

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 BIBLIOGRAPHIC INPUT SHEET	FOR AID USE ONLY <i>Patel, 37</i>
---	--------------------------------------

1. SUBJECT CLASSIFICATION	A. PRIMARY Serials	Y-AE10-0000-0000
	B. SECONDARY Agriculture--Agricultural economics	

2. TITLE AND SUBTITLE
 Factors associated with differences and changes in agricultural production in underdeveloped countries; semi-annual progress report, June-Nov. 1963

3. AUTHOR(S)
 (101) USDA/ERS

4. DOCUMENT DATE 1964	5. NUMBER OF PAGES 42p.	6. ARC NUMBER ARC 380.141.D419
--------------------------	----------------------------	-----------------------------------

7. REFERENCE ORGANIZATION NAME AND ADDRESS
 USDA/ERS

8. SUPPLEMENTARY NOTES (*Sponsoring Organization, Publishers, Availability*)
 (Research summary)

9. ABSTRACT

10. CONTROL NUMBER PN-AAC-234	11. PRICE OF DOCUMENT
12. DESCRIPTORS Productivity Technological change	13. PROJECT NUMBER
	14. CONTRACT NUMBER PASA RA-2-00 Res.
	15. TYPE OF DOCUMENT

) TASH KA-2-00 1760
PN-HAC-234

First Semi-Annual Report on Participating Agency Agreement
between
The Agency for International Development
and
The Economic Research Service
for analysis of

FACTORS ASSOCIATED WITH DIFFERENCES AND CHANGES IN
AGRICULTURAL PRODUCTION IN UNDERDEVELOPED COUNTRIES

BY

Development and Trade Analysis Division
Economic Research Service
United States Department of Agriculture

November 1963

TCR
Official File

Contents

	<u>Page</u>
I. Summary	1
II. Research Progress During First Six Months	5
III. Research Plans for Second Six Months	8
IV. Research Procedures and Hypotheses	10
Appendix I. Organization and Staff	
Appendix II. Notes of Meeting with AID/W Advisory Committee	
Appendix III. USAID Mission replies	
Appendix IV. Plan of Work for FAO Contract	
Appendix V. Summary Report on First Meeting with Technical Advisory Committee	

I. SUMMARY

Background. The agreement reported upon here was entered into on March 20, 1963. It provides for research in two phases as follows:

1. Phase A consisting of a comparative analysis for 25-30 less developed countries of yearly changes and long term trends in agricultural output and productivity and of the technological, economic, and institutional conditions associated with these differences.

2. Phase B involving intensive study in two or three countries in each AID region of the technological, economic, and institutional bases of their agricultural progress with particular emphasis upon examining the major conclusions drawn from the international comparisons made in Phase A.

The plan of work for Phase A, attached to the agreement as Appendix III, describes research planned for the first 18 months of the agreement. As provided for in this plan of work, the first 6 months has been devoted to organization and recruitment of staff, data gathering, and development of analytical procedures.

Organization and Staffing Completed. The Economic Development Branch, Development and Trade Analysis Division, has had major responsibility for work on this project. Recruitment of staff took time, but recruitment of staff for carrying out research under Phase A now has been completed. We have been fortunate in bringing together a group of well-trained agricultural economists who have had considerable experience with problems of improving agricultural output and productivity in less developed countries. Professional staff members working on the project are listed in Appendix I of this report.

Other divisions of ERS have been consulted in developing plans for the study. For example, several meetings with professional personnel of the Farm Production Economics Division were held to review procedures for measuring changes in agricultural output and productivity and for analyzing physical sources and causes of increases in agricultural production.

The Regional Analysis Division, ERS, is supplying basic information on agricultural production in the countries included in Phase A of the project.

Three economists from outside the USDA are serving as consultants on the project: Professor Kenneth Parsons, University of Wisconsin, Professor Earl O. Heady, Iowa State University, and Professor Bruce Johnston, Stanford University. They have met with us on separate occasions to advise on work plans and procedures.

AID Advisory Committee Established. As provided for in the agreement, AID/W advisory committee has been organized to work with the Economic Research Service in developing detailed work plans. This committee met on May 6, 1963 to discuss work plans and select countries for inclusion in Phase A of the study. Appendix II attached to this report presents notes on this meeting and lists the countries selected for Phase A.

USAID Mission Contacts. Assistance received from USAID Missions has been helpful in planning the project. On October 9, 1962, AIDTO Circ A98 was sent to Missions to learn about their interest in the proposal to study how countries increase agricultural production. Fifty missions responded to questions asked in the airgram and of these thirty-one indicated they would like to have their countries included if a research project were developed. On April 5, 1963, AIDTO Circ XA1099 was sent to all Missions informing them about the agreement and asking them how the study could be made most useful. Missions were asked to reaffirm or change reply to AIDTO Circ A98 and indicate interests in Phase B. Appendix III attached to this report summarizes replies received from Missions. On July 18, 1963, AIDTO Circ XA49 was sent to all Missions. It informed them of the responses received in response to AIDTO Circ XA1099 and listed the countries included in Phase A of the project.

Close cooperation with USAID Missions will continue to be essential in carrying out the project.

In October, Dr. W. E. Hendrix participated in the CENTO meetings in Tehran, visited AID Missions in Tehran, Ankara, and Athens and also FAO offices in Rome in connection with research on this project.

Cooperative Work with the Food and Agriculture Organization. The agreement points out that objectives of the project would be furthered by cooperative work with the Food and Agriculture Organization (FAO) in Rome, Italy, and with agricultural divisions of the regional commissions of the United Nations. This is especially true of Phase A of the project which is based chiefly on information from secondary sources. FAO and other international agencies have accumulated large amounts of data and other information, much of it in unpublished forms.

On June 18, 1963, the Economic Research Service entered into a contract with FAO which provides that FAO will compile from its files unpublished data and information and will collect from member countries additional information relating to conditions affecting agricultural development. The plan of work to be carried out under this contract is attached to this report as Appendix IV. The plan of work specifies the materials that will be supplied by FAO from its present resources and those that will be supplied from additional resources made possible by this contract. FAO has agreed to make available detailed information for the countries selected for study in Phase A on these items:

- (1) Agricultural price and incentive policies.
- (2) Adoption of improved production practices.
- (3) Credit institutions and practices.
- (4) Investment in agriculture, agricultural research, and education.
- (5) Irrigation and land development and land tenure

FAO has required time for recruitment of professional staff to carry out this contract. However, a professional staff of three people is working on the project in Rome, Italy. We expect to receive the first report from them on December 31 of this year.

Technical Advisory Committee Established. As provided by the agreement, a technical advisory committee including authorities in several disciplines has been organized. It includes the following:

- Dr. Sherman E. Johnson, Chairman. Deputy Administrator, Economic Research Service, U.S. Department of Agriculture.
- Dr. Max Millikan, Director, Economic Development Center, Massachusetts Institute of Technology.
- Dr. Kenneth L. Turk, Director of International Agricultural Development, Center for International Studies, Cornell University.
- Dr. Gustav Ranis, Associate Director, Economic Growth Center, Yale University.
- Dr. William W. Lockwood, Woodrow Wilson School of Public and International Affairs, Princeton University.
- Dr. Sherwood O. Berg, Dean of Agriculture, University of Minnesota.
- Dr. E. T. York, Provost for Agriculture, University of Florida.
- Dr. John Provinse, retired, formerly sociologist and cultural anthropologist with Council on Economic & Cultural Affairs.
- Dr. Frank Parker, Deputy Director, Agricultural Service, Office of Human Resources & Social Development, AID.

