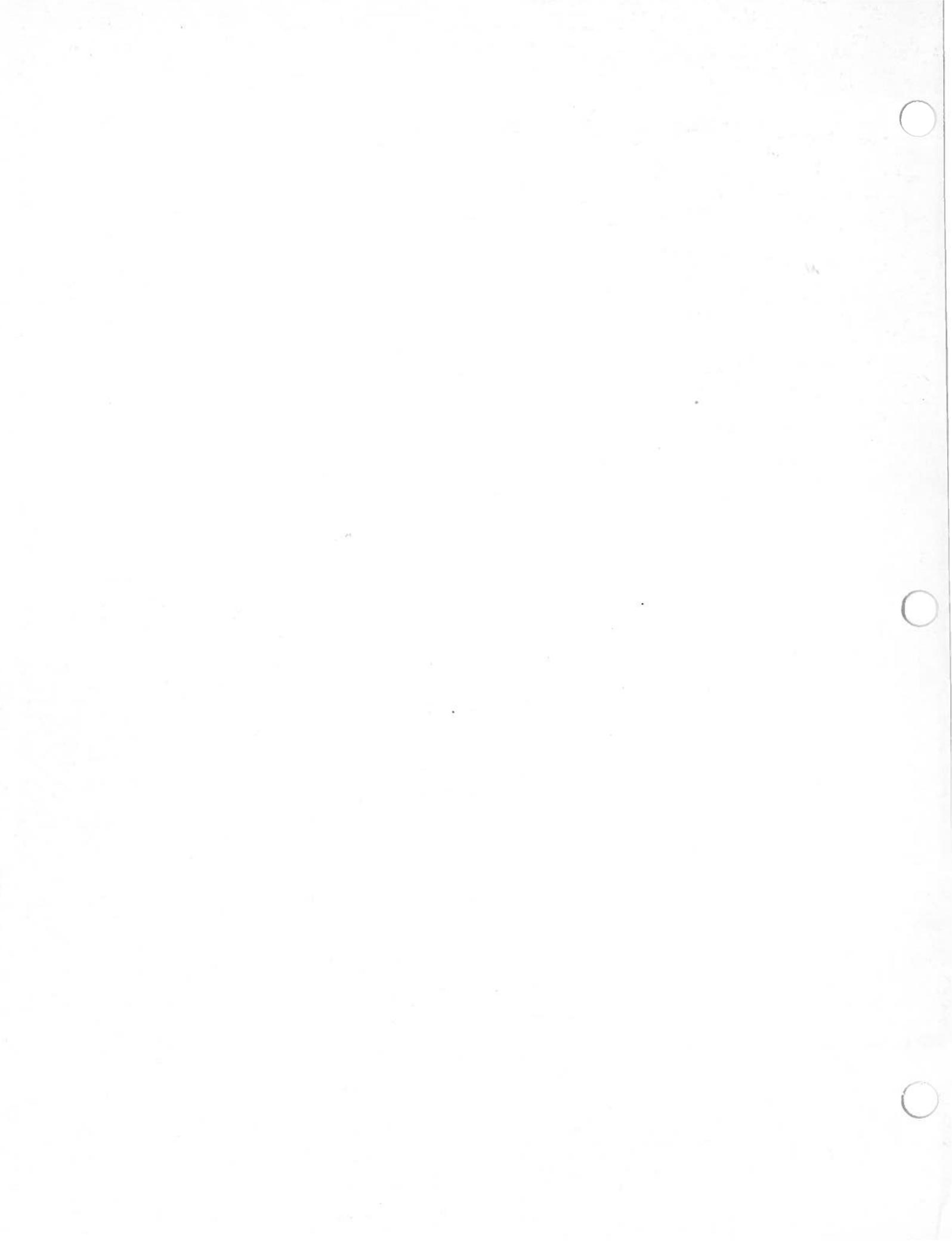


AGENCY FOR INTERNATIONAL DEVELOPMENT



Congressional Presentation
Fiscal Year 1989
ANNEX IV

Centrally Funded Programs



ANNEX IV

Annex IV presents to the Congress all centrally funded programs for which A.I.D. is requesting development assistance funds for FY 1989.

The annex begins with an overview which explains the purpose for and objectives of the centrally funded programs. This is followed by a summary table which provides a breakout of funding requirements for each program from FY 1986 to FY 1989.

The next section consists of a narrative for each of A.I.D.'s centrally funded functional accounts describing what the Bureau for Science and Technology is doing in each of these areas, including the Science Advisor Program. These narratives may be followed by planned program summary sheets which outline requests for proposed new projects in FY 1989.

The functional account narratives are followed by additional narratives which describe the activities of the Bureau for Private Enterprise, Bureau for Food for Peace and Voluntary Assistance, including the American Schools and Hospitals program, the Office of Foreign Disaster Assistance, and Office of International Training.

A detailed description of the world-wide Food for Peace program can be found in the Main Volume. Planned Program Summary sheets for new programs in FY 1989 are also part of this section.

The Main Volume also includes a more detailed description of Agency-wide private sector programs including cooperatives and credit unions as well as Agency-wide Private and Voluntary Cooperation programs.

CENTRALLY FUNDED PROGRAMS - TABLE OF CONTENTS

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PROGRAM SUMMARY (In millions of dollars)		
FY 87 Actual	FY 88 Estimated	FY 89 Request
469.6	472.4	463.0

CENTRALLY-FUNDED PROGRAMS
OVERVIEW

Centrally-funded programs provide essential technical support to A.I.D.'s economic assistance programs and development objectives through basic and applied research, development and testing of appropriate technology, private enterprise activities, cooperative development, development activities directed through private and voluntary organizations, international disaster assistance and coordination and guidance for the Agency's participant training programs.

Addressing cross-cutting developmental problems, these programs are utilized by A.I.D. programs in all geographic regions. They strengthen A.I.D.'s ability to confront difficult constraints to economic and social progress in the developing world, such as: inadequate agricultural technologies, which stymies agricultural sector growth sufficient to keep up with basic nutrition levels and high population growth rates, population pressures and lack of institutionalized training, education and health services.

In addition to the innovative, adaptive approaches channeled through bilateral country programs, funds are made available to centrally-funded programs involved on the "cutting edge" of new technologies and efforts to adapt them to developing countries' political, social and economic realities. This is especially true for activities under the Science and Technology Bureau and the Bureau for Private Enterprise. Some programs are also centrally funded because of their global focus, and because of the efficiencies of consolidated central management. They:

- Supply technical expertise to A.I.D. regional bureaus and field missions worldwide to assist developing countries in specialized fields such as agricultural production and rural development, population planning, nutrition, renewable and conventional energy, disaster preparedness, environmental activities, privatization, financial market development, and the utilization of private enterprise to achieve development objectives;
- Seek new solutions to development problems by financing experimental projects and pilot programs, developing and exploring new applications of science and technology and private enterprise, and evaluating the success of past initiatives;
- Provide guidance and impetus to the Agency's private sector development initiative which seeks to make a vital contribution to

economic growth and social development through job creation, the transfer of technology and management skills, and increased productivity.

- Support non-governmental development activities through assistance to cooperatives, private voluntary organizations and other private sector intermediaries;
- Provide emergency relief and rehabilitation assistance to countries stricken by natural disasters and other emergencies;
- Support schools, libraries and hospitals abroad funded or sponsored by private U.S. non-profit organizations.
- Provide support the Agency's participant training activities, which grew to almost 17,500 participants in FY 1987.

Funding Solutions to Development Problems

Centrally-funded research and development programs concentrate on generic problems that cut across countries and regions, and that impede economic growth and social progress in developing countries. These activities fall into the following broad categories:

- The transfer of existing scientific and technological knowledge to meet the special requirements of Third World development;
- Basic and applied scientific research by cooperating institutions and individuals in the United States and in developing countries to address technological and social problems afflicting the rural and urban poor, including management and institutional constraints;
- The development of innovative private sector program approaches that have a demonstration effect in recipient countries;and,
- Evaluation programs to determine the impact on the poor of past and current development efforts, to improve policy planning, project design and implementation methodologies.

Applying Expertise to Selected Global Problems

A.I.D.'s centrally-funded activities help to increase the effectiveness and efficiency of bilaterally-funded field operations by providing support services in key technical areas to assist missions and regional bureaus in carrying out their country programs.

- By managing contracts and other arrangements with universities, private firms and U.S. Government agencies to provide specialized technical assistance to missions and host governments in high priority development sectors such as agriculture, financial markets, forestry and fuelwood, education, health, child survival, privatization, financial markets, and family planning;

- By initiating pilot projects that address key problems that field missions can replicate in other countries and regions;
- By maintaining a core staff of multi-disciplinary specialists who can advise and assist missions and developing countries in planning, designing and implementing their programs; and,
- By providing technical logistical support services that can best be performed centrally, such as the administration of the Agency's participant training program, contraceptive procurement, and the collection and dissemination of development information and statistical data.

Development through Private Enterprise

The private sector makes a vital contribution to economic and social development through job creation, the transfer of technology and management skills, and increased productivity to help developing countries achieve sustainable economic growth.

Through the central Bureau for Private Enterprise (PRE), A.I.D. carries out activities in support of enterprise initiatives and housing and urban development. Emphasis is on small/medium sized indigenous enterprises which have considerable impact on the achievement objectives:

- PRE serves as a laboratory for innovative and experimental programs that capitalize on available business expertise, and utilize private enterprise, both LDC and U.S., to the maximum extent possible to achieve development objectives.
- The Bureau works closely with field missions to develop country strategies and projects designed to utilize private enterprise as the mechanism for delivering assistance.
- PRE focuses its efforts on removing impediments to private business growth; on financial market development; transfer, adaptation, and commercialization of technology; and divestiture and privatization.

Significant progress has been made since the private enterprise initiative was inaugurated. The policy framework for private investment has been improved in a number of countries; new capital market institutions have been created and the capabilities of existing institutions have been expanded; training programs for local entrepreneurs and business managers have been conducted. The Revolving Fund, approved by Congress in FY 1983, enhances the impact of private sector activities by providing loans to private financial institutions at market rates to fill gaps in developing country capital markets.

Development through Intermediary Organizations

Private assistance organizations have become invaluable members of the foreign assistance community, both as channels for the effective use of

U.S. contributions and as vehicles for bringing substantial private resources to the overall development effort. They have demonstrated a capacity for mounting programs that effectively meet the needs of the poor. A.I.D. provides centrally-funded assistance to the following types of intermediary organizations:

- Private and Voluntary Organizations (PVOs) have established reputations as concerned and effective contributors to the U.S. development effort. Support of these organizations permits A.I.D. to share with the private voluntary community greater responsibility for implementing the nation's foreign assistance programs. These activities are described in more detail in the Private and Voluntary Cooperation narrative of this volume.
- Cooperative Development Organizations (CDOs) in several sectors, including agriculture and housing, have proven to be effective in achieving development objectives through the promotion of cooperative and credit union development in LDCs. Activities funded are explained more fully in the Main and Central Volumes under the Agriculture and Rural Development and Private Voluntary Organizations narratives.
- Population Cooperating Agencies, including private, indigenous and U.S.-based organizations have extensive experience and expertise in providing family planning services. Such private organizations help to diversify the services and information available to the poor and provide an important alternative to government-to-government programs.
- International Agriculture Research Centers (IARCs) are linked with United States and LDC national research programs and form an important element in a global network of research centers that develop and supply scientific and technological expertise needed to expand world food production. There are 12 centers for which \$40.0 million is requested in FY 1989 as the U.S. contribution
- Institutions described in Title XII of the Foreign Assistance Act (U.S. land and sea grant universities and other eligible institutions) support the application of more effective agricultural technology to increase world food production.

FY 1989 Request

In FY 1989 A.I.D. is requesting a total of \$463.0 million for the centrally-funded programs.

- \$273.1 million - Science and Technology Bureau, including \$8.7 million for the Science Advisor, \$20.0 million for UNFPA and \$27.0 million for AIDs;
- \$81.1 million - Food for Peace and Voluntary Assistance Bureau, including \$30.0 million for ASHA;

- \$25.6 million - Private Enterprise Bureau, including \$8.5 million for the Private Sector Revolving Fund;
- \$25.0 million - Office of Foreign Disaster Assistance;
- \$16.4 million - Women in Development activities, U.S./Israeli Cooperative Development Programs, policy development and evaluations and Peace Corps activities;
- \$40.0 million - support of the International Agricultural Research Centers; and,
- \$1.9 million - Office of International Training.



SUMMARY OF PROGRAMS BY BUREAU AND APPROPRIATION
(IN THOUSANDS OF DOLLARS)

BUREAU	TOTAL	AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION	POPULATION PLANNING	HEALTH	CHILD SURVIVAL	AIDS	EDUCATION AND HUMAN RESOURCES DEVELOPMENT	SELECTED DEVELOPMENT ACTIVITIES	ECONOMIC SUPPORT FUND	OTHER PROGRAMS
BUREAU FOR SCIENCE AND TECHNOLOGY										
1986	260,797	69,024	133,515	36,837	7,625	---	5,646	6,715	1,435	---
1987	252,825	64,761	114,965	47,870	13,999	---	5,738	4,492	1,000	---
1988	253,246	62,964	109,343	34,330	12,599	25,000	4,586	4,424	---	---
1989	264,400	61,948	115,000	32,666	17,309	27,000	4,757	5,720	---	---
BUR FOR FOOD FOR PEACE AND VOL ASSIST										
1986	83,917	22,291	---	6,500	7,300	---	2,064	12,267	---	33,495
1987	83,267	21,770	---	6,335	10,017	---	1,505	8,640	---	35,000
1988	93,816	23,132	---	6,410	12,656	---	4,600	7,018	---	40,000
1989	81,100	24,184	---	6,215	8,597	---	4,693	7,411	---	30,000
BUR. FOR PROGRAM AND POLICY COORDINATION										
1986	57,296	49,031	870	374	---	---	1,049	5,972	---	---
1987	49,932	43,918	503	1,197	---	---	1,498	2,816	---	---
1988	54,150	47,848	1,031	2,033	---	---	1,175	2,063	---	---
1989*	56,400	45,074	1,132	1,998	---	---	1,232	6,964	---	---
BUREAU FOR PRIVATE ENTERPRISE										
1986	40,817	7,243	---	420	---	---	---	17,754	---	15,400
1987	36,358	8,066	---	---	---	---	---	13,142	---	15,150
1988	19,843	6,084	---	335	---	---	---	10,424	---	3,000
1989	25,550	11,131	---	1,400	---	---	---	13,019	---	---
OFFICE OF US FOREIGN DISASTER ASSISTANCE										
1986	16,733	4,386	---	1,347	---	---	---	84	530	10,386
1987	30,322	2,000	---	---	---	---	---	---	---	28,322
1988	36,434	---	---	---	---	---	---	6,649	---	29,785
1989	25,000	---	---	---	---	---	---	---	---	25,000
OFFICE OF THE SCIENCE ADVISOR										
1986	15,110	---	---	---	---	---	---	15,110	---	---
1987	14,662	---	---	---	---	---	---	14,662	---	---
1988	13,262	600	---	---	---	---	---	12,662	---	---
1989	8,662	---	---	---	---	---	---	8,662	---	---
OFFICE OF INTERNATIONAL TRAINING										
1986	2,486	---	---	---	---	---	2,486	---	---	---
1987	2,240	---	---	---	---	---	2,240	---	---	---
1988	1,604	---	---	---	---	---	1,604	---	---	---
1989	1,900	---	---	---	---	---	1,900	---	---	---
TOTAL										
1986	477,156	151,975	134,385	45,478	14,925	---	11,245	57,902	1,965	59,281
1987	469,606	140,515	115,468	55,402	24,016	---	10,981	43,752	1,000	78,472
1988	472,355	140,628	110,374	43,108	25,255	25,000	11,965	43,240	---	72,785
1989	463,012	142,337	116,132	42,279	25,906	27,000	12,582	41,776	---	55,000

* Includes U.S./Israeli Cooperative Development Program

SUMMARY OF PROGRAMS BY COUNTRY AND APPROPRIATION
(IN THOUSANDS OF DOLLARS)

CP-89

REGION: BUREAU FOR SCIENCE AND TECHNOLOGY

OFFICE	TOTAL	AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION	POPULATION PLANNING	HEALTH	CHILD SURVIVAL	AIDS	EDUCATION AND HUMAN RESOURCES DEVELOPMENT	SELECTED DEVELOPMENT ACTIVITIES	ECONOMIC SUPPORT FUND	OTHER PROGRAMS
AGRICULTURE										
1986	37,025	37,025	---	---	---	---	---	---	---	---
1987	32,050	32,050	---	---	---	---	---	---	---	---
1988	30,490	30,490	---	---	---	---	---	---	---	---
1989	30,500	30,500	---	---	---	---	---	---	---	---
NUTRITION										
1986	10,855	8,855	---	2,000	---	---	---	---	---	---
1987	12,391	7,216	---	2,675	2,500	---	---	---	---	---
1988	9,300	6,500	---	1,921	879	---	---	---	---	---
1989	9,400	5,800	---	2,600	1,000	---	---	---	---	---
ENERGY										
1986	6,744	1,300	---	---	---	---	---	4,009	1,435	---
1987	8,028	3,601	---	---	---	---	---	3,427	1,000	---
1988	10,000	6,466	---	---	---	---	---	3,534	---	---
1989	9,293	6,173	---	---	---	---	---	3,120	---	---
FORESTRY AND ENVR NAT RES										
1986	5,625	4,770	---	---	---	---	---	855	---	---
1987	6,426	5,894	---	---	---	---	---	532	---	---
1988	4,971	4,561	---	---	---	---	---	410	---	---
1989	5,000	4,300	---	---	---	---	---	700	---	---
RESEARCH AND UNIVERSITY RELATIONS										
1986	8,396	5,328	---	2,928	---	---	---	140	---	---
1987	8,894	5,894	---	3,000	---	---	---	---	---	---
1988	8,544	5,394	---	2,650	---	---	---	---	---	---
1989	8,300	6,100	---	2,700	---	---	---	---	---	---
RURAL AND INSTITUTIONAL DEVELOPMENT										
1986	9,605	8,587	---	---	---	---	125	893	---	---
1987	8,065	7,561	---	---	---	---	196	308	---	---
1988	7,799	7,620	---	---	---	---	129	50	---	---
1989	9,000	7,650	---	---	---	---	150	1,200	---	---

SUMMARY OF PROGRAMS BY COUNTRY AND APPROPRIATION
(IN THOUSANDS OF DOLLARS)

CP-89

REGION: BUREAU FOR SCIENCE AND TECHNOLOGY

OFFICE	TOTAL	AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION	POPULATION PLANNING	HEALTH	CHILD SURVIVAL	AIDS	EDUCATION AND HUMAN RESOURCES DEVELOPMENT	SELECTED DEVELOPMENT ACTIVITIES	ECONOMIC SUPPORT FUND	OTHER PROGRAMS
EDUCATION										
1986	5,621	100	---	---	---	---	5,521	---	---	---
1987	5,592	150	---	---	---	---	5,542	---	---	---
1988	4,732	275	---	---	---	---	4,457	---	---	---
1989	4,832	225	---	---	---	---	4,607	---	---	---
HEALTH										
1986	39,917	450	---	31,842	7,625	---	---	---	---	---
1987	53,062	300	38	41,725	10,999	---	---	---	---	---
1988	63,099	---	---	29,759	11,340	22,000	---	---	---	---
1989	67,675	---	---	27,366	16,309	24,000	---	---	---	---
POPULATION										
1986	133,515	---	133,515	---	---	---	---	---	---	---
1987	115,427	---	114,927	---	500	---	---	---	---	---
1988	112,723	---	109,343	---	380	3,000	---	---	---	---
1989	118,000	---	115,000	---	---	3,000	---	---	---	---
PROGRAM OFFICE										
1986	3,494	2,609	---	67	---	---	---	818	---	---
1987	2,790	2,095	---	470	---	---	---	225	---	---
1988	1,588	1,158	---	---	---	---	---	430	---	---
1989	1,900	1,200	---	---	---	---	---	700	---	---
TOTAL										
1986	260,797	69,024	133,515	36,837	7,625	---	5,646	6,715	1,435	---
1987	252,825	64,761	114,965	47,870	13,999	---	5,738	4,492	1,000	---
1988	253,246	62,964	109,343	34,330	12,599	25,000	4,586	4,424	---	---
1989	264,400	61,948	115,000	32,666	17,309	27,000	4,757	5,720	---	---

**SUMMARY OF PROGRAMS BY COUNTRY AND APPROPRIATION
(IN THOUSANDS OF DOLLARS)**

CP-89

REGION: BUR. FOR PROGRAM AND POLICY COORDINATION

OFFICE	TOTAL	AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION	POPULATION PLANNING	HEALTH	CHILD SURVIVAL	AIDS	EDUCATION AND HUMAN RESOURCES DEVELOPMENT	SELECTED DEVELOPMENT ACTIVITIES	ECONOMIC SUPPORT FUND	OTHER PROGRAMS
ECONOMIC AFFAIRS										
1986	442	---	---	---	---	---	---	442	---	---
1987	425	---	---	---	---	---	---	425	---	---
1988	400	---	---	---	---	---	---	400	---	---
1989	400	---	---	---	---	---	---	400	---	---
EVALUATION AND DEV INFO										
1986	4,565	1,601	---	---	---	---	---	2,964	---	---
1987	4,240	2,273	---	581	---	---	597	789	---	---
1988	4,000	2,225	170	570	---	---	410	625	---	---
1989	4,000	2,104	572	580	---	---	460	284	---	---
POL DEV/PROGRAM REV										
1986	4,038	888	360	374	---	---	349	2,067	---	---
1987	3,332	949	178	366	---	---	411	1,428	---	---
1988	3,750	1,381	611	603	---	---	315	840	---	---
1989	3,000	970	310	385	---	---	255	1,080	---	---
WOMEN IN DEV										
1986	2,002	293	510	---	---	---	700	499	---	---
1987	1,935	696	325	250	---	---	490	174	---	---
1988	2,000	1,042	250	60	---	---	450	198	---	---
1989	2,000	800	250	233	---	---	517	200	---	---
CGIAR										
1986	46,249	46,249	---	---	---	---	---	---	---	---
1987	40,000	40,000	---	---	---	---	---	---	---	---
1988	42,000	42,000	---	---	---	---	---	---	---	---
1989	40,000	40,000	---	---	---	---	---	---	---	---
PEACE CORPS										
1986	---	---	---	---	---	---	---	---	---	---
1987	---	---	---	---	---	---	---	---	---	---
1988	2,000	1,200	---	800	---	---	---	---	---	---
1989	2,000	1,200	---	800	---	---	---	---	---	---

SUMMARY OF PROGRAMS BY COUNTRY AND APPROPRIATION
(IN THOUSANDS OF DOLLARS)

CP-89

REGION: BUR. FOR PROGRAM AND POLICY COORDINATION

OFFICE	TOTAL	AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION	POPULATION PLANNING	HEALTH	CHILD SURVIVAL	AIDS	EDUCATION AND HUMAN RESOURCES DEVELOPMENT	SELECTED DEVELOPMENT ACTIVITIES	ECONOMIC SUPPORT FUND	OTHER PROGRAMS
U.S.-ISRAEL COOPERATION										
1986	---	---	---	---	---	---	---	---	---	---
1987	---	---	---	---	---	---	---	---	---	---
1988	---	---	---	---	---	---	---	---	---	---
1989	5,000	---	---	---	---	---	---	5,000	---	---
TOTAL										
1986	57,296	49,031	870	374	---	---	1,049	5,972	---	---
1987	49,932	43,918	503	1,197	---	---	1,498	2,816	---	---
1988	54,150	47,848	1,031	2,033	---	---	1,175	2,063	---	---
1989*	56,400	45,074	1,132	1,998	---	---	1,232	6,964	---	---

* Includes U.S./Israeli Cooperative Development Program

SUMMARY OF PROGRAMS BY COUNTRY AND APPROPRIATION
(IN THOUSANDS OF DOLLARS)

CP-89

REGION: BUREAU FOR PRIVATE ENTERPRISE

OFFICE	TOTAL	AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION	POPULATION PLANNING	HEALTH	CHILD SURVIVAL	AIDS	EDUCATION AND HUMAN RESOURCES DEVELOPMENT	SELECTED DEVELOPMENT ACTIVITIES	ECONOMIC SUPPORT FUND	OTHER PROGRAMS
HOUSING AND URBAN DEVELOPMENT										
1986	5,615	---	---	---	---	---	---	5,615	---	---
1987	5,018	---	---	---	---	---	---	5,018	---	---
1988	4,750	---	---	335	---	---	---	4,415	---	---
1989	4,760	---	---	1,400	---	---	---	3,360	---	---
INVESTMENT										
1986	15,933	45	---	---	---	---	---	488	---	15,400
1987	15,633	---	---	---	---	---	---	483	---	15,150
1988	3,800	400	---	---	---	---	---	400	---	3,000
1989	9,000	5,236	---	---	---	---	---	3,764	---	---
PROGRAM REVIEW										
1986	1,572	---	---	---	---	---	---	1,572	---	---
1987	908	---	---	---	---	---	---	908	---	---
1988	733	367	---	---	---	---	---	366	---	---
1989	770	385	---	---	---	---	---	385	---	---
PROJECT DEVELOPMENT										
1986	17,697	7,198	---	420	---	---	---	10,079	---	---
1987	14,301	8,066	---	---	---	---	---	6,235	---	---
1988	10,560	5,317	---	---	---	---	---	5,243	---	---
1989	11,020	5,510	---	---	---	---	---	5,510	---	---
PRIVATE SECTOR COORDINATOR										
1986	---	---	---	---	---	---	---	---	---	---
1987	498	---	---	---	---	---	---	498	---	---
1988	---	---	---	---	---	---	---	---	---	---
1989	---	---	---	---	---	---	---	---	---	---
TOTAL										
1986	40,817	7,243	---	420	---	---	---	17,754	---	15,400
1987	36,358	8,066	---	---	---	---	---	13,142	---	15,150
1988	19,843	6,084	---	335	---	---	---	10,424	---	3,000
1989	25,550	11,131	---	1,400	---	---	---	13,019	---	---

SUMMARY OF PROGRAMS BY COUNTRY AND APPROPRIATION
(IN THOUSANDS OF DOLLARS)

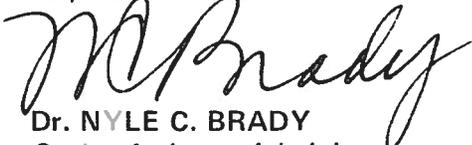
CP-89

REGION: BUR FOR FOOD FOR PEACE AND VOL ASSIST

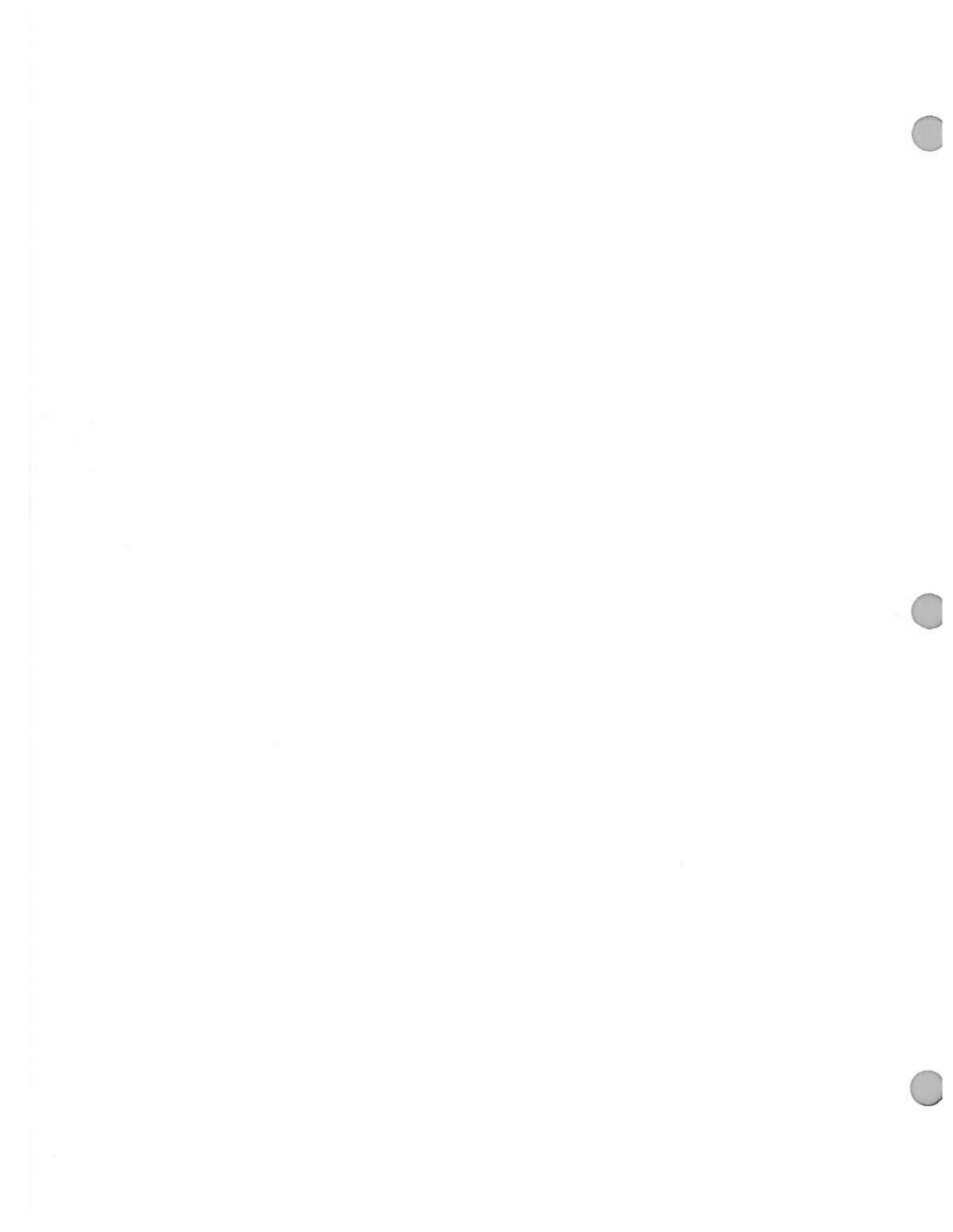
OFFICE	TOTAL	AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION	POPULATION PLANNING	HEALTH	CHILD SURVIVAL	AIDS	EDUCATION AND HUMAN RESOURCES DEVELOPMENT	SELECTED DEVELOPMENT ACTIVITIES	ECONOMIC SUPPORT FUND	OTHER PROGRAMS
AMER SCH/HOSP ABROAD										
1986	33,495	---	---	---	---	---	---	---	---	33,495
1987	35,000	---	---	---	---	---	---	---	---	35,000
1988	40,000	---	---	---	---	---	---	---	---	40,000
1989	30,000	---	---	---	---	---	---	---	---	30,000
FOOD FOR PEACE										
1986	10,011	10,011	---	---	---	---	---	---	---	---
1987	7,451	7,451	---	---	---	---	---	---	---	---
1988	6,006	6,006	---	---	---	---	---	---	---	---
1989	5,800	5,800	---	---	---	---	---	---	---	---
PRIVATE/VOL COOP										
1986	39,925	12,280	---	6,500	7,300	---	2,064	11,781	---	---
1987	40,317	14,319	---	6,335	10,017	---	1,505	8,141	---	---
1988	47,322	16,867	---	6,410	12,656	---	4,600	6,789	---	---
1989	45,100	18,384	---	6,215	8,597	---	4,693	7,211	---	---
PROGRAM MGT SUPPORT OFF										
1986	486	---	---	---	---	---	---	486	---	---
1987	499	---	---	---	---	---	---	499	---	---
1988	488	259	---	---	---	---	---	229	---	---
1989	200	---	---	---	---	---	---	200	---	---
TOTAL										
1986	83,917	22,291	---	6,500	7,300	---	2,064	12,267	---	33,495
1987	83,267	21,770	---	6,335	10,017	---	1,505	8,640	---	35,000
1988	93,816	23,132	---	6,410	12,656	---	4,600	7,018	---	40,000
1989	81,100	24,184	---	6,215	8,597	---	4,693	7,411	---	30,000

BUREAU FOR SCIENCE AND TECHNOLOGY

Responsible Officer:



Dr. NYLE C. BRADY
Senior Assistant Administrator
Bureau for Science and Technology



PROGRAM SUMMARY (In millions of dollars)		
FY 87 Actual	FY 88 Estimated	FY 89 Request
108.7	110.8	107.0

AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION

OVERVIEW

In most of the less developed countries (LDCs), where agriculture is the dominant economic activity, it is important that the agriculture sector expand to provide more income to the poor majority, and make sufficient supplies of food available at affordable prices. Yet agriculture has frequently been a lagging sector. A recent World Bank report showed that in the 37 poorest LDCs, where an average of over 70% of the labor force works in agriculture, the contribution of agriculture to the GDP dropped from 41% in 1965 to 32% in 1986. Even when food is available, poor people often lack the financial resources to meet minimum dietary needs. In this case, the hunger problem can only be solved by increasing their employment and incomes, thereby increasing their ability to buy food.

Environmental stresses associated with poor management of natural resources and biological stresses, such as weeds, insects, drought, and plant and animal diseases, retard growth in the agriculture sector. Increased population pressure on fragile lands, resulting in inappropriate use of resources and loss of biological diversity, also poses a major threat to food and income. Long-term economic growth in LDCs depends on maintaining ecosystem processes which protect and regenerate soils, maintain water quality and quantity, and conserve plant and animal genetic resources.

Pressures on the human environment in LDCs continue to intensify. Inappropriate public policies, ineffective institutions, lack of social services and inadequate infrastructure also contribute heavily to low incomes and food availability. Rural incomes remain low while rural unemployment rates fluctuate drastically. Heavy population pressure on natural resources and poor resource management cause continued depletion of the natural resource base and diminish the prospects for future growth.

POLICY

A.I.D. policy is to increase the incomes of the poor majority and to expand the availability and consumption of food while maintaining and enhancing the natural resource base. Alleviating income and hunger constraints for the poor are at the forefront of the Agency's mandate. Recognizing the complexity and interrelationship of these fundamental development problems, and the need for sustained, well-focused efforts to alleviate them, over the past year the Agency has refined its policy to guide its programs in agriculture, rural development, nutrition, and natural resources management.

Food security, the ability of countries to assure an adequate food supply on a continuing and sustainable basis, remains important to this objective. A country's food supply can be assured through increased domestic food production, as well as expanded food imports. In this context, A.I.D.'s policy is to avoid supporting activities that increase production of agricultural commodities in LDCs which directly compete with exports of similar U.S. agricultural commodities and which would have a significant negative impact on U.S. exporters. In fact, A.I.D. assistance to LDCs contributes to U.S. agriculture in two ways:

(1) As developing countries progress, they become significant customers for U.S. agricultural exports. According to a recent study, in 1985 developing countries accounted for over 75% of U.S. wheat exports, 32% of our maize and barley exports, and 34% of soybean oil and meal exports. One out of every five acres of grain planted in the United States is ultimately exported to LDCs.

(2) The Agency's leadership role in research, development, and transfer of agricultural technology provides a tremendous source of scientific know-how that benefits our own growth. Developing countries are the primary source of genetic materials that provide U.S. agriculture with new crop varieties with increased yields and nutritional content as well as enhanced resistance to insects, diseases, drought, and soil toxicity. Examples include: semi-dwarf wheat varieties, used in 60% of U.S. acreage planted in wheat, contain dwarfing genes from Asia; the genetic source of nematode resistance in potatoes comes from Peru; and the genetic source of wheat rust resistance comes from Kenya.

DESCRIPTION OF THE CENTRALLY FUNDED PROGRAM

The centrally funded program addresses development problems which are more appropriately and efficiently dealt with on a worldwide basis. Central programs provide Agency-wide leadership in applying improved technologies to remove development constraints; mobilize the scientific community from both U.S. universities and international research centers to conduct agricultural research beneficial to both LDCs and the United States; provide support services to field Missions; and foster A.I.D. collaboration with the Peace Corps, private voluntary organizations, and P.L. 480 Food Programs. To promote economic growth, special attention is given to increasing rural incomes, improving staple food availability and consumption, and preserving and enhancing the natural resource base.

I. Increasing Income

A recent World Bank study shows that hunger in many countries is not only caused by the unavailability of food, but even more so by lack of money to buy food. Increasing rural incomes on a sustained basis in LDCs requires a viable economic base - in most developing countries agriculture is that base. A strong agriculture sector provides productive employment either directly through family farms or indirectly through linkages with the non-farm sector. It generates growth in the non-agricultural sector and in off-farm employment and income.

Growth of the agricultural base on the national level can only be accomplished if there is sufficient growth of income at the farm level. This requires meeting the needs of the farmers, including: (1) improved varieties of grains, root crops, and legumes to replace low-yielding varieties; (2) improved crop resistance to diseases, low soil fertility, and other stresses; (3) a policy environment which provides incentives to improve production; and (4) alternative sources of income and savings such as livestock and on-farm fish production.

Much of the off-farm commercial activity consists of producing, transporting and supplying farm inputs as well as handling, processing, packing and marketing farm surplus. In LDCs, the inadequacy of services which are essential to increasing income retards expansion of the small enterprise sector and limits opportunities for the generation of income through off-farm employment. This is manifested by a poor transportation infrastructure, inadequate marketing systems needed to protect perishables, policies that inhibit rather than foster enterprise development, shortages of rural credit, and a lack of access to technology by small enterprise.

The Agency supports programs addressing crop technology development, livestock and fish production, market development and post harvest handling, rural savings mobilization policies and rural enterprise development as means of increasing income.

A. On-Farm Income Generation. (\$45.9 million FY 88; \$44.4 million FY 89)

The International Agricultural Research Centers (IARCs) conduct long term research to develop improved crop varieties and define enhanced production methods for staple crops such as cereals (barley, maize, millet, rice, sorghum, and wheat), root crops (cassava, potato, sweetpotato), and legumes (beans, cowpeas, chickpeas, pigeon peas). A.I.D.'s contribution to the IARCs leverages \$3 for each dollar we provide. Our investments have yielded good returns, in that the IARCs have produced well over 1,000 new staple crop varieties for use in the LDCs.

U.S. land grant universities with joint funding from A.I.D. under the Collaborative Research Support Programs (CRSPs), work cooperatively with LDC scientists to solve specific problems of sorghum, millet, beans, cowpeas, peanuts, small ruminants and production factors -- soil, water, and fertilizer. The CRSPs have also achieved significant breakthroughs. The Peanut CRSP, for example, has made several research advances, resulting in reduction of the peanut rosette virus in West Africa; development of safe, inexpensive and locally available methods of insect control in Africa and Asia; adaptation of peanut cultivars to West African drought conditions; and enhancement of nitrogen in the soils of Thai rice paddies.

Through Title XII programs, A.I.D. supports U.S. land-grant universities to carry out activities that improve on-farm income in LDCs. In Cameroon, the University of Maryland, Florida A&M University and Alabama A&M University are conducting research with a local institute to improve root crop storage; in Jamaica, Louisiana State University and Southern University are jointly assisting in building institutional capacity to train agricultural technicians; and Texas A&M University is conducting collaborative research to improve the availability and consumption of millet, sorghum and peanuts in Mali, Burkina Faso, and Senegal. Historically Black Colleges and Universities

(HBCUs), working with LDC scientists, continue research in soil and water management, plant and animal protection, and nutrition.

A.I.D. also supports research and development of pest control technology to reduce crop losses and thereby enhance farm income. Reducing losses caused by insects and weeds without harming the environment requires creative approaches. Stem-borer moths and Striga (a parasitic weed) are major threats to sorghum production. Centrally funded research scientists have isolated chemical odors given off by young sorghum plants that attract adult stem-borer moths to lay their eggs on the plant leaves and stems. By extracting these chemical stimulants and applying them to different plants, the moths are stimulated to lay their eggs on those inappropriate plants. The larva hatch, cannot feed, and die. Striga weed has killed millions of acres of African and Asian sorghum and millet annually. Centrally funded researchers discovered that sorghum plant roots secrete a substance which triggers Striga seed germination. This discovery coupled with further research, could result in worldwide control of the weed.

Healthy economic policies are as important to increasing farm income as are adequate soils, water, and climate. Major achievements in building local capacity to conduct policy analysis are fostering better use of resources. Policy research has helped LDC governments to turn away from subsidized food programs that provided "cheap" food to urban consumers, but suppressed prices received by farmers and thus discouraged increased production. Policy dialogue, when combined with policy analysis and the right policy environment has brought tangible results. For example, in the Dominican Republic policy analysis helped decision-makers change food price policies by taking into account the delicate balance between producer and consumer interests. Policy research in land tenure has demonstrated the importance of access rights to arable land, and has resulted in new legislation in some LDCs - with favorable impact on farm production and income.

The Agency also supports fish and livestock programs as alternative sources of farm income. Fish production and harvesting is one of the most promising economic activities which will both generate income for the poor, and serve as a source of animal protein. Since over-fishing is rapidly depleting the supply of ocean fish, aquaculture (fish farming) is taking on new importance. Flourishing aquaculture programs lead to increased income and employment, and improved nutrition. Centrally funded programs combined with Mission-funded programs, support aquaculture efforts worldwide and have achieved impressive results. For example: in Jamaica, small-scale farmers operating fish ponds raised fish yields from 200 to 9,000 kg. per hectare; and in Indonesia, large numbers of farmers who previously tilled rich bottom lands that are now flooded are being trained as fish farmers. Most surprising, however, is the "desert aquaculture" now taking place in Egypt. In less than a decade of assistance from A.I.D. and other donors, the area under fish production has increased from a few thousand acres to more than 100,000 acres and expansion is continuing. Responding to high local demand, Egyptians took advantage of salt-laden, marshy lands not suited for crop production and made use of appropriate technology to establish a growing desert aquaculture industry.

In 1978, A.I.D. initiated a CRSP to enhance the potential of small ruminants for both food and income. The results to date are impressive. Fifty scientists representing 17 countries are engaged in research to develop improved sheep and goat breeds. In Peru, upgrading of criollo sheep herds

will both increase carcass meat by 8,000 metric tons and increase wool production by 20 million kg per year. Peruvian alpaca fiber yields will be increased up to 17 pounds per animal, resulting in increased income of approximately \$50 per animal per year. Statistics indicate that 96% of the world population of goats are in developing countries. In Kenya, introduction of new goat breeds and improvement of forage production, have increased yields by 66% - generating an additional \$52 in income per hectare per year. Guidance in use of green legumes in Indonesia has increased weight gains in sheep and goats by 120% and feed efficiency by more than 80%. In addition, a new vaccine for contagious caprine pneumonia has been developed, enhancing survival prospects for an estimated 48 million goats in Africa and Asia.

B. Marketing and Credit. (\$2.3 million FY 88; \$2.4 million FY 89)

Effective support services, including production, transportation and supply of farm inputs, as well as handling, processing, packing and marketing of farm outputs, are required for agricultural growth to occur. Provision of agricultural credit is central to rural economic growth. In many LDC's, agricultural credit is subsidized. However, an A.I.D. supported field research program has demonstrated that subsidized credit programs rarely result in sustainable increases in income. The project is assisting governments in Bangladesh, the Dominican Republic, Honduras, Guatemala, Niger, and the Philippines to re-orient their financial systems to increase the availability of funds to rural areas on a self-sustaining basis.

Efficient marketing systems both increase incomes of the rural poor and benefit consumers. Centrally funded projects support improvement of marketing systems, and reduction of post harvest losses by introducing better methods of handling, shipping, and processing. For example, nutmeg is the single most important product in Grenada, but the high oil content and aromatic qualities of Grenadian nutmeg made processing for export difficult. A joint team of U.S. university and U.S. private industry food technologists is now resolving the processing problems created by these special characteristics. As a result, Grenada expects to sell its 5 million pound surplus of nutmeg at a price which has increased six-fold, thereby substantially benefiting the island's economy.

The fruit fly has been the nemesis of producers and shippers of fresh fruit. In 1985, the U.S. Environmental Protection Agency banned the use of EDB pesticide, once commonly used by LDCs to treat fresh fruit for fruit fly infestation. This ban threatened future exports to the United States of tropical fruits from LDCs. A.I.D. has sponsored development of alternative methods of treatment. In Haiti for example, a non-chemical treatment for fruit fly was developed that virtually saved the mango export industry there. A.I.D. sponsored tests demonstrated that shrink-wrap on some individual tropical fruits can destroy fruit fly larvae and eggs. This new approach which is effective and inexpensive, may have worldwide application in the shipment of tropical fruits.

C. Off-Farm Income Generation. (\$4.4 million FY 88; \$4.4 million FY 89)

Profitable small enterprises play an important role in supporting agriculture and in increasing off-farm income options of the poor in developing countries. Funds from the 103 Account as well as the 106 Account are used to identify, commercialize and replicate small-scale enterprises using appropriate

technologies. Demonstration projects seek to generate off-farm income, which in turn stimulate on-farm income growth. For example, a high protein food supplement, which was produced by small-scale enterprises in the Dominican Republic, resulted in a 20% increase in income for 850 small-scale pig farmers. In Thailand a small-scale decentralized rhizobium (legume inoculant) production unit was established to serve hard-to-reach rural markets. The nitrogen-fixing qualities of rhizobium will increase yields by 25-30%, increasing annual incomes of 800 small farmers by \$100 to \$300. Based on the success of these projects and on the availability of outside equity capital, A.I.D. will replicate this approach in Thailand, the Philippines, Indonesia and Sri Lanka.

In Costa Rica, India, Thailand, Tunisia, Turkey, and Yemen, field trials are promoting co-ventures between small and medium U.S. businesses and local enterprises. These co-ventures will generate off-farm employment and income opportunities in subsectors such as food processing, metal or wood products fabrication, production and sale of building supplies, and construction. A.I.D. resources also support intermediary institutions that promote the growth of small, labor-intensive enterprises. Case studies of agribusiness institutions are underway in Yemen, which will provide models for growth of viable firms in this sector.

II. Lessening Hunger

The poor majority in most LDCs suffer from malnutrition and hunger. While agriculture is the dominant economic activity in LDCs, the sector fails to make sufficient food available at prices that the poor can afford. The Agency's centrally funded agricultural program mobilizes the U.S. and worldwide scientific community, works to lessen hunger by increasing the amount and variety of seeds and cultivars needed to improve food availability, and by improving the intake and nutritional quality of food consumption.

A. Food Availability (\$26.8 million in FY 1988; \$25.6 million in FY 1989)

A.I.D. has fostered increased availability of seeds for staple crops in Burkina Faso, Cameroon, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Ghana, Honduras, India, Indonesia, Morocco, Nepal, Nigeria, Paraguay, Peru, Philippines and Thailand. In each of these countries, systems of seed production, processing, quality, storage, and marketing were reorganized under the centrally funded seed production and supply program. Seed marketing, once solely managed by the public sector, is now a private sector enterprise in Thailand, Cameroon and India. A.I.D.'s work with seeds has resulted in more abundant food at prices better afforded by the poor.

Research in alternative propagation techniques is also important to increasing staple food availability. New crop varieties with resistance to acidity, salinity, drought, and other stresses are being developed through tissue culture. While conventional seed breeding methods take years to bring forth new varieties, the tissue culture technique does it in under six months. This method is being used for cassava, potatoes, rice, and sorghum.

Site-specific research in testing new seeds, cultivars, and crop management methodologies has proven to be costly and time consuming. The computer is proving to be a powerful tool in predicting plant performance and in

accelerating development of new cultivars in new locations. A.I.D. funded research has developed a computerized system which simulates the impact of soil, water, weather, and cultivation conditions for a specific crop over time. Successful adaptation of these results will help decision-makers compress the time needed to evaluate risks and determine the choice of crops and agricultural inputs for specific locales.

B. Improved Food Consumption. (\$9.7 million FY 88; \$9.0 million FY 89)

Reducing hunger requires that LDCs pay attention to both the quantity of food produced and the quality of food consumed. Some of the most significant causes of malnutrition and hunger are the inability to monitor nutritional status, fortify indigenous foods with nutrients, and provide information about improved dietary practices. Centrally funded programs are improving nutrition practices and developing acceptable, affordable food technologies which are essential to improved food consumption in LDCs.

Vitamin A deficiency is a widespread nutritional problem in many developing countries. It is the leading cause of childhood blindness in developing countries, affecting approximately 500,000 children annually. Even mild vitamin A deficiency may lead to a significant increase in rates of sickness and death among preschool children. Food fortification is a very effective means of alleviating vitamin A deficiency at low cost. Methods of fortifying food and determining its palatability are being tested in Bangladesh, Guatemala, Indonesia, and the Philippines with centrally funded assistance. In Bangladesh, Indonesia, and Thailand mass media messages and social marketing techniques are persuading people to feed vitamin A-rich foods to young children. Research, which focuses on the effects of vitamin A deficiency on child death/sickness rates is underway in Sudan and Bangladesh and is planned for Nepal.

Private sector involvement and policy improvement are key to improving food consumption. Under a centrally funded program, U.S. food companies are providing technical assistance to developing country food processors. Studies of food stamp distribution and food subsidies were conducted in Sri Lanka, Egypt, and the Dominican Republic and are underway in Mali. Results of these studies will help the countries to better manage food distribution.

III. Preserving and Enhancing Natural Resources

Inappropriate use of land and exploitation of natural resources by ever increasing populations severely curtail long-term prospects for increasing food availability and income. If the natural resource base can be maintained, there is greater likelihood that food production and rural income can be increased. Yet LDCs themselves lack adequate resources to handle the problem. In response to this need, funds from the 103 Account are being used to prevent deterioration and improve management of forests, soils, watersheds, fragile lands and coastal areas; to regenerate soils; and to make good use of agro-wastes and forest products.

A. Environmental Protection. (\$4.5 million FY 88; \$4.1 million FY 89)

LDC awareness of the negative impact of environmental degradation has grown substantially over the past decade. A centrally funded program is assisting LDCs in preparing country environmental profiles and national conservation strategies which will serve as bases for natural resources programs. Results

to date are encouraging. For example, the Dominican Republic is using its environmental profile to better plan and coordinate the work of 25 institutions involved in natural resources management. In Nepal, the government has designed a national conservation strategy and is initiating demonstration projects that link conservation and development in four ecological zones.

Centrally funded programs provide institutional and technical support to private environmental organizations in Latin America, Asia and Africa to improve their effectiveness in environmental education, in collecting and analyzing data, and in developing programs. Institutional analyses have been undertaken in Thailand, Indonesia, and in several African countries as the basis for Mission support to indigenous environmental organizations.

Some land areas are particularly susceptible to deterioration if they are mismanaged. Coastal areas for example, have suffered devastating consequences of poorly managed tourist development and of over-exploitation by coastal fisheries. A centrally funded coastal resources management project has helped Thailand to implement a provincial coastal zone management program designed to resolve conflicts among tourism, fisheries, forestry and conservation of protected areas. In Ecuador, the project prepared an integrated plan for sustainable shrimp mariculture by assisting the Government to formulate its coastal policy, and by introducing improved shrimp handling procedures and water quality monitoring to reduce the high rate of losses. A.I.D. supports research in traditional ocean fishing that encourages conservation of stocks, and at the same time results in increased fish harvests. A.I.D. funded assistance to Djibouti, for example, contributed to a sevenfold increase in fish harvests which changed that country from a net importer to a net exporter of fish.

The steep slopes and tropical lowlands of LDCs are deteriorating as a result of inappropriate land use, inequitable access to arable land and misguided development strategies. Under the Fragile Lands Initiative, central and bilateral funding supports efforts of Latin American countries to develop and implement strategies for fragile lands management. Activities completed or underway include: fragile lands assessments in Peru, Costa Rica, Honduras, and Ecuador; assistance for watershed management planning in Haiti; a hillside agriculture assessment in Jamaica; and a regional workshop concerning fragile lands of the Andean countries.

B. Soil and Water Improvement. (\$3.1 million FY 88; \$3.1 million FY 89)

To the farmer, soil and water are the most critical natural resources affecting production, so that regeneration of soil fertility and improved water management are central concerns. Farmers need sustainable, regenerative, low-cost inputs and methods to restore soil fertility. Estimates indicate that LDC farmers are spending \$30 billion annually on nitrogen fertilizer - with projections of \$50 billion by the year 2000. Fortunately, legumes can manufacture nitrogen biologically through a process called nitrogen fixation, which can reduce dependence on chemical fertilizer - saving LDCs more than \$1 billion for each 20% increase in use.

