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THE FUTURE OF AGRICULTURE

*Technology, Policies
and Adjustment*

PAPERS AND REPORTS

FIFTEENTH
INTERNATIONAL CONFERENCE
OF AGRICULTURAL ECONOMISTS

*Held at Parque Anhembi
São Paulo, Brazil*

19–30 AUGUST 1973

OXFORD
AGRICULTURAL ECONOMICS INSTITUTE
FOR
INTERNATIONAL ASSOCIATION OF AGRICULTURAL
ECONOMISTS
1974

INTERNATIONAL ASSOCIATION OF AGRICULTURAL
ECONOMISTS

Constitution

ARTICLE I. NAME

The name of the organization shall be International Association of Agricultural Economists, hereinafter referred to as IAAE.

ARTICLE II. OBJECTIVES

The objectives of the IAAE are: To foster the application of the science of agricultural economics in the improvement of the economic and social conditions of rural people and their associated communities; to advance knowledge of agricultural processes and the economic organization of agriculture; and to facilitate communication and exchange of information among those concerned with rural welfare throughout the world.

ARTICLE III. DISPOSITION OF FUNDS

Section 1. No part of the income of the IAAE may inure to the benefit of individual members thereof, and the association shall be operated as a non-profit organization

Section 2. In the event of dissolution of the IAAE, whether voluntary or involuntary, its assets shall be disposed of in a manner deemed by the Executive Committee to be consistent with the scientific and educational purposes for which the IAAE was formed.

ARTICLE IV. ACTIVITIES

Section 1. The IAAE may engage in any activity which falls within the sphere of its objectives and which may be authorized by the IAAE Council, hereinafter referred to as the Council, such as international and regional meetings and seminars, and the publication of reports dealing with the activities of the association or with other matters of interest to its members.

Section 2. A major conference of the IAAE shall in general be held every three years. The Council may indicate its preference for the country where the conference is to be held, but the final decision shall be made by the Executive Committee.

Section 3. The IAAE may retain, employ, and remunerate skilled professional or technical personnel in furtherance of its objectives.

ARTICLE V. MEMBERSHIP

Section 1. Any person who is interested in agricultural economics shall be eligible for membership in the IAAE and may become a member thereof by paying the prescribed dues to the country (area) representative or to the Secretary-Treasurer of the IAAE.

Section 2. The membership fee shall be determined by the Council and shall cover a three-year period, beginning on the first day of January 1975, and the first day of every third year thereafter. Any member who fails to pay his dues within the first year of the three-year period shall be considered to be delinquent.

Section 3. Corporations, libraries, and similar institutions may become members by designating one of their staff as the member for the firm or institution.

Section 4. The IAAE, on the recommendation of the Council, may elect honorary life members.

ARTICLE VI. EXECUTIVE OFFICERS

The executive officers shall be a President, a President Elect, a Vice-President for Administrative Affairs, a Vice-President for Programme Development, and a Secretary-Treasurer, all of whom shall be elected by the Council at a formally constituted meeting held during the conference, and shall hold office for a period beginning with the close of the conference and ending with the close of the next succeeding conference.

ARTICLE VII. DUTIES OF OFFICERS

Section 1. The President shall be the chief executive officer of the IAAE and shall be subject to the authority of the Executive Committee. He shall be responsible for managing the administrative and business affairs of the association and for conducting international and regional conferences. He shall preside at all meetings of the IAAE, the Council, and the Executive Committee. He shall preside at plenary and other sessions of conferences or designate an alternate. He shall make appointments to special committees created by action of the Executive Committee or the Council.

Section 2. The President Elect shall, in the absence of the President, perform the duties of the President, and when so acting shall have all the powers of the President and be subject to all the restrictions upon the President. In the event of the incapacity of the President to complete his term, the President Elect shall assume the office of President. He shall at all times be kept informed of the affairs of the association and shall be involved in them. He shall perform such other duties and have such other authority as from time to time may be assigned to him by the President or

by the Executive Committee. .