This committee met to discuss work on the project in Washington on September 13 and 14. Appendix V summarizes discussion and major comments of the committee. This meeting also was attended by Dr. Willard W. Cochrane, Director of Agricultural Economics, and Mr. Nathan M. Koffsky, Administrator, Economic Research Service, U.S. Department of Agriculture, and by Dr. F. J. Weyl, Science Director, Office of Human Resources and Social Development, Agency for International Development.

Dr. Weyl reported that AID has tentative plans for sponsoring next summer an eight-week conference on problems of improving agricultural productivity in the less developed countries. He requested that we make available for this conference a comparative analysis of rates of change in agricultural output and productivity for the less developed countries. We indicated that we would prepare a preliminary report for use at this conference.

The next meeting of the committee is planned for late February or early in March.

Coordination with Related Projects. We have maintained close contact with related research projects being carried out under contract with AID. For example, we have consulted with University of Wisconsin people in charge of the Land Tenure Center at Madison, Wisconsin, and with Yale University authorities working on the project, "Quantitative Studies of Economic Structure in Growth."

Research Progress and Reports. Professional personnel working on the project are compiling data and other information relating to agricultural development for the countries included in Phase A. This information will provide bases for preliminary analyses by countries on conditions affecting agricultural output and productivity. We anticipate that some of these country analyses will merit publication because of their general educational value. They will raise significant questions on which additional information and research in Phase B is needed. Data and information being compiled also will provide the basis for a comprehensive comparative analysis of conditions affecting agricultural output and productivity in less developed countries.

At the request of AID/W, a report, "Improving Agricultural Production: Lessons from United States Experiences for Developing Countries," has been prepared and submitted for publication. Also, we collaborated with AID/W in preparing the report, "Foundations for Agrarian Development," for use as a keynote talk at CENTO meetings in Tehran, Iran on September 25, 1963. A paper, "The Relation of Agricultural Productivity to Economic Growth" was prepared for delivery at a seminar at the Economic Growth Center, Yale University, on May 22, 1963.

Research in progress is described in greater detail in Section II of this report.

Research Plans in the next Six Months. Currently, we are placing emphasis on the following:

1. Completion of individual country analyses based on information from secondary sources. These reports will do these things:
 - a. Supply available information on changes in agricultural output and productivity for a period from late 1940 to the present, with a prewar base for comparative purposes, in an organized form relating to economic development problems.
 - b. Indicate gaps in information that need to be filled.
 - c. Raise questions and hypotheses relating to conditions or combinations of conditions that retard or facilitate increases in agricultural output, that need to be studied in the field under Phase B.
2. Preparation of outline and compilation of data and other information for use in comparative report on conditions affecting agricultural output and productivity in underdeveloped countries. This includes consideration of the following:

- a. Classification of countries in groups according to differences in rates of increase in agricultural output and associated conditions.
- b. Development of hypotheses or explanations of differences in rates of increases in agricultural output and productivity.
- c. Development of questions and hypotheses relating to conditions affecting agricultural output and productivity that merit detailed investigations and research in Phase B of the project.

Section III gives additional information on research plans for the next six months.

Research Procedures and Hypotheses. We have had much discussion of analytical procedures and research methodology for use in the study. Project objectives are limited to development of measures of changes in agricultural output and productivity, identification of factors associated with differences in these changes among countries, and implications with regard to useful approaches in accelerating increases in agricultural output and productivity. However, we have considerable interest in closely related subjects such as how agricultural improvement can contribute to national economic growth. As a guide to our analysis, we have found it desirable to set forth hypotheses relating to project objectives that merit testing.

Section IV describes research methodology and hypotheses in greater detail.

II. RESEARCH PROGRESS DURING FIRST SIX MONTHS

Research Plans. The plan of work set forth in Appendix III of the agreement describes major operations to be performed during each of the three six-month periods covered by Phase A of the project. The work plan indicates that the first six-month period would be devoted mainly to organization and data gathering, drawing upon secondary sources as follows:

A. Ascertain the available kinds of basic source materials on agricultural production patterns and trends, and on the sources and causes of these changes in the various countries of the world, with emphasis on the less developed nations. These will include published materials and unpublished materials available from the working files of special study groups and research and administrative agencies in national and international organizations.

B. Assemble, examine, and evaluate basic source materials, country by country, with a view to ascertaining their adequacy for the purposes of Phase A.

C. On the basis of the above findings and in consultation with the AID advisory committee and other interested AID and USDA officials, select the countries to be examined in Phase A and decide upon the time period to be used.

D. Assemble and compile, for the selected countries, relevant information from published materials and from the available unpublished reports and working files of cooperating national and international agencies. These agencies will include the Food and Agriculture Organization in Rome, Italy; agricultural divisions of the regional commissions of the United Nations; various offices of AID/Washington; USAID missions and cooperators from the governments and agencies of other nations; and other international organizations. Information of a quantitative nature will be compiled where available. It is expected that on several facets of the study, particularly for some countries, qualitative information will be used extensively. In fact, it is anticipated that much information will not be available without intensive field observations.

Individual Country Analysis. Most of the professional personnel working on the project have been assigned to compile information and carry out analysis for individual countries. For example, Jiryis Oweis has responsibility for Tunisia, Egypt, Jordan, and Sudan. Oweis is a native of Jordan who received undergraduate and graduate training at the University of Wisconsin. His knowledge of the Arabic language has been a big help. Steven Breth, who did his graduate study at Stanford University, has been assigned countries in Africa south of the Sahara included in Phase A of the project. Similarly, other economists have been assigned to compile and analyze data for other countries.

We have prepared a general outline that is being followed by staff members in making the individual country analyses. This approach facilitates collection of data on a comparable basis and the analysis of interrelationships among the many different conditions and factors influencing agricultural output and productivity within countries.

Progress in completing these preliminary country analyses differs among countries. For example, work on Greece, Turkey, Iran, Argentina, Taiwan, Nigeria, and Costa Rica is well towards completion. On the other hand, we still are in the early stages of data gathering for several other countries. Information is being compiled from many different sources. It consists not only of quantitative data, but information of a qualitative nature relating to the economic, social, and political setting within which recent changes in agricultural production have taken place.

The Regional Analysis Division, ERS, has compiled large amounts of data on production of agricultural commodities in foreign countries. For this reason, major responsibility for developing indices measuring changes in total agricultural output has been assigned to this Division. Considerable progress has been made in computing aggregate output indices. We

expect to have separate agricultural indices measuring changes in production of food commodities, nonfood commodities, crops and livestock, for the study countries. These indices will use 1957-59 price weights. They will cover the years from the late 1940's to the present, and a prewar benchmark in the late 1930's for comparative purposes. We expect to achieve a high degree of comparability among countries in methods used to construct production indices.

We are giving attention to developing estimates of agricultural production for subsistence purposes and for sale through commercial channels. Also, attention is being given to the relative importance of agricultural production for domestic and export use.

Data on prices received for agricultural products and paid by farmers for capital inputs are being compiled from many different sources. Limited information on prices currently is available.

Information is being compiled on the structural organization of farm production and marketing in each country. We consider it very important to accumulate better information about how decisions relating to farm production methods and practices are made. This, of course, is closely related to land tenure arrangements.

Collection of data on agricultural inputs including land, labor, and the various forms of capital also is well underway. We expect to compute measures of changes in resource productivity.

As a part of the country analyses, we are giving attention to the role of agriculture in general economic growth including the contributions agriculture can make by supplying food and other raw materials at relatively low costs, serving as a source of capital and labor for industrial development, earning foreign exchange through agricultural exports, and providing mass markets for industrial products.

Country visits. Dr. Hendrix, together with Dr. Frank Parker, participated in the Rural Development Symposium of the Central Treaty Organization countries held in Tehran in October, where they presented a keynote paper on "Foundations for Agrarian Development." Dr. Hendrix visited USAID missions in Turkey, Greece, and Iran as a part of the trip. This provided an opportunity to test out materials we have compiled from secondary sources and also to obtain additional data and information relating to objectives of the project for Turkey, Greece, and Iran.