Centrally funded programs support research and technology transfer to LDCs to spread nitrogen fixation techniques. New bean varieties have been developed which add over 100 pounds of fertilizer per acre - cutting chemical fertilizer use in half. Other research has shown that with proper placement of urea fertilizer, rice production can be doubled.

Soils in the humid tropics, which are highly leached of nutrients by nature and are further damaged by slash and burn techniques, generally cannot support more than 2 or 3 successive crops. Centrally funded research has demonstrated that these soils can be kept productive by using low-input techniques such as return of crop residue to the soil, and use of crop varieties tolerant to acidity, followed by leguminous crops to provide nitrogen. In Peru, use of low-input techniques following slash and burn resulted in a doubling of the useful crop cycle, by supporting seven successive crops.

Central funding has continued to support training necessary for LDC institutions to classify and conduct inventories of soil resources. Soil resource inventories aid LDCs in identifying those soil resources best suited for productive agriculture, in relieving pressure on unsuitable soils from further degradation, and in planning more effective investment strategies. To date, over 40 LDCs have adapted the U.S. soil classification system.

In many LDCs, intensive agriculture combined with unsound water management has resulted in water-logging and salinity build-up in irrigated areas, severe erosion of steep lands, and off-site effects of flooding, stream-bank destruction, and silting of reservoirs and harbors. A.I.D. central funding has supported a worldwide program to improve water management. Major irrigated areas of India, Pakistan, and Sri Lanka, for example, have benefited from a substantial reduction of detrimental environmental effects, while simultaneously increasing availability of water by over 20%. In semi-arid areas such as the Sahel, lack of available water is a major constraint to increasing cereal production. Central programs support soil and water management which is both highly profitable, and at low risk to the farmer. Such improvements are maximizing food availability, while minimizing negative environmental impact.

C. Forestry and Renewable Energy Development. (\$9.1 million FY 88;
\$9.0 million FY 89)

Forests cover roughly one-third of the world's land area. Wood and forest products provide income and employment for millions, as well as essential raw materials and fuelwood which is the main source of household energy for LDCs. While forests are exploited extensively in LDCs, their forestland is seldom managed. In Asia for example, about 600 million people are experiencing an acute fuelwood shortage.

Fast-growing, multipurpose tree species, which can be used for fuel, food, and fodder, can help meet the needs of the rural poor. Through A.I.D. and other donor support, knowledge about how these trees grow in different environments is being extended to small farmers in Asia and Africa to increase farm production, provide expendable income, and maintain or enhance the natural resource base. In Africa, research on tree growth under different soil regimes, elevations, climate, and environmental conditions has resulted in genetic improvements - including resistance to drought, soil acidity, and insects. In Asia, two agroforestry research networks (one for arid, and one for humid ecosystems) are linking scientists in 10 LDCs, and are spreading the trial results of six multipurpose tree species from 36 research sites to small farmers. To support these networks, a computer-based system, which utilizes socio-economic, soil, and weather characteristics from worldwide trial sites, is being utilized to predict results for similar sites.

A.I.D. is supporting research in alley cropping, which is based on inter-cropping a fast-growing leguminous tree with food crops. The trees provide nitrogen-rich mulch for the crops, recycling important plant nutrients, providing high quality fodder for livestock, and increasing income generation capacity and stability on small farms. In Southeast Asia the deadly psyllid insect attacks and kills these trees. A.I.D. supported researchers developed a strategy to combat the psyllid through biological and chemical controls and is funding efforts to breed resistance into the tree.

In an effort to maximize the on-the-ground impact of U.S. forestry and natural resources programs, A.I.D. central programs have supported integrated programming and collaboration with U.S. and indigenous private voluntary organizations, the Peace Corps, and P.L. 480 and other A.I.D. bilateral assistance programs. These integrated programs emphasize reforestation and biological diversity conservation.

Since the oil crises of the 1970's, energy systems based on renewable sources have received increased attention in both the developed and developing world. Utilizing both 103 and 106 Accounts, A.I.D. central programs fund energy research and technical field support in conservation, energy policy development, and research and development on indigenous fuel use. A.I.D. trained LDC conservation management teams are active in the Dominican Republic, Ecuador, the Philippines, and Sri Lanka. In the Dominican Republic the team's assessment and recommendation resulted in a 20% savings in the use of fuel by a large local manufacturer.

The bioenergy program focuses on conversion of agricultural processing wastes such as sugar cane bagasse, rice husks or straw, and wood into electricity and other energy uses. Power generation systems using these waste products have proven to be commercially viable, to generate exportable by-products, to displace foreign imports, to contribute to improved resource management, to reduce the impact of waste disposal, and to stimulate rural jobs and income. With A.I.D. assistance, a sugar mill in Thailand is establishing the viability of producing electricity from cane waste products. The governments and cane industries in Costa Rica, India, Jamaica, Malawi, Mauritius, Pakistan, Swaziland, Zambia, and Zimbabwe are also developing or considering similar cane projects.

Energy policy is also an area of A.I.D. concern. Policy development focuses on price reform and in improving the climate for private sector participation in energy development. Agricultural growth in LDCs is hampered by insufficient and unreliable supplies of electricity and transport fuels, due to government pricing policies which distort market incentives to produce energy. A.I.D. is conducting energy policy analyses in the Dominican Republic, India, Indonesia, Pakistan and Thailand, to develop pricing reforms and to explore mobilization of private capital for investment in LDC power systems.

CENTRALLY FUNDED
AGRICULTURE, RURAL DEVELOPMENT AND NUTRITION PROJECTS

Office of Agriculture

- 931-0054 International Fertilizer Development Center - Conducts research and provides technical assistance and training on programmed-release nitrogen and non-conventional phosphates to develop energy efficient fertilizers.
- 931-0242 Fisheries and Aquaculture Technology Assistance - Provides assistance in fishery resource management to increase the harvest from marine and captured fish.
- 931-0610 Biotechnology - Limiting Factors for BNF - Conducts research and provides assistance on the use of nitrogen-capturing crops which do not require expensive fertilizers.
- 931-0621 Spring and Winter Wheat - Conducts research and provides technical assistance and training to increase the production of wheat and barley in less favorable environments.
- 931-1229 Soils Management Support Services - Conducts research and provides technical assistance and training on soil resource management in order to increase agricultural production.
- 931-1254 CRSP - Sorghum/Millet - Collaborative research program among U.S. and less developed country scientists and institutions to increase the production and utilization of sorghum and millet in the less developed countries.
- 931-1310 CRSP - Beans and Cowpeas - Collaborative research program among U.S. and less developed country scientists and institutions to increase the production and utilization of beans and cowpeas in the less developed countries.
- 931-1311 CRSP - Soil Management - Collaborative research program among U.S. and less developed country scientists and institutions to increase the productivity of tropical soils.
- 931-1323 Storage and Processing of Fruits and Vegetables - Conducts research and provides assistance and training on the reduction of postharvest losses of roots, tubers, fruits, vegetables, and spices.
- 931-1328 CRSP - Small Ruminants - Collaborative research program among U.S. and less developed country scientists and institutions to increase yields of meat, milk, and fiber from sheep and goats.
- 936-4021 Technology of Soil Moisture Management - Conducts research and provides assistance and training on less developed country soil moisture problems in order to improve soil and water management systems and increase crop production.

- 936-4023 CRSP - Aquaculture Pond Dynamics - Collaborative research program among U.S. and less developed country scientists and institutions to increase the production of fish through fish farming.
- 936-4024 Fisheries Development Support Services - Provides assistance and training to increase the quantity, quality and variety of marine fish available for human consumption and to increase income and employment of less developed country small-scale fishermen.
- 936-4048 CRSP - Peanuts - Collaborative research program among U.S. and less developed country scientists and institutions to increase the production and utilization of peanuts in the less developed countries.
- 936-4054 International Benchmark Sites Network - Conducts research and provides technical assistance and training in the collection and dissemination of soil/crop/climate information to less developed countries.
- 936-4083 Host Resistance - Integrated Tick Control - Conducts research to make cattle resistant to tick infestation and eradicate East Coast Fever - an acute disease of cattle in East, Central, and South Africa.
- 936-4084 Agricultural Policy Analysis - Provides technical assistance and training to less developed country decision makers to provide a better understanding of key policy issues and constraints affecting agricultural and rural development.
- 936-4109 Agricultural Technology Research and Development - Provides scientific and technical assistance to less developed countries on crop production, utilization and technology transfer, livestock production, health and management, pest and pesticide management, and germplasm and experimental testing of seeds, plant parts and rhizobium (legume inoculant) species so that less developed country research may be carried out.
- 936-4111 International Agricultural Research Centers - An international agricultural research network to supply scientific and technical methodologies to the less developed countries to expand food production.
- 936-4132 International Soybean Utilization and Research - Conducts research and provides technical assistance and training on soybean utilization to improve the nutritional status of the rural and urban poor in developing countries.
- 936-4136 Special Constraint Research - Conducts research on scientific or technological problems which have been identified as impeding progress in the overall program of the international agriculture research centers.
- 936-4137 Biotechnology Research for Tissue Culture - Conducts biotechnical and molecular genetic research through the use of tissue culture to produce better strains of crops.
- 936-4142 Integrated Pest Management (IPM) and Environmental Protection - Provides assistance to less developed countries in pest and pesticide management.

936-4143 Research & Development of Improved Seed Production & Utilization - Provides technical backstopping to less developed countries in research planning for improved public and private sector seed development.

936-4144 Postharvest Grain Systems Research and Development- Provides technical assistance to developing country institutions in designing, implementing and monitoring adaptive, applied, and problem solving multi-disciplinary research programs to improve postharvest grain systems.

936-4146 CRSP - Fisheries Stock Assessment Research - Collaborative research program among U.S. and less developed country scientists and institutions to develop and refine fishery management and harvest practices in coastal areas of less developed countries.

936-4161 Reproductive Studies on Milkfish - Examines the reproduction and maturation processes of milkfish in order to spawn and raise this fish in captivity. Collaborative research and training will be carried out with LDC institutions.

936-4173 Vertebrate Pest Management Systems - Conducts research, technology transfer, and networking to strengthen LDCs' capability to control and manage vertebrate pests so that preharvest and postharvest losses can be reduced.

936-4177 Improved Biological Nitrogen Fixation (BNF) thru Biotechnology - Conducts research, technical transfer and networking on the use of biological means to fix nitrogen in the soil to increase crop productivity, reduce inefficient use of imported agricultural inputs and encourage sustainable agricultural production systems.

936-4178 Improved Animal Vaccines thru Biotechnology - Conducts research and provides technical assistance and training in the development of effective vaccines to prevent major livestock diseases in less developed countries.

936-4179 Irrigation Management Support and Research - Provides technical assistance and training on irrigation systems performance, so that less developed countries may more efficiently and economically use their water.

936-4180 Aquaculture Research and Support - Conducts appropriate aquaculture (fish farming) research and develops and transfers technologies to assist developing countries in making maximum use of their aquaculture resources for food production, employment and income generation.

Office of Nutrition

931-0262 Nutrition: Scientific, Technical and Planning Support - Strengthens host government capability to plan, design, implement, and evaluate nutrition activities in order to improve basic nutrition.

931-1010 Nutrition: Improvement of Maternal and Infant Diet - Assists developing countries in designing, testing and implementing programs to promote breastfeeding, improved weaning practices, and improved diet among pregnant and nursing women.

936-5110 Consumption Analysis of Food and Agricultural Policies - Performs studies and provides technical assistance on the design, implementation and evaluation of food and agriculture projects and policies that address objectives.

936-5113 Nutrition Education & Social Marketing Field Support - Improves the nutritional status of malnourished people in developing countries through more effective nutrition education.

936-5114 Food Technology for Development - Utilizes food technology and related disciplines to develop and introduce low-cost, nutritious foods, which will help improve the nutritional status of low-income people in the developing countries.

936-5115 Combatting Iron Deficiency - Assists developing countries to design and implement programs for alleviating iron deficiency anemia.

936-5116 Vitamin A for Health - Assists developing countries to implement programs for the prevention of nutritional blindness in children.

Office of Energy

936-5709 Bioenergy Systems and Technology - Increases the availability of energy from existing biological origin resources. Technical assistance is provided for the design of research activities, less developed country bioresource assessments, and bioresource production and conversion systems.

936-5728 Energy Policy Development and Conservation - Assists less developed countries in developing institutions, personnel and processes capable of effective energy policy-making, and provides assistance for the design of specific policies, programs and investments needed to relieve energy problems and to achieve improvements in the efficiency of energy use.

936-5730 Renewable Energy Applications and Training - Assists developing countries in using their renewable resources (solar, wind and geothermal) and provides training in the development and management of specific renewable energy systems.

936-5734 Energy Training - Assesses LDC manpower needs in the energy sector and trains LDC nationals in the scientific, engineering, planning and managerial disciplines necessary to develop and manage energy systems.

Office of Forestry and Environmental and Natural Resources

936-5517 Environmental Planning and Management - Provides short-term advisory services and planning for environmental profiles and national conservation strategies in order to strengthen less developed country institutional capacity to manage and conserve natural resources for sustainable development.

936-5518 Coastal Resources Management - Provides assistance, training, and research in order to increase the capacity of less developed country professionals and institutions to develop and manage their coastal resources.

936-5519 Forest Resources Management - Provides technical assistance and conducts research that will enhance the wise use of forest resources by means of conversion and conservation.

936-5547 Forestry/Fuelwood Research and Development - Promotes research and development efforts and networks to improve production of fuelwood, forestry goods and services, sound forestry management and agroforestry through forestry and related social science research.

936-5550 Biological Conservation In Development - Assists less developed countries in better managing their wild plant, animal and microbial resources.

936-5554 Conservation of Biological Diversity - Improves the capacities of developing countries to identify the critical needs for and economic potential of conserving and better managing biological resources, safeguarding ecological processes, and maintaining genetic diversity.

Research and University Relations

931-1282 Title XII Strengthening Grants - Helps U.S. universities adapt and enhance their domestic capabilities to LDCs' development needs.

936-5052 Project Review - Provides assistance in evaluating on-going projects, the development of new projects and the selection and review of new research proposals.

936-5053 HBCU Research Grants - Funds research projects at Historically Black Colleges and Universities (HBCUs) that address less developed country problems.

936-5055 Technical Advisory Support Services - Provides managerial and technical assistance to U.S. universities to enable these institutions to provide assistance to less developed countries in agricultural areas.

936-5058 Joint Memorandum of Understanding - Agriculture - Increases the capacity of Title XII universities to provide assistance to less developed countries in agriculture, rural development and nutrition areas.

936-5060 Matching Support Grant Program - Increases the capacity of selected land-grant universities to provide assistance to less developed countries in agriculture and to improve performance on ongoing project activities.

Office of Rural and Institutional Development

931-1090 Small Enterprise Approaches to Employment - Identifies approaches and designs programs to improve employment opportunities, productivity and enterprise viability in the non-farm, small enterprise sector.

931-1096 Program Development & Support - Provides short and long term assistance to less developed countries for program conceptualization, design, management, and evaluation in the fields of rural development, development administration and institutional development.

931-1135 Human Settlements and Natural Resource Systems Analysis - Conducts research on: 1) natural resource analysis and management; 2) new lands settlement, resettlement, and river basin development; 3) the linkages between rural and urban areas; and 4) development in a regional context.

931-1190 Food Security in Africa - Assists African policy makers to develop short and mid-term solutions to food production, supply and consumption problems.

936-4053 Market and Technology Access - Helps non-agricultural business enterprises in developing countries increase productivity and employment by improving their access to new technologies and markets.

936-4148 Technology Transfer Feedback Systems in Agriculture - Conducts research and provides technical assistance and training in the design and implementation of agricultural communications and extension systems.

936-5301 Research on Access to Land, Water and Natural Resources - Assists less developed country governments in addressing problems of access of the rural poor to land and water resources by providing short-term consulting, applied research, training, and information dissemination.

936-5303 Local Revenue Generation and Administration - Stimulates the self-help capabilities of less developed countries by analyzing and improving their local and national revenue systems.

936-5314 Research on Entrepreneur Identification and Development - Develops and field tests new approaches to increasing the success of entrepreneurial performance.

936-5315 Experimental Approaches to Rural Savings - Enables rural financial institutions to become financially viable and self-sustaining by mobilizing rural private savings, changing the financial policy environment and improving access to financial capital by rural borrowers.

936-5317 Performance Management - Provides management training and other assistance to improve performance of LDC organizations and strengthen local management training and consulting institutions.

936-5402 Managing Energy and Resource Efficient Cities - Provides technical assistance to model small and medium-sized cities in LDCs to design, implement, and monitor energy and resource strategies, and to promote public awareness.

936-5426 Employment and Enterprise Policy Analysis - Provides analytical inputs into the process of employment and industrial policy reform to eliminate policy biases against labor-intensive and smaller enterprises.

936-5428 Appropriate Technology International II - Increases the standard of living of the poor in developing countries primarily through facilitating the development, transfer, adaptation, commercialization and assessment of technologies appropriate to conditions in developing countries, particularly those technologies that can be utilized by the poor and by micro-enterprises.

936-5438 Development Strategies for Fragile Lands - Helps less developed countries address development problems on fragile lands (steep slopes and low-land humid tropics) by conducting and promoting research on appropriate strategies, establishing an information sharing network, and facilitating donor cooperation.

936-5446 Decentralization: Finance and Management - Helps developing countries test and implement better ways to organize and fund decentralized services such as road and irrigation canal maintenance.

936-5447 Agriculture Marketing Improvement Strategies - Improves LDC capabilities to diagnose problems in agricultural marketing; determines solutions compatible with the evolution of the marketing systems, and designs and implements interventions to improve the performance of those systems.

936-5448 Micro-Enterprise Support - Increases incomes, productivity and employment through micro-enterprise development in A.I.D. countries, by means of research, provision of project development services, support of institutions, training, and policy analysis. This project in part will help A.I.D. respond to Congressional initiatives in micro-enterprise lending.

936-5547 Forestry Fuelwood Research and Development - Promotes research and development efforts and networks to improve production of fuelwood, forestry goods and services, sound forestry management and agroforestry through research in forestry and related social science.

936-5826 Communication for Technology Transfer In Agriculture - Develops and tests instructional systems for transferring agricultural technology. Systems are based on information exchange among farmers, researchers, extension workers and on the integration of mass media with farmer contact systems.

Office of Education

936-5826 Communication for Technology Transfer in Agriculture - Develops and tests instructional systems for transferring agricultural technology. Systems are based on information exchange among farmers, researchers, extension workers and on the integration of mass media with farmer contact systems.

Program Office

936-1406 Program Development and Support - Provides technical expertise, goods and services to improve program development, project design, implementation, and evaluation of less developed country programs.

936-1421 AID/Peace Corps Small Project Assistance - Supports small community-based development projects managed by Peace Corps Volunteers. These projects deal with food production, and small enterprise development.

936-5054 Information Transfer - Produces a technical magazine and provides an information transfer service which informs less developed country development specialists about new, effective technologies, products and project experience.

Bureau for Program and Policy Coordination

930-0022 Socio-Economic Studies and Activities - Supports research on U.S. assistance policies and programs; areas of inquiry include the role of the private and public sectors in developing countries, price policies for public sector services, criteria for allocations of food assistance, and the relationship of energy cost to debt.

930-0085 Integrated Studies and Systems - Provides for comprehensive evaluations of assistance programs in areas of significant topical interest and development expenditure and assists developing countries in their evaluation of project progress.

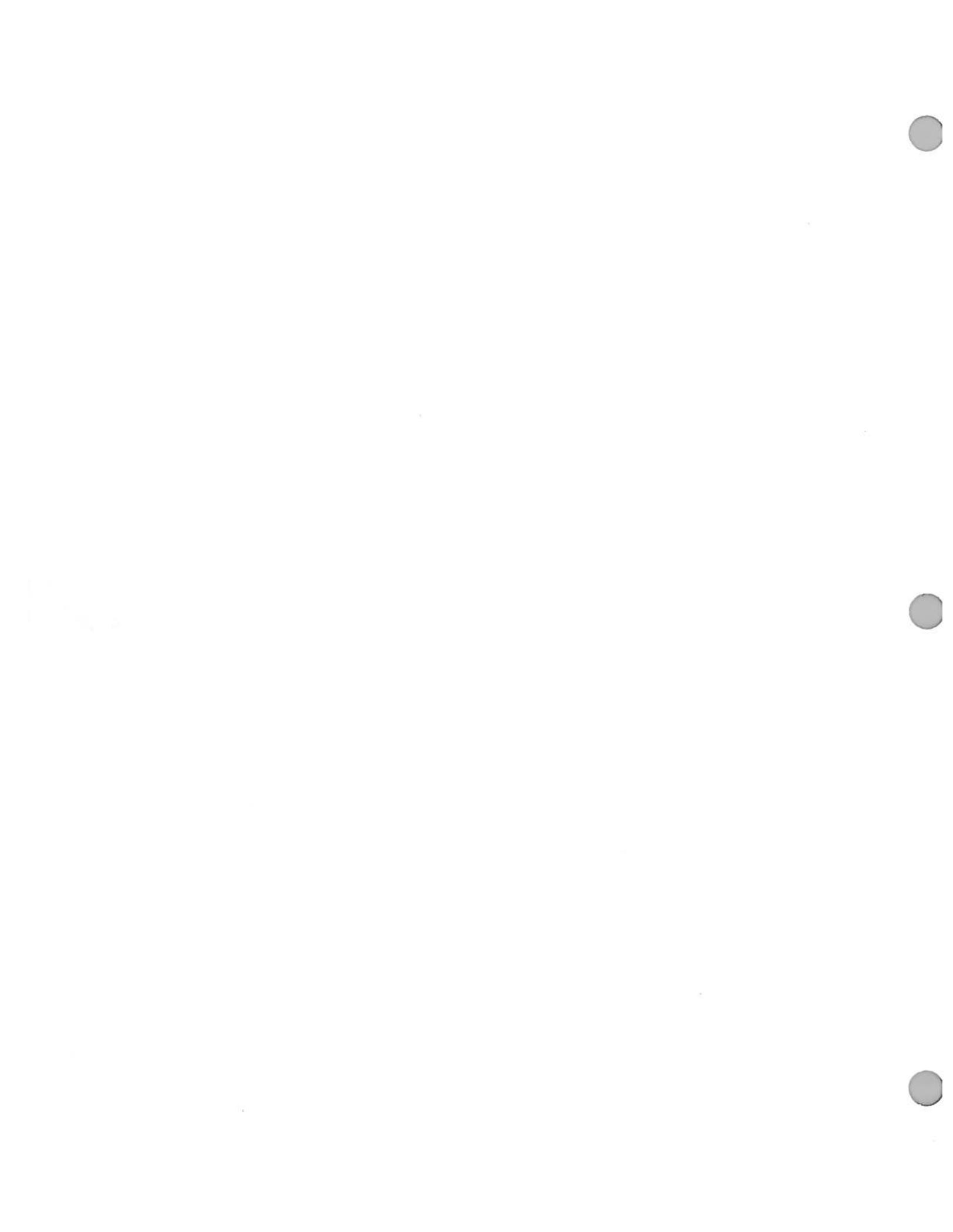
930-0100 WID Strategies and Resources - Facilitates the inclusion of women into A.I.D. assistance programs with technical assistance such as that drawn from U.S. university WID centers, and action-oriented, applied research to enhance employment and income-earning opportunities for women in the developing countries.

930-0232 Information as a Tool in Development - Selects, collects, retrieves and transfers technical, program and project information generated by LDC institutions, PVOs, other U.S. agencies, national and international development organizations (World Bank, FAO), and A.I.D. to the developing countries; and, supports outreach programs in the LDCs with professional journals, and technical assistance on information programs such as library and information network development.

930-0264 Agriculture Information and Related Services - Makes available to developing countries the sizeable technical information resources of the U.S. Department of Agriculture and its agencies such as the National Agriculture Library, the Foreign Agriculture Service, and the Science and Education Administration.

936-1421 AID/Peace Corps Small Project Assistance - Supports small community-based development projects managed by Peace Corps Volunteers. These projects deal with food production, primary health care, and small enterprise development.

936-4111 International Agricultural Research Centers - An international agricultural research network to supply scientific and technical methodologies to less developed countries to expand food production.



POPULATION PLANNING

Responsible Officer:



NYLE C. BRADY

*Senior Assistant Administrator
Bureau for Science and Technology*

PROGRAM SUMMARY (In millions of dollars)		
FY 87 Actual	FY 88 Estimated	FY 89 Request
115.5	110.4	116.1

POPULATION

OVERVIEW

A.I.D.'s population assistance program emphasizes the right of each couple to choose the number and spacing of their children; the health benefits of family planning to mothers and children; and efforts to reduce abortion. To this end, the basic strategy of the program is to ensure the widespread availability of quality voluntary family planning services to enable couples who so desire to regulate their fertility.

The consequences of rapid population growth are now more widely understood than they were a decade ago. The damaging effect of rapid population growth on the health of mothers and children is particularly clear: maternal and infant mortality rise measurably with large numbers of births and with births too closely spaced. Twenty-five years ago only a handful of developing countries recognized the diverse problems associated with population growth; now more than 70 developing countries, consisting of 90 percent of the developing world's population, have adopted population policies. The United States has taken a lead role in calling attention to the impact of rapid population growth and, through A.I.D., has provided almost half of all population donor assistance over the past two decades.

Despite the growing desire for family planning services, access to a range of services and information about those services is inadequate and population growth rates in most developing countries remain high. In some countries, especially in Sub-Sahara Africa, birth rates have not declined. However, there is evidence that high rates of population growth are beginning to level off in a number of developing countries. The most significant fertility declines have occurred in countries with both a strong national commitment to reducing population growth and widely available family planning services. A.I.D.'s experience demonstrates that a balanced program which provides family planning services and information, combined with strong community support for family planning, is the most effective way of helping couples determine the size and spacing of their families.

The population assistance program has, over the years, been concerned with the impact and linkages of family planning on family health. Two health-related areas where population assistance is becoming increasingly important are -- child survival and, to a lesser extent, acquired immune deficiency syndrome (AIDS). Recently increased attention has been paid to improving the health of children and mothers in developing countries where each year an estimated 15 million children below five die and 500,000 women die from causes related to pregnancy and childbearing. It has become increasingly clear that birth spacing plays a critical role in saving lives of infants and mothers.

It is also known that birth-spacing can reduce infant deaths by as much as 20 percent. Recognizing the important relationship between child spacing and child survival, A.I.D. has been testing ways to communicate this knowledge to policy makers and service providers. In addition, child spacing services are now often included with other child survival activities.

The Agency's population program has had many years of experience in the areas of operations research; education, and public information programs and procurement, distribution and supply of condoms. This experience will be used to improve our knowledge of the interaction between family planning and the prevention and control of AIDS. This will be done in collaboration with other initiatives by A.I.D., World Health Organization and others involved in combatting this international health problem. In FY 1987 the Agency allocated over \$4 million in population funds for AIDS work: \$3 million for the purchase of condoms for AIDS programs and approximately \$1 million for operations research, information, education and training related to AIDS.

POLICY

The cornerstone of U.S. population policy is to ensure the right of couples to choose voluntarily the number and spacing of their children. The policy adheres to the established principles of respect for human life, enhancement of human dignity, and strengthening the well-being of families.

The United States has provided, and continues to provide, considerable support for voluntary family planning programs but the United States firmly opposes coercive population programs and abortion as a method of family planning. Addressing unmanageable population pressures is an essential element of the U.S. development strategy and this Administration has reaffirmed a 23-year U.S. commitment to strengthen voluntary family planning efforts.

Description of Centrally-Funded Program

Centrally-funded projects play a key role in the application of science and technology to developing world problems and the marshalling of private sector techniques and resources for family planning products and service delivery. In countries of Latin America, Africa and other regions where there are no U.S. bilateral population assistance programs, centrally-funded support of the programs of private and international organizations is critical in making family planning services available. A.I.D. is requesting \$116.1 million in population funds for FY 1989 for centrally-funded activities, 61% of the total population assistance budget.

The centrally-funded population assistance program supports a broad set of activities which can be readily adapted to the needs and desires of couples in specific developing countries. These include assistance in collecting and analyzing demographic data; formulation of population policies; provision of safe, effective, and affordable contraceptives; applied research; technical assistance in planning and designing programs; and information dissemination and training activities. To further enhance couples' choices, A.I.D. supports the use of a broad range of voluntary family planning methods and has initiated actions to increase information on and access to natural family planning. This program is based on the principle of voluntarism, informed choice, and the receptivity of the host country's people and government. U.S.

assistance is not conditioned on the host government adopting a particular population policy other than voluntarism.

A.I.D. has worked with developing countries on population policies and programs since the mid-1960s. Experience underscores the need for a variety of technical and institutional resources to help developing countries make the transition from the initial stages of population program development through to national programs geared toward self-reliance. Thus, the centrally-funded population program draws heavily upon U.S. academic, business and private voluntary organizations' skills and expertise for assistance in transferring scientific, technical and management techniques.

The centrally-funded population program is designed to provide support for country specific programs, particularly those which do not receive bilateral support but have significant population needs such as Mexico and Turkey. Other countries eligible for bilateral assistance but which lack the human and institutional capability to adequately provide family planning services themselves are also given assistance. Without centrally-funded efforts, these countries would be denied the technical assistance and support they need to improve their family planning programs. When capabilities (public and private) are improved, these countries should be able to individually sustain this effort, but for the near future, support from centrally-funded projects is essential.

Important aspects of the FY 1989 centrally-funded program will continue to include the involvement of the private sector, the voluntary sector, and international organizations; technology transfer and institutional development; policy dialogue; research, information and training. Collectively these ensure the broadest possible range of choices of family planning methods, including natural family planning, and the most effective use of donor and host country resources.

Implicit in the A.I.D. population assistance program is the belief that the best way the Agency can fulfill its mandate is not through simply transferring resources but through technology transfer and strengthening developing country institutions. A.I.D. has been the leader in developing and providing the latest fertility regulation techniques and has pioneered such cost-effective delivery systems as community-based contraceptive distribution systems and social marketing programs.

Centrally-funded projects serve as the focal point within the Agency for coordination of research, transfer of scientific technology and teaching managerial skills to developing countries' family planning programs. Several centrally-funded projects investigate and test new technologies for fertility regulation, service delivery and program management for worldwide use. Others adapt the latest information and technology available to specific developing country needs. These research, training and information dissemination activities are designed to maximize the involvement of developing country public and private sector institutions so that an institutional base will be created to undertake independently-managed national programs.

Centrally-funded population projects can be divided into four major categories: policy dialogue; applied research; family planning service delivery; and information and training.

POLICY DIALOGUE (\$10.9 million FY 1989; \$10.7 million FY 1988)

Family planning programs are most successful when governments support the provision of voluntary family planning services and when they are committed to addressing problems of rapid population growth by formulating and implementing population policies. The goals of A.I.D.'s population policy dialogue are to: 1) strengthen developing country capacities to plan, implement and evaluate public and private sector population policies; and 2) improve knowledge and understanding of population-development relationships and of the contributions of family planning to national and individual well-being.

To achieve these goals, a select group of centrally-funded assistance projects addresses various stages of the policy development process. This assistance includes support for gathering data and conducting policy-relevant analyses of the data. Further it involves disseminating the information and analysis results to decision makers and using the results to evaluate alternative policies and to plan programs. The assistance supports the formulation of population policies which help nations and individuals in achieving their development objectives. Once policies are formulated, assistance continues through support for the implementation of effective voluntary family planning programs, including emphasizing the critical role of the private sector in providing family planning.

Demographic data collection and analysis activities provide an accurate basis for valid and detailed planning and evaluation of population and family planning programs. These activities also provide important information on the dynamics of population and development. Through the Census Support component of the Demographic Data Initiatives project, technical assistance and training in census and survey work strengthens the capacity of developing countries to process, evaluate and analyze demographic, family planning and related socioeconomic data. The Demographic and Health Surveys project collects and analyses data on essential population, family planning and health characteristics used by developing country officials and program managers in the planning, management and evaluation of population and health programs. DHS results are currently available from 10 countries, and another 15-20 countries will complete surveys by the end of 1988.

Work in the policy dissemination and planning areas helps developing country leaders to understand the determinants and consequences of rapid population growth in relation to national development plans and to evaluate policy alternatives. Under the Innovative Materials for Population Action component of the Population Policy Initiatives (PPI) project, the health benefits of family planning have been presented to a wide range of developing country policymakers. Resources for Awareness of Population Impacts on Development (RAPID III), a component of the Demographic Data Initiatives project, provides

high-level developing country officials with special computer presentations of the impact of population growth on development prospects and training host-country staff in policy analysis. RAPID presentations have been particularly effective in recent months in promoting major policy developments in Ghana, Madagascar, Sudan, and Togo. Further work under RAPID III will focus on financial and planning exercises to improve allocation of resources for family planning.

The PPI project also focuses on policy implementation and the private sector. The Options for Population Policy provides key assistance to 17 countries including Nigeria, Zaire and Sudan which have recently developed national population policies. The Technical Information on Population for the Private Sector has conducted cost-benefit analyses for influential companies in Peru, Nigeria, Zaire and Zimbabwe showing the health and financial benefits of offering family planning to employees and their dependents. As a consequence of these business analyses, a number of companies are now initiating and funding family planning services with their own resources as part of their employee benefits program.

APPLIED RESEARCH (\$21.7 million FY 1989; \$20.7 million FY 1988)

Centrally-funded activities support applied research in the United States and in developing countries in two areas: biomedical research to acquire more effective, appropriate contraceptives and other contraceptive techniques; and operations research to improve the management and delivery of family planning services.

A.I.D. support of biomedical research has led to safer and more effective sterilization procedures, the use of the low-dose oral contraceptives, vaginal contraceptives and improved IUDs for family planning programs. Increased resources are committed to accelerate completion of studies on new contraceptive technologies such as subdermal implants and other long-acting contraceptives, progesterone-only contraceptives for lactating women, further improved IUDs, reversible sterilization, immunocontraceptives and several barrier methods and improved techniques for natural family planning. Biomedical research also supports clinical testing to assess acceptability, safety and effectiveness of contraceptive technology among users in developing countries and the transfer of new and improved fertility technologies. Studies on the use of natural family planning methods address important questions about the conditions under which natural family planning may be most appropriate and effective. Breastfeeding promotion studies are another priority within the context of natural family planning. Studies are also ongoing to assess the impact of current barrier contraceptives on AIDS virus transmission and on improved condoms and spermicides to prevent transmission.

Improved contraceptive technologies cannot be effective if they are not readily available and acceptable to prospective users. The operations research component of the program assists policy-makers and program administrators to design, implement and evaluate cost-effective delivery systems which can make family planning and basic health services more widely

available, at a reasonable cost, to rural and urban poor populations. The lessons learned from the operations research program have demonstrated that clinic services alone are inadequate to meet existing family planning needs and they must be reinforced by outreach efforts which take services and supplies to people in their communities and homes. In over 60 studies in 25 countries the program has clearly demonstrated that outreach efforts can substantially raise contraceptive prevalence and that this expanded coverage is much less expensive than the clinic based. These changes and the relative rapidity with which they have been adopted throughout the developing world is largely due to the operations research program. Operations research studies have definitely shown that making contraceptives available to people will increase family planning use and lower fertility.

Some examples of completed operations research studies have shown that: In rural Kenya contraceptive prevalence increased from 21% to 34% where community health workers visited homes and sold supplies. In Brazil the number of vasectomies increased by 50% after an advertising campaign. There are currently 48 operations research projects in 23 countries. The results of operations research projects have been directly responsible for changes in government policies and have improved the management of family planning programs in more than 30 developing countries.

FAMILY PLANNING SERVICE DELIVERY (\$47.6 million FY 1989; \$44.0 million FY 1988)

Support for family planning services is the highest priority in the centrally-funded population portfolio and emphasizes initiating and expanding family planning service delivery and improving its quality and management. Included is support for private voluntary organizations to deliver services, expanding the role of the for-profit sector in the delivery of family planning, country-specific technical assistance, and the procurement of safe, effective, modern contraceptives.

Private voluntary organizations remain critical to A.I.D.'s strategy for family planning service delivery, particularly in countries without bilateral development assistance programs. These organizations support family planning services projects in more than 80 developing countries. Among the organizations to which A.I.D. provides support for family planning activities are Family Planning International Assistance, the Association for Voluntary Surgical Contraception, The Pathfinder Fund, the Western Hemisphere Region of the International Planned Parenthood Federation, and the Centre for Development and Population Activities. Emphasis is being given to expanding private sector family planning activities in Africa where private organizations can play a critical role and where family planning activities are often closely integrated with health activities. The FP Service Expansion and Technical Support Project, new in FY 1988, will strongly reinforce A.I.D.'s effort to intensify family planning services in underserved areas of Sub-Saharan Africa and selected countries in the Near East and the South Pacific. Special attention is given to improving the efficiency and management of private voluntary family planning organizations and to providing

assistance in cost recovery and sustainability. This important component of the program to expand and improve sustainable service delivery, is provided through country-specific technical assistance. This includes direct technical assistance to program managers to strengthen their capability to design, manage and evaluate their own programs; and technology transfer to organizations and firms in the areas of market research, advertising, cost analysis and financial planning to extend and reinforce private sector service activities.

Complementing efforts with the private voluntary sector, A.I.D.'s population program is giving special emphasis to working with the for-profit sector. Activities supported under the Contraceptive Social Marketing project are using existing private sector companies in many developing countries to advertise and distribute family planning information and commodities. Another private sector activity, funded under the Family Planning Enterprise project assists for-profit health care providers and employee benefit programs to incorporate family planning services, information and supplies as integral parts of employee health care programs.

The commodity and program support activities provide contraceptives to bilateral and centrally-funded A.I.D. supported family planning service programs. Centrally-purchased U.S. manufactured contraceptives are supplied to programs in more than 70 countries. Economies of scale achieved through central procurement have actually reduced the cost of contraceptives to A.I.D. Technical assistance is also provided in the area of contraceptive logistics management through the Family Planning Logistics Management project. This includes forecasting requirements, storage, distribution and monitoring use.

INFORMATION AND TRAINING (\$15.9 million FY 1989; \$15.2 million FY 1988)

A key contribution of the U.S. population assistance program is the transfer of U.S. scientific and technological know-how to developing countries and to personnel implementing family planning programs. Centrally-funded information and training projects are the major means for assisting countries to provide high quality, voluntary family planning information and services. Information and training form the foundation for family planning policy, research and services programs. More than any single factor the success that family planning has achieved worldwide must be attributed to the dedication and skill of family planning workers, whether at the community or highest levels. Dedication and skill is profoundly affected by the amount and quality of the information and training they receive.

Through a variety of centrally-funded projects, the family planning information, education, communication, and training needs of individuals and groups are being met. Individual couples receive the information they need to make informed decisions on family size and child spacing from television and radio programs and printed brochures. Physicians, nurses, and other family planning workers are kept up-to-date on new technologies by receiving clearly written periodic reports. Nurses, midwives, physicians and community-level family planning workers have learned new clinical and management skills through support for information and training activities.

In Latin America, for example, an experiment to use entertainment to combat adolescent pregnancy is leading to spin-off projects in Africa and Asia. Tatiana and Johnny's musical hits topped the record charts in Mexico and other countries, won awards, gained vast press coverage, and captured millions of dollars worth of mass media time. The message of sexual responsibility reached hundreds of thousands of young people, encouraging them to say "no" to premarital sex and informing them about services available in local family planning clinics. This commercial and social success is now being duplicated for Africa and the Philippines by the Johns Hopkins University Population Communication Services Program funded under the Population Communications Services project. The project has also used television soap operas and other mass media to reach a variety of audiences with family planning messages.

Over 80,000 nurses, midwives, physicians, health educators, community workers and other family planning personnel in 37 developing countries have been trained in clinical and other skills under the Family Planning Training for Paramedical, Auxiliary and Community Personnel project. For example, in Nepal, traditional medical practitioners were trained to promote and sell contraceptives in their communities and as a result the national company has had a dramatic increase in sales. In Latin America, training currently emphasizes financial as well as technical independence reflecting the greater maturity of these institutions. Reproductive health training of medical and nursing personnel is now being included in the basic voluntary programs for these health workers. In Jordan, family planning training brought clinic-level workers together with Ministry of Health officials which resulted in a breakthrough request for a large, country-wide family planning effort.

In addition to transferring skills, and serving as an entry point to make improvements in a country's family planning program, family planning training can lead to dramatic changes in program organization and effectiveness. This is particularly evident in the management training carried out by the Family Planning Management Training project in Nigeria. A state-level workshop resulted in new clinics being opened, annual plans being developed and the hiring of a family planning coordinator. Study tours conducted by this project have created collaboration between institutions and individuals in different developing regions.

UNITED NATIONS FUND FOR POPULATION ACTIVITIES (\$20 million FY 1989;
\$20 million FY 1988)

The FY 1989 request includes \$20 million for the United Nations Fund for Population Activities (UNFPA). If, because of UNFPA's inability to meet legislative restrictions, it is not possible to obligate funds to UNFPA, it is A.I.D.'s intention to use the funds for other voluntary family planning activities.

CENTRALLY FUNDED POPULATION PROJECTS

Office of Population

932-0502 Population Program Development and Support - Provides technical expertise, goods and services to improve program development, project design, implementation and evaluation of population/family planning programs in developing countries.

932-0955 Family Planning International Assistance Program/ - Introduces and/or extends family planning services throughout existing medical, social and welfare programs in less developed countries. FPIA supports mostly non-government institutions and encourages integration of family planning into on-going activities such as maternal/child health, women's, and church programs.

932-0968 Program for Voluntary Surgical Contraception - Makes high-quality voluntary sterilization services available as an integral part of LDC health and family planning programs.

936-3000 Demographic Data for Development - Strengthens the capacity of developing country statistical and population institutions to process, evaluate and analyze demographic, family planning and other related social and economic data to promote greater understanding of population and development relationships. Project activities include technical assistance, short-term training for LDC technicians and analysts and compilation, analysis and dissemination of data for program and project planning.

936-3004 Population Communications Service - Develops information and education programs to support LDC population and family planning service delivery. The project assists countries to identify needs, design communication strategies, conduct marketing and audience surveys, and complete implementation and impact evaluations.

936-3005 Population Council Program - Supports biomedical, social science and operations research and dissemination of information.

936-3017 Awareness of Population Impact on Development - Assists LDC policy makers and planners to examine the effects of population on socio-economic development and promotes the inclusion of population/development relationship in their development plans.

936-3018 Contraceptive Procurement - Provides funding to meet requirements for certain contraceptives to be provided through centrally-funded population/family planning programs. The project also serves as a central account for the procurement of contraceptives for A.I.D. bilateral programs.

936-3023 Demographic and Family Health Surveys - Conducts sample surveys of contraceptive knowledge, availability and use, and/or recent demographic levels and trends.

936-3024 Population Technical Assistance - Provides short-term technical assistance services in project design, management and evaluation of population and family planning programs.

936-3027 Integrated Population Development Planning II - Strengthens the technical capabilities of local planning institutions to understand population development problems and incorporate population considerations in development planning.

936-3028 Contraceptive Social Marketing - Supports the use of non-clinical contraceptives through commercial marketing and private sector distribution systems.

936-3030 Strategies for Improving Service Delivery - Initiates and tests the acceptability, accessibility and cost-effectiveness of family planning and maternal and child health (FP/MCH) service delivery systems; supports the institutionalization of operations research in FP/MCH programs in less developed countries.

936-3031 Family Planning Training for Paramedics/Auxiliaries - Strengthens and develops the capacity of training institutions to design, implement and evaluate training activities for paramedical, auxiliary and community personnel in the delivery of family planning and health related services.

936-3032 Population Information Program - Provides regular reports and specialized materials on key population and health topics for use in family planning program administration and training.

936-3033 University Overseas Service Program - Provides technical expertise and services to developing countries by providing internships to beginning professionals to undertake assignments in public and private host country institutions engaged in population planning activities.

936-3034 Family Planning Enterprise - Provides technical assistance to identify the need for and then to create new private sector family planning organizations and funds innovative service delivery by these organizations.

936-3035 Population Policy Initiatives - Provides public and private policy makers with assistance in developing population policies and programs consistent with their country's development objectives.

936-3037 Extending FP Services Through Women Managers - Women managers provide family planning services to unserved or under-served populations in developing countries.

936-3038 Family Planning Logistics Management - Provides technical assistance in commodity management and logistics including development of developing country capability in inventory control, program monitoring and product distribution.

936-3039 Family Planning Management Training - Strengthens the leadership and management of developing country family planning organizations.

936-3040 Natural Family Planning - Improves the knowledge, availability, acceptability and effectiveness of natural family planning in developing countries.

936-3041 Family Health International - Conducts comparative clinical trials on the safety and efficacy of various fertility control methods under local conditions; trains overseas clinicians in fertility control techniques; collects, analyzes and disseminates data findings; establishes national fertility research programs; assesses impact of fertility control methods and delivery systems and conducts epidemiologic safety studies.

936-3042 Family Planning Services - Pathfinder - Introduces voluntary family planning services, information and training into LDC areas and helps existing public and private sector family planning service systems become more effective.

936-3043 Expansion and Improvement of Family Planning Programs - Provides support for delivery and use of acceptable, affordable family planning services through established Family Planning Associations throughout Latin America and the Caribbean region.

936-3044 Contraceptive Research and Development - Provides scientific, technical and financial assistance for development of improved methods of family planning for use in developing countries.

936-3045 Training in Reproductive Health - Increases the availability of improved reproductive health measures; and increases the number of LDC health professionals with modern, appropriate knowledge and skills in reproductive health, especially family planning.

936-3046 Demographic Data Initiative - Strengthens the capacity of LDCs to use population and family planning information in designing, implementing and evaluating population policies and programs.

936-3047 Family Planning International Assistance Program - Introduces and/or extends family planning services throughout existing medical, social and welfare programs in less developed countries. FPIA supports mostly non-government institutions and encourages integration of family planning into on-going activities such as maternal/child health, women's, and church programs. (This project is a follow on to 932-0955)

936-3048 FP Service Expansion and Technical Support - Provide family planning services in a selective number of high priority countries not currently receiving adequate assistance.

936-3049 Program for Voluntary Surgical Contraception - Makes high-quality voluntary sterilization services available as an integral part of LDC health and family planning programs. (This project is a follow on to 932-0968)

936-3050 Population Council Program - Supports biomedical, social science and operations research and dissemination of information. (This project is a follow on to 936-3005)

936-3051 Contraceptive Social Marketing - Increase the availability and use of contraceptives among eligible LDC populations using commercial marketing techniques and distribution systems.

932-0662 United Nations Fund for Population Activities (UNFPA) - Provides multilateral assistance for the initiation and support of population programs; promotes awareness of population problems; and coordinates international population assistance efforts.

Bureau for Program and Policy Coordination

930-0022 Socio-Economic Studies and Activities - Supports research on U.S. assistance policies and programs; areas of inquiry include the role of the private and public sectors in developing countries, price policies for public sector services, criteria for allocations of food assistance, and the relationship of energy cost to debt.

930-0085 Integrated Studies and Systems - Provides for comprehensive evaluations of assistance programs in areas of significant topical interest and development expenditure and assists developing countries in their evaluation of project progress.

930-0100 WID Strategies and Resources - Facilitates the inclusion of women into A.I.D. assistance programs with technical assistance such as that drawn from U.S. university WID centers, and action-oriented, applied research to enhance employment and income earning opportunities for women in the developing countries.

930-0232 Information as a Tool in Development - Selects, collects retrieves and transfers technical, program and project information generated by LDC institutions, PVOs, other U.S. agencies, national and international development organizations (World Bank, FAO), and A.I.D. to the developing countries; and supports outreach programs in the LDCs with awareness journals, and technical assistance on information programs such as library and information network development.

PROGRAM SUMMARY (In millions of dollars)		
FY 87 Actual	FY 88 Estimated	FY 89 Request
64.2**	74.0*	79.0*

HEALTH, CHILD SURVIVAL, AND AIDS

OVERVIEW

Today, nearly 15 million children die each year in less developed countries (LDCs). An additional 5 million children face handicaps each year as a result of diseases that could have been prevented. The Agency for International Development (A.I.D.) is committed to help change these grim realities. To do so requires more effective and efficient dissemination of available health technologies and faster progress in developing and producing new or improved technologies. The development, adaptation, and worldwide dissemination of basic health technologies to improve child survival and to extend life expectancy is the primary mission of the Agency's centrally funded health programs.

The majority of people living in LDCs suffer from acute, recurrent, and debilitating diseases and are without access to an adequate diet, safe drinking water, environmental sanitation, and basic preventive and curative health services. For many, the consequence of such persistent and widespread infectious disease is death. Infant and child deaths are the greatest tragedy. In the poorest parts of some LDCs, one fourth of all children die before reaching the age of five.

Every day more than 40,000 children die in LDCs from diseases that could have been prevented or cured by inexpensive treatments and simple education programs. It is estimated that about half could be saved through simple low-cost and effective health care methods such as oral rehydration, immunization, breastfeeding, or improved weaning practices. Millions more, adults and children, are weakened by acute and chronic malnutrition, diarrheas, respiratory infections, and tropical diseases such as malaria, snail fever (schistosomiasis), river blindness (onchocerciasis), sleeping sickness (trypanosomiasis) and cholera. For the survivors, the capacity to lead productive lives and to contribute to development is diminished. Such widespread death and illness affect all aspects of human life, depriving

* Includes centrally funded Child Survival activities funded from the Child Survival Fund account totaling \$17 million in FY 1989 and \$12.5 million in FY 1988 and also includes centrally funded AIDS prevention and control activities from the AIDS account totaling \$24 million in FY 1989 and \$22 million in FY 88.

** Above total includes \$0.1 million of FY 1987 deobligated funds available for reobligation in FY 1987.

nations of productive human resources, burdening families with the cost of care for the sick, and depriving individuals of the opportunity and motivation to advance themselves and their families.

Furthermore, as has become abundantly clear, Acquired Immunodeficiency Syndrome (AIDS) is now found on all continents, and cases have been reported from 112 countries. Caused by the human immunodeficiency virus (HIV), AIDS has become an international health problem of extraordinary scope and unprecedented urgency. Although the number of officially reported cases as of May 1987 was 51,000, under-reporting and under-recognition are widespread. The World Health Organization (WHO) estimates that the actual number of cases worldwide exceeds 100,000 and that between five million and ten million persons or more are currently infected with HIV. By 1991, 50 million to 100 million persons may be infected. The impact of the AIDS pandemic in human, economic, and, ultimately, political terms will be both adverse and severe.

Most developing countries are committed to combatting such diseases and improving basic health conditions. These countries believe that good health is a basic right and they recognize that it goes hand in hand with economic productivity. Unfortunately, LDC financial and human resources to improve health are very limited.

POLICY

A.I.D.'s general health policy is to increase the life expectancy in the LDCs and to remove poor health as a barrier to economic and social development. Since infant and child deaths comprise half of the deaths occurring in LDCs, A.I.D. focuses on the reduction of infant and child mortality and morbidity as its main objective.

A.I.D.'s specific objectives and strategies in the health sector are as follows:

1. Reduce infant and early child mortality and morbidity. The strategy the Agency uses to reduce infant mortality emphasizes increasing the immunization coverage of children; reducing diarrheal disease mortality by the increased use of oral rehydration therapy (ORT); promoting child spacing; and improving nutrition in young children. The Agency's strategic plan identifies these important targets for A.I.D.'s child survival program:
 - to reduce infant mortality to less than 75/1000 live births, and
 - to reduce mortality to less than 10/1000 for children 1-4.
2. Ensure that the gains made in improving child survival and health are sustained. The maintenance of child survival gains will require policy dialogue to ensure continued commitment and resources, the support and involvement of the private sector, improved financing mechanisms, and effective donor coordination.

3. Develop new cost-effective technologies and improved systems for the delivery of child survival services in primary health care programs. A.I.D. will continue to support biomedical research where there are favorable prospects for early application of new cost effective technologies, especially those related to infants and children. Focused research to develop vaccines for malaria, acute respiratory infections, and diarrheal diseases is emphasized.
4. Reduce maternal mortality and morbidity. To improve maternal health, A.I.D. will promote birth spacing, immunization, breastfeeding and improved weaning practices, prenatal and postnatal care, and adequate maternal nutrition.
5. Collaborate with the World Health Organization in a global effort to prevent and control the spread of Acquired Immunodeficiency Syndrome (AIDS). In addition to its support for the WHO Global Programme on AIDS, the Agency will provide technical assistance and other support to developing country programs in preventing and controlling HIV infections in such areas as blood banking and HIV screening, epidemiology and surveillance, and public health communications strategies.
6. Support other health interventions in the LDCs where they are required. These activities include assistance for primary health care, water and sanitation, vector control, and operations research. There is also a focus on the use of modern communication strategies to supply public health education and information.

