

Institut Pertanian Bogor * University of Wisconsin

GRADUATE EDUCATION PROJECT



Aid Project 497-0290

Report No. 17

PIGOTT

REPORT OF PROJECT ASSOCIATE
ON
COMMUNITY NUTRITION AND FAMILY RESOURCES
TO
INSTITUT PERTANIAN BOGOR

BY

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MADISON, WISCONSIN
August 1982 - FEBRUARY 1983

USAID Project No. 497-0290

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I. DURATION OF PROJECT ASSOCIATE'S VISIT

The Project Associate left the United States on August 18, 1982 and arrived in Indonesia August 19. On February 15, 1983 the Project Associate departed Indonesia.

II. OBJECTIVES OF VISIT

Objectives of the visit were jointly defined by Pak Suhardjo, Chairperson of Departemen Gizi Masyarakat dan Sumberdaya Keluarga (GMSK), and the Project Associate upon her arrival. The six-month objectives were:

1. Assist in development and implementation of course entitled Socio-Economic and Cultural Influences on Family Food Habits.
2. Encourage and assist with staff development.
3. Support and expand research and public service programs of Departemen GMSK.
4. Update reading room library as appropriate.
5. Help develop linkages between Institut Pertanian Bogor (IPB) staff and other organizations working with food and nutrition programs in Indonesia.
6. Assist in development of course entitled Community Nutrition.
7. Give guest lectures in S_1 courses as requested by staff.

III. PROJECT ASSOCIATE'S ACTIVITIES

A. S_2 Curriculum

Assisting in the development of a S_2 curriculum in Community Nutrition and Family Resources was a primary focus of the Project Associate. This was done in conjunction with Mary Roach and Diane Barrett, simultaneous Project Associates, as well as GMSK staff members. The process included analysis of staff capabilities and interests, examination of S_2 courses in related disciplines, clarification of departmental goals, and coordination of course design. The proposed S_2 curriculum was revised many times before the final proposal was submitted to the Ministry of Education and Culture in January. It is expected that the curriculum will be accepted, with the first students matriculating in September 1983. A copy of this curriculum is included as Appendix A.

The Project Associate also revised two of the proposed S_2 courses. Of special interest was "Socio-Economic and Cultural Influences on Family Food

Habits." The course was extensively revised to reflect international as well as Indonesian literature, to include a research orientation, and to integrate the behavioral and biological sciences. A new outline and lecture notes were written, and the course was retitled "Sociocultural and Economic Influences on Family Food Behavior." An abbreviated version of the revised outline is included as Appendix B.

Also revised, in conjunction with Diane Barrett, was "Community Nutrition." Resources for developing the lecture were sought out and identified. The revised tentative outline for this course is included as Appendix C. For more details on additional course revisions, please refer to Mary Roach's report (January 1983).

B. Research

Research is a responsibility of all faculty members, according to IPB's philosophy of the tri-dharma. It is essential for research to be integrated into the S_1 and S_2 curricula at GMSK. Currently little research is done by GMSK staff members. All seniors are required to conduct an individual research project, but these are seldom integrated into faculty research projects or coordinated among students. Staff members rarely attempt to publish in the refereed international journals. Research presently is a low priority item.

The Project Associate participated in the formulation of a research framework for GMSK, as a first step in the process. Like the S_2 curriculum, the framework was revised many times before consensus was achieved. This framework will serve to orient the diverse interests of GMSK staff toward the common goal of improving the quality of life of rural families, as well as clearly delineating the interaction of variables. The research framework is included as Appendix D.

No research was conducted by the Project Associate, however, she did assist in other ways. Several staff members were assisted at various stages of writing research proposals. About 15 seniors, individually and in small groups, were guided in their research projects. This included learning how to define the research problem, how to measure attitudes and knowledge, how to use scaling techniques, how to gain the cooperation of respondents, and how to determine appropriate statistical tests. The same topics were discussed with the students' advisers as appropriate. Various ideas for research projects were discussed with the staff, as a stimulus to the development of additional research questions.

C. Staff Development

Staff development is a more nebulous process than either curriculum development or research. As a result, it is difficult to see results in the short term.

The largest portion of time was devoted to teaching a seminar for GMSK staff members. The seminar topic was "Sociocultural and Economic Influences on Family Food Behavior." It was taught like a regular course, except that faculty members were not required to do readings or formal papers due to previous time commitments. Attending the seminar regularly were seven GMSK staff, plus one lecturer from another department. Other faculty attended when the topics were of special interest. The seminar was held in English due to the Project Associate's lack of fluency in Bahasa Indonesia. This led to some difficulties at first, but by the end of the seminar all the staff had achieved a high level of comprehension and a moderately high level of spoken fluency in English. The syllabus is included as Appendix E.