In Turkey, Dr. Hendrix explored with USAID and top-level officials in the Ministry of Agriculture their interests in cooperating actively in Phase B of the project and possible organizational arrangements for a study. The response was highly favorable. It was suggested that such work, if later done, should be centered in one of the country's nearby Agricultural Research Institutes, but developed in such a way as to maintain close working relationships with USAID and GOT agricultural leaders.

In Greece, Dr. Hendrix discussed objectives of the project with U.S. Government personnel and with personnel of the Center of Economic Research, whose leader is Dr. Andreas G. Papandreou, on leave from the University of California. The Center of Economic Growth expressed a strong interest in cooperating with ERS and AID in a Phase B study in Greece beginning early in 1964.

It was concluded that the project would benefit greatly by additional visits of ERS personnel to study countries. It is highly desirable that all secondary sources of information be fully utilized and that specific questions on which information is desired be developed before making field visits.

Review of work being conducted under contract by FAO. Late in October, Dr. Hendrix discussed research being conducted on this project by the Food and Agriculture Organization with FAO officials in Rome. FAO personnel assigned to the study have completed basic plans for activities. They are examining field schedules and mail questionnaires that have been obtained by various FAO divisions in recent years for unpublished information having relevance to the study. In recent years, such schedules and questionnaires have been obtained by various FAO divisions on a worldwide basis on a variety of subjects including such things as agricultural extension activities, land tenure, price policies, and fertilizer use. Several of these documents contain unpublished information directly relevant to the objectives of the project. In addition to examining these records, field schedules on additional aspects of the project have been developed to be sent to FAO officials and to host government personnel of Phase A countries. Procedures have been outlined for achieving coordination of ERS and FAO contributions to the study.

III. RESEARCH PLANS FOR SECOND SIX MONTHS

Research Objectives. The plan of work for Phase A set forth in Appendix III of the agreement indicates that the second six months would be devoted to data analysis and development of country reports. It includes work similar in many respects to that performed during the first six months. Emphasis will be placed upon computation of agricultural output indices and measures of change in agricultural productivity, preparation of individual country analyses, and organization of data and information for use in comparative analysis of differences among countries in rates of change and levels of agricultural output and productivity.

Country Visits. The plan of work for Phase A calls for country visits to check data from secondary sources and to obtain additional information for individual countries in the third six months of Phase A. However, we believe that it will be desirable to make some country visits during the second six months. For example, it will be desirable to visit some of the Middle East countries early in 1964. USAID missions have considerable information in their files and visits with local government officials can be extremely useful. Staff working on the project also can benefit greatly from observations and discussions in study countries.

Comparative Analysis of Country Data. The plan of work calls for initiation of international comparisons and explanation of changes and differences in agricultural output and productivity in the second six months of the project. This work has been initiated. For all study countries included in Phase A, we are compiling data by years, including a prewar benchmark in the late 1930's, from the late 1940's to the present covering the following:

1. Population
 - a. Growth rates and projections
 - b. Rural, farm, and urban
 - c. Labor force - total, agricultural, and other
2. National output and income
 - a. Agriculture and other sectors
 - b. Consumption, savings, and investment
 - c. Foreign trade - agriculture and other
3. Agricultural production
 - a. Total agricultural output
 - b. Crop production
 - c. Livestock production
 - d. Food production
 - e. Subsistence and marketed production
 - f. Domestic and export production
4. Agricultural inputs
 - a. Land - cropland and other
 - b. Labor
 - c. Capital goods by types
5. Agricultural productivity levels and changes
 - a. Agricultural output and national output; total and per person and per worker
 - b. Food production per person of total population and per agricultural worker
 - c. Crop production per acre
6. Structural organization of farm production
 - a. Number and sizes of farms
 - b. Tenure arrangements
 - c. "Dual economy" organization of farm units
7. Structural organization of farm marketing
 - a. Efficiency of present facilities
 - b. Market forces including imperfect price making

This compilation of data should indicate the major statistical characteristics of countries that have made rapid, slow, or medium progress in improving agricultural output and productivity.

We also will compare conditions, country by country, that may be strategic in influencing agricultural output and productivity. These include such things as the following:

1. Adequacy of adapted technology
2. Agricultural education and extension
3. Basic land and water resources
4. Tenure and credit arrangements
5. Prices and supplies of production requisites
6. Prices and market outlets for farm products
7. Savings and capital investment incentives
8. Prices and supplies of consumer goods
9. Complementary industrial development that provides off-farm employment opportunities and production requisites
10. Political organization and public administration
11. Cultural conditions and attitudes.

Much of the information that we compile relative to these conditions will be qualitative. Nevertheless, it should be possible to develop tentative explanations and measure the relative importance of the various conditions that limit or facilitate improvement in agricultural output and productivity country by country.

IV. RESEARCH PROCEDURES AND HYPOTHESES

The research conducted in initial stages of this project has been guided by a highly generalized model. As a means of identifying factors or conditions associated with differences and changes in agricultural output and productivity, we have used a general production function in which agricultural output is treated as a function of available resources, adapted technology, tenure and credit arrangements, prices and market outlets for farm products, and other conditions.

We have not attempted to develop for this study a growth model encompassing all the factors or conditions needed to explain changes in agricultural output and productivity set in a fully self-contained or closed system. Instead, we plan to begin with a general production function approach to be followed by each of several specific hypotheses or partial approaches to identifying factors operating indirectly upon agricultural production through their influence upon one or more of the immediate determinants of output treated in the initial production function analysis. We have done this because of the great importance of many variables in the agricultural development process on which our knowledge of relationships is inadequate for application in a self-contained or closed growth model.

Development of analytical models appropriate for study of each hypothesis or set of hypotheses to be used in identifying factors or conditions associated with agricultural output and productivity levels and changes has been and will continue to be an important aspect of the work in this study.

Hypotheses or questions relating to conditions associated with differences and changes in agricultural output and productivity that will be explored include the following:

1. How has dual economy organization of agriculture (commercial vs subsistence sectors and export vs domestic sectors of agriculture) retarded or contributed to overall rate of growth in agricultural output and productivity?

2. Has the existence of a dual agricultural economy (export and domestic sector) detracted or contributed to the overall rate of growth in agricultural output and productivity.

3. How does economic growth of nonfarm sectors affect agricultural output and productivity by supplying farm production requisites, employment opportunities for surplus farm workers, and markets for commercial farm production?

4. Is increased agricultural output in underdeveloped countries related primarily to changes in (a) land area (b) composition of enterprises, (c) technology, (d) scale of farming and amount of labor in agriculture, (e) specialization, (f) irrigation? Does the importance of these proximate factors vary with the present level of agricultural productivity? To what extent has the amount and kind of agricultural investment been reflected in increased agricultural output?

5. Does the evidence suggest that certain "strategic" factors influencing economic development can be identified? Does the nature of these factors vary with (a) the level of agricultural productivity, (b), the institutional framework? To what extent are changes in "conditioning" factors (price supports, marketing, land reform, etc.) involved in countries having rapid growth rates? At what levels of agricultural development and under what conditions have traditional approaches, i.e., extension and research, had significant effects? To what extent have these been linked to significant changes in "conditioning" factors?

APPENDIX I

Organization and Staff

The Economic Development Branch, Development and Trade Analysis Division, has major responsibility for carrying out the project. Dr. Kenneth L. Bachman, Director of this division, and Dr. Raymond P. Christensen, formerly Chief of the Economic Development Branch, have spent considerable time in recruiting staff and organizing the study. Dr. W. E. Hendrix has served as technical leader, spending full time on the project.