DESCRIPTION OF THE GLOBAL PROGRAMS

The Bureau for Science and Technology health projects augment bilateral assistance to LDC governments by providing expert technical services and training, sponsoring field oriented research, conducting data collection, implementing demonstration projects, and supporting biomedical research to improve basic health technologies required to improve prospects for child survival. The centrally funded program is the mainstay of A.I.D.'s innovative biomedical research initiative. Over 90% of the Agency's biomedical research portfolio is developed and managed centrally, as are the major technical contracts for the design, implementation and evaluation of a wide range of health activities including ORT, immunizations, AIDS, health financing, maternal and child health and nutrition, malaria and other vector borne disease control, health commodities production, health information systems, and public health communication.

A.I.D. is providing funds to encourage collaboration with interested private sector enterprises to increase the availability of child survival and child spacing activities, as well as supporting the the local manufacture of oral rehydration solutions (ORS) in the private sector. A.I.D. also plans to fund policy studies for health and child survival to determine the feasibility of private sector delivery of child survival services in tandem with other health services delivered by large scale employers in Africa.

I. Technical Assistance, Training and Service Delivery for Child Survival
(HEALTH: \$8.9 million in FY 1989; \$10.2 million in FY 1988)
(CHILD SURVIVAL: \$15.7 million in FY 1989; \$11.5 million in FY 1988)

A. ORT and Immunizations: The Twin Engines:

In the Child Survival Action Program, immunizations and ORT receive special emphasis. The central bureaus play a key role in realizing the Agency's commitment to improve immunization coverage and expand the use of oral rehydration therapy worldwide. These field programs are having an impact on the availability of oral rehydration solutions (ORS) and on their use. At the end of 1986, 47 developing countries were producing ORS locally. In fact, local production continues to account for about half of global production, which is estimated to have been around 270 million litre equivalents in 1986. In Egypt, as a result of a major ESF-funded ORT program, 95% of mothers had learned of ORT by 1986 and, even more important, 82% had used it. In Ecuador, the number of hospital admissions of children with diarrhea and dehydration has dropped dramatically since the program began in 1985.

Related to the Agency's ORT effort is its research on the dietary management of diarrhea. The Agency's ORT programs will be greatly strengthened to reduce both mortality and morbidity of acute diarrhea in infants and children as a result of this expanded focus.

The Technology for Primary Health Care project promotes proven, effective technologies such as ORT and immunizations in primary health care programs. Under this project, four major technical assistance activities support the Agency's child survival initiative.

PRITECH: assists LDCs to implement and institutionalize ORT programs, including support for dietary management, as well as fluid therapy during diarrhea. This includes strengthening linkages among ORT, nutrition and diarrhea prevention. The project provides short-term, intermittent assistance, as well as long-term technical, logistic and financial support for national ORT and diarrheal disease control programs. The project also provides technical support for primary health care and child survival activities.

REACH: assists LDCs to strengthen the delivery of basic health care services in developing countries through two major strategies: (1) improving the design, implementation, management, and evaluation of selected technologies in disease control, with a particular emphasis on immunization (EPI); and (2) securing additional resources for child health programs over the long-term through improving the efficiency and effectiveness with which health services are delivered, organized and financed.

Center for Disease Control (CDC) PASA: uses the experience and skills of the U.S. Public Health Service to expand basic health programs in immunization and ORT under a PASA with the Center for Disease Control.

World Health Organization: provides support to three developing country recurrent cost studies and access to health financing technical experts.

The PRITECH Project, which is now over 30% complete, uses Child Survival Funds to promote and support the long-term institutionalization of ORT in national Diarrheal Disease Control programs in 25 countries, eight of which are A.I.D. Child Survival Emphasis Countries. In addition, almost 30 person years of short-term technical assistance in support of ORT, diarrheal disease control (DCC), and other child survival program activities have been provided by the project so far.

A ten-year follow-on PRITECH II project has recently been authorized which expands the scale and scope of the program. Under the initial five-year contract, 30 country programs will receive higher levels of assistance than had been available under PRITECH I, and increased emphasis will be placed on integrated ORT/DCC with nutrition and diarrheal prevention efforts.

Under the REACH project, 100 technical consultations in 26 countries have been completed. Long-term involvement in immunization programs in 8 countries, including Yemen and Haiti, is now under way. Long-term technical assistance in health financing is under way in 3 countries and under preparation in 3 additional countries. Short-term assistance in immunization has included planning, development, monitoring, and evaluation of national and PVO programs. Short-term assistance in health care financing has included studies on resource allocation within the health sector, charging fees for services, studies of hospital efficiency, and cost-effectiveness of immunization programs.

B. Child Survival Program Coordination:

The Child Survival Action Program (CSAP) was established in 1985 in order to help the Agency achieve its health goal of reducing infant and child mortality. The Child Survival Action Program provides a special focus and impetus to enhance existing A.I.D. programs to save the lives of children. This program is funded from both the health account and from the Child Survival Fund, and:

- Focuses on the use of ORT and immunization to improve the health of infants and children;
- Supports other interventions such as nutrition and birth spacing;
- Focuses special efforts on "emphasis countries" where the needs are the greatest;
- Involves the private sector; and
- Coordinates with other donors.

In FY 1989, the Child Survival Action Program will provide funding for technical support, information exchange, training, and research to promote child survival. These major activities will be funded in FY 1989:

- priority research to improve and develop child survival technologies including the assessment of the impact of iron and Vitamin A deficiency on morbidity and mortality and of alternative immunization strategies;

- monitoring and evaluation of child survival programs using operations research and other analytical techniques; and
- the Child Survival Fellows Program which details or assigns junior- and mid-career professionals to A.I.D. to carry out child survival activities. These professionals are recruited from the U.S. Public Health Service, from other federal or state agencies, and from U.S. universities.

C. Nutrition Interventions:

The program in maternal and infant diets promotes breastfeeding and improved weaning practices as major ways to enhance child survival and is funded from both the Health account and the Child Survival Fund. Teams of medical teaching professionals are trained in lactation management, as well as growth monitoring and promotion. Diarrheal control interventions include the continued feeding of children during acute episodes of diarrhea and follow-up feeding so that affected children can catch up with the growth pattern of their age group. Improving the nutritional health of expectant mothers is also receiving increased attention as a way to overcome the problem of low birth-weight, a condition associated with a high risk for dying. Social marketing has also become an integral part of nutrition education in developing successful intervention programs.

Programs are also being undertaken in LDCs in nutrition surveillance. Surveillance information provides developing country decision makers with early warnings of potentially severe malnutrition, and such nutrition surveys also provide a base for improved food and nutrition policy making.

D. Complementary Support for Child Survival Programs:

The Communication for Child Survival (HEALTHCOM) project, funded from the Child Survival Fund, applies state-of-the-art knowledge about communication, social marketing, and behavior analysis to selected child survival practices. Early work in Honduras and The Gambia focused on ORT; the program has been expanded to 17 countries worldwide and additional child survival technologies, including immunizations, ARI, growth monitoring, and vitamin A. Interventions vary according to national child survival priorities, local needs, prevalent media, and other factors. In Mexico, a new ORS product was launched under this project. In Indonesia, the project has focused on an intensive public education program in West Java supporting correct ORT use and involving community volunteers and retailers. An intervention in Malawi concentrated on prevention and treatment of malaria through training of local health practitioners. In each subproject, methodological issues are also addressed. In Honduras, for example, institutionalization and the longitudinal effects of communications campaigns are being studied. In Ecuador, campaigns are being compared with noncampaign periods to determine the costs and advantages of each approach. In Nigeria, a long-term behavioral study is being conducted to assess the teaching and communication methods used by health workers in clinics to inform mothers about immunizations and diarrheal disease control.

The MEDEX Support project uses health manpower training materials and techniques which were developed and successfully field tested by the University of Hawaii. The MEDEX group strengthens the capacity of nursing institutions to delivery primary health care services with emphasis on child survival activities through improved nursing education, supervision, and management. Major cooperative efforts with UNICEF and WHO are underway.

The Vector Biology and Control (VBC) project provides technical assistance in the design, management, implementation, and evaluation of vector control programs. Most of the VBC effort concerns malaria, but activities in onchocerciasis (river blindness), schistosomiasis, (snail fever), dracunculiasis (guinea worm disease), and dengue fever are also being supported. In addition to providing support to vector borne disease control programs, this project has developed a computerized system for collection and analysis of data on malaria control in Ecuador and Nepal.

The project is also exploring ways to encourage community participation in malaria control in Indonesia, and has assisted in the development of a major research program on schistosomiasis in Egypt, where this disease is a major threat to children and young adults. Several successful training programs have been carried out in collaboration with WHO.

Water and Sanitation for Health (WASH) is the primary activity through which the Agency provides technical assistance for LDC programs in community water supply and sanitation. Of primary importance are the efforts to assist LDCs to identify economical means of financing water supply and sanitation projects; to assist LDC institutions in improving the operation and maintenance of water supply systems; to provide country specific water sanitation training to strengthen institutions; and to provide services which complement child survival programs.

The Joint MOUs - Health project increases the capacity of U.S. universities to provide technical assistance relating to health in LDCs. This project pairs historically Black colleges and universities (HBCUs) with U.S. universities that have established programs of technical assistance in health to LDCs. The pair of universities conducts technical assistance programs in health which are set out in joint memoranda of understanding (JMOUs). Thus far, four universities have been paired with either the medical schools or schools of public health of four HBCUs. This project expands the pool of scientific resources available to LDCs.

II. Child Survival Research: Health Technology Development and Dissemination

(HEALTH: \$22.2 million in FY 1989; \$22 million in FY 1988)

(CHILD SURVIVAL: \$1.6 million in FY 1989; \$1.7 million in FY 1988)

Through its major biomedical research support program, A.I.D. seeks to improve technologies for prevention or control of major diseases in LDCs, particularly those that affect children.

A. Vaccine Development and Testing In FY 1989, A.I.D. will continue its major effort to improve basic health technologies, with special attention to improving vaccines for use in developing country health programs. This work is being carried out through the National Institutes of Health (NIH), the Centers for Disease Control (CDC), the World Health Organization, the International Center for Diarrheal Disease Research in Bangladesh, and a variety of U.S. universities and research institutions. Among the vaccines currently being developed and tested with A.I.D. resources are:

Malaria vaccines: Malaria kills an estimated 5 million people each year. In Africa alone, a million child deaths every year are associated with malaria. Over the past 20 years, A.I.D. has invested approximately \$70 million in the development of vaccines against human malaria. More than half of this amount has been committed in the last four years. A.I.D.'s research has focused on anti-sporozoite and anti-red blood cell stages of the parasite and will encompass all four species of human malaria (P. falciparum, P. vivax, P. ovale, P. malaria). The ultimate goal of this program is the development of a polyvalent vaccine. Already, researchers funded by A.I.D. have:

- 1) developed several prototype vaccines for P. falciparum and P. vivax that have been tested for safety and efficacy in monkeys;
- 2) developed a prototype vaccine for P. falciparum that has been tested for safety and efficacy in human clinical trials in the United States; and
- 3) developed protocols to test malaria vaccines in endemic areas.

In September 1987, the governments of the United States and Papua New Guinea signed a bilateral agreement to conduct Phase 1 - Phase 3 human trials of prototype vaccines following safety trials in the United States.

Measles: a vaccine that can be given to infants as young as six months is under development. The present measles vaccine will not "take" until nine months after birth; by that age the child will have lost the protective immunity inherited from the mother. The new vaccine is grown in human body cells rather than chick-embryo cells. Field trials to compare the effectiveness of this new vaccine with the Schartz vaccine in present use are nearing completion in Mexico.

Whooping Cough (Pertussis): Field trials of a new vaccine were completed in August 1987 and analyses of findings are under way. The new vaccine should be more practical and effective since it requires only a two-shot schedule rather than the current three-shot schedule. The new vaccine's purer production techniques eliminate side effects that presently discourage many mothers from having their children complete the diphtheria-pertussis-tetanus (DPT) series.

Typhoid Fever: The typhoid bacillus has become resistant to antibiotics in much of the developing world. A more effective, genetically engineered oral vaccine is under development. This new vaccine has been successfully tested in Nepal and shown to be 75 % effective against typhoid in a high risk setting. The new vaccine causes far fewer side effects and requires only a single dose, rather than a primary series of two injections several weeks apart. Future studies are planned to further improve the vaccine's effectiveness.

Rotaviral Diarrhea: A vaccine to prevent diseases caused by rotaviruses, the most common cause of serious pediatric diarrhea in LDCs as well as in the United States, is under development. Protection against diarrhea caused by rotavirus serotype III has been demonstrated in trials in rhesus monkeys. Trials are underway in Caracas and Lima to extend protection to all four serotypes of rotaviruses. Studies are also underway by the Centers for Disease Control and the DeKalb County Health Department in Georgia to develop an oral "cocktail" vaccine to protect against both rotaviruses and polio.

Cholera: Present cholera vaccines provide only partial protection (50 %) of short duration (3 to 6 months) in highly endemic areas. Recent tests in human volunteers at the University of Maryland Center for Vaccine Development have shown that a new oral cholera vaccine can induce longer protective immunity. A commercial firm is formulating a mass production version of this vaccine. Field trials will begin in Thailand in late 1987.

Leprosy: A new vaccine against this ancient scourge is under development. Field trials are under way to test a genetically engineered vaccine which has proved effective in killing the causative organism, Mycobacteriae leprae.

Group B Streptococcal Diseases: A.I.D. is working with the National Institute of Health (NIH) on a large multicenter study of maternal immune response to Group B streptococcal infections. Antibodies resulting from these infections appear to protect against premature birth and low birth weight. These streptococci are also agents of septicemia, pulmonitis, meningitis, and other diseases which threaten the newborn and of intrauterine infections of mothers. Use of antibiotics has been problematical. Depending on the findings of these immunological studies, A.I.D. may undertake development of appropriate vaccines.

Streptococcal Pneumonia: A.I.D. is negotiating with the Medical Research Council (United Kingdom) in the Gambia to study the efficacy of a new vaccine against streptococcal pneumonia in infants and young children. This study would be conducted in conjunction with a trial of the hepatitis B vaccine.

B. Improved Immunization Technologies: A.I.D. is giving particular attention to reducing the potential for the spread of infection by unsterilized or inadequately sterilized needles and syringes, and to improving the heat stability of vaccines and other health commodities in order to improve vaccine delivery. Technical collaboration with the World Health Organization and other international agencies is a critical element of this work.

A.I.D. has aggressively supported the development of nonreusable devices. In FY 1987, A.I.D. signed a cooperative agreement with the Program for Appropriate Technology for Health (PATH) to develop nonreusable alternatives to current vaccination devices. This project, HEALTHTECH, is currently developing three devices, each of which is currently in a different stage of development:

- a device that modifies current syringes and renders them inoperable after a single use ("SafeTLocks");
- a single-use injection device that collapses upon use; and
- a needle block that prevents needles from being reused.

The device that modifies current syringes is closest to actual production, and three thousand of these "SafeTLocks" are ready to be placed in syringes for field testing in Pakistan, where a protocol for such field tests has been developed.

C. Oral Rehydration Solutions: Appropriately used, the current WHO formula for oral rehydration is highly effective. For certain situations, however, alternative formulations may be preferable.

- Solutions based on complex carbohydrates, such as rice or maize powder, appear to be as effective as the WHO formula, but have the added benefit of substantially reducing the volume of diarrheal fluid losses.
- Many fluids ordinarily consumed in the home contain the essential ingredients of the WHO formulation. Given early in the course of diarrhea and in adequate amounts, such fluids have the potential for preventing dehydration in a large proportion of cases. Suitable guidelines for administration and effective educational approaches remain to be developed.

Through its ongoing support to the WHO Diarrheal Disease Control Program and to the International Center for Diarrheal Disease Research in Bangladesh, A.I.D. is supporting a broad research effort to address the need for oral solutions to complement the WHO formula.

D. Operations Research. While extensive research has been directed toward the health status and health related behaviors of LDC populations, surprisingly little is known about the process by which health program staff actually deliver basic services. This neglected area is the focus of the PRICOR II project.

A major impediment to research in the delivery of child survival services is the lack of well developed methodologies to assess how effectively the involved activities are being carried out. The project has developed an innovative approach to describing how well program personnel carry out a wide range of activities, including not only the actual provision of services such as oral rehydration therapy but also support activities such as supervision

and record keeping. This methodology, termed a "systems analysis", has revealed serious program issues that were unexpected even by local managers and supervisor. With further refinement these systems analysis methodologies have potential application as routine management tools, providing managers with in-depth information on the quality and care of services.

Detailed information on the process of service delivery, generated through systems analysis, also provides a new basis for comparing programs and drawing general lessons from the experience of diverse programs. While any two child survival programs may be quite different overall, many specific components, such as the supervisor's role in monitoring the quality of ORT services, are potentially comparable. The PRICOR II project will take advantage of these commonalities to generalize principles for the delivery of child survival services, at a level of detail that can be directly applied by program managers.

PRICOR II is currently working in 11 developing countries, through subagreements with 5 U.S. academic and non-profit institutions.

E. Improved Diagnostics. With current advances in biotechnology, A.I.D. has begun to develop rapid, inexpensive diagnostic tests for major diseases in less developed countries. A.I.D. is focusing on those diseases which have the most significant impact on child survival, health infrastructure, and economic productivity, with particular emphasis on malaria, diarrheal diseases, typhoid fever, acute respiratory infectious illnesses, and tuberculosis. A.I.D. is giving special attention to the rising impact of AIDS on child survival, particularly the need for introduction of laboratory evaluation and field testing of diagnostic kits for accurate, rapid screening of blood samples in developing countries.

F. Nutrition Research:

Iron Deficiency: Nutritional anemia, the most widespread of the nutrient deficiencies, is being combatted by research and development work under the iron deficiency program. Research supported by A.I.D. has led to faster, more accurate, and significantly less costly procedures for the assessment of the iron status of populations. Research is being conducted to improve the effectiveness of both iron supplements (tablets) and iron fortification delivery systems. Iron fortification research seeks to overcome food inhibitors to iron absorption. Iron deficiency control activities are funded by both the health account and the Child Survival Fund.

Maternal and Infant Diets: Applied research on effective weaning methods is also built into nutrition intervention programs, along with growth monitoring and promotion. Research is also done on the management of diarrheal disease in children by various dietary methods.

III. Acquired Immunodeficiency Syndrome (AIDS)

(AIDS Account: \$27 million in FY 1989; \$25 million in FY 1988)

The rapid spread of AIDS worldwide will have severe detrimental economic and health consequences, especially in developing countries.

-- Economic output may decrease as increasing numbers of productive young adults become sick and die with AIDS-related complex [ARC] and AIDS.

-- Health care resources will be further stretched by the increasing number of ARC and AIDS patients.

-- Child Survival will be adversely affected as children are infected by their mothers with HIV in utero, through transfusions of contaminated blood, or by unsterile needles and syringes. Indirectly, children will be affected as their parents become sick and die.

Global AIDS: An important element of A.I.D.'s approach to global AIDS prevention and control is to work with and support the WHO Global Programme on AIDS. WHO plays a central, neutral coordinating role in all countries affected by the epidemic. WHO has recently indicated that it intends to greatly increase the size of its program. The continuing growth of the AIDS pandemic in LDCs suggests that A.I.D. will need to expand its efforts. In FY 1988 and in FY 1989, A.I.D. will provide \$15 million directly to WHO each year for support of WHO's global program on AIDS.

AIDS Technical Field Support Project: In recognition of the need to support developing country programs in preventing and controlling HIV, A.I.D. has designed a multi-sectoral centrally funded project with two main components. The first is intended to assemble a critical mass of technical expertise to assist field missions and host countries in epidemiology and surveillance, blood banking and HIV screening, health care financing, training, evaluation, and operations research. Activities of this component include technical assistance, applied research, training, provision of commodities and equipment, and information dissemination.

The second component will develop and demonstrate effective public health communication strategies for the prevention of AIDS and HIV. In coordination with WHO and country health programs supported by A.I.D., pilot projects in 15 countries will use country specific educational messages and communication strategies to make individuals aware of AIDS related risk behavior and how to reduce such risks. Short-term and resident long-term technical assistance will be available.

IV. Other Important Activities

(HEALTH: \$3.1 million in FY 1989; \$4 million in FY 1988)

Guinea Worm Disease: A.I.D., through the centrally funded WASH and VBC projects, is working closely with the Center for Disease Control, the Peace Corps, the United Nations Development Programme (UNDP), and others on guinea worm control in Pakistan and West Africa. In addition to a guinea worm information exchange, A.I.D. is supporting operational research to develop and improve cost-effective disease control measures on the impact of the disease on both agricultural productivity and maternal and child health. A.I.D. is committed to assisting host governments to develop national guinea worm control plans. A.I.D. also provides technical assistance to integrate guinea worm control efforts and education into ongoing water, sanitation, and primary health care programs.

HBCU Research Grants: This program involves scientists from U.S. historically Black colleges and universities (HBCUs) in research on health and child survival problems in LDCs. This project funds research grants to examine specific problems which can be investigated in grants of \$100,000 or less. In FY 1989, about ten grants will be awarded. The HBCUs are contributing new knowledge for use in international development programs through this research program. Laboratory evidence was developed to show that schistosomiasis infection adversely affects the successful implementation of immunization programs against whooping cough and tetanus; storage of tablets in tropical climates was shown to affect chemical stability and dissolution rates and, therefore, the effectiveness of drugs; long-term exposure of mothers to benzopyrene from woodsmoke and other common cooking fuels was shown to possibly render their children more susceptible to infectious agents; and nutrition education was found to be a more effective intervention against childhood malnutrition than the provision of small amounts of extra income or extra food from kitchen gardens.

Leprosy: In addition to assisting in the development of a new vaccine against leprosy, A.I.D. is also providing support for field trials of a new medical treatment for the control of leprosy. This treatment involves a multi-drug therapy using rifampicin, clofazimin, and dapsone. Among the objectives of the therapy are to cure leprosy patients and prevent disability and handicap, to interrupt the chain of leprosy transmission, to lower the prevalence of leprosy, and to prevent the emergence of drug resistance. The first individuals have now graduated from the regular treatment program, and if they remain free of infection following successive six-month physical examinations, they will represent the first cured cases of leprosy.

CENTRALLY FUNDED HEALTH PROJECTS

Office of Nutrition

931-0045 Nutrition: Vitamin A Deficiency Program Support - Assists developing countries to implement programs for the prevention of nutritional blindness in children.

931-0227 Nutrition: Iron Deficiency Program Support - Assists developing countries to design and implement programs for alleviating iron deficiency anemia.

931-1010 Nutrition: Improvement of Maternal and Infant Diet - Assists developing countries in designing, testing and implementing programs to promote breastfeeding, improve weaning practices and good diet among pregnant and nursing women.

931-1064 Nutrition: Surveys and Surveillance - Develops appropriate methodologies in order to assist developing countries design and implement nutrition surveys and nutritional surveillance systems.

931-1065 Nutrition: Education Field Support - Improves the nutritional status of malnourished people in developing countries through more effective nutrition education.

931-1198 Nutrition: Health Systems RSSA - Assists developing countries to integrate nutrition components into primary health care delivery programs.

Office of Health

931-0453 Malaria Immunity & Vaccination Research - Supports laboratory research at institutions which are collaborating on the development and testing of a vaccine against human malaria.

931-1018 Communication For Child Survival - Develops and tests ways of using integrated communication channels to support widespread adoption of oral rehydration therapy (ORT), immunization, and other child survival technologies.

931-1126 Tropical Disease Research Program - Provides the United States annual contribution which, along with contributions of more than 30 other donors, supports the World Health Organization's Special Program for Research and Training in Tropical Diseases (TDR).

936-3023 Family Health and Demographic Surveys - Supports the collection and analysis of family health and demographic data for improved program design, management and evaluation.

936-5901 Health Development Planning - Strengthens the institutional capacity for health management training, operational research, and technical assistance in Indonesia and the Caribbean.

936-5920 Primary Health Care - Operations Research - In selected programs, uses a standardized systems analysis methodology to identify the most important shortcomings in the delivery of basic health services, and then address these areas through a series of operations research studies.

936-5927 Technology for Primary Health Care - Provides training, management, logistics, information services, health financing and limited commodities to less developed country health care programs to help them incorporate proven technologies such as oral rehydration therapy or immunizations into their health care delivery systems.

936-5928 Diarrheal Disease Research - Supports the two major international organizations involved in diarrheal disease research and training, the International Center for Diarrheal Disease Research in Bangladesh (ICDDR/B), and the World Health Organization's Control of Diarrheal Disease (CDD) Program.

936-5929 Health and Human Services Resource Support - Provides less developed country health planners and managers with short-term expert technical assistance from the United States Public Health Service agencies such as the Centers for Disease Control, the National Institutes of Health, and the National Center for Health Statistics.

936-5932 MEDEX Support - Provides technical assistance for training of village and middle level paramedical health workers and managers in low cost health delivery systems.

936-5935 Diagnostic Technology Development - Develops and disseminates techniques for quick and reliable diagnosis of tropical diseases at the community level for use in primary health care programs.

936-5939 Oral Rehydration Therapy - Health Education and Long Term Planning (ORT-HELP) - Provides less developed country leaders with information and technical assistance to help them make oral rehydration therapy (ORT) more widely available in their countries.

936-5940 Pediatric Chronic Diarrheal Disease - Supports training of less developed country physicians so that they may improve their knowledge about chronic diarrheas.

936-5942 Water Supply and Sanitation for Health - II - Supports host country water supply and sanitation programs with technology adaptation and transfer, training, and technical assistance.

936-5947 Vaccine Development and Health Research - Supports development of new and improved vaccines which will reduce the incidence of major preventable diseases in developing countries.

936-5948 Vector Biology & Control - Enables less developed countries to control the spread of certain diseases by providing innovative techniques and strategies for attacking the vectors that transmit those diseases.

936-5951 Child Survival Action Support Program Support - Supports research and training activities in biomedical technology and health services management.

936-5952 Applied Diarrheal Disease Research - Supports field research in developing countries aimed at improving the design and management of diarrheal disease control programs and coordinates A.I.D.'s diarrheal disease research.

936-5957 Americares - Supports field trials in Venezuela to test a new medical treatment for the control and prevention of leprosy, with the ultimate goal of improving the health of people worldwide by controlling and preventing leprosy.

936-5958 Milwaukee International Health Training Center - Supports institutional development, resource development, health support network development, pilot projects, training, and self-evaluation activities of the Center. All activities are oriented to primary health care.

936-5967 Malaria Field Trials - Provides funding to launch the field testing of prototype vaccines developed under the Malaria Immunity and Vaccination Research Program (936-0453).

936-5968 Healthlink II - Provides funding for an innovative program to transfer health and child survival technologies to LDCs. The project gives priority to immunizations, including the development of a non-reuseable, one-dose injection device. This project will make child survival technologies more widely available and help reduce the potential for the spread of infection by unsterilized or inadequately sterilized needles and syringes.

936-5970 Technical Advisors in Child Survival- Provides funding for the detail of Public Health Service staff to enhance the ability to plan, implement and evaluate child survival programs in LDCs.

936-5973 WASH III - As a continuation of WASH II, provides technical assistance, services, and information in urban and rural water supply and sanitation, as well as work in Guinea Worm control.

Research and University Relations

936-5052 Project Review - Provides assistance in evaluation on-going projects, the development of new projects and the selection and review of new research proposals.

936-5053 Research Grant Program for HBCUs - Funds research projects at historically black colleges and universities (HBCUs) that address less developed country health problems.

936-5055 Technical Advisory Support Services - U.S. universities and colleges assist less developed countries solve their development problems.

936-5057 Joint MOUs - Health - Increases the capacity of historically black colleges and universities (HBCUs) with schools of medicine and public health to provide assistance to less developed countries in health areas.

Program Office

936-1421 AID/Peace Corps Small Project Assistance - Supports the identification, design and implementation of small scale village self-help health development activities.

Bureau for Program and Policy Coordination

930-0022 Socio-Economic Studies and Activities - Supports research on U.S. assistance policies and programs; areas of inquiry include the role of the private and public sectors in developing countries, price policies for public sector services, criteria for allocations of food assistance, and the relationship of energy cost to debt.

930-0085 Integrated Studies and System - Provides for comprehensive evaluations of assistance programs in areas of significant topical interest and development expenditure and assists developing countries in their evaluation of project progress.

930-0232 Information as a Tool in Development - Selects, collects, retrieves and transfers technical, program and project information generated by LDC institutions, PVOs, other U.S. agencies, national and international development organizations (World Bank, FAO), and A.I.D. to the developing countries; and, supports outreach programs in the LDCs with awareness journals, and technical assistance on information programs such as library and information network development.

930-0600 Peace Corps - Supports small community-based development projects managed by Peace Corps volunteers. These projects deal with food production, primary health care, and small enterprise development.

CENTRALLY FUNDED
CHILD SURVIVAL FUND PROJECTS

Office of Nutrition

931-0227 Nutrition: Iron Deficiency Program Support - Assists developing countries to design and implement programs for alleviating iron deficiency anemia.

931-1010 Nutrition: Improvement of Maternal and Infant Diets - Assists developing countries in designing, testing, and implementing programs to promote breastfeeding, improved weaning practices and good diets among pregnant and nursing women.

Office of Health

931-1018 Communication For Child Survival - Develops and tests ways of using integrated communication channels to support wide-spread adoption of oral rehydration therapy (ORT), immunization, and other child survival technologies.

936-5927 Technology for Primary Health Care - Provides training, management, logistics, information services, health financing and limited commodities to less developed country health care programs to help them incorporate proven technologies such as oral rehydration therapy or immunizations into their health care delivery systems.

936-5928 Diarrheal Disease Research - Supports the two major international organizations involved in diarrheal disease research and training, the International Center for Diarrheal Disease Research in Bangladesh (ICDDR/B), and the World Health Organization's Control of Diarrheal Disease (CDD) Program.

936-5935 Diagnostic Technology Development - Develops and disseminates techniques for quick and reliable diagnosis of tropical diseases at the community level for use in primary health care programs.

936-5951 Child Survival Action Program Support - Supports research and training activities in biomedical technology and health services management.

936-5952 Applied Diarrheal Disease Research - Supports field research in developing countries aimed at improving the design and management of diarrheal disease control programs and coordinates A.I.D.'s diarrheal disease research.

936-5947 Vaccine Development and Health Research - Supports development of new and improved vaccines which will reduce the incidence of major preventable diseases in developing countries.

936-5948 Vector Biology & Control - Enables less developed countries to control the spread of certain diseases by providing innovative techniques and strategies for attacking the vectors that transmit those diseases.

936-5951 Child Survival Action Support Program Support - Supports research and training activities in biomedical technology and health services management.

936-5952 Applied Diarrheal Disease Research - Supports field research in developing countries aimed at improving the design and management of diarrheal disease control programs and coordinates A.I.D.'s diarrheal disease research.

936-5957 Americares - Supports field trials in Venezuela to test a new medical treatment for the control and prevention of leprosy, with the ultimate goal of improving the health of people worldwide by controlling and preventing leprosy.

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936-5973 WASH III - As a continuation of WASH II, provides technical assistance, services, and information in urban and rural water supply and sanitation, as well as work in Guinea Worm control.

CENTRALLY FUNDED AIDS PROJECTS

Office of Health

936-5965 Global AIDS - WHO - Develops a health education risk reduction strategy through public health communication in developing countries and finances the development and implementation of the World Health Organization's global AIDS prevention and control program.

936-5972 AIDS Technical Support - Provides assistance in public health communications to inform people how to avoid HIV infection and to persuade them to modify high-risk behaviors for their own protection. Provides technical assistance to LDCs in setting up AIDS prevention and control programs, public health education programs, blood supply monitoring programs, and programs to train LDC medical personnel.

Office of Population

936-3018 Contraceptive Procurement - Provides funding to meet requirements for certain contraceptives to be provided through centrally-funded population/family planning programs. The project also serves as a central account for the procurement of contraceptives for A.I.D. bilateral programs.

Title Health Financing and Sustainability		Funding Source	AG, RD & N	Health and Child Survival	PROPOSED OBLIGATION (In thousands of dollars)		
					FY 89	600	Life of Project Funding 20,000
Number 936-5974	<input checked="" type="checkbox"/> NEW	Population	ED. & HR	Sel. Act.	Initial Obligation FY 89	Estimated Final Obligation FY 94	Estimated Completion Date of Project FY 95
<input checked="" type="checkbox"/> GRANT <input type="checkbox"/> LOAN	<input type="checkbox"/> CONTINUING						

Purpose: To improve the sustainability of child survival and primary health care through an optimal mix of public and private service delivery and financing and strengthened management support systems.

Project Description: Through technical assistance, training, policy and applied research this project will:

- Assist countries to determine whether the private sector can become more involved with the delivery of health care while maintaining quality, efficiency and equity objectives.
- Assist in the investigation of new/different ways of financing the health sector in developing countries.
- Strengthen management systems that are critical to the efficient delivery of child survival services such as supervision, logistics, in-service training, incentives and information systems.

Relationship of the Project to A.I.D. Strategy:
The basic objective of A.I.D.'s Health Sector Policy is to assist developing countries to become self-sufficient in providing broad access to cost-effective preventive and curative health services. This project will complement existing child survival and primary health care efforts by improving the basic management and financial support systems that are necessary to the sustained provision of health services.

Host Country and Other Donors: Developing countries are becoming acutely aware of the need for health care to be provided in as efficient a manner as possible due to the many competing claims for public and private financing. A.I.D. is already collaborating with WHO, UNICEF and the World Bank in the area of sustainability and will continue to do so under this project.

Beneficiaries: Although the project will focus assistance on public and private policy makers and leaders, the benefits of the project in terms of greater access to improved quality health services, will go to those who are using the health care services.

Major Outputs:	<u>All Years</u>
Technical Assistance (person months)	400
Policy and Applied Research Studies	90
Persons Trained	600
Workshops	10
Sustainability Plans	40

A.I.D. Financed Inputs:	<u>Life of Project (\$000)</u>
Personnel	12,000
Travel and per diem	5,000
Equipment/Supplies	500
Training	2,500
TOTAL	20,000

U. S. FINANCING (In thousands of dollars)				Principal Contractors or Agencies
	Obligations	Expenditures	Unliquidated	
Through September 30,	---	---	---	
Estimated Fiscal Year	---	---		
Estimated Through September 30,	---	---	---	
		Future Year Obligations	Estimated Total Cost	
Proposed Fiscal Year 1989	600	19,400	20,000	TBD



PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
7.2	5.8	6.0

EDUCATION AND HUMAN RESOURCES

I. EDUCATION

OVERVIEW

Since 1960, the less-developed countries (LDCs) have made steady progress in providing educational opportunities for their citizens. Enrollments in primary schools tripled between 1960 and 1980. The percentage of literates (age 15 or older) is steadily increasing from 43.2 % in 1970 to a projected 60.9% in 1990. Governments continue to allocate substantial percentages of national budgets to education. Parents purchase books, uniforms, and writing materials. Local communities often build and maintain school buildings. These efforts alone give testimony to the tremendous desire for better education among people throughout the developing world, and in many cases testify to the usefulness of earlier A.I.D. efforts in this sector.

Despite these gains, serious problems still exist. Educational resources -- human, physical, and financial -- are strained in many LDCs. High dropout and grade repetition rates prevent children from attaining basic skills in reading and mathematics. Children in rural areas, the urban poor, and females have the least chance to go to school. The lack of access to education by females is particularly significant.

The implications of educational shortfalls are broad and profound. Basic literacy and numeracy are highly correlated with the success of development programs in agriculture, health, population, and nutrition. Lack of basic education and skills training impedes productivity and technological advances, lessens the chances of these improvements and exacerbates the problem of unemployment. A dynamic private sector depends on a labor force with at least a primary education. As nations step more and more into the modern world, the poor educational base becomes a serious limiting factor.

POLICY

During the past two decades, most assistance to LDC education was for traditional secondary schools and professional education. The most

important task now for virtually all developing countries is to improve school systems for children ages 6-14. This has taken center stage in A.I.D.'s educational and human resources policy.

Numerous education programs that A.I.D. has funded have been successful. In the area of large, sustained primary school curriculum reform, A.I.D. helped establish the African primary science program which continues as an active science education program for many countries without A.I.D. funding. After a successful pilot program, Liberia is beginning a national program to use programmed instruction materials and peer tutoring in all of its primary schools. In educational technology and development communications, A.I.D. through research and development has successfully demonstrated in Kenya and the Dominican Republic that primary school instruction can be dramatically improved and that the effectiveness of health and agriculture extension workers to teach can be measureably increased.

For the education of children aged 6-14, A.I.D.'s policy stresses improving the quality and efficiency of existing school systems, rather than expansion of systems at their current level of inefficiency. Available evidence suggests that the capacity to provide six years of education for all children can be provided with an investment of 3% of GNP or less. Most LDCs currently invest 2 to 2.5% of GNP on education for the 6-14 age group. Thus, with an increased effort to mobilize local community resources and participation, most LDCs can commit sufficient resources to provide most children with a basic education when efficiency is improved.

A.I.D.'s policy, therefore, is to increase local community participation and to improve LDC resource use by helping countries reduce grade repetition, lessen drop-out rates and extend efficient instructional systems into rural and remote areas. Over time, the focus on better resource use is expected to lead to greater access to education by the rural population, the poor and rural and urban female students. A.I.D. will assist host countries both to expand and to improve their primary school systems by making efficient use of existing resources and by using educational technology.

DESCRIPTION OF PROGRAM

Illiteracy and lack of education are key problems constraining economic and social development in all sectors in developing countries. The centrally-funded education portfolio recognizes that developing countries are struggling with the need to educate increasing numbers of children with static or diminishing shares of national budgets. Existing education programs, at all levels, are frequently low quality and do not contribute fully to the country's development efforts. The difficulties of reaching isolated and dispersed populations are hindering attempts to provide essential information and education about key sectoral development programs.

To respond to these pervasive and critical problems, A.I.D.'s centrally funded programs focus on three specific program areas:

--- education efficiency - concentrating on the methodologies necessary to improve analysis and data-based decision making so that scarce financial and human resources at both the national and local level are used most efficiently;

--- educational technology - introducing and adapting technology to improve the quality of education and to extend it to large, dispersed populations;

--- development communications - keying on education problems in other development sectors, and ensuring that Agency programs benefit from new advances in social marketing and communication technology.

1. Education Efficiency - (\$3.1 million in FY 1989; \$2.8 million in FY 1988)

A.I.D. assistance is most effective when applied on a sustained basis to the total education system with the focus on strengthening key institutional capacities. Two major projects are underway to respond to these needs with a new project to start in FY 1989.

The 1984 Improving the Efficiency of Education Systems II project currently assists seven countries to upgrade the quality and efficiency of primary education. Its purpose is to help countries make better allocations of their education budgets and strengthen their capabilities for educational planning, management, and research. Five major component activities comprise the project's implementation: education and human resources sector assessments, training, research and development, field projects to increase educational efficiency, and information exchange among education analysts and policy makers in participating countries. In addition, the project promotes donor collaboration in strengthening countries' education and training systems. Sector assessments have now been conducted in seven countries. They have proven highly valuable in bilateral policy dialogues and have stimulated important actions to improve host country education systems. These actions include:

--In Somalia, project activities focus on developing an integrated strategy to improve primary schooling to ensure that available personnel and materials reach and are fully utilized in classrooms, and on research to improve Somalia's education management information system and to improve incentives for the recruitment and retention of primary school teachers.

--In Botswana, project activities focus on developing an education management information system for the Department of Nonformal Education and the Unified Teaching Service and on research to strengthen local education capacities. This project is also implementing the bilateral Junior Secondary Education Improvement Project.

--In Liberia, project activities focus on a feasibility study to integrate "programmed learning" with conventional instruction in Liberia's primary education system and on policy research on teacher incentives systems.

--In Haiti, project activities focus on increasing the planning capacity of Ministry of Education staff, doing research with the Ministry and University of Haiti on available incentives to recruit and retain teachers, and enhancing the quality of primary schooling through strengthening private sector organizations which manage these schools. This project also began implementing part of the bilateral Incentives to Improve Basic Education project.

--In Indonesia, project activities focus on developing a model to evaluate Indonesia's fourth Five-Year Plan, designing a system to monitor development projects for the Ministry of Education and Culture, and conducting policy-oriented research to strengthen local education capacities. This project is also implementing part of the bilateral Education Policy and Planning project.

--In Yemen, project activities focus on design of an education management information system, on training in data collection, processing and analysis, on assessment of Ministry of Education organizational and training needs, and on improved manpower planning.

--In Nepal, project activities focus on strengthening the evaluation capacity of the Radio Education Division in Nepal's Ministry of Education and Culture, and on policy research on teacher incentive systems. In close collaboration with the Mission and appropriate ministries, the project also began an indepth analysis of Nepal's education system: primary and secondary schooling, management, teacher training, donor coordination, nonformal education, and macro- and micro-level economic efficiency.

The second major project, Basic Research and Implementation for Developing Education Systems, which began in 1985, has developed and implemented a state-of-the-art microcomputer based system for projecting the growth of education systems and associated costs. Programs for evaluating the impact of policy options for improving resource allocation and the efficiency of basic education are under development.

Research focusing on key policy variables including teachers, instructional materials, facilities and learning technologies is being carried out in seven countries. Two of the research activities examine the impact of decentralization and local resource generation on the provision of basic education. Seventeen state-of-the-art reviews have been completed on critical education development issues such as improving female access to schooling, use of instructional technology for improving basic education, organizational characteristics of effective schools, and the relationship between educational materials and facilities and student achievement. The findings will be integrated into A.I.D. policy guidance.

Initiated in FY 1988, Applied Technology and Management for Education Development project builds on the technology developed by the Improving Education Efficiency Systems and Basic Research and Implementation for Developing Education Systems projects. The new project fosters the growth and efficiency of education systems by implementing and improving upon the prototype technologies which were developed under the former projects. Training and technical assistance in conducting sector assessments and sub-sector policy studies in select countries will be provided. Emphasis will be placed on the design and implementation of country-specific management information systems and the application of computer planning models. The project will provide technical assistance in applying sound, data-based management principles to the growth of education systems.

2. Educational Technology - (\$1.3 million in FY 1989;
\$1.5 million in FY 1988)

A.I.D. continues to develop appropriate applications of educational technology to make possible far wider access to quality education for the children of the developing world.

Radio communication in basic education has reached thousands of children in the remote regions of the Dominican Republic where there are no schools. Materials for teaching English over the radio were the focus of the highly successful radio language arts activity in Kenya. In Papua New Guinea, a project to teach science by radio is currently underway. The centrally funded program contains a component that is designed to bring results of these earlier educational research and development efforts into wider use throughout the world. Large-scale applications are starting in schools throughout Honduras and Bolivia through co-funding with the Missions.

The Educational Technology: Studies and Applications project assists LDCs in planning or evaluating the communication components of development projects; a recent campaign educating Bolivian farm families in safe pesticide use exemplifies the value of such assistance. The project is also exploring the educational use of a variety of learning technologies at sites in Grenada and Belize. The Grenada work, in cooperation with the private sector, has produced the first significant data on the impact of microcomputers on learning in a developing country context.

3. Development Communications (\$.2 million in FY 1989;
\$.2 million in FY 1988)

The Communication for Technology Transfer in Agriculture activity is developing communication techniques to promote wider adoption of improved agricultural methods. This project is active in Peru, Honduras, Senegal, Niger, Jordan and Indonesia. The project has developed appropriate practices for farmers who do not have the ability to purchase additional agricultural inputs. Project research on farmer practices and attitudes has proved especially valuable to the agriculture research and extension work in participating countries.

The Development Communications Clearinghouse provides information worldwide on the use of communications to 6,000 LDC and U.S. development planners in education, agriculture and health.

In FY 1987, A.I.D. initiated the AIDS Technical Support Project: Public Health Communication Component which will develop and demonstrate effective public health communication strategies for the prevention of AIDS and HIV. In coordination with World Health Organization (WHO) and A.I.D.-supported country health programs, pilot projects in 15 countries will use country-specific educational messages and communication strategies to make individuals aware of AIDS related risk behavior and how to reduce such risks.

II. HUMAN RESOURCES DEVELOPMENT

OVERVIEW

Within many LDCs, the lack of skilled local personnel in science, engineering, and management imposes severe constraints on development programs. Limited administrative and institutional capabilities are roadblocks to effective, equitable and sustained development.

Implementation problems are often caused by poor organization and management, as well as inadequate financial resources. In an era of reduced resources and slower growth rates, it becomes even more important to increase the effectiveness of management systems and find institutional patterns that will create incentives for the productive use of human and material resources.

Knowledge of the roles of women in LDCs is often deficient. We have begun to understand the important roles women play in agriculture, marketing, management of the household, health and family planning. Legal and social constraints in these countries, however, severely reduce women's ability to contribute to or benefit from development. For example, in most LDCs it is difficult for women to own land or obtain agricultural credit; yet, women are responsible for more than 60% of all agricultural work. Women also find it hard to gain access to new technologies or to receive assistance from development institutions even though they play major social and economic roles in all developing countries.

POLICIES

In order to correct problems in development management, A.I.D. programs must address two development management purposes simultaneously: the need for organizational efficiency; and, the need to build capabilities for continued independent development. To facilitate these efforts, A.I.D. will provide specialists with expertise in organization, management and decentralization.

In order to address the needs of women, A.I.D.'s women in development policy is to take into account the current and potential roles and needs of women in all of its projects. Within the LDCs, A.I.D. supports programs and institutions that specifically benefit women. In general, A.I.D. supports programs which increase the productivity of women and include women as equal participants in development. A.I.D. also supports research in areas where greater knowledge of gender roles in relation to development is needed.

DESCRIPTION OF PROGRAM

1. Development Management (\$.2 million in 1989: \$.2 million in FY 1988)

The central program supports country and regional projects by conducting research and development, supplying technical consultants, organizing training, and disseminating information and research results. During the period 1982-1987 this program has helped 40 countries improve their development management, organization of development activities and mobilization of resources. The program focuses on:

- decentralization of both services and resource mobilization
- program and project management, and
- management training.

A new FY 1987 project, Decentralization: Finance and Management, will help eight countries find ways to strengthen decentralization policies, and organize and pay for decentralized maintenance of rural roads and irrigation works. The project provides research, consulting and training support linked to USAID projects. Zaire, Bangladesh, Indonesia, Pakistan, and Nepal are slated to benefit from this work in FY 1988 and FY 1989.

Technical support to public and private organizations by the Performance Management project strengthens management of LDC development programs. For example, research has improved understanding of management training needs and of the use of microcomputers in LDCs for financial management. The project has helped to train managers of provincial irrigation and other agricultural programs in India, Pakistan and Egypt; strengthened the business school in the Dominican Republic and Paraguay, and provided development management training for over 2000 public officials in 15 Francophone countries. The project also helps LDC management support institutions improve their training and consulting services. This work is gaining momentum under a Southern Africa regional program which is also supported by other donors. Key development ministries in Mali, Malawi, Haiti and Guinea have been the base of long-term work for this project.

2. Women in Development (WID) 1/ (\$1.2 million in FY 1989: \$1.1 million in FY 1988)

The women in development project is carried out through three subjects:

- The technical assistance WID Centers subproject funds research, training, and technical assistance to enhance the integration of women into multi-sectoral development programs, especially those of private voluntary organizations and academic institutions. This subproject supports WID activities at Title XII universities and at such regional consortia as the Southwest Consortium for International Development and the Consortium for International Development. Other WID technical assistance activities are provided through A.I.D.'s regional and central bureaus and missions, PVOs, and academic institutions. These include a cooperative agreement with the International Center for Research on Women for the provision of a wide array of technical assistance in strengthening women's economic roles in mainstream Agency projects. Also, a grant to the International Marketing Institute provided training to women who are mid-level officials in banking, commerce and industry.
- The strategies and resources subproject compiles and analyzes statistics; commissions, publishes, and distributes studies and materials; holds seminars and briefings on WID topics; and exchanges information with other national and international agencies, organizations, and donors involved in the women in development effort. Under this subproject, the Bureau of the Census has published four regional handbooks and a statistical summary chartbook providing demographic data on women in 120 LDCs. This subproject also supports the Overseas Education Fund which provided training and technical assistance to local development organizations to enable them to design more effective programs for women.
- The women's organization and participation subproject provides small grants to appropriate private and public organizations for implementing A.I.D. policy on women in development. In particular, it addresses the topics of income-generation, private sector development, agricultural development, technology transfer and institutional development. Under this subproject, the Population Council provides programs, services and training in income earning skills for low-income urban women.

1/ See Main Volume for a separate narrative on the Agency's Women in Development program.

CENTRALLY FUNDED
EDUCATION AND HUMAN RESOURCES PROJECTS

Office of Education

931-1054 Structuring NFE Resources - Supports institutional development of non-formal education (NFE) service agencies and provides technical assistance to improve the educational offerings of NFE programs.

931-1109 Education Technology: Studies and Applications - Assists developing countries to use communication and educational technologies in education, health and agricultural development programs.

931-1231 Development Communication Clearinghouse - Provides developing countries with information and examples on the application of communications in education, health, agriculture and rural development programs.

936-5811 Rural Satellite Program - Tests the cost-effectiveness of new communications satellite technologies for facilitating less developed country rural development and education programs.

936-5818 Radio Science - Uses radio to teach primary school science.

936-5823 Improving the Efficiency of Education Systems II - Builds host country capability to assess, plan, analyze, and implement education and training approaches which will increase the efficiency and effectiveness of less developed country education systems.

936-5824 Basic Research in Developing Systems - Assists developing countries to carry out research on the financial, administrative and instructional aspects of education.

936-5826 Communication for Technology Transfer in Agriculture - Develops and tests instructional systems for transferring agricultural technology. Systems are based on information exchange among farmers, researchers, extension workers and on the integration of mass media with farmer contact systems.

936-5831 Clearinghouse on Development Communications II - To provide comprehensive information services covering educational technology applications, new developments, and policy guidance for A.I.D. and LDC officials and researchers on education and training.

936-5832 Applied Technology and Management for Education Development - To assist less developed countries to improve their capacity to plan and manage education systems.

936-5972 AIDS Technical Support: Public Health Communication - Provides assistance in public health communications to inform people how to avoid HIV infection and to persuade them to modify high-risk behaviors for their own protection.

Office of Rural and Institutional Development

936-5317 Performance Management - Provides management training to improve organizational performance and strengthen local management training and consulting institutions.

Bureau for Program and Policy Coordination

930-0022 Socio-Economic Studies and Activities - Supports research on U.S. assistance policies and programs; areas of inquiry include the role of the private and public sectors in developing countries, price policies for public sector services, criteria for allocations of food assistance and the relationship of energy cost to debt.

930-0085 Integrated Studies and Systems - Provides for comprehensive evaluations of assistance programs in areas of significant topical interest and development expenditure and assists developing countries in their evaluation of project progress.

930-0100 WID Strategies and Resources - Facilitates the inclusion of women into A.I.D. assistance programs with technical assistance such as that drawn from U.S. university WID centers, and action-oriented, applied research to enhance employment and income earning opportunities for women in the developing countries.

930-0232 Information as a Tool in Development - Selects, collects, retrieves and transfers technical, program and project information generated by LDC institutions, PVOs, other U.S. agencies, national and international development organizations (World Bank, FAO), and A.I.D. to the developing countries; and, supports outreach programs in the LDCs with awareness journals, and technical assistance on information programs such as library and information network development.



PROGRAM SUMMARY (In millions of dollars)		
FY 87 Actual	FY 88 Estimated	FY 89 Request
7.3	6.5	12.7

PRIVATE SECTOR, ENVIRONMENT, AND ENERGY

OVERVIEW

A.I.D.-recipient countries, in general, have low levels of income; large rural populations; relatively small, but important, modern sectors; and poor economic growth rates. They share the common problem of inadequate energy supplies that create unmanageable claims on foreign exchange for both energy equipment and imported oil. While developing countries struggle to meet commercial energy needs, they are also challenged to expand their available supply of wood and other traditional fuels to meet the basic energy requirements of their growing populations. These general problems are exacerbated by ineffective policies, inadequate knowledge of domestic energy resources, and lack of appropriate energy technologies.

