



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

RURAL CHANGE

The Challenge for Agricultural Economists

PROCEEDINGS

SEVENTEENTH
INTERNATIONAL CONFERENCE
OF AGRICULTURAL ECONOMISTS

Held at Banff, Canada
3rd – 12th SEPTEMBER 1979

Edited by
Glenn Johnson, Department of Agricultural
Economics, Michigan State University, USA
and
Allen Maunder, Institute of Agricultural Economics
University of Oxford, England

INTERNATIONAL ASSOCIATION OF AGRICULTURAL
ECONOMISTS
INSTITUTE OF AGRICULTURAL ECONOMICS
OXFORD

1981

Gower

Index

- Abbott, John C., 115, 130, 144, 717
Adamowicz, M., 604, 722
Adams, A., 244
Adams, R.I., 722
Adegboye, Rufus O., 644
Africa, tropical,
 communal land tenure, 663
 conflicts of interest and rural poverty,
 219–22, 225
 “delivery system problem”, 222–4
 failures in rural development, 215–30
Agrarian reform, 358–68
 depersonalization of agriculture, 364
 emotional aspect, 361
 key issues, 361–2
 Marxian, 359, 364
 reconstruction of systems, 362–3
Agrawal, Ramesh C., 42, 56, 492
Agricultural Decision Analysis, 39
Agricultural Development Council, 126
Agricultural economics,
 categorizing theoretical contributions,
 611–14
 course-work in, 596
 current areas of activity, 9–10
 decision theory, 31–2, 39
 defining theory of, 606–7
 division of activities in, 9
 education for agrarian change,
 589–604
 educational accomplishments, 592,
 594
 educational challenges, 598–600
 efficiency and equity, 5, 8
 establishment as a discipline, 589–92
 European educational syllabus, 593,
 603
 farm accounting, 621
 growth and distribution, 253–6
 input-output relationships, 620–1, 624
 problem of defining theoretical
 advance, 610–11
 problem of proving good theory,
 608–10
 research in, 622–7
 role of theory in, 607–8
 students of, 594–5
 teachers of 595–6
 theoretical accomplishments and
 opportunities, 614–16
 theories of, 248–53
 weather and yields, 621–2
 work at village level in S. Korea,
 147–57
Agricultural economists,
 accomplishments and opportunities in
 COMECON, 407–15
 accomplishments and opportunities in
 international agencies, 391–406
 accomplishments and opportunities in
 parastatal organizations, 520–9
 accomplishments and opportunities on
 theoretical front, 605–19
 challenge of problem of “getting
 poorer while distributing”, 376–7
 in relation to agrarian reform, 365–6,
 367–8
 in state trading agencies, 542–3, 544–7
 mathematics needed, 629, 630
 planning accomplishments, 247–53,
 257–8
 present status and future challenge,
 256, 258–9
 quantitative techniques and, 620–31
 roles in international research institu-
 tions, 479–92
 teaching in developing countries,
 597–8
 teaching Marxist economics to,
 647–58
 training for LDCs, 632–44, 724
 work in centrally managed economies,
 285–98
 work on planning for LDCs, 247–50

