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**INTERNATIONAL
FOOD
POLICY
RESEARCH
INSTITUTE**

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1982 BUDGET PRESENTATION

ACCORDING TO

CG GUIDELINES

BUDGET TERMINOLOGY

- Table I:** Approved 1981 Budget. This budget was approved by the CG Secretariat for 1981 core operations. It is also used as a base budget in calculating the 1982 budgets.
- Table II:** Proposed 1982 Budget according to a budget ceiling of \$3,461,000 established by the CG and calculated to accommodate reasonable expenditure on capital. The maintenance of working capital, reasonable growth in accordance with the principles underlying the Group's Five Year Plan.
- Table III:** Proposed 1982 Fallback budget is prepared to deal with the possibility of a substantial shortfall in funding for 1982 by the donors.
- Table IV:** Proposed 1982 Budget for a 10% real growth in IFPRI's activities. This budget is viewed as the minimum necessary budget to maintain a reasonable growth in the Center's activities.
- Table V:** Budget Comparisons illustrating the impact of the proposed 1982 ceiling on the approved 1981 budget. All variances and changes resulting from this increase are commented upon.
- Table VI:** Budget comparisons illustrating the impact of the 1982 fallback position on the 1981 approved base budget. The actual decreases or increases in budget items, as well as the impact on IFPRI's real operations are commented upon.
- Table VII:** Budget comparisons illustrating the impact of a 10% real growth budget on the Center's operations compared with the 1981 approved budget. Comments are made as to the nature and content of all increases and decreases in the budget.

Table VIII: Budget comparisons illustrating the impact of the CG established budget ceiling on the proposed 1982 growth budget. IFPRI strongly feels that the growth budget is minimum to maintain the centers ability to cope with the problems facing growing centers in the system.

Table IX: Budget comparisons illustrating the impact of a fall from the CG ceiling budget to a fallback position forcing the institution to a drastic decrease in its operating budget.

Table X: Statement of sources and uses of funds for the 1981 approved budget. The amounts listed are those available to IFPRI as of January 31, 1981.

TABLE I

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Proposed 1981 Budget
BaseCategoriesSalaries

Administrative	\$286,976	
Researchers	925,765	
Research Assistants & Statistical Services	206,407	
Research Secretaries	92,056	
Communications	<u>171,790</u>	
		\$1,682,994
Consultants/Collaborative Res.		55,000
Benefits		346,006
Relocation & Home Leave		105,000
Employee Travel		130,000

Communications

Workshops & Seminars	2,000	
Library	10,000	
Publications	<u>162,000</u>	
		174,000
		125,000

ComputerAdministration

Trustees	65,000	
Professional Fees	25,000	
Payroll	<u>2,000</u>	
		92,000

Capital Expenditures

Equipment	5,000	
Furnishings	15,000	
Leasehold Improvements	<u>10,000</u>	
		30,000

Office Operations

Space Rental	174,000	
Supplies	16,000	
Communications (Telephone & Telex)	36,000	
Insurance	5,000	
Repairs, Maintenance & Rental	4,000	
Reproduction	20,000	
Misc. Expenses	<u>5,000</u>	
		<u>260,000</u>

Total		<u>3,000,000</u>
Inflation		-
TOTAL		<u><u>\$3,000,000</u></u>

TABLE II

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Proposed 1982 Budget
CG -- Budget Ceiling

<u>Categories</u>	<u>Proposed 1982</u>	
<u>Salaries</u>		
Administrative	\$286,976	
Researchers	925,765	
Research Assistants & Statistical Services	206,407	
Research Secretaries	92,056	
Communications	<u>171,790</u>	
		\$1,682,994
Consultants/Collaborative Res.		55,000
Benefits		346,006
Relocation & Home Leave		105,000
Employee Travel		160,000 ✓
<u>Communications</u>		
Workshops & Seminars	2,000	
Library	10,000	
Publications	<u>162,000</u>	
		174,000
<u>Computer</u>		
		150,000 ✓
<u>Administration</u>		
Trustees	100,000	
Professional Fees	25,000	
Payroll	<u>3,000</u>	
		128,000 ✓
<u>Capital Expenditures</u>		
Equipment	5,000	
Furnishings	15,000	
Leasehold Improvements	<u>10,000</u>	
		30,000
<u>Office Operations</u>		
Space Rental	174,000	
Supplies	16,000	
Communications (Telephone & Telex)	36,000	
Insurance	5,000	
Repairs, Maintenance & Rental	4,000	
Reproduction	20,000	
Miscellaneous Expenses	<u>4,178</u>	
		259,178
	Total	<u>3,090,178</u>
	Inflation 12%	<u>370,822</u>
	TOTAL	<u><u>\$3,461,000</u></u>

TABLE III

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Proposed 1982 Budget
Fallback Position

<u>Categories</u>	<u>Proposed 1982</u>	
<u>Salaries</u>		
Administrative	\$286,976	
Researchers	925,765	
Research Assistants & Statistical Services	206,407	
Research Secretaries	92,056	
Communications	<u>171,790</u>	\$1,682,994
Consultants/Collaborative Res.		45,000
Benefits		346,006
Relocation & Home Leave		105,000
Employee Travel		85,000
<u>Communications</u>		
Workshops & Seminars	2,000	
Library	10,000	
Publications	<u>162,000</u>	174,000
		125,000
<u>Computer</u>		
<u>Administration</u>		
Trustees	65,000	
Professional Fees	25,000	
Payroll	<u>3,000</u>	93,000
<u>Capital Expenditures</u>		
Equipment	5,000	
Furnishings	15,000	
Leasehold Improvements	<u>-</u>	20,000
<u>Office Operations</u>		
Space Rental	174,000	
Supplies	16,000	
Communications (Telephone & Telex)	36,000	
Insurance	5,000	
Repairs, Maintenance & Rental	4,000	
Reproduction	20,000	
Misc. Expenses	<u>4,714</u>	259,714
	Total	<u>2,935,714</u>
	Inflation 12%	<u>352,286</u>
	TOTAL	<u><u>\$3,288,000</u></u>

TABLE IV

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Proposed 1982 Budget
10% Real Growth

<u>Categories</u>	<u>Proposed 1982</u>	
<u>Salaries</u>		
Administrative	\$286,976	
Researchers	925,765	
Research Assistants & Statistical Services	236,407	
Research Secretaries	112,056	
Communications	<u>171,790</u>	\$1,732,994
Consultants/Collaborative Res.		105,000
Benefits		356,285
Relocation & Home Leave		105,000
Employee Travel		205,000
<u>Communications</u>		
Workshops & Seminars	26,000	
Library	12,000	
Publications	<u>175,000</u>	213,000
		150,000
<u>Computer</u>		
<u>Administration</u>		
Trustees	100,000	
Professional Fees	25,000	
Payroll	<u>3,000</u>	128,000
<u>Capital Expenditures</u>		
Equipment	5,000	
Furnishings	15,000	
Leasehold Improvements	<u>10,000</u>	30,000
<u>Office Operations</u>		
Space Rental	189,000	
Supplies	16,000	
Communications (Telephone & Telex)	36,000	
Insurance	5,000	
Repairs, Maintenance & Rental	4,000	
Reproduction	20,000	
Misc. Expenses	<u>5,000</u>	275,000
Total		<u>3,300,279</u>
Inflation 12%		396,034
TOTAL		<u><u>\$3,696,313</u></u>

BUDGET NOTES

TABLE IV

IFPRI, as an expanding institute, has no capital budget and no capital reserve. As a result, the Center faces cash flow problems during the first two months of each fiscal year. Faced with the choice of maintaining a minimum level of support for its researchers or requesting a budget for its working capital reserve, IFPRI has chosen not to include a request for capital reserves.

IFPRI came into the Consultative Group very recently with a slender budget margin. Because of this and the fact that IFPRI is only four years old, the levels of support to its research staff in terms of travel, supporting personnel, and even office space, are well below the norms of the other institutes in the system.

In the proposed 1982 Budget, we have attempted to give support in those areas that have suffered the most in terms of adequate staffing and research support. Our list of additions includes a small increase in research assistants, research secretaries, employee travel and computer services.

TABLE V

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

BUDGET COMPARISONS
Changes in 1982 Ceiling

<u>Category</u>	<u>Proposed 1982 Ceiling</u>	<u>1981 Base Budget</u>	<u>Variance</u>
Salaries	\$1,682,994	\$1,682,994	\$ 0
Consultants/ Collaborative Res.	55,000	55,000	0
Benefits	346,006	346,006	0
Relocation & Home Leave	105,000	105,000	0
Employee Travel	160,000	130,000	30,000
Communications	174,000	174,000	0
Computer	150,000	125,000	25,000
Administration	128,000	92,000	36,000
Capital Expenditures	30,000	30,000	0
Office Operations	<u>259,178</u>	<u>260,000</u>	<u>(822)</u>
Total	<u>3,090,178</u>	<u>3,000,000</u>	<u>90,178</u>
Inflation 12%	370,822	-	-
TOTAL	<u><u>\$3,461,000</u></u>	<u><u>\$3,000,000</u></u>	<u><u>-</u></u>

TABLE VI

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

BUDGET COMPARISONS
Changes in 1982 Fallback Position

<u>Category</u>	<u>Proposed 1982 Fallback Budget</u>	<u>1981 Base Budget</u>	<u>Variance</u>
Salaries	\$1,682,994	\$1,682,994	0
Consultants/ Collaborative Res.	45,000	55,000	(10,000)
Benefits	346,006	346,006	0
Relocation & Home Leave	105,000	105,000	0
Employee Travel	85,000	130,000	(45,000)
Communications	174,000	174,000	0
Computer	125,000	125,000	0
Administration	93,000	92,000	1,000
Capital Expenditures	20,000	30,000	(10,000)
Office Operations	<u>259,714</u>	<u>260,000</u>	<u>(286)</u>
Total	<u>2,935,714</u>	<u>3,000,000</u>	<u>(64,286)</u>
Inflation 12%	352,286	-	-
TOTAL	<u><u>\$3,288,000</u></u>	<u><u>\$3,000,000</u></u>	<u><u>-</u></u>

BUDGET NOTES

TABLE VI

The proposed 1982 fallback position established by the CG leaves IFPRI with a real decrease in its current level of activities. A shortage of \$64,286 will result from the fallback budget.

IFPRI finds itself in a very difficult position and very little cuts, if any, can occur to meet this position. In fact, a cut in the level of collaborative research and a reduction in the travel budget will severely hamper the researchers' ability to take on any significant field research.

Furthermore, no real increases in computer or communication support can take place.

TABLE VII

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

BUDGET COMPARISONS
Changes in 1982 Real Growth

<u>Category</u>	<u>Proposed 1982 Growth Budget</u>	<u>1981 Base Budget</u>	<u>Variance</u>
Salaries	\$1,732,994	\$1,682,994	50,000
Consultants/ Collaborative Res.	105,000	55,000	50,000
Benefits	356,285	346,006	10,279
Relocation & Home Leave	105,000	105,000	0
Employee Travel	205,000	130,000	75,000
Communications	213,000	174,000	39,000
Computer	150,000	125,000	25,000
Administration	128,000	92,000	36,000
Capital Expenditures	30,000	30,000	0
Office Operations	<u>275,000</u>	<u>260,000</u>	<u>15,000</u>
Total	<u>3,300,279</u>	<u>3,000,000</u>	<u>300,279</u>
Inflation 12%	396,034	-	-
TOTAL	<u><u>\$3,696,313</u></u>	<u><u>\$3,000,000</u></u>	<u><u>-</u></u>

BUDGET NOTES

TABLE VII

In its request for a 10% real growth in its 1982 budget, IFPRI has added the following items:

- 1) Salaries: IFPRI proposes to increase the salaries budget by a total of \$50,000 as follows:
 - a) Research Assistants: In order to provide a limit of 1/2 Research Assistant for each researcher, IFPRI proposes to increase the budget for research assistants by a total of \$30,000.
 - b) Research Secretaries: IFPRI maintains a level of one secretary for each four researchers. The expanding load of research reports, as well as the increase of researchers in the last two years has made it necessary to increase the level of secretarial support. A proposed minimum increase of \$20,000 is included to maintain the same ratio of researchers/secretaries.
- 2) IFPRI has planned to start collaborative research projects with other institutions. A small budget of \$10,000 for each of the planned five projects is included in the growth budget.
- 3) Travel: The current small travel budget has prohibited IFPRI's researchers from conducting reasonable and necessary trips to visit research centers in other countries. Whenever possible, IFPRI's staff have consolidated their travel plans with other outside commitments to ease off the burden on IFPRI's budget. The proposed \$75,000 increase in the travel budget would allow more freedom for the researchers, but does not yet cover a target of two major trips and two minor trips per year with a total of 50 days per diem for each researcher.
- 4) Communications: IFPRI proposes an increase of \$39,000 in its communications budget to cover an increase in the number of its publications, rising shipping and handling costs, and funding a project of translating basic reports to other languages.
- 5) An increase in the computer budget of \$25,000 is necessary to provide the researchers with the capability for more studies and testing of their collected data.

6) The increase in administration cost is proposed to provide the Board of Trustees with equal compensation and travel reimbursements in line with other centers in the system.

7) The proposed increase in office operations is due to a substantial increase in space rental, above that of inflation. IFPRI has to negotiate a lease expiring the end of 1981. It is projected that, in accordance with similar market conditions, a substantial increase in rent will be effective in 1982.

TABLE VIII

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

BUDGET COMPARISONS
Minimum Growth Budget
over CG - Ceiling

<u>Category</u>	<u>1982 CG Ceiling</u>	<u>Proposed 1982 Growth Budget</u>	<u>Variance</u>
Salaries	\$1,682,994	\$1,732,994	(50,000)
Consultants/ Collaborative Res.	55,000	105,000	(50,000)
Benefits	346,006	356,285	(10,279)
Relocation & Home Leave	105,000	105,000	0
Employee Travel	160,000	205,000	(45,000)
Communications	174,000	213,000	(39,000)
Computer	150,000	150,000	0
Administration	128,000	128,000	0
Capital Expenditures	30,000	30,000	0
Office Operations	<u>259,178</u>	<u>275,000</u>	<u>15,822</u>
Total	3,090,178	3,300,279	(210,101)
Inflation 12%	370,822	396,034	-
TOTAL	<u>\$3,461,000</u>	<u>\$3,696,313</u>	<u>-</u>

BUDGET NOTES

TABLE VIII

The proposed 1982 budget ceiling established by the CG Secretariat covers only a portion of IFPRI's proposed 1982 growth budget. Only \$90,178 are added by the CG to the approved 1981 budget and leaves a balance of \$210,101 (net of inflation) uncovered. Most, if not all, of the items proposed by IFPRI would have to be deleted. A minimum increase in the travel budget was maintained to meet a portion of the rising overseas travel cost above the projected inflation rate.

TABLE IX

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

BUDGET COMPARISONS

Fallback Budget
over CG - Ceiling

<u>Category</u>	<u>Proposed 1982 Fallback Budget</u>	<u>Proposed 1982 CG Ceiling</u>	<u>Variance</u>
Salaries	\$1,682,994	\$1,682,994	0
Consultants/ Collaborative Res.	45,000	55,000	(10,000)
Benefits	346,006	346,006	0
Relocation & Home Leave	105,000	105,000	0
Employee Travel	85,000	160,000	(75,000)
Communications	174,000	174,000	0
Computer	125,000	150,000	(25,000)
Administration	93,000	128,000	(35,000)
Capital Expenditures	20,000	30,000	(10,000)
Office Operations	<u>259,714</u>	<u>259,178</u>	<u>536</u>
Total	<u>2,935,714</u>	<u>3,090,178</u>	<u>(154,464)</u>
Inflation 12%	<u>352,286</u>	<u>370,822</u>	-
TOTAL	<u><u>\$3,288,000</u></u>	<u><u>\$3,461,000</u></u>	<u><u> </u></u>

TABLE X

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

APPROVED 1981 CORE BUDGET

STATEMENT OF SOURCES AND USES OF FUNDS

<u>Total Approved Budget</u> (uses of funds)		\$3,000,000
<u>Sources of Funds:</u> (in U.S. Dollars)		
<u>Confirmed</u>		
Australia	\$ 130,000	
Ford Foundation	300,000	
Rockefeller Foundation	200,000	
Germany	100,000	
IDRC	550,000	
Philippines	50,000	
United States	<u>800,000</u>	
	2,130,000	
World Bank (first tranche, subject to Board approval)	<u>410,000</u>	
<u>Other</u>		
Interest Income	<u>20,000</u>	
		<u>2,560,000</u>
Deficit		440,000
World Bank Possible Contribution (second tranche)		<u>174,000</u>
NET 1981 PROJECTED DEFICIT		<u>\$ 266,000</u>

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**IFPRI
PROGRAM BUDGET PROPOSAL
1982**

Revised July 1981

**INTERNATIONAL
FOOD
POLICY
RESEARCH
INSTITUTE**

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1. IFPRI'S MANDATE

1. The International Food Policy Research Institute was established to identify and analyze alternative national and international strategies and policies for reducing hunger and malnutrition in the world, with primary emphasis on low-income countries and on the poorer groups in those countries. Although its research effort is geared to the precise objective of contributing to the reduction of hunger and malnutrition, the factors involved are thus many and wide-ranging, requiring analysis of underlying processes and extending beyond a narrowly defined food sector. IFPRI's research program is to reflect worldwide interaction with policymakers, administrators, and others concerned with increasing food production and with improving the equity of its distribution.
2. In pursuit of its task, IFPRI is to work closely with the other institutions of the CGIAR system in achieving common and complementary objectives, given the need for careful study of the possible social and economic consequences of the use of new technologies, and the crucial importance of identifying linkages and inter-relationships between the actions of farmers in their adoption and effective use, and national or international policies which either constrain or encourage successful innovation.
3. Within its mandate, IFPRI's criteria for program development are to emphasize the importance of specific food policy problems to the developing countries, the potential for comparative analysis with respect to them, the need for improved conceptualization, the complementarity among components of IFPRI's research, and above all the opportunity for policy action.
4. IFPRI's policy-oriented research is to stress alternative development strategies from the viewpoint of their implications for food production and consumption; food production processes, particularly the role of technological change in agriculture; food consumption issues, particularly as they relate to low-income groups; and international food trade, aid, and food security.
5. A portion of IFPRI's research is to be oriented to defining the size, composition, and dynamics of the world food problem both at present and for various periods in the future. This activity builds on the data base and related work of other international and national organizations. Through this work, IFPRI is to search out the lacunae in the understanding of world food problems, with the specific objective of defining the needs for further policy research and drawing these to the attention of policymakers and the research community.

6. IFPRI is to be highly selective in its choice of topics for research. It cannot hope to review the food policies of every country, nor can it attempt to take on agricultural sector analyses or long-term perspective studies on a service basis. On the other hand, carefully selected comparative studies of development experiences and the lessons to be drawn therefrom are to be part of the Institute's work. Such analyses will assist IFPRI's investigations of crucial problems involving policy decisions of wide significance for future food supply, whereas the more specific objective will be to identify common elements affecting countries widely dispersed geographically. Similarly, IFPRI may occasionally do in-depth analyses of food strategy for particular countries, to forward understanding of interaction among the component parts of food policy and to shed light on particularly important food policy cases and the international implications of national food policies.

7. As much as possible, IFPRI's research is to be carried out in collaboration with national research organizations pursuing similar lines of inquiry. Through such collaboration, IFPRI will achieve interaction with developing country national research systems which will lead to effective problem identification, data collection and analysis, and to the eventual dissemination of IFPRI research results to those most likely to find them useful. Similar working relationships with appropriate international organizations and the IARC will not only further expand IFPRI's data base, but will also assist it to formulate research projects relevant to international policy needs.

8. The IFPRI research program is to draw upon and complement the work of organizations such as FAO, the IBRD, and similar multilateral agencies with major programs in food and agricultural policy analysis or socioeconomic research related to agriculture. IFPRI is to be alert to important research and information gaps, paying special attention to the need for objective analysis of controversial or politically sensitive issues which IFPRI is in a particularly favorable position to approach.

9. IFPRI is to disseminate its research results to a wide public, particularly to officials, administrators, and others influential in the making of national and international food and agriculture policy. This it will do informally through direct working relationships established between its senior staff members and leading members of the public, and through its collaborative relationships with national and international agencies involved in food matters. More formal outreach methods will include publications, conferences, seminars, and workshops, arranged in cooperation with concerned national and international agencies, to discuss topics of mutual interest, and to provide interaction between researchers and policy-makers in substantive areas in which IFPRI has completed research. IFPRI research reports and other publications are to be distributed to a worldwide audience of those known to be concerned with food policy.

10. Training through participation in research both at headquarters and in the field, is to be an important part of the Institute's effort. Interaction among IFPRI's research staff and between its researchers and those from other institutions will provide valuable informal training opportunities, in addition to more formal arrangements through internships at IFPRI.

2. METHODS OF OPERATION

The research program of the International Food Policy Research Institute reflects the view that while accelerated growth in agricultural production is, in most developing countries, essential to prevent hunger and to stimulate broadly participatory growth, it is not in itself sufficient to alleviate poverty and malnutrition. Knowledge of the policy options and needs for the modernization of agriculture, the linking of agricultural growth to growth in other sectors, and the alternative means for linking increased supplies of food to the needs of the poor is necessary, if the research in the agricultural production sciences is to realize its potential to foster a humane and rapid pattern of growth.

Thus, in addition to research on policies related to accelerating food production growth and factors affecting adoption of improved technology, an important part of the Institute's program is devoted to studying the nature of the world food problem and understanding its various complex, interacting parts. These vary widely both spatially, among geographic regions and even within countries, as well as temporally, with changes in income, population size, urbanization, food habits and short-term emergencies such as drought. While in many parts of the world the crux of the food problem lies in the slow growth of production, in others, it lies mainly with deficiencies in purchasing power of consumers and is rooted in poverty or inadequacies of food distribution systems or both. Moreover, in many countries foreign trade and foreign assistance play an important role in preventing imbalances between consumption and production. Therefore, at the heart of the Institute's research program is study of the interaction among food production, consumption and trade; how these are influenced by policies both internationally and nationally; and what options are open to countries, particularly the low-income countries, individually or collectively, which might improve the availability of food to their people. The Institute has comparative advantages in undertaking cross-country analysis and in developing typologies for classifying countries and situations into meaningful groupings, to facilitate generalizing from specific knowledge to a broader set of issues and countries.

Implementation of the Institute's research objectives has three facets: Administrative Programs; Research Projects; and Policy Thrusts.

IFPRI's overall research program is administered through four programs which encompass the four major elements of understanding food policy needs: Trends Analysis to gauge the size and nature of the world's food problem; Production Policy to understand how to raise the growth rate of agricultural production; Consumption Policy to understand how increased food supplies can be effectively utilized to meet growth and equity objective; and Trade Policy to understand the role of international trade and aid in meeting food needs. The individual programs derive an intellectual unity from a similarity of conceptualization, theory, research methodology, and data sources. The work in the research programs is supported by computer services, a library and a publications service.

The Institute's research projects form the core of its work. They are developed on the basis of diagnosis of the key policy issues for which increased knowledge is likely to lead to improved decision making. Research projects must necessarily represent in-depth slices of policy problems. They may relate directly to a policy issue, but more often knowledge of underlying facts and relationships will be needed first; and at times, advances in research methodology or theory will be required before efficient analyses of policy alternatives can themselves be tackled. While the focus is always on the policy issues, IFPRI as an international institute relating to more effective national research systems is giving increasing attention to comparative analyses and basic relationships which can best complement the work of national institutions.

The Institute defines a small number of Policy Thrusts, currently four in number, from which the individual research projects derive and which in turn focus the research effort on contemporary policy problems. The policy thrusts commence with policy issues, facilitate defining and relating research projects to issues and provide an interaction among the researchers with respect to specific issues. While each member of the senior research staff is a member of only one program, a research thrust may encompass all the research staff, while some senior staff work on projects which provide input into each of the Policy Thrusts. The current four thrusts are:

1. National and International Food Imbalances: Identification of Major Food Policy Issues.
2. Food Security: Policy Alternatives for Ensuring Adequate and Stable Food Consumption.
3. Development Strategy: Defining the Macro Policies to Attain Food Policy Objectives.
4. Agricultural Production Policy: Policy Alternatives for Accelerating Agricultural Production Growth.

Through these Policy Thrusts, the Institute is able to reconcile the need to define research projects sufficiently narrowly to allow it to be at the forefront of knowledge generation and still allow the breadth of approach essential to major policy issues. For each of the Policy Thrusts several research projects are brought to bear, providing the basis for comprehensive coverage from in-depth research, the knowledge of related research to reduce unnecessary duplication and the means of diagnosing lacunae in research as an aid to identifying future in-depth research needs.

While researchers in charge of individual projects are responsible for interaction with the research community, the Thrusts provide the link to policy bodies at the national and international levels.

Because technological change in agriculture is so fundamental, IFPRI's interaction with the International Agricultural Research Centers of the Consultative Group system is of particular significance to each of the Policy Thrusts. IFPRI's links with FAO, the World Bank, IFAD, IMF, and other international agencies are important not only in helping to define these Thrusts, but also in delineating research priorities within the thrusts and placing the results in a context valuable to the international community. Most important, IFPRI develops its research program in close consultation with national policy makers and researchers, not only to ensure the relevance of its work but to help strengthen national level capacities to carry out analogous research.

IFPRI is giving increasing emphasis to collaborative research with institutions in developing countries. The Southeast Asian Rice Policy Research Project is an example of such efforts. This project is based on recognition of the fact that international centers can be most effective in a catalytic role, and that an institute whose mandate is essentially to work on policy analysis must maintain close working relationships with national institutions, if its research is to be operationally relevant and the results are to be readily transmitted to national decision makers. A related tenet of IFPRI's research procedures is that working closely with people drawn from national institutions (whether secondment to the IFPRI core staff or in collaborative projects), has an important training function. This provides a two-way learning process from which both core staff of the Institute and its collaborators can benefit.

Even more than the predominantly biological research centers, IFPRI's main tangible research product is information. For this reason, Communications Services occupies a key role in the Institute's work, and it is being expanded rapidly from a small base, in line with the greatly increased output of the research programs. Reports

on completed research and policy summaries of the reports distributed separately to a wider audience constitute the principal publications; other papers of special relevance to IFPRI's objectives completed by staff members are also published from time to time. A newsletter (IFPRI Report), which summarizes the work completed during the period it covers, indicates the research to be completed during the ensuing period, and mentions other pertinent work highlights, is also mailed three times a year to a broad audience of development-oriented individuals and institutions.

Seminars are held periodically to provide an interchange between IFPRI researchers and outside experts on topics of mutual interest. The meetings are held either at IFPRI headquarters or elsewhere, when an outside meeting site would be more efficacious. Whenever practical, seminars are organized and held in cooperation with other concerned organizations, particularly those in developing countries.

Workshops are arranged by IFPRI periodically to provide intensive interaction between Institute researchers and policymakers in substantive areas in which IFPRI has completed research. A program of regional workshops on a related topic, but with appropriate regional variations is being developed. This reflects an important principle of the Institute's communications policy, which is that while reports and publications are an essential tool of information and a permanent record of the work of its researchers, they are not substitutes for human contact and interchange of ideas in transmitting research results to policymakers. A further reflection of this principle is the importance allocated to having a strong component of persons experienced in agricultural policy analysis, particularly as this applies to food and nutrition in developing countries, on both the Board of Trustees and staff. Thus, the members of the Board of Trustees are half from developing countries and half from developed countries; a main criterion for their selection is that they be persons of broad experience in policy and research processes, and have strong perceptions of the problems and needs of agricultural and rural development.

The IFPRI research staff, which is employed on both long- and short-term bases, is also strongly international, over half drawn from developing countries. An important aim of staff policy is to build a cadre of experienced analysts, able when they return to their own countries not only to help strengthen food policy research related to national problems, but to participate in an international network of research and maintain continuing interaction with IFPRI staff. Visiting researchers and consultants are employed for specific short-term tasks for which the regular staff is either not equipped or not readily available. Recruitment of research assistants, who are employed on a short-term basis to assist the permanent research staff, also emphasizes the developing countries.

3. POLICY THRUSTS

NATIONAL AND INTERNATIONAL FOOD IMBALANCES: IDENTIFICATION OF MAJOR FOOD POLICY ISSUES

The objective of this thrust is to delineate and categorize the emerging national and international problems of imbalance in food supplies in developing countries and to suggest the potential roles of domestic food production and consumption policies, trade and foreign assistance in dealing with those problems.

The initial research effort is based on the following premises. Accelerating economic growth in an enlarging aggregate of countries, on top of high population growth and other forces will bring a significant tightening of the food situation in many of these countries over the next decade. Growth in commercial imports of food will be substantial in some countries, thereby further tightening supplies for other countries with poor export performance. Such tightening of food supplies will lead to a substantial skewing of income distribution away from the poor (through price and employment effects) with adverse effect on their nutritional status, unless countered by deliberate measures. Those measures may arise in the national or international sphere or both. Demand for livestock products and the derived demand for grain will play a major reinforcing role in these processes.

Nearly all of the Institute's research projects shed light on the four major questions which arise in this thrust.

First, what size gaps between domestic production and consumption will arise if past trends continue and how may countries be most usefully categorized with respect to how they may deal with projected gaps? IFPRI's prior work on projections is being extended in time, the country and commodity coverage enlarged and particular attention is now being given to the livestock component, including the derived demand for grain and selected high protein meal commodities.

Second, to what extent can commercial trade and foreign aid close expected gaps in food supplies of developing countries? The Institute's research is being extended to categorize countries according to these potentials and then will examine the extent to which various regions may facilitate closing of gaps for various classes of countries under particular circumstances. In this same context, the size of residual needs of low-income countries will be examined in relation to food aid potentials.

Third, the indications of accelerated growth rates in agricultural production will be examined. This effort will grow partly out of the production policy thrust as a measure of potentials for production growth and partly from statistical analysis to detect early changes in production trends.

Fourth, given the production and trade potentials, the size of residual adjustments in consumption and the mechanisms by which this may occur are to be analyzed. This involves analysis of the relation of income and prices to food consumption and nutritional status, and the means by which that relation occurs.

Thus, from a knowledge of the likely trends in production, trade and consumption, the need for alternative policies and research priorities can be developed. Particularly given the substantial work of FAO and other international agencies on such problems it may be possible for IFPRI's work to emphasize specific narrowly defined, in-depth analyses of these problems.

FOOD SECURITY: POLICY ALTERNATIVES FOR ASSURING ADEQUATE AND STABLE FOOD CONSUMPTION

The objective of this thrust is to define the short and long run policies needed to secure adequate food consumption for all people, recognizing that while the problem arises primarily for low-income people and is one of inadequate total consumption by those people exacerbated by the fluctuations in supplies, it also has broad implications to political and economic stability and growth.

The initial research effort is based on the following premises. Raising food consumption levels plays a special and central role in poverty alleviation. The burden of inadequate and unstable food supplies falls primarily on the poor whose calorie deficiencies are massive. In the short run, when domestic food production and the distribution of assets are given, mitigation of poverty is primarily a function of increased food supplies to the poor through trade or aid. The long run solution, barring major and radical redistribution of income, requires large increases in food production. Solution of the problem of food deficiency of the poor cannot be achieved by international or national schemes alone, but only by an appropriate combination of such policies - among national schemes a mechanism to reach the poor and among international schemes to increase the efficiency of meeting fluctuations by pooling risks and sharing costs.

IFPRI's research program has three major components in this Policy Thrust.

First, a major set of research projects are examining the various means by which increased food supplies may reach the poor and malnourished, including food subsidies, employment subsidies and various employment linkages. These efforts carry analysis through to the actual nutritional effects of various interventions.

Second, on a quite different front, various international schemes for increasing food supplies and subsidizing costs are examined.

Third, research is undertaken on the extent of supply instability, the effect of technological change on stability and various national and international mechanisms for reducing supply fluctuations.

DEVELOPMENT STRATEGY: DEFINING STRATEGIES TO ATTAIN FOOD POLICY OBJECTIVES

The objective of this thrust is to examine the impact of growth in agricultural productivity on overall economic growth, the nature of the linkage effects between agriculture and other sectors, and the regional income and employment effects. From this analysis appropriate policies for agricultural growth, employment and food consumption will be derived.

The initial research effort is based on the following premises. Increasing agricultural productivity (in terms of net value added at constant prices), can lead to satisfactory economic growth, and has the additional advantages of focus on rural areas where most of the poor are and potential to be employment-intensive in both direct and indirect effects. These processes can be enhanced through appropriate policies. Research on agriculture based strategies of growth requires increased attention to the roles of technological change and of consumption expenditure on growth. Technological change in agriculture can add enormously to net additional income, but skewness in distribution of benefit creates an initial supply-demand imbalance requiring growth in other sectors if incentive to agricultural growth is to continue and food is to reach the poor.

IFPRI's research program on this thrust has four components.

First is an effort to model processes of growth in a manner that emphasizes intersectorial linkages so that the stimulus of one sector on another can be more clearly understood.

Second is to translate understanding of the role of agriculture into the financial implications to national budgets.

Third is to understand how consumption patterns influence the employment and good consumption linkages and how policy may affect those patterns.

Fourth is to understand the potentials for production growth, particularly in the rural non-formal sector, to play a role in the growth of employment and the transfer of income from one sector to another.

AGRICULTURAL PRODUCTION POLICY: ALTERNATIVES FOR ACCELERATING AGRICULTURAL GROWTH

The objective of this thrust is to diagnose policy needs for accelerating agricultural production to meet food needs with emphasis on the poorer countries and the poorer people in those countries. The initial research effort is based on the following premises. Technological change is generally central to increasing production. It defines the production potential. Technological change is embodied in large increases in use of purchased inputs, particularly fertilizer and investment in water. The institutions and infrastructure have to be geared in such a way that the inputs are used and that benefits are reaped by the poorer sections of the people.

The initial research effort has three elements.

First, analysis of allocation of research resources to foster technological change. Second, analysis of the spread of fertilizer use. Third, analysis of investment in water. In each of these approaches, attention is given to prices and to the development of trained people and efficient institutions for organizing their effort.

GEOGRAPHIC CONCENTRATION

IFPRI's research is first oriented to substantive problems. Research is thus incidentally carried on in specific geographic regions with the purpose of shedding light on basic functions, knowledge of which will be useful in a much broader context. However, in the case of Southeast Asia the Rice Policy Research Project brings a breadth of analysis which in effect provides a broad regional perspective. That project is reported in greater detail below. In the case of Africa the magnitude of the developing food problem is

so great that it seemed necessary for IFPRI to expand its competence rapidly and prepare to comment broadly on African food policy. The effort has been initiated with the activities associated with the February 1981 Board Meeting in Ibadan and extended to a conference to be held some time in 1982, following which a more detailed effort will be delineated.

The Rice Policy Project represents a substantial concentration in Southeast Asia. It examines a number of policy measures as they affect the demand, supply and trade of the most important food commodity in four Southeast Asian countries, namely Indonesia, Malaysia, the Philippines and Thailand. The questions raised are:

- (i) What are the costs and benefits to the country and to various groups within it of the alternative policy measures designed to achieve a given shift in the demand or supply of rice?
- (ii) What are the effects of various measures on the variability of rice supplies in the country?
- (iii) What is the nature and magnitude of the resource flow between the rice and non-rice sectors?

The underlying motivation is the well-documented observation that interventions by governments have been extensive both in the markets for rice and for the inputs that are used in rice production, particularly water and fertilizer. These various interventions have their own rationales, for example, to attain the objective of self-sufficiency or to improve income distribution within a country. We start with the working assumption that, regardless of the rationale, the outcomes of the various policy measures can be reduced to specific shifts in either the demand or the supply function of rice. The measurement of the magnitude and costs of such shifts has therefore been made an important component of the objective.