On November 18, Dr. Christensen became Deputy Director of the Development and Trade Analysis Division, and Mr. Wade Gregory was named Chief of the Economic Development Branch. Dr. W. E. Hendrix will continue to serve as technical leader of the project.

Other professional personnel spending full time or part time on the project include the following:

Steven A. Breth	Margarite O. Settle
Helen M. Clifton	Robert D. Stevens
Dwight M. Gadsby	Donald D. Steward
Hans G. Hirsch	Jane R. Turns
Clarence A. Moore	George W. Westcott
Jiryis S. Owens	Harold T. Yee

APPENDIX II

Notes on meeting of AID/W Advisory Committee on the project, "Factors Associated with Differences and Changes in Agricultural Output and Productivity in Underdeveloped Countries," being carried out by the Economic Research Service, U. S. Department of Agriculture, May 6, 1963

The following notes were prepared on the first meeting of the Advisory Committee held May 6, 1963 at the State Department. This advisory committee was organized as provided for on page 2 of the participating agreement to provide coordination with other AID research and operations.

ERS was represented by Dr. Kenneth L. Bachman, Director, DTA, Dr. Raymond P. Christensen, Chief, Economic Development Branch, and Dr. W. E. Hendrix.

AID committee members present included:

Frank W. Parker, HRSD/AID
Allen H. Strout, AA/PC
Frederick H. Bunting, NES
Clifton H. Wilson, FE
W. S. Middaugh, AFE
V. Webster Johnson, LA
William Conrad, RES

The agenda planned by Dr. Parker and Dr. Christensen in advance of the meeting was followed.

1. ERS progress in staffing the project

Dr. Christensen indicated progress as follows:

- (a) Dr. W. E. Hendrix is serving as Technical Leader for the study.
- (b) Three agricultural economists have transferred from other work in the Economic Development Branch to the project. In addition, another is working on the project on a part-time basis.
- (c) Two statisticians have transferred from other USDA agencies to the project and one agricultural economist will transfer shortly.
- (d) Three agricultural economists recruited from universities will report for work on the project in June.

Dr. Christensen reported that several of these people have had experience working on agricultural development problems in underdeveloped countries and most of them have Ph.D. degrees with majors in agricultural economics.

The Regional Analysis Division, ERS will supply data on agricultural production for the countries under study. This Division will employ agricultural economists to carry out this work.

In addition, ERS will use specialists from other institutions, including people with specialized knowledge in agricultural economics, sociology, and the natural sciences. Professor Earl O. Heady, Iowa State University, was recently here for three days to confer on the study.

2. Plans for work with FAO

Mr. Bachman discussed negotiations for cooperation with the Food and Agricultural Organization of the United Nations. He outlined the areas of work on which FAO could make a very significant contribution. These included (1) the provision of readily available information, published and unpublished, resulting from earlier studies, and technical counsel on various facets of the study to be furnished without cost to the Department, and (2) collection and compilation of additional information and data on selected factors affecting agricultural production for the 30 selected countries. This information generally will be for the period 1948-62, or for selected years in that period. A draft of a proposed contract between ERS and FAO under which this work would be carried out was reviewed and discussed.

3. Country studies for Japan, Mexico, Greece and Taiwan

Dr. Parker reported on the studies of agricultural productivity recently completed in Japan under sponsorship of FAO. He indicated that the Director-General of FAO requested leaders in Mexico to make a comparable study for that country and that somewhat similar studies need to be made for Greece and Taiwan. Mr. Bachman reported on progress of conferences in Greece relating to development of such a study there. He reported that the Center of Economic Research in Greece expressed some interest in undertaking studies of this type.

4. Selection of countries for Phase A

Latin America

Argentina
Brazil
Chile
Colombia
Costa Rica
Mexico
Venezuela

Europe

Poland
Spain
Yugoslavia

Near East & South Asia

Egypt
Greece
India
Iran
Israel
Jordan
Pakistan
Turkey

Africa

Ghana
Nigeria
Ivory Coast
Sudan
Tanganyika
Tunisia

Far East

Japan
Korea
Malaya
Philippines
Taiwan
Thailand

It was agreed that some of the countries listed may be dropped later because of lack of data and information.

5. Plans for Technical Advisory Committee

Dr. Christensen reported on progress in selecting an ERS Technical Committee to work with ERS personnel in developing this study. He presented names of specialists in general economics, sociology, technical agriculture, and agricultural economics. He will prepare for members of the AID Advisory Committee biographical information on each of the persons considered.

6. AID materials available for study

Dr. Parker indicated three principal sources of information available for the study:

- (a) The U. S. Department of Agriculture
- (b) FAO and other international agencies
- (c) AID reports and materials

He asked members of the AID Advisory Committee what kinds of information AID can provide and how this can be made available to ERS. Members of the Committee indicated that AID has been using the USDA Library as a depository for AID reports. Reference was made to some 40 or more reports that will be available and that can be provided to ERS. Dr. Parker suggested that ERS designate someone in its agency to work with AID in gathering available AID reports and data.

Question was raised about the next meeting time for the Advisory Committee. It was suggested that a meeting be held in June.

APPENDIX III

USAID MISSION REPLIES RECEIVED
TO
AIDTO CIRCULAR XA 1099 (4-5-63)
(Tabular Summary and Excerpts)

As of June 21, 1963, 38 USAID Missions had replied to AIDTO Circular XA 1099 of April 6, 1963, on "How do Countries Increase Agricultural Production." Twenty-six of these Missions asked to be included in Phase A and 25 expressed interest in being included in Phase B, contingent upon their having enough funds to finance it.

Some of these Missions in replies to an earlier inquiry (AIDTO Circular A-98 of October 9, 1962) had asked not to be included. Circular A-98, however, failed to indicate how much of the research AID Missions' staffs would have to develop as well as other important details given in Circular XA 1099.

Replies to AIDTO Circular XA 1099 have not yet been received from several other missions that indicated in their replies to the earlier Circular A-98 a desire to be included in Phase A.

Tabulation of replies by Missions to AIDTO Circular 1099,
"How Do Countries Increase Agricultural Production"

Country	Include in Study		Comments
	Phase A	Phase B	
<u>Latin America</u>			
British Guiana	No	No	Conditions not good for study now
Colombia	Yes	Yes	Still desires to be included
Costa Rica	Yes	Yes	Will support Phase B
Dominican Republic .	No	No	Needed information not available for Phase B
Ecuador	Yes	Possibly	Contingent on funds for Phase B
Guatemala	Yes	Yes	May not be eligible for Phase B
Honduras	Yes	Yes	Want estimate of approximate cost
Mexico	Yes	Yes	Much interest in both phases
Nicaragua	No	No	Limited information available
Panama	Yes		Is interested in Phase B but questions suitability of country for Phase B objectives
Paraguay	Yes	Yes	Extremely interested in project
San Salvador	Possibly	Possibly	Contingent on personnel available
Trinidad & Tobago ..	Yes	Possibly	No comment
Uruguay	Yes	Possibly	Will answer later on Phase B

Country	Include in Study		Comments
	Phase A	Phase B	
Venezuela	No	No	Considers study of large value but chooses not to be included because of other closely related studies and AID Mission plans in Venezuela
<u>Africa</u>			
Kenya	Possibly	Possibly	Considerable data available
Nigeria	Yes	Yes	Economic Development Institute, Univ. of Nigeria wants to cooperate
Sudan	No	No	Limited data available
Tunisia	Yes	Yes	Want estimate of cost for Phase B
<u>Europe</u>			
Greece	Yes	Yes	Prepared to begin Phase B now
<u>Near East and South Asia</u>			
Afghanistan	Yes	Possibly	Contingent on funds
Ceylon	Interested	Interested	Not practical at this time
Egypt	Yes	No	Project will be of major value to Mission
India	Yes	Yes	Both phases very valuable to India
Iraq	Yes	No	No AID Mission in agriculture