- Agricultural growth,
 allocation of resources, 674–6
 and distribution, 681–2
 formulation, evaluation and policy
 consequences, 672–85
 framework for sectoral growth,
 679–81
 intersectoral factor mobility, 677–8
 sources of, 673–4
- Agriculture,
 capitalist v. socialist, 660–1
 effect of floating exchange rates on
 policy, 416–25
 effect of floating exchange rates on
 trade, 426–39
 energy analysis of, 231–44
 extensive monoculture, 76, 78, 85–6
 food management, 251–2
 in national energy system, 231–3
 input industries as factors of rural
 change, 570–85
 intensive mixed, 76, 85
 intensive monoculture, 78
 need for world food security, 401–2
 poverty among producers, 399
 producer of energy as biomass, 231,
 233
 risks of new technology, 261–72
 role of capital, 249–50
 subsistence, 76, 85, 361–2
 use of quantitative sector analysis,
 299–311
see also World agriculture
- Ahn, C.Y., 697, 718
 Ahsan, Syed M., 272
 Akinwumi, James A., 519
 Mohammad, Ali, 260, 439, 585
- American Agricultural Economics
 Association (AAEA), 632n, 633, 639
 evaluation of US training, 634–7
 recommendations for improving train-
 ing, 640–2
 studies of training and needs of LDCs,
 633, 637–8, 638–40, 644
- Andah, Kwaku, 185, 243
 Anderson, Dr W., 530n
 Anderson, Walton J., 284
 Anderson, Bo L., 198, 199
 Ascroft, Joe, 228
- Asia, tropical,
 agricultural development, 91–2
 agricultural populations, 88, 98, 100,
 101
 conflicting views on mechanization,
 91, 93
 import of machinery v. local produc-
 tion, 93–4
 labour hours for rice cultivation, 92
 mechanization for labour surplus
 economies, 88–101
 mechanization strategies, 94–6
 population and production trends, 101
 present state of mechanization, 89–91
 rice production, 88, 89, 98, 101
- Asian Productivity Organization, 196
 Asian Development Bank, 394, 404
 Ashby, Arthur, 4–5, 9
 Ashby, Lord, 265, 268
 Ashton, Prof. J., 605n, 606
- Australian agriculture,
 comparison with US competitiveness,
 333–4
 decline during 1970s, 326
 effect of mineral boom on 1970s,
 326–7
 inflation of 1970s and, 326, 333, 334
 Institute Multi-Purpose Model (IMP),
 327
 module of IMP, 327–30, 335, 335–7
 sensitivity analysis of, 331–3
- Australian Wheat Board, 541
 Avila, Luis Gonçalves, 346n
- Bandeira, Antonio L., 200n
 Barberi, Prof., 7
 Barbosa, Tulio, 200, 212, 214
 Barichello, R., 381n
 Barker, Randolph, 493
 Barnum, H.N. and Squire, Lyn, 703
see also Squire Lyn
- Barros, Geraldo S.C., 200n
 Barthelemy, D. and Blanc, M., 651
see also Blanc, Michel
- Bates, Richard F., 603, 618
 Baum, Kenneth H., 695, 708
 Beckerman, W., 240
 Belshaw, D.G.R., 130, 157, 199, 357, 406
 Bennett, R.B.B., 522
 Beteille, A., 648
 Biomass, 231, 233, 240
 Birowo, A.T., 128
 Bjarnason, Harold F., 520, 527, 528, 529
 Blanc, Michel, 724
 Bonnieux, F., 584
 Boyd Orr, Lord, 395, 396
 Brain, P.J., 327, 332
 and Gray, B.S., 332
- Brandon, G.E., 10
 Brandão, Antonio Salazar P., 346, 721
- Brazil, 356
 agricultural credit market, 209–10
 agricultural employment, 202
 agricultural exports, 200, 202, 203,
 205
 beef cattle, 205
 capital market, 208–10, 213

- farm/non-farm interface, 200–14
 food product market, 203–5, 212–13
 inflation, 210, 214
 industrial development, 201–2
 labour market, 205–8, 213
 poverty of farm workers, 206
 subsistence farming, 203–4
- Bretton-Woods Agreement, 416, 426
- Brink, Lars, 41
- Britton, Denis K., 604
 presidential address, 1–11, 713, 721
- Burton, Wayne E., 73
- Butterworth, Keith, 114
- Byerlee, D., 43n, 56
- Cadenas, Alfredo, 567
- Calkins, Peter H., 75, 85, 86, 87
- Campbell, Keith, 261, 271
- Canada,
 evolution of grain marketing, 520–3
 foreign direct investment in, 552, 569
 income improvement v. efficiency in
 rural development, 381–8
 indicators of rural development,
 382–5
 Ministry of Industry, Trade and Com-
 merce, 555
 rural development programmes,
 385–6
 suggested revisions to RD policies,
 387–8
- Canadian marketing boards, 530–40
 defined, 531–2
 impact on consumer prices, 534
 impact on farm price level, 532–3
 impact on industry output, 536
 impact on price stability, 535–6
 impact on volume of production,
 533–4
 impacts of, 532–7
 impacts on farm productivity, 536–7
 impacts on producer and consumer
 price levels, 535
 performance, 537–9
 with supply management, 534–7, 538
 without supply management, 532–4,
 537
- Canadian Wheat Board, 520, 521, 527,
 528, 531, 532, 541
 international dealings, 522–3
 marketing objective, 522
 role of agricultural economists. in,
 523–6
- Capstick, Charles, 404
- Caribbean, *see* Latin America and Carib-
 bean
- Carlson, Gary, 368, 380
- Carroll, Tom W., 212
- Centrally managed economies,
 accomplishments and challenges for
 agricultural economists in, 285–98,
 407–15
 aggregated CMEA model, 320–2, 324
 agricultural decision-making, 293
 agricultural intensification, 409
 agricultural investment, 409
 agricultural organizations, 291–4,
 407, 408
 areas for agricultural economists'
 work, 296–7, 410–11, 412–13
 general model structure, 313–16
 historical and ideological background
 to agriculture, 285–8
 national agricultural sector models for,
 312–25
 national economic planning and central
 management, 288–90, 408, 409–10
 objectives and assumptions for
 agricultural modelling, 312–13
- Chawla, H.L., 130, 380
- Chazaro, Sergio, 541n
- Chege, Fred, 228
- Chinese agriculture,
 achievements, problems and pros-
 pects, 278–80
 collectivization, 274, 283
 communal enterprises, 277–8
 development of socialist, 273–84, 661
 farm mechanization, 276–7, 282
 farmland capital construction, 275–6
 land distribution, 273
 production 1953–78, 281, 282
 research and education, 277
- Chou, Susan, 697n
- Club of Rome, 371, 653
- CMEA, *see* COMECON
- Collinson, Michael P., 42, 43, 53, 54, 55,
 722
- Colombo Plan, 126
- COMECON, 126, 342–5 *passim*, 393,
 403, 547, 723
 countries of, 467n
- COMECON agriculture,
 accomplishments and opportunities of
 agricultural economists, 407–15
 automated control system, 627
 collaborative goals and tasks, 468–70
 collaborative organization, 470–2
 national sector models for, 312–25
 problems in collaboration, 474
 results of collaboration, 427–4
- Common Agricultural Policy (CAP), 398,
 424, 440, 445, 446, 447, 449, 450,
 451, 453, 550, 606
 and agricultural trade with Third
 World, 441–4