The large number of interventions that impinge on the rice demand-supply situation have been grouped under four headings: i) trade and buffer stocks; ii) fertilizer; iii) water control; and iv) consumption. The research will attempt to answer the questions raised above for each of the four sets of instruments separately as well as to compare the answers in order to obtain a better assessment of the relative advantages or disadvantages of the various policies.

The Project has been divided into two phases: Phase I, starting from January 1979, is largely an inventory of existing knowledge under the four sub-topics above, and also some tentative projections of future rice demand and supply in the four countries, based on this knowledge. This phase of the Project is now almost completed and

there will be a series of publications connected with this work extending into 1981.

Phase II work began in January 1980 and addresses more specific issues within the four sub-topics. One set of studies will be on the income distributional impact of irrigation. It is expected that further studies will also be initiated on fertilizers and consumption issues.

Research activity for both Phases has relied extensively on a network of scholars from within the region as well as researchers from the International Food Policy Research Institute, the International Rice Research Institute and the International Fertilizer Development Center, which are the co-sponsors of the Project.

4. 1982 BUDGET REQUEST

IFPRI's budget request for 1982 is \$3,551,000 based on a ceiling set by the CGIAR Secretariat and approved in the Twenty-sixth Meeting of the Technical Advisory Committee, Ibadan, Nigeria, 23-30 June, 1981. At the request of the CGIAR Secretariat, a fallback budget of \$3,288,000 is also included.

The International Food Policy Research Institute is in the formative stage in which much of the senior research staff is new, key gaps in senior staff remain and the flow of research output and related research support requirements are just becoming commensurate with the size of the staff. Under these circumstances the efficiency of additions to the budget is very large. In the proposed 1982 Budget, we have attempted to give support to those areas that have suffered the most in terms of research support. Our list of additions includes a small increase in research assistants, research secretaries, employee travel and computer services. The objectives of increments to the budget are to:

- 1) maintain the level of current activities,
- 2) provide support to the research staff necessary for the efficient use of their time,
- 3) upgrade the quality of the research support activities (administration, finance, communications services, computer services, and library) to provide a complementary role to that of research programs.

STAFFING

The Institute long-range staffing goal as indicated to the CGIAR and the TAC Review Team when membership in the CGIAR system was under consideration, is a senior research staff of 25 persons. This number is based on an assessment of research priorities, the size of the research tasks, and the need for adequate coverage of geographic diversity and essential disciplines. The senior research staff is 21 in number in 1982 representing no expansion from 1980. We have not requested additions to the senior research staff in 1981 so as to concentrate additional funding on bringing support for existing staff up to an efficient norm.

5. BUDGET HIGHLIGHTS

1. The proposed 1982 Budget is \$3,551,000 according to a ceiling established by the CGIAR Secretariat (Budget Table II).
2. The proposed 1982 Fallback Budget of \$3,288,000 (a reduction of \$173,000 from budget ceiling) is prepared as requested (Budget Table III).
3. IFPRI, as an expanding institute, has no capital budget and no capital reserves. As a result, the Institute faces cash flow problems during the first two months of each fiscal year. Faced with the choice of maintaining a minimum level of support for its researchers or requesting a budget for its working capital reserves, IFPRI has chosen not to include a request for capital reserves. IFPRI has no option but to continue to rely on early payments from its substantial donors.
4. Budget Changes:
 - a) The 1982 Budget Ceiling of \$3,551,000 allows only a total increase of \$170,535 (excluding the inflation allowance) from the 1981 approved budget. This increase of 5.7% does not allow adequate support for the research staff at minimum levels. The increases in travel and computer budgets were deemed absolutely necessary in view of the expanding research needs, necessity of holding meetings in developing countries, and the urgency of establishing contact with other institutions and individuals outside the U.S.
 - b) The 1982 Fallback position of \$3,288,000 leaves IFPRI with a deficit of \$64,286 from the 1981 approved budget. This reduction will have severe long-range impact on the ability of the Institute to carry on its mandate and objectives. Should the Fallback position become a reality, IFPRI would have to cut its core travel budget by \$45,000, and reduce its spending on collaborative research (\$10,000), and eliminate capital expenditure (\$10,000). This position clearly jeopardizes the ability of IFPRI researchers to maintain a minimum contact with their research areas.

5. In its meeting in Ibadan (Nigeria), 23-30 June, 1981, the Technical Advisory Committee has approved an increase of \$90,000 from the original ceiling of \$3,461,000. This increase was allocated to the Food Production and Development Strategy Program and incorporated in the revised budget submission, as follows:

	<u>In 1981</u> <u>Dollars</u>	<u>In 1982</u> <u>Dollars</u>
Salaries:		
Researcher	\$ 40,765	\$ 45,657
1/2 Research Assistant	9,000	10,080
Secretary	4,142	4,639
Sub-total	<u>\$ 53,907</u>	<u>\$ 60,376</u>
Fringe Benefits	11,083	12,413
Travel	7,590	8,500
Computer	7,777	8,711
Sub-total	<u>\$ 80,357</u>	<u>\$ 90,000</u>
Inflation at 12%	<u>9,643</u>	<u>-</u>
TOTAL	<u>\$ 90,000</u>	<u>\$ 90,000</u>

6. RESEARCH PROGRAMS

FOOD TRENDS ANALYSIS PROGRAM - BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Senior Staff	2	3	4	4
Scientific & Supervisory	1.5	1.5	1.5	1.5
Support Staff	1	1.5	1.5	1.5
TOTAL	4.5	6.0	7.0	7.0
<u>Person Years</u>				
Senior Staff	2	3	4	4
Scientific & Supervisory	1.5	1.5	1.5	1.5
Support Staff	1	1.5	1.5	1.5
TOTAL	4.5	6.0	7.0	7.0
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Salaries	176,960	176,960	176,960	

Program studies, which build on the data base of the U.N. Food and Agriculture Organization (FAO) and other international and national organizations, center on analyzing historical trends of food production and consumption in developing countries and, based on these trends, projecting food output and requirements of these countries with various time horizons into the future. Based on the characteristics of the developing countries various classifications are used to help diagnose common food problems and identify critical food policy issues which need further research by other IFPRI programs.

Research activities can be grouped into four areas, namely: (a) food gap analysis for developing countries, (b) food production and consumption trends in selected developing countries, (c) food policy research statistics, and (d) collaborative activities with other IFPRI programs and research centers.

Current Progress

The food gap analysis for developing countries consists of on-going studies that were started in late 1979 and 1980. Consultations are made with FAO as program activities relate to the organization's global overview of the world food situation in their project Agriculture: Towards 2000. IFPRI's food gap analysis and projections are confined only to the developing countries. Current efforts involve the analysis of food production and consumption in Third World countries and their projections to the year 2000. Studies cover cereals, root crops, pulses, groundnuts, bananas and plantains, meat, milk, and eggs for more than 100 developing countries, including the People's Republic of China (PRC). The portion of the project for the Sub-Sahara African region has been completed and project activities are underway for Asia, North Africa/Middle East and Latin America.

The work on livestock and poultry products, which extends IFPRI's food gap analysis into commodities of animal origin, was started in 1980. Apart from the projections of output and requirements of livestock and poultry products, this study also attempts to relate their growth in demand with the projected growth of major staple crops, notably cereals, that are utilized for animal feed. Available estimates of input-output coefficients, mostly from Winrock International, the U.S. Department of Agriculture, and the FAO are being sought for the phase of the project dealing with the derived demand for animal feeds.

A continuing effort to improve the data base and the techniques used in the projections of food production and consumption is being undertaken. Revised U.N. population figures as assessed in 1978 and declining income elasticity estimates, as suggested during the 1980 IFPRI Board meeting in India, are employed in the current analysis. A number of approaches are being developed to obtain estimates of food production growth rates which exclude the effects of disturbances caused by wide weather-induced fluctuations in crop output and by cyclical behavior in livestock output, and take into account the impact of technological improvement and other structural changes in food production.

In the area of food production and consumption trends in selected developing countries, a regional focus in the analysis of food trends was started in 1980 in a two-phased study of the food production and consumption situation of the North Africa/Middle East countries, particularly members of the Arab League, many of which are oil-producing countries. The first phase of the study aims to analyze the changes that have occurred in the patterns of food production, consumption and trade in the selected countries as these are affected by rapid changes in income and prices, labor migration and other structural changes in the region. A second phase will then look into the growth potential of and the major constraints facing food and agricultural production in these countries. The study will examine the effects of weather on crop yields and avail of national survey data on consumption expenditures. The large potential for food imports that would be required to fill the expected food deficits of the oil-producing countries and the higher prices that they can afford to pay for their food imports would consequently affect the food situation of lower-income developing countries within and outside the region. The first phase of the study is expected to be completed in late 1981 or early 1982.

Over the years IFPRI has accumulated a considerable amount of food and food policy-related data that include those from FAO, World Bank, USDA and other organizations, and the output of research that has been conducted by the Institute. From this collection, statistics for more than 150 countries, both developed and developing, are being processed and compiled for the "Facts Book" project. The emphasis of the data presentation is on relationships, trends and other indicators that would provide a statistical frame for the development of IFPRI's food policy thrusts. Work to date has been on the organization and tabulation of data for the developing countries, drawing largely from completed studies and the on-going food gap analysis of the Program.

Through the Food Trends Analysis Program, IFPRI has been servicing, on an ad hoc basis, the statistical requests of sister institutes in the CGIAR. Data, either as time series or in processed form, have been furnished CIMMYT, IPC and ICRISAT on the specific commodities they work on.

Plans for 1982-83

Planned activities in the study of food gaps in developing countries include a further expansion of commodity coverage with the analysis of the production and consumption of selected major high-protein feeds, particularly of soybean meal. This extension is aimed to provide better indicators of the growth of consumption of animal feeds and, consequently, of livestock and poultry production. The increasing demand for major staple food crops, especially grains, for use as animal feeds necessarily competes with their demand for direct human consumption by the poorer segment of the population in developing countries.

Upon completion of the projections work on the production and consumption of major staple food crops in developing countries to year 2000, the Food Trends Analysis Program plans to make a closer examination of the trends in food and agricultural production in about 20 developing countries which lead in the output of major staple food crops. Led by China and India, these countries greatly influence the direction of the world's food and agricultural situation. The proposed study would analyze the changes that have occurred in the production of food and nonfood crops of the selected countries, and, hopefully, provide indications of policy changes in resource use among and between food and export crops.

A special effort has been made to sort out the statistical problems in connection with PRC data for food policy research. It is planned to complement the accomplished work on organizing a consistent set of PRC national statistics on food and agriculture with the development of a provincial-level data base. Results of this effort can serve to verify national-level estimates and, at the same time, offer opportunities for the analysis of disaggregated data on China. Current plans also include the commencement of a project investigating the trends in the flows of agricultural output and input among regions and among sectors in China over the course of economic development. The study will focus on the Chinese mainland from the 1920s and 1930s through the present period. (Findings of the study can provide material for a later econometric study by IFPRI that will examine closely the changes in these flows and their implications for food policies in the PRC.)

The Program will participate in a proposed, UNDP-financed, collaborative research activity between IFPRI and the United Nations Research Institute for Science and Development (UNRISD), which would provide an opportunity to undertake in-depth analysis of the trends of food production and consumption in selected developing countries, starting with Nigeria and Brazil. As in the earlier-cited study for the North Africa/Middle East countries, the project would avail of more detailed information from national sources to complement country-level data from FAO and other international organizations.

As opportunities arise, the Food Trends Analysis Program collaborates with other IFPRI programs in the conduct of food policy research. Tentative plans include a joint study with the Food Consumption and Nutrition Program which relates to the optimal utilization of cereals for food and feed. Cereals account for a major portion of food requirements in developing countries, either for direct human intake or indirectly consumed through animal products converted from feedgrains. The proposed study will attempt to obtain indications of the optimal mix between the two forms of consumption from both the nutritional and economic viewpoints. Using mainly FAO data, the study will investigate the inter-related facets of the food-feed balance through regression and correlation analysis. Results of the study can have significant policy implications in meeting the overall food problem in the developing countries.

FOOD PRODUCTION AND DEVELOPMENT STRATEGY PROGRAM

— BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
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Positions

Senior Staff	9	8	9	10
Scientific & Supervisory	1.5	2	3	3.5
Support Staff	1	1.5	2	2.5
TOTAL	11.5	11.5	14	16

Person Years

Senior Staff	9	8	9	10
Scientific & Supervisory	1.5	2	3	3.5
Support Staff	1	1.5	2	2.5
TOTAL	11.5	11.5	14	16

Cost 1982

	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>
Salaries	420,031	473,938	420,031

Research priority and design in the production program are based on three premises: (1) the process of growth must be consciously guided to ensure maximum participation of the poor, (2) the forces governing agricultural growth are complex, interrelating agriculture with other sectors, and (3) technological change is central to the process of acceleration in agricultural production. The program has moved progressively toward empirical research designed to generate conclusive evidence and conceptualize policy issues. Researchers in the production program have been working on 12 functionally interrelated projects. These projects fall under three broad areas: policies focusing on key inputs to accelerate agricultural production; production strategies; and the linkages between agriculture and the rest of the economy in the growth process.

Current Progress

In the area of specific production policies, IFPRI is focusing its research on three inputs: agricultural research, irrigation, and fertilizers. Issues pertaining to institutional requirements and support are treated in their proper context. Price policy as an important supportive measure for the optimal utilization of these inputs is also included under the category of specific production policy.

The gist of the work done so far under the first phase of the ongoing research on fertilizer has been published in the form of a brief commentary in the IFPRI Report, Volume 2, No. 3, September 1980. This work has enabled the concerned researchers to develop a conceptual frame for analyzing the path and the process of growth in fertilizer consumption. The work done under the first phase of the project has brought out a number of important issues concerning the supply of fertilizers for agricultural growth in the developing world. In the second phase of work, which is now under way, the research on fertilizer will examine the complexities of interdependence among the essential elements of the overall process of growth in fertilizer use in developing countries with a view to identify key policy areas and alternative policy instruments. This work will be based on experiences of a few countries for which data are readily available and an in-depth study in Nigeria.

Research on irrigation policy at IFPRI seeks to estimate the impact of investment in irrigation on rice production, prices, and farm income in ASEAN countries and to examine the effectiveness of alternative investment policies. Analysis of irrigation policy has proceeded in two phases. Phase I, which was recently completed, involved the preparation of papers on the status and performance of irrigation in

Indonesia, Malaysia, Philippines, and Thailand. The papers present an overview of historical trends in area, yield, and production of rice, identifying the contribution of irrigation; provide estimates of yield benefit from irrigation; and make projections of irrigated and total rice area, yield, and production over the next decade. The analysis in Phase II, which is under way, includes further studies by researchers in cooperating countries in addition to the research being conducted at IFPRI. Research in the cooperating countries will focus on the effect of irrigation on farm income and the distribution of income among factors of production and on the costs of alternative irrigation systems. Research at IFPRI will analyze the impact of irrigation on production and prices at an extensively disaggregated level. The analysis will also include an examination of trade-offs among irrigation investment and other policy options.

Effective institutions for agricultural research serve as the primary source of new technology. Agricultural growth is likely to falter without a steady flow of tested technology. Unfortunately, developing nations have frequently failed to appreciate this crucial role of agricultural research. A study by Francis S. Idachaba on Agricultural Research Policy in Nigeria (Research Report No. 17, IFPRI, 1980) supports such a conclusion. Conclusions and recommendations presented in this study are considered valid not only for Nigeria but also for many other African countries that will have to remodel their agricultural research priorities to accommodate the attempts being made for a rapid increase in agricultural production. Research effort on agricultural research policies has remained somewhat low during 1980 and 1981. However, IFPRI plans to undertake a substantial increase in its efforts to research on agricultural research as of next year.

IFPRI's research efforts on price and incentive policies have been limited to the context of South and Southeast Asian and West African countries. Research on price policies in IFPRI emphasizes a comprehensive approach to the analysis of price policies. Work continued throughout 1980/81 on a project to examine interactions between technological change in West African agriculture and trade-offs for food and nonfood crops. A first phase of this research dealt with the relation of seed-fertilizer technologies in Mali and Upper Volta to successful introduction of cultivation with oxen, a new activity in most of the Savannah. A preliminary report of this work is currently under editorial revision. A second phase of this project considers the price policy options for accelerating coarse grain production in West Africa. This research will investigate the key complementary policies to permit expansion of aggregate agricultural output in response to incentive stimuli. In the context of Asia, price policies in Southeast Asia are pursued in the collaborative program on Rice Policy. In South Asia, a recently completed study on agricultural price policy in Bangladesh has been reviewed

and is currently being revised for publication. This study shows that formulation of agricultural price policies is an extremely complex task requiring identification and evaluation of the multiple effects of price changes across various production and assumption activities as structured by specific conditions of a given country.

IFPRI's research design of Price and Incentive Policies was developed by Dharm Narain, who brought with him a wealth of experience and knowledge in research, formulation, and operation of price policies in India. The unfortunate and untimely death of Dharm Narain last October deprived IFPRI of a valuable research leadership. Until his death, Dharm was conducting a major analytical work dealing with the relationships between foodgrain prices and rural poverty in India. At present, IFPRI is undertaking an effort to produce a paper piecing together and developing further the theme pursued by Dharm.

2. Searching for scope of strategy adjustment in policies is of crucial importance for many developing countries where the difference among the relative weights of various policy goals are often narrow and the need for appropriate utilization of resources is urgent. A number of research projects in the production program are designed to explore this scope of strategic adjustment in production policies.

Intensive cropping is viewed as one of the ways for increasing agricultural production and farm income in a situation of severe land constraint. IFPRI's initial research effort on multiple cropping was focused on India. In Impact of Irrigation and Labor Availability on Multiple Cropping: A Case Study of India, Research Report 20, the authors examine the factors that contribute to multiple cropping from state to state and in areas within selected states and identify those factors most important for increasing cropping intensity. This study brings out the factors that influence the intensity of cropping in various states of India. The study points out that if India is to reach the target of 4 percent growth in output projected in the Sixth Five Year Plan, cropping intensity must increase rapidly in Indian agriculture.

Allocation of public financial resources is generally used as a strategic instrument to accelerate agricultural growth. IFPRI's research effort in this respect has been limited to only nine Latin American countries. The initial effort was directed to develop homogeneous expenditure series for governments. Therefore, the analytical contents of the research have remained rudimentary. A preliminary paper has been prepared presenting the expenditure series and some related conclusions. Further work on the project is still continuing with the objective of measuring the impact of public resource allocation to agriculture on agricultural productivity.

The conflict between growth and equity in the context of con-

temporary development problems cannot be minimized without systematic study of the issues. IFPRI devoted a modest input to this specific task, and started with the Indian experience to shed some light on this issue.

The strategy adopted in India for increasing agricultural production in the sixties aimed at rapid growth; it was implicitly assumed that distributive justice would follow. But the strategy resulted in widening the interpersonal and interregional disparities in income. Concern for equity and social justice grew, leading to launching of specified equity programs designed to remedy the imbalances. This study probes into the effectiveness of these corrective policies. The study has recently been concluded, and a paper is forthcoming.

There is some evidence to suggest that a rapid growth in agriculture has been associated with an increased variability in agricultural output. If a systematic examination of the evidence indicates that this is in fact the case, then, in the view of the costly nature of schemes designed to neutralize the adverse effects of instability such as buffer stock and crop insurance, it will be useful to explore the possibilities of building the objective of stability into production strategy. Evidence from Indian agriculture is therefore being analyzed to examine the relationship between agricultural growth and stability in production. A draft report on the Indian case has been completed recently.

3. It is strongly believed that agricultural development strategies can indeed have strong growth linkage effects on income and employment in the economy at large. However, the strength of these growth linkages, and their implications for income distribution, is sensitive to the kinds of policies pursued. Therefore, an understanding of the mechanism of linkages and the identification of factors that determine the magnitude of linkage effects are considered essential for formulation of comprehensive production policies. Currently there are three research projects on this topic.

The report resulting from one of these projects, Intersectoral Factor Mobility and Agricultural Growth (Research Report 6) by Yair Mundlak, was published last year by IFPRI. At present, the model developed by Mundlak is being extended to the economy of Argentina. The application of the model to the Argentinian economy is expected to be completed by mid-1981.

The other two projects on growth linkages adopt a microeconomic approach. One of the two is attempting to trace and evaluate the indirect income and employment impact of the new agricultural technology in Punjab State and Arcot District in India. The other project is designed to measure the impact of rural infrastructure on

agricultural productivity, income, and employment in Bangladesh. Field surveys for both projects are ongoing.

Besides the work under the three specific projects mentioned above, an additional effort has been devoted to the analysis of household consumption systems of a few countries. Previous studies indicate that the major source of indirect growth in income and employment resulting from an initial investment in agriculture is the consumption expenditures of households. Therefore, for a better understanding of the linkage process and to measure the linkage effects of household demand structures, household survey data from Nigeria, Malaysia, and India are presently being analyzed.

Plans for 1982-83

Most of the ongoing projects of 1981 will continue in 1982 and some in 1983 as well. Although the specific research activities under most of the projects will be completed during the current year or by the end of 1982, the general lines of research that are represented by these projects will be extended to other countries and regions during 1983 and after.

The study on agricultural research policies will be expanded further in 1982/83. The emphasis will be less on traditional benefit-cost analysis of research and more on resource allocation mechanism for agricultural research, management of research resources, and manpower development for research. Analysis of national research system will be the main focus of such investigation. Similarly the research on fertilizers, irrigation, and price policies will be extended to cover more countries in Asia and Africa. For 1983, it is planned to launch new research projects on agricultural marketing, including marketing of output as well as inputs. The project on public resource allocation to agriculture will be reformulated to cover Asian and African countries and to probe the relation between public resource allocation and private investment in agriculture.

The research work under the projects in the general category of growth linkages will continue throughout 1982 and partly in 1983. The linkage project which adopts a macroeconomic approach in analyzing the growth path of an economy will be extended to cover a number of other countries in Latin America. The proposed work under the other two projects on growth linkages will continue in 1982 and partly in 1983. Extension of this line of research into other countries will be explored at a later date.

FOOD CONSUMPTION AND NUTRITION PROGRAM—BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Senior Staff	5	4	4	4
Scientific & Supervisory	1.5	1.5	1.5	1.5
Support Staff	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
TOTAL	7.5	6.5	6.5	6.5
<u>Person Years</u>				
Senior Staff	5	4	4	4
Scientific & Supervisory	1.5	1.5	1.5	1.5
Support Staff	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
TOTAL	7.5	6.5	6.5	6.5
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Salaries	196,214	196,214	196,214	

The overall objective of the research undertaken by the Food Consumption and Nutrition Program is to contribute to improved knowledge and understanding of how the presence or absence of selected public policy measures affect real incomes, food consumption and nutrition of low income households and individuals for the purpose of assisting in policy formulation and implementation.

Primary emphasis is placed on national policy issues although some research may be undertaken on global issues. Where empirical findings are expected to be highly location specific, attempts are made to select study locations in such a way as to be able to provide knowledge of more general validity. The low income household is the focal point of the research. Thus, the behavior of the low income household, its reaction to selected existing or potential public policy measures, and the impact of such measures on real incomes, food consumption and nutrition of the households and its members are in the core of the research activities.

In order to make the research output more useful for policy making, the impact on other matters, e.g. food production, incomes by the agricultural sector, employment and foreign exchange earnings as well as cost effectiveness may also be estimated if needed to provide a more complete and integrated picture of the trade-offs involved.

Current Progress

Current research focuses on the impact of food price policies and technological change on real incomes, food consumption and nutrition of the poor. In 1980 studies were initiated on food price subsidies in Egypt, the Sudan and Zambia. These are expected to complement work completed in 1979 on public food distribution schemes in India, Bangladesh, and Sri Lanka. The study of food subsidies in Egypt will estimate the impact of subsidies on real income, food consumption and nutrition for various population groups, with emphasis on the poor. Effects on domestic food production, farm sector incomes, and incomes of the rural poor will also be estimated and fiscal and foreign exchange costs considered.

Another study will analyze the recent removal of wheat subsidies in Sudan. Its purpose is to estimate how the removal of the subsidy affected real incomes and food consumption of the poor. A third study has recently been initiated on the food marketing boards and related producer policies in Zambia. As in the previously mentioned studies, the primary purpose of this study is to assess the effects of those

policies on real incomes, food consumption and nutrition among low income households.

An analysis of a food-for-work project in Bangladesh has also been initiated recently to assess changes in employment, income and nutrition brought about by the project.

Research to assess the food consumption and nutrition effects of technological change in agriculture has been initiated. Initially this research will be carried out on the basis of three case studies in Malaysia, Nigeria and India. The research is an element of a broader effort to assist in improving the understanding of how agricultural and rural development projects may be designed to better meet the nutritional requirements of the poor.

Plans for 1982-83

All of the research mentioned above will extend into 1982. While most of the ongoing research is carried out on the basis of individual case studies, efforts will be made to integrate the findings in order to provide knowledge of a more general validity. In particular, efforts will be made to improve current knowledge regarding consumption behavior among the poor and how such behavior is influenced by public policies and agricultural development projects. Subject to the availability of funds, research on the linkages between selected public policies and nutritional status will be initiated in Latin America, possibly Brazil.

FOOD TRADE AND SECURITY PROGRAM — BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Senior Staff	5	4	4	4
Scientific & Supervisory	1.5	1.5	1.5	1.5
Support Staff	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
TOTAL	7.5	6.5	6.5	6.5
<u>Person Years</u>				
Senior Staff	5	4	4	4
Scientific & Supervisory	1.5	1.5	1.5	1.5
Support Staff	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
TOTAL	7.5	6.5	6.5	6.5
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Salaries	292,428	292,428	292,428	

The aim of research conducted in the Food Trade and Security Program is to evaluate the short- and long-run effects of trade and aid policies on food consumption and on the incentives for agricultural production growth in the developing countries. IFPRI's research priorities in trade policy stem from two premises. First, the conditions developing countries face in world markets largely determine the options open to them in formulating their domestic strategies. Second, developing countries' trade policies cannot be separated from their more general food consumption and agricultural production strategies. Thus, the Food Trade and Security Program analyzes national trade policies with special reference to food supply strategies of developing countries, and evaluates possible future international developments and the scope for global cooperation.

Current Progress

International Policy Issues

A pressing issue facing many developing countries today is the choice between the desire to be more self-sufficient and the need to provide adequate and stable food supplies at a relatively low social cost. One external factor influencing the choice is the instability and uncertainty of supplies in world markets.

International initiatives such as financial and world price stabilization schemes reduce the costs to developing countries associated with reducing food insecurity. For example, access to external financial insurance such as that provided by a food financial facility would substantially reduce the need for grain reserves in most developing countries, and thus would provide consequent savings in interest and storage costs.

In order to provide more food security, the performance of the food-trade system needs to be improved in two ways. First, world market prices must be made stabler. Second, there needs to be a system allowing individual developing countries to purchase grain on world markets when their own production is deficient.

Research on international issues in the Food Trade and Security Program has been centered on an assessment of the relative merits of different initiatives, which include a food financial facility, an international wheat agreement, trade reform, and food aid.-

Food Financial Facility

Recently attention has been given to initiatives that address the foreign exchange problem of food-deficit developing countries,

which are derived from the variability of food import costs resulting from unanticipated domestic production shortfalls and fluctuations in world food prices and export revenues. One such initiative is a food financial facility that is designed to protect countries against fluctuations in the cost of food imports by providing foreign exchange in years when food imports exceed the trend. Fluctuations in export revenues and prices of nonfood imports that affect the capacity of developing countries to import food must also be considered.

An ongoing project on the feasibility of financial arrangements for food security is examining the potential benefits, costs, and feasibility of an intergovernmental initiative on a financial facility for food imports.

World Market Instability: Wheat and Rice

Some government policies encourage appropriate investment decisions and reduce uncertainty about agricultural production. Other policies offset these favorable effects by causing investment funds to be misdirected or by increasing market uncertainty. The charge is often made that developed-country policies, by promoting the production of high-cost foodstuffs in industrial countries and exacerbating the instability of world markets, make it difficult for LDCs to evolve their own food policies.

Developed-Country Agricultural Policies and Developing-Country Supplies: The Case of Wheat, Research Report 14, by Timothy Josling, examines the impact of the agricultural price policies pursued by a group of developed countries on the price and availability of wheat sold to developing countries. The study identifies those aspects of these policies that have particular significance for other countries and for food-importing developing countries, and estimates the magnitude of this impact in recent years. It argues that domestic policies designed to protect consumers and producers in developed countries shift the burden of short-run adjustments in the world market to the poor in other countries. In general, whenever stock adjustments do not equal the suppressed change in production and consumption, the country concerned exacerbates international market instability. The group of developed countries selected for the study were those likely to have the most influence on the world grain trade: Australia, Canada, the European Community, Japan, the United States, and the Soviet Union.

In The Economics of the International Stockholding of Wheat, Research Report 18, by Daniel T. Morrow, the behavior of the world wheat economy since 1960 is examined, and predictions for stockholding in the near future are drawn from this analysis. The pros, cons, and possible parameters of an international stockholding agreement are also considered. But even if a new Wheat Trade Convention were to succeed in reducing world price instability, it would not eliminate

the need to cope with a highly unstable food import bill. A country's production fluctuations have a major influence on the variability in its food import bill. Thus, a financial facility to help developing countries finance food imports when requirements are unusually high appears to be necessary.

Another research project completed during 1980, Estimates of Soviet Grain Imports in 1980-85: Alternative Approaches, Research Report 22, by Padma Desai, indicates that Soviet wheat imports may average from 15.4 - 17.7 million metric tons annually in the 1980-85 period. Because these imports can severely affect world supply, they must be planned for if Third World countries that need to import grain are not to suffer.

Research on pertinent issues points out vast differences between the world rice market and the wheat market. Countries that are major rice consumers, located almost entirely in monsoon Asia, are also the major producers. Consequently, very little rice is traded between countries (about five percent of production). At least until 1975, few importing countries stored rice extensively; most relied instead on import adjustments. Exporting countries, including the United States, also store small quantities of rice (eight percent of total production compared to 16 percent for wheat). All these factors combine for greater price instability in the world rice market than in the wheat market. The direction of trade in the rice market is also unstable. Countries abruptly enter and leave the world rice market. Moreover, since there is no central market or central exchange for rice, it is much more difficult for countries to participate in the world rice trade than in the wheat trade. Current research is trying to trace the source of the instability adjustment mechanisms in this market and to define ways of coping with that instability.

Trade Reform

Research in the Trade Program during 1980 was also concerned with the agricultural export potential of trade liberalization in the OECD countries. Agricultural Protection in OECD Countries: Its Cost to Less-Developed Countries, Research Report 21, by Alberto Valdés and Joachim Zietz, assesses the export earnings and real income gains of developing countries if trade barriers for 99 agricultural commodities were reduced by 50 percent. This would result in an increase in export revenues of approximately \$3 billion a year (in 1977 prices), and an increase in real income of approximately \$1 billion a year for the 56 developing countries analyzed in the study. Of the commodities analyzed, raw sugar, refined sugar, and beef and veal would net the greatest gains for the exporters. The large export-oriented developing countries such as Brazil and Argentina would benefit the most from such liberalization. However, middle-income countries and a number of low-income developing countries would also benefit.

Food Aid

During the past two decades the absolute level of food aid has declined only slightly. However, because developing countries are now importing substantially more grain on a commercial basis, food aid has dropped sharply as a proportion of total cereal imports. Further, there has been a striking shift in the country's distribution of food aid flows. IFPRI's current research on food aid attempts to look behind these trends to assess the probable roles of commercial imports and food aid for meeting effective demand in developing countries during the coming decade.

The work of the Food Trade and Security Program on food aid issues also included research on food aid entitlements and national self-reliance for the World Food Council.

Developing Country Trade Policy Issues

Ultimately the purpose of food policy is to provide adequate and stable food supplies at minimum social cost. Food consumption policy in developing countries is generally constrained by trade and the balance of payments, and is inextricably related to food import policies. Furthermore, trade and exchange rate policies can greatly influence prices and incentives in the long run. Food consumption, income distribution, and investment in agricultural protection are all affected by these policies. Often policies that are not explicitly directed at either food consumption or production have substantial, sometimes unintended, impacts on them. In many developing countries, the role of the agricultural sector is so large that repercussions for the general economy must be considered in analyzing any food policy. Thus, a comprehensive economic approach is necessary. In most developing countries where agriculture represents a large share of the national economy, the food and nonfood markets are closely interconnected. Because of this interdependence, policy interventions outside agriculture will be transmitted to agriculture and vice versa. This viewpoint is relatively unexplored, and major research gaps exist. The studies on the Sahel, Egypt, and Colombia provide a framework for further studies using this approach to food policy analysis.

Food Security and Self-Sufficiency

Work in the Food Trade and Security Program continued on approaches for short-run food supply management for food security in the Sahel, and began on cereal import management in Egypt. This Sahel work was undertaken in an attempt to identify means of attaining food security in the region. Findings suggest that storing grain reserve supplies would probably be much more expensive than a food insurance or compensatory financing facility. Also, unless the region is completely isolated from world trade, regional grain reserves would probably be more expensive than grain reserves in

individual countries. The Egyptian project is examining the impact domestic consumption and production of policies on wheat imports. Because wheat imports represent a substantial proportion of total import expenditures, this study emphasizes the overall balance-of-payment adjustment problem, in which food and nonfood imports and adjustments in reserve holdings compete for foreign exchange. Tentative results suggest that although the amount of commercial wheat imported depends on its foreign exchange position, Egypt tends to reduce nonfood imports in order to maintain wheat imports during periods of reduced foreign exchange supplies.

Trade Policies and Agricultural Incentives

A special project on the impact of exchange rate and commercial policy on incentives to agriculture in Colombia from 1953 to 1975 was completed in 1980. This study shows how the allocation of resources between exports and imports not only results from the tariffs or subsidies specific to each of those activities, but it also depends on prices in other activities. The analysis indicates that import duties on manufactured goods are equivalent to export taxes on agricultural exports. The study concludes that the production of cotton, tobacco, bananas, coffee, and flowers, among others (products for which Colombia has substantial comparative advantages), was largely discouraged. On the other hand, food products such as milk, wheat, vegetable oil, and sugar received relatively high protection during the 1950s and 1960s. There was a considerable reduction in protection to food products in general during the 1970s. In the 1970s, the group consisting of sugar, barley, and rice showed negative nominal rates of protection, in some cases reaching 50 percent. Milk, wheat, corn, and vegetable oils continued to receive positive protection in the 1970s but at lower rates, ranging between 25 and 50 percent. As an indirect effect and perhaps unintentionally, a third group of nontraded food commodities, cassava, potatoes, plantains, and other root products, was granted protection.

Plans for 1982-83

Apart from follow-up work in the area of international approaches to food security described above, additional emphasis will be given to national trade and food supply strategies in LDCs. This area is organized around two themes. One, on Food Import Policy, analyzes the interaction between domestic food consumption policies, the government budget, and the external variables in selected food-deficit countries. The second examines the long-term incidence of general economic policies, particularly of trade and exchange rate policies, on production incentives and growth in agriculture, with emphasis on the trade-offs between export crops and food production, in a macroeconomic setting.