Other activities in the area of staff development included assisting in the preparation of presentations for professional conferences, sharing of subject-matter resources for courses, helping staff prepare for professional visits to the U.S., and improving teaching methodologies.

D. S₁ Curriculum

Currently all undergraduate curricula at IPB are undergoing revision, as a part of a shift to a more open system of class selection. The Project Associate participated in departmental meetings discussing goals of the program, current S₁ courses, course overlap in the food science area, and proposed electives. The curriculum is still in flux, but the department is working hard to propose a strong new program in Community Nutrition and Family Resources. Appendix F lists GMSK staff and the courses they currently teach.

In addition to overall curriculum planning, the Project Associate assisted in the revision of two S₁ courses: "Nutrition Education" and "Methodology of Food and Nutrition Surveys." The former course was completely re-vamped, with several new lectures added. Many new laboratory experiences were devised to reinforce lecture material. The survey methodology class was

reorganized, and several new lectures were also added. The Project Associate presented the new lecture material in both classes. The staff were left with lecture notes, hand-outs, and test questions. Informal assistance in several other S_1 courses was provided. This assistance in strengthening S_1 courses was to provide a solid foundation for S_2 courses.

The Project Associate also assisted in one S_1 course in which her assistance was previously unplanned. A new course, "Food, Nutrition and Agriculture," is being piloted at the S_1 level at GMSK. The course was designed by Dr. Laura Jane Harper, and is sponsored by the Food and Agriculture Organization (F.A.O.) of the United Nations. The Project Associate assisted in adapting the course to Indonesia, and often served as a liaison between GMSK staff and Dr. Harper.

E. Miscellaneous Activities

One of the Project Associate's objectives was to update the departmental reading room. GMSK receives no scholarly journals, and had very few recent publications. Letters were written to approximately 70 organizations and agencies for materials; many free materials were acquired in this way. The Project Associate also borrowed books and journals on nutrition, health, and child development from the U.S. Agency for International Development (A.I.D.) library, which were shared with the staff. When the A.I.D. library was reduced in size, the Project Associate helped obtain culled materials for the GMSK reading room. The Asia Foundation in Jakarta was also visited to obtain additional free materials. The reading room still could not be considered up-to-date, but it does have a broader selection of materials for the use of staff and students.

Another of the Project Associate's objectives was to help establish links between IPB and other agencies and organizations working on nutrition-related issues. Links were established or strengthened with the following: Center for Nutrition Research and Development, Bogor; A.I.D., Jakarta; Catholic Relief Services, Jakarta; UNICEF, Jakarta; F.A.O., Jakarta; and Nutrition Extension and Development Project, Department of Health, Jakarta. Several of these organizations are interested in hosting field work experiences for S_2 students.

The Project Associate also assisted in the public service program of the department. She spoke about the benefits of breastfeeding to a Dharma Wanita group from Ciawi. Detailed notes for the talk were given to the department for future use.

IV. RECOMMENDATIONS

A. Curriculum

1. Flexibility in both the the S_1 and S_2 curricula should be encouraged. This means enlarging the number and type of electives, as well as dividing the curricula into tracts.

2. An increased emphasis on fieldwork should be placed at both the S_1 and S_2 levels. Both village and agency fieldwork are needed to prepare the students for careers in community nutrition and family resources.

3. Syllabi and objectives should be required in all courses. Course evaluation should also be mandatory.

4. The S_1 curriculum should de-emphasize food science and laboratory courses. Courses on community nutrition, family sociology, anthropology, and extension methodology should be developed. The beginning and advanced nutrition courses should be reorganized, with more emphasis placed on the nutritionally vulnerable groups.

B. Research

1. Research needs to be encouraged and supported for and by all GMSK staff. This includes the seeking of grants from external agencies.

2. GMSK staff should begin to submit manuscripts to international publications and disseminate documents through international channels. GMSK should become a contributing organization to the Nutrition Planning document dissemination service.

3. Behavioral research needs to be fostered.

4. Research needs to be incorporated into coursework, particularly at the S_2 level.

5. Staff should involve students in the research projects.

6. Senior students should be guided by just one adviser for their research projects.

C. Staff Development

1. All staff members need support and encouragement for continuing their education, whether in Indonesia or abroad. Advanced training is critical for all GMSK staff.