Country	Include in Study		Comments
	Phase A	Phase B	
Jordan	Yes	Yes	Contingent on funds for B
Lebanon	Yes	No reply	No comments
Nepal	No	No	Little data available
Pakistan	Yes	Probably	Want to delay decision on Phase B
Syria	Yes	No	Fairly good data available
Turkey	No	No	Study would duplicate other work now underway in country
<u>Far East</u>			
Burma	Possibly	Possibly	In future, when conditions permit
Cambodia	Possibly	Possibly	Limited data available. Mission would assist ERS on project
Laos	Yes	Yes	Contingent on funds for B
Philippines	Yes	Possibly	Contingent on funds for B
Taiwan	Yes	Yes	Prepared to initiate Phase B immediately
Thailand	Yes	No	Does not anticipate having funds for Phase B
Viet-Nam	Yes	Yes	Study would be very worthwhile

Raymond P. Christensen
U.S.D.A./ERS
June 24, 1963

EXCERPTS FROM REPLIES TO AIDTO CIRCULAR XA 1099

LATIN AMERICA

British Guiana

"Conditions in British Guiana are still such that Mission is not interested in participating in Phase A of the study at this time. Prospects for interest in Phase B are slim."

Colombia

"The Mission still desires that Colombia be included in Phase A of the proposed study and is also interested in Phase B."

Costa Rica

"As indicated previously, Mission will appreciate Costa Rica being included"

"In the event Costa Rica is selected as one of the countries for the Phase B aspects of study, Mission will attempt to provide the required financing."

Dominican Republic

"Mission feels that the dearth of information and records available and the infancy of the few agricultural institutions would preclude benefits from such a study - either Phase A or Phase B. However, the results from L.A. study countries will be of great value to D.R. in planning and in institutional development (priorities)."

Ecuador

"After noting from above cited communication that Phase A of the study requires no additional expenditures or reassignment of existing personnel in the USAID Mission, Ecuador would like to be included in Phase A of this important study. At present level of funding, it does not appear feasible to finance Phase B of this program."

Guatemala

"..... this Mission desires to have Guatemala included in the proposed study, although the more complete plans for the study indicate that there would be little direct gain by including Guatemala in it."

"Guatemala may not be eligible for Phase B because of doubtful ability to demonstrate that it has been 'showing recent progress in increasing agricultural output and productivity, or in developing conditions usually considered favorable thereto' as required for countries to be included in Phase B."

Honduras

"US AID Mission would like to have Honduras included in Phase A of the subject study."

"US AID Mission very much interested in Phase B. Information from AID/W will be appreciated as to approximate cost for country program."

Mexico

"Please include Mexico in Phase A of proposed study."

"With regard to possible participation in Phase B, the USAID believes the type of study proposed would be helpful to national planning backstopping and to proper allocation of Mexican budgetary funds to agriculture, in total and in composition. USAID believes there will be little or no duplication (with other research) and that Phase B might well be done in Mexico."

Nicaragua

"On the basis of dearth of accurate data available and the agricultural position of the country, it is felt studies in other countries would be of more value."

Panama

"USAID/Panama recommends that Panama be included in Phase A of the study. This Mission is interested in Phase B, but with certain reservations, which may not qualify Panama as a participating country."

Paraguay

"..... Mission reaffirms its request for Paraguay to be included in phase A of the study. Mission is also interested in Phase B of the study, but since we are operating on a relatively limited budget for agricultural activities we cannot predict whether FY 64 and future programs would provide sufficiently for full participation on USAID's part. It appears that this project as outlined is extremely well planned to be of maximum benefit to this Mission and country."

San Salvador

"Our reply to AID Circular A-98 expressed interest in Phase A of of the program but questioned whether adequate data can be developed to meet the requirements of the study."

Trinidad and Tobago

"Under the circumstances, we do not feel justified at this point in reaffirming our earlier recommendation that Trinidad and Tobago be favorably considered for inclusion in the survey."

Uruguay

"Please include Uruguay in Phase A of the participating agency agreement with USDA under which the Economic Research Service will carry out a comparative analysis of changes in agricultural output and productivity in 25-30 less developed countries. US AID/Uruguay will defer answers as to interest in Phase B and the manner in which the project can be of maximum benefit to USAID and to Uruguay."

Venezuela

"The Mission is very much interested in subject matter and has seriously considered participating. However, the limited agricultural staff of the Mission, the intention not to increase the staff, plus the intent to phase out as soon as possible dictates against Mission participation."

AFRICA

Kenya

"This Mission would wish to have Kenya considered for inclusion ..."

Nigeria

"Recent establishment of Economic Development Institute at University of Nigeria makes it desirable to reconsider Mission response to AIDTO Circ A-98. Glenn Johnson, Director, EDI, will be in Washington early in June to consult with ERS on possible cooperation with EDI in assembling of data under Phase A and full analysis Phase B."

Sudan

"We have concluded that the Sudan is not ready for the type of research contemplated in either Phase A or B of the proposed study."

Tunisia

"USAID/T requests that Tunisia be included in Phase A of the study."

"In regard to Phase B, the Mission plans to include country study financing in its FY 1965 program."

EUROPE

Greece

"The USAID and the Agricultural Attache believe a study of changes in agricultural output and productivity in Greece since 1940 would be exceptionally useful. We shall be happy to cooperate with ERS personnel to the extent possible with our limited staff. In view of the fact that Greece was one of the first TC programs initiated and one of the first to be phased out, we believe it would be a logical candidate for the studies planned under Phase B."

NEAR EAST AND SOUTH ASIA

Afghanistan

"Mission Kabul reaffirms interest as outlined in TOAID A-913 but wishes to inform that conditions outlined therein have not changed. USAID Kabul, does not have any plans for programming funds for Phase B study. It is believed that the project will be of value to Afghanistan if the Mission here can receive and review results of study made of other countries of similar culture and climatic conditions."

Ceylon

"Believes that non-presence here of US AID and of agricultural attache makes inclusion Ceylon in proposed 'Phase A' ref. project impracticable; suspension of program here precludes financing studies under 'Phase B'. The present airgram revises US AID; response as contained in Ref. B written prior to suspension."

Egypt

"US AID/Cairo and the Agricultural Attache re-affirm their interest in having Egypt, UAR, included in Phase A of this study provided that individual detailed country reports are prepared and made available to the Mission."

India

"Definitely, India should be included in Phase A of this research project. As explained below, various developments in the Indian agricultural field in recent months, coupled with hearty endorsement of the research agreement in its final form, make us eager to participate in and support this effort. Assuming that India would be among the Phase A study countries, the Mission would fully support a Phase B study, in depth, of the technological, economic, and institutional aspects of Indian agricultural output and productivity. Mission support would be in accordance with the financing plan outlined in CIRC XA 1099."

"In close consultation, the Mission's Program Office and Agricultural Division have assessed the potential value of Phase A and Phase B studies of Indian agriculture. Full agreement has been reached that we can utilize constructively the results of the proposed study in this Mission's future planning."

"Such research, soundly conceived and capably conducted, would guide us in our agricultural planning and project implementation. As concerns suggestions for attaining maximum project values, we believe an extraordinary opportunity for striking paydirt lies in a thorough analysis of incentives which motivate people. This would include not only incentives to farmers, but also those affecting agricultural technicians who work with farmers."

"This proposed project and this airgram have been discussed with the Agricultural Attache and have that office's approval and support."

"In summary USAID/India fully supports the proposal for such a study in both Phase A and B, and is preparing in order to facilitate its implementation and maximize its effects."