7. COLLABORATIVE RESEARCH

BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Senior Staff	1	1	1	1
Scientific & Supervisory	0	0	0	0
Support Staff	0	0	0	0
TOTAL	1	1	1	1
<u>Person Years</u>				
Senior Staff	1	1	1	1
Scientific & Supervisory	0	0	0	0
Support Staff	0	0	0	0
TOTAL	1	1	1	1
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Salaries	30,000	30,000	30,000	

RICE POLICIES IN SOUTHEAST ASIA

Objective

The Rice Policy Project is a joint effort by IFPRI, the International Fertilizer Development Center (IFDC), and the International Rice Research Institute (IRRI) to understand the various facets of government policies that impinge on rice, the most important commodity in the four Southeast Asian countries (Indonesia, Malaysia, the Philippines, and Thailand), which form (with Singapore) the Association of Southeast Asian Nations (ASEAN). The cost and benefits of these policies, their impact on the level and variability of rice production and consumption, and the relationship of rice and rice policies to the rest of the economy will be the subjects of the studies being undertaken as part of the project. The project has the important objective of bringing together the existing researchers in the region in this field into a cooperative network. The main emphasis of the project is to build up the analytical framework and research methods through a collaborative effort between regional researchers and researchers at the three international centers. The adaptation of the results for actual applications and policy implementation in any particular country will be the task of that country's own researchers.

Within IFPRI, the project is a joint activity involving three of its four programs: production (relating to irrigation aspects), consumption, and trade (relating to trade and buffer stocks).

Phase 1: Laying the Groundwork

The first phase of the project (January 1979 to June 1980) has involved surveying the existing state of knowledge in the four areas of specific concern in the project: trade and reserve stocks, fertilizers, irrigation, and consumption in order to make projections about future developments through the years 1990 and 2000 and to improve understanding of current national rice policies, their objectives and results. These papers, together with those to be written on rice consumption in each of the four countries, will be published in the middle of 1980.

The data generated from this exercise are not only of interest in themselves, but also are being utilized to put together estimates of the future trends of the rice economy in the study countries through 1990, assuming present policy trends. Such estimates form an essential backdrop to any discussion of changes in rice policies in these countries.

Concurrently with the above work, the burden of which has fallen largely on the national researchers, work is also being carried out at IFPRI in an attempt to understand how the international rice market functions in the light of the various domestic policies followed by the individual governments. This work is complementary to the work on reserve stocks being done by the national researchers, as reliance on imports and reliance on stocks are to a large extent substitutes.

Last, and perhaps most important, the formative steps taken in Phase I have enabled the project to assemble in the region a corps of researchers keenly interested in the various facets of rice policies and aware of the intensive work that needs to be done to come to grips with many of the issues.

Phase II: In-Depth Analyses

The final objective of this project is the design and evaluation of precise and specific policies pertaining to rice, which will require examining many such policies in depth and drawing out their implications to the extent possible. Each major facet of national rice policy will therefore be the subject of a full-scale research effort to involve primarily one or more researchers from the region with personnel from the Institute providing some input to ensure cross-national comparability. The choice of specific policies to be covered by the studies was the subject of discussion by the researchers at a September 1979 meeting at IFPRI.

The discussions at this meeting, and also consultations with the project collaborators in the region led us to conclude that there are two or three possible topics of research. In the area of fertilizers, there will be an examination of the marketing and pricing policies followed by the governments. In the area of irrigation, the study will examine the impact of irrigation on the factor prices (particularly for land and labor) and therefore on income distribution in all the four countries. The consumption component of the project will take up the issue of how far rice prices affect money wage rates, the hypothesis being that the impact of rice prices on consumption cannot be analyzed by assuming money wages constant as is implicitly done in most instances. These various in-depth studies and their methodologies will be the subject of a further workshop to be held in Southeast Asia in October 1981 at a site yet to be selected. Work on these projects is expected to continue until the end of 1981.

These policies are necessarily specific and discrete in view of the piecemeal nature of many government policies throughout the world. The studies on the individual policies reflect this. To stop at this point, however, runs the danger of replicating the lack of coherence of current policies. The project will be fully effective only if it is possible to array alternative policy approaches meaningfully and compare their efficiencies in attaining predefined

production, consumption, or trade targets. To attain this end, work has to be done on a common framework of cost and benefit accounting to guide the individual studies. This part of the work will be undertaken at IFPRI. A prototype model will be discussed with other researchers on the project in the October 1981 workshop. The full-scale research on this will then be initiated and is expected to be completed in 1981.

8. DIRECTOR'S OFFICE

BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Senior Staff	3	3	3	3
Scientific & Supervisory	0	0	0	0
Support Staff	3	3	3	3
TOTAL	6	6	6	6
<u>Person Years</u>				
Senior Staff	3	3	3	3
Scientific & Supervisory	0	0	0	0
Support Staff	3	3	3	3
TOTAL	6	6	6	6
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Salaries*	286,796	286,796	286,796	

*Includes Finance and Office Management.

The Director's Office provides both leadership and direction for the Institute's research and administration. In addition to the Director, the office is staffed with two senior staff members: a Deputy Director and an Associate Director for Research Support Activities.

The office of the Director is also responsible for the implementation of the Board's policies and direction, including the planning of board meetings. Beginning in 1979, IFPRI has instituted the practice of holding one of its two annual board meetings outside of Washington. Since then, board meetings were held in Italy, India, and Nigeria. The 1982 meeting will be held in Brazil.

9. RESEARCH SUPPORT ACTIVITIES

Since its inception, the primary goal of IFPRI's leadership has been to assemble a first-class senior research staff, and to develop a critical mass for inter-disciplinary analysis. The bulk of IFPRI's resources have been directed to this priority.

As the core research team was built up and research productivity has increased, IFPRI has turned its attention to strengthening its support services. As a first step in this direction, support activities have now been consolidated in one administrative unit that includes communications services, computer services, the library, personnel and office management, and finance and accounting.

COMMUNICATIONS SERVICES — BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Scientific & Supervisory	4	3	4	4
Support Staff	4	4	6	6
TOTAL	8	7	10	10
<u>Person Years</u>				
Scientific & Supervisory	4	3	4	4
Support Staff	4	4	6	6
TOTAL	8	7	10	10
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Workshops & Seminars	2,000	2,000	2,000	
Publications	162,000	162,000	162,000	
Sub-total	164,000	164,000	164,000	
Salaries	171,790	171,790	171,790	
TOTAL	335,790	335,790	335,790	

The primary concern of Communications Services is the dissemination of IFPRI research results to its users. During the last year this has been undertaken primarily through publications and to a lesser extent through seminars.

Communications Services provides for the preparation and distribution of all IFPRI publications, which include research reports, policy abstracts of the reports, a newsletter, and an annual report. At this time IFPRI sends its publications to about 4,600 individuals, government officials, members of national research agencies, institutional and educational libraries, and international organizations concerned with food and agricultural development.

Research results are reported in detail in IFPRI's Research Report series and mailed to individuals and organizations upon request. Highlights of the reports and their policy implications are discussed in less technical language in issues of IFPRI Abstract, a four-page publication initiated in 1980.

IFPRI publishes a four-page newsletter, IFPRI Report, three times a year. Newsletters present major issues related to food policy and describe specific research interests and results. Each IFPRI Report contains a commentary dealing with a food policy issue and written by a member(s) of the senior research staff. The newsletters report on completed and soon-to-be completed research. IFPRI Abstract is received by most of the 4,600 people and institutions on the mailing list; IFPRI Report is received by all.

Ongoing research is summarized each year in an annual report. The 1980 and all future annual reports will include a statement by the director identifying food policy trends and their implications generally for people in the Third World and specifically for IFPRI's research program.

The Institute's work is also disseminated in a less formal manner through seminars. IFPRI provides a forum in which invited representatives from institutions or governments concerned with food policy issues meet with IFPRI staff to share their knowledge on food-related topics.

Current Progress

During 1980 and thus far in 1981 IFPRI published an Annual Report, three issues of IFPRI Report, six issues of IFPRI Abstract, and the following:

Research Reports

No. 14 - Developed-Country Agricultural Policies and Developing-Country Supplies: The Case of Wheat, March 1980, by Timothy Josling

- No. 15 - Food Production in the People's Republic of China, June 1980, by Anthony M. Tang and Bruce Stone
- No. 16 - A Review of Chinese Agricultural Statistics, 1949-79, July 1980, by Bruce Stone
- No. 17 - Agricultural Research Policy in Nigeria, August 1980, by Francis Sulemanu Idachaba
- No. 18 - The Economics of the International Stockholding of Wheat, September 1980, by Daniel T. Morrow
- No. 19 - A Comparative Study of FAO and USDA Data on Production, Area, and Trade of Major Food Staples, October 1980, by Leonardo A. Paulino and Shen Sheng Tseng
- No. 20 - Impact of Irrigation and Labor Availability on Multiple Cropping: A Case Study of India, November 1980, by Dharm Narain and Shyama Roy.
- No. 21 - Agricultural Protection in OECD Countries: Its Cost to Less-Developed Countries, December 1980, by Alberto Valdes and Joachim Zietz
- No. 22 - Estimates of Soviet Grain Imports in 1980-85: Alternative Approaches, February 1981, by Padma Desai

Reprints

Hazell, Peter B. (With Clive L. G. Bell) "Measuring the Indirect Effects of an Agricultural Investment Project on Its Surrounding Region." American Journal of Agricultural Economics 62 (February 1980): 75-86.

Mellor, John W. "Food Aid and Nutrition." American Journal of Agricultural Economics 62 (December 1980): 979-983.

Sarma, J. S. "Data Systems for Rural Development." Agricultural Situation in India 35 (June 1980): 171-178.

Siamwalla, Ammar. (With Alberto Valdes) "Food Insecurity in Developing Countries." Food Policy 5 (November 1980): 258-272.

To ensure that these publications are disseminated to the appropriate users, IFPRI's mailing list has been undergoing an extensive editing and expansion process. It is expected that it will include some 5,000 entries by the end of 1981.

Fifteen seminars were held in 1980 and five thus far in 1981. In 1980 IFPRI initiated a policy to hold all Board of Trustees meetings for program review in Third World countries. This provides the opportunity for dialogue with policymakers of the country and IFPRI Board and staff members to discuss the particular food problems of the country or region. The first such meeting was held in India in February 1980. The second was held in Nigeria in February 1981. Following the formal Board meeting preliminary papers on the food situation in Sub-Saharan Africa were presented by IFPRI staff and discussed with Nigerian researchers. IFPRI plans to make these preliminary papers available for limited distribution in 1981.

Plans for 1982-83

During 1982 Communications Services will publish and disseminate eight research reports, accompanied by eight issues of IFPRI Abstract, three issues of IFPRI Report, and one annual report. Translating IFPRI Abstract and IFPRI Report into Spanish and French is being considered for 1982. These translations would be made available to those on IFPRI's mailing list in Spanish and French speaking countries.

In 1983 IFPRI plans to publish and distribute eight Research Reports, eight issues of IFPRI Abstract, three issues of IFPRI Report, and an Annual Report. It is expected that issues of IFPRI Abstract and IFPRI Report will be published in Spanish and French as well as English. Appropriate journal articles by IFPRI staff will be reprinted for limited distribution.

IFPRI plans to increase the number of conferences, seminars, and workshops it will organize and conduct either at IFPRI headquarters or at outside locations.

COMPUTER SERVICES - BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Scientific & Supervisory	2	3	3	3
Support Staff	0	0	0	0
TOTAL	2	3	3	3
<u>Person Years</u>				
Scientific & Supervisory	2	3	3	3
Support Staff	0	0	0	0
TOTAL	2	3	3	3
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Cost	125,000	150,000	125,000	
Salaries	138,595	138,595	138,595	
TOTAL	263,595	288,595	263,595	

The Computer Services Department is responsible for providing statistical data to IFPRI research personnel for purposes of analysis and publication. IFPRI's raw source data is obtained from organizations such as FAO, the U.S. Department of Commerce and Agriculture, the World Bank, and other regional and national organizations dealing with food and related topics. New data files are normally acquired in the form of information encoded on magnetic tapes which are first converted to a format compatible with the computer facilities used by IFPRI, then documented and integrated into the IFPRI data library for general use. It is also anticipated that as many as four new sets of original data will be required by researchers. This data is a result of research done in Nigeria, Bangladesh, Egypt and Zambia.

Information processing, storage, and retrieval are performed on two computer systems made available for IFPRI use on a contractual basis; they are a DEC-10 system operated by The Brookings Institution and an IBM Model 370/158 operated by the Dial-Tyme Company. Both systems provide satisfactory information storage and retrieval software, and both offer the use of several standard packages of statistical analysis programs. In addition, the Computer Services Department maintains a library of approximately 100 programs developed by IFPRI personnel which perform many of the routine data processing tasks commonly requested by the research staff.

A study is currently being undertaken by the Computer Services Department to determine the feasibility of acquiring a small computer to be used for most or all of the statistical analysis work now being performed at Brookings and Dial-Tyme. The results and recommendations of this study should be available by mid-1981.

Services are provided by a Coordinator of Computer Services, one part-time senior programmer, and one full-time junior programmer. It is anticipated that one full-time programmer will be added in 1982.

LIBRARY - BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Scientific & Supervisory	1	1	1	1
Support Staff	1	1	1	1
TOTAL	2	2	2	2
<u>Person Years</u>				
Scientific & Supervisory	1	1	1	1
Support Staff	.5	.5	.5	.5
TOTAL	1.5	1.5	1.5	1.5
<u>Cost 1982</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Library	10,000	10,000	10,000	
Salaries*				

*Included in the total Communications Services budget.

The mission of the IFPRI library is to provide information pertinent to the research mandate of the Institute. This is accomplished through five main channels: interlibrary loan, collection building, current awareness service, reference service, and maintenance of an up-to-date collection of materials in the field of agricultural economics.

At present the library contains data sources in the form of 1800 research reports, 1400 monographs, and 160 periodical subscriptions. The collection has grown by approximately 1500 items over the past 2½ years.

Plans for 1983

Future projects for the library include computerizing the card catalog and enlarging the exchange program. When the funds become available, the library's shelf list will be put into a computer data base and a book catalog will be generated from it every two months.

PERSONNEL & OFFICE MANAGEMENT - BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Scientific & Supervisory	1	1	1	1
Support Staff	3	3	3	3
TOTAL	4	4	4	4
<u>Person Years</u>				
Scientific & Supervisory	1	1	1	1
Support Staff	.5	2.5	2.5	2.5
TOTAL	1.5	3.5	3.5	3.5
<u>Cost 1982*</u>				
	<u>Approved 1981</u>	<u>Proposed 82 Budget Ceiling</u>	<u>Proposed 82 Fallback</u>	
Space Rental	174,000	174,000	174,000	
Supplies	16,000	16,000	16,000	
Telephone/ Telegraph	36,000	36,000	36,000	
Insurance	5,000	5,000	5,000	
Repairs/ Maintenance	4,000	4,000	4,000	
Reproduction	20,000	20,000	20,000	
Miscellaneous Expenses	<u>5,000</u>	<u>4,173</u>	<u>4,714</u>	
TOTAL	260,000	259,178	259,714	

*Salaries for this area are included in the Director's Office Budget.

On July 1, 1980, we leased for five years (at \$14/sf) 3,325 square feet of office space in Suite 480 and moved there Administrative Services, including Communications/Publications, and Computer Services. The Distribution/Consumption Program moved from the 8th Floor into the Suite 400 space formerly occupied by Administration. Suite 400 was painted and recarpeted in December so that all 4th Floor space now occupied by IFPRI is consistently decorated. Suite 430, consisting of 1,468 square feet, was leased for a period of five years (at \$14/sf) on September 1, 1980.

FINANCE AND ACCOUNTING BUDGET SUMMARY

Category	Actual 1979	Actual 1980	Budgeted 1981	Budgeted 1982
<u>Positions</u>				
Scientific & Supervisory	1	1	1	1
Support Staff	1	1	.5	.5
TOTAL	2	2	1.5	1.5
<u>Person Years</u>				
Scientific & Supervisory	0	0	1	1
Support Staff	1.5	1.5	1.5	1.5
TOTAL	1.5	1.5	2.5	2.5

*Salaries are included in the Director's Office Budget

In the finance and accounting area a part-time Financial Officer was hired, in addition to an Accounting clerk. Most of the accounting work was previously done by an outside auditing agency and a payroll service. A major portion of the work previously performed by the auditing firm is being done internally.

Since IFPRI is increasing the size and scope of its special funding projects, contract administration and negotiation tasks are performed within the accounting area. In addition, investment policies for the Institute, based on guidelines established by the Board, are also handled by the finance office.

10. APPENDIX: FINANCIAL TABLES

TABLE I
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
Approved 1981 Budget
Base

<u>Categories</u>		
<u>Salaries</u>		
Administrative	\$286,976	
Researchers	925,765	
Research Assistants & Statistical Services	206,407	
Research Secretaries	92,056	
Communications	<u>171,790</u>	
		\$1,682,994
Consultants/Collaborative Research		55,000
Benefits		346,006
Relocation & Home Leave		105,000
Employee Travel		130,000
<u>Communications</u>		
Workshops & Seminars	2,000	
Library	10,000	
Publications	<u>162,000</u>	
		174,000
<u>Computer</u>		125,000
<u>Administration</u>		
Trustees	65,000	
Professional Fees	25,000	
Payroll	<u>2,000</u>	
		92,000
<u>Capital Expenditures</u>		
Equipment	5,000	
Furnishings	15,000	
Leasehold Improvements	<u>10,000</u>	
		30,000
<u>Office Operations</u>		
Space Rental	174,000	
Supplies	16,000	
Communications (Telephone/Telex)	36,000	
Insurance	5,000	
Repairs, Maintenance & Rental	4,000	
Reproduction	20,000	
Miscellaneous Expenses	<u>5,000</u>	
		260,000
Total		<u>3,000,000</u>
Inflation		-0-
TOTAL		<u><u>\$3,000,000</u></u>

TABLE II
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
Proposed 1982 Budget
In 1981 Dollars

<u>Categories</u>	<u>Proposed 1982</u>
<u>Salaries</u>	
Administrative	\$286,976
Researchers	966,530
Research Assistants & Statistical Services	215,407
Research Secretaries	96,198
Communications	171,790
	<hr/>
	\$1,736,901
Consultants/Collaborative Research	55,000
Benefits	357,089
Relocation & Home Leave	105,000
Employee Travel	167,590
<u>Communications</u>	
Workshops & Seminars	2,000
Library	10,000
Publications	162,000
	<hr/>
	174,000
<u>Computer</u>	157,777
<u>Administration</u>	
Trustees	100,000
Professional Fees	25,000
Payroll	3,000
	<hr/>
	128,000
<u>Capital Expenditures</u>	
Equipment	5,000
Furnishings	15,000
Leasehold Improvements	10,000
	<hr/>
	30,000
<u>Office Operations</u>	
Space Rental	174,000
Supplies	16,000
Communications (Telephone/Telex)	36,000
Insurance	5,000
Repairs, Maintenance & Rental	4,000
Reproduction	20,000
Miscellaneous Expenses	4,178
	<hr/>
	259,178
Total	<hr/>
	3,170,535
Inflation 12%	<hr/>
	380,465
TOTAL	<hr/>
	\$3,551,000

TABLE III
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
Proposed 1982 Budget
In 1982 Dollars

<u>Categories</u>	<u>Proposed 1982</u>
<u>Salaries</u>	
Administrative	\$ 321,413
Researchers	1,082,514
Research Assistants & Statistical Services	241,256
Research Secretaries	107,742
Communications	192,404
	<hr/>
	\$1,945,329
Consultants/Collaborative Research	61,600
Benefits	399,940
Relocation & Home Leave	117,600
Employee Travel	187,701
<u>Communications</u>	
Workshops & Seminars	2,240
Library	11,200
Publications	181,440
	<hr/>
	194,880
<u>Computer</u>	176,710
<u>Administration</u>	
Trustees	112,000
Professional Fees	28,000
Payroll	3,360
	<hr/>
	143,360
<u>Capital Expenditures</u>	
Equipment	5,600
Furnishings	16,800
Leasehold Improvements	11,200
	<hr/>
	33,600
<u>Office Operations</u>	
Space Rental	194,880
Supplies	17,920
Communications (Telephone/Telex)	40,320
Insurance	5,600
Repairs, Maintenance & Rental	4,480
Reproduction	22,400
Miscellaneous Expenses	4,680
	<hr/>
	290,280
TOTAL	<u>\$3,551,000</u>

TABLE IV
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
Proposed 1982 Budget
Fallback Position
In 1981 Dollars

<u>Categories</u>	<u>Proposed 1982</u>
<u>Salaries</u>	
Administrative	\$286,976
Researchers	925,765
Research Assistants & Statistical Services	206,407
Research Secretaries	92,056
Communications	171,790
	<hr/>
	\$1,682,994
Consultants/Collaborative Research	45,000
Benefits	346,006
Relocation & Home Leave	105,000
Employee Travel	85,000
<u>Communications</u>	
Workshops & Seminars	2,000
Library	10,000
Publications	162,000
	<hr/>
	174,000
<u>Computer</u>	125,000
<u>Administration</u>	
Trustees	65,000
Professional Fees	25,000
Payroll	3,000
	<hr/>
	93,000
<u>Capital Expenditures</u>	
Equipment	5,000
Furnishings	15,000
Leasehold Improvements	-0-
	<hr/>
	20,000
<u>Office Operations</u>	
Space Rental	174,000
Supplies	16,000
Communications (Telephone/Telex)	36,000
Insurance	5,000
Repairs, Maintenance & Rental	4,000
Reproduction	20,000
Miscellaneous Expenses	4,714
	<hr/>
	259,714
Total	<hr/>
	2,935,714
Inflation 12%	<hr/>
	352,286
TOTAL	<hr/>
	<u>\$3,288,000</u>

TABLE V
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
Proposed 1982 Budget
Fallback Position
In 1982 Dollars

<u>Categories</u>	<u>Proposed 1982</u>
<u>Salaries</u>	
Administrative	\$ 321,413
Researchers	1,036,857
Research Assistants & Statistical Services	231,176
Research Secretaries	103,103
Communications	192,404
	<hr/>
	\$1,884,953
Consultants/Collaborative Research	50,400
Benefits	387,527
Relocation & Home Leave	117,600
Employee Travel	95,200
<u>Communications</u>	
Workshops & Seminars	2,240
Library	11,200
Publications	181,440
	<hr/>
	194,880
<u>Computer</u>	140,000
<u>Administration</u>	
Trustees	72,800
Professional Fees	28,000
Payroll	3,360
	<hr/>
	104,160
<u>Capital Expenditures</u>	
Equipment	5,600
Furnishings	16,800
Leasehold Improvements	-0-
	<hr/>
	22,400
<u>Office Operations</u>	
Space Rental	194,880
Supplies	17,920
Communications (Telephone/Telex)	40,320
Insurance	5,600
Repairs, Maintenance & Rental	4,480
Reproduction	22,400
Miscellaneous Expenses	5,280
	<hr/>
	290,990
TOTAL	<u>\$3,288,000</u>

TABLE VI

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

1981 Approved Budget
(Prepared at the CG Request)

Dir. Office	P R O G R A M S				R E S E A R C H S U P P O R T A C T I V I T I E S				TOTAL	
	Trends	Prod.	Consump.	Trade	Comm/Lib	Computer	Person.	Finance		
Salaries:										
Staff	\$286,976	\$176,960	\$420,031	\$196,214	\$292,428	\$171,790	\$138,595	Inc. in Dir. Off.	\$1,682,994	
Consult/Coll.										
Research	55,000	-	-	-	-	-	-	-	55,000	
Benefits	58,999	36,381	86,354	40,340	60,120	35,318	28,494	-	346,006	
Relocation/ Home Leave	-	18,000	43,000	26,000	18,000	-	-	-	105,000	
Travel	11,308	22,608	50,868	22,608	22,608	-	-	-	130,000	
Communications:										
Seminars	2,000	-	-	-	-	-	-	-	2,000	
Library	-	-	-	-	-	10,000	-	-	10,000	
Publications	-	-	-	-	-	162,000	-	-	162,000	
Computer	10,870	21,740	48,910	21,740	21,740	-	-	-	125,000	
Administration:										
Trustees	65,000	-	-	-	-	-	-	-	65,000	
Prof. Fees	25,000	-	-	-	-	-	-	-	25,000	
Payroll	-	-	-	-	-	-	-	2,000	2,000	
Capital Expen:	30,000	-	-	-	-	-	-	-	30,000	
Office Oper:										
Space Rental	17,544	20,468	38,012	19,006	19,006	35,008	8,772	11,798	4,386	174,000
Supplies	1,610	1,883	3,497	1,748	1,748	3,228	807	1,076	403	16,000
Tel/Tel	3,631	4,235	7,865	3,933	3,933	7,260	1,815	2,420	908	36,000
Insurance	-	-	-	-	-	-	-	2,500	2,500	5,000
Rep/Maint/Rent	-	-	-	-	-	-	-	4,000	-	4,000
Reproduction	2,024	2,352	4,368	2,184	2,184	4,032	1,008	1,344	504	20,000
Miscellaneous	-	-	-	-	-	-	-	5,000	-	5,000
	<u>\$569,962</u>	<u>\$304,627</u>	<u>\$702,905</u>	<u>\$333,773</u>	<u>\$441,767</u>	<u>\$428,636</u>	<u>\$179,491</u>	<u>\$28,138</u>	<u>\$10,701</u>	<u>\$3,000,000</u>

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

1982 CG Budget Ceiling
(Prepared at the CG Request)
in 1981 Dollars

	Dir. Office	P R O G R A M S				RESEARCH SUPPORT ACTIVITIES				TOTAL
		Trends	Prod.	Comsump.	Trade	Comm/Lib	Computer	Person.	Finance	
Salaries:										
Staff	\$286,976	\$176,960	\$473,938	\$196,214	\$292,428	\$171,790	\$138,595	Inc. in Dir. Off.		\$1,736,901
Consult/Coll.										
Research	55,000	-	-	-	-	-	-	-	-	55,000
Benefits	58,999	36,381	97,437	40,340	60,120	35,318	28,494	-	-	357,089
Relocation/ Home Leave	5,000	10,000	35,000	20,000	35,000	-	-	-	-	105,000
Travel	13,924	27,824	70,194	27,824	27,824	-	-	-	-	167,590
Communications:										
Seminars	2,000	-	-	-	-	-	-	-	-	2,000
Library	-	-	-	-	-	10,000	-	-	-	10,000
Publications	-	-	-	-	-	162,000	-	-	-	162,000
Computer	13,934	28,752	64,913	21,426	28,752	-	-	-	-	157,777
Administration:										
Trustees	100,000	-	-	-	-	-	-	-	-	100,000
Prof. Fees	25,000	-	-	-	-	-	-	-	-	25,000
Payroll	-	-	-	-	-	-	-	-	3,000	3,000
Capital Expen:	30,000	-	-	-	-	-	-	-	-	30,000
Office Oper:										
Space Rental	17,544	20,468	38,012	19,006	19,006	35,008	8,772	11,798	4,386	174,000
Supplies	1,610	1,883	3,497	1,748	1,748	3,228	807	1,076	403	16,000
Tel/Tel	3,631	4,235	7,865	3,933	3,933	7,260	1,815	2,420	908	36,000
Insurance	-	-	-	-	-	-	-	2,500	2,500	5,000
Rep/Maint/Rent	-	-	-	-	-	-	-	4,000	-	4,000
Reproduction	2,024	2,352	4,368	2,184	2,184	4,032	1,008	1,344	504	20,000
Miscellaneous	-	-	-	-	-	-	-	4,178	-	4,178
	\$615,642	\$308,855	\$795,224	\$332,675	\$470,995	\$428,636	\$179,491	\$27,316	\$11,701	\$3,170,535
									12% Inflation	380,465
										\$3,551,000

TABLE VIII

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

1982 Fallback
(Prepared at the CG Request)
in 1981 Dollars

Dir. Office	P R O G R A M S					R E S E A R C H S U P P O R T A C T I V I T I E S				TOTAL
	Trends	Prod.	Comsump.	Trade	Comm/Lib	Computer	Person.	Finance		
Salaries:										
Staff	\$286,976	\$176,960	\$420,031	\$196,214	\$292,428	\$171,790	\$138,595	Inc. in Dir. Off.		\$1,682,994
Consult/Coll.										
Research	45,000	-	-	-	-	-	-	-	-	45,000
Benefits	58,999	36,381	86,354	40,340	60,120	35,318	28,494	-	-	346,006
Relocation/ Home Leave	5,000	10,000	35,000	20,000	35,000	-	-	-	-	105,000
Travel	7,405	14,780	33,255	14,780	14,780	-	-	-	-	85,000
Communications:										
Seminars	2,000	-	-	-	-	-	-	-	-	2,000
Library	-	-	-	-	-	10,000	-	-	-	10,000
Publications	-	-	-	-	-	162,000	-	-	-	162,000
Computer	10,870	21,740	48,910	21,740	21,740	-	-	-	-	125,000
Administration:										
Trustees	65,000	-	-	-	-	-	-	-	-	65,000
Prof. Fees	25,000	-	-	-	-	-	-	-	-	25,000
Payroll	-	-	-	-	-	-	-	3,000	-	3,000
Capital Expen:	20,000	-	-	-	-	-	-	-	-	20,000
Office Oper:										
Space Rental	17,544	20,468	38,012	19,006	19,006	35,008	8,772	11,798	4,386	174,000
Supplies	1,610	1,883	3,497	1,748	1,748	3,228	807	1,076	403	16,000
Tel/Tel	3,631	4,235	7,865	3,933	3,933	7,260	1,815	2,420	908	36,000
Insurance	-	-	-	-	-	-	-	2,500	2,500	5,000
Rep/Maint/Rent	-	-	-	-	-	-	-	4,000	-	4,000
Reproduction	2,024	2,352	4,368	2,184	2,184	4,032	1,008	1,344	504	20,000
Miscellaneous	-	-	-	-	-	-	-	4,714	-	4,714
	\$551,059	\$288,799	\$677,292	\$319,945	\$450,939	\$428,636	\$179,491	\$27,852	\$11,701	\$2,935,714
								12% Inflation		352,286
										\$3,288,000

TABLE IX

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Statement of Sources and
Uses of Funds

Sources of Funds:

Core Operations	\$2,906,000	
Investment Income	20,000	
	<hr/>	
		\$2,926,000

Uses of Funds:

<u>Category</u>	<u>CG 1981 Revised Budget</u>	
Salaries	\$1,620,994	
Benefits	334,006	
Consultants	55,000	
Relocation	105,000	
Travel	130,000	
Communications	174,000	
Computer	125,000	
Trustees	65,000	
Legal & Accounting	25,000	
Payroll	2,000	
Equipment	5,000	
Furnishings	15,000	
Leasehold Improvements	10,000	
Rent	174,000	
Supplies	16,000	
Communications (Tel/Tel)	36,000	
Insurance	5,000	
Repairs & Rentals	4,000	
Reproduction	20,000	
Miscellaneous Expenses	5,000	
	<hr/>	
		\$2,926,000

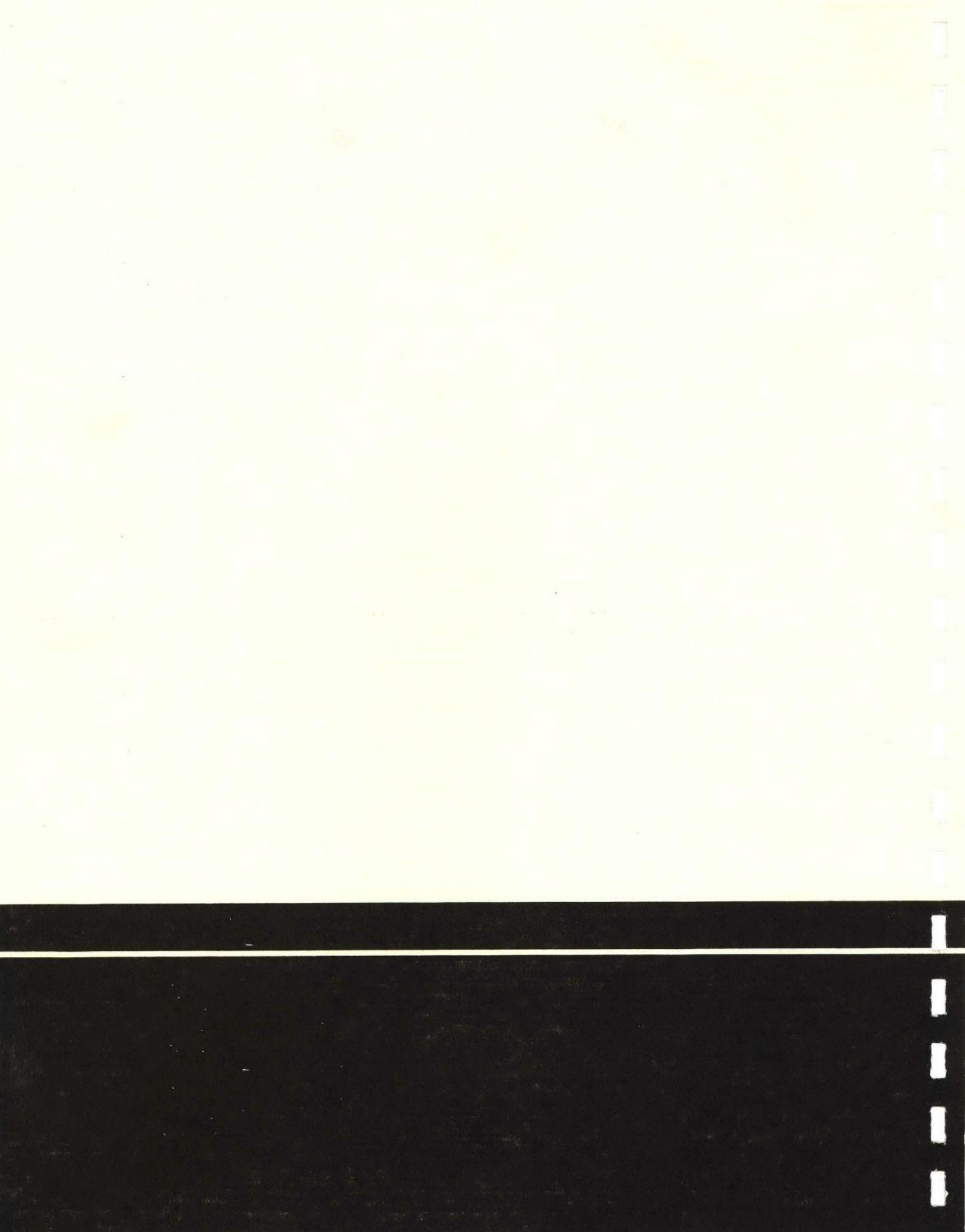
TABLE X
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

1981 Core Budget
Prepared in View of Actual Cuts
in Donor Commitments

Category	Approved 1981 Budget	CG 1981 Revised Budget	Amount To be Cut*
Salaries	\$1,682,994	\$1,620,994	\$62,000 (1)
Benefits	346,006	334,006	12,000 (1)
Consultants	55,000	55,000	-
Relocation	105,000	105,000	-
Travel	130,000	130,000	-
Communications	174,000	174,000	-
Computer	125,000	125,000	-
Trustees	65,000	65,000	-
Legal & Accounting	25,000	25,000	-
Payroll	2,000	2,000	-
Equipment	5,000	5,000	-
Furnishings	15,000	15,000	-
Leasehold Improvements	10,000	10,000	-
Rent	174,000	174,000	-
Supplies	16,000	16,000	-
Communications (Tel/Tel)	36,000	36,000	-
Insurance	5,000	5,000	-
Repairs & Rentals	4,000	4,000	-
Reproduction	20,000	20,000	-
Miscellaneous Expenses	<u>5,000</u>	<u>5,000</u>	<u>-</u>
	<u>\$3,000,000</u>	<u>\$2,926,000</u>	<u>\$74,000</u>

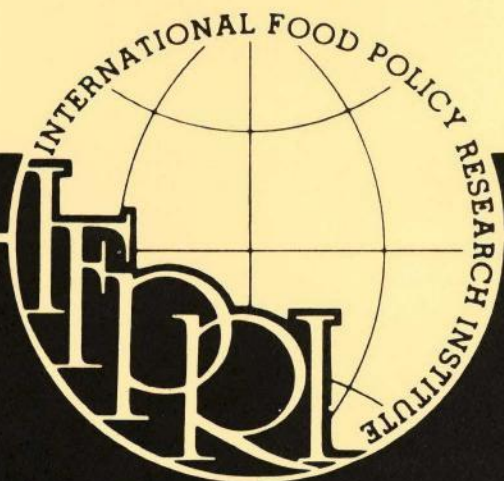
*Approved Budget Less CG 1981 Revised Budget = AMOUNT TO BE CUT

(1) Assumed that our Senior Research Staff can actually provide the equivalent of \$74,000 in reimbursable services to outside organizations.