2. Staff members with a Master's degree should be invited to enroll in the department's S₂ program on a part-time basis.

3. Staff seminars to update knowledge should be held on a regular basis. Two crucial topics are research and teaching methodology. Perhaps some of the seminars could be held jointly with other departments.

4. Advanced training in community nutrition and child development are urgently needed to support the S₂ program.

D. Departmental

1. Students need to be actively recruited, especially for the S₂ program.

2. Busier staff members need to learn to delegate more responsibilities.

3. The reading room needs to be reorganized. A more efficient classification system is needed for retrieval of documents. Someone with library science training would be of great assistance. More open stacks would encourage staff and student use of materials.

4. GMSK needs subscriptions to basic scientific journals in the fields of nutrition and of family resources. It is extremely difficult to develop a research orientation without current literature reporting research methodology and results.

APPENDIX A

S₂ CURRICULUM FOR COMMUNITY NUTRITION AND FAMILY RESOURCES

	<u>CREDITS</u>	<u>INSTRUCTOR(S)</u>
<u>Transitional Semester</u>		
Principles of Nutrition	non-credit	GMSK staff
<u>First Semester</u>		
GMS 511 - Sociocultural and Economic Influences on Family Food Behavior	3 (3-0)	Suhardjo
GMS 514 - Community Nutrition	4 (3-3)	Sudjana Sibarani Darwin Karyadi Muhamad Khumaidi
STK 511 - Statistics	4 (3-2)	Barizi M. A. Aziz
<u>Second Semester</u>		
GMS 513 - Food and Nutrition Planning	3 (2-3)	Suhardjo
SPD 590 - Methodology of Social Research	3 (3-0)	Sajogyo
PTK 603 - Physiology and Biochemistry of Nutrition	3 (3-0)	A. W. Piliang
Elective:		
GMS 512 - Nutrition and Child Development or	3 (3-0)	Hartanti Santoso Husaini
SPD 562 - Demography	3 (3-0)	S. Rusli
<u>Third Semester</u>		
GMS 512 - Food and Nutrition Systems	3 (3-0)	Muhamad Khumaidi
GMS 515 - Nutrition Research Methodology	2 (2-0)	Suhardjo Hidayat Syarief
GMS 522 - Family Economics	3 (3-0)	Suprihatin Guhardja Safri Mangkuprawira
Elective:		
GMS 521 - Family Health and the Environment or	3 (3-0)	Mariyati Sukarni Budiharsana
PWD 651 - Basic Principles and Planning of Rural Development	3 (3-0)	A. Anwar R. Sinaga
<u>Fourth Semester</u>		
GMS 699 - Research and Thesis	6	GMSK staff
GMS 690 - Seminar	1	GMSK staff

APPENDIX B

OUTLINE FOR "SOCIOCULTURAL AND ECONOMIC INFLUENCES ON FAMILY FOOD BEHAVIOR"

- I. Introduction to Course
 - A. View nutrition as biocultural issue
 - B. Questions to ask to improve nutrition
 - C. Goals of course
 - 1. Specific objective for students
 - 2. Broader goals
- II. Sociocultural Influences on Nutrition
 - A. Definitions of culture
 - B. Impact of culture on behavior
 - C. Characteristics of culture
 - 1. Learned
 - 2. Logically integrated whole
 - 3. Constantly changing
 - 4. Value system
 - 5. Facilitates routine interaction
 - D. "Culture-bound" and ethnocentrism
 - E. Socioeconomic influences
 - F. Interaction models
 - 1. Peltó's "Lifestyle Model of Dietary Behavior"
 - 2. Jerome and colleagues' "Ecological Model for Nutritional Anthropology"
 - G. Foodways
 - H. Food behavior and food habits
 - 1. Definitions
 - 2. Four parameters
 - I. Meanings of food
 - 1. Nutritive uses
 - 2. Maslow's hierarchy of needs
 - 3. Aspects of food classification
 - 4. Methods of food classification
 - 5. Functions of food in culture