Iraq

"Regarding Ref. (b), and the possibility of greater cooperation, it would seem quite logical to include Iraq in Phase A of an analysis of 'Factors Associated with Differences and Changes in Agricultural Production in Underdeveloped Countries' as the problem of agricultural production is a major one for Iraq."

Jordan

"USAID/J continues to be interested in participating in Phase A of the proposed project."

"USAID/J will probably be interested in Phase B but this will involve decisions yet to be made involving availability of funds and other USAID goals."

Lebanon

"It is not desired that Lebanon be included in Phase A of the proposed study referred to in the referenced airgram."

Nepal

"Mission still feels that little purpose would be served by including Nepal in the proposed research project to be conducted by USDA, due to lack of adequate data and statistics on agricultural production in the country."

Pakistan

"We are now of the opinion that enough data may be available about Pakistan to make Phase A of the proposed study worthwhile. Accordingly, the Mission requests that Pakistan be included in Phase A of the proposed study. In respect to Phase B we would prefer to comment after some experience with our present program of concentrating Mission effort in key areas of development."

Syria

"This Mission would be pleased to have Syria included in Phase A of suggested study but would caution that staff limitations preclude assistance to research personnel who carry out the study. The Agricultural Attache comments this would be a good study to make in Syria, where an AID agricultural program has not existed, in order to offer comparisons with neighboring countries where such programs have existed."

Turkey

"Turkey should not be included in Phase A of the study."

FAR EAST

Burma

"The Mission feels that this AID/W proposal is very worthwhile and hopes to see it actively pursued in the other countries of the world. If and when the political atmosphere clears in Burma, the Mission would like to have an opportunity to re-negotiate participation in the fact-finding project."

Cambodia

"Under existing conditions additional effort required to satisfy program in reference airgram would necessitate additional US AID staff to collect and process data. The scarcity of supporting

documents and lack of trained RKG personnel further support the Mission's position of not undertaking additional responsibilities for this study at this time."

"The value of such a study would no doubt be important to Cambodia and if research is contemplated in this region, the Mission will be interested to assist individuals with data at its disposal."

Laos

"This Mission is still interested and wishes to be included in Phase A."

"Contingent on cost and availability of funds, this Mission desires to participate in Phase B. As far as Laos is concerned, we are hopeful to receive more from such a study than we are able to contribute. We hope it will develop methods of analyzing a situation without much in the way of accurate statistical information."

Philippines

"The Agriculture Division of this Mission now has sufficient staff and wishes to be included in the study."

"This Mission does not wish to make a commitment at this time in regards to Mission financing country study as outlined in Phase B of AIDTO Circ XA 1099."

Taiwan

"Taiwan's agricultural development program has already passed the stage where the results of Phase A would be of maximum value but Taiwan's experiences will probably be of value in countries where development programs are just beginning."

"JCRR is interested in cooperating with ERS in Phase B provided assistance can be provided as described in I above and provided the study can begin in the near future without waiting for the completion of Phase A."

Thailand

"This Mission would appreciate being included for the type of study now identified as Phase A. This Mission does not anticipate having funds available to sponsor Phase B and therefore must decline the possibility of Phase B study here."

Viet-Nam

"USOM/Viet-Nam continues to be interested in research on agricultural development and would like to participate in Phase A of the study if circumstances permit."

"USOM would welcome participating in Phase B as may be possible although this may require a broader frame of reference."

"The need for research is no less acute when available statistical information is scarce and shows much deviation."

APPENDIX IV

The following is copy of the Plan of Work under the contract between Economic Research Service, USDA, and Food and Agriculture Organization, UN, whereby the FAO will cooperate with ERS in the Agricultural Productivity Study.

PLAN OF WORK AND PAYMENT SCHEDULE

- I. The Contractor shall collect, compile, and furnish data regarding factors influencing the rate of agricultural development in selected foreign countries. Two types of information will be furnished.
 - A. Readily available information, published and unpublished, resulting from earlier studies, and technical counsel will be furnished without cost to the Department.
 - B. Additional information and data on selected factors affecting agricultural production for 25 - 30 selected countries. This information generally will be for the period 1948-62, or for selected years in that period.
- II. Following are examples of contributions the Contractor will make available to the Department within its present resources. A complete list of available material will be prepared at a later stage in consultation with representatives of the Contractor.
 - A. Recent reports of economic studies including:
 1. Country reports from African Survey.
 2. Country reports on Mediterranean Development project.
 3. FAO/ECLA country economic development studies in Argentina, Bolivia, Brazil, Colombia, Ecuador, and Peru.
 4. FAO/ECAFE report on "Food and Agricultural Price Policies in Asia and the Far East."
 5. FAO document "Development in Agricultural Price and Stabilization Policies in 1961."
 6. World Census Reports.
 7. World Coffee Survey Reports.

8. World Cocoa Survey Reports.
 9. FAO/ECAFE 1957 Report on "Credit Problems of Small Farmers in Asia and the Far East."
 10. Unpublished reports on agricultural finance and credit in Pakistan, Taiwan, Thailand, the Philippines, Korea, Japan, Afghanistan, Burma, Malaya, Iran, and Vietnam.
 11. "Directory of Agricultural Research Institutes and Experiment Stations in Asia and the Far East," C. W. Chang, FAO 1962.
 12. "Present status of Agricultural Education Development in Asia and the Far East," C. W. Chang, FAO 1961.
 13. "La Vulgarisation Agricole en Asie et en Extreme Orient: Situation Actuelle," C. W. Chang, FAO 1963.
 14. Study of agricultural research in Africa (unpublished).
 15. Animal Health Yearbook, 1962.
 16. World Seed Campaign reports.
 17. Production Yearbook.
 18. Studies of land development projects in selected countries.
 19. Fertilizer trial results for Africa, the Near East, the Far East, and Latin America (unpublished).
 20. "Third Report on Progress in Land Reform," ECOSOC 1962, and unpublished country reports.
 21. CIDA Investigation of Land Tenure in Latin American countries.
- B. Furnish information from unpublished economic studies. The form in which the data will be submitted will be determined later during discussions between the Contractor and the Contracting Officer's Designated Representative. Data to be furnished will include those from studies pertaining to:
1. Country studies in Africa.
 2. Latin American economic development.
 3. African education.

4. Research and extension activities in the Near East.

5. Various country studies on:

- a. Agricultural finance and credit.
- b. Number of dairy plants.
- c. Economic losses of livestock from disease.
- d. Pesticide uses.
- e. Trial uses of fertilizer.
- f. Marketing.

C. Provide technical counsel on:

1. Country selection.
2. Coverage of organization and analysis of tabular materials.
3. Data adequacy and appropriate use in analysis.
4. Appropriateness of interpretations and conclusions.

III. Procedure for conducting the research covered by this contract:

The Contractor shall furnish information on factors affecting agricultural production in 25 - 30 countries within the seven areas outlined below. In furnishing this information, the Contractor shall give preference to such areas as the Contractor and the Contracting Officer's Designated Representative agree should be given priority, in view of time and personnel limitations.

A. Agricultural price and incentive policies.

1. Trends and levels of prices (usually wholesale) of selected crops for 1948-62, considering
 - a. Deflated prices.
 - b. Relation to prices in other countries or to international prices.
2. Availability, prices, and subsidies on production requisites.