G/14-Doz

**IFPRI
PROGRAM BUDGET PROPOSAL
1981-82**



International Food Policy Research Institute

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1. IFPRI'S MANDATE

1. The International Food Policy Research Institute was established to identify and analyze alternative national and international strategies and policies for reducing hunger and malnutrition in the world, with primary emphasis on low-income countries and on the poorer groups in those countries. Although its research effort is geared to the precise objective of contributing to the reduction of hunger and malnutrition, the factors involved are thus many and wide-ranging, requiring analysis of underlying processes and extending beyond a narrowly defined food sector. IFPRI's research program is to reflect worldwide interaction with policymakers, administrators, and others concerned with increasing food production and with improving the equity of its distribution.
2. In pursuit of its task IFPRI is to work closely with the other institutions of the CGIAR system in achieving common and complementary objectives, given the need for careful study of the possible social and economic consequences of the use of new technologies, and the crucial importance of identifying linkages and inter-relationships between the actions of farmers in their adoption and effective use, and national or international policies which either constrain or encourage successful innovation.
3. Within its mandate, IFPRI's criteria for program development are to emphasize the importance of specific food policy problems to the developing countries, the potential for comparative analysis with respect to them, the need for improved conceptualization, the complementarity among components of IFPRI's research, and above all the opportunity for policy action.
4. IFPRI's policy oriented research is to stress alternative development strategies from the viewpoint of their implications for food production and consumption; food production processes, particularly the role of technological change in agriculture; food consumption issues, particularly as they relate to low-income groups; and international food trade, aid, and food security.
5. A portion of IFPRI's research is to be oriented to defining the size, composition, and dynamics of the world food problem both at present and for various periods in the future. This activity builds on the data base and related work of other international and national organizations. Through this work, IFPRI is to search out the lacunae in the understanding of world food problems, with the specific objective of defining the needs for further policy research and drawing these to the attention of policymakers and the research community.

6. IFPRI is to be highly selective in its choice of topics for research. It cannot hope to review the food policies of every country, nor can it attempt to take on agricultural sector analyses or long-term perspective studies on a service basis. On the other hand, carefully selected comparative studies of development experiences and the lessons to be drawn therefrom are to be part of the Institute's work. Such analyses will assist IFPRI's investigations of crucial problems involving policy decisions of wide significance for future food supply, whereas the more specific objective will be to identify common elements affecting countries widely dispersed geographically. Similarly, IFPRI may occasionally do in-depth analyses of food strategy for particular countries, to forward understanding of interaction among the component parts of food policy and to shed light on particularly important food policy cases and the international implications of national food policies.

7. As much as possible IFPRI's research is to be carried out in collaboration with national research organizations pursuing similar lines of inquiry. Through such collaboration IFPRI will achieve interaction with developing country national research systems which will lead to effective problem identification, data collection and analysis, and to the eventual dissemination of IFPRI research results to those most likely to find them useful. Similar working relationships with appropriate international organizations and the IARC will not only further expand IFPRI's data base, but will also assist it to formulate research projects relevant to international policy needs.

8. The IFPRI research program is to draw upon and complement the work of organizations such as FAO, the IBRD, and similar multilateral agencies with major programs in food and agricultural policy analysis or socioeconomic research related to agriculture. IFPRI is to be alert to important research and information gaps, paying special attention to the need for objective analysis of controversial or politically sensitive issues which IFPRI is in a particularly favorable position to approach.

9. IFPRI is to disseminate its research results to a wide public, particularly to officials, administrators, and others influential in the making of national and international food and agriculture policy. This it will do informally through direct working relationships established between its senior staff members and leading members of the public, and through its collaborative relationships with national and international agencies involved in food matters. More formal outreach methods will include publications, conferences, seminars, and workshops, arranged in cooperation with concerned national and international agencies, to discuss topics of mutual interest, and to provide interaction between researchers and policymakers in substantive areas in which IFPRI has completed research. IFPRI research reports and other publications are to be distributed to a worldwide audience of those known to be concerned with food policy.

10. Training through participation in research both at headquarters and in the field is to be an important part of the Institute's effort. Interaction among IFPRI's research staff and between its researchers and those from other institutions will provide valuable informal training opportunities in addition to more formal arrangements through internships at IFPRI.

2. METHODS OF OPERATION

The research program of the International Food Policy Research Institute reflects the view that while accelerated growth in agricultural production is in most developing countries essential to prevent hunger and to stimulate broadly participatory growth, it is not in itself sufficient to alleviate poverty and malnutrition. Knowledge of the policy options and needs for the modernization of agriculture, the linking of agricultural growth to growth in other sectors and the alternative means for linking increased supplies of food to the needs of the poor is necessary if the research in the agricultural production sciences is to realize its potential to foster a humane and rapid pattern of growth.

Thus, in addition to research on policies related to accelerating food production growth and factors affecting adoption of improved technology, an important part of the Institute's program is devoted to studying the nature of the world food problem and understanding its various complex, interacting parts. These vary widely both spatially, among geographic regions and even within countries, as well as temporally, with changes in income, population size, urbanization, food habits and short term emergencies such as drought. While in many parts of the world the crux of the food problem lies in the slow growth of production, in others, it lies mainly with deficiencies in purchasing power of consumers and is rooted in poverty or inadequacies of food distribution systems or both. Moreover, in many countries foreign trade and foreign assistance play an important role in preventing imbalances between consumption and production. Therefore, at the heart of the Institute's research program is study of the interaction among food production, consumption and trade; how these are influenced by policies both internationally and nationally; and what options are open to countries, particularly the low-income countries, individually or collectively, which might improve the availability of food to their people. The Institute has comparative advantages in undertaking cross-country analysis and in developing typologies for classifying countries and situations into meaningful groupings to facilitate generalizing from specific knowledge to a broader set of issues and countries.

Implementation of the Institute's research objectives has three facets: Administrative Programs; Research Projects; and Policy Thrusts.

IFPRI's overall research program is administered through four programs which encompass the four major elements of understanding food policy needs: Trends Analysis to gauge the size and nature of the world's food problem; Production Policy to understand how to raise the growth rate of agricultural production; Consumption Policy to understand how increased food supplies can be effectively utilized to meet growth

and equity objectives; and Trade Policy to understand the role of international trade and aid in meeting food needs. The individual programs derive an intellectual unity from a similarity of conceptualization, theory, research methodology, and data sources. The work in the research programs is supported by computer services, a library and a publications service.

The Institute's research projects form the core of its work. They are developed on the basis of diagnosis of the key policy issues for which increased knowledge is likely to lead to improved decision making. Research projects must necessarily represent in depth slices of policy problems. They may relate directly to a policy issue, but more often knowledge of underlying facts and relationships will be needed first; and at times, advances in research methodology or theory will be required before efficient analyses of policy alternatives can themselves be tackled. While the focus is always on the policy issues, IFPRI as an international institute relating to increasingly effective national research systems is giving attention to comparative analyses and basic relationships which can best complement the work of national institutions.

The Institute defines a small number of Policy Thrusts, currently five in number, from which the individual research projects derive and which in turn focus the research effort on contemporary policy problems. The policy thrusts commence with policy issues, facilitate defining and relating research projects to issues and provide an interaction among the researchers with respect to specific issues. While each member of the senior research staff is a member of only one program, a research thrust may encompass all the research staff, while some senior staff work on projects which provide input into each of the Policy Thrusts. The current five thrusts are:

1. National and International Food Imbalances: Identification of Major Food Policy Issues.
2. Food Security: Policy Alternatives for Ensuring Adequate and Stable Food Consumption.
3. Development Strategy: Defining the Macro Policies to Attain Food Policy Objectives.
4. Agricultural Production Policy: Policy Alternatives for Accelerating Agricultural Production Growth.
5. Regional and National Policies: Southeast Asian Rice Policy.

Through these Policy Thrusts, the Institute is able to reconcile the need to define research projects sufficiently narrowly to allow it

to be at the forefront of knowledge generation and still allow the breadth of approach essential to major policy issues. For each of the Policy Thrusts several research projects are brought to bear, providing the basis for comprehensive coverage from in depth research, the knowledge of related research to reduce unnecessary duplication and the means of diagnosing lacunae in research as an aid to identifying future in depth research needs

While researchers in charge of individual projects are responsible for interaction with the research community, the Thrusts provide the link to policy bodies at the national and international levels.

Because technological change in agriculture is so fundamental, IFPRI's interaction with the International Agricultural Research Centers of the Consultative Group system is of particular significance to each of the Policy Thrusts. IFPRI's links with FAO, the World Bank, IFAD, IMF, and other international agencies are important not only in helping to define these Thrusts but also in delineating research priorities within the thrusts and placing the results in a context valuable to the international community. Most important, IFPRI develops its research program in close consultation with national policy makers and researchers, not only to ensure the relevance of its work but to help strengthen national level capacities to carry out analogous research.

IFPRI is giving increasing emphasis to collaborative research with institutions in developing countries. The Southeast Asian Rice Policy Research Project and the Nutrition Project are examples of such efforts. These two projects are based on recognition of the fact that international centers can be most effective in a catalytic role, and that an institute whose mandate is essentially to work on policy analysis must maintain close working relationships with national institutions if its research is to be operationally relevant and the results are to be readily transmitted to national decisionmakers. A related tenet of IFPRI's research procedures is that working closely with people drawn from national institutions (whether on secondment to the IFPRI core staff or in collaborative projects) has an important training function. This provides a two-way learning process from which both core staff of the Institute and its collaborators can benefit.

Even more than the predominantly biological research centers, IFPRI's main tangible research product is information. For this reason the communications service occupies a key role in the Institute's work, and it is being expanded rapidly from a small base, in line with the greatly increased output of the research programs. Reports on completed research supported by policy summaries distributed separately to a wider audience constitute the principal publications; other papers of

special relevance to IFPRI's objectives completed by staff members are also published from time to time. A newsletter (IFPRI Report), which summarizes the work completed during the period it covers, indicates the research to be completed during the ensuing period, and mentions other pertinent work highlights, is also mailed three times a year to a broad audience of development-oriented individuals and institutions.

Seminars are held periodically to provide an interchange between IFPRI researchers and outside experts on topics of mutual interest. The meetings are held either at IFPRI headquarters or elsewhere, when an outside meeting site would be more efficacious. Whenever, practical, seminars are organized and held in cooperation with other concerned organizations, particularly those in developing countries.

Workshops are arranged by IFPRI periodically to provide intensive interaction between Institute researchers and policymakers in substantive areas in which IFPRI has completed research. A program of regional workshops on a related topic, but with appropriate regional variations is being developed. This reflects an important principle of the Institute's communications policy, which is that while reports and publications are an essential tool of information and a permanent record of the work of its researchers, they are not substitutes for human contact and interchange of ideas in transmitting research results to policymakers. A further reflection of this principle is the importance allocated to having a strong component of persons experienced in agricultural policy analysis, particularly as this applies to food and nutrition in developing countries, on both the Board of Trustees and staff. Thus, the members of the Board of Trustees are half from developing countries and half from developed countries; a main criterion for their selection is that they be persons of broad experience in policy and research processes and have strong perceptions of the problems and needs of agricultural and rural development.

The IFPRI research staff, which is employed on both long- and short-term bases, is also strongly international, over half drawn from developing countries. An important aim of staff policy is to build a cadre of experienced analysts, able when they return to their own countries not only to help strengthen food policy research related to national problems but to participate in an international network of research and maintain continuing interaction with IFPRI staff. Visiting researchers and consultants are employed for specific short-term tasks for which the regular staff is either not equipped or not readily available. Recruitment of research assistants, who are employed on a short-term basis to assist the permanent research staff, also emphasizes the developing countries.

3. 1981-82 BUDGET REQUEST

IFPRI's budget request for 1981 is \$3,477, 435, of which \$3,212,235 is operating budget and \$265,000 capital budget to support the creation of a thirty-day working capital fund. The 1982 budget request is \$4,203,000. An inflation rate of 10.5% has been assumed for 1981 and 10% for 1982. In 1980 dollars the operating budgets are \$2,907,000 (plus a \$240,000 working capital fund) and \$3,458,000. Both of these figures are in accordance with the projections presented in the 1979 Integrative Report (18.4% growth in 1981 and 18.8% growth in 1982). IFPRI projects similar real growth for 1983 (18.7%) and then a decline to 3.5 percent real growth for 1984 when the stage of mature growth will have been reached.

The International Food Policy Research Institute is in that formative stage in which much of the senior research staff is new, key gaps in senior staff remain and the flow of research output and related research support requirements are just becoming commensurate with the size of the staff. Under these circumstances the efficiency of additions to the budget is very large. The objectives of increments to the budget are first to maintain the level of current activities; second, to provide support to the research staff necessary to the efficient use of their time; third, to make additions to the staff which are highly complementary to existing staff and essential to the efficient pursuit of the Institute's mandate. Thus, plans for increased expenditures are intended to add to the efficiency in the use of existing resources in achieving the mandate and do not entail addition of new programs as such. Note for example that general administrative costs are projected to decline from 16 percent to 11 percent of the budget as the mature stage is reached.

STAFFING

The Institute's long range objective, as reviewed by the CGIAR, the TAC and the TAC Review Team when membership of the CGIAR system was under consideration, is a senior research staff of 25 persons. That number is based on the size of the research tasks, the extent to which setting research priorities can reduce the immediate research task; the need for adequate coverage of geographic diversity and essential complementary sub-disciplines; and limitations set by administrative requirements of an innovative, cohesive research effort. Delineation of a half dozen major geographic regions and some four sub-disciplines were major elements leading to determining a 25 person staff as optimal.

IFPRI's 1980 staffing goal was the filling of existing research positions held open during 1979 because of the Institute's tight budget situation.

IFPRI's budget provides for the addition of one position in mid 1981. The Institute will have only one African senior researcher on its staff at the end of 1980. It will have no one working directly on the urgent problem of how food production and consumption targets are to be met in the face of large energy price increases. The 1981 staff addition would have this Africa/food/energy focus.

Two positions are to be added in 1982 to further improve IFPRI's Africa expertise, to round out capacity on Consumption and Distribution issues and to provide expertise in the production area with respect to the economics of investment in new agricultural technology.

The 1982 staffing additions would bring IFPRI's senior staff to 24. The twenty-fifth position would be added in 1983. This position would be used to strengthen IFPRI's collaborative research position.

RESEARCH SUPPORT

Under research support is included: travel, computer costs, research assistance and secretarial service. In general the current level of support service is inadequate to efficient use of researchers' time. Therefore, one of the Institute's budget goals over the next three years is to bring the level of these support services into line with researcher needs.

● Travel. IFPRI's 1980 budget provides travel support at the rate of \$4,500 per researcher, sufficient to finance only one research trip of approximately three weeks to a developing country plus modest funds for travel to either Europe or within the United States. That level of travel is inconsistent with the need to develop close working relationships on a global basis.

In addition, IFPRI finds itself without funds to support travel of individuals from developing countries to IFPRI. Travel for collaborating researchers is currently financed out of IFPRI's limited consulting budget of \$50,000.

In 1981 IFPRI proposes to increase the senior researcher travel support level from \$4,500 to \$7,000 (in 1980 dollars).

An optimal travel budget per senior researcher would be closer to \$10,000. IFPRI's 1983 budget therefore includes provisions for further additions in this category.

● Computer costs. IFPRI's 1980 budget provides computer service at the rate of \$3,500 per researcher. Based on current projections of 1980 expenditures IFPRI will be able to stay within its 1980 budget only through the exercise of severe economies including extensive use of non-prime time. Because of budget constraints IFPRI's 1981 and 1982 budgets hold to this \$3,500 rate. However, given the growth in the Institute projects which rely heavily on manipulation of large quantities of data and complex operations, IFPRI will have difficulties holding to its budget. It is projected that by 1983 a more realistic figure of \$6,000 per researcher at constant 1980 prices will be necessary.

● Research assistants. IFPRI's 1980 budget provides for one-half research assistant per researcher and one-quarter per research associate. The 1981 budget will continue at this level. Some strengthening of support is envisaged in 1982 through increasing the allocation by two research assistants. In 1983 IFPRI hopes to further strengthen this support to provide some flexibility to service visiting researchers and consultants and to accommodate the needs of those researchers who can utilize a full research assistant.

● Secretarial service. IFPRI's 1980 budget provides one secretary for each research program and one additional position equivalent to meet special typing needs of the four programs. Over the next three years IFPRI plans to strengthen secretarial services chiefly through the development of a word processing pool to handle manuscript typing.

● Office Space. IFPRI's budget provides for the acquisition of approximately 4,000 square feet of additional office space at the end of 1980. Even with this projected addition, IFPRI's available office space will be only two-thirds of the CGIAR space standards for a staff of IFPRI's size and composition.

Because of these weaknesses in IFPRI's current level of support services the Institute is in a position immediately to absorb increases in support resources. Indeed delay in obtaining these funds reduces the effectiveness of utilization of present resources. However, IFPRI realizes that while the total increase needed is small it represents a significant percentage increase in the Institute's budget and hence it is planned to phase the increase over the next three to four years.

PROGRAM DEVELOPMENT

● Visiting-Researcher/Post Doctoral Program. The 1982 budget provides \$100,000 under research programs for support of the development of a visiting researcher/post doctoral program to enable IFPRI to choose a few outstanding Third World Researchers, both junior and

senior, to work with IFPRI senior staff on efforts directly tied to the Institute's research thrusts and projects. It is anticipated that this program will be further expanded in 1983.

● **Workshop Program.** \$80,000 has been designated in 1982 for support of a workshop program. Workshops will be held on a regional basis and will bring together IFPRI staff and regional researchers and policy makers. These will be the most important means by which IFPRI brings its research results into the policy arena. Each workshop series will be in the area of one of IFPRI's research thrusts which bring several projects to bear on a set of related policy issues. Geographic differences will normally call for several variants on one thrust. IFPRI needs core financing to allow flexibility in planning these workshops. Further expansion in this area is anticipated for 1983.

SUMMARY OF SOURCES OF INCREASE IN BUDGET

1981 Core. The 1981 core operating budget represents an increase of \$450,879 over 1980 estimated expenditures (in 1980 dollars).

\$344,077 or 76% represents annualization (coverage for a full 12 months) of the cost of staff added during 1980, including support services at average levels.

\$59,000 or 13% represents an increase in the travel allocation raising the average cost per researcher from \$3,500 to \$7,000.

\$47,802 or 11% represents the cost of adding one research position in mid year.

1981 Working Capital. In addition to the increases shown under operating expenses, IFPRI is requesting provision of \$265,200 for a working capital reserve.

1982 Core. The 1982 core operating budget represents an increase of \$551,380 over 1981 (in 1980 dollars).

\$96,298 or 17% represents the cost of annualizing commitments made in 1981.

\$273,969 or 50% relates to increases in support services including the addition of the visiting researcher-post doctoral program, an expansion in the consultant budget, the development of the workshop program and some additional secretarial and research assistant support for the consultants and fellows.

\$181,113 or 33% relates to the addition of two research positions.

CONTINGENCY/ALLOWANCE FOR PRICE INCREASE

The inflation situation in the United States has changed substantially even within the last six months. Official U.S. inflation projection figures for 1980 have increased from between 8 and 9% at the end of 1979 to a current estimate of 12.8%. Calculations done by IFPRI staff in December 1979, based on a survey taken of IFPRI suppliers resulted in an estimate of at least 10.5%, applicable to 1981. This 10.5% figure was incorporated into IFPRI's budget presentation to its Board of Trustees in February. Based on current inflation trends it is clearly too low. The reasons are as follows:

- Salary increases. More than 60% of IFPRI's budget is tied to salaries and related benefits. The 1980 budget provided for an 8% salary increase at a time when Washington, D.C.'s inflation rate was 13 percent. IFPRI's inflation adjustment has been running about two thirds the level of the IBRD. Given the expected increases in the Washington area cost of living and loss of relative position in salary with respect to institutions like the IBRD, IFPRI anticipates the necessity of presenting to its Board of Trustees a request for a 12% increase in 1981. (That is an average annual increase (compounded) of 9.5% for the two years). These increases cover both inflation and step or longevity increases which should normally be expected to be 2 to 3 percent. Thus the pure inflation increase averages out to about 7% in a period of 12 to 13 percent inflation.

- Travel. Approximately 13% of IFPRI's budget relates to travel costs either through staff travel, consultant costs, or recruitment and relocation travel. The inflation rate in this area has been estimated at 20%.

- Other Expenses. If we assume a lower rate of inflation for other expenses of 10.5% in 1981, the overall inflation impact on IFPRI's budget would be 12.6%.

WORKING CAPITAL FUND

According to the budgeting guidelines "the CGIAR has accepted the principle that centers should include in their budgets provision for working capital equal to 30 days average operating cash requirement". As of December 31, 1979 IFPRI had approximately \$30,000 and has no promise of a replenishment in 1980. Cash management under such circumstances is obviously very difficult and potentially costly. Accordingly, the 1981 budget request includes a provision for a working capital fund of \$265,000 in 1981 dollars (\$240,000 in 1980 dollars). This was approved and strongly recommended by IFPRI's Board of Trustees at its February 1980 meeting.

4. RESEARCH PROGRAM COMMENTARIES

TRENDS AND STATISTICS PROGRAM

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions				Person Years			
Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
2	3	3	3	1.3	3	3	3	1.5	1.5	1.5	1.5	1.83	1.5	1.5	1.5	1.0	1.0	1.3	1.5	.73	1.0	1.3	1.5

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
Trends	1.30	81	1.3	110	3.0	197	3.0	197	3.0	228	3.0	233

Research activities are mainly oriented to defining the magnitude and components of the food problem in the developing countries, and thereby providing general indications of needed actions and further research on food policies in these countries. Program studies center on analyzing the historical trends of food production and consumption in developing economies and on deriving trend-based projections of their future food needs. These studies are essentially diagnostic as they attempt to identify the areas where serious food problems are likely to occur, to indicate the possible size of future food gaps in these areas and to analyze the general policy implications of such gaps. The aim is to focus increased attention on these problems and to help generate national and international actions for their solutions.

Recent program activities have dealt largely with the continuing refinement of the food gap analysis work for developing countries; these include the expansion of the commodity and country coverage of the analysis and the improvement of the data base and techniques used for the projections of food production and consumption.

Some projects are being undertaken jointly with the other IFPRI programs. Corollary support activities of the Trends and Statistics Program also include servicing the statistical needs of the other programs by assisting in the assembly, organization and analysis of data.

Current Progress

Analysis of the food gap in developing countries, the central project of the Trends and Statistics Program is comprised of a number of complementary sub-projects or activities that support the continuing development and improvement of IFPRI's periodic assessment of the future

food situation in developing countries. Compared with the 1977 assessment, a new assessment under preparation extends the time horizon from 1990 to 2000, expands the non-cereal coverage to all developing countries and widens the commodity coverage of the analysis to include plantains and bananas and, on a phased-study basis, livestock and livestock products. The analysis on livestock and livestock production is aimed to link with and, subsequently, improve the projections of feed requirements. The country coverage of the study is also being significantly widened to include the People's Republic of China (PRC) and other Asian centrally planned economies, plus a number of African developing countries which were excluded in earlier IFPRI assessments because of data limitations.

An extension of IFPRI Research Report No. 3 on food needs of developing countries was published in October 1979 as Research Report No. 11, Rapid Food Production Growth in Selected Developing Countries: A Comparative Analysis of Underlying Trends, 1961-76 by K. Bachman and L. Paulino. The study noted the varying combinations of important factors that form the mix of agricultural technology and modern inputs which have contributed largely to the growth of food production in these countries. It also showed that the rapid expansion of food output in these mostly middle-income economies has been accompanied by a more rapid increase in their food imports.

Research on the improvement of the data base has resulted in a report (under preparation for publication) on "A Comparative Study of FAO and USDA Data on Production, Area and Trade of Major Food Staples" by L. Paulino and S.S. Tseng. The analysis found wide differences between the FAO and USDA country estimates on crop production and area, and even wider differences between their statistics on cereal imports and exports. Causes for the divergence between FAO and USDA data include differences in the definitions used by the two systems and in the operating procedures employed for the collection, assembly and revision of agricultural data. FAO's wider data coverage has justified a shift from the use of USDA data to FAO's in IFPRI's gap analysis.

Because of the size and importance of China, preparatory work for its inclusion in the gap analysis required the assembly of detailed and reliable information regarding the PRC's agricultural economy. Commissioned studies have resulted in three papers which are nearing publication: "Food and Agriculture in China: Trends and Projections" by A. Tang, and "China's 1985 Foodgrain Production Target: Issues and Prospects" and "A Review of Chinese Agricultural Statistics, 1949-1978" by B. Stone. Based on the historical record from 1952, Tang's study shows that the PRC's "agriculture has managed to deliver end products in quantities large enough and rising fast enough to meet the elemental needs of China's expanding population by virtue of a massive injection of resources" particularly from external origin. Tang's medium (or probable) projections indicate that Chinese grain output would

grow to 524 million metric tons by the year 2,000 compared to 538 million tons in total demand. Stone's analysis of the medium-term prospects of Chinese foodgrain production concludes that the PRC's present plans for irrigation and fertilizer production are consistent with the country's target level of about 400 million tons of grain output by 1985, which also appears feasible from the seed-technology standpoint.

Work on a "facts book" has begun with compilation of selected world food and related statistics for internal reference use. Food and policy-related data are being organized around IFPRI's policy research thrusts and will be shown on a country basis mostly as trends, relationships and indicators.

Research on livestock and livestock products, undertaken by P. Yeung, who joined the Program in late 1979, will proceed in phases, with project activities currently involving an investigation of cyclical behavior in these commodities. Their inclusion in IFPRI's food gap analysis will relate the growth of the derived demand for livestock feed to the demand projections of the major staple food crops, especially grains.

To give a perspective on the food situation in the Middle East-North Africa region, N. Khaldi, who joined the Program in January 1980, is preparing a review to highlight various dimensions of the region's food gap. The review will serve as a basis for developing proposals for in-depth research on the food economy of the region.

Plans for 1981-82

A number of on-going projects in the Program are expected to extend beyond 1980. Work on the facts book is planned to include a subset of the data compilation for future publication. The effort may be extended into assembling other more detailed statistics for selected regional groupings of developing countries. While the emphasis of the facts book is on food and especially on the staple food crops, it will include also population, economic and other agricultural statistics.

The trends in food and agricultural production in 20 developing countries which lead in the output of major staple food crops are planned for an in-depth study in 1981/82. Although self-sufficiency in food has been generally pursued as a major development goal, many developing countries have continued to depend on the output of nonfood crops as the principal source of foreign exchange earnings to finance food imports and other development needs. The study will provide an overview of the changes that have occurred in the production of food crops in relation to those of nonfood crops in these countries; it will also attempt to relate the growth in output of the crop groups and of agriculture as whole to the changes in resource use, new inputs and technology and agricultural investment. This will provide a base

on which subsequent studies of the crop sector in other countries or regional and country groupings can be pursued.

The study on livestock and livestock products will enter its succeeding phases in late 1981. These will include sensitivity analyses of the derived demand for staple food crops as feed.

To provide a broader basis for examining the demand for food and feed, a future project is envisaged for studying the derived demand for concentrate feeds, which would eventually extend the food gap analysis into the high protein meal commodities. It will initially focus on soybean, which is the most important component in the oilmeal commodity group. As experience is gained in handling this commodity, other related commodities will be added to the analysis.

Research in the North Africa and Middle East region is expected to be in full swing in 1981. It will constitute an in-depth analysis of the trends of food production and consumption in selected countries of the region where very rapid changes in income and labor transfers are occurring. The analysis will have a regional perspective, which will facilitate the examination of inter-regional trade flows. In analyzing the food gap, it will identify the policy issues of food security which are of regional importance.

PRODUCTION PROGRAM

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions				Person Years			
Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
9	9.0	9.0	10.0	6.67	8.25	9.0	10.0	3.0	3.57	4.0	6.0	1.86	3.57	4.0	2.0	1.0	2.0	2.0	3.4	1.06	2.0	2.0	3.4

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
Production	7.35	336	6.7	411	8.25	570	8.25	570	9.0	662	10.0	781

The research priorities of the Production Program fall in the areas of production strategy, specific production and investment policies, and linkages involved in the growth process, especially in a rural development-led strategy of growth. The scarcity of available resources and the possible conflicts between the different objectives of policy, such as increasing agricultural production, reducing its instability, and promoting equity, call for identifying optimal production strategies. Although the research effort in the production strategy area deals with the trade-offs involved in the development

of scarce resources with the object of identifying optimal production strategies, the research on specific production policies focusses on a few key inputs including agricultural research, irrigation investment, and fertilizer use. All of these are crucial for bringing about resource-augmenting shifts in production functions to relieve existing physical resource constraints and all have received insufficient attention in the work of the other institutes of the CGIAR system, which are largely oriented to the biological sciences.

Current Progress

The approach in the production strategy area has been to undertake country case studies to identify the possible conflicts between the objectives of growth and equity in agriculture and the ways of minimizing such conflicts, and to examine the impact of growth, especially new technology-based growth, on the variance of agricultural output. One specific effort in this field is a recently updated study on the impact of irrigation and labor availability on multiple cropping. The significance of this work derives from the fact that in many of the Asian countries, the possibilities of bringing new areas under the plough have become severely restricted, thus making agricultural growth increasingly dependent on improving individual crop yields and on the expansion of gross cropped area through multiple cropping. Since the extent of multiple cropping shows a wide range of variation among the different states of India, it seemed instructive to inquire into the factors which lie behind these large differences. The study analyzes the variations in cropping intensity across and within the different states of India. It shows that the extent and quality of irrigation and labor availability account for the bulk of these variations; that the positive impact of tubewell irrigation on cropping intensity is much greater than that of irrigation from other sources; and that the magnitude of the irrigation expansion contemplated in India's sixth Five-Year Plan can make a significant contribution, through the expansion of multiple cropping, toward stepping up its agricultural growth.

The research dealing with linkages explores the relationships between agriculture and nonagriculture in the process of growth and more important, the income/employment implications of the demand-induced effects of agricultural growth. Although the initial gains of new technology in agriculture tend to accrue more to the rich than to the poor, insofar as the increased incomes are expended on labor-intensive commodities, the process may have indirect effects augmenting the income/employment opportunities for the poor. Thus, it is particularly important to analyze these secondary effects, because without expanding the incomes of the poor, which in turn expands their demand for foodgrains, it may be difficult to sustain high rates of foodgrain output growth.

The first phase of IFPRI's work in the area of production and investment comprised a major study published in September 1979 entitled

Investment and Input Requirements for Accelerating Food Production in Low-Income Countries by 1990, Research Report 10, by Peter Oram, Juan Zapata, George Alibaruho, and Shyamal Roy. This study, covering 36 food-deficit or potentially food-deficit countries comprising 70 percent of the population of the DME group, shows that to achieve the average annual growth rate of nearly 4 percent in food production required to prevent a serious deterioration of per capita food availability by 1990 will require a massive increase in direct investment in the agricultural sector (with particular emphasis on irrigation and drainage, fertilizer use, seed production, and agricultural research and extension), as well as parallel investments in indirect support for rural development in resource survey, transportation, rural electrification, disease control, education, and training. Identified cumulative 1975 to 1990 capital investments (which cannot be considered all-inclusive and do not include annual recurrent expenditures) amount to nearly 100 billion dollars for the countries included in the study. The conclusion that this will call for an approximate doubling of current external assistance to agricultural development is consistent with other estimates made in recent years by FAO, the World Bank, and the World Food Council. The work also reveals an important gap in knowledge of current and projected levels of national expenditure in agricultural development on which IFPRI has commenced a preliminary study of methodology for analyzing national budgets.

The work in the area of specific production policies has been mainly concerned with agricultural research and water use and has resulted in the preparation of a study undertaken for the TAC, on the criteria to guide priorities in the allocation of resources to international research. An application of such criteria to the assessment of the allocation of resources to national research is embodied in the study, "Agricultural Research Policies in Nigeria," by Francis S. Idachaba which has been completed and will be published in early 1980. Another IFPRI study of agricultural research expenditures and manpower in 65 developing countries suggests that while there has been a significant overall improvement in resources devoted to research since 1970, many countries have still not reached the targets suggested by the World Food Conference and that a massive task of training and reorganization is required to raise the efficiency of national research systems.

Water is the main factor constraining increases in food production in many developing countries, and irrigation and drainage are often the largest sources of expenditure in national agricultural sector budgets. However, production from irrigated land and returns to investment in water resource development are often below expectations. For this reason IFPRI has had a continuing interest in studying policy issues related to water resource development and investment. Subsequent to the broader study of investment requirements referred to above, in which irrigation represents much the largest component of capital expenditures, attention is being focussed on national policies for

irrigation and the improvement of efficiency in water use in the ASEAN countries as part of the study on rice policy in Asia described under collaborative projects. Staff members also contributed invited papers on water policy issues to the International Expert Consultation on Irrigation and Agricultural Development organized by the Economic Commission for Western Asia held in Baghdad in conjunction with the Iraqi Scientific Foundation, and were coauthors with Cornell University of the State of Knowledge Report on Water Resources prepared for the Bonn Conference on Resource Use and Agricultural Development in the 1980s at the request of the German Foundation for Technical Cooperation.

Apart from agricultural research and investment in irrigation, the expansion of fertilizer use is most vital for increasing agricultural production. The Production Program has therefore launched a project to study the forces governing growth of fertilizer use in developing countries. This study develops a conceptual framework which interprets the process of growth in fertilizer use by taking into account the development and functioning of the entire fertilizer system against the background of the agro-economic potential for fertilizer use. The underlying idea is that under real world conditions, the pace and pattern of growth in fertilizer use are influenced by interactions among different elements of the entire fertilizer system. Hence, public policies should be based on comprehensive rather than fragmentary understanding of what governs the growth of fertilizer use.

In the area of production strategy, IFPRI initiated in 1980 a study of farming systems in West Africa. This study will identify the principal constraints to the improvement of farming systems in West Africa through the incorporation of available new technology. The latter involves the keeping of livestock as a source of traction power, manure, and cash income. Successful policies for improving farming systems through sedentary stockraising will depend to a large degree upon the trade-offs between cash crops, foodcrops, and livestock at the farm level. Correct specification of these linkages is vital for understanding the implications of new technology for farm production strategies and regional output and for identifying the key constraints that must be overcome to encourage smallholder production of a specific commodity, as well as the appropriate direction for policies designed to increase rural incomes.

From its very nature, the study of growth linkages has to be based on country case studies. One effort in this area of studying the interactions between agriculture and the rest of the economy in the process of growth has led to the publication during 1979 of a research report entitled Inter-Sectoral Factor Mobility and Agricultural Growth. The author of this study built a model to illuminate the Japanese experience pertaining to the development of agriculture and the overall economy. The model is now being tested on Argentine data. Another effort has resulted in the preparation of a preliminary version of a research paper on agricultural performance and

industrial growth in India. This paper, currently under revision, is a study of the various linkages involved between agricultural and industrial growth and is focussed on the question of what impact a given increase in agricultural growth could have on overall economic growth.