6. Analysis of functions of specific foods in culture
 7. Nutritional significance of food classifications
 8. Categories of custom
- J. Models for studying food behavior
1. Importance of theoretical framework
 2. Historical analysis of approaches to study food behavior
 3. Model 1 - multidimensional code
 4. Model 2 - multidisciplinary analysis of children's food consumption behavior
 5. Model 3 - physical and cultural availability of foods
 6. Model 4 - the channel theory
- K. Religion
1. What is religion
 2. Five major religions
 3. Riddle of the pig
 4. Generalizations about impact of religion on food behavior
- L. Social roles of food
1. Gifts
 2. Conspicuous consumption and competition
 3. Festivals and feasts
 4. Selametan
- M. Pica
1. Definitions
 2. Types of pica
 3. Etiological theories
 4. Pica and iron deficiency anemia
 5. Pica in children
 6. Pica in pregnancy
 7. Mechanisms for adverse effects of pica
- N. Impact of culture on specific population groups
1. Two major explanations for sex-differential nutrition
 2. Food taboos
 3. Impact of culture on breastfeeding
 4. Impact of culture on Balita

5. Impact of culture on young girls
6. Impact of culture on women
7. Other food beliefs and taboos in Indonesia
8. Factors leading to malnutrition in Balita

III. Economics and Nutrition

- A. Economic situation as a determinant of food availability
 1. Urban poor
 2. Adjustments to poverty
 3. Feast or famine
- B. Poverty
 1. Definitions
 2. Relative vs. absolute
 3. Internal vs. external
 4. Features of poverty
 5. Types in the developing world
 6. Causes
 7. Indonesian poverty line
- C. Relationships between income and diet
 1. Engel's law
 2. Proportion of money spent for different food groups changes with changes in income
 3. Rising incomes lead to more refined, processed, and convenience foods
 4. Price elasticity
 5. Income elasticity
 6. Income distribution
- D. Defining socioeconomic status of the family
 1. Development of scales
 2. Microeconomic differentiation
 3. Socioeconomic index
- E. Women's roles
 1. Background
 2. Present reality of rural women in Africa
 3. Value of women's work

- F. Economic value of breastfeeding
 - 1. In Indonesia
 - 2. In Ghana and Ivory Coast
- G. Effects of urbanization of food behavior
 - 1. Urbanization statistics
 - 2. Differences in rural and urban caloric intake
 - 3. Causes of urban malnutrition
 - 4. Health problems in urban areas
 - 5. Rural and urban differences in ecology of PCM
 - 6. Diagnostic questions to answer
 - 7. Categories of information to collect
 - 8. Conditions which encourage organization of health and nutrition services in urban areas
- H. Transmigration
 - 1. Definition
 - 2. Historical context
 - 3. Rationale for transmigration
 - 4. Factors for successful transmigration
 - 5. Legitimate roles for government
 - 6. Evaluation of transmigration
 - 7. Effects of transmigration on food behavior
- IV. Food Consumption Patterns
 - A. Food consumption in Indonesia
 - 1. Java
 - 2. Bali
 - 3. Outer islands
 - 4. Comparison of food patterns across country
 - B. Food consumption in Southeast Asia
 - 1. Malaysia
 - 2. Thailand
 - 3. Philippines
 - 4. Singapore
 - C. Comparison of food patterns
 - 1. Indonesia to Southeast Asian nations
 - 2. Less vs. more developed countries

V. Changing Food Behavior

A. Technological effects on food behavior

1. Functions of mass media in society
2. Categories of mass media
3. Reasons for using mass media
4. Influence of mass media
5. Influence of advertising
6. How advertisers sell their products
7. Analyzing a food advertisement
8. Potential of mass media for nutrition education

B. Nutrition education as planned change

1. Rationale
2. Ethical considerations
3. Audiences for nutrition education
4. Dynamics of change
5. Factors influencing potential for behavior change

C. Mechanisms for changing food behavior

1. Nutrition education
2. Planning educational approaches
3. Designing the teaching-learning environment

APPENDIX C

TENTATIVE OUTLINE FOR "COMMUNITY NUTRITION"

- I. Introduction to Community Nutrition
 - A. Definition
 - B. Goals

- II. Methods of Studying the Community
 - A. Community assessment
 - 1. Political organization
 - 2. Social organization
 - 3. Cultural characteristics
 - 4. Economic stratification
 - 5. Health care systems
 - 6. Transportation
 - 7. Housing
 - 8. Climatic variables
 - 9. Land and water practices
 - 10. Energy supplies
 - 11. Food availability
 - 12. Communication facilities
 - 13. Family composition and hierarchy
 - 14. Religious views
 - 15. Historical perspectives of nutrition in the community
 - B. Nutritional assessment
 - 1. Anthropometry
 - 2. Dietary methodologies
 - 3. Clinical assessment
 - 4. Biochemical or laboratory assessment
 - 5. Biophysical methods
 - C. Participant observation
 - 1. Definition
 - 2. The investigator/observer