The immediate local demands of developing countries for fuelwood and coal are causing deforestation and degradation of the environment and the natural resource base. Natural resource management is of particular importance because of rapidly increasing populations and expansion of agricultural activities into marginal crop areas which are generally ill-suited for production.

Economic growth is increased through programs that stimulate employment and incomes, and foster private initiative and resource mobilization.

The centrally funded Private Sector, Environment, and Energy account (Section 106 of the Foreign Assistance Act) enables A.I.D. to leverage resources to address development requirements in private enterprise, energy, environment and natural resource management, and employment. Technical support is provided for bilateral programs and for the testing of new approaches which, when proven successful, are widely adapted to assist in solving development problems.

POLICY

A.I.D. is actively involved in addressing policy and programmatic constraints to the economic growth of less developed countries (LDCs). A.I.D.'s energy policies are designed to: (1) assist LDCs to develop sound national energy and natural resource policies that are integrated with economic policies and support sustained growth; (2) expand the use of indigenous energy sources, substituting for imported energy wherever economically justified; (3) improve the efficiency of energy use; and (4) develop better techniques for natural resources management. Key energy policy issues concern the foreign exchange demand to meet energy needs; pricing reform; mobilization of private enterprise energy development; investment and management; and increased efficiency through conservation measures.

In the environment and natural resources areas, essential needs are reflected in macroeconomic policies that encompass the importance of resources to sustained economic development. A.I.D. assists countries in meeting short-term needs while advancing long-term environmental and natural resource management and conservation objectives. Within this framework, the policy is to help meet the needs of rural and urban populations for forest products like fuel, fodder, food and building materials as well as for income and employment. Rural development and human health are improved through the advancement of agroforestry, and soil and water conservation and management programs.

A.I.D. policy in the area of income generation is concentrated on employment, enterprise development, decentralization, and support of local private initiatives. Research acts as a catalyst for bilateral policy dialogue activities. Field support and collaborative research activities focus on export promotion through enhancement of overseas market access; assessment and reform of the economic and regulatory environment in which business is conducted; creation of more efficient domestic marketing channels and credit; and strengthening of institutional infrastructure to support and strengthen local private enterprise. Governmental decentralization and local private initiatives focus on the employment and financial stability aspects of economic growth. Programs that promote public sector reform, combined with improved income generation, reduce the strain on economic development that a large governmental sector often produces.

1. Energy

(\$5.3 million in FY 1989; \$3.9 million in FY 1988)

Energy is a critical part of A.I.D.'s goal for achieving self-sustaining economic growth and the elimination of extreme poverty. Energy problems continue in the Third World. Energy growth rates of about 7% per year will be required to attain A.I.D.'s development targets in per capita income and caloric intake.

The centrally funded Section 106 energy program is designed to: (1) increase domestic supplies of energy for economic growth by helping to alleviate underlying structural problems that inhibit energy development; and (2) provide technical assistance to energy producers and consumers in LDCs to tackle specific energy problems. Specific assistance activities are designed to promote policy reform, particularly with regard to energy prices and private investment incentives; to expand the role of the private sector in development, management and distribution of energy supplies including conservation, fossil fuels, electric power and renewable energy resources; and to expand the availability of energy for rural development and household needs.

The centrally funded energy program supports the objectives of developing new approaches to energy problems through research and adaptation to apply these approaches in LDC settings. The program concentrates on activities to develop indigenous energy sources to substitute for imported oil and fuelwood, to increase efficiency of existing energy systems, and to help countries make wise energy system choices and investment decisions. A prerequisite for sound energy development and investment decision-making is dependable information about the problems and available options.

Energy survey and planning methods are addressed through energy policy development and conservation activities. Centrally-funded research activities in Bangladesh, Egypt, India, Pakistan, and Thailand concentrate on the impact of energy prices and supply on economic development, and the linkages between energy and agricultural productivity. Energy specialists are participating in irrigation programs in Africa to more precisely assess the energy levels that will be required to supply water to crops.

A.I.D. continues to play an important role in stimulating the U.S. private research and development sector to participate actively in transferring innovative technologies to LDCs to solve energy problems. A major aspect of this effort has been to assist LDCs to develop and use their indigenous energy resources in order to minimize the use of imported oil.

The centrally funded program sponsored a feasibility study of Indonesian private sector investments in a 2.5 megawatt power plant fired with plywood industry waste. This plant could serve as a model for hundreds of similar projects in Indonesia. The study resulted in the formulation of a financing document, suitable for presentation to commercial and multilateral banks, through which the Indonesian government seeks assistance for the procurement, installation, and initiation of a standard wood-waste fired power plant.

A.I.D.'s centrally funded program has played a key role in India by sponsoring a policy study followed by a series of workshops in which the American experience, e.g. Public Utility Regulatory Policy Act (PURPA) regulation and technologies, has raised a high level of interest among representatives of the public and private sectors. As a result, a high level policy dialogue on private power generation is taking place at central and state government levels.

Energy conservation can decrease consumption by 10-30% in the power and industrial sectors. Conservation offers countries their most immediate and efficient way to begin reducing energy demand and alleviating shortages. Specific centrally funded activities in fiscal year 1989 will include power plant rehabilitation studies, innovative financing mechanisms for small power systems, and the assessment and removal of private sector barriers to industrial conservation.

In Sudan and Somalia, technical expertise and management skills from a U.S. private engineering firm were financed by A.I.D. to help conserve energy through rehabilitation of the national utility systems. These systems were experiencing extensive outages, primarily due to poor management and inefficient operation. The project in Sudan resulted in improvement of the Blue Nile Grid system availability and the power system equipment availability. In Somalia, the effort led to a World Bank financed major utility system rehabilitation project.

Technical assistance is a major component of our centrally funded energy program. Expert assistance is provided to identify, evaluate and develop indigenous energy resources. This assistance is instrumental in helping countries assess their potential fossil fuel resources, conduct energy planning, manage resources, strengthen geological and geophysical institutions, and attract capital financing from multilateral and private sources. Activities in fiscal year 1989 will include the analyses of coal and oil shale development with private sector participation, and the transfer of clean coal technologies such as fluidized-bed combustion. Target countries include Costa Rica, Haiti, Kenya, Morocco, Jordan, Pakistan, the Philippines, and Sudan.

The household fuels program is analyzing selected management activities to reduce household fuel demand. Attractive options include increasing the efficiency of traditional charcoaling techniques and, in Haiti, Pakistan and Madagascar, substituting coal or biomass briquettes for traditional charcoals.

Jordan is dependent upon imports for virtually all its energy needs, spending 75% of all export earnings on imported fuels. The country's only fossil energy resource available in commercial quantities is oil shale. A.I.D.'s centrally funded program financed a preliminary assessment of using fluidized bed combustion technology to burn that shale to generate electricity at a substantial savings of foreign exchange. Based on these assessment results, the Government of Jordan, A.I.D. and a private company have agreed to jointly fund a prefeasibility study that will include a shale test burn, a conceptual engineering design, and a review of technical, economic, and environmental issues.

The lack of trained LDC personnel continues to be a major impediment to effective management of energy resources. Centrally funded energy training activities educate LDC professionals to develop and more efficiently use energy resources. Training is tailored to meet individual participant and country needs, and includes power plant operations, energy conservation, fundamentals of petroleum engineering, geology, geophysical exploration and economics, and promoting investment in indigenous resource development. Since 1980, A.I.D. has trained over 700 participants in academic and technical energy programs. Realizing that much more needs to be done, the Agency plans to train approximately 1,800 more people from developing countries in various energy disciplines over the next five years.

A.I.D.'s centrally funded energy program has been instrumental in enhancing the use of renewable energy sources. Economically attractive alternative energy systems, such as hydropower and photovoltaics, have been identified in India, Somalia, Botswana, and Costa Rica. Joint ventures have been encouraged in Jamaica and Morocco to demonstrate, manufacture, market and maintain alternative energy systems.

2. Environment and Natural Resource Management

(\$4.4 million in FY 1989; \$1.2 million in FY 1988)

A.I.D.'s centrally funded program assists developing countries to protect their environment and natural resources by helping to enhance their scientific knowledge and improve institutional and management skills. Scientific and technical information on environmental and natural resources management is compiled as a basis for policy and institutional reform and to build indigenous capabilities to meet economic and environmental objectives.

The four areas of focus are: (1) assisting in the planning and preparation of national environmental profiles and conservation strategies; (2) building the institutional capacity of indigenous environmental organizations by encouraging public participation in national planning and local responsibility for management; (3) providing technical assistance and training in agro-ecosystems assessment as a method for improving agricultural sustainability; and (4) developing techniques for analyzing complex natural systems for use in development planning.

Completed country environmental profiles on Bolivia, Paraguay, Jamaica, Haiti, and Central America, as well as a natural resources profile for Thailand, have been distributed to other donor agencies to use in their development planning. The Nepal National Conservation Strategy, which contains an action agenda, has been completed and approved by the Planning Commission and Council of Ministries. It was launched at a multi-donor meeting in Kathmandu which focused on next steps including:

(1) establishment of a permanent secretariat in the Planning Commission to exercise implementation of a national conservation awareness program for all segments of the population; and (2) completion of four demonstration projects on integrated resource management at the village level in four distinct geographic regions in Mountail, Hill, Inner Tarai, and Tarai. Work on a regional profile for the Caribbean continues and a new profile for Colombia has been initiated.

Technical assistance to non-governmental environmental organizations for institutional development has continued in Asia and Latin America. A workshop was conducted to evaluate and improve the environmental profiling process and to gain the involvement of other donor agencies such as the World Bank, the InterAmerican Development Bank and UNDP. In Thailand and Indonesia, work has been completed to design sustainable agriculture components of new activities and to identify and address environmental constraints in existing agricultural activities.

3. Private Enterprise

(\$2.1 million in FY 1989; \$.9 million in FY 1988)

The centrally funded rural and institutional development program focuses on increasing productivity, incomes and access to resources among the poor. Specific emphasis is placed on increasing income and employment opportunities through the transfer, commercialization and replication of technologies; building and sustaining development institutions; promoting policy reform and providing resources to stimulate development of sustainable non-farm private enterprise; and development of natural resource management systems, and agricultural marketing and production support systems.

A.I.D.'s centrally funded employment and enterprise policy analysis activities provide assistance to developing countries in analyzing the employment and industrial effects of policies, and encourage decision-makers to implement policy changes to diversify and increase non-traditional employment opportunities. In fiscal year 1989, long-term policy advisors will continue in Bangladesh, Rwanda, and Sri Lanka. Short-term technical assistance teams will assist in the processes of host country policy analysis, dialogue, and reform.

The centrally funded small enterprise approaches to employment activities provide research, training, and technical assistance to strengthen the capabilities of local resource institutions in developing countries to implement small-scale and micro-enterprise development programs. The focus is on generation of income in the informal sector through micro-enterprises. Assistance is delivered primarily through enhancement of the capability of local intermediaries to serve small business and development needs, and development of the research base and training materials needed to effectively address income generation as an institutional policy issue. Field work has been done with A.I.D.-supported institutions and projects in El Salvador, Costa Rica, Honduras, the Eastern Caribbean, Ecuador, Bangladesh, the Philippines, Thailand, Jordan, Somalia, Zambia, Yemen, and Zaire. Future activities include assisting various developing country institutions in training, project design, evaluation, and sector surveys. Research will continue to focus on key issues of sustainability, optimum scale, targeting of entrepreneurs, economic impact, costs, and effective management and monitoring of activities.

In response to recent Congressional legislation, a micro-enterprise support project provides training, research and field support to developing country institutions to strengthen their capacity to lend small amounts of capital and raise the incomes of the poorest self-employed business persons. The project will focus primarily on intermediary organizations such as credit institutions and maximizes the effective use of PL 480 generated local currencies for micro-enterprise development.

4. Other Activities

(\$.9 million in FY 1989; \$.5 million in FY 1988)

The Information as a Tool in Development project is the principal A.I.D. information effort. The project processes technical reports and program documents and disseminates them to development institutions and professionals.

The Program Development and Support activity funds special studies and small exploratory activities which have potential in A.I.D.'s development assistance efforts. Small grants have been awarded to support collaborative research, and to encourage information exchange among countries through conferences and workshops.

Centrally-managed projects support research and technical assistance on the multisectoral development issues covered by this account. The Integrated Studies and System activity supports evaluations of the impact of A.I.D.'s development activities; the Title IX Program promotes broad participation in development; and socioeconomic studies on development issues and new approaches to policy-making and program selection.

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CENTRALLY FUNDED
PRIVATE SECTOR, ENVIRONMENT, AND ENERGY

Office of Energy

936-5702 Energy Technical Service Support - Provides short-term professional, scientific and technical consultants to less developed country governments for energy program planning, needs assessment and technology applications.

936-5709 Bioenergy Systems and Tecchnology - To increase the availability of energy from existing biological origin resources. Technical assistance is provided for the design of research activities, less developed country bioresource assessments, and bioresource production and conversion systems.

936-5724 Conventional Energy Technical Assistance - Assists less developed countries identify and evaluate indigenous conventional energy resources, and use them in a way that helps solve energy supply problems and reduce dependence on oil imports.

936-5728 Energy Policy Development and Conservation - Assists less developed countries develop institutions, personnel, and processes capable of effective energy policy-making; provides assistance for the design of specific policies, programs and investments needed to relieve energy problems and to achieve improvements in the efficiency of energy use.

936-5734 Energy Training - Assesses developing countries' energy sector manpower needs and trains LDC nationals in engineering, planning and managerial skills necessary to develop and manage indigenous energy resources and technologies.

Office of Rural and Institutional Development

931-1090 Small Enterprise Approaches to Employment - Identifies approaches and designs programs to improve employment opportunities, productivity and enterprise viability in the non-farm, small enterprise sector.

936-5426 Employment and Enterprise Policy Analysis - Provides analytical inputs into the process of employment and industrial policy reform to eliminate policy biases against labor-intensive and smaller enterprises.

936-5554 Micro-Enterprise Support Project - Provides assistance to indigenous nongovernmental organizations, private voluntary organizations, and other financial intermediaries to enable them to provide loans and related assistance to microenterprises.

Office of Forestry, Environment and Natural Resources

936-5517 Environmental Planning and Management - Provides short-term advisory services and planning for environmental profiles and national conservation strategies in order to strengthen less developed country institutional capacity to manage and conserve natural resources for sustainable development.

Program Office

936-1406 Program Development and Support - Provides technical expertise, goods and services to improve program development, project design, implementation and evaluation of less developed country programs.

Bureau for Program and Policy Coordination

930-0022 Socio-Economic Studies and Activities - Supports research on U.S. assistance policies and programs; areas of inquiry include the role of the private and public sectors in developing countries, price policies for public sector services, criteria for allocations of food assistance, and the relationship of energy cost to debt.

930-0023 Title IX Program - Promotes broader, more equitable participation in development with technical assistance provided to increase adherence to civil and political rights to strengthen legal systems, to encourage electoral reform, and to educate individuals in their rights to and responsibilities for protection under fundamental principles of law.

930-0085 Integrated Studies and Systems - Provides for comprehensive evaluations of assistance programs in areas of significant topical interest and development expenditure and assists developing countries in their evaluation of project progress.

930-0100 WID Strategies and Resources - Facilitates the inclusion of women into A.I.D. assistance programs with technical assistance such as that drawn from U.S. university WID centers, and action-oriented, applied research to enhance employment and income earning opportunities for women in the developing countries.

930-2256 Surveys and Evaluation Support - Provides technical assistance to governments of developing countries to make substantive improvements to and better use of their statistical information base.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE * G	L	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
931-0453		MALARIA IMMUNITY & VACCINATION RESEARCH										
HE G	75	91	100,000	100,000	59,702	44,944	9,856	8,471	8,500	15,336	8,500	15,336
	PROJECT TOTAL:		100,000	100,000	59,702	44,944	9,856	8,471	8,500	15,336	8,500	15,336
931-1018		COMMUNICATION FOR CHILDO SURVIVAL										
CS G	78	90	7,000	8,000	1,500	11	2,000	1,999	2,000	4,560	2,500	4,560
FN G	78	90	1,951	1,951	---	---	---	---	---	---	---	---
HE G	73	90	8,500	1,000	200	75	101	138	---	---	---	---
	PROJECT TOTAL:		17,451	10,951	1,700	86	2,101	2,137	2,000	4,560	2,500	4,560
931-1126		TROPICAL DISEASE RESEARCH										
HE G	78	90	32,300	32,300	24,800	22,400	2,500	3,350	2,500	3,360	2,500	3,000
	PROJECT TOTAL:		32,300	32,300	24,800	22,400	2,500	3,350	2,500	3,360	2,500	3,000
936-3023		DEMOGRAPHIC AND FAMILY HEALTH SURVEYS										
CS G	84	88	100	100	---	---	---	---	100	---	100	100
HE G	84	88	2,525	2,525	1,100	600	450	410	400	600	400	400
	PROJECT TOTAL:		2,625	2,625	1,100	600	450	410	500	600	500	500
936-3030		STRATEGIES FOR IMPROVING SERVICE DELIVER										
HE G	84	88	2,812	2,812	700	700	50	20	---	30	---	---
	PROJECT TOTAL:		2,812	2,812	700	700	50	20	---	30	---	---
936-5920		PRIMARY HEALTH CARE-OPERATIONS RESEARCH										
HE G	81	89	19,553	19,553	10,840	9,178	2,500	3,779	1,750	1,500	1,900	1,700
	PROJECT TOTAL:		19,553	19,553	10,840	9,178	2,500	3,779	1,750	1,500	1,900	1,700
936-5927		TECHNOLOGY FOR PHC										
CS G	83	90	15,000	15,000	2,700	10	4,001	1,191	2,300	5,536	2,000	3,500
HE G	83	90	25,000	25,000	15,000	10,227	100	2,537	---	2,336	---	---
	PROJECT TOTAL:		40,000	40,000	17,700	10,237	4,101	3,728	2,300	7,872	2,000	3,500
936-5923		DIARRHEAL DISEASE RESEARCH										
CS G	84	89	---	---	1,050	---	---	1,050	---	---	---	---
HE G	84	89	14,025	14,025	8,225	5,799	3,400	4,266	2,600	3,504	3,000	3,504
	PROJECT TOTAL:		14,025	14,025	9,275	5,799	3,400	5,316	2,600	3,504	3,000	3,504
936-5929		HEALTH RESOURCES SUPPORT										

*Refers to the planned project summary sheet

GLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
	HE G	84	C	---	---	500	250	619	653	877	876	700	800
	PROJECT TOTAL:			---	---	500	250	619	653	877	876	700	800
936-5932	MEDEX SUPPORT												
	HE G	83	88	4,600	4,600	2,982	2,378	1,000	1,266	500	838	---	---
	PROJECT TOTAL:			4,600	4,600	2,982	2,378	1,000	1,266	500	838	---	---
936-5935	DIAGNOSTIC TECHNOLOGY DEVELOPMENT												
	CS G	85	91	1,875	1,875	875	---	---	875	---	---	1,000	---
	HE G	85	91	10,000	10,000	1,125	584	1,963	710	2,000	2,000	1,500	2,000
	PROJECT TOTAL:			11,875	11,875	2,000	584	1,963	1,585	2,000	2,000	2,500	2,000
936-5939	ORT-HELP												
	CS G	84	91	2,000	2,000	---	---	---	---	---	---	350	470
	HE G	84	91	7,300	7,300	5,319	4,229	968	847	750	1,058	---	603
	PROJECT TOTAL:			9,300	9,300	5,319	4,229	968	847	750	1,058	850	1,073
936-5940	PEDIATRIC CHRONIC DIARRHEAL DISEASE												
	HE G	84	87	3,254	3,264	2,798	1,688	466	1,343	---	233	---	---
	PROJECT TOTAL:			3,254	3,264	2,798	1,688	466	1,343	---	233	---	---
936-5942	WATER AND SANITATION FOR HEALTH II												
	HE G	84	89	19,700	19,700	6,664	5,805	2,400	2,645	1,500	2,000	500	500
	PROJECT TOTAL:			19,700	19,700	6,664	5,805	2,400	2,645	1,500	2,000	500	500
936-5947	VACCINE DEVELOPMENT AND HEALTH RESEARCH												
	CS G	84	89	1,500	1,500	---	---	---	---	---	---	500	400
	HE G	84	89	6,000	7,500	5,430	1,943	765	2,444	1,000	1,500	416	1,000
	PROJECT TOTAL:			7,500	9,000	5,430	1,943	765	2,444	1,000	1,500	916	1,400
936-5948	VECTOR BIOLOGY AND CONTROL												
	HE G	85	94	19,880	19,880	2,850	1,386	1,600	2,227	1,500	1,500	1,750	1,750
	PROJECT TOTAL:			19,880	19,880	2,850	1,386	1,600	2,227	1,500	1,500	1,750	1,750
936-5950	ASIA/PACIFIC PUB HEALTH MGMT PROG												
	HE G	85	89	2,280	2,280	2,200	692	---	557	---	500	---	451

*Refers to the planned project summary sheet

Clased-of-effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized data.

For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE * G	L	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES	
PROJECT TOTAL:					2,280	2,280	2,200	692	---	557	---	500	---	451
936-5951	CHILD SURVIVAL ACTION PROGRAM SUPPORT													
CS G	85	89	3,750	3,750	1,615	846	1,599	893	1,400	1,600	1,959	2,000		
FN G	85	88	2,000	2,000	450	---	300	228	---	300	---	222		
HE G	85	89	3,750	3,750	1,289	281	785	511	200	1,700	200	500		
PN G	85	89	500	500	---	---	---	---	---	---	---	---		
PROJECT TOTAL:					10,000	10,000	3,354	1,127	2,684	1,632	1,600	3,600	2,159	2,722
936-5952	APPLIED DIARRHEAL DISEASE RESEARCH													
CS G	85	90	1,950	1,950	950	10	---	440	---	500	---	---		
HE G	85	90	12,500	12,500	1,202	427	1,200	514	1,700	1,200	1,500	1,700		
PROJECT TOTAL:					14,450	14,450	2,152	437	1,200	954	1,700	1,700	1,500	1,700
936-5953	SUPPLY PROMOTION AND PRODUCTION OF ORT													
CS G	85	90	2,000	2,000	---	---	500	---	500	500	800	1,150		
HE G	85	90	4,973	4,973	1,973	411	82	907	---	737	---	---		
PROJECT TOTAL:					6,973	6,973	1,973	411	582	907	500	1,237	800	1,150
936-5957	AMERICARES													
HE G	85	85	800	800	800	343	---	---	---	168	---	289		
PROJECT TOTAL:					800	800	800	343	---	---	---	168	---	289
936-5958	MILWAUKEE INT'L HEALTH TRAINING CENTER													
HE G	86	86	425	425	425	296	---	---	200	216	---	113		
PROJECT TOTAL:					425	425	425	296	---	---	200	216	---	113
936-5966	MATERNAL & PERINATAL HEALTH & NUTRITION													
CS G	88	98	---	8,500	---	---	---	---	740	200	1,250	1,000		
FN G	88	98	---	2,500	---	---	---	---	---	---	---	---		
HE G	88	98	---	3,000	---	---	---	---	782	200	---	---		
PN G	83	98	---	1,000	---	---	---	---	---	---	---	---		
PROJECT TOTAL:					---	15,000	---	---	---	---	1,522	400	1,250	1,000
936-5967	MALARIA FIELD TRIALS													
HE G	87	87	8,000	23,000	---	---	2,000	---	2,000	2,000	2,000	2,500		
PROJECT TOTAL:					8,000	23,000	---	---	2,000	---	2,000	2,000	2,500	

* Refers to the planned project summary sheet

C Level of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	-ACTUAL FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	-ESTIMATED FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	-PROPOSED FY 89- EXPEN- DITURES			
936-5968	HEALTHTECH													
	CS G	87	92		2,000	2,000	---	---	---	800	400	750	700	
	HE G	87	92		4,000	4,000	---	---	1,000	---	500	---	500	
	PROJECT TOTAL:				6,000	6,000	---	---	1,000	---	800	900	750	1,200
936-5969	TECHNOLOGY FOR PHC II													
	CS G	87	90		31,400	31,400	---	---	2,899	---	3,000	2,600	3,500	4,000
	HE G	87	96		15,700	15,700	---	---	---	---	---	---	---	---
	PROJECT TOTAL:				47,100	47,100	---	---	2,899	---	3,000	2,600	3,500	4,000
936-5970	TECH. ADVISORS IN CHILD SURVIVAL (TACS)													
	CS G	88	92		---	25,000	---	---	---	500	200	500	500	
	PROJECT TOTAL:				---	25,000	---	---	---	500	200	500	500	
936-5972	AIDS TECHNICAL SUPPORT													
	DG G	87	94		---	---	---	---	---	7,000	6,996	9,000	1,200	
	HE G	87	94		---	---	---	---	2,920	---	---	---	---	
	PN G	87	94		---	---	---	---	38	---	---	---	---	
	PROJECT TOTAL:				---	---	---	---	2,958	---	7,000	6,996	9,000	1,200
936-5973	WATER AND SANITATION FOR HEALTH III													
	HE G	83	93		40,000	40,000	---	---	---	1,000	300	2,500	2,000	
	PROJECT TOTAL:				40,000	40,000	---	---	---	1,000	300	2,500	2,000	
936-5974	HEALTH FINANCING (H)													
	CS G	89	94		---	20,000	---	---	---	---	---	600	---	
	PROJECT TOTAL:				---	20,000	---	---	---	---	---	600	---	
	PROGRAM SUBTOTALS:				440,903	510,913	165,264	115,513	48,062	44,271	48,099	67,584	52,675	58,448
936-5965	GLOBAL AIDS PROGRAM-WHO													
	DG G	86	C		---	---	---	---	---	15,000	15,000	15,000	15,000	
	HE G	86	C		---	---	1,141	35	5,000	2,806	---	3,300	---	
	PROJECT TOTAL:				---	---	1,141	35	5,000	2,806	15,000	18,300	15,000	15,000
	PROGRAM SUBTOTALS:				---	---	1,141	35	5,000	2,806	15,000	18,300	15,000	15,000

*Refers to the planned project summary sheet

CLevel of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES
PROGRAM TOTALS:			440,903		510,913	166,405	115,548	53,062	47,077	63,099	35,884	67,675	73,448
GRANTS:			440,903		510,913	166,405	115,548	53,062	47,077	63,099	35,884	67,675	73,448
LOANS:			---		---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----													
AGR. RURAL DEV. & NUTRITION:			3,951		6,451	450	---	300	228	---	300	---	222
POPULATION PLANNING:			500		1,500	---	---	38	---	---	---	---	---
HEALTH:			367,877		379,887	157,265	114,671	41,725	40,401	29,759	47,492	27,366	38,646
CHILD SURVIVAL FUND:			68,575		123,075	8,690	877	10,999	6,448	11,340	16,096	16,309	18,380
AIDS:			---		---	---	---	---	---	22,000	21,996	24,000	16,200
EDUCATION & HUMAN RESOURCES:			---		---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:			---		---	---	---	---	---	---	---	---	---
ECONOMIC SUPPORT FUND:			---		---	---	---	---	---	---	---	---	---

* Refers to the planned project summary sheet

C Level of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: FORESTRY AND ENVR NAT RES

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
936-5517		ENVIRONMENTAL PLANNING AND MANAGEMENT											
	FN G	82	90	2,500	2,500	512	440	625	---	818	154	167	225
	SD G	82	90	6,115	6,115	3,368	1,908	532	1,460	410	940	700	825
		PROJECT TOTAL:		8,615	8,615	3,880	2,348	1,157	1,460	1,228	1,094	867	1,050
936-5518		COASTAL RESOURCES MANAGEMENT											
	FN G	83	89	8,000	8,000	1,850	750	746	1,231	746	1,000	746	1,000
		PROJECT TOTAL:		8,000	8,000	1,850	750	746	1,231	746	1,000	746	1,000
936-5519		FOREST RESOURCES MANAGEMENT											
	FN G	80	89	19,800	19,800	8,782	6,699	2,207	1,412	1,117	1,107	1,017	1,017
	SD G	80	89	2,170	1,670	---	---	---	---	---	---	---	---
		PROJECT TOTAL:		21,970	21,470	8,782	6,699	2,207	1,412	1,117	1,107	1,017	1,017
936-5547		FORESTRY FUELWOOD RES. AND DEVEL.											
	FN G	85	94	24,550	30,000	4,106	1,911	2,166	2,204	1,300	2,500	1,570	1,000
	SD G	85	94	8,250	2,250	---	---	---	---	---	---	---	---
		PROJECT TOTAL:		32,800	32,250	4,106	1,911	2,166	2,204	1,300	2,500	1,570	1,000
936-5550		BIOLOGICAL CONSERVATION IN DEVELOPMENT											
	FN G	86	86	400	400	250	10	150	80	100	80	---	---
		PROJECT TOTAL:		400	400	250	10	150	80	100	80	---	---
936-5554		CONSERVATION OF BIOLOGICAL DIVERSITY PRO											
	FN G			---	---	---	---	---	---	480	400	800	600
		PROJECT TOTAL:		---	---	---	---	---	---	480	400	800	600
		PROGRAM TOTALS:		71,785	70,735	18,868	11,718	6,426	6,387	4,971	6,181	5,000	4,667
		GRANTS:		71,785	70,735	18,868	11,718	6,426	6,387	4,971	6,181	5,000	4,667
		LOANS:		---	---	---	---	---	---	---	---	---	---

---- APPROPRIATION SUMMARY ----

AGR., RURAL DEV. & NUTRITION:	55,250	60,700	15,500	9,810	5,894	4,927	4,561	5,241	4,300	3,842
POPULATION PLANNING:	---	---	---	---	---	---	---	---	---	---
HEALTH:	---	---	---	---	---	---	---	---	---	---
CHILD SURVIVAL FUND:	---	---	---	---	---	---	---	---	---	---
AIDS:	---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:	---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: FORESTRY AND ENVR NAT RES

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86-		-ACTUAL FY 87-		-ESTIMATED FY 88-		-PROPOSED FY 89-		
					OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	
SELECTED DEVELOP. ACTIVITIES: ECONOMIC SUPPORT FUND:				16,535	10,035	3,368	1,908	532	1,460	410	940	700	825

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CLevel of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: RESEARCH AND UNIVERSITY RELATIONS

CP 89

PROJECT NO. PROJECT TITLE	L / * G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES
931-1282		TITLE XII STRENGTHENING GRANTS											
	FN G	79	C	---	---	38,143	34,818	1,102	2,638	1,037	1,036	1,036	984
		PROJECT TOTAL:		---	---	38,143	34,818	1,102	2,638	1,037	1,036	1,036	984
936-5052		PROJECT REVIEW											
	FN G	84	C	---	---	---	---	26	---	133	120	133	126
	HE G	87		---	---	290	---	80	122	167	150	167	159
	SD G	84	C	---	---	665	525	---	140	---	---	---	---
		PROJECT TOTAL:		---	---	955	525	106	262	300	270	300	285
936-5053		HBCU RESEARCH GRANTS											
	FN G	84	C	---	---	1,968	1,618	758	368	757	681	964	720
	HE G	84	C	---	---	2,185	867	1,104	1,063	808	727	839	1,088
		PROJECT TOTAL:		---	---	4,153	2,465	1,862	1,431	1,565	1,408	1,803	1,808
936-5055		TECHNICAL ADVISORY SUPPORT SERVICES											
	FN G	85	89	3,034	2,498	959	795	533	218	533	479	533	---
	HE G	85	89	1,908	2,500	1,064	432	527	525	527	374	527	501
		PROJECT TOTAL:		4,942	4,998	2,023	1,227	1,060	743	1,060	853	1,060	501
936-5057		JOINT MOUS-HEALTH											
	HE G	85	C	---	---	1,950	733	1,289	1,168	1,148	1,032	1,167	1,109
		PROJECT TOTAL:		---	---	1,950	733	1,289	1,168	1,148	1,032	1,167	1,109
936-5058		JOINT MOUS-AGRICULTURE											
	FN G	84	90	---	---	3,208	614	3,085	1,957	3,084	3,084	3,084	---
		PROJECT TOTAL:		---	---	3,208	614	3,085	1,957	3,084	3,084	3,084	---
936-5060		MATCHING SUPPORT GRANTS											
	FN G	87	91	---	---	---	---	390	69	350	315	350	333
		PROJECT TOTAL:		---	---	---	---	390	69	350	315	350	333

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: RESEARCH AND UNIVERSITY RELATIONS

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
PROGRAM TOTALS:					4,942	4,998	50,432	40,382	8,894	8,268	8,544	7,998	8,800	5,020
GRANTS:					4,942	4,998	50,432	40,382	8,894	8,268	8,544	7,998	8,800	5,020
LOANS:					---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----														
AGR., RURAL DEV. & NUTRITION:					3,034	2,498	44,278	37,845	5,894	5,250	5,894	5,715	6,100	2,163
POPULATION PLANNING:					---	---	---	---	---	---	---	---	---	---
HEALTH:					1,908	2,500	5,489	2,012	3,000	2,878	2,650	2,283	2,700	2,857
CHILD SURVIVAL FUND:					---	---	---	---	---	---	---	---	---	---
AIDS:					---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:					---	---	665	525	---	140	---	---	---	---
ECONOMIC SUPPORT FUND:					---	---	---	---	---	---	---	---	---	---

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C Level of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: AGRICULTURE

CP 89

PROJECT NO. PROJECT TITLE	L / G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHO PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
	FN G	78	C	3,759	3,759	3,286	3,251	260	167	---	54	---	---
		PROJECT TOTAL:		3,759	3,759	3,286	3,251	260	167	---	54	---	---
931-1323		STORAGE AND PROCSSG OF FRUITS AND VEGS											
	FN G	80	90	5,415	5,415	2,665	2,444	285	260	300	383	340	340
		PROJECT TOTAL:		5,415	5,415	2,665	2,444	285	260	300	383	340	340
931-1328		CRSP-PROGRAM: SMALL RUMINANTS											
	FN G	78	C	---	---	28,509	24,899	1,980	2,673	2,800	3,025	2,800	2,800
		PROJECT TOTAL:		---	---	28,509	24,899	1,980	2,673	2,800	3,025	2,800	2,800
936-4021		TECHNOLOGY OF SOIL MOISTURE MANAGEMENT											
	FN G	81	C	---	---	2,485	1,591	410	426	560	610	600	600
		PROJECT TOTAL:		---	---	2,485	1,591	410	426	560	610	600	600
936-4023		CRSP - POND DYNAMICS											
	FN G	82	C	---	---	4,290	3,205	973	654	920	996	920	920
		PROJECT TOTAL:		---	---	4,290	3,205	973	654	920	996	920	920
936-4024		FISHERIES DEVELOPMENT SUPPORT SERVICES											
	FN G	82	C	4,000	4,000	1,185	985	245	328	255	264	275	275
		PROJECT TOTAL:		4,000	4,000	1,185	985	245	328	255	264	275	275
936-4048		CRSP - PEANUTS											
	FN G	82	C	---	---	6,779	4,630	1,705	1,993	1,700	1,912	1,700	1,700
		PROJECT TOTAL:		---	---	6,779	4,630	1,705	1,993	1,700	1,912	1,700	1,700
936-4054		INTERNATIONAL BENCHMARK SITES NETWORK											
	FN G	82	92	9,930	9,930	3,900	2,800	890	1,186	1,080	1,086	980	980
		PROJECT TOTAL:		9,930	9,930	3,900	2,800	890	1,186	1,080	1,086	980	980
936-4083		HOST RESISTANCE INTEGRATED TICK CONT.											
	FN G	83	88	1,450	1,450	1,150	850	260	---	100	260	160	160
		PROJECT TOTAL:		1,450	1,450	1,150	850	260	---	100	260	160	160
936-4084		AGRICULTURAL POLICY ANALYSIS											
	FN G	83	88	9,200	9,200	4,493	4,261	840	881	840	840	840	840

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C=Level of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: AGRICULTURE

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
PROJECT TOTAL:					9,200	9,200	4,493	4,261	840	881	840	840	840
936-4099	FARMING SYSTEMS SUPPORT FN G	82	87	7,888	7,888	5,762	4,795	300	1,088	---	179	---	---
PROJECT TOTAL:					7,888	7,888	5,762	4,795	300	1,088	---	179	---
936-4109	AGRICULTURAL TECHNOLOGY RES + DEVELOPMEN FN G	81	C	---	---	5,108	3,903	1,040	685	1,219	1,430	1,410	1,410
PROJECT TOTAL:					---	---	5,108	3,903	1,040	685	1,219	1,430	1,410
936-4111	INT AGRICULTURAL RESEARCH CENTERS FN G	68	C	---	---	6,488	5,752	3,470	411	1,530	1,530	1,530	1,530
PROJECT TOTAL:					---	---	6,488	5,752	3,470	411	1,530	1,530	1,530
936-4127	WATER MGT SYNTHESIS II FN G	82	87	20,000	13,010	12,255	10,493	785	1,690	---	857	---	---
PROJECT TOTAL:					20,000	13,010	12,255	10,493	785	1,690	---	857	---
936-4132	SOYBEAN UTILIZATION AND RESEARCH FN G	85	89	5,950	5,950	1,545	1,269	550	413	600	731	550	550
PROJECT TOTAL:					5,950	5,950	1,545	1,269	550	413	600	731	550
936-4136	SPECIAL CONSTRAINT RESEARCH FN G	85	89	4,200	4,200	1,041	474	550	389	500	500	500	500
PROJECT TOTAL:					4,200	4,200	1,041	474	550	389	500	500	500
936-4137	BIOTECHNOLOGY TISSUE CULTURE FN G	84	88	5,000	5,500	2,684	1,449	460	991	750	940	650	650
PROJECT TOTAL:					5,000	5,500	2,684	1,449	460	991	750	940	650
936-4142	IPM AND ENVIRONMENT PROTECTION FN G	85	89	5,800	5,800	950	417	475	609	606	714	600	600
PROJECT TOTAL:					5,800	5,800	950	417	475	609	606	714	600
936-4143	R+O OF IMP SEED PROD/UTILIZATION IN LDGS FN G	86	92	3,420	3,420	360	35	130	134	255	335	255	255

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CLevel of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: AGRICULTURE

CP 89

PROJECT NO. PROJECT TITLE * G	L / INITIAL OBLIG	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES	
PROJECT TOTAL:				3,420	3,420	360	35	130	134	255	335	255	255
936-4144	POSTHARVEST GRAIN SYSTEMS R&O FN G	85	89	3,245	3,245	600	295	370	364	425	347	425	425
PROJECT TOTAL:				3,245	3,245	600	295	370	364	425	347	425	425
936-4146	CRSP: FISHERIES/STOCK ASSESSMENT RSCH FN G	85	C	---	---	1,300	499	895	510	700	1,028	700	700
PROJECT TOTAL:				---	---	1,300	499	895	510	700	1,028	700	700
936-4161	REPRODUCTIVE STUDIES ON MILKFISH FN G	84	88	4,850	4,850	2,450	1,250	1,200	780	1,200	1,210	1,000	1,000
PROJECT TOTAL:				4,850	4,850	2,450	1,250	1,200	780	1,200	1,210	1,000	1,000
936-4173	VERTEBRATE PEST MANAGEMENT SYSTEMS FN G	86	90	3,910	2,445	340	129	425	205	125	175	---	175
PROJECT TOTAL:				3,910	2,445	340	129	425	205	125	175	---	175
936-4177	IMPROVED BNF THRU BIO-TECHNOLOGY FN G	86	96	9,690	9,690	200	25	750	370	780	982	840	840
PROJECT TOTAL:				9,690	9,690	200	25	750	370	780	982	840	840
936-4178	IMPROVED ANIMAL VACCINE THRU BIO-TECH. FN G	86	96	5,870	5,870	870	30	703	257	400	1,000	810	810
PROJECT TOTAL:				5,870	5,870	870	30	703	257	400	1,000	810	810
936-4179	IRRIGATION MGMT SUPPORT & RESEARCH FN G	88	97	---	20,000	---	---	---	---	280	65	400	400
PROJECT TOTAL:				---	20,000	---	---	---	---	280	65	400	400
936-4180	AQUACULTURE RESEARCH AND SUPPORT FN G	88	92	1,275	1,275	---	---	---	---	255	170	255	255
PROJECT TOTAL:				1,275	1,275	---	---	---	---	255	170	255	255

*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: AGRICULTURE

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES		
PROGRAM TOTALS:						126,947	139,092	234,790	200,096	32,050	30,530	30,490	34,000	30,500	31,025
GRANTS:						126,947	139,092	234,790	200,096	32,050	30,530	30,490	34,000	30,500	31,025
LOANS:						---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----															
AGR. RURAL DEV. & NUTRITION:						126,947	139,092	234,790	200,096	32,050	30,530	30,490	34,000	30,500	31,025
POPULATION PLANNING:						---	---	---	---	---	---	---	---	---	---
HEALTH:						---	---	---	---	---	---	---	---	---	
CHILD SURVIVAL FUND:						---	---	---	---	---	---	---	---	---	
AIDS:						---	---	---	---	---	---	---	---	---	
EDUCATION & HUMAN RESOURCES:						---	---	---	---	---	---	---	---	---	
SELECTED DEVELOP. ACTIVITIES:						---	---	---	---	---	---	---	---	---	
ECONOMIC SUPPORT FUND:						---	---	---	---	---	---	---	---	---	

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: NUTRITION

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHO PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES	
931-0045		NUTRITION: VITAMIN A DEFICIENCY PRG SPPT											
	FN G	75	87	17,966	17,166	13,442	7,559	3,527	1,879	---	4,207	---	2,030
	HE G	75	87	---	---	725	540	---	67	---	---	---	---
		PROJECT TOTAL:		17,966	17,166	14,167	8,099	3,527	1,946	---	4,207	---	2,030
931-0277		NUTRITION: IRON DEFICIENCY PRG SUPPORT											
	CS G	76	89	2,000	2,000	---	---	12	12	---	12	---	---
	FN G	76	89	2,983	2,452	2,452	2,382	773	61	---	9	---	---
	HE G	76	89	950	775	675	575	50	100	---	50	---	---
		PROJECT TOTAL:		5,933	5,227	3,127	2,957	835	173	---	71	---	---
931-0262		NUTRITION: SCIENTIFIC/TECH/PLNG SUPPORT											
	FN G	76	C	---	---	4,989	4,718	972	575	600	800	600	700
		PROJECT TOTAL:		---	---	4,989	4,718	972	575	600	800	600	700
931-0831		NUTRITION AND FOOD TECHNICAL SERVICES											
	FN G	69	86	11,158	11,158	9,881	9,480	550	223	---	178	---	---
		PROJECT TOTAL:		11,158	11,158	9,881	9,480	550	223	---	178	---	---
931-1010		NUTRITION: IMPRV OF MATERNAL/INFANT DIET											
	CS G	79	88	3,000	3,100	---	---	1,800	90	600	1,980	650	980
	FN G	79	88	4,586	4,586	4,586	4,102	---	484	100	---	---	100
	HE G	79	88	12,391	12,275	6,969	5,627	1,575	1,658	1,600	2,300	1,800	2,359
		PROJECT TOTAL:		19,977	19,961	11,555	9,729	3,375	2,232	2,300	4,280	2,450	3,439
931-1064		NUTRITION: SURVEYS AND SURVEILLANCE											
	FN G	77	87	4,885	4,583	4,433	4,184	550	182	---	617	---	---
	HE G	77	87	2,000	2,000	525	---	175	542	---	158	---	---
		PROJECT TOTAL:		6,885	6,583	4,958	4,184	725	724	---	775	---	---
931-1065		NUTRITION: EDUCATION FIELD SUPPORT											
	FN G	79	91	2,691	2,638	2,604	2,203	---	352	---	49	---	---
		PROJECT TOTAL:		2,691	2,638	2,604	2,203	---	352	---	49	---	---
931-1171		NUT: CONSUMPTION ANALY OF AG POL.											
	FN G	77	C	---	---	3,782	3,482	---	29	---	271	---	---
		PROJECT TOTAL:		---	---	3,782	3,482	---	29	---	271	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: NUTRITION

CP 89

PROJECT NO. PROJECT TITLE	L / * G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES	
931-1198		NUTRITION: HEALTH SYSTEMS RSSA											
	HE G	77	87	1,669	1,440	1,115	935	325	160	---	345	---	---
		PROJECT TOTAL:		1,669	1,440	1,115	935	325	160	---	345	---	---
931-1274		NUTRITION: CONSUMPTION EFFECTS OF AG POL											
	FN G	80	85	2,800	2,053	2,053	2,052	571	92	---	480	---	---
		PROJECT TOTAL:		2,800	2,053	2,053	2,052	571	92	---	480	---	---
931-1309		FUNCTIONAL IMPLICATION-MALNUTRITION CRSP											
	FN G	81	87	11,800	11,800	11,527	10,038	273	1,036	---	726	---	---
		PROJECT TOTAL:		11,800	11,800	11,527	10,038	273	1,036	---	726	---	---
935-5110		CONSUMPTN ANALYSIS OF FOOD & AG POLICIES											
	FN G	86	92	---	5,500	---	---	---	---	704	450	1,100	---
		PROJECT TOTAL:		---	5,500	---	---	---	---	704	450	1,100	---
936-5113		NUTR, EDUC AND SOC MKTG FLD SUPPORT											
	FN G	87	92	2,500	1,000	---	---	---	---	379	150	---	150
	HE G	87	92	1,000	4,250	---	---	500	---	321	350	700	550
		PROJECT TOTAL:		3,500	5,250	---	---	500	---	700	500	700	700
936-5114		FOOD TECHNOLOGY FOR DEVELOPMENT											
	FN G	88	92	1,400	1,400	---	---	---	---	517	550	500	500
		PROJECT TOTAL:		1,400	1,400	---	---	---	---	517	550	500	500
936-5115		COMBATTING IRON DEFICIENCY											
	CS G	87		805	805	---	---	688	---	279	350	350	300
	HE G	87	91	250	250	---	---	50	---	---	100	100	---
		PROJECT TOTAL:		1,055	1,055	---	---	738	---	279	450	450	300
936-5116		VITAMIN A FOR HEALTH											
	FN G	88	93	---	15,000	---	---	---	---	4,200	---	3,600	4,000
		PROJECT TOTAL:		---	15,000	---	---	---	---	4,200	---	3,600	4,000

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.