Plans for 1981-82

In connection with the plans for 1981 and 1982, it may be mentioned that most of the ongoing projects during the current year will continue in 1981 and some of these also in 1982.

The study of irrigation investments which is part of the comprehensive and long-term project on rice policies in ASEAN countries is scheduled to run through 1982. Likewise, further work on growth linkages which is initially planned for India and Bangladesh will continue through 1982.

Further, the model which has been applied to study the relationships between agriculture and non-agriculture in the process of growth in Japan will be used to bring out the implications of the various policies pursued in Argentina which had a bearing on its agricultural development. The possibilities of using the model to study the Mexican experience are also being explored.

The areas in which these and other specific research projects have been taken up involve such important issues that after the completion of the on-going projects, fresh projects are intended to be initiated so as to widen the range as well as the depth of work in these key areas. The work on fertilizer use, for example, will be extended to Africa. The work on the developing countries budgetary allocations to agriculture which is at present confined to nine Latin American countries is proposed to be extended to other countries in Asia and Africa.

Another important area of research which is being taken up in the context of the Production Policy Program for the coming years is Risk Management. The problem of weather and price-related risks in agriculture is so important that it is intended to undertake a study of specific risk-management policies with a view to assessing their possibilities for expanding agricultural production in the developing countries.

FOOD CONSUMPTION AND DISTRIBUTION PROGRAM

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions			Person Years				
Act. 79	Est. 80	Bud. 81	Bud. 82	Act. 79	Est. 80	Bud. 81	Bud. 82	Act. 79	Est. 80	Bud. 81	Bud. 82	Act. 79	Est. 80	Bud. 81	Bud. 82	Act. 79	Est. 80	Bud. 81	Bud. 82				
5	4.0	5.0	5.0	2.2	2.9	4.5	5.0	2.0	1.21	2.0	3.0	.88	1.21	2.0	3.0	1.0	1.0	1.47	1.8	.74	1.0	1.47	1.8

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
Distribution	5.30	188	2.2	140	2.9	212	2.9	212	4.5	318	5	375

The Food Consumption and Distribution Program is concerned with the analysis of policies and factors that determine the level and composition of food consumption in a society with special reference to food deficient groups of the population. This focus reflects the view that explicit attention will have to be paid to increasing effective demand for food if major inroads are to be made into the hunger problem. The research focus adopted by the program falls into two broad areas: evaluation of policies and programs and interactions between growth and consumption.

Current Progress

Work done previously at IFPRI has shown that if past trends of food production, income and employment growth continue into the future, food consumption will continue to grow slowly and the number of households with substandard food intake will actually increase over the coming decade.^{1/} Even if food production can be accelerated, consumption will not automatically keep pace where there are large pockets of poverty and unemployment. It is therefore necessary to devise viable and efficient programs to alleviate the problem in the short run. The first phase of the policy evaluation work has focussed primarily on dual price schemes that attempt to increase food consumption by driving a wedge between the price that the farmer receives and the price that the consumer has to pay, thereby allowing food consumption to increase while simultaneously maintaining incentives to producers. Such schemes

^{1/} International Food Policy Research Institute, Recent and Prospective Development in Food Consumption: Some Policy Issues, Research Report #2; Food Needs in Developing Countries: Projections of Production and Consumption to 1990, Research Report #3, (Washington, D.C.)

have been most comprehensively applied in the South Asian countries by means of distribution of basic foods through a system of ration or fair price shops, where fixed quantities of food are given at reduced prices, or, occasionally, free of charge. Such programs reach large populations and have been in existence for years, which makes them ideal for study.

Analysis of public food distribution policies was undertaken on a country-by-country basis in order to provide a solid basis for comparisons and recommendations to policymakers on the costs and benefits of different kinds of programs. Four such country studies were published in 1979. In these case studies the effects of the public distribution system on the price of food, on the demand for various foods by different income groups, on the caloric intake of various urban and rural income classes, and the costs of each program were examined.

Foodgrain Supply, Distribution, and Consumption Policies Within a Dual Pricing Mechanism: A Case Study of Bangladesh, Research Report #8, by Raisuddin Ahmed analyzed the public food distribution system in a country where poverty and malnutrition are widespread and seem to be growing. The subsidy for food, which occurs when the government sells grain at a price lower than what it paid for it, absorbed from 7 to 13 percent of the total budget. The data for 1973 and 1974 indicate that two-thirds of the subsidized grains were distributed in urban areas even though the great majority of the poorest people lived in rural areas. However, the study concluded that extending the rationing program to large areas of the countryside could be enormously expensive and that if foreign aid in the form of grain were used for this purpose, domestic prices would decline 10 to 27 percent and, therefore, discourage local production. The study indicated that it would be possible to reduce seasonal fluctuations in prices while maintaining production incentives for farmers. Furthermore, to raise rice production, it would be more efficient for the government to subsidize the price of fertilizers to farmers than to provide them with price support for their crops.

The Impact of Public Food Grain Distribution on Food Consumption and Welfare in Sri Lanka, Research Report 13, by James Gavan and Indrani Sri Chandrasekera looked at Sri Lanka rice. The Sri Lanka study indicated that the program greatly contributed to a better standard of living, and a more even pattern of consumption throughout the society, although there is still a substantial amount of malnutrition. At its peak, the ration subsidy contributed the equivalent of 16 percent to the purchasing power of low-income families in Sri Lanka. Although a significant proportion of the increased income went to increased food expenditures, much of that went into the purchase of more expensive calories and proteins, thereby contributing to the diversification of the diet. At the same time purchases of rice and wheat in the open market

declined markedly in response to the ration. The importance of rationing to the overall food economy of Sri Lanka is starkly illustrated by the fact nutrition standards dropped in 1974 and 1975 when rations were cut back, harvests were poor and prices for rice, wheat, and sugar rose. In addition, mortality rates rose. The government purchased food to supply the ration system at prices high enough to stimulate farmers to expand rice output rapidly in the 1950s and 1960s. The combination of, on the average, small paddy holdings and labor-intensive farming methods was responsible for a major share of employment growth during this period. Even though the cost of the rationing system was high, and, therefore, a drain on public investment, Sri Lanka's 4 to 5 percent annual rate of growth of GNP in the late 1960s was better than that of most other low-income countries.

There are a number of public distribution programs in India. The program in Kerala was examined in two studies: Impact of Subsidized Rice on Food Consumption and Nutrition in Kerala, by Shubh K. Kumar and Public Distribution of Foodgrains in Kerala: Income Distribution Implications and Effectiveness by P.S. George. The George study showed that rations supplied the bulk of rice eaten by low-income groups in the state of Kerala. Thus, the public system, greatly improved the distribution of income in the state. The study also indicated that it was more cost-effective and politically palatable to increase consumption among the poor by ration systems than by giving them cash grants. The results of the Kumar report on Kerala also suggest that a public system can substantially raise nutrition and consumption levels of the poorest households. The report concluded that a subsidy program was more effective in accomplishing these twin goals than would be other forms of direct resource transfers.

In addition to these completed studies, in 1979 the Consumption and Distribution Program began work on a project to compare the public distribution systems of Bangladesh, India, and Sri Lanka and determine conditions under which ration system were most successfully used. The three distribution systems are being analyzed to determine the implications of universal versus selective distribution, free versus paid ration, and the use of ration systems to stabilize consumption.

Another study by Roger Fox, Brazil's Minimum Price Policy and the Agricultural Sector of Northeast Brazil, Research Report 9, sponsored by the Institute and the Bank of Northeast Brazil, evaluated Brazil's minimum price policy for rice, corn, beans and cotton. This examined whether or not the two basic objectives of price stabilization and output expansion were being met in the impoverished northeast section of Brazil.

The study showed that although farmers and cooperatives were to be the beneficiaries of the support program, most benefits went to food processors and handlers. Furthermore, the benefits that did accrue to farmers went disproportionately to a few big ones. Although the support prices were high enough to lead one to expect greater participation by farmers in the scheme, participation was low. The

study concluded that there was "little evidence . . . that annual price and income instability had been reduced," and there was "no empirical support . . . that minimum prices influenced the output of the individual crops." However, measurement of this second effect was plagued by many statistical and data problems.

Work has also been started on a project comparing the costs and benefits of alternative targeted and broad-based types of program that involve food (and income) subsidies or transfers. The first phase of this project which is being conducted in collaboration with FAO and several national research agencies began in 1979 with a review of what is known about the causes of malnutrition. Work has commenced with national research centers in Zambia, the Philippines and Bangladesh to begin data collection and analysis for Phase II of the project.

The research on interactions between economic growth and consumption is intended to deal with the dynamics of consumption changes in response to economic, technological, demographic and social changes. Research Report No. 12, Two Analyses of Indian Foodgrain Production and Consumption Data, by J.S. Sarma, Shyama! Roy and P.S. George, examines changes in production and consumption over time in India. Sarma and Roy show that per capita consumption of foodgrains in India declined by about 16 percent between 1961/62 and 1973/74 despite a rising average per capita income. George's work shows that the decline in per capita foodgrain consumption has been less severe among low-income urban groups, suggesting that the ration/subsidy scheme has helped to buffer these groups against the adverse effects of food prices.

Work is also underway to analyze changes in the structure of demand and food consumption with economic growth and urbanization. The work is being carried out by cooperating researchers in Indonesia, Malaysia, the Philippines and Thailand as part of the Rice Policies Research Project. The phase one country consumption papers attempt to critically review estimates of the food demand parameters for each country and to use them to refine projections of rice consumption to the year 1990. Special emphasis is placed on comparing patterns of food staple consumption among low-income groups.

Plans for 1981-82

Work on several of the projects mentioned above will continue through 1981 and 1982. The work on comparing the costs and benefits of alternative targeted and broad-based types of program that involve food (and income) subsidies or transfers will continue. Emphasis will shift to the Phase II work involving empirical field studies of programs in three countries. (For a more detailed discussion of this project see Collaborative Research Projects section of this document.)

Work on the interaction between growth and food consumption will be continued and extended. The main focus of this research will be on the impact of shifts in demand and supply in the food sector on income distribution, employment and real wages. One aspect of this research will examine the impact of past introduction of modern agricultural technology for selected key crops on income distribution and consumption patterns in selected regions, while a related study will examine how the structure of rural and urban labor markets and related institutions affect the impact of policy changes on wages and labor income in four Southeast Asian countries.

Other work planned will deal with: relations between land tenure, labor force participation and food consumption, with special reference to production and consumption of low-cost sources of calories such as corn, cassava and coarse grains; reciprocal relationships between work effort, food and productivity in subsistence agriculture; and the development of improved methods for designing food sector strategies; and the relationship between food consumption pattern and intra-household variables.

TRADE PROGRAM

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions				Person Years			
Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
5	4.0	4.0	5.0	4.38	4.0	4.0	5.0	2.0	1.84	2.0	3.0	2.31	1.84	2.0	3.0	1.0	1.0	1.5	1.8	1.15	1.0	1.5	1.8

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
Trade	4.83	223	4.4	266	4.0	243	4.0	243	4.0	285	5.0	376

The Trade Program is organized around two major areas: the first is international policy issues and their interface with food policy in LDCs, and the second is trade and food strategies in LDCs. The approach starts from two basic premises. One is that in most LDCs, the export/import policies adopted affect national agricultural development strategies. In addition to their effects on food production, the effects of trade policy on food consumption, income transfers, and trade flows, including balancing of payment effects, are crucial. In the other direction, trade policies cannot realistically be separated from the more general food and agricultural strategies. Second, the conditions that the developing countries face on the world market.

including foreign aid and financial facilities, determine to an important degree the options they face with respect to their domestic agricultural strategy.

Current Progress

The area of international policy issues research at IFPRI falls under three broad topics: food security for food deficit LDCs, agricultural export potential of LDCs, and food aid.

The work of the Trade Program in this area is an effort to present independent and well-documented research, identifying problems and examining specific policy choices in relation to: the International Wheat Council (IWC) negotiations on international cooperation in grain markets and the concern about food security, the interest in establishing multilateral financial arrangements to facilitate the importation of food by LDCs, the debates about food aid programs in donor countries, and the Multi-lateral Trade Negotiations (MTN) as they affect agricultural products.

The Food Security Project focussed primarily on assessing a) the magnitudes of food insecurity in LDCs, b) the role of international schemes in alleviating food insecurity, and c) food security policies in LDCs. Measures aimed at improving food security are designed to stabilize annual food supplies in LDCs and to assure food supplies to the poor at stable prices. As a result of domestic production variability and fluctuations in world prices of food, many food deficit countries face extraordinary and unanticipated pressures on their balance of payments. Moreover, there is mounting concern that, in the absence of an assurance of continuing support from the international community, a number of LDCs are committing resources to strategies intended to relieve the impact of these fluctuations, such as building grain reserves, and following trade policies and public investment projects, some of which may be extremely costly, substantially lowering long-run income growth.

During 1979 a manuscript entitled "Food Security for Developing Countries" was completed at IFPRI. It was written in an attempt to clarify the issue of food security; to identify the sources of insecurity; to assess the magnitude of the problem in specific country situations in Asia, Africa, the Middle East, and Latin America; and to explore possible solutions at both national and multilateral levels. This book is the outcome of an international conference on the subject jointly sponsored by IFPRI and the International Maize and Wheat Improvement Center (CIMMYT) in late 1978. It includes six chapters authored by IFPRI staff.

One of the book's chapters presents an assessment of the dimensions of food insecurity for 24 developing countries based on national aggregates for the 1961-76 period and showing the degree of variability

in food consumption, production, and the food import bill. Another chapter deals with Colombia, where even minor fluctuations in food supplies have resulted in a significant reduction in real income and food consumption among the poor. This case is illuminating because Colombia has adequate foreign exchange resources, abundant crop land for its population, and a relatively low variability in production. In a discussion of rice in Southeast Asia, it is pointed out that trade has had a more strategic role in domestic stabilization policies in the region than stocks. In analyzing the merits of a regional food security scheme for the ASEAN group, it concludes that some form of jointly controlled stocks, if accompanied by security of rice trade among participants, is attractive and has possibilities for implementation.

The section of the book on international approaches presents a framework and parameters for analyzing the potential contribution to world price stability of an international buffer stock system for wheat in the context of the Wheat Trade Convention negotiations held from 1977 through February 1979. It also documents the lack of correspondence between fast food flows and import needs in developing countries, which aggravated the burden of imports, particularly in years of high world prices. It suggests a different orientation of food aid to reduce food insecurity, which could be achieved without increasing the average annual level of food aid, but emphasizing the need for minimum quantity guarantees, particularly for years when prices are high. This section also includes chapters on a grain insurance program and on an assessment of the cost of establishing a food financial facility designed to alleviate the foreign exchange problem.

In addition, this book includes chapters on new food production technology and production instability; the nature and magnitude of food security problems in Egypt and East Africa; the issue of domestic reserves and stabilizing trade policies in developing countries in the context of India.

A number of other projects were completed or undertaken in the Trade Program in 1979. The economics of the international stockholding of wheat was analyzed in a project completed in 1979. The study examines the behavior of stockholding and price variability in the world wheat economy since 1960, in order to predict the behavior for the near future, and to evaluate the proposal for a new international system of reserve stocks within the Wheat Trade Convention of an International Wheat Agreement. It is predicted that, for the near future, world stockholding of wheat will be slightly above financially profitable levels but somewhat below levels which would be considered socially optimal. A proposed Wheat Trade Convention as outlined in the study would be a realistic mechanism for international cooperation to bring about the desired modest increase in world stockholding and reduction in price variability. For the Wheat Trade Convention, it would be

reasonable to establish accumulation and release prices of \$140 per metric ton and \$210 per metric ton respectively (in 1978 prices) and a maximum reserve stock obligation of 25 million tons.

The Trade Program also finished a study on developed country agricultural policies and their effect on developing country food supply. In this study wheat is used to make a quantitative assessment of the impact of the policies in developing countries (including the USSR) on the price and availability of grain to developing countries. The study identifies those policy elements that appear to have particular significance in world markets. The aim is to allow food developing countries to understand and to monitor the most significant features of developed country policy as they relate to grain supplies.

The study concluded that production fluctuations themselves are a major potential problem for developing countries and in some cases the effects of fluctuations in production are aggravated by policy decisions. It suggests that policies designed to reduce instability in production would have more of an impact than the various stocks and trade policies more commonly discussed at international gatherings.

The study also points out that consumption variations are less than those in production, due to changes in stocks. Stock policy changes do help offset the impact of price policies on world market instability, due in the past in large part to price-flexible Canadian stocks. However, this effect has not been strong enough to counter the effect of price policy on stock changes. In most years, stock rundown goes along with price-policy surpluses and stock accumulation with shortages. The situation would improve if stocks policy were used to counter the actual impact of price policies.

Finally, the study indicates that flexibility of domestic prices in developing countries is a necessity if stocks changes are to play a full role in stabilizing world markets. Without such price flexibility, stock changes will have to be greater even than in the past decade. This implies a higher average level of stocks as well as a greater response to price changes. Some of the developed countries, notably the European Economic Community and Japan, have not followed price responsive stocks policies.

In the field of agricultural export potential a report requested by FAO was completed. Entitled "Trade Liberalization in Agricultural Commodities in the OECD and the Potential Benefits to Developing Countries," it concludes that if there were a liberalization of trade policies the developing countries' export earnings would increase approximately three billion dollars a year (in 1977 values using 1970-74 as a base) over and above the natural growth in exports likely to occur independently of liberalization. The study analyzes the geographic distribution of these benefits and identifies the products with significant potentials for Asia, Sub-Sahara Africa, North Africa

and the Middle East, and Latin America. Sugar, beef, and veal are the most important commodities, but the study identifies many other products with significant potential for export growth, which could enable developing countries to buy more food.

In the food aid area, a project is underway in collaboration with the Trends and Statistics Program to assess food aid requirements for low-income, food deficit countries. This work will make projections of the financial magnitude of the food gap and the portion of it which can be paid for on commercial terms. The residual constitutes the stable food aid requirement.

Also during 1979 the Trade Program completed a data file for all cereal food aid flows from all donors to all recipients since 1954 and matched it against trade data series to determine the proportion of past imports that have been concessionally financed. Data series relating to GNP growth rates, growth rates of the export sector, foreign exchange reserves, and external debt burden were compiled and are ready for analysis.

When examining trade policy decisions on an individual country basis there are a number of options to consider. A decision to promote national self-sufficiency in food through total reliance on domestic production may result in food insecurity. However, promoting food security by strong reliance on imports is often constrained by the supply of foreign exchange. Thus, providing food security at the minimum cost requires striking the right balance between domestic sources and a country's import/export sector.

The Trade Program analysis of the various national options is conducted with a number of premises in mind. One is that the link between food and nonfood markets is particularly strong in Third World countries because of the large share that agriculture has in their national economics. As a result, policy interventions in one market affect the others. Another is that in many developing countries, general foreign trade policies, in most cases unintentionally, often have a strong influence on the allocation of resources to food production which in turn affect income distribution.

As part of the domestic trade policy analysis on self-sufficiency and food security, the Trade Program is working on approaches to short-run food supply management for food security in the Sahel and in Southeast Asia. Most of the work on an analysis of food security for the Sahel, which was partially funded by the U.S. Agency for International Development and the U.S. Department of Agriculture

has been completed. This project aims to provide a comprehensive evaluation of costs and benefits of a set of policies -- trade, storage and food insurance -- to reduce consumption instability in that region.

Tentative findings suggest that establishing grain reserves as buffer stocks in the Sahel is likely to be much more expensive than a food insurance system or compensatory financing system and that regional grain reserve programs are probably less profitable than individual country programs unless the region can be completely isolated from world trade. Also, consumption variability in the region is one of the highest in the world and foreign exchange availability in the region is a serious constraint, increasing pressure on governments to seek foreign aid. The findings also suggest that the isolation of the region from world trade makes food insurance schemes less effective because of high transport costs, thus calling for more investment in transportation.

For rice in Southeast Asia, a study has been commenced on approaches to short run supply management to measure how far consumption of rice in the region can be insured through trade policies and changes in stocks. Countries included in the study are Indonesia, Malaysia, the Philippines, and Thailand.

Tentative results include estimates of demand, supply, and trade of rice for the four Southeast Asian countries, which can be used as byproducts for projection work in the Rice Policy Project. Ongoing work is analyzing the structure of the world rice market by focussing on the trading behavior of the various countries. These results will enable individual countries to understand their trading environment better, which is essential for working out their stockholding strategies.

A special project on the effects of trade and agricultural policy on food production, consumption, foreign exchange earnings, and income distribution in Colombia was also begun in 1979. This project, which is partially funded by the Rockefeller and Ford Foundations, is part of IFPRI's effort to develop an analytical framework for the analysis of food self-sufficiency, food security, and the social cost of food supplies in developing countries.

The most important finding up to now has been the measurement of the degree of economic discrimination against the agricultural sector in Colombia, resulting from the trade restrictions and exchange rate policy since 1966. The effect of this has been that the sector with the greatest production and export potential was discouraged, and the heavy initial dependence on coffee exports as a source of foreign exchange continued. Important empirical results include the estimation of the demand for imports in Colombia, an estimation

of the overevaluation of the domestic currency, and the estimation of a parameter measuring the incidence of export subsidies and import duties on the export sector, which in that country is basically the agricultural sector. The analysis suggests that in Colombia, the incidence of import duties on manufactured goods is fully shifted as an (equivalent) export tax on agricultural exports, which in Colombia represent approximately 70 percent of export revenues.

Plans for 1981-82

Apart from follow-up work in the areas of international approaches to food security and food aid described above, additional emphasis will be given to domestic trade policy analysis in LDCs. Trade policies can greatly affect investment, production and consumption of food, in addition to their more obvious affects on the balance of trade. The principal project will be on food security, self-sufficiency and trade in selected LDCs. This will involve development of an analytical framework that permits the ramifications of alternative adjustment policies to be explored, and the application of this framework to selected cases. The ongoing studies on food security in the Sahel, the rice policy study in Southeast Asia, and the on-going work on trade policy and agriculture in Colombia represent critical steps in the development of this research approach.

Another area in which work is envisaged, which is also an extension of ongoing work on trade liberalization, is on perspectives of a growing trade among LDCs.

5. COLLABORATIVE RESEARCH

RICE POLICIES IN SOUTHEAST ASIA

	Senior Staff				Scientific & Supervisory								Support Staff							
	Positions		Person Years		Positions				Person Years				Positions		Person Years					
	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.				
a)	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
	-	1.0	1.0	1.0	-	1.0	1.0	1.0	-	-	-	-	-	-	-	-	-	-	-	-

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
Collaborative Research	-	-	-	-	1.0	65	1.0	65	1.0	71	1.0	79

a) This collaborative researcher is stationed at IRRI with salary and benefit support provided by IFPRI. Research assistant and secretarial service and other support is provided by IRRI.

Objective

The Rice Policy Project is a joint effort by IFPRI, the International Fertilizer Development Center (IFCD), and the International Rice Research Institute (IRRI) to understand the various facets of government policies that impinge on rice, the most important commodity in the four Southeast Asian countries (Indonesia, Malaysia, the Philippines, and Thailand), which form (with Singapore) the Association of Southeast Asian Nations (ASEAN). The cost and benefits of these policies, their impact on the level and variability of rice production and consumption, and the relationship of rice and rice policies to the rest of the economy will be the subjects of the studies being undertaken as part of the project. The project has the important objective of bringing together the existing researchers in the region in this field into a cooperative network. The main emphasis of the project is to build up the analytical framework and research methods through a collaborative effort between regional researchers and researchers at the three international centers. The adaption of the results for actual applications and policy implementation in any particular country will be the task of that country's own researchers.

Within IFPRI, the project is a joint activity involving three of its four programs: production (relating to irrigation aspects), consumption, and trade (relating to trade and buffer stocks).

Phase I: Laying the Groundwork

The first phase of the project (January 1979 to June 1980) has involved surveying the existing state of knowledge in the four areas of specific

concern in the project: trade and reserve stocks, fertilizers, irrigation, and consumption in order to make projections about future developments through the years 1990 and 2000 and to improve understanding of current national rice policies, their objectives and results. These papers, together with those to be written on rice consumption in each of the four countries, will be published in the middle of 1980.

The data generated from this exercise are not only of interest in themselves, but also are being utilized to put together estimates of the future trends of the rice economy in the study countries through 1990, assuming present policy trends. Such estimates form an essential backdrop to any discussion of changes in rice policies in these countries.

Concurrently with the above work, the burden of which has fallen largely on the national researchers, work is also being carried out at IFPRI on an attempt to understand how the international rice market functions in the light of the various domestic policies followed by the individual governments. This work is complementary to the work on reserve stocks being done by the national researchers, as reliance on imports and reliance on stocks are to a large extent substitutes.

Last, and perhaps most important, the formative steps taken in Phase I have enabled the project to assemble in the region a corps of researchers keenly interested in the various facets of rice policies and aware of the intensive work that needs to be done to come to grips with many of the issues.

Phase II: In-Depth Analyses

The final objective of this project is the design and evaluation of precise and specific policies pertaining to rice, which will require examining many such policies in depth and drawing out their implications to the extent possible. Each major facet of national rice policy will therefore be the subject of a full-scale research effort to involve primarily one or more researchers from the region with personnel from the Institute providing some input to ensure cross-national comparability. The choice of specific policies to be covered by the studies was the subject of discussion by the researchers at a September 1979 meeting at IFPRI.

The discussions at this meeting, and also consultations with the project collaborators in the region led us to conclude that there are two or three possible topics of research. In the area of fertilizers, there will be an examination of the marketing and pricing policies followed by the governments. In the area of irrigation, the study will examine the impact of irrigation on the factor prices (particularly for land and labor) and therefore on income distribution in all the four countries. The consumption component of the project will take up the issue of how far rice prices affect money wage rates, the hypothesis being that the impact of rice prices on consumption cannot be analysed by assuming money wages constant as is

implicitly done in most instances. These various in-depth studies and their methodologies will be the subject of a further workshop to be held in South-east Asia in October 1980 at a site yet to be selected. Work on these projects is expected to continue until the end of 1981.

These policies are necessarily specific and discrete in view of the piecemeal nature of many government policies throughout the world. The studies on the individual policies reflect this. To stop at this point, however, runs the danger of replicating the lack of coherence of current policies. The project will be fully effective only if it is possible to array alternative policy approaches meaningfully and compare their efficiencies in attaining predefined production, consumption, or trade targets. To attain this end, work has to be done on a common framework of cost and benefit accounting to guide the individual studies. This part of the work will be undertaken at IFPRI. A prototype model will be discussed with other researchers on the project in the October 1980 workshop. The full-scale research on this will then be initiated and is expected to be completed in 1981.

FOOD SUBSIDIES AND NUTRITION PROJECT

The importance of devoting special effort and resources to meeting the basic food needs of the poorer segments of the population has been highlighted by the accumulating evidence on the dimensions of the problem of world hunger and malnutrition and its implications for development and society. Not only does the existence of widespread malnutrition point to the inadequacy of the development processes, but the worsening situation could also inhibit growth efforts and returns to investment and resources. It is therefore necessary to study the ways in which levels of adequacy can be raised and then incorporate them into development processes. What little we know about the problem of inadequate food consumption points to its association with poverty and low incomes. This suggests an ultimate solution in sustained long-term growth and the broader distribution of its benefits.

There are, however, two reasons why more direct attention should be given to various alternatives that can improve food consumption and nutrition in the shorter run. Firstly, even where choice between alternative policy instruments to broaden participation in growth is possible, decisions are often made without adequate understanding of their possible differential impact on meeting individual's food needs. Secondly, small but highly targeted measures to alleviate the most severe manifestation of insufficient food intake can be undertaken in the short-run, but their impact on growth is uncertain. The need for increasing the factual basis for adopting various measures cited above provides a rationale for IFPRI undertaking a study of cost-effectiveness of alternative food policy instruments (in particular of those involving food subsidy elements)--that is with a distributive potential, in meeting food needs.

The objective of this project is to examine types of subsidized food distribution programs, extending previous IFPRI work on the subject beyond

the experience in South Asia, on marketed distribution of subsidized foodgrains. The research will compare the benefits to vulnerable groups of the population in improving their nutritional adequacy and the cost of these types of programs, with alternative income efforts. The yardstick for ascertaining adequacy is nutritionally defined--both in dietary and derived or physiological terms of body growth. The project has an expected duration of three years, and places strong emphasis on collaborative arrangements with other international and national institutions in accomplishing its research objectives. The project will have two phases: an initial review phase, which is in progress and is to be completed in early 1980, and a country study phase, which will be the main body of the research and will consist of in-depth case studies. They will rely on analysis of detailed household-level surveys in three countries--to cover as wide a range as possible of food distribution options.

The Review Phase of the project will examine the issues and present the evidence (based on published reports) on the etiology of malnutrition and its relation to some of the generally considered outcomes of food policy instruments, namely levels of composition of income, employment, and food consumption. It will also review the experience (again based on reports already available) with types of subsidized food distribution systems for evidence of their cost effectiveness. This phase will be completed in 1980.

The country study phase of the project will be carried out beginning in 1980 in three countries--progress with collaborative arrangements suggest that these will be Bangladesh, the Philippines, and Zambia, with the possible inclusion of Colombia. This phase will consist of in-depth case studies to determine the net improvements in food consumption and nutrition derived from the various income sources available to households and from food programs that provide employment or subsidize the consumption of certain foods. A methodology for impact-cost analysis is being developed and will be applied to existing and alternative programs identified for each country case study. This phase of the project involves developing collaborative working arrangements with national research centers, adapting the broader methodology to meet local conditions and existing data where available, and carrying out small special purpose household surveys when available data is not adequate to meet the research needs.

In 1979, IFPRI and FAO worked out a collaborative arrangement to exploit complementarities in the country study phase of this project. This arrangement involves consultation between staff from IFPRI and FAO for developing effective links with national research centers. On the operational side, FAO's program objectives in determining and improving the nutritional outcomes of agricultural development are complementary to IFPRI's research objectives and joint activities have been undertaken. Shubh K. Kumar visited Zambia and prepared a report on "Incorporating Nutritional Consideration in Agricultural Planning," which was later submitted to the Zambian Government by FAO. This report identified the analysis needed for Zambia to

support this kind of planning, and IFPRI has undertaken a portion of the research needed as part of the food subsidies and nutrition project.

IFPRI's research effort in this project has benefited from this collaboration with FAO and the Institute is in the process of developing arrangements to carry out the analysis in cooperation with national research centers. In Zambia, these centers are the National Food and Nutrition Commission and the Rural Development Studies Bureau of the University of Zambia. In the Philippines, it is the National Food and Nutrition Research Institute. In Bangladesh, collaboration with the Bangladesh Institute of Development Studies is being developed for a longitudinal study to investigate ways of improving the short and long term consumption and nutrition impacts of food for work programs. This is in conjunction with an IFPRI study of development impacts of the food for work program in Bangladesh. In Zambia a background paper is in progress for a survey that will be conducted to meet the data needs of the analysis. In the Philippines the work is largely expected to center on existing national food consumption and nutrition surveys; however, the need for a small additional survey in the Philippines does exist. Work on existing data with the National Food and Nutrition Research Institute in the Philippines is already underway and is scheduled for completion in 1981.

The results of this project are expected to be useful for international and national agencies responsible for the allocation of resources to the food sector with the objectives of improving food consumption and nutritional adequacy.

COLLABORATIVE RESEARCH STAFFING

- Rice Policies in Southeast Asia

Three and one half senior research person years of core research staff are budgeted for this collaborative research project. Two and one half are listed under their respective program areas: one in production, one in trade and .5 in Distribution. In addition, in 1980 IFPRI made a joint appointment with IRRI of a Coordinator for the Rice Policies Project. This coordinator is based at IRRI with salary and benefit support provided by IFPRI, and office space, research support and secretarial services provided by IRRI.

- Food Subsidies and Nutrition Project

One full year of core senior research staff is assigned to the Food Subsidies and Nutrition Project. This position is listed under Distribution.

SPECIAL FUNDING

IFPRI is currently funding this collaborative research from core budget funds. It has sought and is seeking special funding for those activities which are taking place in the developing world. For example, in 1979 IFPRI was successful in obtaining special funding for the Rice Policy Research Workshop.

6. STATISTICAL SERVICES

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions				Person Years			
Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
-	-	-	-	-	-	-	-	2	3	3	3	1.5	2.5	3.0	3.0	-	-	-	-	-	-	-	-

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
Statistical services		98		81		129		129		162		178

IFPRI relies on the data collected by the Food and Agricultural Organization, the U. N. Economic and Social Department, the World Bank, the U.S. Department of Agriculture and other regional and national organizations dealing with food and related issues. These statistics, which are acquired in the form of tapes and computer printouts, form the core of IFPRI's data library and are supplemented by data obtainable from the various publications that are available in IFPRI's regular library facilities, and information gathered by the Institute's staff.

The statistical services in support of IFPRI's research activities are mainly provided through the use of the Brookings Institution DEC-10 computer system for the processing, storage and retrieval of information in IFPRI's data library. This information is available either as raw or derived data which is formatted and presented for analytical purposes by the IFPRI statistical services staff.

The Brookings' computer facilities has a variety of media for storing information, which offers the advantage of increased adaptability of data from various sources to meet specific research needs. Currently, IFPRI has in its collection some 250 computer programs including standard statistical packages and those developed in past research work; it has also access, through the DEC-10 system, to a number of special statistical packages in use by other computer installations. In addition, specific adaptations of general statistical programs developed at Brookings are likewise available. The Brookings computer staff is available to assist with problems related to these programs.

Services are provided by a coordinator of statistical services and a part-time senior programmer. A Data Analyst/Programmer was added in 1980. It is anticipated that a full-time senior programmer will be required by 1981.

7. COMMUNICATIONS SERVICES

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions				Person Years			
Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
1	1	1	1	1	1	1	1	3	4	4	5	3	4	4	5	4	4	6	6	3.4	3.5	5	5.5

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
<u>Conferences & Training:</u>												
Workshops/conferences		0		22		20		20		20		80
<u>Library & Comm. Services:</u>												
Library		38		43		38		38		41		44
Communications services	1.0	112	1.0	267	1.0	316	1.0	316	1.0	378	1.0	419
Subtotal	1.0	150	1.0	310	1.0	354	1.0	354	1.0	419	1.0	463

The Communications Services are charged with arranging and administering most of the nonpersonalized outreach of the Institute-- that is, all efforts other than those made on a one-to-one basis by IFPRI officers and researchers to get the results of IFPRI's work to possible users. At present, this responsibility is met via three channels: publications; conferences, seminars, and workshops; and the headquarters library.

Publications consist of Research Reports; "other publications," which include papers and reports of important articles authored by IFPRI researchers; a newsletter entitled IFPRI Report; an Annual Report, and periodic overviews of IFPRI research in progress. The Communications Services section edits and supervises the printing and distribution of all these publications, which are sent out free of charge. Research Reports and "other publications" are sent worldwide to some 3,700 individuals, government officials, national research agencies, universities, and international organizations concerned with food and agricultural development. IFPRI Report, which is published three times a year, reviews the work completed during the period under review and summarizes the work expected to be completed in the ensuing period. It is mailed to a large list of people and institutions concerned with development. The Annual Report and the periodic overviews of research in progress are also mailed to the larger list.

For IFPRI's purposes, conferences are considered to be relatively large gatherings at which papers are presented by experts from both inside and outside IFPRI. Seminars are smaller meetings in which work being done at IFPRI is generally the focal point, but studies by other social scientists and policy makers may also be the subject of discussion. Workshops

are small sessions in which work completed at IFPRI is to be passed on to those policymakers, administrators, and others considered most likely to find it useful.

The IFPRI library is at present being built up to serve the needs of IFPRI researchers. It is open to interested professionals in the Washington Area. Eventually it is intended that its collection be of such quality and quantity that it may be looked upon as a principal source of reference for food policy-related printed material.