- destabilizing effect on world markets, 443–4, 452
- protectionism and significance of LDCs, 441–3
- Computerized Farm Management Information Systems (CFMIS), 102, 104–9, 111–12, 113
- definition and stages of creation, 109–11
- hardware, 106
- software, 106
- Computers,
 - help provided by, 103–4
 - in farm management, 102–14
- Conor, John M., 552, 567, 718
- Consultative Group on International Agricultural Research (CGIAR), 50, 393, 481, 482, 485, 489, 493
- Cromarty, William A., 509, 517, 518, 519
- Csaki, C., 296, 312, 323, 324, 325, 718
- Cuban agrarian reform, 360
- Cunha, Aécio S., 200n
- Currie, J.R., 3, 713
- Dams, Prof. Theodor, 7, 144
 - synoptic view of Conference, 710–27
- David, Christina, 601
- Day, Richard H., 686, 690, 694, 695, 696, 709
- De Haen, Hartwig, 299
- De las Casas, P. Lizardo, 167, 183–6 *passim*, 721
- Decisions Under Uncertainty*, 39
- Denmark,
 - aid for LDCs, 125
- Desward, M.L., 144
- Developed world,
 - agriculture since Second World War, 32
 - economics of getting poorer while distributing, 369–80
 - farm size, 32–3, 34, 41–2
 - increasing wage ratios, 372
 - micro-level accomplishments and challenges for, 29–42
 - problem of labour saving and unemployment, 373
 - problems of agricultural decision-making, 38–9
- Dickinson, Sheila, 284, 297
- Dubos, Jean, 631
- Duncan-Watt, John C., 114
- Eastern Europe,
 - Communist agrarian reform in, 359
- Edmondson, Vance W., 644
- Edwards, Clark, 366, 425, 521, 619, 658, 684, 685
- Egyptian agrarian reform, 359–60
- Ekerman, Raul José, 346n
- Elizalde, Herman, 214
- Elmhirst, L.K., 3, 4, 710, 712, 713, 725
- Elmhirst Memorial Lectures, 12–26, 404, 713
- Elstrand, Eivind, 57
- Energy analysis, 242, 722–3
 - Gross Energy Requirement (GER), 235, 237, 239
 - of agriculture, 235–40
 - origin of, 233–4
- Engler, Joaquim J.C., 85
- Europe,
 - aid for LDCs, 124–5, 126
 - growth after Second World War, 18, 20
- European Economic Community (EEC), 393, 394, 403, 432, 549, 591, 606, 723
 - aspirations of Third World and potential of, 448–50
 - commodity structure of concessions to LDCs, 445–6
 - Common Agricultural Policy (CAP), *see* separate entry
 - country structure of concessions to LDCs, 446–7
 - global v. discriminatory approaches to LDCs, 447–8
 - policies for agricultural trade with LDCs, 440–43
 - trade concessions to LDCs, 444–8, 452
- Exchange rate, 416–17
 - effect of flexibility on macro economic policy, 418–20
 - effects of changing rates on specific commodities, 432–5, 437
 - fixed, 416, 426
 - flexible, and economic independence, 417–18
 - floating, and international trade in agricultural commodities, 426–39
 - implications of flexibility for agricultural policy, 418–20
 - methodology for studying effects of variation, 430–1
- Ezekiel, Dr Mordecai, 396
- Farming Systems Research, 46, 48–52, 53–4, 55, 56
- Farms,
 - accounting, 621
 - computers as decision aids for, 102–14
 - labour productivity, 77
 - management in LDCs, 666
 - small, *see* Small farms