For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: NUTRITION

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PRJCT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES	
PROGRAM TOTALS:					86,834	106,231	69,758	57,877	12,391	7,542	9,300	14,132	9,400	11,669
GRANTS:					86,834	106,231	69,758	57,877	12,391	7,542	9,300	14,132	9,400	11,669
LOANS:					---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----														
AGR., RURAL DEV. & NUTRITION:					62,769	79,336	59,749	50,200	7,216	4,913	6,500	8,487	5,800	7,480
POPULATION PLANNING:					---	---	---	---	---	---	---	---	---	---
HEALTH:					18,260	20,990	10,009	7,677	2,675	2,527	1,921	3,303	2,600	2,909
CHILD SURVIVAL FUND:					5,805	5,905	---	---	2,500	102	879	2,342	1,000	1,280
AIDS:					---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:					---	---	---	---	---	---	---	---	---	---
ECONOMIC SUPPORT FUND:					---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: ENERGY

CP 89

PROJECT NO. PROJECT TITLE	L / G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
935-5709 BIOENERGY SYSTEMS AND TECHNOLOGY													
FN G	79	89	9,544	9,747	7,001	6,299	1,441	1,042	1,102	1,481	896	690	
SD G	79	89	2,282	2,782	608	608	564	50	998	888	1,200	1,459	
PROJECT TOTAL:				11,826	12,529	7,609	6,867	2,005	1,092	2,100	2,369	2,149	
935-5724 CONVENTIONAL ENERGY TECHNICAL ASST													
ES G	80	90	5,200	5,200	4,035	3,303	1,000	730	---	1,002	---	---	
SD G	80	90	15,250	15,250	11,374	10,015	277	992	600	947	975	1,017	
PROJECT TOTAL:				20,450	20,450	15,409	13,318	1,277	1,722	600	1,949	975	1,017
936-5728 ENERGY POLICY DEV AND CONSERVATION													
FN G	82	92	4,000	5,838	396	396	980	193	2,614	2,697	2,852	2,844	
SD G	82	92	14,000	14,000	7,929	6,518	1,678	2,015	1,736	2,137	800	1,188	
PROJECT TOTAL:				18,000	19,838	8,325	6,914	2,658	2,208	4,350	4,834	3,652	4,032
936-5730 RENEWABLE ENERGY APPLICATION/TRAINING													
FN G	85	90	8,200	11,000	1,576	874	380	644	950	1,323	408	658	
PROJECT TOTAL:				8,200	11,000	1,576	874	380	644	950	1,323	408	658
936-5734 ENERGY TRAINING													
FN G	87	92	6,500	6,500	---	---	800	40	1,800	1,910	2,017	2,411	
SD G	87	92	8,500	8,500	---	---	446	22	200	486	145	226	
PROJECT TOTAL:				15,000	15,000	---	---	1,246	62	2,000	2,396	2,162	2,637
936-9997 MANPOWER AND- ENERGY TRAINING													
SD G	81	87	14,000	16,525	12,691	11,176	462	1,621	---	356	---	---	
PROJECT TOTAL:				14,000	16,525	12,691	11,176	462	1,621	---	356	---	---
PROGRAM TOTALS:				87,476	95,342	45,610	39,149	8,028	7,349	10,000	13,227	9,293	10,493
GRANTS:				87,476	95,342	45,610	39,149	8,028	7,349	10,000	13,227	9,293	10,493
LOANS:				---	---	---	---	---	---	---	---	---	
---- APPROPRIATION SUMMARY ----													
AGR., RURAL DEV. & NUTRITION:				28,244	33,085	8,973	7,529	3,601	1,919	6,466	7,411	6,173	6,603
POPULATION PLANNING:				---	---	---	---	---	---	---	---	---	---
HEALTH:				---	---	---	---	---	---	---	---	---	
CHILD SURVIVAL FUND:				---	---	---	---	---	---	---	---	---	
AIOS:				---	---	---	---	---	---	---	---	---	

*Refers to the planned project summary sheet

CLevel of effort activity

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: ENERGY

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:					54,032	57,057	3,427	4,700	3,534	4,814	3,120	3,890
ECONOMIC SUPPORT FUND:					5,200	5,200	1,000	730	---	1,002	---	---

*Refers to the planned project summary sheet

LLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: RJRAL ANO INSTITUTIONAL OEWLPMENT

CP 89

PROJECT NO. PROJECT TITLE * G	L / G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES	
931-1090		SMALL ENTERPRISE APPROCHES TO EMPLOYMENT												
	FN G	78	89		1,475	1,389	506	50	289	512	397	500	347	266
	SD G	78	89		4,009	3,706	3,248	2,767	158	165	---	250	100	100
		PROJECT TOTAL:			5,484	5,095	3,754	2,817	447	677	397	750	447	366
931-1096		FIELD SERVICES & PROGRAM DEVELOPMENT												
	FN G	77	C		---	---	6,884	6,367	33	540	---	10	---	---
		PROJECT TOTAL:			---	---	6,884	6,367	33	540	---	10	---	---
931-1135		HUMAN SETTLEMENTS AND NAT RES SYS ANALY												
	FN G	78	89		6,774	6,849	5,584	4,598	502	773	400	678	400	856
		PROJECT TOTAL:			6,774	6,849	5,584	4,598	502	773	400	678	400	856
931-1190		FOOD SECURITY IN AFRICA												
	FN G	77	90		4,215	3,687	3,587	2,496	100	363	---	650	---	178
		PROJECT TOTAL:			4,215	3,687	3,587	2,496	100	363	---	650	---	178
936-4053		MARKET AND TECHNOLOGY ACCESS												
	FN G	83	88		2,375	2,967	1,888	1,265	135	523	499	490	275	400
		PROJECT TOTAL:			2,375	2,967	1,888	1,265	135	523	499	490	275	400
936-4148		TECHNOLOGY TRANS FEEDBACK SYS IN AGRIC												
	FN G	84	88		1,399	872	768	717	104	59	---	60	---	36
		PROJECT TOTAL:			1,399	872	768	717	104	59	---	60	---	36
936-5301		RSCH ON ACCESS TO LAND, WATER/NATURAL RES												
	FN G	79	89		6,150	6,670	5,090	4,505	530	578	530	800	530	600
		PROJECT TOTAL:			6,150	6,670	5,090	4,505	530	578	530	800	530	600
936-5303.01		LOCAL REVENJE GENERATION & ADMINISTRATIO												
	FN G	79	87		3,635	2,935	2,835	2,759	100	99	---	76	---	---
		PROJECT TOTAL:			3,635	2,935	2,835	2,759	100	99	---	76	---	---
936-5315		EXP. APPROACHES TO RJRAL SAVINGS												
	FN G	82	88		3,000	3,624	2,365	2,005	420	214	360	676	414	550
		PROJECT TOTAL:			3,000	3,624	2,365	2,005	420	214	360	676	414	550

*Refers to the planned project summary sheet

CLevel of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: RURAL AND INSTITUTIONAL DEVELOPMENT

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
936-5317		PERFORMANCE MANAGEMENT										
	EH G	82	89	3,500	3,500	2,669	2,470	196	267	129	150	150
	FN G	82	89	3,500	3,595	1,859	1,445	608	652	659	489	534
		PROJECT TOTAL:		7,000	7,095	4,528	3,915	804	919	788	639	684
936-5402		MANAGING ENERGY/RES. EFFICIENT CITIES										
	SD G	82	86	1,739	1,737	1,737	1,264	---	462	---	11	---
		PROJECT TOTAL:		1,739	1,737	1,737	1,264	---	462	---	11	---
936-5426		EMPLOYMENT AND ENTERPRISE POLICY ANALYSI										
	FN G	84	89	1,176	1,750	576	171	275	164	75	400	350
	SD G	84	89	1,250	2,750	1,250	1,076	150	227	---	97	100
		PROJECT TOTAL:		2,426	4,500	1,826	1,247	425	391	75	497	450
936-5438		DEVEL. STRATEGIES FOR FRAGILE LANDS										
	FN G	86	95	6,100	6,100	570	15	500	432	500	600	522
		PROJECT TOTAL:		6,100	6,100	570	15	500	432	500	600	522
936-5446		DECENTRALIZATION: FINANCE AND MANAGEMENT										
	EH G	87	92	1,600	1,600	---	---	---	---	---	---	---
	FN G	87	92	3,000	5,000	---	---	270	---	450	550	550
		PROJECT TOTAL:		4,600	6,600	---	---	270	---	450	550	550
936-5447		AGRICULTURE MKTG IMPROVEMENT STRATEGIES										
	FN G	87	93	2,500	2,500	---	---	195	---	250	300	500
		PROJECT TOTAL:		2,500	2,500	---	---	195	---	250	300	500
936-5448		MICRO ENTERPRISE SUPPORT										
	SD G	88	93	---	5,000	---	---	---	---	50	---	1,000
		PROJECT TOTAL:		---	5,000	---	---	---	---	50	---	1,000
936-5547		FORESTRY FUELWOOD RES. AND DEVEL.										
	FN G	85	94	---	---	900	---	250	---	---	---	---
		PROJECT TOTAL:		---	---	900	---	250	---	---	---	---
936-5826-50		COMM FOR TECHNOLOGY TRANSFER IN AGRIC										
	FN G	85	92	5,795	1,232	557	407	250	256	250	250	175
		PROJECT TOTAL:		5,795	1,232	557	407	250	256	250	250	175

*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: RJRAL AND INSTITUTIONAL DEVELOPMENT

CP 89

PROJECT NO. PROJECT TITLE * G	L / INITIAL OBLIG	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT AUTHD PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES	
PROJECT TOTAL:				5,795	1,232	557	407	250	256	250	250	175	200
PROGRAM SUBTOTALS:				65,192	67,463	42,873	34,377	5,065	6,236	4,549	7,328	5,750	6,392
935-5428	APPROPRIATE TECHNOLOGY INTERNATIONAL II FN G 83 88			22,000	24,606	15,606	10,929	3,000	4,089	3,000	5,500	3,000	3,000
PROJECT TOTAL:				22,000	24,606	15,606	10,929	3,000	4,089	3,000	5,500	3,000	3,000
PROGRAM SUBTOTALS:				22,000	24,606	15,606	10,929	3,000	4,089	3,000	5,500	3,000	3,000
PROGRAM TOTALS:				85,192	92,069	58,479	45,306	8,065	10,375	7,549	12,828	8,750	9,392
GRANTS:				85,192	92,069	58,479	45,306	8,065	10,375	7,549	12,828	8,750	9,392
LOANS:				---	---	---	---	---	---	---	---	---	
---- APPROPRIATION SUMMARY ----													
AGR. RURAL DEV. & NUTRITION:				73,094	73,776	49,575	37,729	7,561	9,254	7,370	12,320	7,400	8,542
POPULATION PLANNING:				---	---	---	---	---	---	---	---	---	---
HEALTH:				---	---	---	---	---	---	---	---	---	
CHILD SURVIVAL FUND:				---	---	---	---	---	---	---	---	---	
AIDS:				---	---	---	---	---	---	---	---	---	
EDUCATION & HUMAN RESOURCES:				5,100	5,100	2,669	2,470	196	267	129	150	150	
SELECTED DEVELOP. ACTIVITIES:				6,993	13,193	6,235	5,137	308	854	50	358	1,200	
ECONOMIC SUPPORT FUND:				---	---	---	---	---	---	---	---	---	

*Refers to the planned project summary sheet

CLevel of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: EDUCATION

CP 89

PROJECT NO. PROJECT TITLE	L / * G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
931-1109		EDUC TECH: STUDIES + APPLICATIONS											
	EH G	77	89	10,441	6,061	5,560	5,228	155	196	250	350	275	200
		PROJECT TOTAL:		10,441	6,061	5,560	5,228	155	196	250	350	275	200
931-1231		DEV. COMMUNICATIONS CLEARINGHOUSE I											
	EH G	80	89	2,760	2,587	1,939	1,805	269	196	57	264	---	---
		PROJECT TOTAL:		2,760	2,587	1,939	1,805	269	196	57	264	---	---
936-5818		RADIO SCIENCE											
	EH G	84	90	9,220	9,220	2,564	1,383	1,224	1,528	1,257	1,100	1,050	1,000
		PROJECT TOTAL:		9,220	9,220	2,564	1,383	1,224	1,528	1,257	1,100	1,050	1,000
936-5823		IMPROVING EFFICIENCY OF ED. SYSTEMS II											
	EH G	84	92	17,000	17,000	5,600	4,186	2,235	1,334	1,350	2,500	1,500	2,700
		PROJECT TOTAL:		17,000	17,000	5,600	4,186	2,235	1,334	1,350	2,500	1,500	2,700
936-5824		BASIC RES IN DEVELOPING SYSTEMS											
	EH G	85	89	10,000	4,842	1,492	460	1,419	1,223	1,100	1,500	1,200	1,700
		PROJECT TOTAL:		10,000	4,842	1,492	460	1,419	1,223	1,100	1,500	1,200	1,700
936-5826		COMMUNICATION FOR TECH TRANSFER IN AGR.											
	EH G	85	92	1,500	1,500	500	200	240	230	---	240	---	---
	FN G	85	92	5,795	1,250	350	200	150	---	275	275	225	300
		PROJECT TOTAL:		7,295	2,750	850	400	390	230	275	515	225	300
936-5831		DEV. COMMUNICATIONS CLEARINGHOUSE II											
	EH G	88	93	2,245	2,245	---	---	---	---	143	100	200	150
		PROJECT TOTAL:		2,245	2,245	---	---	---	---	143	100	200	150
936-5832		APPLIED TECH & MGT. FOR EDUC. DEV.											
	EH G	88	98	20,000	20,000	---	---	---	---	300	225	382	275
		PROJECT TOTAL:		20,000	20,000	---	---	---	---	300	225	382	275

*Refers to the planned project summary sheet
C Level of effort activity

FY of final obligation column -- All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized data.
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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: EDUCATION

CP 89

PROJECT NO. PROJECT TITLE * G	L / INITIAL OBLIG	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHO PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES		
PROGRAM TOTALS:					78,961	64,705	18,005	13,462	5,692	4,707	4,732	6,554	4,832	6,325
GRANTS:					78,961	64,705	18,005	13,462	5,692	4,707	4,732	6,554	4,832	6,325
LOANS:					---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----														
AGR., RURAL DEV. & NUTRITION:					5,795	1,250	350	200	150	---	275	275	225	300
POPULATION PLANNING:					---	---	---	---	---	---	---	---	---	---
HEALTH:					---	---	---	---	---	---	---	---	---	
CHILD SURVIVAL FUND:					---	---	---	---	---	---	---	---	---	
AIDS:					---	---	---	---	---	---	---	---	---	
EDUCATION & HUMAN RESOURCES:					73,166	63,455	17,655	13,262	5,542	4,707	4,457	6,279	4,607	6,025
SELECTED DEVELOP. ACTIVITIES:					---	---	---	---	---	---	---	---	---	---
ECONOMIC SUPPORT FUND:					---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE	L / G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES
931-0453		MALARIA IMMUNITY & VACCINATION RESEARCH											
	HE G	75	91	100,000	100,000	59,702	44,944	9,856	8,471	8,500	15,336	8,500	15,336
		PROJECT TOTAL:		100,000	100,000	59,702	44,944	9,856	8,471	8,500	15,336	8,500	15,336
931-1018		COMMUNICATION FOR CHILD SURVIVAL											
	CS G	78	90	7,000	8,000	1,500	11	2,000	1,999	2,000	4,560	2,500	4,560
	FN G	78	90	1,951	1,951	---	---	---	---	---	---	---	---
	HE G	78	90	8,500	1,000	200	75	101	138	---	---	---	---
		PROJECT TOTAL:		17,451	10,951	1,700	86	2,101	2,137	2,000	4,560	2,500	4,560
931-1126		TROPICAL DISEASE RESEARCH											
	HE G	78	90	32,300	32,300	24,800	22,400	2,500	3,350	2,500	3,360	2,500	3,000
		PROJECT TOTAL:		32,300	32,300	24,800	22,400	2,500	3,350	2,500	3,360	2,500	3,000
936-3023		DEMOGRAPHIC AND FAMILY HEALTH SURVEYS											
	CS G	84	88	100	100	---	---	---	---	100	---	100	100
	HE G	84	88	2,525	2,525	1,100	600	450	410	400	600	400	400
		PROJECT TOTAL:		2,625	2,625	1,100	600	450	410	500	600	500	500
936-3030		STRATEGIES FOR IMPROVING SERVICE DELIVER											
	HE G	84	88	2,812	2,812	700	700	50	20	---	30	---	---
		PROJECT TOTAL:		2,812	2,812	700	700	50	20	---	30	---	---
936-5920		PRIMARY HEALTH CARE-OPERATIONS RESEARCH											
	HE G	81	89	19,553	19,553	10,840	9,178	2,500	3,779	1,750	1,500	1,900	1,700
		PROJECT TOTAL:		19,553	19,553	10,840	9,178	2,500	3,779	1,750	1,500	1,900	1,700
936-5927		TECHNOLOGY FOR PHC											
	CS G	83	90	15,000	15,000	2,700	10	4,001	1,191	2,300	5,536	2,000	3,500
	HE G	83	90	25,000	25,000	15,000	10,227	100	2,537	---	2,336	---	---
		PROJECT TOTAL:		40,000	40,000	17,700	10,237	4,101	3,728	2,300	7,872	2,000	3,500
936-5928		DIARRHEAL DISEASE RESEARCH											
	CS G	84	89	---	---	1,050	---	---	1,050	---	---	---	---
	HE G	84	89	14,025	14,025	8,225	5,799	3,400	4,266	2,600	3,504	3,000	3,504
		PROJECT TOTAL:		14,025	14,025	9,275	5,799	3,400	5,316	2,600	3,504	3,000	3,504
936-5929		HEALTH RESOURCES SUPPORT											

*Refers to the planned project summary sheet

CLevel of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES
	HE G	84	C	---	---	500	250	619	653	877	876	700	800
	PROJECT TOTAL:			---	---	500	250	619	653	877	876	700	800
936-5932	MEDEX SUPPORT												
	HE G	83	88	4,600	4,600	2,982	2,378	1,000	1,266	500	838	---	---
	PROJECT TOTAL:			4,600	4,600	2,982	2,378	1,000	1,266	500	838	---	---
936-5935	DIAGNOSTIC TECHNOLOGY DEVELOPMENT												
	CS G	85	91	1,875	1,875	875	---	---	875	---	---	1,000	---
	HE G	85	91	10,000	10,000	1,125	584	1,963	710	2,000	2,000	1,500	2,000
	PROJECT TOTAL:			11,875	11,875	2,000	584	1,963	1,585	2,000	2,000	2,500	2,000
936-5939	ORT-HELP												
	CS G	84	91	2,000	2,000	---	---	---	---	---	---	850	470
	HE G	84	91	7,300	7,300	5,319	4,229	968	847	750	1,058	---	603
	PROJECT TOTAL:			9,300	9,300	5,319	4,229	968	847	750	1,058	850	1,073
936-5940	PEDIATRIC CHRONIC DIARRHEAL DISEASE												
	HE G	84	87	3,254	3,264	2,798	1,688	466	1,343	---	233	---	---
	PROJECT TOTAL:			3,254	3,264	2,798	1,688	466	1,343	---	233	---	---
936-5942	WATER AND SANITATION FOR HEALTH II												
	HE G	84	89	19,700	19,700	6,664	5,805	2,400	2,645	1,500	2,000	500	500
	PROJECT TOTAL:			19,700	19,700	6,664	5,805	2,400	2,645	1,500	2,000	500	500
936-5947	VACCINE DEVELOPMENT AND HEALTH RESEARCH												
	CS G	84	89	1,500	1,500	---	---	---	---	---	1,500	500	400
	HE G	84	89	6,000	7,500	5,430	1,943	765	2,444	1,000	---	416	1,000
	PROJECT TOTAL:			7,500	9,000	5,430	1,943	765	2,444	1,000	1,500	916	1,400
936-5948	VECTOR BIOLOGY AND CONTROL												
	HE G	85	94	19,880	19,880	2,850	1,386	1,600	2,227	1,500	1,500	1,750	1,750
	PROJECT TOTAL:			19,880	19,880	2,850	1,386	1,600	2,227	1,500	1,500	1,750	1,750
936-5950	ASIA/PACIFIC PUB HEALTH MGMT PROG												
	HE G	85	89	2,280	2,280	2,200	692	---	557	---	500	---	451

*Refers to the planned project summary sheet

C Level of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE * G	L	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHO PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES	
PROJECT TOTAL:				2,280	2,280	2,200	692	---	557	---	500	---	451
936-5951		CHILO SURVIVAL ACTION PROGRAM SUPPORT											
	CS G	85	89	3,750	3,750	1,615	846	1,599	893	1,400	1,600	1,959	2,000
	FN G	85	88	2,000	2,000	450	---	300	228	---	300	---	222
	HE G	85	89	3,750	3,750	1,289	281	785	511	200	1,700	200	500
	PN G	85	89	500	500	---	---	---	---	---	---	---	---
PROJECT TOTAL:				10,000	10,000	3,354	1,127	2,684	1,632	1,600	3,600	2,159	2,722
936-5952		APPLIED DIARRHEAL DISEASE RESEARCH											
	CS G	85	90	1,950	1,950	950	10	---	440	---	500	---	---
	HE G	85	90	12,500	12,500	1,202	427	1,200	514	1,700	1,200	1,500	1,700
PROJECT TOTAL:				14,450	14,450	2,152	437	1,200	954	1,700	1,700	1,500	1,700
936-5953		SUPPLY PROMOTION AND PRODUCTION OF ORT											
	CS G	85	90	2,000	2,000	---	---	500	---	500	500	800	1,150
	HE G	85	90	4,973	4,973	1,973	411	82	907	---	737	---	---
PROJECT TOTAL:				6,973	6,973	1,973	411	582	907	500	1,237	800	1,150
936-5957		AMERICARES											
	HE G	85	85	800	800	800	343	---	---	---	168	---	289
PROJECT TOTAL:				800	800	800	343	---	---	---	168	---	289
936-5958		MILWAUKEE INT'L HEALTH TRAINING CENTER											
	HE G	86	86	425	425	425	296	---	---	200	216	---	113
PROJECT TOTAL:				425	425	425	296	---	---	200	216	---	113
936-5966		MATERNAL & PERINATAL HEALTH & NUTRITION											
	CS G	88	98	---	8,500	---	---	---	---	740	200	1,250	1,000
	FN G	88	98	---	2,500	---	---	---	---	---	---	---	---
	HE G	88	98	---	3,000	---	---	---	---	782	200	---	---
	PN G	88	98	---	1,000	---	---	---	---	---	---	---	---
PROJECT TOTAL:				---	15,000	---	---	---	---	1,522	400	1,250	1,000
936-5967		MALARIA FIELD TRIALS											
	HE G	87	87	8,000	23,000	---	---	2,000	---	2,000	2,000	2,000	2,500
PROJECT TOTAL:				8,000	23,000	---	---	2,000	---	2,000	2,000	2,000	2,500

*Refers to the planned project summary sheet

†Level of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
936-5968		HEALTHTECH											
	CS G	87	92		2,000	2,000	---	---	---	800	400	750	700
	HE G	87	92		4,000	4,000	---	---	1,000	---	500	---	500
		PROJECT TOTAL:			6,000	6,000	---	---	1,000	800	900	750	1,200
936-5969		TECHNOLOGY FOR PHC II											
	CS G	87	90		31,400	31,400	---	---	2,899	3,000	2,600	3,500	4,000
	HE G	87	96		15,700	15,700	---	---	---	---	---	---	---
		PROJECT TOTAL:			47,100	47,100	---	---	2,899	3,000	2,600	3,500	4,000
936-5970		TECH. ADVISORS IN CHILD SURVIVAL (TACS)											
	CS G	88	92		---	25,000	---	---	---	500	200	500	500
		PROJECT TOTAL:			---	25,000	---	---	---	500	200	500	500
936-5972		AIDS TECHNICAL SUPPORT											
	DG G	87	94		---	---	---	---	---	7,000	6,996	9,000	1,200
	HE G	87	94		---	---	---	2,920	---	---	---	---	---
	PN G	87	94		---	---	---	38	---	---	---	---	---
		PROJECT TOTAL:			---	---	---	2,958	---	7,000	6,996	9,000	1,200
936-5973		WATER AND SANITATION FOR HEALTH III											
	HE G	88	98		40,000	40,000	---	---	---	1,000	300	2,500	2,000
		PROJECT TOTAL:			40,000	40,000	---	---	---	1,000	300	2,500	2,000
936-5974		HEALTH FINANCING (H)											
	CS G	89	94		---	20,000	---	---	---	---	---	600	---
		PROJECT TOTAL:			---	20,000	---	---	---	---	---	600	---
		PROGRAM SUBTOTALS:			440,903	510,913	165,264	115,513	48,062	44,271	48,099	67,584	52,675
936-5965		GLOBAL AIDS PROGRAM-WHO											
	DG G	86	C		---	30,000	---	---	---	15,000	15,000	15,000	15,000
	HE G	86	C		---	6,141	1,141	35	5,000	2,806	---	3,300	---
		PROJECT TOTAL:			---	36,141	1,141	35	5,000	2,806	15,000	18,300	15,000
		PROGRAM SUBTOTALS:			---	36,141	1,141	35	5,000	2,806	15,000	18,300	15,000

Refers to the planned project summary sheet
C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: HEALTH

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD PLANNED	-THROUGH FY 86-		-ACTUAL FY 87-		-ESTIMATED FY 88-		-PROPOSED FY 89-		
					OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	
PROGRAM TOTALS:				440,903	547,054	166,405	115,548	53,062	47,077	63,099	85,884	67,675	73,448
GRANTS:				440,903	547,054	166,405	115,548	53,062	47,077	63,099	85,884	67,675	73,448
LOANS:				---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----													
AGR., RURAL DEV. & NUTRITION:				3,951	6,451	450	---	300	228	---	300	---	222
POPULATION PLANNING:				500	1,500	---	---	38	---	---	---	---	---
HEALTH:				367,877	386,028	157,265	114,671	41,725	40,401	29,759	45,992	27,366	38,646
CHILD SURVIVAL FUND:				68,575	123,075	8,690	877	10,999	6,448	11,340	17,596	16,309	18,380
AIDS:				---	30,000	---	---	---	---	22,000	21,996	24,000	16,200
EDUCATION & HUMAN RESOURCES:				---	---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:				---	---	---	---	---	---	---	---	---	---
ECONOMIC SUPPORT FUND:				---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.

For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: POPULATION

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD	PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES
932-0502	POPULATION PROGRAM DEVELOPMENT/SUPPORT PN G	68	C	---	---	17,371	16,473	1,874	557	2,404	2,400	2,000	2,414
	PROJECT TOTAL:			---	---	17,371	16,473	1,874	557	2,404	2,400	2,000	2,414
932-0955	FP INTERNATIONAL ASSISTANCE PROGRAM PN G	71	88	191,500	181,145	174,745	157,333	6,400	14,128	3,850	7,263	---	2,421
	PROJECT TOTAL:			191,500	181,145	174,745	157,333	6,400	14,128	3,850	7,263	---	2,421
932-0968	PROGRAM FOR VOLUNTARY STERILIZATION-AVS PN G	72	88	133,006	133,006	99,378	89,478	10,000	6,675	3,250	11,500	---	4,975
	PROJECT TOTAL:			133,006	133,006	99,378	89,478	10,000	6,675	3,250	11,500	---	4,975
935-3000	DEMOGRAPHIC DATA FOR DEVELOPMENT PN G	82	87	11,000	9,250	7,642	7,264	1,515	965	---	928	---	---
	PROJECT TOTAL:			11,000	9,250	7,642	7,264	1,515	965	---	928	---	---
935-3004	POPULATION COMMUNICATIONS SERVICES PN G	82	90	46,995	46,995	13,182	8,790	3,825	2,342	3,270	4,500	3,400	4,500
	PROJECT TOTAL:			46,995	46,995	13,182	8,790	3,825	2,342	3,270	4,500	3,400	4,500
936-3005	POPULATION COUNCIL PROGRAM PN G	78	88	36,287	36,287	27,622	21,500	4,500	3,684	2,446	5,250	---	4,134
	PROJECT TOTAL:			36,287	36,287	27,622	21,500	4,500	3,684	2,446	5,250	---	4,134
935-3017	AWARENESS OF POP IMPACT ON DEV (II) PN G	83	87	9,800	9,800	6,708	5,780	1,300	1,263	---	965	---	---
	PROJECT TOTAL:			9,800	9,800	6,708	5,780	1,300	1,263	---	965	---	---
935-3018	CONTRACEPTIVES PROCUREMENT OG G PN G	81 81	C C	---	---	---	---	---	---	3,000 6,686	---	3,000 6,750	3,000 10,000
	PROJECT TOTAL:			---	---	61,105	47,315	10,564	10,782	9,686	12,000	9,750	13,000
935-3023	DEMOGRAPHIC AND FAMILY HEALTH SURVEYS CS G PN G	84 84	88 88	---	1,500	---	---	500	---	380	400	---	---
	PROJECT TOTAL:			22,020	40,250	13,050	4,954	2,480	5,039	3,074	5,340	3,400	5,500

*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column -- All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: POPULATION

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES
PROJECT TOTAL:				22,020	41,750	13,050	4,954	2,980	5,039	3,454	5,740	3,400	5,500
936-3024	PN G	84	83	13,000	13,000	2,224	2,123	500	101	500	750	600	650
PROJECT TOTAL:				13,000	13,000	2,224	2,123	500	101	500	750	600	650
936-3027	PN G	84	87	8,548	8,548	4,134	3,583	770	654	---	667	---	---
PROJECT TOTAL:				8,548	8,548	4,134	3,583	770	654	---	667	---	---
936-3028	PN G	84	93	25,000	---	10,100	6,490	5,719	3,161	3,025	7,800	---	1,393
PROJECT TOTAL:				25,000	---	10,100	6,490	5,719	3,161	3,025	7,800	---	1,393
936-3030	PN G	84	93	36,842	73,200	20,724	10,038	8,000	5,967	5,140	10,344	5,500	10,344
PROJECT TOTAL:				36,842	73,200	20,724	10,038	8,000	5,967	5,140	10,344	5,500	10,344
936-3031	PN G	84	93	28,026	74,888	17,181	11,514	6,197	5,447	4,600	6,480	4,600	5,580
PROJECT TOTAL:				28,026	74,888	17,181	11,514	6,197	5,447	4,600	6,480	4,600	5,580
936-3032	CS G	84	91	2,700	---	---	---	---	---	---	---	---	---
	HE G	84	91	6,500	---	---	---	---	---	---	---	---	---
	PN G	84	91	35,100	35,100	7,730	4,908	1,805	1,369	1,550	2,340	1,550	2,124
PROJECT TOTAL:				44,300	35,100	7,730	4,908	1,805	1,369	1,550	2,340	1,550	2,124
936-3033	PN G	84	88	3,700	2,219	1,519	800	755	330	---	744	---	400
PROJECT TOTAL:				3,700	2,219	1,519	800	755	330	---	744	---	400
936-3034	PN G	85	89	39,321	39,321	7,507	2,896	5,000	3,224	3,700	5,400	5,000	5,400
PROJECT TOTAL:				39,321	39,321	7,507	2,896	5,000	3,224	3,700	5,400	5,000	5,400
936-3035	POPULATION POLICY INITIATIVES												

*Refers to the planned project summary sheet
C Level of effort activity

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For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: POPULATION

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES
	PN G	85	94	29,703	73,363	6,556	2,203	3,276	3,472	3,800	5,076	3,285	5,412
		PROJECT TOTAL:		29,703	73,363	6,556	2,203	3,276	3,472	3,800	5,076	3,285	5,412
935-3037	EXTENDING FP SRVCS THRU WOMEN MANAGERS												
	PN G	85	89	7,300	14,500	1,400	797	1,000	568	500	1,000	600	1,000
		PROJECT TOTAL:		7,300	14,500	1,400	797	1,000	568	500	1,000	600	1,000
935-3038	FP LOGISTICS MANAGEMENT												
	PN G	86	90	13,019	31,800	2,086	---	2,240	1,479	2,700	2,544	3,600	2,640
		PROJECT TOTAL:		13,019	31,800	2,086	---	2,240	1,479	2,700	2,544	3,600	2,640
935-3039	MANAGEMENT TRAINING												
	HE G	85	89	1,000	---	---	---	---	---	---	---	---	---
	PN G	85	89	17,679	17,679	5,260	1,538	2,000	2,901	1,670	3,060	1,975	2,580
		PROJECT TOTAL:		18,679	17,679	5,260	1,538	2,000	2,901	1,670	3,060	1,975	2,580
936-3040	NATURAL FP												
	PN G	85	89	20,000	20,000	5,300	1,395	2,900	1,105	2,000	3,408	2,000	2,916
		PROJECT TOTAL:		20,000	20,000	5,300	1,395	2,900	1,105	2,000	3,408	2,000	2,916
935-3041	FAMILY HEALTH INTERNATIONAL												
	PN G	85	94	58,500	167,900	16,380	7,329	7,385	9,111	6,900	8,700	7,050	9,000
		PROJECT TOTAL:		58,500	167,900	16,380	7,329	7,385	9,111	6,900	8,700	7,050	9,000
936-3042	FAMILY PLANNING SERVICES-PATH FINDER												
	PN G	85	94	60,000	60,000	21,750	5,843	8,597	6,879	3,500	10,200	6,000	10,200
		PROJECT TOTAL:		60,000	60,000	21,750	5,843	8,597	6,879	3,500	10,200	6,000	10,200
936-3043	EXPANSION/IMPROV. FP PROGRAMS												
	PN G	85	91	39,000	39,000	12,000	4,727	5,447	3,384	2,875	6,540	3,400	5,832
		PROJECT TOTAL:		39,000	39,000	12,000	4,727	5,447	3,384	2,875	6,540	3,400	5,832
935-3044	CONTRACEPTIVE RESEARCH AND DEVELOPMENT												
	PN G	86	95	31,760	80,680	4,750	---	3,240	1,977	3,000	3,800	3,200	3,840
		PROJECT TOTAL:		31,760	80,680	4,750	---	3,240	1,977	3,000	3,800	3,200	3,840
935-3045	TRAINING REPRODUCTIVE HEALTH II												

*Refers to the planned project summary sheet
C Level of effort activity

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SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: POPULATION

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES	
CS G		86	90		3,000	---	---	---	---	---	---	---	---	
HE G		86	90		2,000	---	---	---	---	---	---	---	---	
PN G		86	90		57,000	1,093	---	6,483	500	4,100	6,240	4,340	6,240	
PROJECT TOTAL:					57,000	1,093	---	6,483	500	4,100	6,240	4,340	6,240	
935-3046		DEMOGRAPHIC DATA INITIATIVE												
PN G		88	96		19,636	---	---	1,155	---	2,516	3,000	3,100	3,500	
PROJECT TOTAL:					19,636	---	---	1,155	---	2,516	3,000	3,100	3,500	
936-3047		FAMILY PLANNING INT'L ASSISTANT II												
PN G		88	92		97,000	---	---	---	---	1,150	---	6,000	5,500	
PROJECT TOTAL:					97,000	---	---	---	---	1,150	---	6,000	5,500	
936-3048		SERVICE EXPANSION & TECH. SUPPORT												
PN G		88	92		25,000	---	---	---	---	2,133	---	2,200	3,000	
PROJECT TOTAL:					25,000	---	---	---	---	2,133	---	2,200	3,000	
936-3049		PROGRAM FOR VOLUNTARY STERILIZATION-AVS												
PN G		88	92		80,000	---	---	---	---	4,750	---	8,000	7,500	
PROJECT TOTAL:					80,000	---	---	---	---	4,750	---	8,000	7,500	
936-3050		POPULATION COUNCIL PROGRAM PHASE II												
PN G		88	92		80,000	---	---	---	---	1,254	---	3,950	4,800	
PROJECT TOTAL:					80,000	---	---	---	---	1,254	---	3,950	4,800	
935-3051		CONTRACEPTIVE SOCIAL MARKETING II												
PN G		88	92		15,000	---	---	---	---	3,000	---	3,500	3,000	
PROJECT TOTAL:					15,000	---	---	---	---	3,000	---	3,500	3,000	
PROGRAM SUBTOTALS:					1,003,942	1,598,231	568,497	425,071	115,427	97,064	92,723	138,639	98,000	139,795
932-0662		UN FUNO FOR POP ACTIVITIES (UNFPA)												
PN G		88	C		---	---	413,291	413,291	---	---	20,000	20,000	20,000	
PROJECT TOTAL:					---	---	413,291	413,291	---	---	20,000	20,000	20,000	

*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: POPULATION

CP 89

PROJECT NO. PROJECT TITLE	L / * G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PROJECT-PLANNED	-THROUGH OBLIGA-TIONS	FY 86- EXPEN-DITURES	-ACTUAL OBLIGA-TIONS	FY 87- EXPEN-DITURES	-ESTIMATED OBLIGA-TIONS	FY 88- EXPEN-DITURES	-PROPOSED OBLIGA-TIONS	FY 89- EXPEN-DITURES	
PROGRAM SUBTOTALS:					---	---	413,291	413,291	---	---	20,000	20,000	20,000	
PROGRAM TOTALS:					1,003,942	1,598,231	981,788	838,362	115,427	97,064	112,723	158,639	118,000	159,795
GRANTS:					1,003,942	1,598,231	981,788	838,362	115,427	97,064	112,723	158,639	118,000	159,795
LOANS:					---	---	---	---	---	---	---	---	---	
---- APPROPRIATION SUMMARY ----														
AGR., RURAL DEV. & NUTRITION:					---	---	---	---	---	---	---	---	---	
POPULATION PLANNING:					988,742	1,596,731	981,788	838,362	114,927	97,064	109,343	158,239	115,000	156,795
HEALTH:					9,500	---	---	---	---	---	---	---	---	
CHILD SURVIVAL FUNDS:					5,700	1,500	---	---	500	---	380	400	---	
AIOS:					---	---	---	---	---	3,000	---	3,000	3,000	
EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---	---	
SELECTED DEVELOP. ACTIVITIES:					---	---	---	---	---	---	---	---	---	
ECONOMIC SUPPORT FUNDS:					---	---	---	---	---	---	---	---	---	

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR SCIENCE AND TECHNOLOGY

PROGRAM: PROGRAM OFFICE

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES		
935-1406	PROGRAM DEVELOPMENT AND SUPPORT													
	FN G	72	C	---	---	4,519	3,051	1,390	1,068	1,158	1,200	1,200	1,200	
	HE G	72	C	---	---	113	29	70	96	---	58	---	---	
	SD G	72	C	---	---	4,432	3,412	225	1,099	430	400	700	700	
	PROJECT TOTAL:				---	---	9,064	6,492	1,685	2,263	1,588	1,658	1,900	1,900
936-1421	AID/PEACE CORPS SMALL PROJECT ASST													
	FN G	85	87	1,415	1,415	340	---	440	152	---	400	---	228	
	HE G	85	87	2,250	1,900	1,500	500	400	999	---	401	---	---	
	PROJECT TOTAL:				3,665	3,315	1,840	500	840	1,151	---	801	---	228
936-5054	INFORMATION TRANSFER													
	FN G	85	89	3,300	1,765	1,500	699	265	746	---	320	---	---	
	PROJECT TOTAL:				3,300	1,765	1,500	699	265	746	---	320	---	---
	PROGRAM TOTALS:				6,965	5,080	12,404	7,691	2,790	4,160	1,588	2,779	1,900	2,128
	GRANTS:				6,965	5,080	12,404	7,691	2,790	4,160	1,588	2,779	1,900	2,128
	LOANS:				---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----														
AGR. RURAL DEV. & NUTRITION:					4,715	3,180	6,359	3,750	2,095	1,966	1,158	1,920	1,200	1,428
POPULATION PLANNING:					---	---	---	---	---	---	---	---	---	---
HEALTH:					2,250	1,900	1,613	529	470	1,095	---	459	---	---
CHILD SURVIVAL FUND:					---	---	---	---	---	---	---	---	---	---
AIDS:					---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:					---	---	4,432	3,412	225	1,099	430	400	700	700
ECONOMIC SUPPORT FUND:					---	---	---	---	---	---	---	---	---	---

* Refers to the planned project summary sheet
C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

**SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)**

BUR. FOR PROGRAM AND POLICY COORDINATION

PROGRAM: CENTRALLY FUNDED

CP 89

PROJECT NO. PROJECT TITLE	L / * G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES
930-0022 SOCIO ECONOMIC STUDIES AND ACTIVITIES													
EH G		82	C	---	---	1,511	1,121	411	411	315	250	255	250
FN G		87		---	---	3,337	2,261	949	901	1,381	700	970	800
HE G		87		---	---	1,485	1,111	366	324	603	450	385	425
PN G		78	C	---	---	2,449	2,020	178	422	611	600	310	520
SO G		80	C	---	---	5,857	3,578	1,601	2,096	840	640	1,080	600
PROJECT TOTAL:						14,639	10,091	3,505	4,154	3,750	2,640	3,000	2,595
930-0023 TITLE IX													
SD G		78	C	---	---	1,770	1,409	252	394	400	300	400	300
PROJECT TOTAL:						1,770	1,409	252	394	400	300	400	300
930-0085 INTEGRATED STUDIES AND SYSTEMS													
EH G		80	C	---	---	---	---	202	25	50	20	180	100
FN G		80	C	---	---	11	11	255	191	394	175	350	200
HE G		80	C	---	---	---	---	115	62	45	20	220	100
PN G		80	C	---	---	---	---	---	---	20	10	250	150
SO G		80	C	---	---	5,627	4,831	399	864	300	200	100	50
PROJECT TOTAL:						5,638	4,842	971	1,142	809	425	1,100	600
930-0100 MID STRATEGIES AND RESOURCES													
EH G		80	C	---	---	3,395	2,468	490	1,009	450	300	517	400
FN G		80	C	---	---	3,919	3,421	696	564	1,042	600	800	600
HE G		87		---	---	---	---	250	---	60	60	233	150
PN G		80		---	---	713	195	325	684	250	150	250	200
SD G		80	C	---	---	6,233	5,262	174	926	198	198	200	113
PROJECT TOTAL:						14,260	11,346	1,935	3,183	2,000	1,308	2,000	1,463
930-0232 INFORMATION AS A TOOL IN DEVELOPMENT													
EH G		87		---	---	---	---	395	83	360	200	280	240
FN G		76	C	---	---	2,547	2,444	1,573	1,453	1,651	1,400	1,584	1,420
HE G		87		---	---	---	---	466	19	525	300	360	350
PN G		76	C	---	---	---	---	---	---	150	50	322	125
SD G		76	C	---	---	6,888	5,535	390	1,385	325	300	184	300

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR. FOR PROGRAM AND POLICY COORDINATION

PROGRAM: CENTRALLY FUNDED

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHO	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
PROJECT TOTAL:					---	---	9,435	7,979	2,824	2,940	3,011	2,250	2,730	2,435
930-0264	AG INFORMATION AND RELATED SERVICES													
	FN G	74	C	---	---	1,480	1,119	445	400	180	150	170	120	
PROJECT TOTAL:					---	---	1,480	1,119	445	400	180	150	170	120
930-0600	PEACE CORPS													
	FN G	85	C	---	---	---	---	---	---	1,200	1,000	1,200	1,000	
	HE G	85	C	---	---	---	---	---	---	800	500	800	500	
PROJECT TOTAL:					---	---	---	---	---	2,000	1,500	2,000	1,500	
930-0700	UN CHILDRENS FUND													
	CS G	85	C	---	---	7,500	1,058	---	776	---	3,000	---	2,000	
PROJECT TOTAL:					---	---	7,500	1,058	---	776	---	3,000	---	2,000
930-2256	SURVEYS AND EVALUATION SUPPORT													
	SO G	81	C	---	---	1,737	1,449	---	288	---	---	---	---	
PROJECT TOTAL:					---	---	1,737	1,449	---	288	---	---	---	
935-4111.	INTL AGRICULTURE RESEARCH CENTERS													
	FN G	68	C	---	---	362,597	353,299	40,000	21,445	42,000	42,000	40,000	40,000	
PROJECT TOTAL:					---	---	362,597	353,299	40,000	21,445	42,000	42,000	40,000	40,000
935-5544	US/ISRAEL PRG FOR COOP DEV RESEARCH													
	SD G	85	C	---	---	---	---	---	---	---	---	5,000	5,000	
PROJECT TOTAL:					---	---	---	---	---	---	---	5,000	5,000	

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR. FOR PROGRAM AND POLICY COORDINATION

PROGRAM: CENTRALLY FUNDED

CP 89

PROJECT NO. PROJECT TITLE * G	L / OBLIG	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86-		-ACTUAL FY 87-		-ESTIMATED FY 88-		-PROPOSED FY 89-			
						OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES		
PROGRAM TOTALS:						---	---	419,056	392,592	49,932	34,722	54,150	53,573	56,400	56,013
GRANTS:						---	---	419,056	392,592	49,932	34,722	54,150	53,573	56,400	56,013
LOANS:						---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----															
AGR., RURAL DEV. & NUTRITION:						---	---	373,891	362,555	43,918	24,954	47,848	46,025	45,074	44,140
POPULATION PLANNING:						---	---	3,162	2,215	503	1,106	1,031	810	1,132	995
HEALTH:						---	---	1,485	1,111	1,197	405	2,033	1,330	1,998	1,525
CHILO SURVIVAL FUND:						---	---	7,500	1,058	---	776	---	3,000	---	2,000
AIDS:						---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:						---	---	4,906	3,589	1,498	1,528	1,175	770	1,232	990
SELECTED DEVELOP. ACTIVITIES:						---	---	28,112	22,064	2,816	5,953	2,063	1,638	6,964	6,363
ECONOMIC SUPPORT FUND:						---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.



OFFICE OF THE SCIENCE ADVISOR

Responsible Officer:

Howard A. Minners, M.D.

HOWARD A. MINNERS

Science Advisor

PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
9.662	9.262	8.662

1/ Requested under Section 106(e) (1) of the Foreign Assistance Act for the Energy, Private Voluntary Organizations and Selected Development Activities account.

PROGRAM IN SCIENCE AND TECHNOLOGY COOPERATION

OVERVIEW

The Office of the Science Advisor (SCI) seeks to take advantage of breakthroughs and advances on the cutting edge of science and to explore the potential uses of new and particularly innovative technologies that are related to international development. Concurrently, the Office seeks to strengthen the capacity of less developed countries (LDCs) to apply these new technologies. The program emphasizes innovation, e.g., biotechnology, genetic engineering, tissue culture, immunochemistry, biological control of disease-carrying organisms, the development of new food and tree crops, etc. This modest program is an important instrument of A.I.D.'s policy to collaborate with LDC scientists in establishing priorities for future programs of technology transfer. The program began in FY 1981 as the Program in Science and Technology Cooperation (PSTC). The purpose was to take a more innovative and collaborative approach and to seek alternative solutions to the problems and processes of development and technology transfer. The funds provided are in addition to those made available for regular research and technical assistance under other A.I.D. functional accounts.

The program developed quickly and currently involves scientists from over 60 developing countries. While their scientific approaches may be new, the problems they are researching are often long-standing and intractable, e.g., control of disease-carrying mosquitoes, plant resistance to disease, control of respiratory diseases, low cost enrichment of soils, recycling of wastes, development of new vaccines and diagnostic tests, elimination of disease-carrying snails, and alternatives to petroleum-based fertilizers. Over 3,900 requests for funding have been submitted to PSTC to date; the majority are from LDC scientists who are participating for the first time in an A.I.D. research program. The growing LDC interest in the program, in the face of rigorous scientific review criteria, demonstrates an increasing readiness of LDC institutions to contribute to their own development.

POLICIES

Relevant research contributes to accelerated economic growth. Accelerated social and economic growth in LDCs is a central theme upon which A.I.D.'s specific policies rest. To develop and transfer technology for long-term sustainable growth in LDCs, the PSTC program specifically pursues

innovative ideas for application in selected LDCs. Concurrently, the PSTC program strives to strengthen competence among researchers in developing countries.

Over the past six years, policy has been to focus on particularly promising research in target countries. Hence, approximately 60% of PSTC funds are used for a Competitive Research Grants program in biotechnology-immunology; plant biotechnology; chemistry for world food needs; biomass resources and conversion technology; biological control of disease-bearing organisms and a new area, biological diversity. The remaining 40% of the funds are used for the LDC Research Networking program with the National Academy of Sciences to identify underexploited resources of potential economic value such as grain amaranth; biological nitrogen fixation; fast growing trees; mosquito vector field studies; rapid epidemiologic assessment methods; and acute respiratory infections in children. The two programs have been designed to avoid overlap, and are coordinated to assure requests for funding are reviewed by the appropriate staff.

In keeping with its exploratory role, this program supports the initial research phase of chosen topics, typically of three years duration. Program activities are concerned primarily with the so-called hard sciences, e.g., biology, chemistry and engineering.

DESCRIPTION OF PROGRAM

I. Competitive Research Grants

A.I.D. requests \$6.662 million for this competitive research grants program in FY 1989. In FY 1988 A.I.D. plans to obligate \$6.462 million for the approximately 35 proposals to be selected from over 400 submitted for competitive consideration. In FY 1987, A.I.D. obligated \$5.6 million. Of this amount, \$5.2 million funded 37 proposals under the Innovative Scientific Research Project (936-5542) and \$0.4 million funded technical assistance activities under the Strengthening Scientific and Technological Capacity Project (936-5543).

Proposals are selected in accordance with guidelines which emphasize three objectives:

- To stimulate and support new research approaches to current or emerging development problems;
- To assist LDCs in building the scientific and technological capacity they need to attack such problems on their own; and
- To involve LDC scientists and scientific institutions more directly in science planning, information exchange and technology transfer.

Proposals are sought principally within the following six priority research modules:

1. Biotechnology/Immunology, in human or animal systems, including recombinant microbiology (genetic engineering), monoclonal antibodies and related immunological techniques for better and more rapid diagnosis, immunotherapy, vaccine development, and related health applications.
2. Plant Biotechnology, including tissue culture research, protoplast fusion, somaclonal variation, and recombinant microbiology for use in agriculture, e.g., gene expression, transfer and regulation; drought tolerance; insecticide and herbicide resistance, etc.
3. Chemistry for World Food Needs, particularly biochemical growth regulation in plants and animals, soil chemistry, soil-plant-animal relationships (biochemistry), innovative food chemistry, and the chemistry of integrated aquaculture systems.
4. Biomass Resources and Conversion Technology, emphasizing new and improved processes for producing fuels, fodder and chemicals from biomass, especially better digestion and use of lignocellulose, improved thermochemical cleaning and storage of producer gas, and development of under-utilized land or marine biomass resources.
5. Biological Control of human schistosomes and associated snail vectors, and plant crop viruses and their arthropod vectors. Emphasis is given to biologically and ecologically acceptable approaches for the interruption of disease transmission based on innovative studies of microorganism-host-vector relationships encompassing genetics, biochemistry, immunology, pathophysiology, reproductive biology (juvenile hormones, pheromones), natural predation, ecology and pathobiology of the pathogens themselves.
6. Biological Diversity is a new research module initiated in FY 1986 whose substantive focus was derived from the results of the Congressionally mandated study of biological diversity and previous PSTC and NAS experience in genetic resources research.

In addition to the foregoing, there will be some flexibility to consider a very small number of proposals in engineering technology, and in earth, atmospheric and marine sciences. Proposals funded in these additional areas may form the basis for establishing future research modules.

The proposals undergo internal and external scientific peer review and are specifically evaluated for scientific merit, relevance to development, innovative character, and LDC capacity-building aspects. Research proposals from LDC institutions which have good potential but inadequate

design may receive modest technical assistance from the Strengthening Scientific and Technological Capacity Project to enhance their competitiveness.

Response from the scientific community has been most enthusiastic and is increasing. In FY 1981 120 submissions were received compared to the more than 400 received for the FY 1987 competition. Altogether, some 3,900 submissions have been received through October 1987, with the majority now originating in LDCs. Two-thirds of the proposals funded in FY 1986 were awarded directly to LDC institutions. An additional one third involves active LDC collaboration with U.S. scientists.

Because this program supports the initial phase of research and much of the research is longer term, results are not always immediate. Some of the projects, however, have begun to show results:

Following the positive review of the program by A.I.D.'s research advisory committee in 1985, in 1987 a program of evaluation studies was started. In the summer of 1987 a meeting of 57 grantees in Thailand provided a unique occasion for senior Thai officials to evaluate the impact on a prototypical country. This meeting was co-sponsored by Thailand's Royal Family. An indepth review was also conducted on biomass production and conversion, as well as a review of projects in soil chemistry and microbiology. All were generally favorable, while providing specific recommendations on new approaches that could be introduced. Future efforts focus on biotechnology in plant and animal systems in 1988. Since heavy use is made of volunteer scientists and scientific fellows, costs have been unusually low.

The Central American Institute for Research and Industrial Technology (ICAITI) has recently completed work under one of the earliest PSTC grants. They focused on processing of wastes (bagasse) from the production of sugar and essential oils (lemon grass and citronella bagasse). Twelve journal articles have resulted from this modest project, seven of which have already been accepted for publication. (There have also been nine presentations accepted at scientific meetings.) The results were multiple and can serve to stimulate further progress toward commercial processes. ICAITI studied several pre-treatment processes, finding that they were effective in increasing digestability of all three types of bagasse. They found organic solvents were particularly successful, suggesting that in some cases industrial processes for lignocellulosic materials based on sulphur chemistry, which frequently present serious environmental problems, could be replaced with more benign organic solvent processes. They also suggest that pretreatments of sugar bagasse may allow this material to be used economically as cattle feed--a topic they recommend for more research. In one experiment they tested varieties of white-rot fungi. A problem of utilization of agricultural wastes is that the lignin in the bagasse is tightly bound to the cellulose, and interferes with its digestion. White rot fungi have a natural

mechanism to break this linkage, and the residues of the fungi enrich the bagasse after the removal of the lignin . ICAITI has received additional funding from the U.N. University to follow-up on these findings. One of the fungi used, the Oyster mushroom, was singled out by Carlos Rolz, the principal investigator, as of special interest since the fruiting bodies have a good market in addition to the value that they add to the substrate on which they are grown. Another PSTC project (5.070) is following-up on this lead.

One of the interests of A.I.D./SCI has been underexploited plants of potential economic value to developing countries. In this respect, the winged bean appears to be especially noteworthy. The winged bean is a relatively little known legume that has been singled out by the National Academy of Sciences for special attention, and is now the focus of research for the Winged Bean Institute in Sri Lanka. The winged bean grows well as a kitchen garden crop in tropical Asia, and virtually every part of the plant is used by villagers. It is a potentially valuable leguminous source of protein for the poor. With a PSTC grant, Dr. Venketeswaran of the University of Houston has been studying tissue culture techniques applied to this plant. He reports that although leguminous plants have generally been found not to regenerate whole plants from in vitro cultures, he has succeeded in establishing a process which routinely regenerates plantlets from winged bean callus culture. This should be an important step in allowing the more advanced techniques of biotechnology to be used to speed improvement of this potentially important group for the tropics.

II. LDC Research Networking

In FY 1989, A.I.D. requests \$2.0 million for the Applying Science and Technology to Development II project (936-5545) administered by the National Academy of Sciences (NAS). In FY 1988, A.I.D. plans to obligate \$2 million for this program.

The NAS solicits proposals from LDC institutions which are judged to have the competence, interest and local conditions for best contributing to the objectives of the research networks. Proposals are subject to peer review and funding decisions are made by a committee of scientists. About one-third of the proposals submitted have been funded. The NAS provides a range of support services to the principal investigator: help in project design; workshops where principal investigators share information; and, when required, short-term training in innovative research technologies.

For FY 1989 the NAS program will fund the following four networks of LDC research:

1. The network on Tropical Trees which deals with leguminous and other fast-growing tropical species. These are important both for reforestation and for agro-forestry. Grants have been approved in

Chile, the People's Republic of the Congo, Kenya, Malawi, Mexico, Panama, the Philippines, Senegal, Sudan, and Thailand.

2. The Mosquito Vector research network which continues studies on the ecology of mosquitoes which transmit malaria and viral diseases such as dengue and yellow fever, and develop new vector control mechanisms such as natural predators and pathogens of the vectors. Institutions in Columbia, Guatemala, Kenya, Malaysia, Mexico, Pakistan, Panama, Peru, Senegal, Sri Lanka, Thailand and Uganda are participating in this network.
3. The network on Rapid Epidemiological Assessment develops low-cost, easily implemented, approaches to the identification of public health problems in developing countries. Ten institutions in Brazil, Chile, Ecuador, Egypt, Guatemala, India, Peru, and the Philippines, will continue in this area.
4. The final network - Acute Respiratory Infection in Children - has subgrants with activities in such countries as Guatemala, Papua New Guinea, Uruguay, Kenya, Nigeria and the Philippines, Bangladesh, Colombia, Chile, India, Pakistan, and Thailand. While respiratory disease is a major killer of children in developing countries, public health authorities lack information on which specific disease-causing organisms are incriminated as the major killers. This network is beginning to provide the basic data to allow more effective control measures to be taken.

Two research networks, dealing with grain amaranth and biological nitrogen fixation are being phased-out to concentrate limited resources on the most productive areas. In the first grant, subgrants for research in these topics were completely funded, in some cases into 1990. These will continue with NAS supervision, until the research is completed.

In Lima, Claudio Lanata of the Institute of Nutritional Research (IIN) has adapted a technique borrowed from industrial quality control, Lot Quality Assurance Sampling, to evaluate health services and measure health status. The advantage of the technique is that it requires a very small number of subjects to decide whether to "accept or reject a lot." In Lanata's work, a lot refers not to industrial products on an assembly line, but to vaccinated children in a health-service district. In an early trial, he was astonished at the low vaccination rates he was finding; follow-up revealed a shortage of vaccine that had not been reported by the health services to the Ministry of Health. This timely information helped establish a good working relationship between Lanata's research group and ministry officials. Particularly interesting is the use of microcomputers in the field survey. Microcomputers are operated in a van with the driver doubling as data entry person, and although the survey team is away from the institute for weeks at a time, they are able to process the data on the spot and give each village a report on the results before leaving.

Another project of particular interest is that of Hernando Flores in Brazil on use of autopsy measurements of liver retinol reserves to evaluate vitamin A deficiency in the population at large. Flores work provides a new and relatively low-cost way of assessing a health problem of increasing concern in developing countries.