3. Efficiency of marketing system, especially from the standpoint of the margins involved and the mitigation of price fluctuations.
 4. Major objectives of price policy.
 5. Implementation of producer price policies with some estimate of their effectiveness for:
 - a. Selected export crops.
 - b. Selected domestic crops.
 6. Levels of farm support prices and, where possible, some indications of how far they are effective at the farm level.
 7. Functions, volume of business, and number of farmers participating in agricultural cooperatives, farmers' associations, and marketing boards.
- B. Adoption of improved production practices.
1. Biological and pharmaceutical products used.
 2. Volume of certified rice, corn, and other selected seeds used.
 3. Classification of countries on basis of progress in livestock feeding and breeding practices.
- C. Credit institutions and practices.
1. Sources of agricultural credit including non-institutional lenders for recent years and general charges during 1948-62.
 2. Trends in volume of institutional credit by source.
 3. Terms of credit.
 - a. Interest rates.
 - b. Size and length of loans.
 - c. Security by source.
 4. Improvements in credit.
 - a. Growth and present importance of supervised credit.

b. Credit cooperatives.

c. Trained personnel.

D. Investment in agriculture

1. Public sector investment in agriculture and ancillary fields as set out in countries' plans, etc., with distribution between main categories and relation to total public investment.

2. Any available information on private investment in agriculture.

E. Agricultural education, research, and extension.

1. Estimated number of students graduating in selected year or years within 1950-60 from:

a. Agricultural and veterinary colleges.

b. Secondary schools of agriculture.

2. Number and budget of research institutions; number of specialists on staff with a BSc degree or above. This information will be furnished for selected years in the 1948-60 period.

3. Budget expenditures for extension activities; total number of extension employees in agriculture, home economics, and rural youth work; and number of village level extension workers in these fields. This information will be furnished for selected years within the 1948-60 period with indication of percentage growth since 1950.

F. Irrigation and land development, for appropriate countries as needed.

1. Trend of area irrigated, and available information on effects on production.

2. Expenditures for irrigation and other forms of land development, insofar as not already covered under III. D.

3. New land settlement - area and number of families.

G. Land tenure.

1. Number and area classification of holdings.
2. Relative importance of owners and tenants.
3. Conditions of tenancy.
4. Dates of major land reform laws.
5. Nature of implementation.
6. Ceiling on sizes of holdings.
7. Redistribution of land.
 - a. Registration of land titles.
 - b. Number of individual ownership units created out of shifts from communal or other forms of group ownership.
 - c. Amount of land redistributed through such shifts.

IV. The Contractor shall submit the following reports to the Contracting Officer's Designated Representative:

- A. Two interim reports as of December 31, 1963 and June 30, 1964. Each report shall include data available as of the date the report is due, and an interpretation of such data.
- B. A final report no later than September 20, 1964. This report shall include data not provided in the interim reports.

V. The Department agrees to pay the Contractor the sum of \$91,840 ^{2/} as follows:

- A. \$65,000 advance payment upon execution of this contract.
- B. Reimburse the Contractor as specified in paragraph 4 of Form AD-265, attached.

^{2/} \$65,000 will be provided upon execution of this contract, and will finance the work through December 31, 1963. The balance of \$26,840 will be provided, subject to the availability and receipt of funds from AID, in fiscal year 1964. If funds are not made available by AID for fiscal year 1964, work on the contract will be terminated as of January 31, 1964.

APPENDIX V

Summary Report of Meeting of Technical Advisory Committee of the AID Productivity Study

The Technical Advisory Committee on the AID Productivity Project held its first meeting on September 13 and 14, 1963. Dr. Sherman Johnson served as chairman for this meeting. All members except Dr. Turk attended part or all of the meeting. Committee members were:

Dr. Sherwood O. Berg, Dean, Institute of Agriculture,
University of Minnesota, St. Paul, Minnesota

Prof. William W. Lockwood, Professor of Politics and International
Affairs, Princeton University, Princeton, New Jersey

Prof. Max Millikan, Director, Economic Development Center
Massachusetts Institute of Technology, Cambridge, Mass.

Dr. John Provinse (Retired), formerly Associate in Community
Development, the Council on Economic and Cultural Affairs, Inc.

Dr. Gustav Ranis, Associate Director, Economic Growth Center,
Yale University, New Haven, Connecticut

Dr. Kenneth L. Turk, Director of International Development,
Cornell University, Ithaca, New York

Dr. E. T. York, Provost for Agriculture
University of Florida, Gainesville, Florida

Other Participants

F. J. Weyl, Science Director, Office of Human Resources and
Social Development, AID

Frank Parker, Deputy Director, Agriculture Service, Office
of Human Resources and Social Development, AID

Gerald E. Tichenor, Acting Administrator, International
Agricultural Development Service, USDA

Willard W. Cochrane, Director, Agricultural Economics, USDA

Nathan M. Koffsky, Administrator, Economic Research Service, USDA

Sherman E. Johnson, Deputy Administrator for Foreign Economics,
ERS-USDA (Chairman)

Kenneth L. Bachman, Director, Development and Trade Analysis
Division, ERS-USDA

Raymond P. Christensen, Chief, Economic Development Branch,
ERS-DTA, USDA, (Secretary)

W. E. Hendrix, ERS-DTA, USDA

Clarence A. Moore, ERS-DTA, USDA

Donald D. Steward, ERS-DTA, USDA

Quentin M. West, Deputy Director, Regional Analysis Division, ERS, USDA

Charles A. Gibbons, ERS-RAD, USDA

After opening the meeting, Dr. Johnson called upon Dr. Cochrane, Mr. Koffsky, and Dr. Parker for remarks.

Dr. Cochrane stressed the importance of this project both in methodological terms and in providing information to AID and to the underdeveloped world that will be of value to them in their efforts to achieve more rapid advances in agricultural productivity. He stressed that the planners in such countries are not fully aware "of the terrific expansion in food production that is required to be consistent with the rate of economic development and per capita income increases that they hope to achieve." He added that they do not fully "realize the power in the income elasticities that are involved if they are to get this development."

Following brief welcoming comments by Mr. Koffsky, Dr. Parker made introductory remarks regarding the need for and the purposes to be served by this project, as viewed by AID. In most of the countries where AID is working, "the agricultural sector is a very backward sector and one that's very difficult to change." He expressed the desire that this project would study the differences in rates of change in agricultural production and development among different countries, including those where change has been rapid and those where change has been slow. Analysis would then follow to determine the reasons for these differences.

Analysis of differences in the rate of change and the reasons for these differences might be made by two approaches: (1) Cross-country comparison and (2) comparisons within given countries as to differences in rates of change between regions over time. Included would be the technological factors, institutional and service factors, cultural factors, economic factors and government.

Discussion following Dr. Parker's comments brought out a number of suggestions from the Advisory Committee members and others for consideration in the development of the research.

1. Regional differences within countries might well be analyzed wherever such differences exist. National statistics tend to obscure the differences in regional progress and some of the critical areas and problems faced within a country.

2. Detailed analysis of a micro nature could well be made, such as differences in size of farms or financial situation of farmers, as a means of identifying the levers that you have to try to influence or manipulate if change is to be enhanced.

3. It is desirable that in the fairly early stages of analysis, a model or configuration be developed as a guide to the research throughout the study. The various factors should not only be listed, but the configuration should be such as to bring out the relationships between the factors, suggesting the interplay of such factors as they influence production and the substitutability among factors in the development process.

Conceptual Framework

At different times throughout the meeting, considerable discussion was devoted to the matter of developing a model to serve as a somewhat systematic approach in the research. Different views relative to the types of models to be developed were presented and limitations and restrictions of possible approaches were recognized. The general consensus was, however, that at a fairly early stage in the study, a general formulation of the problem and the development of a general model would be highly essential and useful. Revision and refinement of such a model or development of a more appropriate and suitable model or theory of economic development might well be an important product growing out of this project.

The suggestion was made that in a cross-country comparison the developed models for each country be compared to determine those factors which were generally common and what the differences are among these models. Determination of these differences would point out areas which are of crucial importance to development. It was recognized, however, that because of the complexity of factors to be considered, the cross country analysis may show special conditions existing in individual countries. Each such country -- perhaps every country -- may become a special case and might best be treated as a special case study.

