussion leader.  
††Rapporteur.



A. T. MOSHER  
President  
The Agricultural Development  
Council, Inc.  
New York

WILLIAM P. NICOLETTI  
Harriman Scholar  
Columbia University

FRANK W. NOTESTEIN  
President Emeritus  
The Population Council  
New York

JAMES J. O'CONNOR  
Executive Director  
The Academy of Food Marketing  
St. Joseph's College  
Philadelphia

JOHN OLIVER  
President  
Development and Resources Corporation  
New York

†DON PAARLBERG  
Professor of Agricultural Economics  
Purdue University

††PAUL B. PEARSON  
President  
The Nutrition Foundation, Inc.  
New York

REV. WILLIAM G. POLLARD  
Executive Director  
Oak Ridge Associated Universities  
Tennessee

ROGER REVELLE  
Director  
Center for Population Studies  
Harvard University

\*GENERAL CARLOS P. ROMULO  
President  
University of The Philippines

CHARLES S. ROWE  
Editor  
*The Free Lance-Star*  
Fredericksburg, Virginia

HERBERT SALZMAN  
Assistant Administrator  
Agency for International  
Development  
Washington

JOHN SCOTT  
*Time Magazine*  
New York

\*Delivered formal address.

†Discussion Leader

††Rapporteur

CHARLES G. SCRUGGS  
Editor  
*The Progressive Farmer*  
Dallas

W. H. SEBRELL, Jr., M.D.  
Director, Institute of Nutrition  
Sciences  
Columbia University  
New York

LAUREN K. SOTH  
Editor, Editorial Pages  
*Des Moines Register and Tribune*

CURRY W. STOUP  
President  
New Idea Farm Equipment  
Coldwater, Ohio

††CARROLL P. STREETER  
Executive Vice President  
and Editor at Large  
*Farm Journal*  
Philadelphia

WAYNE E. SWEGLE  
Managing Editor  
*Successful Farming*  
Des Moines

JOHN J. TEAL, Jr.  
Director  
Institute of Northern Agricultural  
Research  
College, Alaska

WILLARD L. THORP  
Whitney H. Shepherdson Visiting  
Senior Fellow  
Council on Foreign Relations  
New York

T. GRAYDON UPTON  
Executive Vice President  
Inter-American Development Bank  
Washington

HAROLD L. WILCKE  
Vice President  
Ralston Purina Company  
St. Louis

ODIN WILHELMY, Jr.  
Battelle Memorial Institute  
Columbus

STERLING WORTMAN  
The Rockefeller Foundation  
New York

## ABOUT THE AMERICAN ASSEMBLY

The American Assembly was established by Dwight D. Eisenhower at Columbia University in 1950. It holds nonpartisan meetings and publishes authoritative books to illuminate issues of United States policy.

An affiliate of Columbia, with offices in the Graduate School of Business, the Assembly is a national, educational institution incorporated in the State of New York.

The Assembly seeks to provide information, stimulate discussion, and evoke independent conclusions in matters of vital public interest.

### AMERICAN ASSEMBLY SESSIONS

At least two national programs are initiated each year. Authorities are retained to write background papers presenting essential data and defining the main issues in each subject.

About 60 men and women representing a broad range of experience, competence, and American leadership meet for several days to discuss the Assembly topic and consider alternatives for national policy.

All Assemblies follow the same procedure. The background papers are sent to participants in advance of the Assembly. The Assembly meets in small groups for four or five lengthy periods. All groups use the same agenda. At the close of these informal sessions participants adopt in plenary session a final report of findings and recommendations.

Regional, state, and local Assemblies are held following the national session at Arden House. Assemblies have also been held in England, Switzerland, Malaysia, Canada, the Caribbean, South America, the Philippines, and Japan. Over ninety institutions have co-sponsored one or more Assemblies.

### ARDEN HOUSE

Home of The American Assembly and scene of the national sessions is Arden House, which was given to Columbia University in 1950 by W. Averell Harriman. E. Roland Harriman joined his brother in contributing toward adaptation of the property for conference purposes. The buildings and surrounding land, known as the Harriman Campus of Columbia University, are 50 miles north of New York City.

Arden House is a distinguished conference center. It is self-supporting and operates throughout the year for use by organizations with educational objectives. The American Assembly is a tenant of this Columbia University facility only during Assembly sessions.



The background papers for each Assembly program are published in cloth and paperbound editions for use by individuals, libraries, businesses, public agencies, non-governmental organizations, educational institutions, discussion and service groups. In this way the deliberations of Assembly sessions are continued and extended.

The subjects of Assembly programs to date are:

- 1951 — United States-Western Europe Relationships
- 1952 — Inflation
- 1953 — Economic Security for Americans
- 1954 — The United States' Stake in the United Nations  
— The Federal Government Service
- 1955 — United States Agriculture  
— The Forty-Eight States
- 1956 — The Representation of the United States Abroad  
— The United States and the Far East
- 1957 — International Stability and Progress  
— Atoms for Power
- 1958 — The United States and Africa  
— United States Monetary Policy
- 1959 — Wages, Prices, Profits, and Productivity  
— The United States and Latin America
- 1960 — The Federal Government and Higher Education  
— The Secretary of State  
— Goals for Americans
- 1961 — Arms Control: Issues for the Public  
— Outer Space: Prospects for Man and Society
- 1962 — Automation and Technological Change  
— Cultural Affairs and Foreign Relations
- 1963 — The Population Dilemma  
— The United States and the Middle East
- 1964 — The United States and Canada  
— The Congress and America's Future
- 1965 — The Courts, the Public, and the Law Explosion  
— The United States and Japan
- 1966 — State Legislatures in American Politics  
— A World of Nuclear Powers?  
— The United States and the Philippines  
— Challenges to Collective Bargaining
- 1967 — The United States and Eastern Europe  
— Ombudsmen for American Government?
- 1968 — Uses of the Seas  
— Law in a Changing America  
— World Hunger
- 1969 — Black Capitalism

# The American Assembly

COLUMBIA UNIVERSITY

## Trustees

DWIGHT D. EISENHOWER, <i>Honorary Chairman</i>	Pennsylvania
ARTHUR G. ALTSCHUL	New York
GEORGE W. BALL	District of Columbia
WILLIAM BENTON	Connecticut
COURTNEY C. BROWN, <i>ex officio</i>	New York
WILLIAM P. BUNDY	District of Columbia
JOSEPHINE YOUNG CASE	New York
ANDREW W. CORDIER, <i>ex officio</i>	New York
JOHN COWLES	Minnesota
GEORGE S. CRAFT	Georgia
DOUGLAS DILLON	New Jersey
MARRINER S. ECCLES	Utah
MILTON S. EISENHOWER	Maryland
ARTHUR S. FLEMMING	Oregon
KATHARINE GRAHAM	District of Columbia
W. AVERELL HARRIMAN	New York
J. ERIK JONSSON	Texas
SOL M. LINOWITZ	New York
DON G. MITCHELL	New Jersey
CLIFFORD C. NELSON, <i>ex officio</i>	New Jersey

## Officers

CLIFFORD C. NELSON, <i>President</i>
JAMES H. BERRY, <i>Secretary</i>
OLIVE B. HAYCOX, <i>Treasurer</i>

## Chairman Emeritus

HENRY M. WRISTON	New York
------------------	----------