3. Methods of study
 4. Data classification
 5. Advantages and disadvantages
 6. Ethical questions
- D. Survey methodology
1. Types of surveys
 2. Planning
 3. Fieldwork
 4. Analysis
 5. Interpretation
 6. Action

III. Training Community Nutritionists

- A. Social process skills and knowledge
1. Getting to know the community
 2. Identifying problems in the community
- B. Technical skills and knowledge
1. Measuring and monitoring children's growth and nutriture
 2. Breastfeeding
 3. Diets for Balita
 4. Maternal nutrition
 5. Identification, management, and prevention of common nutritional deficiencies
 6. Diarrhea
 7. Nutrition and infection

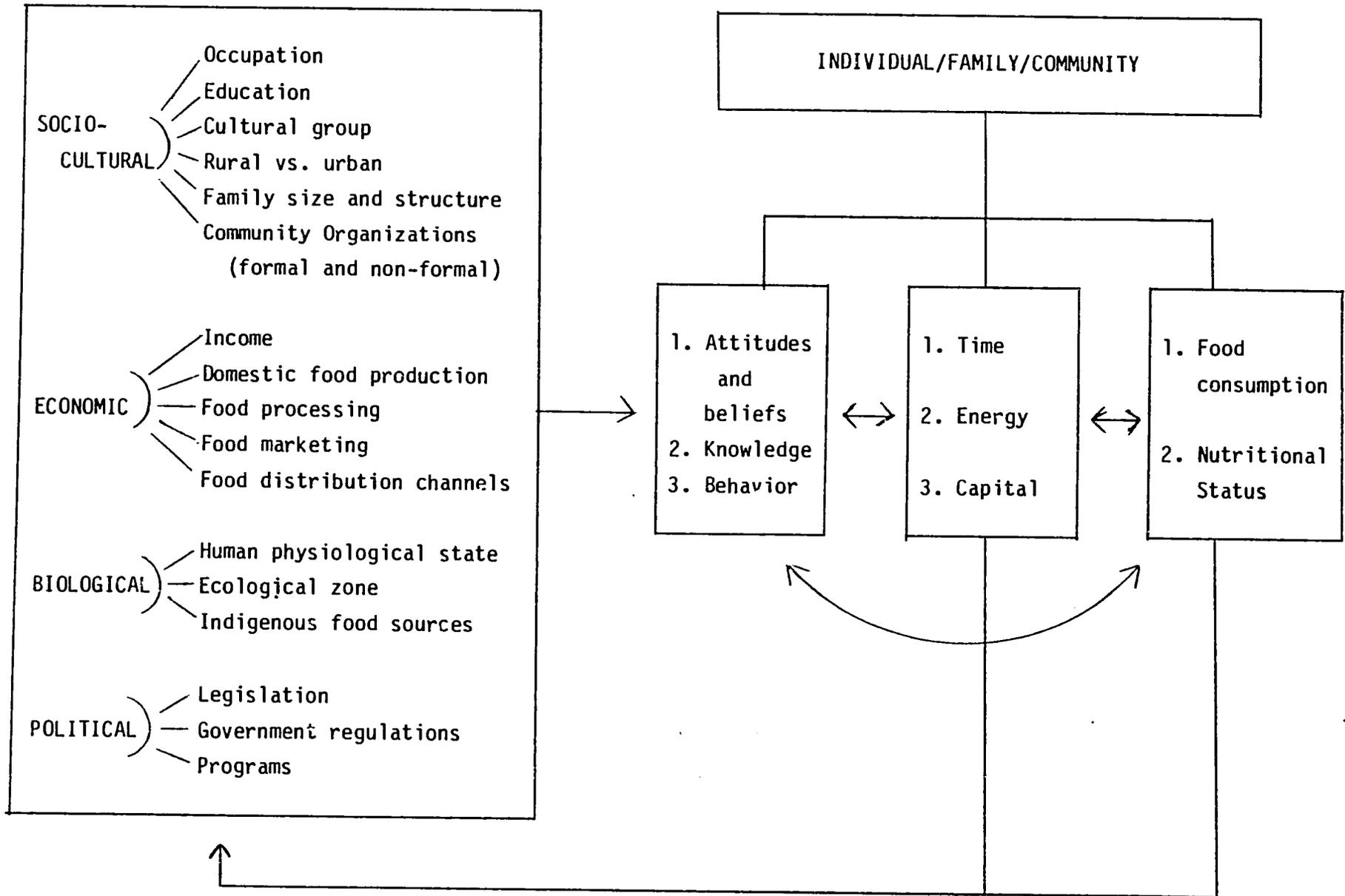
IV. Organizations Involved in Community Nutrition in Indonesia