- Fekete, Ferenc, 285, 294, 295, 297, 298, 719, 727
- Fendru, I., 284
- Fenyés, Tamás I., 659, 669, 671
see also Groenewald, Prof. J.A.
- Ferguson, Donald S., 644
- Fienup, Darrell F., 632, 642, 644, 696, 724
- Food Agricultural Organisation (FAO), 343, 391–4 *passim*, 404, 405, 406, 415, 427, 442, 482, 571, 713, 714
- calorie-gap indicator, 254
- Food Security Assistance Scheme (FSAS), 460
- information services, 395, 402–3
- international commodity studies, 396–7, 402
- international food policy, 395–6
- international framework for national policies, 398, 401
- national agricultural policy analysis and advice, 397–8
- objectives, 391, 404
- opportunities for, 399–403
- Principles of Surplus Disposal, 398
- work on marketing, 115–23 *passim*, 125, 140, 141
- world fertilizer policy, 402
- Food insecurity in LDCs, 454–66
- assessment of, 456–7
- effect of trade policies of developed countries on, 461
- foreign exchange constraints and, 458–9, 461–4
- grain reserves, 460–1
- internal aspects, 455–9
- international policy to counter, 459–64
- production variability and, 457
- variability in food import bill and, 457–8, 459
- Food retailing in LDCs, 132–3
- improvements necessary, 133
- Food wholesaling in LDCs, 134–6
- improvements necessary, 134–5
- need for personnel training, 135
- Ford Foundation, 126
- France,
- marketing aid for LDCs, 124–5
- survival of family farms, 649–52
- French, Ben, 9
- Furtan, W.H., 694
- Fusfield, D.R., 10
- Gamble, Bill, 491
- Gandhi, Mahatma, 190
- GATT, 393, 443, 444, 446, 449, 543
- Germany, West,
aid for LDCs, 125
- Ghana, 220
- failure of rural development schemes, 217, 219, 221
- land concentration, 221
- Gillin, Edward F., 415
- Green, David A.G., 56, 244, 724, 589n
- Greenshields, Bruce L., 451, 519
- Gregory, R.G., 326, 327
- Haebler, Christa, 475, 477
- Hamilton, W.E., 529
- Hardin, Lowell S., 479, 490, 491, 722
- Harsh, Stephen B., 102n, 114
- Hartmann, A., 114
- Hawkins, Murray, 569, 726
- Heady, Earl O., 29, 40, 41, 628, 719, 720
- Henrichsmeyer, Wilhelm, 517
- Herd, Robert, 493n, 725
- Herrmann, Louis F., 214
- Heyer, Judith, 56, 215, 226, 585, 709, 721
- Heyne, Mr, 710
- Hill, Paul G.P., 165
- Hillman, J.S., 413, 541, 547
- Hirsch, Fred, 371
- Hirsch, Hans G., 144, 527, 529
- Hoffman, R., 355, 656
- Hökas, Gunner G.H., 198
- Hua, Premier, 279
- Human capital, 252–3
- Hungary, 286, 287
- agricultural models HAM-1 and -2, 316–20, 321, 323, 324, 325
- agricultural pricing, 291
- agro-industrial unions, 293
- “free” market, 291
- Hunter, W.H., 568
- IAAE, 61, 300, 522, 527, 644, 710, 711, 712, 722, 725, 726, 727
- India, 45, 46
- agrarian reform, 359
- community development programme, 190
- capital-intensive projects, 250
- food marketing, 137
- micro-level planning, 251
- Indian Society of Agricultural Economics, 44
- Igben, M., 214
- Ikpi, Anthony E., 529
- Inter-American Development Bank, 123
- Inter-American Institute of Agricultural Science, 126, 143
- PROPLAN-IICA Studies, 168, 169, 178