Section 3. The Vice-President for Administrative Affairs shall assume various administrative duties such as facilitating local arrangements and developing financial support for the association. He shall perform such other duties and have such other authority as from time to time may be assigned to him by the President or by the Executive Committee.

Section 4. The Vice-President for Program Development shall be responsible for preparing the program for the major conferences of the IAAE and shall perform such other duties and have such other authority as from time to time may be assigned to him by the President or by the Executive Committee.

Section 5. The Secretary-Treasurer shall:

- A. Keep minutes of the meetings of the Council and the Executive Committee.
- B. Keep country representatives informed of the principal actions.
- C. Have custody of IAAE records.
- D. Maintain, with the help of the country (area) representatives, the full address of each member.
- E. Certify resolutions.
- F. Receive all funds and securities of the IAAE and deposit all such assets in the name of the IAAE in such banks, trust companies, or other depositories as may be designated by the Executive Committee.
- G. Disburse funds in accordance with regulations established by the Executive Committee
- H. Keep an account of all receipts and expenditures and other financial transactions of the IAAE by fiscal periods beginning the first day of January and ending the thirty-first day of December of each year.
- I. Perform such other duties and have such other authority as from time to time may be assigned to him by the President or by the Executive Committee.

ARTICLE VIII. EXECUTIVE COMMITTEE

Section 1. The Executive Committee shall consist of the Founder President, the immediate Past President, and the executive officers. Upon the inability of the Founder President to serve, the Executive Committee shall consist of the immediate Past President and the executive officers.

Section 2. The Executive Committee shall act for the Council between meetings of the Council.

Section 3. The President of the IAAE shall serve as Chairman of the Executive Committee, and the Secretary-Treasurer of the IAAE shall serve as its Secretary.

ARTICLE IX. SPECIAL COMMITTEES

Section 1. Special committees may be created in accordance with the needs of the IAAE upon action by the Executive Committee or the Council.

Section 2. Members of special committees shall be appointed by the President of the IAAE.

ARTICLE X. NATIONAL OR AREA BRANCHES

Section 1. The members of the IAAE in each country (or group of countries) shall form a National (Area) Branch to promote the objectives of the IAAE within the country or area. In addition, National (Area) Branches may join together to pursue IAAE objectives.

Section 2. Each National (Area) Branch shall designate a member as country (area) representative to provide liaison between the officers of the IAAE and the membership within the country or area.

Section 3. Each National (Area) Branch shall elect members to the IAAE Council in accordance with the number of members in the country or area: 0 and not exceeding 4 members, 0 Council member; 5 and not exceeding 10 members, 1 Council member; 11 and not exceeding 25 members, 2 Council members; 26 and not exceeding 60 members, 3 Council members; 61 or more members, 4 Council members.

Section 4. Each National (Area) Branch shall elect or appoint members to the Council within one year after the election of the officers of the IAAE. The method of selecting members of the Council shall be left to the discretion of each National (Area) Branch, but the procedure shall be reported to the Executive Committee for approval.

ARTICLE XI. IAAE COUNCIL

Section 1. The IAAE Council shall consist of the Executive Committee together with the members elected by the National (Area) Branches as provided for in Article X.

Section 2. The Council shall be the major policy formulating body of the IAAE and shall meet during the conferences of the IAAE and at such other times and places as may be designated by the Executive Committee.

Section 3. In the event a Council member from a National (Area) Branch is not present at a conference, Branch members in attendance may designate one of their group as an alternate Council member.

Section 4. The President of the IAAE shall serve as Chairman of the Council, and the Secretary-Treasurer of the IAAE shall serve as its Secretary.

ARTICLE XII. TEMPORARY NATIONAL OR AREA BRANCHES

Where no National (Area) Branch has been constituted, the President may appoint a temporary representative to canvass for members and to establish a branch under the Constitution.

ARTICLE XIII. AMENDMENT OF CONSTITUTION

The Constitution may be amended at any formally constituted meeting of the Council either by a three-fifths (3/5) vote of the Council members present, provided that at least six months prior to the voting the amendment has been submitted in writing to the country (area) representatives for consideration by the National (Area) Branch members; or by a three-fourths (3/4) vote of the Council members present without advance submittal in writing.