In the Rapid Epidemiological Assessment program, a project in Peru has applied quality control methods to evaluate the effectiveness of health services and prevalence of malnutrition. The approach appears to provide quick, cheap and reliable data to improve the efficiency and effectiveness of health services. The method is now described in a working manual and the researchers and the Peruvian Ministry of Health are institutionalizing its use. In Guatemala, researchers have developed a "sentinal" warning system: school teachers are trained to measure pupils' height, and averaged results are used to predict the prevalence of malnutrition in the community. Similarly, a Brazilian group takes data from routine children's autopsies to assess the state of the community's vitamin A malnutrition. Both approaches provide new and very low cost sources of community public health data to health planners.

In the Philippines, Jane Baltazar is conducting a study to assess the value of case control methods as a way to evaluate the effectiveness of a water and sanitation program in reducing diarrhea. This study compares data collected from a traditional long-term and expensive prospective study of diarrhea with the data from the much quicker case control method. Preliminary studies suggest the case control method provides acceptable accuracy and greatly reduces the cost of doing such studies. A recently funded proposal in Chile will use the case control methodology as a means of evaluating the efficacy of typhoid fever vaccines, under situations where the administration of a placebo vaccine is not possible. The normal approach requires a control group to receive no vaccine but be allowed to be exposed to the same risk of disease as the vaccinated group. Because the immunization program is administered through the government, the establishment of a randomly selected control group from whom immunization is withheld would be unethical. The case control method avoids this problem: when a typhoid case is found, controls are selected and the surveyor determines whether and when they have been immunized. This gives the program manager a means of evaluating the efficacy of the vaccine in the field without the expense of following subjects for several years to accumulate enough typhoid cases to evaluate.

The NAS also carries out selected studies, workshops and other activities related to the development of LDC research programs, including a major dissemination effort of NAS findings. Examples include: 1) a workshop on transfer of microcomputer technology for development, 2) a publication on triticale and high protein corn varieties, and 3) a publication on educational applications of microcomputers in developing countries.

The NAS has been strongly encouraged to seek additional complementary resources that would match those provided by A.I.D. in the new grant. While the NAS itself, which is Congressionally chartered but without Congressional appropriation, has very limited resources, it has attracted contributions, mostly in kind.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

OFFICE OF THE SCIENCE ADVISOR

PROGRAM: SCIENCE ADVISOR

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 36- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 27- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 83- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES		
936-5538	SD G	31	35	36,000	36,000	29,525	16,677	4,057	10,342	1,500	9,500	---	8,500	
				PROJECT TOTAL:	36,000	36,000	29,525	16,677	4,057	10,342	1,500	9,500	---	8,500
936-5542	FN G SD G	83 81	C	47,130	47,130	29,676	17,429	5,240	5,747	600 5,862	---	7,800	---	200 7,400
				PROJECT TOTAL:	47,130	47,130	29,676	17,429	5,240	5,747	6,462	7,800	6,362	7,600
936-5543	SD G	81	C	3,203	3,203	2,431	2,070	365	296	800	350	300	600	
				PROJECT TOTAL:	3,203	3,203	2,431	2,070	365	296	800	350	300	600
936-5544	SD G	85	C	19,000	19,000	6,785	611	5,000	2,216	4,000	9,000	---	3,000	
				PROJECT TOTAL:	19,000	19,000	6,785	611	5,000	2,216	4,000	9,000	---	3,000
936-5545	SD G	88		15,000	8,000	---	---	---	---	500	---	2,000	800	
				PROJECT TOTAL:	15,000	8,000	---	---	---	---	500	---	2,000	800
PROGRAM TOTALS:				120,333	113,333	68,417	36,787	14,662	18,601	13,262	26,650	8,662	20,500	
GRANTS:				120,333	113,333	68,417	36,787	14,662	18,601	13,262	26,650	8,662	20,500	
LOANS:				---	---	---	---	---	---	---	---	---	---	

---- APPROPRIATION SUMMARY ----

AGR. / RURAL DEV. & NUTRITION:	---	---	---	---	---	---	---	---	600	---	---	---	200
POPULATION PLANNING:	---	---	---	---	---	---	---	---	---	---	---	---	---
HEALTH:	---	---	---	---	---	---	---	---	---	---	---	---	---
CHILD SURVIVAL FUND:	---	---	---	---	---	---	---	---	---	---	---	---	---
AIDS:	---	---	---	---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:	---	---	---	---	---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:	---	---	---	120,333	113,333	68,417	36,787	14,662	18,601	12,662	26,650	8,662	20,300
ECONOMIC SUPPORT FUND:	---	---	---	---	---	---	---	---	---	---	---	---	---

ITEMS RETRIEVED 10

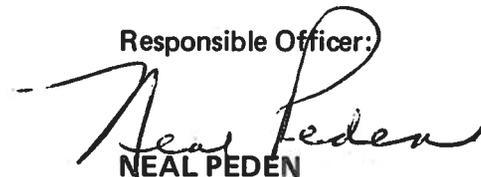
*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column -- All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

BUREAU FOR PRIVATE ENTERPRISE

Responsible Officer:

A handwritten signature in black ink that reads "Neal Peden". The signature is written in a cursive style with a large, looped initial "N".

NEAL PEDEN

*Assistant Administrator
Bureau for Private Enterprise*

PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
36,358	19,843	25,550

Bureau for Private Enterprise

The Bureau for Private Enterprise (PRE) provides ideas, direct investments, guidance and expert assistance to A.I.D. and its missions to achieve self-sustaining, equitable economic growth in developing countries. This private sector initiative reinforces the congressional mandate to help improve the lives of the poor in A.I.D.-assisted countries through private business activities that generate increased income and purchasing power, employment opportunities and overall economic growth. As a Bureau embodying the concept of market orientation and market growth for development, PRE helps the Agency to focus resources on the private, rather than the public sector, and is a cost-effective way of providing private sector technical assistance, investment funds, and project ideas for A.I.D. field missions.

PRE has focused on: facilitating policy reform needed to improve LDC business climates; building an investment portfolio which provides innovative models for replication in the field, and which has its own development impact, especially on small and medium-sized LDC businesses and the private financial markets serving them; strengthening capital markets; privatizing state-owned and controlled enterprises; and providing private sector skills training in both developing countries and within A.I.D. Through its Office of Housing and Urban Programs, the Bureau also assists missions in undertaking shelter and urban programs that improve the living conditions of the urban poor.

By way of illustration, since its establishment in 1981, the Bureau for Private Enterprise has:

- Helped the missions find effective ways to work with and through the indigenous private sector, such as providing expertise for mission strategic plans in the Dominican Republic, Sri Lanka, Tunisia and the South Pacific region;
- Leveraged A.I.D. funds invested in projects by attracting outside resources on a ratio of up to one to four;
- Placed over \$60M in 30 loans through its Revolving Fund. The Revolving Fund enables PRE to invest directly in developing country private sectors to foster economic growth and development. Fund investments have created jobs, generated income and foreign exchange and demonstrated the feasibility to missions and LDC institutions of lending at market rates;

- Developed innovative financing mechanisms which have (a) engaged U.S. banks in development, (b) shielded LDC borrowers from the foreign exchange risk of borrowing dollars, and (c) explored nontraditional areas such as securitized trade;
- Encouraged replication of PRE projects and project ideas by missions in Kenya, Morocco, Guatemala, Ecuador, Thailand and the Philippines;
- Brought privatization up front among A.I.D. priorities, by funding A.I.D.'s 1986 International Conference on Privatization, and supporting regional followup conferences in the Philippines, Fiji and Tunisia;
- Established and funded the Center for Privatization, which has fielded nearly 100 specialists to 40 countries to help plan for and carry out actual privatizations (including joint funding activities with missions, as in Honduras and Tunisia);
- Funded some 600 projects annually through the International Executive Service Corps (IESC) in order to bring hands-on American managerial and technical skills to LDC small businesses;
- Provided PRE funding as "seed money" for projects capable of continuing on their own, such as Cooperative Business International, which stimulates two-way trade opportunities between U.S. and Third World partners;
- Launched a financial markets development program which has helped revamp Indonesia's investment code, laid the foundation for a capital markets authority in Kenya, and helped the Dominican Republic design a debt/equity swap program.

In FY 1989 the Bureau is proposing two initiatives: a loan guaranty authority for the Revolving Fund program and a trade and technology project called U.S. Trade/Tech. In 1987 legislation was submitted to Congress which would complement the Revolving Fund with guaranty authority of up \$100 million in FY 1989. While the Revolving Fund program has demonstrated a positive loan repayment record, PRE believes it is more effective to implement a guaranty mechanism to leverage additional private sector resources than to fully fund the program through direct lending. It is proposed that reserves for the guaranteed loans would come from the Revolving Fund assets. Direct lending will continue, but at a reduced level. The Bureau proposes to initiate a trade and technology project in FY 1989 which will consolidate and refocus two PRE-funded ongoing activities, Commercialization of Technology and U.S.

Private Sector Investment Abroad (940-5000). The U.S. Trade/Tech project promotes increased LDC economic growth through expanded trade and investment. For FY 1989, the PRE budget request is \$22,780,000 (not including the guaranty authority).

STRATEGIC APPROACH AND PROJECT ACTIVITY

PRE's strategic approach to its objectives is through the following key program elements: Mission Technical Support; Revolving Fund program; PRE Program Support; and Housing and Urban Development. A primary focus of the Bureau is joint action with, and services to, A.I.D. field missions in developing policies, strategies and programs that promote private sector-led growth. This cuts across all program elements. The following narrative describes these interlocking activities in detail.

I. Mission Technical Support Program: The Bureau provides a balanced package of services through its Office of Project Development to assist A.I.D. missions in programming their resources for maximum impact on the institutional framework needed for market-based development in host countries. Projects under this program provide mechanisms encouraging missions and other bureaus to co-finance activities. The heavy use of these mechanisms - on a two-to-one ratio compared with core PRE funding - reflects the degree of mission support for the PRE services and for private sector activities generally.

The PRE Mission Technical Support budget request of \$11,020,000 for FY 1989 consists of the following activities:

Table 1
PRE MISSION TECHNICAL SUPPORT FY 1989

<u>Program Activity</u>	<u>(000s) Funding</u>
Private Enterprise Development	
Support	\$ 1,500 (G)
Financial Markets Development	\$ 760 (G)
Divestiture & Privatization	\$ 2,250 (G)
Training Development	\$ 250 (G)
International Executive	
Service Corps (IESC)	\$ 5,260 (G)
U.S. Trade/Tech	\$ 1,000 (G)
TOTAL	\$11,020 (G)

940-2028 - Private Enterprise Development Support (\$1,500,000):

In FY 1986 the Bureau began implementation of this project to respond to requests from A.I.D. missions for assistance in a wide variety of private enterprise-related problems. The project has provided support to some 40 activities in the Caribbean Region, Latin America, Asia, Africa, the Middle East and the United States, affecting a broad range of private sector development issues including:

- Mission private sector strategy development;
- public/private sector policy reform;
- investment law;
- export promotion;
- technology transfer;
- service sectors;
- free zones; and
- industrial development.

Demand for services under the project far outstripped resources available. Two multi-year contracts were awarded in FY 1987 to expand upon the initial project. These new contracts allow missions to co-finance activities, further leveraging limited Bureau resources. These services will be responsive not only to requests for broad program strategy development and policy reform but also to sector-specific activities in agriculture, agro-industry, human resources and health. In this way the P&E Bureau can work with missions at all levels of program design and implementation to incorporate private sector mechanisms in the delivery of services.

940-2005 - Financial Markets Development - (\$760,000):

The Financial Markets Development Project is designed to improve the mobilization of private capital in developing countries. Financial markets play a crucial role in channeling domestic savings into industrial and other priority investment activities, as an alternative to capital flight. The availability of capital for start-up and expansion of existing companies is critical to increasing productivity and raising developing country standards of living.

This project capitalizes on the growing realization among LDC governments that directed economies, fueled in large measure by official government credits, do not work. In general, the major deterrent to developing effective financial markets is the lack of an appropriate policy structure. Indeed, the policy environment in many LDCs discourages financial markets. LDCs also lack institutional support for market development.

Financial institutions, other than a limited number of commercial banks, rarely exist. The regulatory support for viable markets is lacking, and accounting, underwriting, and credit practices are often substandard. There is a general reluctance among developing countries to rely on market forces and market interest rates to mobilize and allocate resources. There is also a lack of appreciation of the relationship between the investor/depositor and the economic variables that affect development of capital markets.

The project makes experts available to developing countries to help resolve these policy issues. The project provides services from preliminary assessment to project implementation, to address the components of the financial system that are key to the expansion of capital markets, e.g., debt instruments, regulatory agencies.

During FY 1987, the project undertook 19 activities in the following areas:

Financial sector assessments (Central America regional study, Kenya, Pakistan, Yemen);

Sponsorship of training in U.S. financial markets (Indonesia, Zambia);

Feasibility studies for private sector energy, power and utility financing projects (Indonesia, Morocco, Panama); and

Review of specific regulations and development of new financial instruments (Jordan, Morocco).

In FY 1988 and beyond the project activities will be focused on several countries that provide the most promise for expanded financial markets reform. Indonesia, with a relatively well developed system and a government showing positive signs of further liberalization, will continue to be a key recipient of services. Kenya, where the project is assisting with the founding of a Capital Markets Authority, will also receive assistance. Tunisia, with a new government committed to liberalization and privatization of state-owned enterprises, shows great promise. Morocco, with a highly liquid banking system frustrated by stringent reserve and lending policies, will require continued assistance. Other nations such as Jordan, Senegal, Thailand, Honduras, and Bolivia will be considered.

As the most comprehensive source of technical assistance within A.I.D. for the expansion of capital and equity markets, the project will be continued in FY 1989.

940-0008 - Divestiture and Privatization (\$2,250,000): The goal of this project is to help create a policy climate and provide technical and financial support to accelerate transfer of state-owned or controlled enterprises or functions to the private sector in developing countries. Project objectives are (a) to increase the frequency and success of privatization endeavors by enhancing the ability of governments to carry out such efforts; (b) to increase the store of in-house knowledge of the issues involved within the Bureau for Private Enterprise and individual A.I.D. missions; (c) to enhance A.I.D.'s capabilities in the preparation of privatization strategies, policies, and tactics; and (d) to provide motivating and catalytic ingredients to developing country government policies and actions.

The project includes the provision of technical expertise needed by A.I.D. missions for preparing country and sector-specific divestiture and privatization strategies; developing a list of components of a policy dialogue with host country public and private sector leaders; and implementing divestiture and privatization actions in selected countries.

In FY 1987, the second year of implementation, the project was active in all the geographic regions, providing assistance to A.I.D. missions in a wide range of areas such as policy dialogue, project design, enterprise valuation, conference organization and enterprise-specific divestiture. The Center for Privatization, funded under the project, has provided technical assistance to some 40 countries. For example, in FY 1987 the project:

- worked with the mission in Honduras to implement a strategy for the divestiture of some 60 state-owned enterprises;
- developed national privatization plans for the Philippines and Thailand;
- carried out privatization conferences in Tunisia and Fiji which stimulated policy dialogue, and generated specific follow-on privatization actions in participating countries;
- assisted the Government of Tunisia privatization commission by providing advisers to analyze specific policy issues (e.g., commercial code, tax laws) and develop a second privatization conference based on in-depth case studies; and

assisted the Government of Jordan in its planning to privatize the state-owned airline, the Amman city bus system and the telecommunications corporation.

The project will continue to provide a wide array of advisory services to host governments to promote privatization of state-owned enterprises as a key element in each country's development plans. As more knowledge of the process is gained, more focus on strategic planning will be possible, providing both A.I.D. and host countries with the ability to leverage resources more efficiently.

940-2038 Training Development (\$250,000): Through this project PRE provides access to quality training institutions and programs which focus on private sector needs in LDCs. An example of this access was a grant made to the International Development Law Institute (IDLI). The grant provided funding for fellowships and specially focused seminars for lawyers practicing business law. Another training activity under development, would provide training through fellowships and twinning with local training institutions. Through twinning, junior-senior partner relationships would be established between U.S. and LDC institutions to enhance LDC capacity to offer on-site private sector seminars and workshops. The twinning process would provide for active USAID participation and potential for co-financing.

An important element of the project will be country-specific seminars for host country officials and business people on the role of the private sector in development. The seminars will be modeled on our very successful training course provided to A.I.D. direct-hire employees aimed at nourishing recognition of the private sector as a catalyst for sustained economic growth.

940-0004 - International Executive Service Corps - IESC (\$5,260,000): Supported by the PRE Bureau, U.S. private sector contributions, and service fees, the International Executive Service Corps (IESC), a not-for-profit organization, has recruited thousands of highly-skilled retired American executives over the last 22 years to share their managerial and technical know-how with counterparts in the developing world through technical consultancies to local private sector firms. A secondary role has been to provide links between American businesses and those in the Third World.

IESC operates 29 offices in the developing world, drawing upon a skills pool of about 9,500 person-volunteers to provide technical assistance. In 1987, IESC completed some 600 technical projects in which volunteers worked with local firms for two to three months each.

An evaluation of the IESC program, to be completed in the spring of 1988, will be used by the Bureau to negotiate a new long term A.I.D./IESC relationship beginning in FY 1989. A.I.D. will work much more closely with IESC to have it become an even more effective instrument to promote market-led, sustainable growth in developing countries, especially in small and medium-sized business development, in agribusiness and in establishing links between U.S. and developing country business. PRE will work with IESC to have its program support A.I.D. country-specific strategies and to help IESC expand its base of financial support.

940-0011 - U.S. Trade/Tech (\$1,000,000): This program has the broad goal of promoting market-driven, sustainable growth in A.I.D.-assisted countries through policy and regulatory reform and increased trade and investment links with U.S. businesses, especially through the transfer of commercially driven U.S. technology. U.S. Trade/Tech has three complementary activities; policy; U.S. business outreach and commercialization of technology.

There is a developmental need to have in place policy, regulatory and investment codes that can support increased country-specific and regional economic growth based on a wide range of technology, commercialization and related transfer issues. In fact, LDC capacity to effectively utilize technology (from appropriate technology through to the latest in hi-tech) is recognized as an important and even essential step in the development process. Responding to this phenomenon and realizing U.S. leadership in technology export, this activity mobilizes U.S. private sector experts and specialists to identify needed policy and regulation reform as well as provide assistance to specific firms. An important element of the activity is the use of a PRE-funded new program of the International Executive Service Corps that links U.S. and developing country businesses in joint-venture, licensing and other arrangements that promote U.S. exports while increasing productive capacity. The activity also serves as a source of new ideas for developing trade and investment interventions, taking advantage of PRE's central bureau status to identify opportunities arising through changes in regional and global markets and to tap into market information systems. Where appropriate, PRE acts to mobilize financial resources and provide training.

The U.S. Business Outreach activity carries on the U.S. Private Sector Investment Abroad activity of the former Office of Private Sector Coordinator, transferred to PRE in late FY 1987. The function complements other components of the U.S.

Trade/Tech program by dealing directly with the U.S. business community to encourage investment and other commercial activities in the LDCs. This hands-on operation provides assistance and advice to American businesses and also works directly with A.I.D.-assisted overseas institutions such as the U.S. Investment Promotion Office in Egypt, and coordinates with other U.S. agencies and multilateral organizations which can help U.S. firms do business overseas. FY 1989 program initiatives include development of relationships with state agencies promoting U.S. business and trade activities and with business groups such as the U.S. Chamber of Commerce and its overseas program.

The commercialization of technology activity is an ongoing activity of PRE. The goal is to provide a mechanism to access and transfer market-ready or almost market-ready U.S. technologies, largely in the life sciences, from the developed to the developing world through U.S.-LDC joint ventures. This component of U.S. Trade/Tech promotes U.S. technology exports, introduces American products to new foreign markets, and encourages indigenous business startups and expansions, leading to increased job and income generation in the LDCs. It focuses on (a) the development of R&D limited partnerships for product development, manufacture and marketing in developing countries; (b) test-marketing in LDCs of new or adapted products, and (c) business plan development to raise capital for LDC businesses in high-priority sectors such as agriculture. In FY 1987 this activity facilitated formation of an R&D limited partnership to develop and market a genetically engineered vaccine for hog cholera.

II. The Revolving Fund Program: The Revolving Fund Program, administered by the PRE Office of Investment, undertakes innovative, financially viable activities that support small-to-medium-sized businesses; transfer of U.S. technology; growth of indigenous financial markets; development of innovative financial instruments and projects that support private sector programs of A.I.D. missions and host countries. Funds for project development, analyses and technical assistance in the strengthening of the borrower's institutional capabilities are provided from the PRE Investment Development and Packaging Project.

Table 2
PRE REVOLVING FUND PROGRAM FY 1989

<u>Program Activity</u>	<u>(000s) Funding</u>
Revolving Fund Loans	\$ 5,000(L)
R.F. Guaranty Authority	\$100,000 <u>1/</u>
Investment Development and Packaging	\$ 500(G)
	\$
TOTAL	\$105,500(L/G)

FY 1989 Appropriated Resources Required

	<u>(000s)</u>
Revolving Fund Loans and Guaranty Reserves	\$ 8,500
Investment Development and Packaging	\$ 0 500
TOTAL	\$ 9,000

1/ Contingent liability against actual guaranties issued would total \$50 million. A reserve of \$12.5 million would be maintained and funded out of Revolving Fund assets.

940-0002 - Revolving Fund: \$5.0 Million Direct Lending - \$100 Million Guaranty Authority: A.I.D. is proposing to enhance its private sector Revolving Fund investment program in FY 1989 to include \$100 million guaranty authority to directly guarantee private investments in developing countries. Use of the guaranty mechanism would permit A.I.D. to expand its investment activities significantly without corresponding increases in outlays or appropriations.

Experience to date shows that most, though not all, of the private sector investments now financed by direct dollar loans from the Revolving Fund or from Development Assistant accounts could be supported by the issuance of guaranties. The proposed new authority would give A.I.D. the option to issue full faith and credit guaranties in lieu of direct loans to support such investments whenever this is feasible.

Increased investment resources available as a result of the guaranty authority will also position PRE to begin to develop multi-year investment programs and strategies in concert with A.I.D. missions' private sector policy dialogue with host governments. PRE will focus its Revolving Fund guaranty investments in the following principal areas:

(i) Joint financing/joint design of private sector investments with missions in order to have an additive impact on mission private sector programs;

(ii) The capitalization or expansion of private financial intermediaries, as a way of providing needed private sector financing and other services required by small, medium-sized, and micro-enterprises at market terms and reflecting market discipline typically imposed by private financial institutions;

(iii) Support for small and medium-sized businesses, including agribusinesses, which add value to agricultural products which need technical assistance, production inputs, credit and marketing services; and

(iv) Research and development, including the development of innovative investment techniques, concepts and instruments in the areas of trade and investment and debt conversion.

As a matter of policy, PRE makes investments to avoid an over-concentration of resources in any one geographical area. This is consistent with the Revolving Fund enabling legislation which specifies that not more than 20 percent of its assets may be allocated to any single country. As of September 30, 1987, regional distribution of the Revolving Fund was:

Table 2.1
Distribution of Revolving Fund Assets by A.I.D. Region

<u>A.I.D. Region</u>	<u>Revolving Fund Assets</u>	<u>Percent of R.F.</u>
Asia/Near East	\$33,250,000	55
Latin America/Caribbean	17,300,000	29
Africa	<u>9,500,000</u>	<u>16</u>
TOTAL	\$60,050,000	100

The growth of the program in Africa, from no investments in FY 1985 to three in FY 1987, reflects success in implementing an Investment Office goal to increase this portion of the program. Growth in Africa investment continues to be one of the Office goals for the FY 1989 program.

Having partially completed an initial, experimental phase, the Office of Investment has shifted its focus to making loans in conjunction with missions. While future investments will continue to focus on cooperation with missions, PRE will now include multi-year investment programs tied to USAID private sector policy dialogue with host governments for FY 1989. Joint financing opportunities will be exploited whenever possible.

The Revolving Fund emphasizes small business and employment generation. Loans target the smaller-scale business sector because this sector has a higher employment-generating capability at lower cost. PRE makes loans to private intermediary financial institutions (IFIs) for the purpose of inducing them to lend to this higher-risk market. The combination of a smaller-scale business focus and investments which reflect market terms for credit results in efficient and self-sustaining job generation. Examples of such loans are:

- Village businesses and rural bank customers in Indonesia;
- Artisans in Northern Thailand;
- Light manufacturers in Morocco, exporting to Europe;
- Micro lending in Latin America and the Caribbean.

Substantial leveraging of A.I.D. funds in all loans has been achieved. Leverage through IFIs is one dollar of private funds for each A.I.D. dollar. At the subborrower level, leverage is two dollars of private funds for each A.I.D. dollar. Leverage achieved through direct loans is 3:1 and the new venture capital projects will provide opportunities for much greater leveraging. As a result, A.I.D. resources channeled through the Revolving Fund loan program attract at least an equivalent amount, and sometimes three to four times the amount, in private sector resources.

Most of the direct loans in the Revolving Fund emphasize the agribusiness sector, including loans which assist the small farmer. Examples are: the slaughter house and meat processing loan in Thailand, which creates substantial new markets for livestock farmers, and the loan to a U.S.-based biotechnology research and development partnership whose vaccine products will help to reduce the devastating economic losses caused by the effects of pseudo-rabies and hog cholera in developing countries. The focus on the agribusiness sector and, through backward linkages, to the farm production sector reflects the emphasis on market-oriented development in rural areas.

The seven loans made in FY 1987 reflect the Revolving Fund emphasis on private sector development, development of institutional financing, basic human needs and small and medium enterprise, increasing employment opportunities.

Three loans reflect the Revolving Fund's continuing emphasis on utilizing new financing techniques to achieve development objectives: Securitized Trade Finance in Turkey, Thai Venture

Capital and Novagene R&D Limited Partnership. In these loans, new techniques for raising funds were put in place to make more credit available to small and medium-sized private local enterprises.

Two direct loans - one to a tuna fishing project in Mauritius and one to a U.S. research and development partnership (i.e., Novagene R&D mentioned above)- reflect the Revolving Funds's objective of promoting U.S. trade and investment interests. Both projects involve U.S. partners and will provide markets for U.S. technology.

Three IFI loans were made, two through U.S. banks, to provide credit to small and medium-scale private enterprises in Guatemala, Kenya and the South Pacific. Both the Guatemala project and the South Pacific loan have mission co-financing elements; in the case of Guatemala, the mission is matching the Revolving Fund's \$3.5 million with \$5.5 million.

940-2002 - Investment Development & Packaging (\$500,000 grant): To help identify and develop investment opportunities, PRE requires resources to fund investment analyses, technical studies and to provide technical assistance for strengthening a potential Revolving Fund borrower's institutional capacity. Nine of the Revolving Fund loans thus far have grant components as an integrated part of their project design.

III. PRE Program Support: PRE Program Support functions include evaluation, strategy and policy development and technical support for development of new initiatives.

Table 3
PRE - PROGRAM SUPPORT FY 1989

<u>Program Activity</u>	<u>(000s) Funding</u>
Program Development and Support	\$ 470.0 (G)
Evaluation	\$ 300.0 (G)
TOTAL	\$ 770.0 (G)

940-0001 - Program Development and Support/Evaluation (\$770,000): Through this program, PRE staff and business experts provide considerable program development and problem-solving assistance to A.I.D. missions, host country governments, and private businesses in developing countries. Specific assistance activities under this project tend to be of

a short-term nature and address specific design issues, management/technical problems, and project assessments and evaluation. Funding under this project also supports overall PRE operations by providing resources for improved management, programming and policy decisions. This includes work related to improving the PRE management information system as it relates to both budgeting and evaluation, such as establishing systems for monitoring loan disbursements. The objective is to improve capacity and capability for more informed management decisions within the Bureau.

A major focus of the Bureau evaluation program is to provide practical information to Bureau management, and to document Bureau programs in a manner useful to the Agency as a whole for replication purposes. A primary mission of PRE is to demonstrate both within A.I.D. and recipient countries that direct private sector delivery mechanisms are feasible, developmentally sound, cost-effective and replicable with significant growth potential.

A prime function, therefore, of PRE evaluation activities, in addition to providing information essential for informed decision-making, is to contribute to the assessment and improvement of alternative models and to the documentation and dissemination of successful private enterprise approaches. During FY 1987, PRE implemented a system for evaluation using this "model" approach. By the end of FY 1987 four case studies (Kenya Commercial Bank, Wafabank in Morocco, Leather Industries of Kenya and Antigua Shrimpery) were completed to develop two investment models -- one for intermediate financial institutions and one for direct investments. In FY 1988, PRE initiated evaluation of the Far East Bank and Trust, the Caribbean Basin Corporation, the FINADE Investment/Development Bank, and, in Ecuador, both FINIBER and FINGUASA loan agreements. The pace and number of models developed will accelerate in FY 1989 as more loan activities reach a sufficient level of maturity to produce useful lessons learned through evaluation.

PRE evaluated all of its major grantee programs in 1987. These evaluations provided the basis for informed decisionmaking regarding continuation of PRE's pilot activities and examined options for alternative sources of funding in the case of the cooperative development organization grants, which were on a planned funding reduction schedule. An evaluation of the National Cooperative Business Association (NCBA) developed a plan for streamlining operations and realigning personnel functions which played a part in a major reorganization subsequently implemented within the grantee organization. The Farmer-to-Farmer program managed by Volunteers in Overseas Cooperative Assistance (VOCA) was evaluated as this pilot

project was reaching completion, expanding worldwide, and being transferred to another bureau. The evaluation measured development impacts and supplied recommendations for staffing and management adjustments to provide support necessary for the expanded project. The evaluation of PRE's grant to the Young Presidents' Organization (YPO) assessed the impacts of this pilot activity and recommended that the project should be discontinued unless major changes in planning and organization were accomplished; this grant was not renewed. An evaluation of the International Executive Service Corps (IESC) grant was initiated in FY 1987 to collect and analyze data regarding effectiveness and impact indicators needed for redesign of this program in FY 1988.

IV. housing and Urban Programs:

The Office of Housing and Urban Programs (PRE/H) has primary responsibility for A.I.D.'s urban and shelter programs and for addressing major urban issues in developing countries. PRE/H administers the Housing Guaranty (HG) Program which was developed in the early 1960s as part of the U.S. foreign assistance effort to respond to the rapidly mounting worldwide shortage of adequate shelter.*

Regional offices are located in Nairobi, Kenya; Abidjan, Ivory Coast; Tunis, Tunisia; Quito, Ecuador; Bangkok, Thailand; Kingston, Jamaica; and Tegucigalpa, Honduras. These regional offices provide assistance to A.I.D. Missions in addressing the urbanization process now under way in LDCs, with its massive requirements for jobs, shelter, infrastructure, and facilities to service the existing and future urban populations (expected to be a majority of the total LDC population by the year 2000).

Working through the Missions, the shelter and urban development program policy agenda is to assist developing nations to adopt policies and programs which will provide adequate, if bare-bones, shelter for all citizens within a finite period of time. The approach is (1) to expand the availability of long-term housing finance, with emphasis on maximizing the role of private sector institutions in the provision of credit for lower-income families; (2) to provide the opportunity to individuals and families and private developers and contractors to produce low-income housing; and (3) to increase the efficiency of public sector shelter institutions in providing the elements of shelter and infrastructure which low-income households cannot provide for themselves. The key is to rely on individual initiative and the private sector to produce the housing.

*A separate detailed narrative description of the PRE/H program may be found in the Main Volume.

The principles of attention to the needs of lower-income people, decentralization of decision-making, reliance on the private sector, affordability, and cost-recovery provide the basis for an effective strategy for managing the critical urbanization process.

The PRE/H program budget request of \$4.76 million for FY 1989 is distributed as follows:

Table 4
PRE/HOUSING FY 1989

<u>Program Activity</u>	<u>(000's) Funding</u>
Project Development and Support	\$ 1,000 (G)
Housing & Urban Programs	\$ 3,760 (G)
TOTAL	\$ 4,760 (G)

940-1008 - Housing and Urban Programs (\$3,760,000): The Housing and Urban Programs project addresses critical development issues related to the accelerating urbanization process underway in LDCs. An increasingly urbanized developing world is failing to keep pace with massive requirements for shelter, land, jobs, infrastructure and facilities to service the existing and future urban populations. The project is intended to strengthen the ability of LDCs to guide national shelter and urbanization policies in order to achieve the maximum contribution to national economic growth while endorsing the achievement of social equity for the urban poor. The project emphasizes increased reliance on the private sector in the provision of low-cost shelter as well as in the formation of public/private sector partnerships in the delivery of urban services. Project funds are used for the following five broad categories: (a) technical assistance and institutional development in support of capital investment programs, (b) applied urban research and analysis, (c) training, (d) prototype and innovative projects demonstrating private sector participation, and (e) information dissemination.

940-1005 - Project Development and Support (\$1,000,000): PD&S funding is used to undertake project design for both shelter and other related urban development project design activities. In FY 1987, PD&S funds were used for shelter planning and project development in countries where Housing Guaranty loans were authorized. They are used for initial urban-related efforts that have the potential for widespread applicability that might lead to more-comprehensive urban development

programs. An example of the type of activity that has been funded under PD&S is the Shelter Sector Assessment, which is an in-depth analysis of the present circumstances and the options available to a country in resolving its shelter problems.

PROGRAM: Centrally Funded

PLANNED PROGRAM SUMMARY SHEET

Title U.S. Trade/Tech		Funding Source	AG, RD & N \$500	Health	PROPOSED OBLIGATION (In thousands of dollars)		
					FY 1989 \$1,000	Life of Project Funding Continuing	
Number 940-0011	<input checked="" type="checkbox"/> NEW	Population	ED. & HR	Sel. Act. \$500	Initial Obligation FY 1989	Estimated Final Obligation FY Continuing	Estimated Completion Date of Project FY
<input checked="" type="checkbox"/> GRANT <input type="checkbox"/> LOAN <input type="checkbox"/> CONTINUING							

PURPOSE: To promote market-driven, sustainable growth in A.I.D.-assisted countries through policy and regulatory reform and increased trade and investment links with U.S. businesses, especially through the transfer of commercially driven U.S. technology.

PROJECT DESCRIPTION: The project has three complementary activities; policy; U.S. business outreach and commercialization of technology. There is a developmental need to have in place policy, regulatory and investment codes that can support increased economic growth based on a wide range of technology, commercialization and related transfer issues. The project mobilizes U.S. private sector experts and specialists to identify needed policy and regulation reform as well provide assistance to specific firms. An important element of the project is the use of the International Executive Service Corps to link U.S. and developing country businesses in joint-venture, licensing and other arrangements that promote U.S. exports while increasing productive capacity. The activity also serves as a source of new ideas for developing trade and investment interventions.

The project provides assistance and advice to American businesses and also works directly with A.I.D.-assisted overseas institutions such as the U.S. Investment Promotion Office in Egypt, and coordinates with other U.S. agencies and multilateral organizations which can help U.S. firms do business overseas.

The project also promotes U.S. technology exports, introduces American products to new foreign markets, and encourages indigenous business startups and expansions, leading to increased job and income generation in the LDCs. It focuses on (a) the development of R&D limited partnerships for product development, manufacture and marketing in developing countries; (b) test-marketing in LDCs of new or adapted products, and (c) business plan development to raise capital for LDC businesses in high-priority sectors such as agriculture.

BENEFICIARIES: LDC and U.S. private sector enterprises involved in international trade and commercialization of technology.

RELATIONSHIP TO A.I.D. STRATEGY: The project is directly related to the A.I.D. Private Enterprise Initiative and supports USAID private sector programming in the area of trade promotion.

RELATIONSHIP TO OTHER DONORS: The project will relate to other donors in coordinating policy dialogue agenda with host governments, particularly in those A.I.D.-assisted countries where the U.S. is not a dominant trading partner.

MAJOR OUTPUTS:

FY 89

- Policy and regulatory environment assessments.
- IESC promoted joint-venture arrangements.
- New relationships between host country entities and U.S. state trade promotion agencies, Chambers of Commerce, etc.
- New R&D limited partnerships.
- Indigenous business start-ups and expansion.

A.I.D. FINANCED INPUTS:

FY 89 (\$000)

Grants for technical assistance and training \$1,000

U. S. FINANCING (In thousands of dollars)				Principal Contractors or Agencies
	Obligations	Expenditures	Unliquidated	
Through September 30, 1987				
Estimated Fiscal Year 1988				
Estimated Through September 30, 1988				
		Future Year Obligations	Estimated Total Cost	
Proposed Fiscal Year 1989	\$1,000	Continuing	Continuing	

PROGRAM: CENTRALLY FUNDED

PLANNED PROGRAM SUMMARY SHEET

Title International Executive Service Corps (IESC)		Funding Source	AG, RD & N	Health	PROPOSED OBLIGATION (In thousands of dollars)		
			2,630		FY 1989	5,260	Life of Project Funding Continuing
Number 940-0012	<input checked="" type="checkbox"/> NEW	Population	ED. & HR	Sel. Act.	Initial Obligation	Estimated Final Obligation	Estimated Completion Date of Project
<input checked="" type="checkbox"/> GRANT <input type="checkbox"/> LOAN <input type="checkbox"/> CONTINUING				2,630	FY 1989	FY Continuing	FY Continuing

Purpose: To provide U.S. executive, managerial and technical skills for private enterprise development in developing countries.

Background: The IESC is a private, not-for-profit organization incorporated in 1964, with substantial support from A.I.D. and private U.S. contributions, to assist with development of private enterprise in developing countries. IESC volunteer advisors, mainly retired executives from a wide range of U.S. businesses, make available their managerial and technical expertise to small and medium enterprises in LDCs. Since 1965, IESC volunteers have assisted locally-owned enterprises in over 70 countries through more than 11,000 projects, averaging about 2 1/2 months each. IESC currently receives about 50 percent of its cash budget from its clients and U.S. corporate donors.

In FY 1988, A.I.D. is financing a one-year grant which will permit IESC to continue its volunteer executive assistance program while A.I.D. completes and reviews a major evaluation of IESC operations.

Project Description: In FY 1989, A.I.D. plans a new, multi-year grant to permit continuation of IESC's successful worldwide volunteer executive program, while seeking to expand its operations in Africa. The IESC will continue its efforts to coordinate private enterprise initiatives with A.I.D. missions, strengthen its network of local advisory groups, and focus especially on small-scale enterprises and agribusiness, to ensure an expanding role for private enterprise in economic growth in a way that is consistent with A.I.D. priorities in each country.

Depending upon the results of the evaluation, new mechanisms may be developed which facilitate IESC coordination with A.I.D. programs at the country level.

Relationship of Project to A.I.D. Strategy: This project directly supports A.I.D.'s private enterprise initiative through IESC technical and advisory services to small and medium enterprises.

Beneficiaries: The immediate beneficiaries of the IESC projects are the LDC enterprises assisted by IESC volunteers. Ultimate beneficiaries include the persons who are provided new employment opportunities in businesses assisted by IESC, and host country economies which are strengthened by increased business activity and diversification of goods and services produced by local businesses.

Host Country and Other Donors: IESC receives contributions from private corporations and from U.S. and foreign sponsors which cover headquarters and overhead costs as well as a portion of project costs.

Major Outputs: By the end of FY 1989, the IESC estimates that it will have attained a level of 600 volunteer assistance project starts per year, and will have expanded its project activities in the Africa region.

A.I.D. Financed Inputs: FY 1989 (\$000)
Support of IESC overseas activities \$5,260

U. S. FINANCING (In thousands of dollars)				Principal Contractors or Agencies
	Obligations	Expenditures	Unliquidated	
Through September 30, 1987				
Estimated Fiscal Year 1988				
Estimated Through September 30, 1988				
		Future Year Obligations	Estimated Total Cost	
Proposed Fiscal Year 1989	5,260	Continuing	Continuing	International Executive Service Corps (IESC)

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR PRIVATE ENTERPRISE

PROGRAM: HOUSING AND URBAN DEVELOPMENT

CP 89

PROJECT NO. PROJECT TITLE	L / G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES
912-0007	SD G	78	83	PRG FOR THE POOR-IIPUP 10,112 10,112	10,112	9,898	---	159	---	55	---	---
PROJECT TOTAL:				10,112 10,112	10,112	9,898	---	159	---	55	---	---
943-1001	SO G	84	87	HOUSING THE URBAN POOR 9,226 9,226	6,387	4,208	2,839	2,966	---	1,800	---	252
PROJECT TOTAL:				9,226 9,226	6,387	4,208	2,839	2,966	---	1,800	---	252
943-1002	SD G	84	87	URBAN DEVELOPMENT SUPPORT SERVICES 5,769 5,769	4,197	3,121	1,579	1,303	---	1,000	---	345
PROJECT TOTAL:				5,769 5,769	4,197	3,121	1,579	1,303	---	1,000	---	345
943-1005	HE G SD G	83 83	C C	PROJECT DEVELOPMENT AND SUPPORT --- ---	---	---	---	---	335 665	150 869	300 700	285 700
PROJECT TOTAL:				---	3,083	2,090	600	724	1,000	1,019	1,000	985
943-1008	HE G SO G	88 88	C C	HOUSING AND URBAN PROGRAMS --- ---	---	---	---	---	---	---	1,100 2,660	1,100 2,660
PROJECT TOTAL:				---	---	---	---	---	3,750	3,000	3,760	3,760
PROGRAM TOTALS:				25,107 25,107	23,779	19,317	5,018	5,152	4,750	6,874	4,760	5,342
GRANTS:				25,107 25,107	23,779	19,317	5,018	5,152	4,750	6,874	4,760	5,342
LOANS:				---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----												
AGR. RURAL DEV. & NUTRITION:				---	---	---	---	---	---	---	---	---
HEALTH:				---	---	---	---	---	335	150	1,400	1,385
CHILD SURVIVAL FUND:				---	---	---	---	---	---	---	---	---
AIDS:				---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:				---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:				25,107 25,107	23,779	19,317	5,018	5,152	4,415	6,724	3,360	3,957
PRIVATE SECTOR REVOLVING FUND:				---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR PRIVATE ENTERPRISE

PROGRAM: INVESTMENT

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
943-0002		INVESTMENT PACKAGING											
	FN L	82	86	---	---	---	---	---	---	---	---	4,986	1,000
	PS L	82	86	---	---	44,900	11,346	15,150	8,825	3,000	6,000	---	6,000
	SD L	82	86	---	---	2,850	350	---	---	---	---	3,514	---
	PROJECT TOTAL:			---	---	47,750	11,696	15,150	8,825	3,000	6,000	8,500	7,000
940-2002		INVESTMENT DEVELOPMENT AND PACKAGING											
	FN G	85	C	---	---	---	---	---	---	250	200	250	250
	SD G	85	C	---	---	677	90	483	587	250	300	250	250
	PROJECT TOTAL:			---	---	677	90	483	587	500	500	500	500
943-5000		U.S. PRIVATE SECTOR INVESTMENT ABROAD											
	FN G	87	C	---	---	---	---	---	---	150	100	---	50
	SD G	87	C	---	---	---	---	---	---	150	100	---	50
	PROJECT TOTAL:			---	---	---	---	---	---	300	200	---	100
	PROGRAM TOTALS:			---	---	48,427	11,786	15,633	9,412	3,800	6,700	9,000	7,600
	GRANTS:			---	---	677	90	483	587	800	700	500	600
	LOANS:			---	---	47,750	11,696	15,150	8,825	3,000	6,000	8,500	7,000
---- APPROPRIATION SUMMARY ----													
	AGR., RURAL DEV. & NUTRITION:			---	---	---	---	---	---	400	300	5,236	1,300
	HEALTH:			---	---	---	---	---	---	---	---	---	---
	CHILD SURVIVAL FUND:			---	---	---	---	---	---	---	---	---	---
	AIOS:			---	---	---	---	---	---	---	---	---	---
	EDUCATION & HUMAN RESOURCES:			---	---	---	---	---	---	---	---	---	---
	SELECTED DEVELOP. ACTIVITIES:			---	---	3,527	440	483	587	400	400	3,764	300
	PRIVATE SECTOR REVOLVING FUND:			---	---	44,900	11,346	15,150	8,825	3,000	6,000	---	6,000

*Refers to the planned project summary sheet

C=Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.

For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR PRIVATE ENTERPRISE

PROGRAM: PROJECT DEVELOPMENT

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
940-0000	VARIOUS COOP GRANTS FN G	85	87	---	---	---	---	---	---	---	---	---	---
	PROJECT TOTAL:			---	---	---	---	---	---	---	---	---	---
940-0002	INVESTMENT PACKAGING FN G	82	86	600	600	600	513	---	---	---	87	---	---
	HE G	82	86	1,170	1,170	1,170	509	---	643	---	18	---	---
	SD G	82	86	5,173	5,173	5,173	4,431	---	203	---	539	---	---
	PROJECT TOTAL:			6,943	6,943	6,943	5,453	---	846	---	644	---	---
940-0004	INTL EXECUTIVE SERVICE CORPS (IESC) FN G	70	88	8,530	8,530	4,100	2,600	1,800	2,510	2,630	2,500	---	920
	HE G	70	88	300	300	300	300	---	---	---	---	---	---
	SD G	70	88	54,525	54,525	48,135	45,378	3,760	2,757	2,630	3,000	---	3,390
	PROJECT TOTAL:			63,355	63,355	52,535	48,278	5,560	5,267	5,260	5,500	---	4,310
940-0008	DIVESTITURE AND PRIVATIZATION FN G	85	C	---	---	203	203	1,073	---	1,125	1,000	1,125	1,125
	SD G	85	C	---	---	3,642	842	1,077	2,974	1,125	1,500	1,125	1,125
	PROJECT TOTAL:			---	---	3,845	1,045	2,150	2,974	2,250	2,500	2,250	2,250
940-0011	U.S. TRADE/TECH FN G	89	C	---	---	---	---	---	---	---	---	500	250
	SD G	89	C	---	---	---	---	---	---	---	---	500	550
	PROJECT TOTAL:			---	---	---	---	---	---	---	---	1,000	800
940-0012	INTL EXECUTIVE SERVICE CORPS (IESC) FN G	89	C	---	---	---	---	---	---	---	---	2,630	2,000
	SD G	89	C	---	---	---	---	---	---	---	---	2,630	2,000
	PROJECT TOTAL:			---	---	---	---	---	---	---	---	5,260	4,000
940-0209	COOPERATIVE TO COOPERATIVE GRANTS FN G	85	C	1,506	1,506	1,176	438	330	587	---	481	---	---
	PROJECT TOTAL:			1,506	1,506	1,176	438	330	587	---	481	---	---
940-0219	COOPERATIVE LEAGUE OF THE USA (CLUSA) FN G	85	85	910	910	910	827	---	83	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR PRIVATE ENTERPRISE

PROGRAM: PROJECT DEVELOPMENT

CP 89

PROJECT NO. PROJECT TITLE * G	L	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES
				PROJECT TOTAL:	910	910	910	827	---	83	---	---
940-0220	FN G	85	85	WORLD COUNCIL OF CREDIT UNIONS (WCCCU) 950 950	950	950	---	---	---	---	---	---
				PROJECT TOTAL:	950	950	950	950	---	---	---	---
940-0221	FN G	85	88	COOPERATIVE HOUSING FOUNDATION (CHF) 1,375 1,375	900	427	475	626	---	322	---	---
				PROJECT TOTAL:	1,375	1,375	900	427	475	626	---	322
940-0222	FN G	85	85	NATIONAL RURAL ELEC COOP ASSN (NRECA) 710 710	710	707	---	3	---	---	---	---
				PROJECT TOTAL:	710	710	710	707	---	3	---	---
940-0223	FN G	85	85	VOLUNTEERS FOR COOP ASST (VOCA) 740 740	740	740	---	---	---	---	---	---
				PROJECT TOTAL:	740	740	740	740	---	---	---	---
940-0225	FN G	85	85	AGRICULTURAL COOPERATIVE DEV INTL (ACDI) 780 780	780	780	---	---	---	---	---	---
				PROJECT TOTAL:	780	780	780	780	---	---	---	---
940-0257	FN G	85	87	INTL. TRADE DEV. PROGRAM (NCBA) 1,847 1,847	1,430	1,097	417	533	---	217	---	---
				PROJECT TOTAL:	1,847	1,847	1,430	1,097	417	533	---	217
940-0330	FN G	86	89	AGRICULTURAL COOPERATIVE DEV INTL (ACDI) 1,459 1,459	741	370	718	551	---	538	---	---
				PROJECT TOTAL:	1,459	1,459	741	370	718	551	---	538
940-0331	FN G	86	89	NATIONAL COOP BUSINESS ASSOC (NCBA) 1,939 1,939	1,083	343	856	668	---	928	---	---
				PROJECT TOTAL:	1,939	1,939	1,083	343	856	668	---	928
940-0332	FN G	86	89	CREDIT UNION NATIONAL ASSOC. (CUNA) 1,777 1,777	903	425	874	916	---	436	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR PRIVATE ENTERPRISE

PROGRAM: PROJECT DEVELOPMENT

CP 89

PROJECT NO. PROJECT TITLE	L / * G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES	
PROJECT TOTAL:					1,777	1,777	903	425	874	916	---	436	---	---
94D-0333		NATIONAL RURAL ELEC COOP ASSN (NRECA)												
	FN G	86	89		1,328	1,328	675	---	653	675	---	653	---	---
PROJECT TOTAL:					1,328	1,328	675	---	653	675	---	653	---	---
94D-0334		VOLUNTEERS FOR OVERSEAS COOP ASST (VOCA)												
	FN G	86	89		980	980	780	304	200	476	---	200	---	---
PROJECT TOTAL:					980	980	780	304	200	476	---	200	---	---
94D-2005		FINANCIAL MARKETS DEVELOPMENT												
	FN G	85	C		---	---	---	---	---	---	300	100	380	390
	SD G	85	C		---	---	1,169	416	705	913	300	400	380	300
PROJECT TOTAL:					---	---	1,169	416	705	913	600	500	760	690
94J-2028		PRIVATE ENTERPRISE DEV SUPPORT												
	FN G	85	C		---	---	378	378	651	---	1,000	500	750	750
	SD G	85	C		---	---	822	126	407	696	1,000	600	750	1,000
PROJECT TOTAL:					---	---	1,200	504	1,058	696	2,000	1,100	1,500	1,750
94D-2029		COMMERCIALIZATION OF TECHNOLOGY												
	FN G	85	88		137	137	---	---	---	---	137	37	---	100
	SD G	85	88		1,544	1,544	1,321	104	160	561	63	500	---	179
PROJECT TOTAL:					1,681	1,681	1,321	104	160	561	200	537	---	279
94D-2038		TRAINING DEVELOPMENT												
	FN G	85	C		---	---	---	---	---	---	125	25	125	100
	SD G	85	C		---	---	266	46	---	220	125	100	125	125
PROJECT TOTAL:					---	---	266	46	---	220	250	125	250	225
94J-6000		NATL YEAR OF THE AMERICAS (NYOTA)												
	FN G	87	87		19	19	---	---	19	---	---	19	---	---
	SD G	87	87		126	126	---	---	126	100	---	26	---	---
PROJECT TOTAL:					145	145	---	---	145	100	---	45	---	---

*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized data. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR PRIVATE ENTERPRISE

PROGRAM: PROJECT DEVELOPMENT

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHO PLANNED	-THROUGH FY 86-		-ACTUAL FY 87-		-ESTIMATED FY 88-		-PROPOSED FY 89-			
					OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES	OBLIGA- TIONS	EXPEN- DITURES		
PROGRAM TOTALS:					88,425	88,425	79,057	63,254	14,301	16,695	10,560	14,726	11,020	14,304
GRANTS:					88,425	88,425	79,057	63,254	14,301	16,695	10,560	14,726	11,020	14,304
LOANS:					---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----														
AGR., RURAL DEV. & NUTRITION:					25,587	25,587	17,059	11,132	8,066	7,628	5,317	8,043	5,510	5,635
HEALTH:					1,470	1,470	1,470	809	---	643	---	18	---	---
CHILD SURVIVAL FUND:					---	---	---	---	---	---	---	---	---	---
AIDS:					---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:					61,368	61,368	60,528	51,343	6,235	8,424	5,243	6,665	5,510	8,669
PRIVATE SECTOR REVOLVING FUND:					---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUREAU FOR PRIVATE ENTERPRISE

PROGRAM: PRIVATE SECTOR COORDINATOR

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
943-5000	U.S. PRIVATE SECTOR INVESTMENT ABROAD	SD G	87	88	498	498	---	---	498	51	---	247	---	200
	PROJECT TOTAL:				498	498	---	---	498	51	---	247	---	200
	PROGRAM TOTALS:				498	498	---	---	498	51	---	247	---	200
	GRANTS:				498	498	---	---	498	51	---	247	---	200
	LOANS:				---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----														
	AGR., RURAL DEV. & NUTRITION:				---	---	---	---	---	---	---	---	---	---
	HEALTH:				---	---	---	---	---	---	---	---	---	---
	CHILD SURVIVAL FUND:				---	---	---	---	---	---	---	---	---	---
	AIDS:				---	---	---	---	---	---	---	---	---	---
	EDUCATION & HUMAN RESOURCES:				---	---	---	---	---	---	---	---	---	---
	SELECTED DEVELOP. ACTIVITIES:				498	498	---	---	498	51	---	247	---	200
	PRIVATE SECTOR REVOLVING FUND:				---	---	---	---	---	---	---	---	---	---

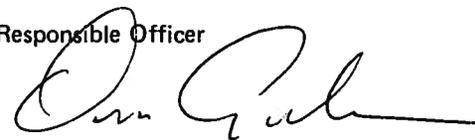
*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

BUREAU FOR FOOD FOR PEACE AND VOLUNTARY ASSISTANCE

Responsible Officer

A handwritten signature in black ink, appearing to read "Owen Cylke", written over a horizontal line.