- International agencies,
 accomplishments of agricultural
 economists, 394–9
 employing agricultural economists,
 392–3
 opportunities for agricultural econom-
 ists, 399–403
- International Agricultural Development
 Service, 495
- International Centre for the Improvement
 of Maize and Wheat (CIMMYT), 46,
 47, 49, 479, 481, 484
- International Cocoa Council, 393
- International Coffee Organization, 393
- International Federation of Institutes for
 Advanced Studies (IFIAS), 234, 235,
 236
- International Fertilizer Development
 Centre (IFDC), 496
- International Food Policy Research Insti-
 tute (IFPRI), 393, 404, 496, 673
- International Fund for Agricultural
 Development (IFAD), 392, 395, 400
- International Institute of Agriculture
 (IIA), 392
- International Labour Office (ILO), 397
- International Monetary Fund, 401, 403,
 416, 432, 462
 Trust Fund, 463
- International research institutions, 481,
 495
 clientele for, 486–7
 common perceptions of economists in,
 483–6
 evolving role of social scientists in,
 482–3
 origin and mission, 479–82
 question of priorities in, 487–8
- International Rice Research Institute
 (IRRI), 481, 484, 487, 490, 494, 496,
 497
 founded, 479, 495
 Machinery Development Programme,
 96–7, 99, 100
 power tiller, 94
- International Service for National
 Agricultural Research (ISNAR), 489,
 495–6
- International Sugar Organization, 393
- International Trade Centre, 123
- International Wheat Agreement, 460,
 461
- International Wheat Council, 393
- Israeli Kibbutzim, 661, 663
- Ivory Coast, 22, 125
- Janakiram, S., 697n
- Japan,
 Food Agency, 523, 541
 post Second World War agrarian
 reform, 360
 rice research, 494
- Jensen, Harald, 9, 10
- Johnson, Glenn L., 9, 11, 102n, 280, 365,
 369, 398, 627, 650, 675
- Johnston, Jim, 272, 519, 660
- Jones, Jim, 272, 519, 660
- Jones, George T., 130, 696, 709
- Jorgensen, Christian, 166
- Kahlon, A.S., 56, 260
- Kaneda, Ichiro, 284, 298
- Karpoff, Edward, 157, 569
- Kellogg, Earl D., 491, 504
- Kenya, 45, 117, 136
 failure of rural development schemes,
 217, 223, 224
 land concentration, 221
 Land Settlement Programme, 227
 suggestions for effective rural
 development, 228
- Keynes, J.M., 372, 629, 646, 658, 727
- Khan, Amir U., 88, 98, 100, 101, 584
- Kiene, Werner, 183, 721
- Kim, Dr Dong-Hi, 697n
- King, Richard A., 617, 709
- Kisiel, Michal, 338, 344, 345
- Klatzmann, J., 344, 585
- Koester, Ulrich, 425, 710n
- Korea Rural Economics Institute, 697n
- Kost and Vellianitis, 423
- Kriesel, Herbert C., 187
- Kuhlmann, Friedrich, 102
- Kulshreshtha, S., 694
- Kuznets, George M., 672n
- Kyle, Leonard, 114, 144
- Lacey, Williams V., 405
- Ladd, Carl, 714
- Lamble, Wayne, 466, 467
- Lane, Stewart H., 242
- Lange, Oscar, 295, 657
- Larsen, Arne, 41
- Latin America and Caribbean,
 common agricultural development
 models, 346–57
 land reform, 360, 362
 Marxist agricultural model, 346,
 350–3, 355, 356
 neoclassical agricultural model, 346,
 348–50, 353, 355, 356
 planning process, 169–77
 planning system, 177–80
 planning unit's strategy, 180–1

- rural planning, 167–86
- structuralist agricultural model, 346, 347–8, 353, 355
- Lattimore, Ralph, 214
- Lele, Uma, 505
- Lenin, 286, 292, 651
- Lerohl, M.L., 696
- Less developed countries (LDCs),
 - agricultural economists' work on planning strategies, 247–60
 - agricultural weakness, 13–14, 16
 - barriers to exports, 24
 - development of agricultural economics in, 637–8
 - effect of CAP policies on, 440–53
 - food insecurity problem, 454–66
 - growth of urban populations, 132
 - how to improve food marketing, 116–17, 131–44
 - issues for, 53–6
 - manufactured exports, 23
 - mechanization for labour surplus economies, 88–101
 - micro-level accomplishment and challenges for, 43–56
 - movement to towns, 15
 - need for agricultural investment, 400
 - need for improved infrastructure, 136
 - population growth, 13, 14, 15, 255
 - post Second World War growth, 17–18
 - raw materials predominant exports, 441
 - restraints on transfers from developed countries, 374–5
 - smallness of farms, 44
 - strategies for growth, 12–26
 - teaching of agricultural economics, 587–8
 - technical assistance in marketing, 115–30
 - US-trained agricultural economists in, 637–8
- Lewis, Ardron B., 155, 439, 644
- Lewis, Sir W. Arthur, 12, 113
- Liem, Mr, 710n
- Lin Biao, 278, 280
- Lipton, Prof. Michael, 378
- Longworth, J.W., 261n, 272, 490
- Loseby, Margaret, 425, 426, 438, 439
- Love, Harold C., 98, 166
- Loyns, Dr, 530, 531, 535
- Lubin, David, 392

- McCalla, A.F., 601
- McInerney, Prof., 605n
- McLeod, Allan D., 529
- MacMillan, J.A., 381