As adopted August 1973



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THIS index is intended mainly to complement the contents list which is likely to be the more effective means of locating the most significant treatment of the main subjects of the conference. It is likely to be most useful in locating references to items which appeared in a number of papers or discussion sessions; to items of specific interest to a participant in the conference which arose more or less incidentally to the particular line of discussion being followed, and to speakers from the floor in the main sessions. Names of chairmen, consultants and rapporteurs in Special Groups and Discussion Groups are not included in the index. Names of countries are included only if they appear in connection with some major activity; entries in statistical tables are generally not indexed.

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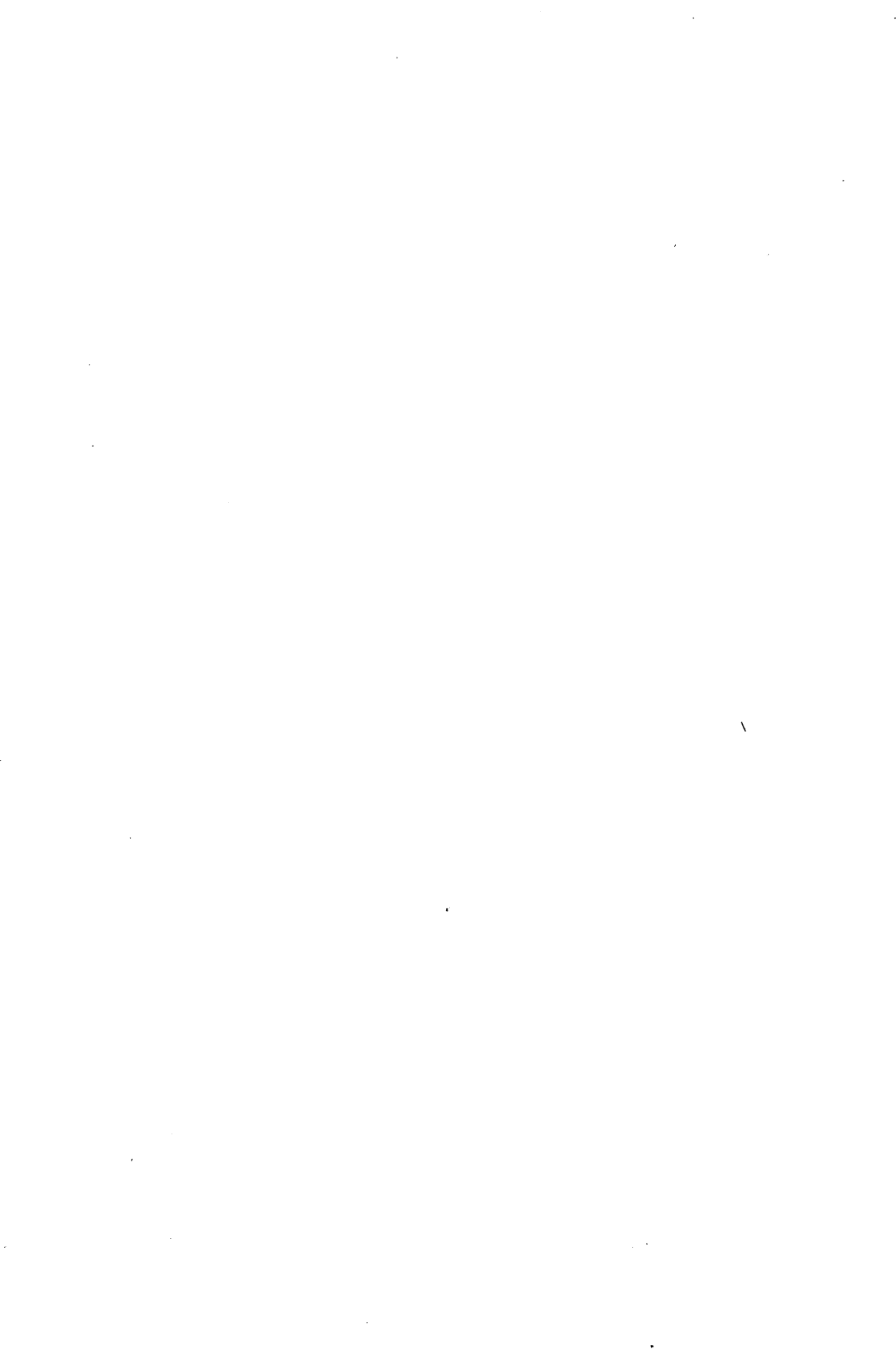
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Hyelm, L. *Sweden*
Schieck, H. E. *Germany*
Weber, A. W. *Germany*