- A. Governmental
1. Ministry of Health
 2. Ministry of Education and Culture
 3. Ministry of Agriculture
 4. Ministry of Manpower and Transmigration
 5. Ministry of Industry

6. Ministry of the Interior
 7. BAPPENAS/BAPPEDA
 8. BULOG
 9. BKKBN
 10. Inter-ministerial programs
- Non-governmental
1. United Nations agencies
 2. Private voluntary organizations

APPENDIX D

Research Framework for Community Nutrition and Family Resources



APPENDIX E

First Semester, 1982

Tuesday 11:00 - 12:30

Thursday 11:00 - 12:30

SOCIOCULTURAL AND ECONOMIC INFLUENCES ON FAMILY FOOD BEHAVIOR

Instructors:

Suhardjo, M. Phil.

Jeri Pigott, M.Sc.

Office Hours:

By Appointment

Wednesday 8:00 - 11:00

Course Objectives:

At the end of the course the student should be able to:

1. Describe the elements of culture that are related to, and influence, food behavior of individuals and groups.
2. Integrate cultural food knowledge to analyze the food behavior of an individual.
3. Identify the variability of food behavior within a single cultural setting.
4. Relate the developments and changes in food behavior to changes in sociocultural and economic surroundings.
5. Integrate knowledge of biological and social science into a comprehensive holistic concept of human nutrition.

Course Outline:

- | | |
|--------------|---|
| Sept. 14, 16 | Introduction to course; Elements of culture; Relation of culture to food behavior |
| Sept 21, 23 | Parameters of foodways affecting food selection; Meanings of food |
| Sept 28, 30 | Use of models to demonstrate interrelationships of nutrition and culture |

Oct 5, 7	Religion and food behavior
Oct. 12, 14	Social roles of food
Oct 19, 21	Impact of culture on specific population groups--pregnancy, infancy, children, women
Oct. 26,28	Effects of economics on food behavior; Developing a socioeconomic index
Nov. 2, 4	Household demographics and food behavior; Division of labor
Nov. 9, 11	Effects of urbanization and transmigration on food behavior
Nov. 16, 18	Comparison of food patterns across Indonesia
Nov. 23, 25	Food patterns in Southeast Asia; Comparison of less vs. more developed countries' food patterns
Nov. 30, Dec. 2	Technological effects on food behavior
Dec. 7, 9	Rationale and ethics of changing food behavior
Dec. 14, 16	Mechanisms for changing food behavior

APPENDIX F

Staff Members of Department of Community Nutrition and Family Resources
Bogor Agricultural University, 1983

<u>Name</u>	<u>Courses Taught at S₁</u>	<u>Position</u>
Amini Nasoetion (Ir.)	Basic Nutrition Experimental Foods	Lecturer
Clara Meliyanti (Drh.,M.Sc.)	Basic Nutrition	Junior Lecturer
Djiteng Roedjito (Ir.)	Food and Nutrition Surveys	Lecturer
Emmy Karsin (Ir.)	Family Ecology Nutrition Economics Experimental Foods	Lecturer
Endang Tjiptaningrum (Ir.)	Food Processing Food Control Evaluation of Food Quality	Lecturer
Faisal Anwar (B.Sc.)	Food Analysis	Assistant
Hartanti Santoso (M.Sc.)	Family Life Education	Senior Lecturer
Hardinsyah (Ir.)	Food and Nutrition Surveys Basic Nutrition	Junior Lecturer
Mariyati Sukarni (M.Sc.)	Food Science Public Health Food Control	Senior Lecturer
Muhamad Khumaidi (Ir.,M.Sc.)	Family Ecology Nutrition Problems	Senior Lecturer
Ratna Megawangi (Ir.)	Food Analysis	Junior Lecturer
Siti Madanijah (Ir.)	Nutrition Education	Lecturer
Sudjana Sibarani (Ir.,M.Sc.)	Food Analysis Food and Nutrition Surveys	Lecturer
Suhardjo (Ir.,M.Phil.)	Nutrition Economics Nutrition Planning Advanced Nutrition	Senior Lecturer
Suprihatin Guhardja (Ir.)	Nutrition Education Home Economics	Lecturer
Sri Rihati Kusno (Ir.)	Consumer Education	Lecturer