CURRENT PROGRESS

During 1979, in addition to an Annual Report and the first two editions of IFPRI Report, the following publications were issued and distributed:

Research Reports

- No. 5 - Impact of Subsidized Rice on Food Consumption and Nutrition in Kerala by Shubh K. Kumar
- No. 6 - Intersectoral Factor Mobility and Agricultural Growth by Yair Mundlak
- No. 7 - Public Distribution of Foodgrains in Kerala - Income Distribution Implications and Effectiveness by P. S. George
- No. 8 - Foodgrain Supply, Distribution, and Consumption Policies with a Dual Pricing Mechanism: A Case Study of Bangladesh by Raisuddin Ahmed
- No. 9 - Brazil's Minimum Price Policy and the Agricultural Sector of Northeast Brazil by Roger Fox
- No. 10 - Investment and Input Requirements for Accelerating Food Production in Low-Income Countries by 1990 by Peter Oram, Juan Zapata, George Alibaruho, and Shyamal Roy
- No. 11 - Rapid Food Production Growth in Selected Developing Countries: A Comparative Analysis of Underlying Trends, 1969-1976 by Kenneth L. Bachman and Leonardo A. Paulino
- No. 12 - Two Analyses of Indian Foodgrain Production and Consumption Data by J. S. Sarma, Shyamal Roy and P. S. George

No. 13 - The Impact of Public Food Distribution on Food Consumption and Welfare in Sri Lanka by J. Gavan and I. Chandrasekra

Other Publications

Agricultural and Food Policy Issues Analysis: Some Thoughts from an International Perspective by Alex F. McCalla (a report prepared under a grant to Dr. McCalla from the Ford Foundation)

Three Issues of Development Strategy - Food, Population, Trade by John W. Mellor (two conference papers and testimony presented to the United States House of Representatives Select Committee on Population)

Growth Potential of the Beef Sector in Latin America--Survey of Issues and Policies by Alberto Valdes and Gustavo Nores (paper presented at the IV World Conference on Animal Production, Buenos Aires, August 1978)

Analysis of Trade Flows in the International Wheat Market by Panos Konandreas and Hernan Hurtadi (Reprint from the Canadian Journal of Agricultural Economics, Vol. 26 (3), 1978)

Food Price Policy and Income Distribution to Low-Income Countries by John W. Mellor (Reprint from Economic Development and Cultural Change, Vol. 27, No. 1, October 1978)

India - A Drive Towards Self-Sufficiency in Food Grains by J. S. Sarma (Reprint from American Journal of Agricultural Economics, Vol. 60, No. 5, December 1978)

In addition to continuing the present flow of publications during 1980, the communications service is finalizing plans to produce and distribute an abstract of each report, emphasizing the policy implications of research results.

Fifteen seminars were held during 1979. Three seminars have been held so far in 1980. Plans are being formulated for one conference and one workshop to be held in 1980.

PLANS FOR 1981-82

During the calendar years 1981-82, IFPRI plans to publish and distribute 24 Research Reports, eight "other publications," two Annual Reports, and six newsletters (IFPRI Report). The abstract series begun in 1980 will become a regular feature in 1981-82. The abstracts, smaller versions of the

reports emphasizing the policy implications of the research results, will be sent to all those who now receive copies of the Research Report and to a wider audience consisting of those who might be more inclined to read an abstract than a longer, more technical report.

During 1981 it is expected that IFPRI will disseminate the first in a series of annual Institute policy statements. Signed by the Institute's director, these statements will elaborate on one issue or set of issues in the food policy area. A second such statement will be issued in 1982.

As IFPRI's research output expands, the Institute will increase the number of conferences, seminars, and workshops it will organize and run either at IFPRI headquarters or at outside locations deemed appropriate.

It is estimated that a total of 25 seminars will be held in 1981-82. At least two workshops will be held in developing countries in Asia and/or Arica. They will be organized around the policy-oriented research thrusts.

8. ADMINISTRATION AND GENERAL OPERATIONS

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions				Person Years			
Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	2.5	2.5	3.0	3.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0	4.0

General Administration	Act. 78		Act. 79		App. Budget 80		Est. Budget 80		Budget 81		Percent Increase	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	Act.	Percent
Board		35		26		44		44		44		44
Director	1.12	118	1.5	166	1.5	198	1.5	198	1.5	204	1.5	204
Administration	1.00	115	1.0	170	1.0	153	1.0	153	1.0	154	1.0	154
Subtotal	2.12	263	2.5	312	2.5	395	2.5	395	2.5	402	2.5	402

Senior Staff								Scientific & Supervisory								Support Staff							
Positions				Person Years				Positions				Person Years				Positions				Person Years			
Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82
..	1	1	1	1	.5	.5	1	1	2	2	2	2	2	2	2	2

	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Projected Budget 1981		Projected Budget 1982	
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost
Furniture & Equipment		29		29		20		20		30		20
Rent		89		93		105		105		150		150
Communications		25		30		29		29		35		40
Supplies		22		19		26		26		30		35
Miscellaneous		28		43		41		41		45		50
Subtotal		123		214		221		221		290		295

Grouped under Administration are the offices of the director, the deputy director and the director for administration. One half of the deputy director position is charged to the Production Program.

The office of the director for administration is responsible for personnel, accounting, and office management. Costs relating to office management are shown under General Operating Expenses.

Beginning in 1979, IFPRI instituted the practice of holding one of its two board meetings outside of Washington. The February 1979 meeting was held at FAO, Rome. The 1980 meeting was held in New Delhi, India.

Rent is the major expenditure under general operations costs. The significant increase between 1980 and 1981 reflects the renegotiation of the Institute's lease for space in October 1980. This renegotiation includes the acquisition of 4,000 additional square feet of office space to accommodate current and projected staff. Even with this additional space, IFPRI's total space rental of 13,900 square feet will be only two-thirds of the allocation suggested as appropriate by the CGIAR space standards

9. POLICY THRUSTS

The Institute's research is focused on major policy issues through organization of policy thrusts which draw upon portions of various research projects. IFPRI is developing five such thrusts as follows.

National and International Food Imbalances: Identification of Major Food Policy Issues

The objective of this thrust is to delineate and categorize the emerging national and international problems of imbalance in food supplies in developing countries and to suggest the potential roles of domestic food production and consumption policies, trade, and foreign assistance in dealing with those problems.

The initial research effort is based on the following premises. Accelerating economic growth in an enlarging aggregate of countries, on top of high population growth rates and other forces, will bring a significant tightening of the food situation in many of these countries over the next decade. Growth in commercial imports of food will be substantial in some countries, thereby further tightening supplies for other countries with poor export performance. This will lead to a substantial skewing of income distribution away from the poor (through price and employment effects) with adverse effect on their nutritional status, unless countered by deliberate measures. Those measures may arise in the national or international spheres or both. Demand for livestock products and the derived demand for grain will play a major reinforcing role in these processes.

Nearly all of the Institute's research projects shed light on the four major questions which arise in this thrust.

First, what size gaps between domestic production and consumption will arise if past trends continue and how countries can be classified according to the degree of seriousness with which they will be affected by the projected gaps. IFPRI's prior work on projections is being extended in time, the country and commodity coverage enlarged, and particular attention is now being given to the livestock component, including the derived demand for grain and selected high protein meal commodities.

Second, to what extent can commercial trade and foreign aid close expected gaps in food supplies of developing countries? The Institute's research is being extended to categorize countries according to these potentials, and then will examine the extent to which various regions may facilitate closing of gaps for various classes of countries under particular circumstances. In this same context, the size of residual needs of low-income countries will be examined in relation to food aid potentials.

Third, the indications of accelerated growth rates in agricultural production will be examined. This effort will grow partly out of the production policy thrust as a measure of potentials for production growth and partly from statistical analysis to detect early changes in production trends.

Fourth, given the production and trade potentials, the size of residual adjustments in consumption and the mechanisms by which this may occur are to be analyzed. This involves analysis of the relation between income and prices of food and nutritional status, and the means by which that relation occurs.

Thus from a knowledge of the likely trends in production, trade, and consumption, the need for alternative policies and research priorities can be developed. Particularly given the substantial work of FAO and other international agencies on such problems, it may be possible for IFPRI's work to emphasize specific narrowly defined, in-depth analyses of these problems.

Food Security: Policy Alternatives for Assuring Adequate and Stable Food Consumption

The objective of this thrust is to define the short and long-run policies needed to secure adequate food consumption for all people, recognizing that while the problem arises primarily for low-income people and is one of inadequate total consumption by those people exacerbated by the fluctuations in supplies, it also has broad implications to political and economic stability and growth.

The initial research effort is based on the following premises. Raising food consumption levels plays a special and central role in poverty alleviation. The burden of inadequate and unstable food supplies falls primarily on the poor whose caloric deficiencies are massive. In the short run, when domestic food production is inadequate, mitigation of poverty is primarily a function of increased food supplies to the poor through trade or aid. A long run solution, barring some major and radical redistribution of income, requires a large increase in food production. Solution to the problem of food deficiency of the poor cannot be achieved by international or national schemes alone, but only by an appropriate combination of such policies - among national schemes a mechanism to reach the poor and among international schemes to increase the efficiency of meeting fluctuations by pooling risks and sharing costs.

IFPRI's research program has three major components in this Policy Thrust.

First, a major set of research projects are examining the various means by which increased food supplies may reach the poor and malnourished, including food subsidies, employment subsidies, and various

employment linkages. These efforts carry analysis through to the actual nutritional effects of various interventions.

Second, on a quite different front, various international schemes for increasing food supplies and subsidizing costs are examined.

Third, research is undertaken on the extent of supply instability, the effect of technological change on stability, and various national and international mechanisms for reducing supply fluctuations.

Development Strategy: Defining Strategies to Attain Food Policy Objectives

The objective of this thrust is to examine the impact of growth in agricultural productivity on overall economic growth, the nature of the linkages between agriculture and other sectors, and the regional income and employment effects. From this analysis appropriate policies for agricultural growth, employment, and food consumption will be derived.

The initial research effort is based on the following premises. Increasing agricultural productivity (in terms of net value added at constant prices) can lead to satisfactory economic growth, and has the additional advantages of focus on a) rural areas where most of the poor are and b) the potential to be employment-intensive in both direct and indirect effects. These processes can be enhanced through appropriate policies. Research on agriculture-based strategies of growth requires increased attention to the roles of technological change and of consumption expenditure on growth. Technological change in agriculture can add enormously to net additional income, but skewness in the distribution of benefit creates an initial supply-demand imbalance requiring growth in other sectors if incentives to agricultural growth are to continue and food is to reach the poor.

IFPRI's research program on this thrust has four components.

First, an effort to model processes of growth in a manner that emphasizes intersectorial linkages so that the stimulus of one sector with another can be more clearly understood.

Second, to translate understanding of the role of agriculture into the financial implications for national budgets.

Third, to understand how consumption patterns influence the employment and food consumption linkages and how policy may affect those patterns.

Fourth, to understand the potentials for production growth, particularly in the rural non-formal sector, to play a role in the growth of employment and the transfer of income from one sector to another.

Agricultural Production Policy: Alternatives for Accelerating
Agricultural Growth

The objective of this thrust is to diagnose policy needs for accelerating agricultural production to meet food needs with emphasis on the poorer countries and the poorer people in those countries. The initial research effort is based on the following premises. Technological change is generally central to increasing production. It defines the production potential. But it tends to be embodied in large increases in use of purchased inputs, particularly fertilizer and investment in water. The institutions and infrastructure have to be geared in such a way that the inputs are used and that benefits are reaped by the poorer sections of the people.

The initial research effort has three elements.

First, analysis of allocation of research resources to foster technological change. Second, analysis of the spread of fertilizer use. Third, analysis of investment in water. In each of these approaches, attention is given to prices and to the development of trained people and efficient institutions for organizing their effort.

Regional and National Policies: Rice Policy Research in Southeast Asia

The objectives of the Rice Project under this thrust are to examine a number of policy measures as they affect the demand, supply, and trade of the most important food commodity in four Southeast Asian countries; namely Indonesia, Malaysia, the Philippines, and Thailand. The questions that will be raised are:

- (1) What are the costs and benefits to the country and to various groups within it of alternative policy measures designed to achieve a given shift in the demand or supply of rice?
- (ii) What are the effects of various measures on the variability of rice supplies in the country?
- (iii) What is the nature and magnitude of the resource flow between the rice and non-rice sectors?

The underlying motivation is the well-documented observation that interventions by governments have been extensive both in the markets for rice and for the inputs that are used in rice production, particularly water and fertilizer. These various interventions have their own rationales, for example, to attain the objective of self-sufficiency or to improve income distribution within a country. We start with the working assumption that, regardless of the rationale, the outcomes of the various policy measures can be reduced to specific shifts in either

the demand or the supply function of rice. The measurement of the magnitude and costs of such shifts has therefore been made an important component of the objective.

The large number of interventions that impinge on the rice demand-supply situation have been grouped under four headings: i) trade and buffer stocks; ii) fertilizer; iii) water control; and iv) consumption. The research will attempt to answer the questions raised above for each of the four sets of instruments separately as well as to compare the answers in order to obtain a better assessment of the relative advantages or disadvantages of the various policies.

The project has been divided into two phases: Phase I, starting from January 1979, is largely an inventory of existing knowledge under the four subtopics above, and also some tentative projections of future rice demand and supply in the four countries, based on this knowledge. This phase of the project is now almost completed, and there will be a series of publications connected with this work in 1980.

Phase II work will begin in January 1980, and will address more specific issues within the four subtopics. One set of studies will be on the income distributional impact of irrigation. It is expected that further studies will also be initiated on fertilizers and consumption issues.

Research activity for both phases has relied extensively on a network of scholars from within the region as well as researchers from the International Food Policy Research Institute, the International Rice Research Institute, and the International Fertilizer Development Center, who are the co-sponsors of the Project.

APPENDIX: FINANCIAL TABLES

Table 1-Summary of costs by program and activity, 1978-1984

Major Activities	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Proposed Budget				Projections				
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	1981	1982	1983	1984	1983	1984	1983	1984	
<u>Core Operating Budget</u>																	
<u>Research Program</u>																	
Collaborative Research	--	--	--	--	1.0	65	1.0	65	1.0	71	1.0	75	2.0	153	2.0	153	
Production	7.35	336	6.7	411	8.25	570	8.25	570	9.0	662	10.0	781	10.0	801	10.0	801	
Distribution	5.30	188	2.2	140	2.9	212	2.9	212	4.5	318	5.0	375	5.0	385	5.0	385	
Trends	1.30	81	1.3	110	3.0	197	3.0	197	3.0	228	3.0	233	3.0	239	3.0	239	
Trade	4.83	223	4.4	266	4.0	243	4.0	243	4.0	285	5.0	376	5.0	386	5.0	386	
Subtotal	<u>18.78</u>	<u>828</u>	<u>14.6</u>	<u>927</u>	<u>19.2</u>	<u>1287</u>	<u>19.2</u>	<u>1287</u>	<u>21.5</u>	<u>1564</u>	<u>24.0</u>	<u>1840</u>	<u>25.0</u>	<u>1964</u>	<u>25.0</u>	<u>1964</u>	
<u>Research Support</u>																	
Statistical services		98		81		129		129		162		178		240		290	
Consultants		36		48		50		50		50		100		100		150	
Subtotal		<u>134</u>		<u>129</u>		<u>179</u>		<u>179</u>		<u>212</u>		<u>278</u>		<u>340</u>		<u>440</u>	
<u>Conferences & Training</u>																	
Fellowships	--	--	--	--	--	--	--	--	--	--		100		200		200	
Workshops/conferences	0	0	22	22	20	20	20	20	20	20		80		200		250	
Subtotal	<u>0</u>	<u>0</u>	<u>22</u>	<u>22</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>		<u>180</u>		<u>400</u>		<u>450</u>	
<u>Library & Comm. Services</u>																	
Library		30		43		38		38		41		44		48		48	
Communications services	1.0	112	1.0	274	1.0	316	1.0	316	1.0	378	1.0	419	1.0	480	1.0	480	
Subtotal	<u>1.0</u>	<u>150</u>	<u>1.0</u>	<u>317</u>	<u>1.0</u>	<u>354</u>	<u>1.0</u>	<u>354</u>	<u>1.0</u>	<u>419</u>	<u>1.0</u>	<u>463</u>	<u>1.0</u>	<u>528</u>	<u>1.0</u>	<u>528</u>	
<u>General Administration</u>																	
Board		35		26		44		44		44		44		48		48	
Director	1.12	113	1.5	170	1.5	198	1.5	198	1.5	204	1.5	204	1.5	212	1.5	212	
Administration	1.0	115	1.0	120	1.0	153	1.0	153	1.0	154	1.0	154	1.0	220	1.0	220	
Subtotal	<u>2.12</u>	<u>268</u>	<u>2.5</u>	<u>316</u>	<u>2.5</u>	<u>395</u>	<u>2.5</u>	<u>395</u>	<u>2.5</u>	<u>402</u>	<u>2.5</u>	<u>402</u>	<u>2.5</u>	<u>480</u>	<u>2.5</u>	<u>480</u>	

Table 1 - (Continued)

Major Activities	Actual 1978		Actual 1979		Approved Budget 1980		Current Estimates 1980		Proposed Budget		Projections					
	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost	P-Y	Cost		
<u>General Operations Costs</u>																
Rent	89		90		105		105		150		150		150		150	
Communications	25		30		29		29		35		40		46		46	
Supplies	22		19		26		26		30		35		40		40	
Furniture & equipment	29		29		20		20		30		20		30		20	
Miscellaneous	28		46		41		41		45		50		58		58	
Subtotal	<u>193</u>		<u>214</u>		<u>221</u>		<u>221</u>		<u>290</u>		<u>295</u>		<u>324</u>		<u>314</u>	
Total Operations	<u>21.9</u>	<u>1573</u>	<u>13.1</u>	<u>1925</u>	<u>22.7</u>	<u>2456</u>	<u>22.7</u>	<u>2456</u>	<u>25.0</u>	<u>2907</u>	<u>27.5</u>	<u>3458</u>	<u>28.5</u>	<u>4036</u>	<u>28.5</u>	<u>4176</u>
Percent Increase	-		22.4		27.6		-		18.4		19.0		16.7		03.5	
*Contingency	-		-		-		-		305		745		1311		1855	
Total Core	<u>1573</u>		<u>1925</u>		<u>2456</u>		<u>2456</u>		<u>3212</u>		<u>4203</u>		<u>5347</u>		<u>6031</u>	
Working Capital	<u>8</u>		-		-		-		<u>265</u>		-		-		-	
GRAND TOTAL	<u>1581</u>		<u>1925</u>		<u>2456</u>		<u>2456</u>		<u>3477</u>		<u>4203</u>		<u>5347</u>		<u>6031</u>	
<u>Core Operating Budget</u>																
<u>Categories of Expense</u>																
Personnel costs	1159		1353		1801		1801		2062		2496		2849		2949	
Staff travel	34		92		107		107		180		197		255		255	
Publications, conferences, library	63		169		185		185		216		295		360		360	
Statistical services	68		49		75		75		92		108		170		220	
Furniture & equipment	29		29		20		20		30		20		30		20	
Space rental	89		90		105		105		150		150		150		150	
Administrative costs	<u>131</u>		<u>143</u>		<u>163</u>		<u>163</u>		<u>177</u>		<u>192</u>		<u>222</u>		<u>222</u>	
Total Operating Costs	<u>1573</u>		<u>1925</u>		<u>2456</u>		<u>2456</u>		<u>2907</u>		<u>3458</u>		<u>4036</u>		<u>4176</u>	
*Contingency (allowance for changes in prices)	-		-		-		-		305		745		1311		1855	
Total Core	<u>1573</u>		<u>1925</u>		<u>2456</u>		<u>2456</u>		<u>3212</u>		<u>4203</u>		<u>5347</u>		<u>6031</u>	
Working Capital	<u>8</u>		-		-		-		<u>265</u>		-		-		-	
GRAND TOTAL	<u>1581</u>		<u>1925</u>		<u>2456</u>		<u>2456</u>		<u>3477</u>		<u>4203</u>		<u>5347</u>		<u>6031</u>	

*Contingency assumes 10.5% in 1981; 10% in 1982; 9% in 1983; 9% in 1984. (Includes only allowance for price increases).

Table 2-Summary of sources and applications of funds

SOURCES OF FUNDS	1978	1979	1980	1981	1982	1983	1984
<u>Core Operations</u>							
Grants							
Ford Foundation	\$ 307,083	\$ 514,916	\$ 300,000	--	--	--	--
Rockefeller Foundation	300,000	300,000	300,000	--	--	--	--
IDRC	840,212	845,752	848,084	--	--	--	--
IBRD	--	--	100,000	--	--	--	--
Australia	--	--	110,800	--	--	--	--
Germany	--	--	115,908	--	--	--	--
USAID	--	--	550,000	--	--	--	--
Philippines	--	--	25,000	--	--	--	--
Unidentified Sources	--	--	38,208	3,192,235	4,183,000	5,327,000	6,011,000
Earned Income in Year	22,215	17,633	12,000	20,000	20,000	20,000	20,000
	<u>\$1,469,510</u>	<u>\$1,678,301</u>	<u>\$2,400,000</u>	<u>\$3,212,235</u>	<u>\$4,203,000</u>	<u>\$5,347,000</u>	<u>\$6,031,000</u>
<u>Contracts/Reimbursements</u>							
CGFPI	22,000	--	--	--	--	--	--
World Bank	8,200	--	--	--	--	--	--
UNDP/CIMMYT	8,500	--	--	--	--	--	--
Am. Univ. Field Serv.	11,253	4,727	--	--	--	--	--
FAO	14,500	--	--	--	--	--	--
IBRD	20,000	--	--	--	--	--	--
Brandt Commission	20,000	--	--	--	--	--	--
Los Andes	7,084	11,107	--	--	--	--	--
World Food Council	--	4,993	--	--	--	--	--
UNDP/IRRI	--	21,621	--	--	--	--	--
IFAD	--	38,720	--	--	--	--	--
German Foundation	--	--	--	--	--	--	--
Other	246	8,611	56,093	--	--	--	--
	<u>\$ 111,783</u>	<u>\$ 89,779</u>	<u>\$ 56,093</u>	--	--	--	--
<u>Working Capital</u>							
Unidentified Sources	--	--	--	235,200	--	--	--
Balance of Working Funds	178,975	187,280	30,020	30,020	265,220	265,220	265,220
<u>Total Funds</u>	<u>\$1,760,268</u>	<u>\$1,955,360</u>	<u>\$2,486,113</u>	<u>\$3,477,455</u>	<u>\$4,468,220</u>	<u>\$5,612,220</u>	<u>\$6,296,220</u>
<u>APPLICATIONS OF FUNDS</u>							
Core Operations	1,572,988	1,925,340	2,456,093	3,212,235	4,203,000	5,347,000	6,031,000
Working Capital	187,280	30,020	30,020	265,220	265,220	265,220	265,220
<u>Balance of Funds</u>							
<u>Total Applications</u>	<u>\$1,760,268</u>	<u>\$1,955,360</u>	<u>\$2,486,113</u>	<u>\$3,477,455</u>	<u>\$4,468,220</u>	<u>\$5,612,220</u>	<u>\$6,296,220</u>

Table 3-Summary of financial data, 1978-1981

	Actual 1978	Actual 1979	Est. 1980	Budget 1981
<u>Current Assets</u>				
Cash	\$ 67,410	\$161,817 ^{a)}	\$ 20,020	\$245,200 ^{b)}
Reimbursements receivable	120,754	11,122	--	10,000
Prepaid expenses	1,786	500	500	500
<u>Fixed Assets</u>				
Furniture and equipment	128,553	175,370	195,370	215,370
Leasehold improvements	11,090	11,090	11,090	11,090
Library	2,080	2,080	2,080	2,080
Less accum. depreciation	(62,743)	(91,024)	(122,305)	(156,586)
<u>Other Assets</u>				
Miscellaneous advances	<u>22,144</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>
TOTAL	<u>291,074</u>	<u>280,955</u>	<u>116,755</u>	<u>337,654</u>
<u>Liabilities</u>				
Accounts payable	\$ 43,790	\$ 76,813	\$ 45,000	45,000
Accrued expense	43,547	41,499	40,000	40,000
Expense deposit	9,873	--	--	
Employees withholding	3,495	3,429	2,811	2,500
<u>Fund Balance</u>				
Balance, January 1	496,491	190,369	159,214	116,755
Less-adj. to reflect accrual basis	(120,450)	--	--	
excess of expenses over revenue for the year ended December 31	(185,672)	(31,155)	(130,270)	133,399
Total Fund Balances	<u>\$190,369</u>	<u>\$159,214</u>	<u>\$ 28,944</u>	<u>\$250,154</u>
TOTAL LIABILITIES & FUND BALANCES	<u>\$291,074</u>	<u>\$280,955</u>	<u>\$116,755</u>	<u>337,654</u>

a) Cost balance 1980 includes an advance payment of \$145,610.28 made by IDRC to ease IFPRI's cash flow position in December 1979.

b) Figures represent estimate of financial position as of 12/31 of each year. Cash position in 1981 assumes replenishment of working capital fund,

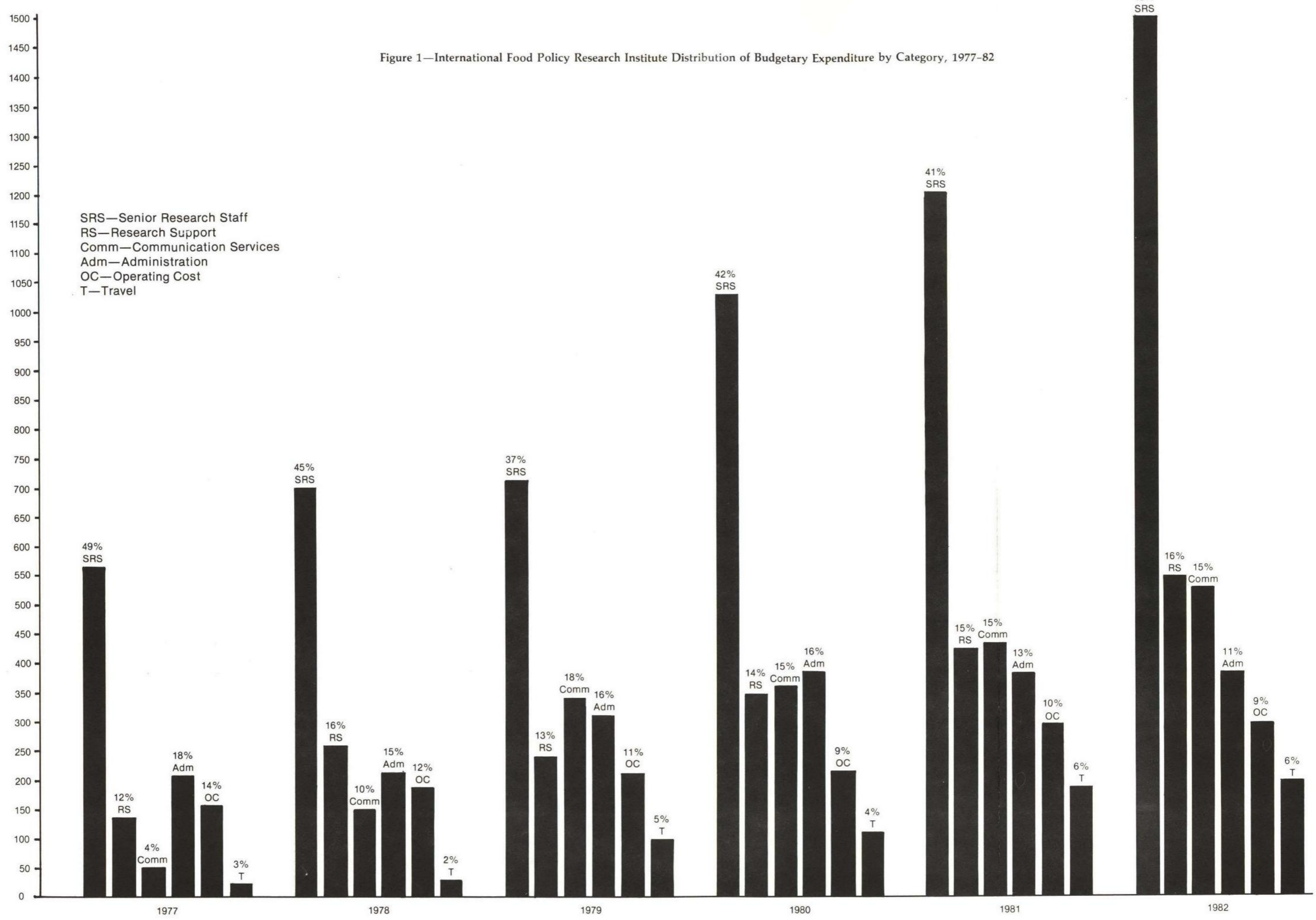
Table 4--Positions and person years, 1979-1982

	Senior Staff								Scientific & Supervisory								Support Staff											
	Positions				Person Years				Positions				Person Years				Positions				Person Years							
	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.	Act.	Est.	Bud.	Bud.				
79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	79	80	81	82	
Research Programs	21	21	22	24	14.6	19.2	21.5	24	8.5	8.1	9.5	13.5	6.8	8.1	9.5	13.5	4.0	5.0	6.3	8.5	3.7	5.0	6.3	8.5				
Research Support	-	-	-	-	-	-	-	-	2	3.0	3.0	3.0	1.5	2.5	3.0	3.0	-	-	-	-	-	-	-	-	-	-	-	-
Library & Communications	1	1	1	1	1	1	1	1	3	4.0	4.0	5.0	3.0	4.0	4.0	5.0	4.0	4.0	6.0	6.0	3.3	3.5	5.0	5.5				
Operation Administration	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	2.5	2.5	3.0	3.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0	4.0				
General Operations	-	-	-	-	-	-	-	-	1.0	1.0	1.0	1.0	.5	.5	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Total	<u>24.5</u>	<u>24.5</u>	<u>25.5</u>	<u>27.5</u>	<u>18.1</u>	<u>22.7</u>	<u>25.0</u>	<u>27.5</u>	<u>17.5</u>	<u>19.1</u>	<u>20.5</u>	<u>25.5</u>	<u>14.3</u>	<u>17.6</u>	<u>20.5</u>	<u>25.5</u>	<u>14.0</u>	<u>15.0</u>	<u>18.3</u>	<u>20.5</u>	<u>12.5</u>	<u>14.5</u>	<u>17.3</u>	<u>20.0</u>				

Cost
(1,000)

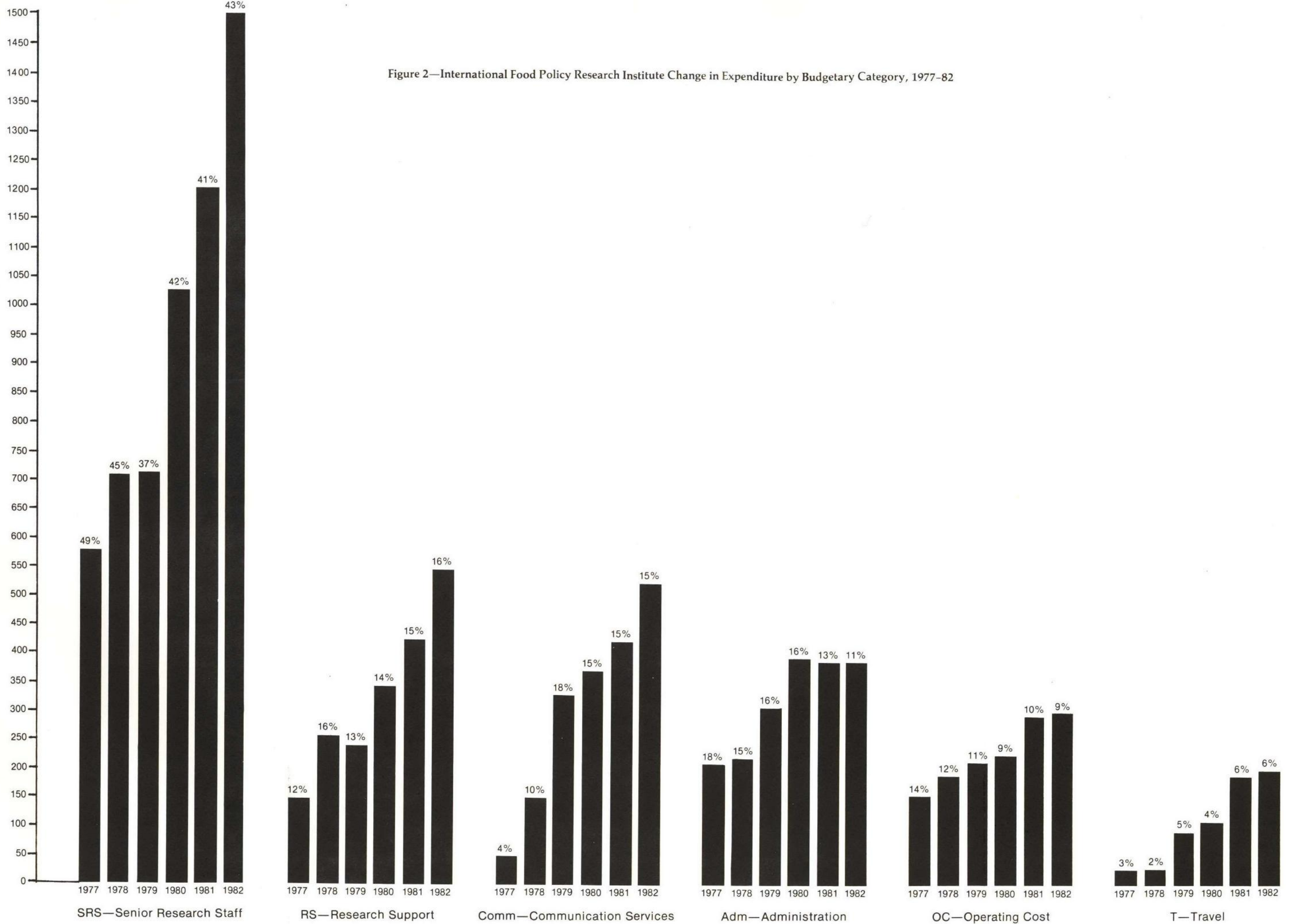
Figure 1—International Food Policy Research Institute Distribution of Budgetary Expenditure by Category, 1977-82

SRS—Senior Research Staff
RS—Research Support
Comm—Communication Services
Adm—Administration
OC—Operating Cost
T—Travel



Cost
(1,000)

Figure 2—International Food Policy Research Institute Change in Expenditure by Budgetary Category, 1977-82



G-14
docs.
84-86

REGIONAL
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Program and Budget for 1985

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The logo for the International Service for National Agricultural Research (ISNAR). It features the letters 'ISNAR' in a bold, italicized, sans-serif font. The letters are filled with a fine, grid-like pattern, giving the logo a textured appearance.

International Service for National Agricultural Research

Program and Budget for 1985

RETURN TO NON-REGIONAL
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OR CITATION

The logo for the International Service for National Agricultural Research (ISNAR). It features the letters 'ISNAR' in a bold, italicized, sans-serif font. The letters are filled with a halftone dot pattern, giving it a textured appearance. The 'I' and 'S' are connected, as are the 'N' and 'A', and the 'R' is slightly separated from the 'A'.

International Service for National Agricultural Research

23 March 1984

Program and Budget for 1985

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Program and Budget for 1985

The Consultative Group on International Agricultural Research (CGIAR) established the International Service for National Agricultural Research (ISNAR) in 1980 to contribute to the strengthening of national agricultural research systems in the developing countries.