- Madsen, L.I., 569
- Malthus, Thomas,
 - theory of population and production growth, 370–1
- Mao Zedong, 276
 - see also* Cyert, R. and March, J; and Simon, H.
- Marketing, 717–18
 - as a concept, 115–16, 128–9
 - as development policy, 129
 - assistance to LDCs by agencies, 122–6
 - boards and other state enterprises, 119–20
 - co-operatives, 119, 136
 - costs and benefits, 121–2
 - food marketing schemes, 136–7
 - future direction of assistance, 129
 - government services for, 116
 - how to improve LDCs', 116–17, 131–44
 - improvement policies by level of development, 121
 - integrated systems and entrepreneurs, 120
 - market planning and construction, 118
 - need for marketing training in LDCs, 141
 - need for research in LDCs, 139–40
 - packing, transport and storage, 117
 - quality control and grading, 118
 - rural markets, 137
 - technical assistance to LDCs in, 115–30
 - training staff, 120–1, 127
- Marsh, Prof., 605n
- Marshall, Alfred, 646
- Martens, Laurent R., 631
- Martin, Marshall A., 200n
- Martinez, Juan Carlos, 87, 100
- Marx, Karl, 372, 645, 649, 658
- Marxist economics,
 - as general theory of economic development, 646–9
 - contributions to agricultural analysis, 649–53
 - teaching to agricultural economics students, 645–58
- Mauldon, Roger G., 157
- Mauder, A.H., xiii
- Mellor, John, 254, 491
- Menzie, Elmer L., 403, 406
- Mexican agrarian reform, 358–9, 360
- Meyer, N., 696
- Micro analysis, Agricultural, 29, 30–1
 - developing models, 35, 41
 - forecasting, 37
 - future of, 32–5, 40–1
 - in COMECON, 412

- in developed world, 29–42
- in LDCs, 43–56
- interdisciplinary opportunities in, 35–7
- micro-level planning, 250–1
- theory and optimization, 37–9
- training of analysts, 31–2, 40, 41
- Miller, G., 333
- Mittendorf, H.J., 131, 142, 143, 144, 717, 724
- Morishima, Prof., 629
- Mosher, A.T., 716
- Mubyarto, Mr., 368
- Mudahar, Mohinder S., 323
- Mukhopadhyay, Sudhin K., 257
- Multi-national firms,
 - challenge to agricultural economists in, 509–19
 - decision-making in, 513–14, 515
 - foreign direct investment by, 552–4, 564
 - position of agricultural economists in, 510
 - relations with governments, 515–16
- Mundlak, Yair, 672, 675, 676, 679, 684, 685
- Mwangi, Wilfred, 415, 424
- Myers, Maxwell S., 415
- Myrdal, Gunnar, 629
- Narasimha, Murty K., 709
- Nash, Howard, 552n
- Nazarenko, Victor, 7, 407, 413, 414, 415, 541, 546, 658, 717, 719, 723
- Nelson, Ted, 113
- Nepal,
 - agricultural structure and output, 80–2
 - farming in middle hills, 78, 81–2, 83–6
- passim*
- Netherlands,
 - aid for LDCs, 125
- New technology,
 - benefit-cost assessments, 268–9
 - case for regulation, 266–7
 - dubious value of risk assessment, 265–6
 - problems of latency and uncertainty, 264–5
 - risks to agriculture, 261–72
- Nguyo, Wilson, 226
- Niederboster, Heinrich, 585
- Niehaus, Heinrich, 725
- Nigeria, 220
 - failure of rural development schemes, 217, 218, 219, 222
 - land concentration, 221
- Nightingale, Edmund A., 42
- Nitrogen industry, 570, 583, 584
 - capital requirements, 571
 - characteristics, 571–2
 - location, 574
 - minimum size of plants, 571
 - operating costs, 571
 - structure and development, 572–6, 579
- Norman, D.W., 53
- Nou, Joosep, 7
- Norwegian sub-Arctic farming, 62–71
- passim*
- Nweke, Felix I., 56, 130
- Nyberg, Albert J., 438, 453
- Nyerere, President, of Tanzania, 8, 9
- OECD Food and Agricultural Director-
rate, 392, 397–8, 399, 403, 404
- Ohkawa, Kazushi, 436, 685
- Ohlmer, Bo, 102
 - and Nott, S., 111
- Ojala, Eric M., 391, 403–6 *passim*, 670
- Oliveira, Evonir B., 200n
- Orwin, C.S., 2
- Osborn, Howard, 56, 214, 357, 425
- Park, Jin H., 147, 155, 156, 157
- Parson, Kenneth H., 358, 366, 367, 368
- Pasca, Roberto, 453
- Pemberton, C., 643, 670
- Peres, Fernando C., 628, 631, 684
- Petit, Michel, 425, 492, 620n, 629, 631, 645, 656, 657, 658, 724, 725
- Pinstrup-Andersen, Per, 369, 378
- Poland, 413
 - food exports, 341–2
 - imports for agricultural sector, 339–40
 - industrial investment reduces agricultural, 338–9
 - links of agriculture with world economy, 338–45
 - post Second World War growth of agriculture, 341
 - scientific and technical co-operation with world, 342–3
- Polyakov, Michail, 102
- Ponce, Mario J., 166
- Popov, Todor, 467, 475, 476, 477, 479
- Portney, Paul, 263
- Posada, Rafael, 357
- Powell, A.A. and Gruen, F.H., 328
- Proulx, Yvon, 530
- Quantitative sector analysis,
 - applicability of models in practical policy decisions, 304–8
 - goal and problem analysis, 301–2
 - problem of model implementation, 308–9