DISCUSSION GROUP 5. INTERACTION OF NATURAL RESOURCES,
TECHNOLOGY AND ENVIRONMENT

Front row

Johansson, V. *Sweden*
 Jones, J. O. *U.K.*
 Wittenberg, J. I. *U.K.*
 Lingard, J. *U.K.*
 Mubyarto, D. *Indonesia*
 Almeida, P. I. R. *Brazil*
 Wolters, N. W. *Belgium*
 Zapata, J. A. *Argentina*

Second row

Eddleman, B. R. *U.S.A.*
 Hansen, D. E. *U.S.A.*
 Summers, S. *Peru*
 Easter, K. W. *U.S.A.*
 Wyckoff, J. B. *U.S.A.*
 Reiss, F. J. *U.S.A.*
 Berengut, G. *Brazil*
 Kolshus, H. J. *U.S.A.*
 Holmstrom, S. *Sweden*

Third row

Degand, J. H. *Belgium*
 Randall, A. *U.S.A.*
 Biere, A. *U.S.A.*
 Nelson, W. C. *U.S.A.*
 Immler, H. W. *Germany*
 Breimyer, H. F. *U.S.A.*
 Tefertiller, K. R. *U.S.A.*
 West, Q. M. *U.S.A.*
 Gubbins, K. E. *U.K.*
 Kakli, M. S. *Pakistan*
 de Farcy, H. M. *France*
 Wyckoff, C. C. *U.S.A.*
 Robertson, C. J. *U.K.*



DISCUSSION GROUP 6. DUALISM IN AGRICULTURE—LARGE-SCALE vs. SMALL-SCALE FARMING

Front row

Molina, J. M. F. *Brazil*
 Moreira, R. J. M. *Brazil*
 Williams, T. T. *U.S.A.*
 Steinhauser, H. *Germany*
 Reeser, R. M. *Tunisia*
 Pederson, H. C. *U.S.A.*
 Matoba, T. *Japan*

Second row

Junqueira, J. R. C. M. *Brazil*
 Londhe, S. R. *India*
 Vasconcelos, M. G. C. *Brazil*
 Haq, M. *Pakistan*
 Thomsen, C. C. *Denmark*
 Elstrand, E. *Norway*
 Andreae, B. W. *Germany*
 Bueno, M. *Spain*

Third row

Britton, D. K. *U.K.*
 Van Riemsdijk, J. F. *Netherlands*
 Jarvesoo, E. *U.S.A.*
 Almeida, L. L. *Brazil*
 Menezes, J. A. S. *Brazil*
 Miotto, C. F. *Brazil*
 Boklin, A. *Brazil*
 Lister, C. A. *Iran*
 Ohtani, S. *Japan*
 Gupta, R. *India*
 Tenma, T. *Japan*
 Aziz, U. A. *Malaysia*
 Bhattacharjee, J. P. (FAO) *India*
 Senda, S. *Japan*



DISCUSSION GROUP 7. MOTIVATION OF FARMERS

Front row

Stelmaschuk, P. *Canada*
Smith, P. G. *U.K.*
Luxton, H. W. B. *U.K.*
Smith, C. N. *U.S.A.*
Bailey, C. R. *India-U.S.A.*
Lombardo, H. A. *Panama*
Franca, J. P. M. *Brazil*