The essence of such discussion was to emphasize that as yet satisfactory models empirically developed and tested are inadequate for the purposes of this study. A suitable model, however, is essential to the methodology to be followed in this research. Therefore, cautious development and use of a tentative model is essential. At the same time, care should be exercised to avoid being mechanistic in the development and use of such a model.

While every researcher necessarily must have developed some hypotheses and some methodology, however nebulous or unstated, as an approach to solution of a problem, the need exists for the staff on this project to develop as a

group a general methodological approach and a systematic set of hypotheses to be tested which each individual might follow in individual country analyses so as to assure maximum ease of cross-country comparisons. The development of such a model will help to identify the factors to study and the data and other information to be accumulated and analyzed.

Progress and Plans

Dr. Christensen and Dr. Hendrix discussed the development, organization and progress of the project. Dr. Christensen noted that over 50 AID Missions had indicated considerable interest in being included in this project and that 25 Missions expressed a desire to be included in Phase B of the study. It was pointed out that while the agreement to conduct this study was signed on March 20, 1963, recruitment of staff and getting them in position has only recently been completed, limiting the amount of progress that has thus far been made in the accumulation and analysis of data.

In the plan of work the first one and one half years will be centered on making an analysis, largely from secondary data, of the rates of change in agricultural output and productivity, in determining the reasons for these changes within the individual countries, and on developing preliminary appraisal reports for each country included. Comparison will then be made of the differences in rates of change between countries. Dr. Christensen stated that "We plan to visit sometime during this fiscal year most of these 30 countries. People that are working on this project will spend a couple or three weeks and will have their preliminary appraisals with them." Such visits should contribute greatly to the efforts of the staff in making a thorough, realistic analysis of the respective countries in Phase A.

The second stage, Phase B, will involve assignment of staff to work in a restricted number of countries to study at depth those areas when data is found inadequate in Phase A.

Dr. Christensen also mentioned that consideration was being given to drawing into the staff for Phase B a number of highly qualified and experienced people to work for perhaps one year in selected countries to strengthen the Phase B work of the project.

Considerable discussion was also devoted to the possibility of initiating detailed studies fairly soon in Mexico, Greece, and Taiwan, somewhat as special studies, prior to full development and initiation of Phase B of the project.

Discussion of organization and procedure which followed brought out the following suggestions for consideration by the project administrators and research staff.

1. One of the main functions of Phase A should be to learn what questions to ask and what areas to probe in depth in Phase B.

2. Consideration should be given to restricting the number of countries to be included in Phase A to something less than the 30 countries listed.
3. Phase A country reports should include (a) an analysis of the institutional, social and cultural factors as they relate to progress in agricultural development and (b) a critical appraisal by the respective analyst to give added direction to the work to be undertaken in Phase B.
4. Selection of countries to be included in Phase B should arise out of the Phase A part of the study, during which criteria for such selection and study should be better determined.
5. The real hope for fruitfulness from this project lies in Phase B. Therefore, the number of countries to be included in Phase B should be sufficiently restricted to permit thorough analysis in depth of a few countries rather than too limited an analysis of a large number of countries.
6. If the project is to involve persons other than regular staff members in Phase B, such as highly qualified and experienced college people who might obtain a years sabbatical, such persons should be associated with the work as early as possible, perhaps on a consultant basis, and should be brought in to Washington to meet with the full-time staff periodically.
7. It would be highly desirable to have the same people working on the same countries, whenever possible, in both Phase A and Phase B.
8. If study teams are to be sent into Greece, Mexico and Taiwan early to conduct some special studies, this should not be considered as a part of Phase B, and should not interfere with the methodological procedures, restrict funds, or prejudice the approach to carrying out Phase B of the project. Such special work should, however, provide information and experience useful in the development of Phase B work.
9. Particularly in view of limitations of data, the analysis may need to include considerable qualitative analysis where quantitative information is not adequate. For example, it may not be sufficient to know only how much fertilizer was available and used, but it may also be necessary to know something about how it was distributed and how it was used. Likewise, it may be necessary to become thoroughly familiar with such matters as the method of extending credit and how the credit was used as well as the amounts of credit extended in assessing the role of credit in agricultural development.

10. Because of the expected heterogeneity among the 30 original countries in the study and because of the complexities of making the cross-country analysis under such conditions, consideration might be given during Phase A to classifying these countries into a limited number of fairly homogeneous sub-groups. A more meaningful cross-country analysis might then be made within each sub-group. One or more representative countries from each sub-group might be selected for inclusion in Phase B.
11. As early as possible, individuals working with a country analysis should identify themselves with the people who are expected to be affected and who are going to use the material of the reports. This suggests close communication and contact with the Mission people and appropriate government persons in the country concerned. Not only would they be able to contribute to the work of the project, but by being drawn more closely into it, at a fairly early stage, their interest and understanding of the problems being studied would be enhanced, contributing to their ability to deal with such problems in development and operation of programs.
12. In the conduct of Phase B, it might be well to draw into the project a number of indigenous persons. While they might contribute to the work of the study, it also affords the possibility that as a by-product of the study an increasing number of research-trained, research-oriented people would be developed in the developing countries.

Social, Cultural and Institutional Factors

While considerable discussion was devoted to the matter of developing a suitable model or conceptual framework fairly early in the study, considerable stress was also placed on the need for the researchers to become thoroughly familiar with the social, institutional and governmental organization within which programs for economic development operate. Some of the most crucial problems may be non-economic or at least of such a nature as to lack quantification.

It was suggested that the research staff look into such matters as transportation and communication, food habits of the people, customs affecting savings, habits related to climate, emphasis on day-to-day survival rather than plans and hopes for the more remote future, family structures, patterns of leadership, and religious practices. "If these kinds of things could also be made a part of the study, it would add a great deal to the ability in Phase B to develop the kinds of hypothesis and insights that you want." "Such insights are going to be more important than the mere mechanical data in the ultimate use of our research."

Relative to the factor of government, it was suggested that the study should try to derive something meaningful as to the political requisites or requirements of agricultural change "perhaps by classifying governments in terms of how they are centralized or decentralized. What is the size and shape of the public sector relative to the private?" "What is the degree of political stability and continuity? How open or competitive is the political leadership?" "How successful can the state serve as catalyst and pioneer, organizer, facilitator and subsidizer" to innovation? "It is a question, basically, of designing some kind of political framework in which the incentives to self-help--personal ambitions--can be released and linked up with kinds of activity that build economy instead of stagnating or breaking it down."

"At the local government level, it might be very useful, very important to see whether it is not possible to accumulate a great deal more knowledge and at least some preliminary analysis of the local element in village and agricultural development. There is a whole area here that somehow needs to get into the country outline, even though it does not lend itself to statistical formulation."

The suggestion was also made that if this project is to be helpful to AID it would be well to look into the matter of how both the leadership and the peasant in such countries can be motivated to change. "If you're going to plant a new idea, you have got to analyze the soil into which this new idea is going to go. That means trying to understand something about the human element into which you're trying to make this implantation."

Prior to adjournment of the meeting, Mr. Koffsky raised the question, from an administration viewpoint; "How do you do all of the things that are being suggested here within the time limits imposed and the amount of resources available?"

Plan for Future Committee Action:

It was expected that the Development and Trade Analysis Division, ERS, would submit a six-month progress report to AID near the end of October. Drafts of some country reports should be well along by January or February 1964, and plans for detailed study in Mexico, Taiwan and Greece should be well started. The next meeting of the Advisory Committee was therefore scheduled for February or March 1964, to review progress to date and to assess and suggest possibilities for future action.