OWEN CYLKE
Assistant Administrator (Acting)
Bureau for Food for Peace
and Voluntary Assistance



PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
7.451	6.006	5.800

CENTRALLY FUNDED
FOOD FOR PEACE DEVELOPMENT ASSISTANCE PROJECTS

The Development Assistance central account continues to be an essential part of the Agency's efforts to ensure that food aid programs are soundly designed, well-targeted, and effectively administered. In FY 1989, a new program is proposed which is a follow-on to the terminating Outreach and Enhancement projects.

The Public Law (P.L.) 480 Title II Outreach project, which provides support to voluntary agencies to help cover logistic and local material support costs, terminated on September 30, 1988. It is anticipated that most of these support costs, which have averaged about \$3 million annually, will be covered in the future through monetization of P.L. 480 commodities.

The Title II Enhancement project, initiated in 1985, helps voluntary agencies to strengthen their organizational capacity to better design and implement food aid programs and to increase the developmental and humanitarian impact of Title II programs. In fiscal years 1986 and 1987, this project was instrumental in assisting such voluntary agencies as Africare, Save the Children, and World Vision Relief Organization to conduct feasibility assessments and planning activities that led to decisions by these organizations to move into targeted food assistance. The Title II Enhancement project is being extended through FY 1991, with FY 1989 as the final obligation year. Funding requirements in FY 1989 for this project are estimated at \$1 million, compared to an FY 1988 level of \$5.3 million.

The new FY 1989 Food Aid Institutional Development and Support Program is being designed to assist voluntary agencies to strengthen their institutional capacity for administering food aid programs in the field and, through such programs, promote increased movement of Title II commodities to the populations and in the quantities that are necessary in order to meet the minimum tonnage requirement under Section 201(b) of the P.L. 480 Title II legislation. FY 1989 funding requirements for this new program are estimated at \$4.1 million.

The Food Needs Assessment Project began as a means to improve the ability of A.I.D. field missions to estimate emergency food needs in Africa during the 1984-1985 drought. Since that time, the project has assisted A.I.D. missions and host governments to improve the collection and analysis of the data required to ensure more accurate and timely estimates of food aid requirements. The Food Needs Assessment Project has gradually expanded for non-emergency programming decisions in other regions as well.

In FY 1987, this project was expanded from a one person technical assistance effort to a three person team. Food Needs Assessment activity has concentrated on Africa, particularly Ethiopia, Mozambique and Malawi where emergency food needs are critical. Proposed funding for this project is estimated at \$350,000 in FY 1988 and \$350,000 in FY 1989.



PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
.499	.488	.200

PROGRAM, POLICY AND MANAGEMENT

The Office of Program, Policy and Management (PPM) maintains responsibility for the Program Development and Support project. This project provides the technical expertise and ancillary services needed for effective planning and implementation of A.I.D.'s strategy to strengthen support of development activities through PVOs, to increase the developmental impact of Food for Peace programs, to more effectively integrate Food for Peace activities into A.I.D.'s overall development assistance programming, and to undertake studies and analyses on which to base future program strategies and designs.

Individual activities undertaken within the framework of this project relate to the planning, implementation and evaluation of Food for Peace and PVO activities. They principally involve financing of short-term contract and consultant services, together with associated program support costs. These activities include special analyses for long-term program planning and priorities; evaluations of Food for Peace and PVO activities at both the program and project level; studies of major program-related issues or problems, including recommendations; design and implementation of workshops and conferences to facilitate cooperation with Missions, host governments and the private voluntary community in program planning and design; assessments of the economic and social implications of the ongoing and proposed Food for Peace and PVO activities; and provision of short-term specialized assistance to the A.I.D. field offices.

Funding for this project has been provided at a level of \$499,000 in FY 1987. In FY 1988 this level was \$488,000. In FY 1989 this project will be funded at a level of \$200,000 as responsibility for financing project specific evaluations, workshops, conferences and studies will be shared with the appropriate Offices in the FVA Bureau.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR FOR FOOD FOR PEACE AND VOL ASSIST

PROGRAM: PROGRAM MGT SUPPORT OFF

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES
933-0800 FVA PROGRAM DEVELOPMENT AND EVALUATION													
	FN G	88	C			---	---	---	---	259	---	---	---
	SD G	82	C			2,071	1,739	499	442	229	193	200	211
	PROJECT TOTAL:					---	---	2,071	1,739	499	442	488	193
	PROGRAM TOTALS:					---	---	2,071	1,739	499	442	488	193
	GRANTS:					---	---	2,071	1,739	499	442	488	193
	LOANS:					---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----													
	AGR., RURAL DEV. & NUTRITION:					---	---	---	---	259	---	---	---
	HEALTH:					---	---	---	---	---	---	---	---
	CHILD SURVIVAL FUND:					---	---	---	---	---	---	---	---
	AIDS:					---	---	---	---	---	---	---	---
	EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---
	SELECTED DEVELOP. ACTIVITIES:					---	---	2,071	1,739	499	442	229	193
	ECONOMIC SUPPORT FUND:					---	---	---	---	---	---	---	---
	AM. SCHOOLS & HOSPITALS ABROAD:					---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date. For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.



PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
40.317	47.331	45.100

PRIVATE AND VOLUNTARY COOPERATION

The Office of Private Voluntary Cooperation (PVC) assists U.S. private and voluntary organizations (PVOs) to expand and strengthen their international development programs. These institutions bring substantial resources from private contributions, donated goods and services, earnings from endowments and the sale of services which complement and broaden the impact of the resources provided by the U.S. Government. In the last decade, the resources invested by PVC and the PVO community have significantly increased the development capability of the U.S. PVO community to undertake development programs in such diverse areas as small enterprise, income generation, primary health care, child survival, credit, trade promotion, vocational training, job creation, forestry, environmental protection and agriculture in over 50 countries.

The benefits of PVC grants extend well beyond the individual field activities they finance. PVC grants have resulted in a remarkable expansion of the capability and scale of PVO involvement in the development process. A.I.D. support from its development assistance accounts alone has grown from \$39 million in FY 1973 to \$450 million in FY 1986, while PVO private resources committed to international programs have grown from \$673 million in 1973 to over \$1.8 billion in 1986. (See Main Volume PVO narrative for a discussion of A.I.D. resources which fund international programs of PVOs.) However, both A.I.D. and the PVOs agree that the full potential of the private voluntary community as a major force in self-sustaining, broadly-based development is only beginning to be realized.

PVC will continue to exercise its leadership role in guiding the evolution in the scope and the role of U.S. PVO development efforts. In pursuing this mandate, PVC has two major responsibilities: To administer PVC's grant programs that support and strengthen worldwide PVO development activities and to provide program and management support for legislatively mandated A.I.D. PVO activities as well as the total A.I.D. partnership with the private voluntary community. In carrying out these two responsibilities, PVC obtains the knowledge and the authority to influence the direction of both the public and private resources that the U.S. PVO community expends in their international development activities.

The Office's grant administration functions include:

Matching and Partnership Grants: A worldwide grant program in support of PVO field activities in sectors and countries that are consistent with A.I.D. policies and priorities, with dollar-for-dollar matching of A.I.D. resources with PVO private resources.

Child Survival Grants: A grant program to support PVO health interventions to reduce infant and child mortality and to strengthen PVO technical and management capabilities in emphasis countries.

Cooperative Development Grants: A grant program to support U.S. Cooperative Development Organizations' (CDOs) international departments and to support CDO programs of small business and international trade promotion.

Public Outreach: (a) A grant program to support domestic education on the problems of world hunger and poverty (Riden-Pell, a.k.a. Development Education); and, (b) provide administrative and technical support to the Advisory Committee on Voluntary Foreign Aid, enhancing its effectiveness as a conduit for increased cooperation between the public and private sectors in U.S. Foreign Assistance Programs.

PVO Commodity Freight-Transport Program: (a) A grant program to reimburse PVO transportation costs of humanitarian goods and supplies donated by the American public (Ocean Freight Reimbursement); and, (b) a program to provide for free space available transport of humanitarian goods via the U.S. military to any area of the world (Denton Amendment).

The Office's program and management support functions include: PVO Registration, Ensuring PVO Independence and Information and Program Support Services, and the evaluation of PVO programs in key sectors. Details of these functions are described below.

PROGRAM STRATEGY

U.S. private voluntary organizations (PVOs) have a rich history of cooperation with A.I.D. dating back to World War II, when PVOs were active primarily in relief and disaster assistance efforts. Since that time the cooperation between A.I.D. and the private voluntary community has expanded and evolved, reflecting the objective of A.I.D. to broaden the role and the impact of PVO programs in the development process.

During the past 15 years, in particular, A.I.D. and the PVO community have been involved in a long-term partnership that seeks to broaden PVO activities in the Third World beyond the relief and social welfare focus of traditional humanitarian assistance to include development programs which address the root causes of food shortages, illiteracy, disease and premature death in the poorer countries of the world. It is the role of the Office of Private Voluntary Cooperation to chart the course of the evolution in this partnership for the Agency.

While A.I.D. recognizes that relief and refugee assistance efforts are an essential and vital response to emergency situations--as our recent experience with the African drought so aptly demonstrates--programs which address the longer-term causes of this human suffering are clearly needed. In the 1970's, based on this realization, PVC and the PVO community invested significant resources in developing the capability of the U.S. PVO community to directly implement community development programs intended to promote local self-reliance. Then in 1979, PVC's program strategy shifted from building U.S. PVO capacity to utilizing the resultant capabilities of PVOs to undertake

direct, people-to-people development programs. The result was the remarkable expansion of PVO capability and scale of PVO involvement in the development process, cited above.

In FY 1989, PVC envisions another shift in emphasis in the PVO program strategy. With the expanded capacity and effectiveness of U.S. PVOs, PVC will focus its strategy on utilizing U.S. PVOs as catalysts to empower local organizations in developing countries to undertake their own self-help programs. PVC will target programs which increase the strategic management and planning capability and strengthen the technical expertise of U.S. PVOs. This will help U.S. PVOs to position themselves to interact with developing country decision-makers to influence policies which will favor local organizational development and to apply their own resources to the strengthening and creation of local private voluntary organizations.

In FY 1989, a program level of \$45.1 million is proposed for the Office of Private and Voluntary Cooperation. This compares to an estimated program of \$47.3 million in FY 1988 and an actual FY 1987 program of \$44.8 million. The estimated FY 1988 CP level of \$36.24 million did not include funding for cooperative development (recently transferred to PVC from PRE), continuation of funding for Opportunities for Industrialization Centers, International or the new Rotary Polio Plus Campaign. The predominant share of the budget will continue to support PVO field programs, with the balance allocated to Development Education and Ocean Freight Reimbursement. A small portion of the Office's funding supports evaluations, training workshops and management studies focusing on PVO effectiveness and basic PVO programming issues. A sectoral breakout of the FY 1987 program is displayed in Figure 1.

MATCHING/PARTNERSHIP GRANTS

As its name implies, this grant program doubles the scope of participating PVOs international programs by matching their private outlays with Agency funds dollar-for-dollar. It also provides a real fund-raising incentive for PVOs to mobilize additional private resources for development. At the same time, the program supports increased technical and strategic management capability of U.S. PVOs thus strengthening their entire international program capability whether funded from U.S. Government or private resources.

Country activities under these grants are complementing the bilateral programs of A.I.D. field missions by serving some of the poorest, neediest and most difficult-to-reach populations in these countries.

Within the boundaries of Agency priorities, these grants mirror the main types of PVO field programs, in primary health care, community development and agriculture, natural resources management and fostering of small enterprises.

From an Agency perspective, these grants with a large number of U.S. PVOs (35 organizations in FY 1987) also enable PVC to carry out its leadership, information and service roles within A.I.D. and make management more efficient by consolidating multiple country grants and simplifying administration for A.I.D. as well as the PVOs. Through this relationship with this large number of U.S. PVOs, the Agency is able to influence the direction of the significant private resources that the voluntary community expends on international programs annually.

PVC is proposing \$21.6 million in FY 1989 for Matching and Partnership Grants, compared to an actual program level of \$23.1 million in FY 1987 and an estimated \$19.4 million in FY 1988. The following examples illustrate the range of PVO activities supported by these field grant programs:

World Wildlife Fund's (WWF) three-year Matching Grant program (FY's 1985-1987) in Wildlands and Human Needs in Latin America and Africa (A.I.D. \$1.2 million, WWF \$1.5 million) links preservation of biological resources with development needs of the rural poor. Inevitably, unless poor communities located next to natural areas and ecosystems can earn a living, they are forced to invade these areas for food, shelter, and materials. A key challenge for both development and conservation is to enable rural communities to manage these priceless lands and other local resources for benefit without harming their natural values.

The program now includes projects in five countries in Latin America and seven in Africa. The types of natural areas of concern include high watersheds that are important sources of water for lowland settlements; large natural reserves of marshes, mangroves, lagoons and other environments; coastal lands and forests which must support local populations while kept unspoiled as areas for limited tourism. In the South East coast management project of St. Lucia, for example, funding supports several small-scale conservation development projects including sea egg cultivation, firewood plantations, fishermen co-op organizations, environmental education and wildlife management. In Africa, projects are under way in Cameroon, Central African Republic, Botswana, Rwanda, Zambia, Madagascar and Sierra Leone. As its great value becomes recognized, the integrated approach of this pioneering program will surely be applied much more widely by PVO's and governments in the Third World.

Aga Khan Foundation, USA (AKF) and its affiliates form a non-denominational philanthropic network established by the Aga Khan. During the period of the 3-year Matching Grant, now in its final year (A.I.D. \$1 million, AKF and other donors \$16 million), AKF created a model, the Aga Khan Rural Support Programme (AKRSP) to undertake rural development in several countries of South Asia and Africa. To date, programs have been established in Pakistan and India. AKRSP assists village people to organize themselves into Village Organizations (VO) so they can address common needs. Villagers must agree to meet regularly with all members present, elect members for training in a variety of skills, construct and maintain the project themselves, and save money on a regular basis. AKRSP provides technical and financial assistance for the initial project, training for the VO, and help in establishing additional activities,

new technologies, and savings, credit and marketing systems.

The primary objective of the AKRSPs is to increase the income and employment of the rural populations of the areas in which they operate. A doubling of per capita incomes over a period of 10 years is the minimum goal of each AKRSP. In addition to the productive physical infrastructure(s) (irrigation canals, roads) with which VOs normally begin the program, AKRSP assists with the expansion of cultivable land (reclamation), crop production, poultry and small-scale vegetable production (women' organizations), pasture development, dairying, reforestation and a transport network. Of 1,030 villages in the Northern Areas of Pakistan (Gilgit, Chitral and Baltistan Districts), 526 have established Village Organizations: 226 irrigation canals have been completed; \$820,000 (U.S.) has been saved; 2,250 households have benefitted from AKRSP support for marketing operations; and, similar advances have been made in the agricultural program. In India, where AKRSP is just beginning its second year, 28 village organizations have been established, 14 irrigation projects are in progress, 40 nurseries have been initiated and villagers have started saving on a regular basis.

Africare is in its final year of a \$1.6 million 3-year Small-Scale Agribusiness Matching Grant (A.I.D. \$720,000, Africare \$849,095) which expands its assistance to small-scale farmers engaged in or wishing to engage in income generating agricultural activities in five African countries: Senegal, Niger, Mali, Zambia and Zimbabwe. While the project is designed primarily to fund and provide technical assistance to agribusinesses which produce, process and market agricultural products, rural enterprises which raise poultry or livestock or which manufacture products for either of these sectors may also be beneficiaries.

The funding mechanism for small-scale agribusinesses is a combination of grants, loans and revolving credit in the \$5,000 to \$50,000 range. Africare is using an innovative approach to loan repayment stipulating that the repayment of a portion of enterprise profits go into an enterprise revolving fund to cover recurring costs and further investments. The amount to be deposited to the revolving fund is stated in the project accord in advance of project implementation, and the fund is monitored during the life of the project by the Africare Country Director and Regional Agribusiness Specialist.

CHILD SURVIVAL PROGRAM

A.I.D. has joined other donors in a worldwide effort to prevent two million childhood deaths due to malnutrition, disease, unsanitary conditions, closely spaced births, and lack of maternal education. Oral Rehydration Therapy (ORT) and immunization are the two key technologies in this effort to significantly reduce infant and child morbidity and mortality. These two technologies are the base upon which effective primary health care systems are built.

Through the PVC PVO Child Survival Program, 20 U.S. PVOs are carrying out 60 Child Survival projects in 21 countries. The focus of these projects is on developing a sustained capacity in each country for providing ORT, immunizations and other important child survival interventions such as nutrition programs, growth monitoring, birth spacing and improved weaning practices.

Technical assistance and workshops are an important part of A.I.D.'s Child Survival Strategy which provide technical assistance to PVO field operations, support and encourage networking and collaboration among PVOs, and improve the coordination/integration of PVO Child Survival activities with host country governments, USAID, UNICEF, and other international donors. To improve the field based capacities of PVOs, PVC funds a series of regional and country workshops where ideas and experience can be shared, and PVO field staff are updated on technical and management issues to more effectively apply the key child survival interventions. In the past year, regional workshops were held in Rwanda and Zimbabwe and a country workshop took place in Bolivia.

Since FY 1985, A.I.D. has provided over \$30 million through centrally-financed Child Survival programs for PVO projects. PVOs themselves, contributed more than \$7 million of their own resources. In FY 1988, we plan to provide \$14.7 million to support PVO child survival activities which includes \$4.9 million for the Rotary International Polio Plus Campaign and the PVO Vitamin A program. This compares to an actual program level of \$10.1 million in FY 1987. For FY 1989, we request \$10.5 million for such programs which includes \$3 million for the Rotary Campaign and the PVO Vitamin A program. The following examples illustrate PVO activities supported through the Child Survival Program:

In Bolivia, the Andean Rural Health Care Project has received a grant of \$220,000 to reduce infant and child mortality in the Carabuco area by providing at least 90% coverage of children under age five for immunization, nutritional monitoring, and availability of oral rehydration therapy. The project is developing a program of village health volunteers, partially paid by the community, who have a routine program of household visitation and health motivation.

In Rwanda, the Adventist Development Relief Agency (ADRA), with a three year, \$201,000 grant, is implementing a project to vaccinate 90% of all children under 5 in eight areas adjacent to Adventist health care facilities. ADRA will train 90% of all mothers in these villages in the preparation of oral rehydration solutions. Vaccinators will be trained to work out of each health care facility and hold community vaccination clinics. Mothers will also be taught basic methods of child spacing.

Through the Polio Plus Campaign, Rotary International's objective is complete control and virtual elimination of polio worldwide. To fulfill the objectives

of this program, the Rotary Foundation is engaging in an extraordinary fund-raising campaign to raise a minimum of \$120 million worldwide. The total goal, for five years, for the U.S.A. Rotary Foundation is \$78 million. The Polio Plus campaign will receive up to \$6 million from A.I.D. Each \$1 contributed by A.I.D. will be matched by \$2 from individual Rotarians, making A.I.D. the single largest donor to this campaign.

This challenge grant will support programs of community education and private sector mobilization, with particular emphasis on creating and supplying the demand for immunization against polio as well as other EPI-targeted diseases; and for the purchase of polio vaccine through UNICEF and PAHO procurement channels. The grant monies will be used in one or more of the 22 countries selected by A.I.D. which face especially severe child survival problems. Beneficiaries of this program will be primarily children, specifically infants, and expectant mothers.

COOPERATIVE DEVELOPMENT

During FY 1987, responsibility for coordinating A.I.D.'s cooperative development activity and relations with U.S. cooperatives, and for managing the centrally funded cooperative development program was transferred to PVC. Cooperative Development Organizations (CDOs) are a distinct subcategory within the PVO community.

Cooperatives bring people together in democratically-governed businesses to meet mutual needs. A.I.D. supported cooperative development activities:

- increase production by providing financing and technical assistance for small farms and enterprises, and by organizing producers and training cooperative managers to be competitive in the marketplace;
- expand international trade by helping developing country producers become competitive in international markets and, in turn, earn foreign exchange for purchases from the U.S.;
- mobilize local savings for investment by strengthening cooperative savings and credit institutions;
- enhance both political stability and democratic political processes by giving poor people access to better living conditions and a stake in their economy, and experience in democratic control of resources.

A.I.D.'s cooperative development strategy recognizes that most of the resources for increasing the development and use of cooperatives will continue to come from its bilateral programs, and from increasingly prominent alternatives such as local currencies generated from food aid and other programs. The centrally-funded program will support this strategy by providing international headquarters support to six U.S. CDOs and specific project grants to stimulate, explore and evaluate new opportunities and initiatives. The following examples illustrate the range of CDO activities supported by PVC:

A. International Headquarters (\$3,740,000): Core support grants will provide essential funding to enable key U.S. CDOs to maintain capacity for overseas cooperative development, expand and diversify their resources, and develop new program initiatives. The six CDOs to which we expect to continue core support are:

Agricultural Cooperative Development International (ACDI): ACDI provides cooperative development and technical services to agricultural communities, farm credit co-ops, and small to medium scale farmers in LDCs, giving increasing attention to marketing-related services.

Cooperative Housing Foundation (CHF): CHF assists poor communities to address their shelter needs through a system that includes neighborhood improvement cooperatives, building materials production centers, credit mechanisms, technical service organizations, and housing cooperatives.

Credit Union National Association (CUNA): CUNA, working with the World Council of Credit Unions, helps mobilize savings and provide access to credit, including credit for small and micro-enterprises, by helping to develop and strengthen credit unions and credit union associations at the national and regional levels.

National Cooperative Business Association (NCBA): NCBA provides cooperative development expertise and assistance to broad range of agricultural and business cooperatives.

National Rural Electric Cooperative Association (NRECA): NRECA assists LDCs in establishing rural electric systems as well as in developing productive uses of electric power, production of materials for electric systems, and related energy development areas.

Volunteers for Overseas Cooperative Assistance (VOCA): VOCA provides specialized short-term assistance to LDC cooperatives and related agencies, transferring essential management and technical expertise for improved performance. VOCA is also a key organization in management of the Farmer-to-Farmer program.

B. Under Cooperative Business and Trade Development (\$730,000), PVC will continue to encourage and support, on a matching basis, the involvement of U.S. Cooperatives in overseas development activities. In addition, support will be offered for promising new initiatives in cooperative business development, financing and trade. Funds under this project will also be used to evaluate cooperative development experience and to assess and improve the effectiveness of cooperative development efforts.

U.S. Cooperatives which have participated in the co-op to co-op program, matching A.I.D. support with investment of their own resources, include: Land O'Lakes, which has worked with a number of LDC cooperatives, primarily in dairy production and marketing; and League Insurance Companies, working with

cooperative insurers in Latin America. PVC will encourage expanded involvement and investment by U.S. cooperatives in international development activity.

The International Trade Development Program, which received A.I.D. support from FY 1985 to FY 1987, enabled NCBA to establish an international trade facility which has already promoted a significant volume of trade between U.S. and LDC cooperatives and can now generate sufficient revenues to sustain its operations. FVA will continue to encourage similar initiatives to further enhance growth and viability of LDC cooperative businesses leading to continued expansion of trade opportunities.

In FY 1989, PVC is proposing \$4.5 million to support cooperative development activities, compared to an actual program level of \$4.7 million in FY 1987 and an estimated program of \$5.1 million in FY 1988.

PVO COMMODITY FREIGHT-TRANSPORT PROGRAMS

Until FY 1985, the ocean freight reimbursement program was the Agency's only non-P.L. 480 commodity shipping activity. That fiscal year, Congress enacted the Denton Amendment and responsibility for its administration was placed with FVA/PVC. Given the similar nature of these programs, the office now refers to them in the aggregate as the PVO commodity freight transport programs. Each activity is explained below:

Ocean Freight Reimbursement Program: A.I.D. will continue to reimburse PVOs for shipment of purchased or donated commodities used in their development and relief programs overseas. During the last five years, A.I.D. has allocated approximately \$32 million to PVOs to ship supplies valued at some \$250 million, benefiting low-income people in over 60 countries. From a high of \$7.5 million in FY 1983, funding constraints have forced a reduction in the budget for the ocean freight program to \$3.5 million in FY 1987. In FY 1988 and FY 1989, continued funding constraints require a straight-line of this program at \$3.5 million.

Revised application and review procedures instituted in FY 1986 are now maximizing the limited ocean freight monies by focusing resources on more developmentally-oriented programs in those poorer countries assisted by A.I.D. In FY 1989, increased efforts will be made at exploring ways in which the organizations participating in the ocean freight program can augment their shipping activities by using the Denton Amendment which is explained below. Examples of the program during FY 1987 include:

In Bolivia, Church World Service provided health and medical supplies for clinics, equipment for well digging and road construction and necessary commodities for instruction in soil analysis techniques and growing of tomatoes, citrus fruits, rice, avocados and cocoa.

In the Dominican Republic, Food for the Hungry shipped pipes and pumps for a community water project; high protein nuts, powdered milk, protein mix, etc. for community feeding programs, and vegetable seeds for community gardens.

Denton Amendment: The Denton Amendment program provides for free space-available transport of donated humanitarian goods via the U.S. military. Medical supplies and equipment and clothing are by far the most frequently transported goods. Shipments also support development projects through the provision of vocational educational tools and agricultural equipment.

Requests for use of the Amendment have grown geometrically since the Denton legislation was enacted in FY 1985. During that year, 19 applications were received seeking transport of 195,801 pounds of goods to Honduras. During FY 1987, 102 applications were received for transport of 977,239 pounds of goods to 22 countries worldwide. For example:

Volunteer Optometrics of Indianapolis, Indiana requested transport of a mobile clinic and medical supplies which were used to treat thousands of indigent patients in Honduras for eye problems. The mobile clinic was left in place and will form the basis for a permanent eye-disease treatment center.

Mission Partners of Fort Meyers, Florida requested transport of construction equipment and vocational tools to Honduras. Through that shipment, and subsequent shipments made the previous two years, the group has built and outfitted a vocational school in Honduras which teaches carpentry, metal work, sewing and home economics.

In FY 1989, FVA/PVC will continue to play the lead role in coordinating this program for A.I.D., the Department of State and the Department of Defense. In addition to the routine processing of applications, attention will focus on refining the tracking system and the operational guidelines, improving the overall management of the PVO commodity freight transport programs and disseminating the program's success stories.

PUBLIC OUTREACH

In FY 1987, the Public Outreach unit was created by consolidating the Development Education program and the administration of the Advisory Committee on Voluntary Foreign Aid (ACVFA) to more effectively foster American private support for international development. Combining these programs in one office provides the Agency as well as the PVO community, with a vital resource, producing and disseminating the latest information on development.

Advisory Committee on Voluntary Foreign Aid: In keeping with its historic adaptability to new developments, in FY 1987, the ACVFA conducted an extensive reevaluation of its role and functions in light of changing dynamics within the PVO community. It outlined a new approach to its mandate involving lower profile meetings with increased emphasis on analysis, fact finding, and the formulation of substantive objective advice to the Administrator on issues of critical, long-term importance to both the PVO community and the Agency. For its FY 1987-88 meeting cycle, the ACVFA will analyze the theme of "PVO Effectiveness" which will result in a "white paper" that builds on PVC's 1987 "Development Effectiveness Study." For FY 1988-89, the ACVFA will continue to enhance its outreach by selecting topics of importance to the Agency and the PVO community, conducting analytic meetings on these topics which result in recommendations to improve the effective use of PVOs as a development resource.

Development Education: The Biden-Pell Amendment of 1980 to the Foreign Assistance Act of 1963 authorizes A.I.D.'s support of PVOs and other non-profit organizations in their effort to facilitate public discussion, analysis and review of development issues related to world hunger. Development Education grants are awarded based on an organization's ability to increase public awareness of the economic, technical, political and social factors relating to world hunger and poverty. Since the Biden-Pell program became active in 1982, the small grants strategy has succeeded in providing the catalyst for widespread activity in this emerging program field. Used as a leverage to raise private resources, A.I.D.'s grants program has brought Development Education into the mainstream of PVO activity as well as having made important inroads to the formal education sector. The demand for assistance in this area far exceeds our limited financial resources. While the small grants program continues to provide an important foundation of our Development Education strategy, we will explore additional ways of using our resources to solidify and institutionalize Development Education on a national scale.

PVCs Development Education program strategy for FY 1988 and 1989 has two major components. The first is the continuation of a competitive cost-shared grant program to support a variety of demonstration projects aimed at specific target audiences and sectors. This program, which is the Agency's major response to the Biden-Pell mandate, finances the activities of approximately 25 organizations each year. The second component involves promotion of mechanisms that support the institutionalization and promotion of development education through collection and sharing of information and resources. It includes, e.g., support of the newly-established Citizens Network for Foreign Affairs and the organization each year of a national conference on major development education themes. We will also conduct an assessment of the Development Education program after its first five years and formulate a longer term strategy based on lessons learned.

In FY 1989, A.I.D. proposes \$3.0 million for the Development Education program, which compares to a projected budget of \$2.7 million in FY 1988 and \$3.0 million actual program in FY 1987. A separate detailed narrative describing this program is found in the Main Volume.

PROGRAM AND MANAGEMENT SUPPORT

The program and management support functions of FVA/PVC extend far beyond the program and budget operations relative to its 150-plus project portfolio. The A.I.D. Policy Paper on PVOs (PN-AAM-318) designates FVA/PVC as the Agency's principal information center on PVO matters. As a result, PVC has emerged as A.I.D.'s focal point for PVO related information and is increasingly being utilized by the Agency in its work with PVOs. Examples which highlight specific activities to be undertaken include the following:

Registration: PVC has responsibility for managing the following legislatively mandated operations: registration of U.S. PVOs, collection of annual documentation on U.S. PVOs for registry renewals, providing policy guidance to Missions on the registration of local PVOs and maintenance of a central registry on U.S. and local PVOs. The registration process is the Agency's only systematic means to: (1) identify PVOs engaging in or intending to

engage in voluntary foreign aid operations; (2) determine whether PVOs meet certain general operating guidelines and accountability standards; (3) certify the eligibility of PVOs to apply for A.I.D. resources intended for PVO's, including P.L. 480 commodities, ocean freight reimbursement and PVO grant programs.

In FY 1989, as the number of U.S. and non-U.S. PVOs with which the Agency works expands, PVC will: (1) continue its certification and registry of eligible U.S. PVOs which is at an all time high; (2) provide technical assistance to Missions regarding the certification of non-U.S. PVOs; and, (3) improve and maintain the accuracy of the Agency's registry of non-U.S. PVOs.

PVO Management Information System: PVC administers a comprehensive PVO management and program information systems to meet internal Agency information needs, as well as reporting requirements to Congress and the public on PVO activities, A.I.D. funding levels and PVO capabilities. With the full implementation of the PVO Management Information System, the continuing effort to track Agency-wide PVO programs has been very successful. In FY 1989, PVC will improve input procedures for greater efficiency and broaden the impact of the system by providing key Agency managers with the data necessary to make program decisions including summary tables, trend analyses and graphic displays.

Ensuring PVO Financial Independence: PVC will continue to assist the PVO community to understand and comply with new program policies and procedures as legislated, required by OMB or adopted as a matter of Agency policy. An example is the revised Private Resource Test guidance which explains the 20% non-U.S.G. resource requirement for PVO eligibility to receive development assistance as stipulated by the current FAA legislation. In addition, PVC has developed Cost-Share funding guidelines for PVO programs and plans to train PVOs regarding their use through a workshop.

EVALUATION AND BASIC PVO PROGRAMMING ISSUES

In FY 1988 and FY 1989, PVC will continue to make evaluation of the specific contributions of PVOs to development a major Office priority. We will look at the broad directions of PVO programs and also at project design and field implementation, at three levels: the overall effectiveness of PVO programs, sector impact and project level impact.

In assessing broad directions, we will focus, as before, on the effectiveness of PVO approaches to development, particularly their strengths and weaknesses in various sectors when compared with how governments carry out development. We need a better understanding about how PVOs can continue to build on their strengths, and remedy some common weaknesses, as the need for greater technical expertise and strategic management capability. Such studies should also show what it will take for PVOs and governments to work together more effectively.

We will continue to investigate several basic concerns:

Sustainability - how can long term development work be sustained and the scale of impact broadened after PVO projects end?

Indigenous PVOs - how can the institutional growth of indigenous country or local PVOs best be fostered?

Mission PVO programming - most (80%) of A.I.D.'s support to PVO's is through the Missions. Which approaches have they found to be effective, such as co-financing, PVO umbrella grants, or other use of intermediaries?

These three concerns come into focus when seen as part of the overall question of how strong indigenous development organizations are built up in the non-government sector of Third World countries. Our findings to date (1987) identify a composite set of conditions to be met: strong leadership, a community base, networks with other agencies and government, major institutional goals and strategies, and diversified sources of support. Institutional development is a complex, evolutionary effort, but enough is coming to be known about it to justify and direct future investments in it. PVC will continue to study the experience of U.S. PVOs with the process because in the next few years they will be giving more such assistance to build up their indigenous counterparts.

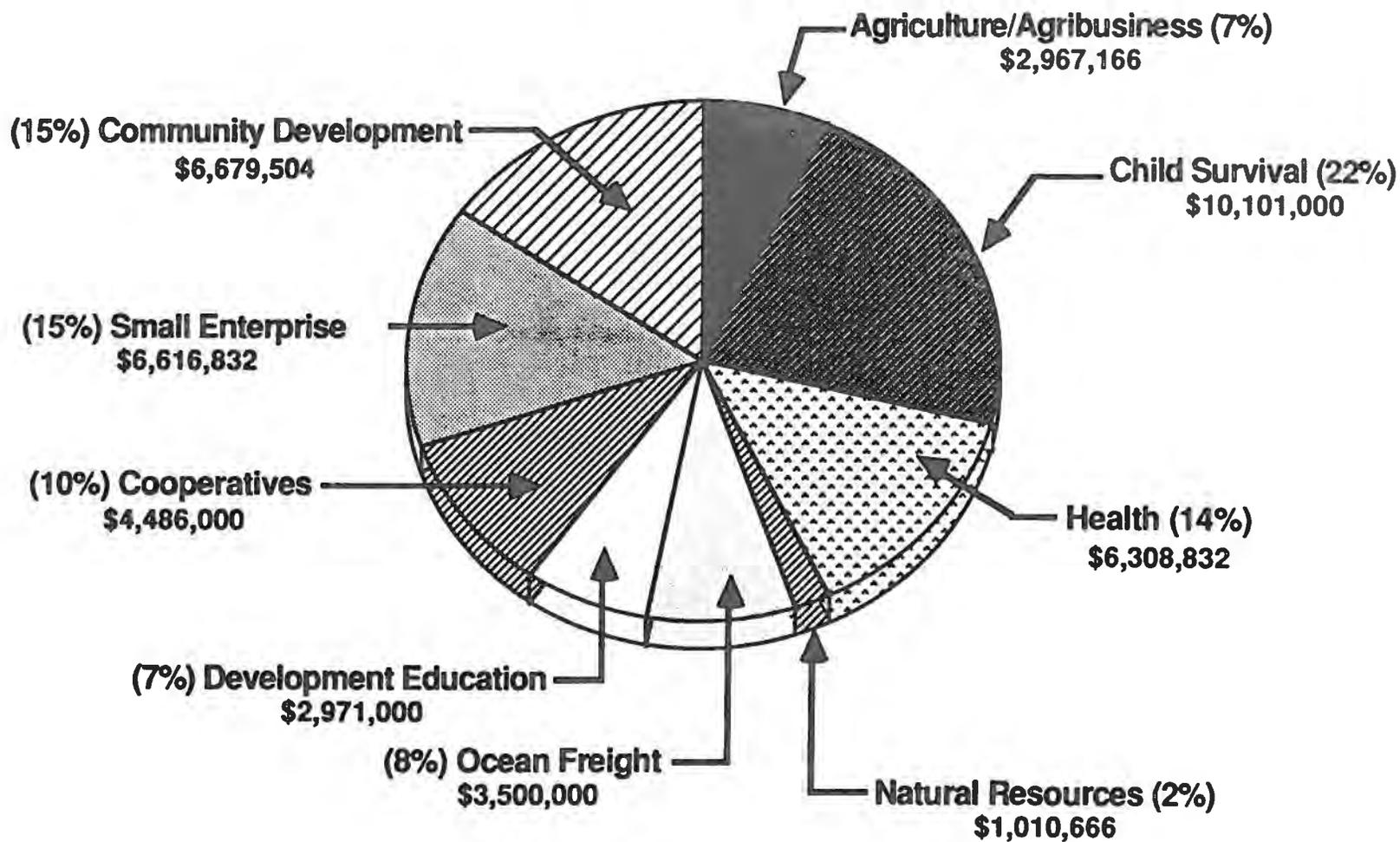
At the sector level, we will extend earlier work in some, and enter new sectors. In the field of small enterprise development, by collaborating with the Small Enterprise Education Promotion (SEEP) Network of practicing PVOs, we hope to refine and extend the state-of-the-art through sharing of project experience via workshops and publications. This work builds on a recent SEEP manual on project design and evaluation.

In primary health care and child survival, we will look at the growing body of activities in order to strengthen technical PVO capabilities and project implementation, and to achieve more integration of projects into A.I.D. Mission, and host-government plans. The effectiveness of the many ways in which PVOs work overseas in agriculture and rural development may be reviewed. PVO contributions to "sustainable agriculture systems" and toward sustained beneficial management of natural resources of lands, forests and water sources will be examined.

At the project level, we will continue to collaborate with the PVO grantees of this office on regular evaluations. Participatory evaluations have proven to be an excellent way for both PVC and the grantee to find out together what is actually achieved in field projects. PVOs respond positively to evaluation findings when directly involved in such reviews.

PVC PROJECT PORTFOLIO

SUMMARY BY SECTOR



FY 87 OBLIGATIONS = \$44,641,000

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR FOR FOOD FOR PEACE AND VOL ASSIST

PROGRAM: FOOD FOR PEACE

CP 89

PROJECT NO. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH OBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED OBLIGA- TIONS	FY 89- EXPEN- DITURES
904-0006		TITLE II OUTREACH											
	FN G	78	84	---	---	19,581	19,453	---	128	---	---	---	---
		PROJECT TOTAL:		---	---	19,581	19,453	---	128	---	---	---	---
938-0700		FOOD FOR PEACE PROGRAM MGMT											
	FN G	80	C	---	2,753	2,480	2,267	274	368	300	---	300	---
		PROJECT TOTAL:		---	2,753	2,480	2,267	274	368	300	---	300	---
938-0701		TITLE II ENHANCEMENT											
	FN G	85	87	5,600	10,121	2,704	305	3,213	921	5,356	2,000	1,000	---
		PROJECT TOTAL:		5,600	10,121	2,704	305	3,213	921	5,356	2,000	1,000	---
938-0702		AFR FOOD NEEDS ASSESSMENT											
	FN G	85	88	4,500	9,000	1,297	701	379	577	350	450	350	---
		PROJECT TOTAL:		4,500	9,000	1,297	701	379	577	350	450	350	---
933-0703		TITLE II OUTREACH											
	FN G	85	87	---	---	10,099	3,286	2,285	3,987	---	---	---	---
		PROJECT TOTAL:		---	---	10,099	3,286	2,285	3,987	---	---	---	---
933-0704		TITLE II OUTREACH											
	FN G	89	C	15,000	15,000	---	---	---	---	---	---	4,150	---
		PROJECT TOTAL:		15,000	15,000	---	---	---	---	---	---	4,150	---
938-0706		LINKING DAIRY PRODUCTS WITH DEVELOPMENT											
	FN G	86	87	---	---	2,785	---	1,300	817	---	---	---	---
		PROJECT TOTAL:		---	---	2,785	---	1,300	817	---	---	---	---

*Refers to the planned project summary sheet

C=Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.

For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR FOR FOOD FOR PEACE AND VOL ASSIST

PROGRAM: FOOD FOR PEACE

CP 89

PROJECT NO. PROJECT TITLE * G	L	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
PROGRAM TOTALS:					25,100	36,374	38,946	26,012	7,451	6,798	6,006	2,450	5,800	---
GRANTS:					25,100	36,874	38,946	26,012	7,451	6,798	6,006	2,450	5,800	---
LOANS:					---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----														
AGR., RURAL DEV. & NUTRITION:					25,100	36,874	38,946	26,012	7,451	6,798	6,006	2,450	5,800	---
HEALTH:					---	---	---	---	---	---	---	---	---	---
CHILD SURVIVAL FUND:					---	---	---	---	---	---	---	---	---	---
AIDS:					---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:					---	---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:					---	---	---	---	---	---	---	---	---	---
ECONOMIC SUPPORT FUND:					---	---	---	---	---	---	---	---	---	---
AM. SCHOOLS & HOSPITALS ABROAD:					---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.

For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR FOR FOOD FOR PEACE AND VOL ASSIST

PROGRAM: PRIVATE/VOL COOP

CP 89

PROJECT ND. PROJECT TITLE * G	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF AUTHD	PROJECT- PLANNED	-THROUGH FY 86- DBLIGA- TIONS	FY 86- EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	FY 87- EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	FY 88- EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	FY 89- EXPEN- DITURES
932-0106		OCEAN FREIGHT											
	SD G	46	82	---	---	126,858	117,408	---	---	---	---	---	---
		PROJECT TOTAL:		---	---	126,858	117,408	---	---	---	---	---	---
933-0158		MATCHING GRANTS TO PVOS											
	EH G	87	91	---	---	2,259	1,258	953	846	2,600	2,467	2,693	2,574
	FN G	87	91	7,200	7,000	28,750	21,953	11,184	4,825	7,058	5,804	8,884	6,185
	HE G	87	89	---	---	21,380	10,911	6,250	5,326	5,410	4,687	5,215	5,013
	SD G	87		---	---	23,810	16,333	4,641	5,298	4,289	5,594	4,711	5,623
		PROJECT TOTAL:		7,200	7,000	76,199	50,455	23,028	16,295	19,357	18,552	21,503	19,395
933-0192		COOPERATIVE GRANTS TO PVOS											
	FN G	87			8,559	8,559	---	---	165	---	5,109	3,065	4,500
		PROJECT TOTAL:			8,559	8,559	---	---	165	---	5,109	3,065	4,500
933-0230		DEVELOPMENT EDUCATION (BIDEN PELL)											
	FN G	81	C	---	16,768	8,672	6,591	2,970	1,522	2,700	---	3,000	---
		PROJECT TOTAL:		---	16,768	8,672	6,591	2,970	1,522	2,700	---	3,000	---
933-0238		OCEAN FREIGHT REIMBURSEMENT											
	HE G	83	C	---	2,000	---	---	---	---	1,000	---	1,000	---
	SD G	83	C	---	36,339	27,839	---	3,500	---	2,500	---	2,500	---
		PROJECT TOTAL:		---	38,339	27,839	---	3,500	---	3,500	---	3,500	---
935-0244		OPPOR INDUSTRIAL CENTERS INT'L (OICI)											
	EH G	84	91	16,800	16,800	8,918	4,143	552	2,844	2,000	---	2,000	---
		PROJECT TOTAL:		16,800	16,800	8,918	4,143	552	2,844	2,000	---	2,000	---
938-0284		VITAMIN A											
	FN G	86	89	7,600	7,600	1,741	260	---	280	2,000	903	2,000	1,006
		PROJECT TOTAL:		7,600	7,600	1,741	260	---	280	2,000	903	2,000	1,006

*Refers to the planned project summary sheet
C Level of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized data.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned data.

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR FOR FOOD FOR PEACE AND VOL ASSIST

PROGRAM: PRIVATE/VOL COOP

CP 89

PROJECT NO. PROJECT TITLE	L /	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 86- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES	
933-0500													
TECHNICAL SUPPORT/CHILD SURVIVAL													
CS G	87			2,345	2,845	11,994	2,922	10,000	2,654	9,757	---	7,597	---
PROJECT TOTAL:				2,845	2,845	11,994	2,922	10,000	2,654	9,757	---	7,597	---
933-0537													
ROTARY INTERNATIONAL (ROTARY)CORHTUTKE93													
CS G	87	91		7,000	3,000	---	---	17	---	2,899	---	1,000	---
HE G	87	91		2,000	1,000	---	---	85	---	---	---	---	---
PROJECT TOTAL:				9,000	4,000	---	---	102	---	2,899	---	1,000	---
PROGRAM TOTALS:				52,004	101,911	262,221	181,779	40,317	23,595	47,322	22,520	45,100	24,301
GRANTS:				52,004	101,911	262,221	181,779	40,317	23,595	47,322	22,520	45,100	24,301
LOANS:				---	---	---	---	---	---	---	---	---	---
---- APPROPRIATION SUMMARY ----													
AGR. RURAL DEV. & NUTRITION:				23,359	39,927	39,163	28,804	14,319	6,627	16,867	9,772	18,384	11,091
HEALTH:				2,000	3,000	21,380	10,911	6,335	5,326	6,410	4,687	6,215	5,013
CHILD SURVIVAL FUND:				9,845	5,845	11,994	2,922	10,017	2,654	12,656	---	8,597	---
AIDS:				---	---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:				16,800	16,800	11,177	5,401	1,505	3,690	4,600	2,467	4,693	2,574
SELECTED DEVELOP. ACTIVITIES:				---	36,339	178,507	133,741	8,141	5,298	6,789	5,594	7,211	5,623
ECONOMIC SUPPORT FUND:				---	---	---	---	---	---	---	---	---	---
AM. SCHOOLS & HOSPITALS ABROAD:				---	---	---	---	---	---	---	---	---	---

*Refers to the planned project summary sheet

CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized date.

For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.

CENTRALLY FUNDED
BUREAU FOR FOOD FOR PEACE AND VOLUNTARY ASSISTANCE

Agriculture, Rural Development and Nutrition -- Office of Food for Peace

938-0700 Food for Peace Program Management - To provide the technical expertise and ancillary services needed to improve the planning and implementation of ongoing programs.

938-0701 Title II Program Enhancement - To improve the development impact of Title II resources by strengthening the capability of PVOs to design and implement essential complementary components of supplementary feeding programs.

938-0702 Food Data Needs Assessment - To improve collection of food sector data in drought-prone African countries in order to make more accurate and timely estimates of food aid needs.

938-0704 Program Food Aid Institutional Development and Support - To assist voluntary agencies to strengthen their institutional capacity for administering food aid programs in the field and promote increased movement of Title II commodities.

938-0706 Linking Dairy Products with Developments - To provide funds for development projects, worldwide, of private entities and cooperatives utilizing surplus dairy products from CCC inventories.

Agriculture, Rural Development and Nutrition - Office of Private and Voluntary Cooperation

938-0292 World Relief Corporation (WRC) - To support WRC's program of local institution building with emphasis on incoming generating projects. WRC's affiliates are active in community development and agriculture. Their program includes local staff training in project development and management.

938-0279 Save the Children Federation (SCF) - To improve the effectiveness of SCF's community development programming, in three areas of basic need: food production and income generation and community infrastructure and services. The program includes local SCF staff development, project funding, and planning and evaluation assistance in 219 countries.

938-0290 Winrock International (WI) - To create an on-farm seed production capability in selected countries in sub-Saharan Africa through cooperation among U.S. universities, U.S. PVOs and the Peace Corps.

938-XLWR Lutheran World Relief (LWR) - To stimulate individual communities to undertake their own development by participating in projects to meet basic human needs and support a network of local organizations committed to and capable of continuing development assistance.

938-JPUR Joint PVO/University Rural Development Center (JPURDC) - To bring together the complementary resources of universities and PVOs to effect successful rural development using water harvesting and aquaculture as the core intervention for village and area development.

938-0293 World Vision Relief Organization (WVRO) - To establish an on-going institutional capability within WVRO's Africa field program, management structure to plan, implement and manage effective water supply and sanitation development programs.

938-XHPI Heifer Project International (HPI) - To support agricultural/livestock development projects including the local purchase of livestock, physical facilities, equipment and supplies and the promotion of personnel and information exchange.

938-XIVS International Voluntary Service (IVS) - To provide management and skills training to host organizations. This includes home textile production, small-scale irrigation, health worker training, agricultural extension and resettlement programs to improve their capability to deliver services to the rural poor.

938-CODL Coordination in Development (CODEL) - To promote collaborative efforts in overseas development and support of community level projects carried out by local and intermediary institutions.

938-PACT Private Agencies Collaborating Together (PACT)
- To fund development projects of the 25 U.S., Latin American, and African private agency members and to improve the capabilities of member agencies and selected non-member agencies to respond to the needs of cooperating indigenous agencies in LDCs.

938-XAKF Aga Khan Foundation USA (AKF) - To implement the Aga Khan Rural Support Program which will assist village people to develop and implement self-help, income-generating projects.

938-AFRC Africare - To support development of small scale agribusinesses which produce, process and/or market vegetables, fruit staple grains, poultry and livestock, and support rural enterprises such as grinding mills and manufacturing of farm implements.

938-0267 Cooperative for American Relief Everywhere (CARE)
- To support CARE's multisectoral program and development strategies in agroforestry, microenterprise development, primary health care, and food aid. This grant will fund projects in A.I.D.-assisted countries in these sectors and establish regional technical assistance capability.

938-0286 International Institute for Rural Reconstruction
- To support a range of new initiatives which will be introduced in the programs of the training, extension, communications and research divisions aimed at internationalizing IIRR's training and technology extension program through working with the National Rural Reconstruction Movements (NRRMs) and Alumni associations.

Health - Office of Private and Voluntary Cooperation

938-0282 Project Concern International (PCI) - To continue and expand support of low-cost, community-based health services systems through training of community health workers and to assist local organizations to design and initiate health care programs.

938-0289 Salvation Army World Service Office (SAWSO) - To strengthen the strategies management capabilities of the Salvation Army's organizations in 16 countries, assisting local leaders to utilize scarce program and human resources to achieve maximum development impact.

938-0276 African Medical & Research Foundation (AMREF) - To improve the health of rural people in four African countries lacking access to basic health services. The outreach of existing mobile health units will be expanded through correspondent courses, workshops and publications targeted on local, district and regional health teams.

938-0285 People-To-People Health Foundation, Project HOPE - To strengthen the health infrastructure which supports and complements child survival and primary health care activities.

938-XHKI Helen Keller International (HKI) - To integrate eye care and basic rehabilitation services into the rural health and social service systems of selected countries through the provision of technical assistance, training and equipment.

938-XIEF International Eye Foundation (IEF) - To conduct research into the prevalence, etiology and geographic distribution of eye disease; carry out training in preventative and curative eye care; and conduct operational research into the development of community-based programs in the prevention of blinding eye disease.

938-NCIH National Council for International Health (NCIH) - To provide support to NCIH's program that will increase and enhance the technical and managerial capabilities of U.S. private sector agencies and health professionals engaged in international health development activities.

938-ADRA Adventist Development and Relief Agency (ADRA)
- To improve the well being of mothers and children through the provision of a wide range of technical and material resources in such areas as community development, agriculture, environmental health/sanitation, maternal/child health, nutrition, low-cost housing, literacy and income generation.

Child Survival - Office of Private and Voluntary Cooperation

938-0500 Child Survival Fund - To provide the resources through PVOs to address the special health needs of children and mothers by fostering the use of ORT, providing immunizations and promoting improved weaning practices, growth monitoring and birth-spacing that greatly enhance child survival prospects in poor countries.

Education and Human Resources - Office of Private and Voluntary Cooperation

938-0287 Overseas Education Fund (OEF) - To support OEF's applied research on strategies to enhance earning of women's through self-employment and job skills training.