Second row

Cleave, J. H. *U.K.*
Petrini, F. *Sweden*
Tiongson, F. A. *Philippines*
Apedaile, L. P. *Canada*
Soares, J. A. C. B. *Brazil*
Mandal, G. C. *India*
Maxon, R. C. *U.S.A.*
Westermarck, N. C. *Finland*
Bublöt, G. E. *Belgium*



DISCUSSION GROUP 8. AGRARIAN REFORM AND LAND TENURE

Front row

Severo, A. *Brazil*
 Giles, A. *Peru*
 Sta. Iglesia, J. *Philippines*
 Ballesteros, J. *Mexico*
 Chang, Y. T. *Taiwan*
 Souza Pinto, A. de *Brazil*
 Imat, K. M. *Japan*
 Gago, P. *Italy*

Second row

Wiseblat, A. *U.S.A.*
 Geraldo, G. A. *Brazil*

 Pinheiro, A. *Brazil*
 Tayra, K. *Brazil*
 Behrmann, H. T. S. *Africa*
 Freitas, C. *Brazil*
 Pereira, M. *Portugal*
 Lorena, C. *Brazil*
 Godero, F. P. *Brazil*

 Aguiar, H. *Brazil*
 Chuchart, C. *Thailand*

Third row

Costa, L. J. *Brazil*
 Borton, R. E. *Philippines-U.S.A.*
 Monterio, A. D. *Brazil*
 Zampaulo, J. R. *Brazil*
 Perosa, A. P. *Brazil*
 Leite, G. *Brazil*
 Whetham, E. H. *U.K.*



DISCUSSION GROUP 9. POLICY ON RURAL EMPLOYMENT AND
INCOME REDISTRIBUTION

Front row

Whetham, E. H. *U.K.*
 Paniago, E. *Brazil*
 Dias, M. L. M. *Brazil*
 Plante, J. P. *Canada*
 Saran, R. *India*
 Hildebrand, P. E. *El Salvador*
 Mudahar, M. S. *U.S.A.*
 Libroero, A. R. *Philippines*
 Cuadra, M. A. P. *Mexico*
 Kim, H. T. *Korea*
 Olatunbosun, D. *Nigeria*
 Knight, P. T. *Peru*
 Bordeaux, A. F. *U.S.A.*

Second row

Namekata, Y. N. *Brazil*
 Graziano da Silva, J. F. *Brazil*
 Furniss, I. F. *Canada*
 Tollini, H. *Brazil*
 Von Blanckenburg, P. W. *Germany*
 Rochin, R. I. *Colombia-U.S.A.*
 Matthews, T. H. *U.S.A.*
 Levi, J. F. S. *U.K.*
 Cracknell, B. E. *U.K.*
 Hokas, G. O. *Sweden*
 Hathaway, D. E. *U.S.A.*
 Desai, B. M. *India*
 Kotze, H. A. R. *South Africa*

Third row

Dorner, P. *U.S.A.*
 Strachan, L. W. *Brazil*
 Hoffmann, R. H. *Brazil*
 Manger, S. *Bolivia*
 Duncan, R. C. *Australia*
 Friedmann, S. I. *Chile*
 Myers, J. K. *U.S.A.*
 Mount, T. D. *U.S.A.*
 Johannsen, U. *Germany*
 Plath, C. V. *Paraguay-U.S.A.*



DISCUSSION GROUP 10. ADMINISTRATION, ORGANIZATION AND CONTROL OF AGRICULTURE

Front row

Kulthongkham, S. *Thailand*
Sinha, D. P. *India*
Kiene, W. *Austria*
Sen, S. R. *India*
Nazarenko, V. T. *U.S.S.R.*
Mackenzie, J. W. S. *Australia*
Tanaka, O. *Japan*
Negro-Vode, A. S. *U.S.S.R.*
Krestovski, V. G. *U.S.S.R.*

Second row

Gava, E. *Brazil*
Hildreth, R. J. *U.S.A.*
Rocha, S. *Brazil*
Santos, P. R. *Brazil*
Farrell, K. R. *U.S.A.*
Villela, F. V. *Brazil*
Coimbra, S. C. *Brazil*