In the late 1970s, the International Agricultural Research Centers (IARCs) were offering many new forms of technology for use in developing countries. While these technologies were used with success in some countries, little change occurred in other countries even though they appeared to have suitable conditions for adopting and utilizing these new technologies. Advances were being made in commodities and systems under mandates of other IARCs, but the full impact was not being felt in the developing countries.

Observers in the CGIAR and leaders from developing countries identified what they believed to be at least part of the problem. They saw that the greatest use of improvements seemed to take place where a nation itself had a strong agricultural establishment that could (1) test and adapt the technology to fit it to the specific conditions of its own producers and (2) spread the knowledge and other support needed to encourage farmers to use the new technology.

1. Statement of Objectives

ISNAR was developed within the Consultative Group on International Agricultural Research to help national agricultural research systems improve their ability to plan, organize, manage, and execute research more effectively with their own as well as external resources.

- * ISNAR's main objective is to strengthen national systems by helping them to identify problems and take steps to overcome them, to formulate research strategies and policies, to develop research facilities, and to manage better their research programs.

Two supporting objectives were set out when ISNAR was established:

- * To help improve cooperation between national agricultural research institutions and IARCs. ISNAR was seen as a linking body: on the one hand, helping the national systems identify needs and express those needs to the IARCs and, on the other, assisting the national systems to identify and obtain appropriate technologies from IARCs.
- * To help national systems to make better use of resources available from donors, by helping national leaders identify which of their needs might be met through external aid, and by promoting bilateral cooperation between the national programs and donors.

2. Current Stage of Development

In 1984, ISNAR has core resources for 22 to 23 man-years of senior staff, including consultants, compared to the projected needs of 26 to 28 man-years to carry out its mandate as set forth at its initiation in 1980.

Now in its fourth year of operation, ISNAR has developed its organization and program which, though still being tested for scope and emphasis, has been well received by many developing countries and donors.

By the end of its fifth year of operation in 1985, ISNAR will be reviewed for its effectiveness. It must be recognized that the available financial resources have been significantly below the level originally projected for the initial five-year period.

3. Summary of Achievements

The achievements of ISNAR should be viewed in the light of its objectives and from the perspective of its first three years of operation.

The major achievements of ISNAR during this initial period include the following:

- * making its mandate widely known to developing countries and donor agencies,
- * developing a program based on its mandate,
- * recruiting its senior staff, consultants and support staff to carry out its program,
- * establishing the scope of its services,
- * establishing procedures for its work with national agricultural research systems,
- * testing its program and procedures,
- * conducting review and planning missions in 15 countries: Costa Rica, Dominican Republic, Fiji, Guyana, Indonesia, Ivory Coast, Kenya, Madagascar, Malawi, Papua New Guinea, Rwanda, Somalia, Sri Lanka, Upper Volta, and Western Samoa, representative of diverse human, physical and financial resources and diverse geographical areas and political systems,
- * establishing effective continuing working relationships and procedures with several of the 15 countries to help them implement agreed upon recommendations in research planning, program planning, project preparation, determination of research priorities, effecting changes in organization, and determination of manpower and other resource requirements,
- * establishing cooperation with an additional nine countries and two groupings of countries: Bangladesh, Cameroon, Colombia, Pakistan, Senegal, Solomon Islands, Sudan, Thailand, Zimbabwe, the Economic Community of the Countries of the Great Lakes (IRAZ: Burundi, Rwanda and Zaire), and the South Pacific developing country members of the Asian Development Bank, on particular issues related to strengthening their agricultural research systems including:
 - project preparation, research organization, determining research management training needs, elaborating programs of action,
 - determining appropriate conditions of service for research personnel, and networking activities,

- * helping to establish better linkages between national research systems and IARCs particularly in Fiji, Madagascar, Papua New Guinea, Rwanda, and Somalia and to identify opportunities for increased linkages in Ivory Coast, Kenya, Malawi, IRAZ and Western Samoa,
- * helping national leaders to identify which of their needs might be met through external aid, particularly in Indonesia, Kenya, Madagascar, Papua New Guinea, Rwanda, Somalia, Upper Volta and the South Pacific developing country members of the Asian Development Bank,
- * initiating the program to improve ISNAR's own knowledge and understanding of national agricultural research systems through:
 - a study of the role of the private sector in some systems,
 - analysis of its own experience in the countries where it has carried out review and planning missions,
 - development of a handbook for its own evaluation of national agricultural research systems, and
 - a study of technology transfer in selected countries in the South Pacific,
- * developing a training program and course material for agricultural research management,
- * conducting two training courses in agricultural research management, seven regional conferences for leaders of national agricultural research systems in Africa, Asia and the Pacific, Latin America and the Caribbean, and North Africa and the Middle East, two workshops on planning for agricultural research management training, and four workshops/seminars on specific agricultural research management and closely related issues. A total of 374 persons from 96 countries participated in these activities, several of which were held in cooperation with the International Federation of Agricultural Research Systems for Development (IFARD), IARCs, FAO, and donor agencies,
- * initiating the development of its own library and documentation services to meet its programs needs to complement the services of others,
- * developing its own publication and information services to meet its own needs and to begin to identify specific information needs of developing countries which are not being met by others and which conform to ISNAR's mandate,
- * publishing the reports of its review and planning work in 15 countries, its annual reports, brochures, conference proceedings, and literature on research management, and
- * developing its staff regulations, office policies and procedures, accounting procedures, and program policies and procedure manual.

ISNAR has established an annual internal program review process with the active involvement of the Program Committee of the Board of Trustees.

4. Performance in 1983

ISNAR's performance in 1983 has been noted, to a large extent, in the preceding section. It has also been reported at length in the 1983 Annual Report of ISNAR.

During 1983 ISNAR carried out review, analysis and planning missions in the Dominican Republic, Madagascar, Somalia, Sri Lanka and Western Samoa. Active cooperation with countries on implementation of

recommendations emanating from previous review and planning missions was accomplished in Fiji, Indonesia, Kenya and Rwanda and, to a lesser extent, in Guyana, Ivory Coast, Papua New Guinea, Upper Volta and the South Pacific countries.

Active involvement in various special activities was initiated or continued with a number of countries including Cameroon, Colombia, Pakistan, Senegal, Sudan and Zimbabwe.

Exploratory discussions were held with officials from Morocco and Zaire in planning for cooperation in review and analysis.

A number of requests for possible assistance, received from other countries, were in preliminary stages of discussion. These included Chile, Haiti, Honduras, Panama, the Philippines, the Southern Cone countries of Latin America, and the Amazon Agroecological Research Network (REDINAA). Numerous other countries, through their representatives at meetings in which ISNAR staff participated, indicated strong interest in requesting possible assistance from ISNAR. It is anticipated that ISNAR will respond to these requests as resources become available. It is believed that at least 20 countries would make immediate requests for assistance if such additional ISNAR capability were available.

ISNAR requires strong professional capability to work effectively with national research systems, present its training programs, develop its publications, and sharing information with others. ISNAR seeks to improve and expand its knowledge base through all its activities. ISNAR staff study identified organization and management issues as an area where there are apparent gaps in knowledge. During 1983, ISNAR gave considerable attention to analyzing the experience obtained from its first 15 review and planning missions with national agricultural research systems in developing countries. This analysis indicated two broad areas of concern which are common to many national programs and which therefore require particular attention.

The first area is defined as the general policy environment of national agricultural research. This usually depends on two different factors: the importance attached to the agricultural sector within the national economy, and the importance attached to research within agriculture. The first of these factors raises issues going somewhat beyond the responsibilities of ISNAR, but must nevertheless be considered as having a major influence on its work. Unless there is a strong political commitment to strengthening the agricultural sector, accompanied by a reasonably clear definition of the goals of the sector, it may be extremely difficult to develop a strong research system with secure funding, rational priorities, and the ability to attract and retain high quality staff. In practice, countries differ greatly in the extent to which they are ready to translate a formal commitment to agriculture into specific policies and actions required to build up the sector.

The second area of concern to ISNAR, and the most important in relation to its mandate, is defined as the objectives, structure, funding and management of the national agricultural research system as a whole. In most countries, the system has evolved in response to a succession of perceived needs and pressure from external and internal sources; in many cases it is highly fragmented. Decision-making processes are based

on governmental structures and practices, which often are not well suited to the management of agricultural research. There may be little or no coordination of the work of various research institutions. Satisfactory methods for setting and reviewing priorities are not usually incorporated into the system. Funding, especially of non-salary recurrent costs, is generally inadequate, insecure and poorly allocated. Foreign aid, much of which is of a capital nature, often takes the form of projects which are not integrated with other research underway in the country, and may consequently be somewhat self-defeating by amplifying the defects of the system as a whole. Countering these numerous difficulties is the enthusiasm of the research community for an improvement in the system, and in particular its keen interest in achieving higher standards of research management.

Although these areas of concern have been presented separately, there is a strong interrelationship between them. Further, findings in these areas reinforce the view that assistance for the strengthening of a national system should not be seen as a short-term exercise. Rather, it should be regarded as a continuing, inter-active process, in which a country is assisted gradually in building up its capacity, and in which problems are solved as they emerge or as opportunities arise.

In addition to reviewing its experience with the national agricultural research systems with which it cooperates, the joint study with the East-West Center on research-extension linkages in South Pacific countries made good progress and the results of this study will be reported in 1984. Also, a study was initiated to examine different organizational structures for the governance of agricultural research. This study will continue during 1984 and will be reported in 1985.

Work was carried out in 1983 to develop a guide for evaluation which can be used by ISNAR. The guide will be tested under actual field conditions in 1984.

In 1983, in cooperation with various organizations, ISNAR staff organized and conducted three regional conferences, two workshops, a major national seminar, and one training course, and carried out studies on management training needs in agricultural research, manpower planning, and conditions of service. Staff also collaborated with IFARD in Latin America in planning for management training for agricultural research in the region and worked to increase the range and quantity of materials for use in training programs.

A total of 18 publications were produced in 1983 as a result of ISNAR's work with national programs, workshops and seminars. Further, the translation of a number of reports from French and Spanish was completed and English versions were published. Some translations of English publications to French and Spanish were made. The narrated slide presentation concerning the IARCs as a network within the CGIAR and the interaction between the IARCs and national programs was completed. This slide presentation is available from the CGIAR Secretariat.

ISNAR's Annual Report for 1983 provides a comprehensive review of its activities for that year.

5. Prospects for 1984

During 1984, ISNAR will continue to address its three objectives presented in Section 1. To carry out its work in accordance with its mandate, ISNAR will continue to concentrate on: review, planning and cooperation with national agricultural research systems; research on organization and management of agricultural research systems; training and conferences and supporting activities of publication, library and information services. ISNAR staff work together and integrate their activities to help achieve the three objectives.

A. Review, Planning and Continuing Cooperation with National Agricultural Research Systems

ISNAR started 1984 with a heavy demand for its services from developing countries and strong interest from development banks and donor agencies for cooperation. The value of an independent review and analysis of a national agricultural research system or part of the system and subsequent planning as carried out by ISNAR has been widely appreciated.

The year began with a commitment by ISNAR to carry out review and planning work in Morocco and Zaire and to complete a study in Sri Lanka initiated in late 1983. Requests for assistance from at least six countries were pending, with numerous other countries prepared to make requests if there were possibilities for early positive responses by ISNAR. The present commitments for continued cooperation with countries already reviewed, and the need to intensify cooperation with some of these, means that only three additional countries can be included during the coming year.

In 1984, ISNAR will be very actively engaged in program planning with the Dominican Republic, Fiji, Indonesia, Kenya, Madagascar, Rwanda, Somalia, Upper Volta, and Western Samoa. It will be involved in these countries in the establishment of priorities, organization, evaluation procedures, development of linkages with IARCs, and determining required human, financial and physical resources for research. In both Rwanda and Madagascar, an ISNAR staff officer will be posted, supported by non-core funding, to work as advisors to the national research institutes on program planning, setting of priorities, programming and budgeting, development of linkages, and determination of resource requirements.

The work in Indonesia will concentrate on evaluation methodology and the development of improved evaluation capability in the Agency for Agricultural Research and Development (AARD). The work in Somalia is directed at the identification of specific needs for research on commodities within an overall strategy, the determination of the resources required, and assisting in the establishment of linkages to obtain the necessary resources.

There is need to have core staff available in sufficient numbers to provide direct continuing contact with countries. It is clear that personal involvement, with institutional backing and continuity, is producing very effective working relationships.

As ISNAR has developed and broadened its contacts with developing countries and donor agencies, there is an increase in the number of requests for ISNAR to enter more directly into operational activities with national agricultural research systems as contrasted to review, analysis and planning activities. These include requests for project preparation, placement of advisors in national research systems in both advisory and management positions, specific training programs, manpower studies, and project implementation. ISNAR is responding to these requests by helping the countries in improving their research organizations and in preparing their research plans, programs and projects, which could form the basis of negotiation with various bilateral and multilateral donor agencies. ISNAR is also helping some of these countries in formulating their manpower development programs through training and related activities. While helping in these various ways, ISNAR so far has not accepted any direct management roles. Such roles might be accepted in the future but only if approved by the Board of Trustees.

ISNAR's cooperation with Kenya will build on earlier work in manpower planning and training for the national agricultural research system. ISNAR is working closely with Kenyan officials to present a proposal to donor agencies for support of its manpower development program. Work in Fiji involves a cooperative effort with a Fijian task force in the development of a national agricultural research plan and the establishment of research priorities in order to most effectively manage its resources. In the Dominican Republic, ISNAR is cooperating with the government in the development of a new organization for more efficient management of agricultural research. In Upper Volta, ISNAR will assist in developing the findings of the review and analysis of the national research system to seek ways to carry out the agreed upon recommendations.

During 1984, ISNAR will also continue to work with Cameroon and Sudan on training activities, with Senegal and Zimbabwe on manpower analysis, with Colombia on policy and organization issues, with Thailand on conditions of service for research personnel, and with Bangladesh on the establishment of training activities.

B. Research on Organization and Management of Agricultural Research Systems

During 1984, research activities will follow in general the pattern outlined in the Program and Budget for 1984. There will be, however, some reallocation of resources directed to optimize the interactions between the research program and the other program areas. Resources will be concentrated on the following categories of study:

- * identification of the key elements contributing to the success of existing research systems,
- * in-depth analysis of selected functional components of agricultural research systems, and
- * strengthening of ISNAR's own data base on national agricultural research.

In the first category, activities will concentrate on the review of the field experiences accumulated by ISNAR through the 17 country studies carried out to date. The main focus in this study, which was initiated in 1983, includes aspects related to the approach used by ISNAR in its country reviews and follow-up activities, and the analysis of specific

issues leading to the development of materials for use in follow-up and continuing activities with collaborating countries. In the balance of 1984, efforts will be directed to the analysis of planning and program development issues and methodologies.

The second category of emphasis comprises two different projects. The first is the production of a methodology for the evaluation of national agricultural research programs and institutions. During 1984, it is expected that a draft version of this methodology will be subject to field testing in a number of program evaluations being carried out in Indonesia as part of ISNAR's continuing program with that country and also in other country review missions. The second project is directed to the study of alternative governance schemes of national agricultural research systems and their impact on the system's functioning and performance. These efforts include field work in four or five selected countries; completion and final results are expected in early 1985.

In regard to the third category, the strengthening of ISNAR's data base, 1984 activities are oriented to a further development of the data bank by upgrading available information, particularly on financial and human resources and conditions of service for agricultural research personnel. In this latter field, an extensive mail survey is being planned for the second half of the year.

C. Training and Conferences

The training and conferences program consists of three main types of activity: management training, conferences, and manpower planning.

Management Training. In 1984, ISNAR is continuing to organize and support training seminars at both the international and national levels. The following activities are planned:

1. Management Development and Training in the DGSTR (Cameroon).
Venue: Yaoundé (Cameroon). Dates: 12-15 June. A 4-day seminar for senior officials from the DGSTR (Delegation General for Scientific and Technical Research).
2. Agricultural Research Planning and Management. Venue: The Mananga Agricultural Management Centre (Swaziland). Dates: 9 July-3 August. A 4-week seminar for 25 institute heads and station managers from eastern and southern Africa. This is part of the special project on management training under the Cooperative Development for Africa (CDA) program.
3. Cooperative program with ILCA. Venue: ILCA (Addis Ababa, Ethiopia). Dates: 19-21 September. ISNAR will present a three-day program on research management as a component within one of ILCA's regular courses for managers of animal nutrition programs in Africa.
4. Management in the DGSTR (Cameroon). Venue: Yaoundé (Cameroon). Dates: 17-28 September. A 2-week seminar for 25 chiefs of centers and stations in the DGSTR.
5. Agricultural Research Planning and Management. Venue: The Hague. Dates: 2-12 October. A 2-week seminar for 20 institute and division heads from national agricultural research systems in Asia, Africa, and Latin America.

ISNAR is also continuing to work with the Latin American chapter of IFARD in the formulation of a multi-year management training project.

In the future, ISNAR will aim toward increasing its training activities as joint programs with various organizations and institutions.

Conferences. In 1984, ISNAR will organize and support several international conferences. The objective of such meetings is to bring together research leaders for discussion of common problems and the development of common responses. The following activities are scheduled:

1. Agricultural Research Policy in cooperation with the University of Minnesota (USA). Dates: 8-19 April. A 2-week seminar for research leaders from North America, Asia, Africa, and Latin America.
2. Agricultural Research Policy and Organization in Small Countries in cooperation with the Agricultural University (Wageningen, Netherlands). Dates: 10-14 September. A 4-day workshop to consider various mechanisms for improving national agricultural research systems.
3. Human Resources Planning and Program Evaluation in National Agricultural Research (tentative). Venue: Amman (Jordan). Dates: 30 September - 3 October. A 4-day workshop for 15 research leaders from West Asia and North Africa.

In addition, ISNAR will hold a four-day workshop in The Hague, during the period 29 October to 1 November, to discuss experience and cooperation in review, analysis, and planning for the strengthening of national agricultural research systems. The participants at this workshop will be 15 national research leaders from countries with which ISNAR has been actively involved. It is expected that this kind of workshop will be conducted annually in The Hague.

Manpower Planning. In 1984, ISNAR is continuing to work with national research systems on issues of personnel recruitment, career planning, and conditions of service. Major involvements include the development of a manpower and training plan for agricultural research in Zimbabwe and input to an inter-agency committee examining conditions of service for personnel in the Department of Agriculture in Thailand.

D. Publications and Information

Significant increases in the amounts and types of material for publication have caused some restructuring of priorities in the use of publications and information resources. Expanding collaboration with national systems in francophone Africa, along with a policy decision to issue ISNAR's principal documents in three languages, has brought a demand for core senior staff competence in editing and writing in French. With no additional staff positions available, the lesser demand for Spanish services will be met through consultants.

The increasing amount of materials associated with review missions and continuing country relationships has resulted in little of the communications officer's time available in specialist support for these

missions and continuing activities. Accordingly, this position has been redefined as publications officer. Needs for communications specialist inputs for national systems will be met through senior ISNAR country-program staff, to the extent possible, and through consultants when necessary.

The French translation of the publication "Critical Requirements for Productive Agricultural Research" completed ISNAR's effort to make this booklet available in the three most widely used technical languages of the developing world: English, French, and Spanish. Attention in research management information has turned to other topics. A publication on research planning and one on manpower planning will be developed during 1984. A publications committee advises the Director General on matters relating to publications policy and procedures.

As ISNAR has become involved with continuing relationships in numerous national agricultural research systems, a periodical newsletter is needed to keep significant audiences aware of its activities. Such a newsletter will be introduced in 1984.

E. Special Projects

The special project carried out during the past two years in collaboration with CIMMYT will be concluded in 1984. This UNDP-financed endeavor, which has featured a case-writing program on topics of agricultural research policy and management, will be terminated following a final workshop concerning use of the cases.

The project involving the Cooperative Development for Africa (CDA) will continue throughout 1984. This multi-year undertaking is being financed by the USAID and the ODA with the objective of increasing the effectiveness of agricultural research in Africa by improving the management of research organizations through training. The project includes analyses of management development needs, presentation of workshops, and preparation of training materials.

With loan funds provided by the World Bank to the Government of Rwanda, ISNAR has out-posted a senior staff officer in Rwanda to serve as advisor in agricultural research management to the Rwandan Institute of Agricultural Sciences. A similar arrangement has been developed with Madagascar for the posting of an ISNAR senior staff officer in Madagascar on funds made available to the Government of Madagascar by the World Bank.

A USAID-funded project will be carried out in Somalia during 1984. This project, conducted in collaboration with Somali officials and research personnel, includes the preparation of plans for an agricultural research development program for Somalia.

A review and planning mission will be conducted in 1984 to examine the national agricultural research system of Zaire. This study, partially financed by USAID, will be carried out by ISNAR staff members and consultants in cooperation with a Zairian team of agricultural officials and scientists.

With the financial assistance of the UNDP, a special project will be conducted in 1984 involving a study of ways to improve the cooperation between the IARC's and the nine member countries of the Southern Africa Development Coordination Conference (SADCC).

During 1984 there will be further planning concerning the possibility of establishing at ISNAR an Agricultural Research Management Information Service. It is highly probable that a proposal will be developed in 1984 to seek extra core funding for this contemplated information-documentation service component of ISNAR.

6. Budget Request for 1985

The total budget request for ISNAR's 1985 program of work amounts to \$4,042,000 and conforms to CGIAR budgeting guidelines. Within this amount, \$3,856,000 is allocated to core operations, \$12,000 is intended for capital expenditure, \$24,000 for adjustment in working capital, and the balance of \$150,000 is required for the external review scheduled for 1985. Earned income in 1985 is projected to be \$50,000. Therefore, the net requirement from the CGIAR amounts to \$3,992,000.

The level of operations expected in 1985, based on this budget request, falls below the target set for that year in earlier projections. It remains markedly below the target recommended originally by the Task Force on International Assistance for Strengthening National Agricultural Research. Although the Task Force had recommended an overall staffing level of about 28 professionals, including consultants and short-term staff, the 1985 budget will be able to provide for a projected staffing level of only 24 for the program year.

7. Core Program for 1985

As in previous years, ISNAR will take an integrated staff and program approach in its work toward the attainment of its objective. For planning and budgeting purposes, the core program comprises three main program areas:

- * Review, Planning and Continuing Cooperation with National Agricultural Research Systems
- * Research on Organization and Management of Agricultural Research Systems
- * Training and Conferences

In addition, the core program contains the supporting activity:

- * Documentation and Information Services

The activities planned during 1985 for each of these four areas are presented below.

A. Review, Planning and Continuing Cooperation with National Agricultural Research Systems.

In 1985, ISNAR will continue its work with national agricultural research systems to:

- * conduct review and planning missions when requested within the limits of available resources,
- * assist countries in their contacts and linkages with IARCs, and help to develop recommendations into specific projects,
- * assist in obtaining external assistance for project support, and
- * provide requested policy advice as a part of continuing cooperation

ISNAR is dedicated to the concept of system-building. This involves helping a country work towards the best possible way of organizing and managing its overall agricultural research program. This task requires an examination of such issues as structures, programming, financing, staffing, and the linkages of the research system to policy makers, extension services, producers and other groups.

The role of ISNAR will not be limited to examination of a particular system and making recommendations concerning it. Rather, ISNAR will continue to work inter-actively with countries in implementing the measures necessary for strengthening the respective research systems, and in solving the numerous problems that inevitably emerge as change is introduced. ISNAR seeks to maintain this relationship for as long as the country wishes and for as long as ISNAR itself believes that its assistance is useful.

In the face of very heavy demands for assistance in strengthening national agricultural research systems, ISNAR will continue to aim at quality and not quantity in its output of work. System-building is a complex and often delicate process; a corresponding degree of sensitivity, experience and good judgement is needed to effectively help countries towards a successful completion of this task.

The program for assistance to national research systems will continue to be the primary thrust of ISNAR activities. It will need to accommodate a continual build-up of its workload as reviews are carried out in new countries, while at the same time extending the earlier reviews into the follow-up phase. To some extent, posting of ISNAR staff as advisors in countries or regions can lighten the load on the staff at headquarters, but out-posted staff will need careful back-stopping if they are to perform effectively.

By the start of 1985, ISNAR expects to have completed at least 17 major reviews of national agricultural research systems in Africa, Asia, Latin America, the Middle East, and the South Pacific. In addition, it will have on-going activities in at least 10 other countries and two or three regional groupings of countries where review missions have not been carried out.

There will be about three new reviews of national agricultural research systems during 1985. As foreseen, the emphasis of the program has already moved towards assistance in the implementation of measures jointly proposed by ISNAR or by the national systems and ISNAR. Such implementation, rather than the carrying out of reviews, is the long range objective of ISNAR's work. Indeed, it may be a better choice of terms to refer to the "preparatory phase", consisting largely of review missions, and the "program phase" during which the actual strengthening

of a national research system occurs. It is necessary to make clear, however, that strengthening the system is the country's own responsibility, with ISNAR providing support and advisory assistance as requested.

At the time of its establishment, an estimate was made that ISNAR could work in depth with about 25 or 30 countries at any particular time. The services requested from ISNAR vary widely from country to country; hence the workload can be forecast only in general terms. However, with the existing resources and projected resources for 1985, ISNAR will be reaching the limit of the number of countries with which it can work with an expectation of creating sufficient impact to significantly improve the strengthening of research systems.

At the present time, the best estimate that can be given for 1985 is for three new review and planning missions, and intensive work with about 15 countries on issues of program planning, research priority setting, linkages, resource determination, project preparation, evaluation methodology, and development of improved evaluation capability and organization. These countries include the Dominican Republic, Fiji, Indonesia, Ivory Coast, Kenya, Madagascar, Malawi, Papua New Guinea, Rwanda, Somalia, Sri Lanka, Upper Volta, and Western Samoa. Significant activity is also expected in Morocco and Zaire.

In addition, there will be about 15 countries and two or three regional groupings of countries with which ISNAR will work on important issues, but in lesser degrees of intensity, on numerous problems and issues of organization and management. These include Argentina, Bangladesh, Cameroon, Colombia, Haiti, Pakistan, Solomon Islands, Sudan, Thailand, Zimbabwe, the countries of the Southern Cone of Latin America, and the South Pacific developing country members of the Asian Development Bank.

B. Research on Organization and Management of Agricultural Research Systems

The primary objective of the research program is to strengthen ISNAR's capacity to help the national agricultural research systems.

Agricultural research organization and management is a relatively new area and has not yet been well developed. Most research in this field has been concerned with the economic evaluation of investments in research or with the methodological problems associated with resource allocation. Little has been done to develop a better understanding of the workings of agricultural research systems. The synthesis of available knowledge and the development of new insights is important to both ISNAR and all those involved in the management of national research organizations.

Given the limited resources that ISNAR can devote to its research activities, the general strategy must be one of gradual build-up of the program, based as much as possible on the integration of research with ISNAR's country-level activities, both in the identification of research topics and the execution of the studies themselves.

In 1985, ISNAR's research on the organization and management of agricultural research systems will consolidate work started in 1984 on the following topics:

- * The identification of effective research systems and their key components through a comparative analysis of existing systems, beginning with those with which ISNAR has a working relationship.
- * The development of in-depth analytical information about selected functional components of agricultural research systems, through a study on the funding of systems, programs, and projects.
- * The further development and utilization of ISNAR's data base on the status of national agricultural research systems.
- * The comparative study of organization and management problems related to research activities.

Details of these topics are given below.

1. Identification of effective research systems and their key components through comparative analysis of existing systems

The objectives of this study are:

- * to increase ISNAR's understanding of the factors that affect the structure, performance, and evolution of national agricultural research systems,
- * to develop materials on critical organizational and management issues that can be used as background for ISNAR's reviews and continuing country activities.

Emphasis will be on documenting the structural characteristics of research systems, including their organizational aspects and external linkages, and the ways in which these systems carry out essential processes such as planning, program development, resource procurement, program implementation, and the transfer of research results. The analysis will be based primarily on ISNAR's own field experiences, complemented by those of other institutions. This effort is expected to produce valuable insights on:

- * the strengths and weaknesses of different organizational structures;
- * the relative effectiveness of different ways of organizing and performing certain functions of research systems;
- * the factors that promote change in national research systems;
- * the identification of recurrent patterns in the ingredients of successful systems.

This work will produce additional methodological guidelines for ISNAR's country-level activities.

During 1985, two complementary kinds of activities will be pursued in this program area:

Analysis of experiences of ISNAR-mission countries. This will continue to be a major line of work in 1985. However, the increasing importance of continuing activities, as distinct from new country reviews, will now permit complementing the analysis of original mission results with further information on specific topics generated as part of the follow-up activities. Areas to be given priority are: the general policy

environment of national agricultural research, the evolution of organizational structures, manpower requirements, and the management of external linkages.

Discussion of experiences of non-ISNAR-mission countries. The identification of key components of success in agricultural research systems will necessarily take ISNAR beyond the countries in which it is currently working. In the past few years a number of countries, primarily in Latin America and Asia, have conceived and implemented major reorganizations of their national research systems. Although often not yet complete, these experiences deserve study because they generate important new insights into the design and implementation of strategies for strengthening agricultural research. Consequently, the synthesis of information about these experiences has a high priority in ISNAR's research program. Moreover, since most of these processes are still underway, there is the possibility of an effective interchange between ISNAR and the national systems concerned.

With present resources, ISNAR cannot undertake independent case-by-case studies of these experiences. However, it is able to assist the identified countries develop appropriate instruments for their own evaluation of their experiences and to help in the exchange and dissemination of information. Thus, in 1985 ISNAR intends to invite representatives from a number of countries to participate in a discussion process, focusing on:

- * the conditions under which efforts to reorganize or strengthen their systems originated,
- * the nature of the changes introduced in research systems,
- * the problems encountered at the implementation stage,
- * the questions and problems that remain unresolved.

ISNAR will contribute particularly in the development of guidelines for the analysis and presentation of each experience, the organization of meetings and workshops, and the publication of proceedings and other materials resulting from the discussions. The actual analysis of the country experiences will be carried out by the countries themselves.

2. Funding of agricultural research systems and projects

Inadequate funding and instability of budgetary support constitute major weaknesses in virtually all research systems studied by ISNAR. The principal issues are:

- * the main consequences of budgetary instability and uncertainty,
- * the amount of support developing countries can be expected to allocate to agricultural research, given the context of the critical financial situation they often face,
- * the potentials of different fiscal structures to support agricultural research,
- * the relative transferability of given funding schemes from one situation to another,
- * the alternative funding sources for different budgetary categories or program segments,

- * the extent to which national systems can or should rely on external financial assistance to develop, and perhaps implement, different components of their research programs.

The study will be based on an examination of the alternative ways in which agricultural research has been financed, such as general tax revenues, commodity-based tax systems, use of marketing boards and stabilization fund surpluses, and other schemes.

3. Development and utilization of ISNAR's data base on the status of national agricultural research systems

In 1981, ISNAR and IFPRI collaborated in compiling and analyzing trends during the 1970's of resource allocation (including donor assistance) for agricultural research in 50 countries representing 80 per cent of the population of the developing market economy nations.

The data for the years 1970 to 1980, presented in the previous study have proved useful to ISNAR, to donors, and to national research planners. New information is now available both on the countries covered earlier as well as a number of other countries. Moreover, more comprehensive coverage is now possible on some topics only partially dealt with before, such as resource allocations to commodities, geoclimatic regions, levels of education and training of scientists and support staff, and in relation to donor objectives.

Accordingly, it is timely to produce an up-dated presentation of the status of national research systems. This new analysis will incorporate the results of ISNAR's missions together with additional data obtained in collaboration with the now much-enlarged numbers of national agricultural research leaders with whom ISNAR has worked.

4. Study of organization and management problems related to on-farm research activities.

Many review and planning missions that ISNAR has carried out in cooperation with national agricultural research systems have revealed that farm level research activities are weak points in the national systems. The project being planned focuses on the discussion of the organizational and management requirements of this type of research, and places heavy emphasis on networking and direct participation of the staff of the countries in the project; initially five countries will be included. Preliminary work will commence in 1984 with the major part of the effort to be under way in 1985. The project will have an initial period of three years and then should be expanded to include additional countries. Strong linkage and cooperation is expected with a number of the IARCs.

C. Training and Conferences

A major part of ISNAR's mandate is to work with national research systems to strengthen their planning, organization, and management capabilities. Within ISNAR, the mandate of the training and conferences program is to provide one input to this process, viz., the training of personnel. The program has three components.

Management Training. In 1985, ISNAR will continue to cooperate with national and international institutions in supporting management training activities for research personnel. This support takes several forms: preparation of training materials, development of curricula, support for participants, and actual teaching.

The main input to ISNAR's management training program comes from senior ISNAR staff involved in the review, planning, and development of national research systems. Both ISNAR staff and national officials develop training materials, and actual training activities are led by both.

The precise objectives of management training vary with the level of participant in a given seminar. At the cross-national level, ISNAR aims at the presentation of general management issues to senior officials, while at the national level, it deals with more specific subjects.

In 1985, ISNAR anticipates that an increasing amount of attention will be given to activities within national research programs. Country level workshops are being planned in Bangladesh, Cameroon, Kenya, and Sudan. The primary topics which ISNAR has selected for special attention in training include:

- * program identification and planning,
- * programming and budgeting,
- * human resources management, and
- * operations management, including station management.

In addition to its involvement in the organization and support of training seminars, in 1985 ISNAR will continue to gather and disseminate information on short-term training opportunities in research management. Leaders of national research systems often ask where they can send their staff for such training. The demand and need are clearly greater than ISNAR alone can meet. As a result, one possibility which ISNAR wishes to explore further is that of contributing to the establishment of an international data bank on research management training opportunities.

Conferences. As in previous years, ISNAR's conference program in 1985 will focus on bringing leaders of national research programs together for discussion of common problems. Subjects to be emphasized will include the management and development of human resources, program evaluation, and the management of international cooperation in research. The following activities are being planned:

1. A 4-day workshop for 15 research leaders from Asia. Probable Date: April 1985.
2. A 4-day workshop for 15 research leaders from Africa. Probable Date: June 1985.
3. A 4-day workshop for 15 research leaders from Latin America. Probable Date: September 1985.

In addition to the above, ISNAR will hold a four-day workshop in The Hague on its review, planning, and continuing cooperation experience with national systems. About 15 national research leaders from countries with which ISNAR has been actively working will be invited to this workshop, scheduled for presentation in October 1985.

Manpower Planning. In 1985, ISNAR will continue to carry out manpower analyses similar to those which it has undertaken in previous years. A frequently-mentioned theme in ISNAR country reviews has been the shortage of qualified manpower in national agricultural research. In order to deal with this problem, ISNAR works with national research systems:

- * to analyze the professional characteristics of current research manpower,
- * to project future manpower and training needs,
- * to review jobs classifications, career patterns, and evaluation procedures, and
- * to develop career incentives for research personnel.

A major by-product of such work is the collection of considerable cross-national data on agricultural research personnel. By the beginning of 1985, ISNAR will have available reasonably complete data on the educational and career characteristics of agricultural research personnel in Fiji, Kenya, Somalia, Thailand, and Zimbabwe. ISNAR intends to establish a systematic database for such information, which can be used to identify common issues across countries and to develop potential new approaches to the management of research personnel.

D. Documentation and Information Services

ISNAR responses to two growing needs call for major enlargement of its documentation and information services in 1985. The needs are (1) to strengthen ISNAR's own base of knowledge for its work with national systems and for training programs and (2) to find and disseminate appropriate research management documents to the growing number of professionals in the field. It is expected that these documentation and information services will be increasingly strengthened as components of core activity.

During ISNAR's developmental years, it has been found that relevant literature is scattered widely; a practitioner on his own has difficulty in getting access to what will help him. ISNAR is developing a project, initially requiring special funding for establishment and operation, that would create an "agricultural research management information service". Specific and limited in its goals, the service would utilize a documentation specialist and, in addition, four or five months of consultant time annually for the preparation of state-of-the-art reviews on key agricultural research management topics. This information service will stress relationships with the research managers in developing countries.