- quantitative models and agricultural policy decision-making, 299-301
- relation between explanation, forecasting and control, 302-4
- use in agricultural policy, 299-311
- Quantitative techniques, 718-19
- accomplishments of agricultural economists using, 620-7
- needs concerning use of, 627
- opportunities in use of, 627
- Rae, Allan N., 583
- Raeburn, John R., 42, 604, 671
- Rapelius, Eckhard, 570
- Rask, W., 722
- Renborg, Ulf, 231, 242, 243, 244, 380, 722
- Resource depletion, 371
 - and intertemporal distribution, 375-6
 - economic theory of "getting poorer", 371
 - economics of getting poorer while distributing, 369-80
- Reyes, P.A. Labbe, 357
- Rice research,
 - establishing priorities for allocating funds to, 493-505
 - establishing research priorities, 496-8
 - into rice growing environments, 499-503
 - organization of, 494-6
- Rieder, Peter, 423
- Riley, Harold M., 632, 642, 644, 724
- Ritson, Christopher, 445, 605, 612, 617, 618, 619
- Robinson, Kenneth, 10
- Roling, Niels, 228
- Rothschild, Lord, 265
- Rural development,
 - African failures, 215-30
 - community development approach, 189-90
 - co-ordination of planning and administration required, 194-6
 - defined, 191
 - demography and dynamics of, 255
 - early planning experiences, 187-8
 - evolution of economic planning, 188-9
 - framework for, 661-2
 - genesis, 191
 - in context of society, 192-3
 - knowledge required for co-ordination of planning and administration, 196-7
 - need to co-ordinate planning and administration, 187-99
 - potential applicability of certain socialistic farming practices, 659-71
 - rationale for co-ordination, 193-4
 - role of agricultural economists, 666-7
 - rural poverty and, 652-3, 713-16
- Russell, Bertrand, 629
- St-Louis, R., 530n
- Sant'Ana, Silvio, 200n
- Schertz, L.P., 720
- Schinke, E.J., 671, 710n
- Schuh, G. Edward, 204, 416, 423, 424, 425, 541, 544, 723
- Schultz, Edward C., 569
- Schultz, T.W., 404, 674, 722
- Sebestyén, Joseph, 620, 629, 630, 631, 719
- Sen, A., 229
- Senegal, 46
 - failure of rural development schemes, 217, 224
- Sering, Max, 712, 727
- Shah, C.H., 247, 259, 619
- Shen, Raphael S.J., 284
- Shils, Edward, 192
- Siamwalla, Ammar, 454, 464
- Simon, Herbert A., 293, 689
- Simpson, James R., 658
- Singh, Inderjit, 697, 708, 709, 718
- Singh, Indra Jit, 505, 619, 696
- Slama, Magid, 453
- Small farms,
 - barriers to improved efficiency, 79, 81, 86
 - bringing farmers into commercial sector, 136-8
 - defined, 75
 - marketing programmes, 127
- Smith, Adam, 521
- Smith, A.W. and Rhonda, L., 326
- Smith, Chester W., 519
- Socialist economies, *see* Centrally managed economies
- Solar energy, 235
- South Korea,
 - farm income and rural saving, 151-2
 - land redistribution, 155
 - model of agricultural household, 697-709
 - policy implications of household model, 705-7
 - replacement of straw roofs, 150
 - results for agricultural households' model, 702-5
 - rice yield improves, 151
 - role of women, 149-50
 - rural electrification, 150-1