Third row

Girao, J. *Portugal*
Fekete, F. *Hungary*
Anderson, A. *Sweden*



DISCUSSION GROUP II. FARM MANAGEMENT AND
PRODUCTION ECONOMICS

Front row

Thame, A. C. M. *Brazil*
Pinheiro, A. C. A. *Portugal*
Afzal, M. *Pakistan*
Baptist, A. *Belgium*
Brandes, W. W. *Germany*
Christensen, J. *Denmark*
Frean, N. S. *Africa*

Second row

Cibantos, J. S. C. *Brazil*
Nix, J. S. *U.K.*
Amerasinghe, N. *Ceylon*
De Benedictis, M. *Italy*
Torvela, M. *Finland*
Balbo, C. A. *Brazil*
Oliveira, J. G. *Brazil*
Groenewald, J. A. S. *Africa*

Third row

Howell, J. D. *Brazil-U.S.A.*



DISCUSSION GROUP 12. NEW ANALYTICAL TECHNIQUES IN FARM
MANAGEMENT AND PRODUCTION ECONOMICS

Front row

Gustafsson, B. *Sweden*
Le Angelis, L. *Italy*
Baillet, C. (*EEC*) *Belgium*
Martens, L. R. *Belgium*
Maruyama, Y. *Japan*
McNerney, J. P. *England*
Kudo, T. *Brazil*
Dantas, W. *Brazil*

Second row

Rankine, L. B. *Trinidad*
Ladosky, M. *Brazil*
Alcantara, R. B. *Brazil*
Alfons, H. *Austria*
Agrawal, R. C. *W. Germany*
Street, P. R. *U.K.*
Nicholls, N. M. *Australia*
Ali, R. *Trinidad*
Infeld, J. A. *Brazil*
Harkins, J. *U.K.*

Third row

Love, H. C. *Canada*
Rajagopalan, V. *India*
Van Der Meer, C. L. J. *Netherlands*



DISCUSSION GROUP 13. DEMAND AND MARKETING PROBLEMS

Front row

Krishnaswamy, L. *India*
Hawkins, M. H. *Canada*
Anthonin, Q. B. O. *Nigeria*
Trebeck, D. B. *Australia*
Alcaide, J. R. *Spain*
Lazzarini, M. I. *Brazil*

Second row

Cunha Filho, O. G. *Brazil*
Palma, J. C. *Brazil*
Walker, H. V. *Canada*
Rolon, V. A. R. *Paraguay*
Norby, R. R. *Canada*
Goldenberg, I. *Brazil*
Franulovic, R. *Brazil*
Arruda, M. L. *Brazil*
Junqueira, M. E. B. *Brazil*
Teixeirh, A. J. S. *Brazil*

Third row

Severino, J. S. *Brazil*
Smith, E. D. *U.S.A.*
Tamaki, T. *Brazil*
Silva, J. C. O. G. *Brazil*
Nobrega, B. S. *Brazil*



DISCUSSION GROUP 14. NEW ANALYTICAL TECHNIQUES IN
MARKETING

Front row

Hedlund, F. F. *U.S.A.*
Slama, A. *Tunisia*
Trelogan, H. C. *U.S.A.*
Tongpan, S. *Thailand*
Paul, A. B. *U.S.A.*

Second row

Camto, W. L. *Brazil*
Feaster, F. G. *U.S.A.*
Junqueira, P. C. *Brazil*
Ueno, L. H. *Brazil*
Matthews, J. L. *U.S.A.*
Manley, W. T. *U.S.A.*
Langford, G. L. *U.S.A.*
Spindler, H. G. *U.S.A.*



DISCUSSION GROUP 15. INTERNATIONAL TRADE POLICIES

Front row

Lohoar, J. S. *Canada*
 Van Den Noort, P. C. *Holland*
 Mitra, A. *India*
 Abdelsamie, H. M. *Egypt*
 Islam, N. *Bangladesh*