With its continuing requirement for publishing and distributing ISNAR's own documents, specific development initiatives in this program support area will emphasize the following in 1985:

- * increasing time and cost efficiencies in three-language publication, especially to reduce time lags between distribution of original and translated versions,

- * increasing the flow of information oriented to agricultural research management, ranging from original tracts for policy-makers by ISNAR and outside specialists, to handbook-type materials useful to middle managers in national research systems, and to materials that can be used or adapted in management training institutions,
- * exploring the feasibility of launching a professional-type journal devoted to management of agricultural research; evaluating the (a) potential demand for such a journal, especially from developing country managers, (b) potential flow of appropriate articles, (c) possibilities of involving a commercial publisher to assure effective production and marketing, and (4) strategy for involving users, from developed and developing countries, to build a professional orientation to agricultural research management,
- * developing mechanisms to inform various audiences of ISNAR's activities and its efforts to help strengthen national agricultural research.

8. Special Projects

The policy guidelines of ISNAR with respect to Special Projects are the following:

1. Strong efforts should be made to increase donor support of the core budget.
2. In negotiations with donors who prefer to restrict their grants, ISNAR should:
 - * be certain that the program or project to be undertaken does not distort established priorities and that the work proposed clearly falls within ISNAR's mandate,
 - * work with the donor in an effort to classify the initiative as a restricted core activity,
 - * include in the donor-provided funding for the grant or contract, all direct costs plus the identifiable indirect costs. The guiding principle here is that ISNAR should recover the additional costs that arise as a result of taking on the program or project being negotiated, and
 - * accept special projects only in those situations in which the restricted core mechanism is unworkable. In budgeting such undertakings, as with restricted core projects, ISNAR should recover both direct and identifiable indirect costs.
3. It is recognized that ISNAR's flexibility and effectiveness could be seriously impaired if undue reliance were placed on restricted core and special project funding. Hence, there is necessity to establish that the projects fall within the guidelines for ISNAR's operation. The Director General must report all restricted core and special projects to the Board of Trustees and discuss in advance with the Program Committee any major special projects which might distort established priorities or require significant increases in staffing for project management.

Details of ISNAR's special projects are listed in Table IIa.

The on-going projects, as well as those being planned, are presented below under the headings corresponding to ISNAR's program areas.

A. Review, Planning and Continuing Cooperation with National Agricultural Research Systems

- a. Government of Rwanda/IDA Loan Funds. The Rwandan agricultural research development project is designed to assist the Rwandan Institute of Agricultural Sciences (ISAR) to define and plan the technical elements and organizational features of agricultural research. The project, which was initiated in 1984, will carry through into 1986 and probably will be extended. It is a direct follow-up of ISNAR's work with the Government of Rwanda in 1982/83 in a review and analysis of the national agricultural research system and a national seminar on that subject. Support provides for one ISNAR staff person to be posted in Rwanda to lead this work.
- b. UNDP. The study of the integration of IARC activities in Southern Africa (Southern Africa Development Coordination Conference - SADCC) was initiated in 1984. The purpose of the study is to make an inventory of the IARC activities in the SADCC region and in consultation with the national leaders of agricultural research in the region and the IARCs to seek ways and means for improved integration. The leaders of the national programs appreciate the importance of the work of the IARCs in the region but would like to see a more coordinated effort and one which demands less of their time in discussions with the representatives of each center. ISNAR, with the help of a consultant and UNDP support, is carrying out this study in 1984. Some follow-up activity may be expected in 1985 but the exact kind, if any, can only be determined after completion of the study and its consideration by IARC and national leaders in the SADCC region.
- c. USAID Zaire. Review and planning of the Zaire national agricultural research system. An ISNAR team composed of core staff and consultants, at the request of the Government of Zaire, is working with a Zairian study group in the review and planning. Support for the consultants on the ISNAR team is being provided from the USAID/Zaire project funds. The review is being carried out in 1984 but some follow-up is expected in 1985.
- d. USAID Somalia. The objective of the project is to define and plan the technical elements of an agricultural research development program. ISNAR is providing some technical inputs from its own core staff and is arranging for consultants from CIMMYT, ICRISAT, IITA and ILCA as well as other consultants to provide the service required. At the request of the Government of Somalia, ISNAR has arranged for the assignment of these consultants. The role of ISNAR in this undertaking is restricted to the task of coordinating and carrying out this initial effort. A major objective is to assist in the

development of contacts and linkages between the Government and the various international centers. It is expected that future technical assistance to Somalia will be obtained through these linkages; ISNAR will no longer be directly involved in this effort. Funding is being provided by USAID funds to the Government of Somalia.

- e. Government of Madagascar/IDA Loan Funds. The Madagascar agricultural research project is designed to assist the national agricultural institute (FOFIFA) in the development of its research plan. The plan is to be concerned with the organization, staffing and management of FOFIFA. It is a direct follow-up of ISNAR's work with the Government of Madagascar in 1983. The project is expected to commence about mid-1984 with the posting of an ISNAR staff person in Madagascar to lead this work; the project will probably continue throughout 1985. Support is to be provided for the cost of the ISNAR staff person from World Bank loan funds to the Government of Madagascar.
- f. IFARD/ISNAR (donor to be identified). The International Federation of Agricultural Research Systems for Development (IFARD) and ISNAR plan to develop a joint project to strengthen the networking among national research systems and to improve the data base for planning agricultural research. The project is being prepared by the offices of IFARD and ISNAR. The organization, IFARD, is a federation of the leaders of national agricultural research systems and regional associations. As a global federation of national leaders, IFARD can do a great deal for promoting and strengthening national agricultural systems through exchange of experiences and other activities.

B. Research on Organization and Management of Agricultural Research Systems

- a. IDRC/PROAGRO/ISNAR Agricultural Research Organization and Performance in Latin America. The project is directed toward the analysis of private sector participation in agricultural technology generation and transfer and its implications for agricultural research policy and the activities of the public research institutions. Results from this study should enhance ISNAR's ability to advise countries with which it collaborates on how to promote the potential benefit that may be possible by effectively incorporating the private sector to the national effort. The project was initiated in 1983 with IDRC support for studies by national teams in selected Latin American countries. ISNAR provides the coordinators for the project from its core budget.

C. Training and Conferences

- a. CDA/USAID/ODA Strengthening Management of Agricultural Research in Africa. This project, which was started in 1983 and for which present funding will carry into 1985, has three parts: (a) field studies of management training needs in three African countries (Cameroon, Sudan and Zimbabwe), (b) development of

appropriate management training materials, and, (c) support for actual management training seminars. The field studies will be completed in 1984 and much of the development of management training materials will be completed by the end of 1984. In 1985 there will be a concentration on training seminars.

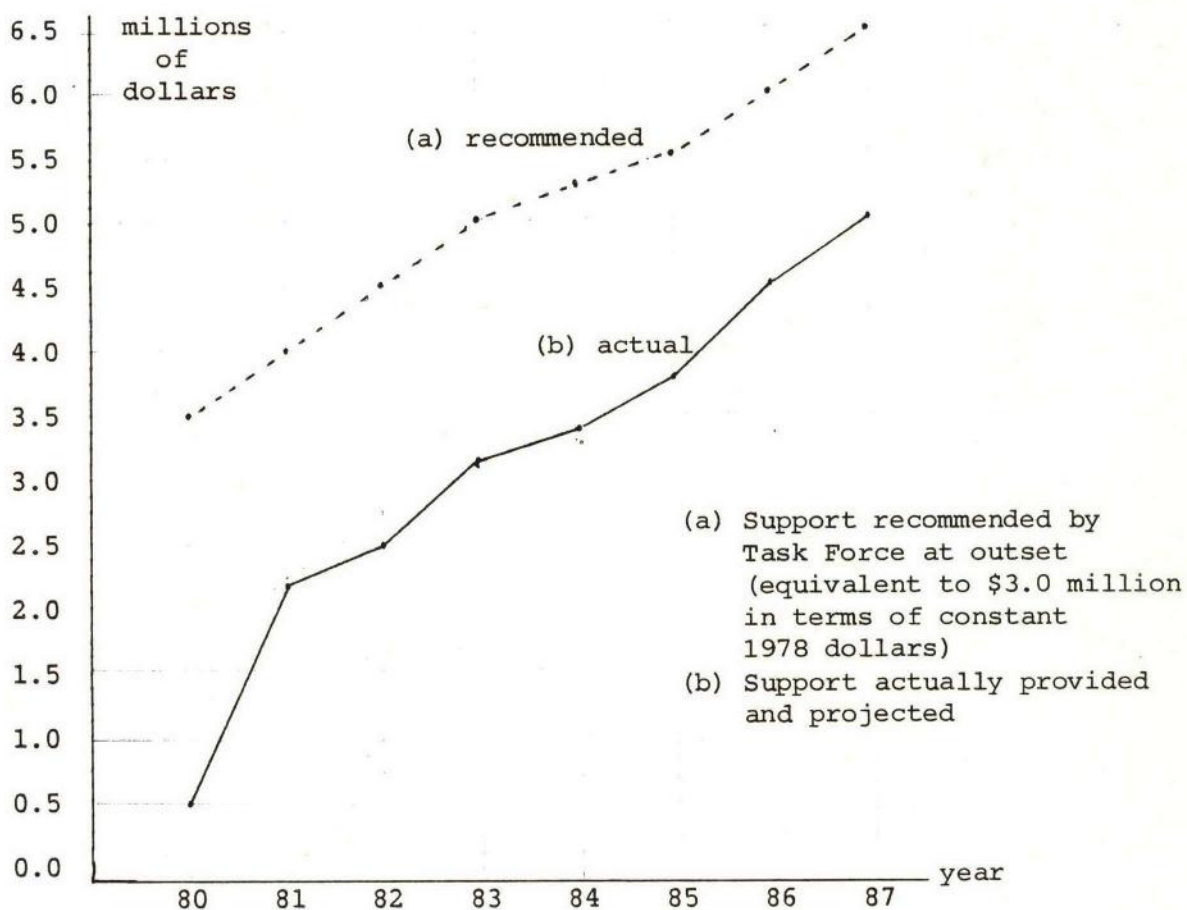
- b. Rockefeller Foundation. Inter Center Seminar on Women and Agricultural Technology. The primary objective of this seminar, which will be held at Bellagio in March 1985, is to encourage senior policy makers in the IARCs of the CGIAR system to ensure that the research programs of the Centers adequately consider the various categories of persons who should be users of the technology generated. It is anticipated that this seminar will be an initial step in a continuing process. It is expected that there will be a follow-up process in which the products of the seminar will be transferred and broadened in cooperation with national programs.
- c. Workshops, Seminars, Conferences and Training Courses (donors to be identified). An important part of ISNAR's work with national agricultural research systems is to provide opportunities for present and prospective leaders to meet for discussion of common problems and specific themes of mutual interest. In addition, ISNAR provides opportunities for present and prospective leaders in national systems to upgrade management skills through specific short training courses. In 1985, ISNAR is planning four workshops on a national basis for study and discussion of agricultural research management topics. Also, three regional seminars are being planned for 1985, one each in Latin America, Africa, and Asia. To the extent possible, these training efforts will be carried out as activities of the core program. However, because of limited financial resources from the core budget, extra core funding will be sought for these activities.
- d. IFARD/ISNAR Latin American Agricultural Research Management Training (donor to be identified). This project is being developed jointly by IFARD and ISNAR. Its objective is to strengthen national agricultural research capabilities through research management training activities. Further, it is expected to promote exchange of managerial experiences among agricultural research administrators of the countries of Latin America. This project, for which initiation funds will be sought in 1984, will probably continue through 1985 and 1986 in its first phase.
- e. Agricultural Research Management Information Service (ARMIS) (donor to be identified). Strong efforts will be made to obtain extra core funding to launch the proposed ARMIS. It is hoped that this new information service activity can be initiated during 1984 and developed to full operational status during 1985. It appears that ARMIS should become a core activity of ISNAR at the appropriate time in the future.

9. General Considerations

For ISNAR, the paramount issue is the provision of sufficient support throughout the balance of its initial phase of operation to assure that its resources are adequate to meet its mandate.

During its first two years, the build-up of ISNAR's professional staff was carried out on a conservative basis due to uncertainty of financial support. During its third and fourth years, limitation of resources has been a constraint with a slight shortfall of funding in 1983 and uncertainty of funding in 1984.

The following plot illustrates ISNAR's funding situation:



As indicated in the plot, the actual level of support is about two-thirds of the level that was originally recommended. Further, based on experience to date, the projected support will continue at this considerably reduced level. It is recognized, of course, that the shortfall of resources made available to ISNAR has been related to the budgetary constraints imposed on the entire CGIAR system.

For 1984 the staffing necessary to carry out the program at the base budget figure was increased by one man-year over 1983. The change in staffing from 1984 to 1985 is to increase the administrative staff from 2.5 to 3.0 and the man-years for research studies from 2.0 to 2.5.

Since its inception, ISNAR has operated with a minimum of staff for administration at 2.5 man-years. In 1985, with increasing program administration, there must be an additional 0.5 man-years to bring administrative staff to 3.0 man-years.

As ISNAR enlarges its activities with the national agricultural research systems, the specific gaps in its knowledge and understanding of constraints on the development of national systems are becoming better known. As these constraints are identified, there is increased need for studies to determine the ways and means to overcome these constraints. Accordingly, the number of man-years for this work must be increased from 2.0 to 2.5, with time sharing from staff in the group for Review, Planning and Continuing Cooperation with National Agricultural Research Systems.

10. Capital Requirements

The capital item included in the budget, in the amount of \$12,000, is a provision for further upgrading of word processor equipment and for furniture.

11. Assumptions on Price Changes

The 1985 budget has been calculated with an assumed price increase of 8%. Future budget projections have been calculated with an assumed price increase of 9%. These assumptions are based on the best estimates of projected inflation rates in the Netherlands and in the countries in which ISNAR is or likely to be involved in cooperative activities.

12. Changes in Program Activity with Change in Level of Funding

ISNAR's program for 1985 has been developed at the base budget of \$3,892,000. An additional amount, of \$150,000 is included for the external review to be carried out in 1985.

In event of funding of 6% below the base budget, the fallback list would be as follows:

1. Documentation and Information Services
Reduction in translation activities \$ 20,000

ISNAR is working toward publication of the majority of its reports in English, French and Spanish. Many of the translations are done on a contract basis and a reduction of \$20,000 is the equivalent of the translation of about four major reports. In effect, this reduction would cancel all outside translation services.

2. Research on Organization and Management of Agricultural Research Systems
Program reduction \$ 31,000

In 1985 ISNAR plans to update the IFPRI/ISNAR publication "Resource Allocations to National Agricultural REsearch: Trends in the 1970s". New information is now available both on the countries covered earlier as well as a number of other countries. Accordingly, it is timely to produce an up-dated presentation of the status of national research systems. In case of a reduction in funding this work would need to be delayed until 1986 or beyond.

3. Training and Conferences
Reduction by one of the number of workshops/seminars \$ 33,000

ISNAR has allocated \$120,000 for support of training courses, workshops, seminars and conferences in 1985. It intends to seek extra funding to supplement its core budget for these activities, but it requires a minimum of assured support to plan a balanced program. The amount of \$33,000 is the approximate amount needed for participant costs for one workshop/seminar. The indicated reduction would eliminate this one important activity.

4. Review, Planning and Continuing Cooperation with National Agricultural Research Systems
Reduction in staff travel \$ 30,000

Staff travel to countries with which ISNAR cooperates for consultation and advice on implementation of recommendations or to discuss new problem areas with national leaders are an essential part of ISNAR's work. The budget for these activities has been developed on the basis of experience during the past three years. The indicated reduction would reduce ISNAR's ability to respond to national program needs.

5. Training and Conferences
Reduction in one man-year of senior staff \$ 94,000

Training is a very important component of ISNAR's overall program. The Board of Trustees approved 3.0 man-years of senior staff time for training and conferences for 1984 and beyond. Resources projected for 1984 permit only 2.5 man years; the entire 3.0 man-years is projected for 1985 and beyond. However, in event of shortfall of funding this need would be reduced to 2.0 man-years. Three man-years of senior staff positions enable ISNAR to have the expertise required to plan, develop and carry out, in cooperation with other staff of ISNAR, a well-balanced training and conference program.

6. Operating expenses

If there is a reduction of one man-year of senior staff there can be some savings in operating expenses. These are estimated to be:

\$ 6,000

7. Balance of Budget Reduction

The balance of budget reduction is accounted for in price adjustment and adjustment in working capital due to the decrease for the above items, and reduction in capital expenditure.

\$ 20,000

Total Amount of Fallback List

\$234,000

In event of funding of 7% above the base budget, the forward list would be as follows:

1. Review, Planning and Continuing Cooperation with National Agricultural Research Systems
Increase of 1.0 man-years of senior staff

\$ 94,000

ISNAR's capability to achieve its main objectives is contained in the number and competence of its senior staff to conduct reviews and analyses of national agricultural systems. It has been estimated since the start of ISNAR's operation, and confirmed by its experience, that a core senior staff of 26 to 28 is the minimum required by ISNAR to carry out its mandate. The addition of this staff person would assist ISNAR in attaining this minimum requirement.

2. Review, Planning and Continuing Cooperation with National Agricultural Research Systems
Increase of 1.0 man-years of senior staff

\$ 94,000

The addition of this second senior staff person would enable ISNAR to attain the minimum level of 26 to 28 core staff required.

3. Research on Organization and Management of Agricultural Research Systems
Program increase

\$ 62,000

In order for ISNAR to continue to provide sound recommendations and guidance for the strengthening of national research systems, there is continuing need for studies of these systems and of the elements required for their success. The increased support would permit the initiation of in-depth study of the structure, evolution and performance of two national research systems. The main emphasis of these studies will be on the interactions between the different functional components. The methodology will evolve from the work being carried out at present in connection with the review of ISNAR's experience.

4. Balance of Budget Increase

The balance of budget increase is accounted for by price adjustment, an increase of \$1,000 in capital expenditure related increase in working capital.

\$ 23,000

Total Amount of Forward List

\$273,000

1985 LIST OF PROGRAM CHANGES - TABLE

- ISNAR -

	<u>Senior Manyears</u>	<u>Operations (in 1984 \$'000)</u>
1. 1984 Operating Budget (at bottom of bracket)	<u>23.0</u>	<u>3,570*</u>
2. <u>Operating Program Items Reduced or Deleted</u>		
a. Documentation and Information - Translations		20
b. Research - Updating IFPRI/ISNAR 1981 data and publication of "Allocation of Resources" in NARS		31
c. Training and Conferences - Reduction in seminars		33
d. Review and Planning with NARS - Re- duction in staff travel		30
e. Training and Conferences - Reduction of 1 man year of senior staff	1.0	94
f. Operating Expenses - Reduction in operating expenses due to reduction of 1 man year of senior staff		<u>6</u>
Sub-total	<u>1.0</u>	<u>214</u>
3. <u>Operating Program Items Added or Expanded</u>		
a. Review and Planning with NARS - Increase 2 man years of senior staff	2.0	188
b. Research - Initiation of in-depth study of structure, evaluation and performance of two national research systems		<u>62</u>
Sub-Total	<u>2.0</u>	<u>250</u>
4. <u>1985 Operating Component of Budget Base (in 1984 dollars)</u>	<u>24.0</u>	<u>3,570</u>
Memo: 1. 1985 Operating Component of Budget Base (in 1984 dollars)		3,570
2. Price Provision		286
3. Working Capital Adjustment		24
4. Capital Expenditure		<u>12</u>
Total 1985 Budget Base (in 1985 dollars)		3,892
5. Mandatory Review of ISNAR		<u>150</u>
		<u>4,042</u>

* In the 1984 Current Estimate, \$15,000 from Contingency were transferred to Capital, leaving Core Operations in 1984 at \$3,555,000.

1985 FALLBACK LIST TABLE

- ISNAR -

	<u>Operations</u>			<u>Capital (in 85 \$'000)</u>		<u>Total Requirements (in 85 \$'000)</u>		
	<u>Senior Manyears</u>	<u>In 1984 \$'000</u>	<u>Price Provision \$'000</u>	<u>In 1985 \$'000</u>	<u>Adjustment on Working Capital</u>	<u>Expendi- tures</u>	<u>Gross</u>	<u>Net</u>
A. <u>1985 Budget Base</u>	24	3,570	286	3,856	24	12	3,892	
Cost of mandatory review in 1985							150	
							4,042	3,992*
B. <u>Program Items Proposed for Reduction or Deletion</u>								
<u>Priority Rank</u>	<u>Description of Items (Program, Activity, Object of Expend.)</u>							
1		20	1.6	22				
2.		31	2.4	33				
3.		33	2.6	36				
4.		30	2.4	32				
5.		94	7.5	102				
6.		6	.5	6				
7.		2	-	-	2	1		
Sub-total	1	214	17.0	231	2	2	234	
C. <u>Center's 1985 Fallback Proposal</u>	23	3,356	269	3,625	22	11	3,658	
Plus mandatory ISNAR review							150	
							3,808	3,758*

* Includes \$50,000 earned income.

1985 FORWARD LIST TABLE

- ISNAR -

	Operations			Capital (in 85 \$'000)		Total Requirements (in 85 \$'000)		
	Senior Manyears	In 1984 \$'000	Price Provision \$'000	In 1985 \$'000	Adjustment on Working Capital	Expendi- tures	Gross	Net
A. <u>1985 Budget Base</u> Cost of mandatory review in 1985	<u>24</u>	<u>3,570</u>	<u>286</u>	<u>3,856</u>	<u>24</u>	<u>12</u>	<u>3,892</u> <u>150</u> <u>4,042</u>	<u>3,992*</u>
B. <u>Program Items Proposed</u> <u>for Reduction or Expansion</u>								
Priority <u>Rank</u>	<u>Description of Items (Program, Activity, Object of Expend.)</u>							
1.								
1.	1	94	7.5	101.5				
2.	1	94	7.5	101.5				
3.								
3.	-	62	5.0	67				
4.	-							
4.	-				<u>2</u>	<u>1</u>		
Sub-total	<u>2</u>	<u>250</u>	<u>20.0</u>	<u>270</u>	<u>2</u>	<u>1</u>	<u>273</u>	
C. <u>Center's 1985 Total Forward Proposal</u> Plus mandatory review	<u>26</u>	<u>3,820</u>	<u>306</u>	<u>4,126</u>	<u>26</u>	<u>13</u>	<u>4,165</u> <u>150</u> <u>4,315</u>	<u>4,265*</u>

* Includes \$50,000 earned income.

TABLES

Table I Summary of Costs by Program and Activity 1982-1988

Table II Summary of Sources and Application of Funds

Table IIa Special Projects

Table III Summary of Financial Data 1982-1985

Table IV Positions and Man-years 1983-1986

Table I. Summary of Costs by Program and Activity 1982-1988 (US\$ 000)

	Actual 1982		Actual 1983		Approved Budget 1984		Revised Budget 1984		Proposed Budget 1985 Budget Base		Proposed Budget 1985 Top of Bracket		Proposed Budget 1985 Bottom of Bracket		Projections					
	My	Cost	My	Cost	My	Cost	My	Cost	My	Cost	My	Cost	My	Cost	1986		1987		1988	
															My	Cost	My	Cost	My	Cost
1. REVIEW, PLANNING, DEVELOPMENT OF NATIONAL AGRICULTURAL RESEARCH SYSTEMS	11.66	1,087	14.5	1,352	13.5	1,458	13.5	1,453	13.5	1,452	15.5	1,640	13.5	1,422	16.0	1,736	18.0	1,952	18.0	1,952
2. RESEARCH STUDIES ON ORGANIZATION AND MANAGEMENT OF NATIONAL AGRICULTURAL RESEARCH SYSTEMS	0.66	127	2.0	372	2.0	300	2.0	331	2.5	312	2.5	374	2.5	281	3.0	359	3.0	359	3.0	359
3. TRAINING AND CONFERENCES	2.33	205	2.0	354	3.0	441	3.0	439	3.0	407	3.0	407	2.0	280	3.0	407	3.0	407	3.0	407
4. DOCUMENTATION AND INFORMATION SERVICES	2.5	173	2.0	323	2.0	315	2.0	355	2.0	339	2.0	339	2.0	319	2.0	339	2.0	339	2.0	339
5. GENERAL ADMINISTRATION	-	72	-	94	-	97	-	104	-	104	-	104	-	104	-	104	-	104	-	104
Board of Trustees	2.75	238	2.5	275	2.5	295	2.5	276	3.0	343	3.0	343	3.0	337	3.0	343	3.0	343	3.0	343
Office of Director General	-	40	-	14	-	42	-	67	-	67	-	67	-	67	-	67	-	67	-	67
Accounting	-	-	-	-	-	-	-	-	-	150	-	150	-	150	-	-	-	-	-	-
Other (Mandatory review of ISNAR 1985)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	2.75	350	2.5	383	2.5	434	2.5	447	3.0	664	3.0	664	3.0	658	3.0	514	3.0	514	3.0	514
6. GENERAL OPERATING COSTS	-	159	-	253	-	221	-	256	-	256	-	256	-	256	-	256	-	256	-	256
Buildings	-	3	-	6	-	5	-	7	-	7	-	7	-	7	-	7	-	7	-	7
Motor Pool	-	84	-	141	-	145	-	165	-	165	-	165	-	165	-	165	-	165	-	165
Communications	-	40	-	39	-	50	-	42	-	43	-	43	-	43	-	43	-	43	-	43
General Supplies	-	25	-	95	-	65	-	50	-	50	-	50	-	50	-	50	-	50	-	50
Computer Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	311	-	534	-	486	-	520	-	521	-	521	-	521	-	521	-	521	-	521
7. OTHER	-	-	-	-	-	25	-	10	-	25	-	25	-	25	-	25	-	25	-	25
Contingency	-	-	-	-	-	311	-	-	-	286	-	306	-	269	-	671	-	1,108	-	1,603
Provision for Future Price Changes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	336	-	10	-	311	-	331	-	294	-	696	-	1,133	-	1,628
TOTAL CORE OPERATING EXPENDITURE	19.9	2,253	23.0	3,318	23.0	3,770	23.0	3,555	24.0	4,006	26.0	4,276	23.0	3,775	27.0	4,572	29.0	5,225	29.0	5,720
BY OBJECT OF EXPENDITURE	-	1,419	-	1,711	-	1,980	-	2,049	-	2,116	-	2,272	-	2,018	-	2,325	-	2,455	-	2,455
Personal Services	-	392	-	1,040	-	778	-	1,001	-	940	-	1,002	-	847	-	1,008	-	1,064	-	1,064
Supplies and Services	-	-	-	40	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment Replacement	-	442	-	527	-	651	-	495	-	489	-	521	-	466	-	543	-	573	-	573
Travel	-	-	-	-	-	336	-	10	-	461	-	481	-	444	-	696	-	1,133	-	1,628
Contingency/Provision for price changes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CORE OPERATING EXPENDITURE	19.9	2,253	23.0	3,318	23.0	3,770	23.0	3,555	24.0	4,006	26.0	4,276	23.0	3,775	27.0	4,572	29.0	5,225	29.0	5,720

Table IIa. Special Projects

Donor	Description	Actual 1983			1984			1985			1986		1987	1988
		MY	Core	US\$	MY	Core	US\$	MY	Core	US\$	MY	Core	US\$	US\$
		Project	Core	Received	Project	Core	Budget	Project	Core	Budget	Project	Core	Budget	Budget
ARMIS (unidentified)	Ag. Res. Mgmt. Info. Service	-	-	-	-	.08	40,000	1.0	.16	100,000	1.5	.25	120,000	-
CIMMYT/UNDP	Case writing/Seminar	1.0	.08	78,728	.08	.08	-	-	-	-	-	-	-	-
Ford Foundation**	Rural Social Sciences in Africa	-	.04	-	-	-	-	-	-	-	-	-	-	-
German Foundation for Intl.Dev.	IFARD/ISNAR Conf. in Jakarta	-	-	(10,706)	-	-	-	-	-	-	-	-	-	-
IDRC**	Rural Social Sciences in Africa	-	.04	14,746	-	-	-	-	-	-	-	-	-	-
IDRC Latin America/PROAGRO	Ag. Res. Org. and Performance	.16	.35	68,175	1.0	.74	61,627	1.0	.74	18,300 ¹	1.0	.08	60,000	60,000
IFARD/ISNAR (unidentified)	Joint coop. on strengthening NARS	-	-	-	-	.08	20,000	.16	.08	80,000	.25	.08	180,000	-
IFARD/Latin America (unidentified)	L.A. Ag. Res. Mgmt. Training	-	-	-	.08	.08	25,000	1.0	.08	100,000	1.0	.08	100,000	-
Ivory Coast/IDA*	Review mission	-	-	120,000	-	-	-	-	-	-	-	-	-	-
Madagascar/IDA*/FOFIFA	Res. Plan. and Implementation	-	-	-	.50	.13	55,725	1.0	.16	111,450	.50	.16	55,725	-
ODA/CDA Training	Mgmt. of Ag. Res. in Africa	.83	.08	55,415	1.0	.08	67,585	.15	.08	12,000	-	-	-	-
Reg. and Natl. Workshops(unidentified)	Research Management	-	-	-	.16	.16	60,000	.50	.33	100,000	.50	.33	100,000	-
Rwanda/IDA*	Review mission	-	-	110,575	-	-	-	-	-	-	-	-	-	-
Rwanda/IDA	Seminar	.83	.30	81,280	-	.16	-	-	-	-	-	-	-	-
Rwanda/IDA/ISAR	Res. Plan. and Programming	-	-	-	.75	.33	92,875	1.0	.16	91,105	.25	.08	14,680	-
Seminar (Bellagio)/Rockefeller	Inter-Center Seminar on Women in Agric. Technology	-	-	-	-	-	-	.25	.25	65,000	-	-	-	-
Solomons/ADB*	Project Preparation	-	-	43,024	-	-	-	-	-	-	-	-	-	-
Somalia/USAID	Planning Ag. Res. Program	-	-	-	1.75	.42	153,500	.25	.08	40,000	-	-	-	-
UNDP/ISNAR/SADCC	Integration of IARC activity	-	-	-	.31	.04	67,000	-	-	-	-	-	-	-
USAID/CDA Training	Mgmt. of Ag. Res. in Africa	1.37	.75	130,000	1.65	.60	212,000	.25	.50	153,000	-	-	-	-
Zaire/USAID	Review and plan. of Ag. Res.	-	-	-	.66	.25	97,000	-	-	-	-	-	-	-
Unidentified		-	-	-	-	-	-	-	-	-	-	-	-	390,000
		4.19	1.64	691,237	7.94	3.23	952,312 ²	6.56	2.62	870,855 ²	5.0	1.06	630,405 ²	450,000
														450,000 ²

	1982	1983	Proj. Closed out in 1983	Transferred to Table II (1983)
Income	257,811	691,237	(508,889)	440,159
Expenditure	434,445	366,364	(402,124)	398,684
	(176,634)	324,873	(106,765)#	41,475

Transferred to Core Capital

* Projects completed in 1982

** Projects completed in 1983

¹ Extension planned for approximately same level of funding as Phase I. The \$18,300 represents commitment under Phase I.

² Total amount transferred to Table II

Table III. Summary of Financial Data 1982-1985 (US\$ 000)

	Actual Budget 1982	Approved Budget 1983	Actual Budget 1983	Approved Budget 1984	Proposed Budget 1985
<u>Current Assets</u>					
Cash	250	363	400	355	379
Receivables	58	-	29	-	-
Other Receivables	346	100	140	100	100
Inventories	-	-	-	-	-
Prepaid Expenses	5	5	36	5	5
Other Current Assets	-	-	-	-	-
Total Current Assets	659	468	605	460	484
<u>Fixed Assets</u>					
Operating Equipment	-	-	-	-	-
Vehicles	23	23	23	23	23
Furnishings & Office Equipment	554	581	621	652	664
Other Fixed Assets	-	-	-	-	-
Total Fixed Assets	577	604	644	675	687
TOTAL ASSETS	1,236	1,072	1,249	1,135	1,171
<u>Liabilities</u>					
Accounts Payable	137	150	257	150	150
Payables to Donors	-	-	-	-	-
Other Liabilities	-	-	-	-	-
TOTAL LIABILITIES	137	150	257	150	150
<u>Capital Balances & Unexpended Funds</u>					
Capital Grants:					
Fully Expended	577	604	644	675	687
Unexpended	310	318	310	310	334
Sub-Total	887	922	954	985	1,021
Unexpended Operating Grants:					
Core	200	-	(3)	-	-
Special Projects	12	-	41	-	-
Total Capital Balances	1,099	922	992	985	1,021
TOTAL LIABILITIES AND CAPITAL	1,236	1,072	1,249	1,135	1,171

Table IV. Positions and Man-years 1983-1986

	SENIOR STAFF																				SUPPORT STAFF																			
	1983 ACTUAL				1984 APPROVED BUDGET				1984 CURRENT ESTIMATE				1985 PROPOSED BUDGET				1985 BOTTOM PROJECTION				1985-TOP PROJECTION				1986 PROJECTION				1983 ACT. BUD.	1984 APPR. EST.	1984 CURR. BUD.	1985 PROP. BTM.	1985 PROJ. PROJ.	1985 PROJ. PROJ.	1986 PROJ. PROJ.					
	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.	TOT.	SRO	SRF	CON.
1. REVIEW, PLANNING, DEVELOPMENT OF NATIONAL AGRICULTURAL RESEARCH SYSTEMS	14.5	8.5	4.0	2.0	13.5	8.5	4.0	1.0	13.5	8.5	4.0	1.0	13.5	8.5	4.0	1.0	13.5	8.5	4.0	1.0	15.5	10.5	4.0	1.0	16.0	10.5	4.0	1.5	4.0	4.0	5.0	5.0	5.0	6.0	6.0					
2. RESEARCH STUDIES ON ORGANIZATION AND MANAGEMENT OF NATIONAL AGRICULTURAL RESEARCH SYSTEMS	2.0	1.9	-	0.1	2.0	2.0	-	-	2.0	2.0	-	-	2.5	2.5	-	-	2.5	2.5	-	-	2.5	2.5	-	-	3.0	3.0	-	-	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3. TRAINING AND CONFERENCES	2.0	2.0	-	-	3.0	3.0	-	-	3.0	2.5	-	0.5	3.0	3.0	-	-	2.0	2.0	-	-	3.0	3.0	-	-	3.0	3.0	-	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
4. DOCUMENTATION AND INFORMATION SERVICES	2.0	1.0	1.0	-	2.0	2.0	-	-	2.0	2.0	-	-	2.0	2.0	-	-	2.0	2.0	-	-	2.0	2.0	-	-	2.0	2.0	-	-	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5. GENERAL ADMINISTRATION																																								
Board of Trustees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office of Director General	2.5	2.4	-	0.1	2.5	2.5	-	-	2.5	2.5	-	-	3.0	3.0	-	-	3.0	3.0	-	-	3.0	3.0	-	-	3.0	3.0	-	-	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Accounting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	2.5	2.4	-	0.1	2.5	2.5	-	-	2.5	2.5	-	-	3.0	3.0	-	-	3.0	3.0	-	-	3.0	3.0	-	-	3.0	3.0	-	-	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
6. GENERAL OPERATING COSTS																																								
Buildings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor Pool	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communications	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TOTAL	23.0	15.8	5.0	2.2	23.0	18.0	4.0	1.0	23.0	17.5	4.0	1.5	24.0	19.0	4.0	1.0	23.0	18.0	4.0	1.0	26.0	21.0	4.0	1.0	27.0	21.5	4.0	1.5	12.0	12.0	16.0	16.0	16.0	17.0	17.0					

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