- Saemaul (New Village) movement, 147, 149, 150, 152-7 *passim*, 196
 theoretical model of farm household, 698-702
 training village leaders, 153-5, 156
 village hall and social functions, 152
 village road improvement, 149-50
 village self-help, 148-9, 152-3, 155, 156
 water supply improvement, 150
 work of agricultural economists, 147-57
- Soviet Union, *see* Centrally managed economies
- Squire, Lyn, 697, 718
- State trading agencies, 541-51
 agricultural protectionism of, 547-51
 challenges for agricultural economists in, 544-6
 defining, 541
 extent of trading by, 542
- Stavis, B., 280, 284
- Steffen, G., 642
- Strasma, John D., 130, 368
- Sub-Arctic farming, 57-74
 countries engaged in, 58
 defined, 57-8, 62, 74
 dairying, 65
 forestry, 63, 65
 maintaining, 66-71
 problems, 62-3
 reindeer, 65, 73
 sheep, 65
- Survey of Agricultural Economics Literature*, ed. by Lee R. Martin, 6, 9
- Swedish aid for LDCs, 125
- Taiwan,
 agricultural development programmes, 158-60, 162
 agricultural structure and output, 80
 farmers' associations and their role, 160-4
 farming on SW coast plain, 78-9, 83-6 *passim*
 geography, 158
 "joint operation" farming, 670
 marketing, 163
 population, 158
 supplying farm credit, 163-4
 training farm leaders, 164-5
- Takahashi, I., 630
- Tangermann, Stefan, 440, 441, 452, 453
- Tanzania, 117, 119, 124, 136, 139
 failures in rural development, 217, 224
- Tanganyikan groundnuts scheme, 216-17
- Tarditi, Secondo, 378
- Tawney, R.H.,
Land and Labour in China, 454
- Taylor, Henry C., 527, 727
- Thamarajakshi, R., 42, 144
- Thimm, Heinz-Ulrich, 589, 601, 602, 604, 724
- Thompson, Robert L., 200n, 294, 709
- Thompson, Stephen C., 114
- Timmons, John, 492
- Tomek, William, 10
- Torgerson, David, 244
- Torrealba, Juan Pablo, 142
- Tractor industry, 570, 583, 584
 capital requirements, 571
 characteristics, 571-2
 location, 577, 579, 581
 minimum size of plants, 571
 operating costs, 571
 structure and development, 578, 579-80
- Tuck, Prof., 605n
- Tyner, W.E., 722
- United Kingdom,
 marketing aid for LDCs, 124
- United Nations,
 commission on Transnational Corporations, 555
 Development Programme, 393, 482
- United States of America
 cornbelt, *see* United states cornbelt
 Dept of Commerce, 554, 555, 557, 559
 devaluations, 426, 427
 economic depressions, 18, 19, 21
 foreign direct investment (FDI) in food and tobacco, 555-8
 foreign direct investment in, 552, 554
 Foreign Economic Policy Subcommittee, 555, 559
 foreign food firms investing in, 558-9, 564
 impact of foreign firms on food and tobacco sector, 552-69
 marketing aid for LDCs, 124
 patterns of FDI, 554-5
 regression results of FDI, 561-4
 some determinants of FDI, 559-61
 state trading, 542
 training agricultural economists for LDCs, 632-44
- United States cornbelt,
 agricultural structure and output, 81
 farming in, 79, 82-4, 86
- Urff, Prof., v., 710n

- Valdés, Alberto, 214, 357, 454, 464, 658
 Van Blokland, P.J., 380
 Venzi, Lorenzo, 426, 438
- Walras, Leon, 646
 Wang, Y.T., 158, 165, 166
 Wangia, Caleb W.W., 425, 585
 Warley, T.K., 541
 Warmenhoven, Ben I.B., 519
 Warren, G.F., 11
 Warren, S.F., 712
 Watt, David L., 102n
 Weber, Adolf A., 244, 298, 425, 519
 Weber, Max, 711
 Webster, Paul, 259
 Wells, Bob, 709
 Westermarck, Prof., 7
 Whetham, Edith H., 569
 White, L.J., 553
 Winnipeg Grain Exchange, 521
 Winter, G.R., 381
 W.K. Kellogg Foundation Lecture,
 391–406
- Witt, Lawrence, 464
 Wonders, W.C., 60
 World agriculture,
 adaptive economics and development
 of, 689–91
 development of, 687–8
 disequilibrium dynamics, 691–2
 neoclassical interpretation of
 development, 688–9
 policy perspective, 692–3
 understanding development of,
 686–96
 World Bank, 123, 191, 392–5 *passim*,
 400, 401, 403, 404, 460, 482, 659,
 665, 697n, 714
 loans for agriculture, 397, 463
 World Food Council, 393, 395, 397
 World Food Programme (WFP), 392,
 395, 396, 400
- Yen Tien Chang, 669, 671
 Zhan Wu, 273, 280, 282, 283, 284, 717,
 719