Second row

Gaetani, G. *Italy*
 Myers, M. *U.S.A.*
 Johnson, D. G. *U.S.A.*
 McFarquhar, A. M. M. *U.K.*
 Rozentel, M. R. *Brazil*
 Willett, J. W. *U.S.A.*
 Camargo, J. E. *Brazil*
 Josling, T. E. *U.K.*
 Mason, J. P. *U.S.A.*
 Moncure, R. *U.S.A.*
 Rieder, P. *Switzerland*
 Smith, C. W. *U.S.A.*

Third row

Jackson, G. H. *Australia*
 Chami, J. K. *Lebanon*
 Canaud, J. *Brazil*
 Duncan, B. H. G. *Rhodesia*
 Ashton, J. *U.K.*
 Mackie, P. L. *U.S.A.*
 Rabot, L. G. *(EEC) Belgium*
 Capstick, C. W. *U.K.*
 Robinson, H. F. *U.S.A.*
 Gulbrandsen, O. *(UNCTAD) Switzerland*
 Phillips, T. P. *Canada*



DISCUSSION GROUP 16. ROLE OF MULTINATIONAL FIRMS IN
AGRICULTURAL DEVELOPMENT PROGRAMS

Front row

Ogdon, M. E. *U.S.A.*
Warmemhoven, B. *Netherlands*
Paarlberg, D. *U.S.A.*
Ingersent, K. A. *U.K.*
Allen, G. R. *U.K.*

Second row

Allegrini, P. *Brazil*
Malassis, L. H. *France*
Gronbech, G. *U.S.A.*
Hoffman, A. C. *U.S.A.*
Jensen, N. *Denmark*
Jensen, E. *Denmark*
Taylor, G. *U.S.A.*
Doblado, J. M. *Spain*
Gomez, J. *Spain*
Fleming, J. A. *Brazil*



DISCUSSION GROUP 17. PLANNING AND IMPLEMENTATION OF
ECONOMIC DEVELOPMENT PROGRAMS

Front row

Kadhi, M. *Tunisia*
 Hardakar, J. B. *Australia*
 Bose, S. R. *Bangladesh*
 Echeverria, T. M. *Brazil*
 Galvao, C. A. *Brazil*
 Sebestyen, I. *Hungary*
 Von Urff, W. W. *Germany*

Second row

Falcao, M. I. M. *Brazil*
 Barrico, J. S. *Portugal*
 Puech, L. C. R. *Brazil*
 Castro Guerra, J. G. S. *Portugal*
 Chies, J. B. *Brazil*
 Mohtashem-Nouri, H. *Iran*
 Cursio Junior, J. *Brazil*
 Henrichsmeyer, W. W. *Germany*
 Birowo, A. T. *Indonesia*

Third row

Montiel, R. *Paraguay*
 Gimenes, A. C. F. *Brazil*
 Sepehri, H. *Iran*
 Nelson, M. *New Zealand*
 Hartmann, T. T. W. *Germany*
 Szmrecsanyi, T. *Brazil*
 Simon, S. R. *U.S.A.*
 Rackham, T. S. *Canada*
 Link, J. E. *U.S.A.*
 Scobie, G. M. *Colombia*



DISCUSSION GROUP 18. POPULATION PROBLEMS, NATIONAL AND INTERNATIONAL

Front row

Densley, D. R. J. *New Guinea*
Ensminger, D. *U.S.A.*
Kim, S. H. *Korea*
Johnson, S. *U.S.A.*
Krasovec, S. *Yugoslavia*

Second row

Oliver, G. D. *Australia*
Atsu, S. Y. *Ghana*
Popp, H. W. *Switzerland*
Molina, M. I. *Brazil*
Wiendl, M. L. *Brazil*
Ducoff, L. J. *U.S.A.*
Cowden, T. K. *U.S.A.*

Third row

Anderson, D. G. *U.S.A.*
Ackerman, J. *U.S.A.*
Ackerman, E. J. *U.S.A.*
Lorena, C. *Brazil*
Amato, M. R. *Brazil*
True, A. W. *U.S.A.*
Brooks, E. M. *U.S.A.*