938-0244 Opportunities for Industrialization Centers International (OICI) - To establish and strengthen local OIC institutions in seven countries in sub-Sahara Africa and improve vocational, agricultural and business skills training programs undertaken by these affiliates.

938-0280 Technoserve, Inc. (TNS) - To provide technical, managerial and financial assistance to individuals and groups to establish and strengthen community-based agricultural enterprises.

938-0283 Accion International (AITEC) - To develop the capabilities of local organizations in Latin American countries to plan and execute employment, income generating and management programs for micro-business enterprises in urban and rural settings.

938-0278 Young Men's Christian Association (YMCA) - To support the U.S. YMCA's international development program of assistance to LDC YMCA's to strengthen local institutional capacity and support community projects, primarily in education and vocational training.

938-0288 Foster Parents Plan (PLAN) - To support small-scale, income generating projects in selected LDCs in order to increase the incomes of local populations and enable them to become increasingly self-sufficient in meeting their own needs.

938-ECUS Episcopal Church USA (ECUSA) - To build and strengthen national development planning offices of the Episcopal Church in five countries by providing training, staff support and funding for development projects.

Selected Development Activities - Office of Private and Voluntary Cooperation

938-0238 Ocean Freight - To enable registered PVOs and the American Red Cross to ship donated or purchased supplies for humanitarian and development programs overseas.





PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
35,000	40,000	30,000

AMERICAN SCHOOLS AND HOSPITALS ABROAD

A desire to adapt American education and medicine to the needs of people abroad has prompted numbers of Americans to establish and support schools and hospitals overseas. These institutions offer diversity where, often, little or none exists. They promote private initiative, independent inquiry and innovative approaches to problem solving.

ASHA grants help private, non-profit, American-sponsored schools and hospitals overseas to build and renovate facilities, to purchase equipment and, in a few cases, to meet the costs of operating educational and medical programs.

ASHA-supported institutions educate a worldwide cadre which can communicate, share values and work with Americans in business, government, the sciences and other mutually beneficial endeavors. These institutions train future leaders in a wide variety of disciplines, including agriculture, economics, business and public administration, medicine, nursing, public health, education, engineering and the arts and sciences. They also offer programs to improve the skills of those already in the workforce, undertake research in the natural and social sciences and conduct symposia on economic and social development issues.

FIVE YEAR OVERVIEW -- FISCAL YEARS 1983-1987

In the past five years, 91 institutions have received ASHA assistance. These institutions

- educate more than 200,000 students from more than 100 countries annually,
- provide medical services to more than four million people each year, and
- rely principally on tuition, fees and private contributions to meet their operating expenses.

The distribution of grants by country, institution and fiscal year is shown in Attachment A. During this five year period, 43 institutions in Africa, Asia, Latin America, the Caribbean and the Near East were assisted for the first time. These institutions are identified with an asterisk in Attachment A.

The number of dollars requested from ASHA increased from \$62 million in FY 1983 to \$94 million in FY 1987, while ASHA budgets increased from \$20 million to \$35 million. (For FY 1988, requests total \$105 million.) ASHA has been able to assist about 65% of the applicants by reducing the scope of projects and negotiating higher levels of institutional cost-sharing.

PROJECTS COMPLETED IN 1987

A number of major projects have been successfully completed in the past year.

In Central America, three institutions of higher education are expanding and strengthening their programs in economics and business administration or in the natural, social and agricultural sciences. Following two years of construction, on July 4, 1987, the Francisco Marroquin University in Guatemala moved from crowded temporary quarters to a new campus which provides its growing faculty and student body with modern classrooms and other facilities to accommodate its rapid expansion. The University is well known for its school of business administration, which promotes market economics. The Panamerican Agricultural School in Honduras, with students from twelve Latin American countries, is using new science and food processing laboratories, library facilities and student housing to improve curricula, expand research activities and increase enrollment. At the University of the Valley of Guatemala, additional classrooms and laboratories are permitting an expansion of development-related research and course work in both the natural and social sciences. These three institutions enroll 6,500 students, about double the number of five years ago.

In the Philippines, two university libraries were dedicated in December 1987. They will provide new learning resources to students and faculty as well as to community and provincial organizations. The libraries are at Angeles University in Angeles City, which is adjacent to Clark Air Force Base on Luzon, and Ateneo de Zamboanga University in southwestern Mindanao, an institution celebrating 75 years of service in an area of cultural and ethnic diversity. These two institutions are annually training nearly 10,000 students and also conducting community extension programs.

In Botswana, a multi-purpose facility was dedicated at the Maru a Pula School, a secondary school which has successfully pioneered multi-racial education in southern Africa. At Cuttington University College in Liberia, a project which combined the renovation of old buildings with new construction is providing additional classrooms and offices and improved utilities.

In the fall of 1987, Vice President Bush dedicated new rehabilitation facilities at the American Children's Hospital in Krakow, Poland. Project HOPE has been the institution's sponsor since 1974, and presently is overseeing the construction of the Clement J. Zablocki Ambulatory Care Center, which is scheduled for completion in 1990. The hospital's reputation as one of Europe's premier pediatric facilities is, in large part, a result of the active exchange program between the American and Polish medical communities which has strengthened the hospital's capabilities in specialties of pediatric medicine.

In the summer of 1987, William A. Brown, U.S. Ambassador to Thailand, participated in the dedication of a new building at the Bangkok Adventist Hospital which provides support facilities and expanded services in pediatric medicine, obstetrics and physical therapy. The inauguration of the new facility was a part of the hospital's 50th anniversary celebration.

Newly constructed facilities for medical education, diagnosis and treatment have been put into service at the Ludhiana Medical College and Hospital in India, the American British Cowdray Hospital in Mexico and the Admiral Bristol Hospital in Turkey.

PROGRAM MANAGEMENT

The Office of American Schools and Hospitals Abroad

- screens prospective new applicants for eligibility and their proposals for financial soundness;
- uses a comprehensive application form which asks the applicant to demonstrate 1) the role of the U.S.-sponsoring organization, 2) the merits of the overseas institution, and 3) the need, impact and cost-effectiveness of the proposal;
- evaluates each application, using A.I.D. reviewers and outside experts to identify those which best comply with the purposes of Section 214 of the Foreign Assistance Act, ASHA program criteria and A.I.D. development objectives;
- places priority on projects with long-term development potential;
- seeks wide and balanced geographic distribution of grants and funds consistent with the merits and needs of individual institutions;
- requires cost-sharing to the greatest possible extent;
- expects institutions in advanced developing countries to achieve higher levels of fund-raising, and
- encourages all institutions, particularly those few dependent on ASHA for operating subsidies, to increase income from private contributions and, where feasible, from tuition, fees and auxiliary services.
- makes selected site visits to inspect and evaluate institutional activities.

Without an increase in its six-person staff, during the past six years the ASHA office has handled a substantial increase in inquiries from potential applicants, a 50% increase in applications, a 72% increase in the number of grants awarded, and a 41% increase in the program's portfolio of active grants. The number of applications has increased from 51 for FY 1983 to 77 for FY 1988. Twenty-five (25) grants were made in FY 1982 and 43 in FY 1987. The number of institutions in ASHA's portfolio of active grants increased from 58 during FY 1983 to 82 during FY 1987. Staff experience and continuity, as well as work simplification and more extensive use of automated equipment, have contributed to the office's increase in productivity.

PIPELINE STATUS

ASHA-assisted institutions generally execute projects expeditiously. Over the past five years, 195 grants were made for the benefit of 91 institutions. Nearly 77% of the \$148.5 million granted had been disbursed as of September 30, 1987.

ASHA PIPELINE

Disbursement of FY 1983-87 Grant Funds
as of September 30, 1987

<u>FY</u>	<u>TOTAL GRANTED (\$000)</u>	<u>NO. OF GRANTS AWARDED</u>	<u>NO. OF ACTIVE GRANTS</u>	<u>GRANT BALANCE (\$000)</u>	<u>% DISBURSED</u>
1983	20,000	31	0	0	100.0
1984	30,000	40	4	559	98.1
1985	30,000	40	14	2,846	90.5
1986	33,495	41	23	8,411	74.9
1987	<u>35,000</u>	<u>43</u>	<u>37</u>	<u>22,637</u>	35.3
TOTAL	148,500	195	78	34,453	76.7

FISCAL YEAR 1987 PROGRAM

Sixty-five applicants requested \$94 million. Forty-three were awarded grants totalling \$35 million. Of these 43 grantees, 12 were first-time recipients and 21 had not received grants in FY 1986. Thirty-nine applicants had proposals of \$1 million or more. However, only 11 of the 43 grants were for \$1 million or more. Institutions receiving assistance and the amounts granted may be found in Attachment A.

FISCAL YEAR 1988 PROGRAM

Seventy-seven applicants requesting \$105 million met the August 31 deadline. Both the number of applicants and the dollars requested are at an all time high. The FY 1988 applicants are listed in Attachment B. Grants will be awarded on a competitive basis following assessment of the merits of the applicants and their proposals by experts from within and outside the Agency.

FISCAL YEAR 1989 PROGRAM

A.I.D. requests \$30 million for the ASHA program. To meet the escalating number and dollar value of applications, ASHA will encourage greater cost-sharing by applicants. Priority will be given to those institutions which best serve as centers for study and demonstration of U.S. ideas and practices, have good self-help records and offer the greatest potential for developing human resources.

Attachments:

- A. Grants by Country and Institution, FYs 1983-1987
- B. Fiscal Year 1988 Applicants

AMERICAN SCHOOLS AND HOSPITALS ABROAD
GRANTS BY COUNTRY AND INSTITUTION, FYs 1983-1987
(In Thousands of Dollars)

<u>COUNTRY AND INSTITUTION</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>TOTAL</u>
<u>Botswana</u>	600	550	425	800	-	2,375
Kanye Hospital, Kanye	<u>600</u>	-	-	800	-	1,400
Maru a Pula School, Gaborone	-	550	425	-	-	975
<u>Brazil</u>	-	150	-	192	250	592
Esperanca, Santarem	-	<u>150</u>	-	192	250	592
<u>Cameroon</u>	-	-	325	-	325	650
*Central Hospital D'Enongal, Enongal	-	-	<u>325</u>	-	<u>325</u>	650
<u>China</u>	-	-	-	-	3,000	3,000
*American Medical Center, Shanghai	-	-	-	-	<u>1,000</u>	1,000
*Ctr. for Am. Studies & Life Sciences, Shanghai	-	-	-	-	2,000	2,000
<u>Ecuador</u>	-	-	-	-	500	500
*Academy Cotopaxi, Quito	-	-	-	-	<u>500</u>	500
<u>Egypt</u>	900	1,000	2,250	1,750	650	6,550
American University in Cairo	<u>900</u>	<u>1,000</u>	<u>1,850</u>	<u>1,750</u>	650	6,150
*Holy Family College, Cairo	-	-	400	-	-	400
<u>Federated States of Micronesia</u>	-	-	-	600	-	600
*Xavier High School, Truk Island	-	-	-	<u>600</u>	-	600
<u>Greece</u>	695	1,380	1,075	700	800	4,650
American College of Greece, Athens	-	380	-	500	-	880
American Farm School, Thessaloniki	295	350	475	-	-	1,120
Anatolia College, Thessaloniki	200	375	600	200	-	1,375
Athens College, Athens	200	275	-	-	350	825
*Blegen and Gennadius Libraries, Athens	-	-	-	-	450	450
<u>Guatemala</u>	875	1,825	850	2,500	2,200	8,250
Francisco Marroquin University, Guatemala City	-	<u>1,000</u>	-	<u>1,900</u>	<u>1,400</u>	4,300
Hospital de la Familia, Nuevo Progreso	-	125	-	-	200	325
University of the Valley, Guatemala City	875	700	850	600	600	3,625

*Indicates first time recipients during this five year period

<u>COUNTRY AND INSTITUTION</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>TOTAL</u>
<u>Haiti</u>	<u>200</u>	-	<u>675</u>	<u>1,385</u>	<u>1,300</u>	<u>3,560</u>
*American University of Les Cayes, Les Cayes	-	-	-	700	900	1,600
*Bohoc Technical Institute, Bohoc	200	-	375	330	200	1,105
Hospital St. Croix, Leogane	-	-	300	355	200	855
<u>Honduras</u>	<u>1,655</u>	<u>1,700</u>	<u>2,500</u>	<u>1,643</u>	<u>1,000</u>	<u>8,498</u>
*Escuela Internacional Sampedrana, San Pedro Sula	200	-	800	200	-	1,200
Panamerican Agricultural School, Zamorano	1,455	1,700	1,700	1,443	1,000	7,298
<u>India</u>	<u>500</u>	<u>900</u>	<u>1,410</u>	<u>950</u>	<u>700</u>	<u>4,460</u>
*Kodaikanal School, Tamil Nadu	-	-	300	-	-	300
Ludhiana Christian Med. College & Hosp.	500	500	500	500	-	2,000
Vellore Christian Medical College & Hosp.	-	400	500	450	700	2,050
*Woodstock International School, Musoorie	-	-	110	-	-	110
<u>Israel</u>	<u>3,100</u>	<u>4,100</u>	<u>4,650</u>	<u>5,450</u>	<u>5,150</u>	<u>22,450</u>
*American College of Belz, Jerusalem	-	-	500	-	-	500
Beth Rivka Comprehensive School, Kfar Chabad	300	450	-	-	-	750
Beth Yaacov Avat, Ashdod	-	-	-	-	100	100
Boys Town Jerusalem	250	-	300	-	700	1,250
*Children's Town, Jerusalem	-	-	-	500	-	500
*Emunah Women of Am. Commun. College, Jerusalem	450	-	200	-	-	650
Feinberg Graduate School of the Weizmann Institute of Science, Rehovot	750	1,200	500	750	1,000	4,200
Gan Yavne Youth Village, Gan Yavne	-	-	150	-	-	150
Hadassah Medical Center, Jerusalem	850	1,500	1,500	1,500	1,650	7,000
*Harry S. Truman Research Institute for the Advancement of Peace, Jerusalem	-	-	-	150	-	150
Jerusalem College of Technology	-	250	-	-	-	250
*Kfar Silver, Ashkelon	-	200	-	-	-	200
Laniado Hospital, Netanya	-	-	500	-	-	500
*Machaniam High School, Kiryat Gat	-	-	-	200	200	400
*Mother and Baby Hospital, Jerusalem	-	-	-	1,250	-	1,250
*Music Foundation, Jerusalem	-	-	-	200	-	200
Ohr Somayach School, Jerusalem	-	-	1,000	-	1,000	2,000
*Sha'Alvim Teacher's College, D.N. Ayalon	-	-	-	400	-	400
Shaare Zedek Hospital, Jerusalem	500	500	-	500	500	2,000

<u>COUNTRY AND INSTITUTION</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>TOTAL</u>
<u>Italy</u>	200	325	350	325	325	1,525
Center for Advanced Intern'l Studies, Bologna	200	325	350	325	325	1,525
<u>Jamaica</u>	-	625	-	225	-	850
*St. George's College, Kingston	-	625	-	225	-	850
<u>Jordan</u>	-	400	250	-	-	650
American Center for Oriental Research, Amman	-	400	250	-	-	650
<u>Kenya</u>	-	-	-	-	500	500
*Tenwek Hospital, Bomet	-	-	-	-	500	500
<u>Korea</u>	300	800	1,300	400	-	2,800
*Chung Ang University, Seoul	-	-	-	400	-	400
*Kwangju Christian Hospital, Kwangju	-	250	-	-	-	250
Presbyterian Medical Center, Jeonju	200	-	400	-	-	600
Sogang University, Seoul	-	550	-	-	-	550
Soong Sil (Jun) University, Seoul	-	-	900	-	-	900
*St. Joseph's Girls High School, Cholla Nam Do	100	-	-	-	-	100
<u>Lebanon</u>	4,250	5,000	5,350	6,200	6,000	26,800
American University of Beirut	4,000	5,000	5,000	6,000	6,000	26,000
Beirut University College	-	-	350	200	-	550
International College of Beirut	250	-	-	-	-	250
<u>Liberia</u>	900	650	600	700	720	3,570
Cuttington University College, Suacoco	900	650	600	700	720	3,570
<u>Malawi</u>	-	-	700	550	-	1,250
Malamulo Hospital, Makwasa	-	-	700	550	-	1,250
<u>Mexico</u>	-	1,500	-	1,000	700	3,200
*American British Cowdray Hospital, Mexico City	-	1,000	-	1,000	-	2,000
University of the Americas, Mexico City	-	500	-	-	700	1,200
<u>Pakistan</u>	-	-	-	500	-	500
*Nancy Fulwood Hospital, Sahiwal	-	-	-	500	-	500

<u>COUNTRY AND INSTITUTION</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>TOTAL</u>
<u>Philippines</u>	<u>1,300</u>	<u>1,200</u>	<u>1,100</u>	<u>650</u>	<u>2,050</u>	<u>6,300</u>
*Angeles University, Angeles City	-	-	-	650	-	650
Ateneo de Davao University, Davao City	-	-	250	-	-	250
*Ateneo de Manila University, Quezon City	-	1,200	-	-	-	1,200
*Ateneo de Zamboanga, Zamboanga City	-	-	850	-	-	850
De La Salle University, Manila	800	-	-	-	-	800
*La Salle College, Bacolod	-	-	-	-	250	250
*Notre Dame of Marbel College, Korondal	-	-	-	-	950	950
*Notre Dame University, Cotobato City	-	-	-	-	850	850
Silliman University, Dumaguete City	500	-	-	-	-	500
<u>Poland</u>	<u>150</u>	<u>750</u>	<u>250</u>	<u>325</u>	<u>400</u>	<u>1,875</u>
American Children's Hospital, Krakow	150	750	250	325	400	1,875
<u>Rwanda</u>	<u>575</u>	-	-	-	-	<u>575</u>
Mugonero Hospital, Kibuye	575	-	-	-	-	575
<u>Sri Lanka</u>	-	-	-	-	130	130
*Eastern Technical School Inst., Batticaloa	-	-	-	-	130	130
<u>Sudan</u>	-	<u>425</u>	-	-	-	<u>425</u>
*Loyola Secondary School, Wau, Bahr el Ghazel	-	425	-	-	-	425
<u>Thailand</u>	<u>500</u>	<u>1,225</u>	<u>700</u>	<u>850</u>	<u>1,050</u>	<u>4,325</u>
Bangkok Adventist Hospital	-	725	700	-	300	1,725
*Lampang College of Commerce & Technology	-	-	-	850	750	1,600
Payap College, Chiang Mai	500	500	-	-	-	1,000
<u>Turkey</u>	<u>550</u>	<u>680</u>	<u>650</u>	<u>1,025</u>	<u>1,350</u>	<u>4,255</u>
Admiral Bristol Hospital, Istanbul	550	400	650	725	450	2,775
*American Collegiate Institute, Izmir	-	-	-	300	-	300
*Am. School of Languages and Art, Istanbul	-	-	-	-	400	400
Robert College, Istanbul	-	280	-	-	500	780
<u>West Bank</u>	-	<u>1,000</u>	-	-	-	<u>1,000</u>
*Bethlehem University, Bethlehem	-	1,000	-	-	-	1,000
<u>Zaire</u>	<u>550</u>	<u>715</u>	<u>550</u>	<u>850</u>	<u>800</u>	<u>3,465</u>
Good Shepherd Hospital, Kananga	550	715	550	850	800	3,465

<u>COUNTRY AND INSTITUTION</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>TOTAL</u>
<u>Zambia</u>	-	<u>600</u>	<u>690</u>	-	<u>200</u>	<u>1,490</u>
*Macha Hospital, Choma	-	-	-	-	<u>200</u>	<u>200</u>
Mwami Adventist Hospital, Chipata	-	600	690	-	-	1,290
<u>Zimbabwe</u>	-	-	-	-	<u>1,000</u>	<u>1,000</u>
*Simon Mazorodze Inst. for Biomed. Ed. & Res.	-	-	-	-	<u>1,000</u>	<u>1,000</u>
<u>Worldwide</u>	<u>2,200</u>	<u>2,500</u>	<u>3,350</u>	<u>3,925</u>	<u>3,850</u>	<u>15,825</u>
Project HOPE Schools of Health Sciences	<u>1,500</u>	<u>1,500</u>	<u>1,500</u>	<u>2,000</u>	<u>1,550</u>	<u>8,050</u>
Project ORBIS	700	1,000	1,850	1,925	2,300	7,775
Program Evaluation	-	-	-	-	50	50
TOTALS:	<u>20,000</u>	<u>30,000</u>	<u>30,000</u>	<u>33,495</u>	<u>35,000</u>	<u>148,495</u>

OFFICE OF AMERICAN SCHOOLS AND HOSPITALS ABROAD
FY 1988 APPLICANTS

<u>REGION/COUNTRY</u>	<u>INSTITUTION</u>	<u>REQUESTED AMOUNT (\$)</u>
AFRICA		
Botswana	MARU A PULA SCHOOL	136,500
Kenya	*OUTWARD BOUND MOUNTAIN SCHOOL-LOITOKITOK	500,000
	*CHEBISAAS SCHOOL	338,000
	*UNIVERSITY OF EAST AFRICA	1,400,000
	*MALUTI HOSPITAL	500,000
Lesotho	CUTTINGTON UNIVERSITY COLLEGE	1,180,000
Liberia	GOOD SHEPHERD MEDICAL CENTER	1,410,000
Zimbabwe	SIMON MAZORODZE INSTITUTE	3,300,000
	SUBTOTAL	8,764,500
ASIA		
Fiji	*MEDICAL CENTER FOR THE SOUTH PACIFIC	1,100,000
India	*MIRAJ MEDICAL CENTER (WANLESS HOSP.)	1,294,000
	LUDHIANA CHRISTIAN MEDICAL COLLEGE & HOSP.	500,000
	*LOYOLA COLLEGE OF EDUCATION	695,840
	VELLORE CHRISTIAN MEDICAL COLLEGE & HOSP.	780,000
	*DHAMTARI CHRISTIAN HOSPITAL	780,900
Indonesia	*UNIVERSITY HKBP, NOMMENSEN	1,000,000
Korea	SOGANG UNIVERSITY	802,027
	PRESBYTERIAN MEDICAL CENTER	450,000
Micronesia	XAVIER HIGH SCHOOL, TRUK	593,250
Peoples Republic of China	AMERICAN STUDIES CENTER/T.MORGAN LIFE SCIENCE CENTER	3,500,000
	AMERICAN MEDICAL CENTER	3,000,000
	*CHINESE-AMERICAN STUDIES CENTER	1,000,000
	*SINO-AMERICAN LIFE SUPPORT & TRAUMA CENTER	1,300,000
	*KARACHI ADVENTIST HOSPITAL	2,365,000
Pakistan	*CHRISTIAN MEMORIAL HOSPITAL	650,000
	NANCY FULWOOD HOSPITAL	730,000
Philippines	*ST. LUKE'S MEDICAL CENTER	1,500,000
	*KING'S COLLEGE OF ISULAN	432,672
	DE LA SALLE UNIVERSITY	1,305,730
	*ATENEO DE NAGA	812,337
	SILLIMAN UNIVERSITY	1,300,000
	XAVIER UNIVERSITY	255,000
Thailand	TRINITY COLLEGE	1,000,000
	ATENEO DE ZAMBOANGA	195,000
	LAMPANG COLLEGE OF COMMERCE & TECHNOLOGY	1,962,500
	PAYAP UNIVERSITY	915,240
	SUBTOTAL	30,219,496

*No Prior Assistance

<u>REGION/COUNTRY</u>	<u>INSTITUTION</u>	<u>REQUESTED AMOUNT (\$)</u>
EUROPE		
Greece	ANATOLIA COLLEGE	598,000
	AMERICAN FARM SCHOOL	650,000
Italy	BOLOGNA CENTER FOR INTERNATIONAL STUDIES	375,000
Poland	AMERICAN CHILDRENS HOSPITAL	880,000
	SUBTOTAL	2,503,000
LATIN AMERICA/CARIBBEAN		
Argentina	*CLINICA BELGRANO	875,000
Brazil	*PONTIFICAL CATHOLIC UNIVERSITY ESPERANCA	1,600,000 950,000
Ecuador	COTOPAXI ACADEMY	1,300,000
	*HOSPITAL VOZANDES	960,352
Guatemala	UNIVERSITY OF THE VALLEY	1,250,000
	FRANCISCO MARROQUIN UNIVERSITY	2,562,500
Haiti	AMERICAN UNIVERSITY OF LES CAYES	1,651,000
	HOSPITAL ST. CROIX	325,000
Honduras	*AMERICAN SCHOOL OF TEGUCIGALPA	1,222,500
	PANAMERICAN AGRICULTURAL SCHOOL (EAP)	3,630,000
	ESCUELA INTERNATIONAL SAMPEDRANA	1,338,396
Jamaica	*ANDREWS MEMORIAL HOSPITAL	475,000
	*ALPHA ACADEMY	500,000
Mexico	*AMERICAN SCHOOL OF MEXICO CITY	1,044,366
	UNIVERSITY OF THE AMERICAS	1,532,100
	AMERICAN-BRITISH COWDRAY HOSPITAL	1,900,000
	SUBTOTAL	23,116,214
NEAR EAST		
Egypt	COLLEGE OF THE HOLY FAMILY	275,000
	AMERICAN UNIVERSITY IN CAIRO	2,625,000
	*SCHUTZ AMERICAN SCHOOL	950,000
Israel	MOTHER AND BABY HOSPITAL	2,500,000
	GAN YAVNE YOUTH VILLAGE	300,000
	*HATSOR EDUCATIONAL CENTER	1,000,000
	SHA' ALVIM TEACHERS COLLEGE	3,000,000
	HADASSAH MEDICAL CENTER	4,130,000
	FEINBERG GRADUATE SCHOOL	1,350,000
	MACHANIAM HIGH SCHOOL	200,000
	OHR SOMAYACH SCHOOL	3,350,000
	SHAARE ZEDEK MEDICAL CENTER	1,995,000
	LANIADO HOSPITAL	500,000
	JERUSALEM COLLEGE OF TECHNOLOGY	2,850,000
Lebanon	BEIRUT UNIVERSITY COLLEGE	357,500
	AMERICAN UNIVERSITY OF BEIRUT	7,500,000
Turkey	*TARSUS AMERICAN SCHOOL	508,599
	ADMIRAL BRISTOL HOSPITAL	1,470,000
	AMERICAN GIRLS SERVICE CENTER	436,628
	SUBTOTAL	35,297,727

<u>REGION/COUNTRY</u>	<u>INSTITUTION</u>	<u>REQUESTED AMOUNT (\$)</u>
WORLDWIDE	PROJECT ORBIS	2,500,000
	PROJECT HOPE	<u>2,800,000</u>
	TOTAL	105,200,937

77 Applicants - 26 No Prior Assistance

SUMMARY OF ACTIVE AND PROPOSED PROJECTS
(IN THOUSANDS OF DOLLARS)

BUR FOR FOOD FOR PEACE AND VOL ASSIST

PROGRAM: AMER SCH/HOSP ABROAD

CP 89

PROJECT NO. PROJECT TITLE	L / * G	FY OF INITIAL OBLIG	FY OF FINAL OBLIG	-LIFE OF PROJECT- AUTHD PLANNED	-THROUGH FY 36- OBLIGA- TIONS	EXPEN- DITURES	-ACTUAL FY 87- OBLIGA- TIONS	EXPEN- DITURES	-ESTIMATED FY 88- OBLIGA- TIONS	EXPEN- DITURES	-PROPOSED FY 89- OBLIGA- TIONS	EXPEN- DITURES

933-ASHA		AMERICAN SCHOOLS AND HOSPITALS ABROAD										
	AS G	59	C	---	---	484,604	444,061	35,000	28,478	40,000	---	30,000
	PROJECT TOTAL:			---	---	484,604	444,061	35,000	28,478	40,000	---	30,000
933-1335		ZABLOCKI OUTPATIENT CENTER										
	ES G	35	85	6,000	6,000	6,000	206	---	907	---	---	---
	PROJECT TOTAL:			6,000	6,000	6,000	206	---	907	---	---	---
	PROGRAM TOTALS:			6,000	6,000	490,604	444,267	35,000	29,385	40,000	---	30,000
	GRANTS:			6,000	6,000	490,604	444,267	35,000	29,385	40,000	---	30,000
	LOANS:			---	---	---	---	---	---	---	---	---

---- APPROPRIATION SUMMARY ----												
AGR., RURAL DEV. & NUTRITION:				---	---	---	---	---	---	---	---	---
HEALTH:				---	---	---	---	---	---	---	---	---
CHILD SURVIVAL FUND:				---	---	---	---	---	---	---	---	---
AIDS:				---	---	---	---	---	---	---	---	---
EDUCATION & HUMAN RESOURCES:				---	---	---	---	---	---	---	---	---
SELECTED DEVELOP. ACTIVITIES:				---	---	---	---	---	---	---	---	---
ECONOMIC SUPPORT FUND:				6,000	6,000	6,000	206	---	907	---	---	---
AM. SCHOOLS & HOSPITALS ABROAD:				---	---	484,604	444,061	35,000	28,478	40,000	---	30,000

*Refers to the planned project summary sheet

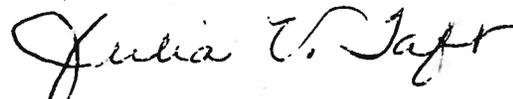
CLevel of effort activity

FY of final obligation column - All projects in this column with an initial obligation date before December 31, 1987 are based on the authorized data.
For all projects with an initial obligation date after December 31, 1987 the FY of final obligation is based on a planned date.



INTERNATIONAL DISASTER ASSISTANCE

Responsible Officer



JULIA V. TAFT

Director

Office of United States Foreign Disaster Assistance

PROGRAM SUMMARY (In millions of dollars)		
FY 1987 Actual	FY 1988 Estimated	FY 1989 Request
78.3 <u>a/</u>	34.4 <u>b/</u>	25.0

INTERNATIONAL DISASTER ASSISTANCE

Overview

The Office of U.S. Foreign Disaster Assistance (OFDA) is responsible for responding to disasters overseas, providing relief assistance to foreign nations, and providing non-relief programmatic assistance in contingency planning, training, preparedness, warning and mitigation.

Disaster assistance manifests the humanitarian concern of the American people. Our record of generosity and caring for disaster victims continues unabated.

The goal of this program is to save lives and reduce the suffering of victims in foreign countries stricken or imminently threatened by disaster. Reducing property loss and subsequent economic and social impacts associated with disasters are also crucial to Third World development goals.

Disasters have their origins in natural and manmade events including earthquakes, floods, storms, volcanic eruptions, tsunamis, landslides, droughts, civil strife, accidents, fires, population displacement, and epidemics.

While disasters may strike anyone, anywhere, and at any time, developing countries are particularly vulnerable. In addition to destroying lives, livelihoods, and property, disasters frequently damage the vital infrastructure needed for social and economic development.

As we seek to help relieve suffering caused by disasters, we are also able to demonstrate American goodwill, generosity, and concern for disaster victims around the world.

a/ Includes \$20.0 million in obligations under regular appropriations, \$8.3 million in prior year carryovers, and \$50.0 million for El Salvador earthquake relief, rehabilitation, and reconstruction. Excludes the following funds borrowed from other A.I.D. Development Assistance Accounts: \$1.0 million for the Bangladesh Floods Disaster and \$1.0 million for the Sri Lanka Displaced Persons Disaster.

b/ Includes \$25 million under regular appropriations, \$2.8 million in prior-year carryovers, and \$6.6 million from a supplemental appropriation for Southern Africa Development Coordination Committee (SADCC) states.

During the twenty-three years since its inception in 1964, OFDA has responded to 929 disasters in 132 countries in which an estimated 2.7 million people have died and over 865 million have been affected. Immediate and effective relief remains A.I.D.'s constant and primary goal in disaster assistance. Toward that goal, the A.I.D. Administrator, who serves as the President's Special Coordinator for International Disaster Assistance, maintains constant readiness within OFDA to speed relief to disaster victims wherever they may be. The effectiveness and efficiency of the U.S. Government's foreign disaster response has grown significantly over the years. Using the most appropriate resources of other U.S. Government and state agencies, the private sector and voluntary agencies, A.I.D. delivers the right commodities and services to the suffering victims as soon as possible. As victims' needs are defined, OFDA manages the relief response and supports requirements as they arise.

In fiscal year 1987, OFDA responded to an unprecedented number of disasters. In addition to the 54 disasters which were declared in FY 1987, OFDA provided relief assistance in 13 countries in response to prior year disaster determinations. OFDA administered a program totaling \$30.3 million during FY 1987, of which \$8.5 million went for locust control operations in Africa and the Near East. The great demand placed on time and resources by the insect infestation emergency programs did not distract OFDA from responding to life-threatening situations elsewhere in the world.

The critical needs to which OFDA responded in FY 1987 included the floods in Panama, Haiti, Chile, Bangladesh, Nepal and South Africa; devastating fires in the People's Republic of China, Argentina, Malaysia and Equatorial Guinea; earthquake disasters in El Salvador, Papua New Guinea and Ecuador; severe storm disasters in Fiji, Cook Islands, Vanuatu, Argentina, Tuvalu, Tokelau, the Maldives, Korea, the Philippines, Guinea Bissau and Bermuda; epidemics in Laos, Nigeria and Benin; civil strife and displaced persons in Sri Lanka, Haiti, Mozambique and South Africa; insect infestations in the Gambia, Chad, Mali, Sudan, Burkina Faso, Mauritania, Ethiopia, Niger, Cameroon, Yemen and Guinea Bissau; rat infestations in Chad and Sudan; drought in Ethiopia, Somalia and Botswana; and landslides in Venezuela and Indonesia.

Perhaps because of increased awareness of the threat posed by natural disasters, or perhaps because of emerging solutions to those threats, FY 1987 was a year in which major progress was made in all geographic regions seeking better protection of populations at risk to natural hazards. Forty-three countries were given emergency training opportunities in curricula ranging from fire prevention and suppression to disaster management and mitigation. The disaster management center program at the Asian Institute of Technology in Thailand was significantly expanded.

Program Strategy

Chapter 9 of Part I of the Foreign Assistance Act of 1961, as amended, authorizes assistance for relief and rehabilitation for natural and manmade disasters, as well as assistance relating to disaster preparedness,

prediction, warning and contingency planning for disasters. Four strategies address the goal of saving lives after foreign disasters as well as reducing the likelihood of loss of life in the event of disasters:

A. U.S. Government Emergency Relief Coordination: Through the use of all appropriate U.S. Government and other resources, alleviate suffering and reduce the number of deaths in the aftermath of disaster by providing efficient and rapid responses to requests for emergency relief, and enhance recovery through rehabilitation programs;

B. Host Country Institution Building: Promote self-reliance among responsible officials within target disaster-prone nations by training them in contingency planning and disaster management so as to initiate effective and efficient emergency response;

C. Technology Transfer for Hazard Assessment and Early Warning: Preserve life and prevent suffering through disaster avoidance by providing sufficient warning of those natural events which cause disasters; and

D. Promotion of Disaster Mitigation: Reduce the loss of life by introducing risk analysis and investment decisions for improved building technology to mitigate the impacts of probable disasters.

Emergency relief has been the primary goal of A.I.D.'s disaster assistance program since 1964. Contingency planning and preparedness have been instrumental in assisting disaster-prone nations achieve greater self-reliance since 1969. Disaster prediction and early warning have been addressed at the national, regional and worldwide levels since 1979. In the past few years A.I.D. has identified and continues to demonstrate the effectiveness of disaster mitigation and early warning.

The significant demands for assistance in 1987 and new opportunities for hazard analyses, contingency planning, preparedness, warning and mitigation have led OFDA to set program priorities in terms of available resources and likely threat of disaster. This process has resulted in a pragmatic strategy which takes regional and country priorities into account, as well as the social, political and economic aspects of disaster response, and depends increasingly on co-funding commitments by A.I.D. geographic bureaus and other donors.

OFDA's Office of the Director sets policy, determines strategy, ensures compliance with the Congressional mandate and A.I.D. and U.S. Government policy and regulations, supervises and evaluates program elements, and manages the administrative functions of the office. Three regional divisions -- Africa and Europe, Asia and the South Pacific, and Latin America and the Caribbean -- plan relief and rehabilitation strategies, develop contingency planning, early warning and mitigation activities, and are responsible for ongoing relationships with regional bureaus in the State Department, A.I.D., and the field missions. The Operations Support Division oversees the personnel, fiscal, procurement and logistics functions of the office; handles relief operations during disaster responses; provides for liaison with other U.S. governmental agencies; and

facilitates the augmentation of resources from these agencies and the private sector. The FY 1988 regional division strategies, program priorities and direction are presented in subsequent sections.

FY 1987 Program Accomplishments

OFDA administered a total of \$30.3 million during FY 1987, including \$28.3 million in regular appropriations, and \$2.0 million borrowed from other A.I.D. accounts. Of this amount, \$25.7 million was obligated for emergency relief and \$4.6 million was used for stockpiles (\$0.45 million) and non-relief program activities such as preparedness, mitigation, and early warning (\$4.15 million). (Of the \$78.3 million obligated under the International Disaster Assistance account in FY 1987, \$50 million was administered by the A.I.D. mission in El Salvador for earthquake relief, rehabilitation and reconstruction.)

Disaster Relief and Rehabilitation

The \$25.7 million obligated by OFDA for disaster relief and rehabilitation was in response to 54 disasters declared in FY 1987, 18 prior-year disasters, and four non-declared disasters.

Disaster relief and rehabilitation funds were apportioned by region as follows:

<u>Region</u>	<u>FY 1987</u>	
	Obligations from Regular Appropriations (IDA and Other A.I.D. Accounts)	Percent
Africa	\$16,537,964	64.24
Europe	47,567	.18
Central America	1,324,115	5.14
South America	3,273,815	12.72
Caribbean	148,488	.58
Asia ^{1/}	3,727,933	14.48
Near East	135,598	.53
Pacific	549,257	2.13
	<u>\$25,744,737</u>	<u>100.00</u>

^{1/} Includes \$2.0 million borrowed from other A.I.D. accounts: \$1.0 million for the Bangladesh floods disaster and \$1.0 million for the Sri Lanka displaced persons disaster.

Of the 54 declared disasters to which OFDA responded, 12 were for insect infestations in Africa and the Near East. The following were also particularly significant:

- Bangladesh Floods

Heavy and continuous monsoon rains during late July and early August 1987 caused severe flooding along the major river basins in Bangladesh. Over 29 million people were affected and 1,786 died as flood waters engulfed a 22,000 square mile area in the north and northwest. Besides the extensive damage to homes and infrastructure, the aman rice crop, which represents over 50% of total food grain production, was seriously affected. The U.S. Government contributed \$25,000 initially to the national relief fund. Then in response to a request from the Bangladesh Government (BDG), OFDA coordinated a successful search for a special variety of wheat seed which could meet the requirements for the region and be used as a dry weather crop to replace the lost paddy. A \$1,535,000 grant was made available to the BDG to procure 3,500 metric tons of Seri-82 wheat seed to arrive in Bangladesh by November 8, in time to be distributed to farmers before the start of the winter planting season. This amount of seed, under normal weather conditions, should yield a harvest of 75,000 metric tons by April 1988.

- Ecuador Earthquake

On the evening of March 5, northern Ecuador was jolted by earthquakes measuring 6.0 and 6.8 on the Richter Scale, which were followed by more than 500 aftershocks. Huge mudslides caused by the first quake formed natural dams across rivers which subsequently broke, sending torrents of water, mud, and debris through the river channel. Villages were buried, the only road through the region was washed out, and twenty to thirty kilometers of the country's main oil pipeline were destroyed. Hundreds perished, close to 60,000 people were left homeless, and eastern Napo Province was virtually isolated. At the request of the Government of Ecuador, OFDA immediately sent tents, plastic sheeting, and wool blankets to aid displaced persons. To meet the urgent need to reestablish transportation linkages into Napo Province, OFDA purchased and transported eleven bridges to help complete a road reaching the region through a southern route. Total U.S. Government assistance, including the value of donated food stocks, amounted to \$6.4 million.

- China Fires

Fires erupted on May 6 in the forest of northeastern China and spread quickly under the existing dry and windy conditions. The lack of water on the hillsides and the rough terrain hampered firefighting efforts. By the time the blazes were extinguished, nearly a month later, close to 200 people had died, a million hectares of land had been scorched, and buildings, vehicles and infrastructure had been destroyed. U.S. Government officials, concerned by the enormity of the fires, sought ways that the U.S. might be of assistance. OFDA dispatched 500 sets of fire-resistant clothing, 200 backpack water pumps, axes, saws, shovels and other equipment

to help those fighting the inferno, for a total of \$90,000 in aid. The U.S. ambassador also contributed an OFDA grant of \$25,000 to be used toward humanitarian assistance.

- El Salvador Earthquake

Downtown San Salvador and surrounding residential neighborhoods were devastated by two earthquakes that struck El Salvador on October 10, 1986, and by subsequent aftershocks that continued through October 13. Based upon successful efforts by U.S. search and rescue (SAR) teams responding to the September 1985 earthquakes in Mexico, OFDA sent a contingent of SAR specialists to dig survivors out of the rubble. U.S. Government relief efforts concentrated on providing medical supplies and personnel to care for the injured and shelter supplies for the homeless. Emergency items for the latter included plastic sheeting, water tanks, blankets, and tents. In addition, three shelter specialists were sent to assess need for future rehabilitation efforts. The U.S. Government also arranged on a reimbursable basis the transport of relief supplies and personnel from Europe and Costa Rica in an effort to further international cooperation. In all, OFDA provided nearly \$1.3 million in emergency relief personnel, services, and material to El Salvador. The U.S. Government also provided food aid valued at \$1.078 million.

- Mozambique Civil Strife

The situation in Mozambique continued to deteriorate as a result of the constant civil strife and the return of drought conditions in the southern provinces. As many as 4.5 million people were in need of emergency food rations, according to the Government of the People's Republic of Mozambique. On March 31, the United Nations Secretary General called an emergency donors meeting to appeal for assistance for Mozambique. Over \$200 million worth of assistance was pledged by all donors at the conference, including \$76 million by the U.S. Government for food and non-food assistance. The U.S. Government contributed 150,044 MT of food in FY 1987, more than any other single donor. OFDA provided \$8.2 million in grants to private voluntary agencies and international organizations working in Mozambique. CARE manages a logistical support agency, which distributes most of the donated food in the country. World Vision provides seeds, fertilizer, and tools to farmers. With a donation from OFDA, the United Nations Children's Fund (UNICEF) bought vital medicines to restock health centers and clinics. OFDA also provided funds to the International Committee of the Red Cross (ICRC) to furnish emergency medical supplies and food to affected populations.

Non-relief Activities

Obligations for non-relief activities (preparedness, mitigation, and early warning) and stockpiles totaled \$4.6 million in FY 1987. Programs developed on a regional basis are described below.

Latin America and Caribbean Region

During FY 1987, OFDA obligated some \$2.23 million in non-relief program funds in a number of priority areas in the Latin America and Caribbean region, and leveraged thousands of dollars more from other donors in support of disaster mitigation and preparedness activities. For example, the Partners of the Americas grant program raised contributions in excess of 8:1 for every dollar provided by A.I.D. During the year OFDA stationed a regional advisor in Lima, Peru. This initiative coupled with increasing A.I.D. mission co-funding of disaster-related activities demonstrates the importance and concern missions have for the impact of disasters on the development process. For example, A.I.D. missions co-funded projects in Honduras, Costa Rica, Brazil, El Salvador, Guatemala, Ecuador, and Peru during FY 1987.

OFDA's major grants to the Organization of American States (OAS), the Partners of the Americas, and the Pan-American Health Organization (PAHO) have been redirected towards enhanced coordination with the private sector. Grantees are increasingly more responsive to OFDA priorities and follow-on grants are now firmly based on successful results of the past.

The cooperation and shared support between OFDA and the Department of Defense (DOD) continued throughout FY 1987. Following the Ecuador earthquake in March, with OFDA financial support, DOD procured and shipped 16 bridges, opening a vital commercial and life-preserving link to 125,000 people in the Napo region isolated after the earthquake.

Several major OFDA preparedness projects were completed in FY 1987. These included: 1) the final installation of an automatic earthquake detection and location system in Peru, 2) a central Peruvian earthquake strainmeter network for prediction, 3) the near-shore tsunami warning system test and evaluation in Valparaiso Harbor, Chile, 4) the delivery of radios to the Red Cross in the Bahamas and Belize and 5) the conclusion of a five-year support program to the Pan Caribbean Disaster Preparedness and Prevention Project.

Asia and Pacific Region

A number of important activities were completed in FY 1987 in the Asia and Pacific Region. Most notable was the installation and operation of the South Pacific Severe Storm Detection and Warning System in cooperation with the National Aeronautics and Space Administration (NASA) and the Fiji Meteorological Service. OFDA supported several training opportunities for foreign participants in FY 1987, including contingency planning for oil spill response in the Pacific. In addition, OFDA funded the Earthquake Engineering Research Institute (EERI) to conduct a study entitled "The International Cooperative Program for Earthquake Hazard Mitigation"; provided a technical consultant to assist a World Bank reconstruction assessment team mission to Sri Lanka in the wake of civil strife; and funded a consultant to assess the training methodology at the Asian Institute of Technology's Asian Disaster Preparedness Center in Bangkok.

During FY 1987, the Department of Defense (DOD) interventions in the South Pacific received high visibility and praise from U.S. Ambassadors. The use of the Marines and SEABEES in the Solomon Islands severe storm and flood disaster and deployment of an Air Force construction team in the Cook Islands storm disaster were excellent examples of increasingly close cooperation and mutuality of interests between AID/OFDA and the DOD.

The Asian Disaster Preparedness Center (ADPC) at AIT, which provides host country participant training in disaster management and planning, is the only regional institution of its kind. A measure of its success has been the direct management of crises in host countries by "graduates" of the AIT/ADPC program. Examples are the Philippine participants who marshalled host country resources to manage recent cyclone disasters and the management of the Sri Lankan crisis by the Minister of Rehabilitation, also an AIT/ADPC participant.

OFDA also supported the completion and publication of macroseismic, earthquake intensity, and seismotectonic studies of Southeast Asia, as well as risk maps of each country in the region. This was accomplished by the Southeast Asia Association of Seismology and Earthquake Engineering (SEASEE). These materials provide extraordinary baseline information for engineering design of buildings, preparation of construction codes, mitigation planning, and the raising of public awareness regarding earthquake threat.

Africa and Europe Division

The 1987 locust control program in Africa is a direct result of an 18-month effort that began with the spring rains of 1986. The year 1986 was the first time in 60 years that five different species of migratory grasshoppers and locusts had hatched at the same time. OFDA and other donors rushed assistance to the affected countries in the late summer, particularly for aerial spraying operations, in order to prevent massive crop losses. In 1987, donors laid the groundwork for a more comprehensive and preparatory control effort. OFDA again led the multinational assault on the grasshoppers and locusts by providing \$8.5 million in FY 1987 for aerial and ground spraying support, pesticides and technical assistance in 11 affected African countries. A.I.D.'s Africa Bureau obligated an additional \$4.0 million in FY 1987 to avert disaster in Africa. As a result of the 18-month successful international effort and low rainfall in 1987, the grasshopper population was kept under control. The collective experiences of donors, host countries and international control organizations in 1986 and 1987 provided the foundation necessary for local crop protection agencies and institutions to sustain their intervention levels and combat further infestations.

In FY 1987, host governments and international donors gained experience in the safe handling and disposal of toxic chemicals used in the locust control campaign. OFDA assisted the international donor community concerning the environmental issues and helped coordinate the selection and procurement of required chemicals based on a thorough knowledge of their toxic properties. OFDA designed and conducted several workshops dealing with pesticide management problems and dangers which trained local participants to recognize potential chemical hazards.

During FY 1987, OFDA addressed field mission concerns about neglected, over-aged, and dangerously deteriorating pesticides left over from past campaigns. The effort focused on raising host-country awareness and determining the range of options available for safe and effective disposal or containment of these chemicals. OFDA brought together a six-person team of U.S. and international experts to deal with the problem. Site visits by the team and discussions with the host government crop protection services and international control organizations were well received, and some of the team's recommendations are already being acted upon. Insistence on making this a collaborative international mission has brought about increased visibility and a greater sense of responsibility on the part of other donors.

Also in FY 1987, OFDA provided funding for a child-family reunification program in Ethiopia's Gonder Province. The purpose of the program is to reunite with surviving family members children who were orphaned during the 1984-85 famine or lost during resettlement. A private voluntary organization coordinates the activity.

FY 1988 Program

The International Disaster Assistance account for FY 1988 totals \$34.4 million. This includes \$25.0 million in regular appropriations; \$6.6 million in supplemental funds appropriated for the Southern Africa Development Coordination Committee (SADCC) states and \$2.8 million in prior-year carryovers. OFDA's regular appropriations level of \$25.0 million has been allocated as follows: \$18.0 million for worldwide disaster relief, rehabilitation, and stockpiles; \$1 million for Africa post-famine orphans; and \$6.0 million for non-relief programmatic activities. The balance (\$6.6 million for SADCC and \$2.8 million carryover) will be used for emergency relief. The FY 1988 Continuing Resolution earmark of \$1 million for Africa orphans will be used to continue assistance to children who have become orphans as a result of drought and famine in sub-Saharan Africa. The non-relief activities are discussed by region below.

Latin America and Caribbean Region (\$3.0 million):

In FY 1988, OFDA will continue to implement its strategy of focused financial and technical support to targeted priority countries in the Latin American region -- Peru, Ecuador, Honduras, Jamaica and Guatemala. Additionally, support for the Organization of Eastern Caribbean States (OECS) will continue. The FY 1988 goals are to:

- 1) establish disaster preparedness activities in each target country as an integral component of the A.I.D. mission and host government economic development strategy;
- 2) design a system to ensure the continued use and advancement of trained host-country emergency management personnel as the means to achieving greater self-reliance;
- 3) establish region-wide criteria which define and prioritize emergency relief response actions by disaster type and form of relief;

- 4) establish a bilateral donor coordination group which meets regularly and routinely exchanges information on policy, programs, and planning in disaster-related assistance to Latin America; and
- 5) establish not less than four co-funding arrangements with other donors (i.e., A.I.D. missions, international development banks, private sector, private voluntary organizations) for major disaster preparedness or related activities within the target countries above.

FY 1988 will yield significant advances in disaster technical assistance, host country participant training, institution building, and technology transfer. These efforts will continue to accelerate during the FY 1989 program cycle as we prepare host governments to actively participate in the International Decade for Natural Hazards Reduction (IDNHR). OFDA has contract regional disaster preparedness advisors now stationed in Lima, Peru, and San Jose, Costa Rica, to provide guidance and management experience.

Under a new contribution agreement, the Organization of American States (OAS) will build upon its previous work in the collection and analysis of natural hazard event and assessment information to assist countries in the Caribbean Basin strengthen their local and national disaster preparedness organizations. In a related new agreement, the OAS will provide technical assistance to disaster preparedness and sectoral infrastructure agencies in major metropolitan areas of Latin America to enable them to gather, store, analyze and retrieve mapped natural hazard information to assist in the identification of the most vulnerable population centers for disaster response and emergency relief actions.

Another major FY 1988 program involves the Pan American Health Organization (PAHO). Under a new five-year grant, OFDA and PAHO will continue to promote and support the strengthening of technical programs within Ministries of Health for ongoing predisaster planning and coordination of health sector relief activities. The grant will also promote and support the training required for an effective health response and stimulate close cooperation between Ministries of Health and other responders in Latin America.

OFDA will continue its grant with Partners of the Americas with a focus on 12 target countries. The goal is to expand and improve community-based programs of disaster prevention, preparedness, and emergency management. The grant will also identify appropriate U.S. emergency management specialists at all administrative levels to provide training, technical support and institutional linkages with "partner" groups in Latin America and the Caribbean. A major undertaking this year will be a regional Caribbean training workshop on hazardous materials management.

Continued funding will be provided to the United Nations Disaster Relief Office to expand the work begun in Ecuador related to the significant volcanic hazards present in this Andean nation. Telemetered volcano monitoring equipment will be deployed on those eight volcanoes with the greatest threat to population centers; hazard maps and evacuation plans will be produced and field-level simulation and training exercises conducted with Civil Defense authorities.

Work will also continue under a cooperative agreement with the U.S. Geological Survey (USGS) in the development and implementation of a Volcano Disaster Assistance Program. Under this program the USGS has established operational readiness for a Volcano Crisis Assistance Team staffed by qualified experts. Additionally, a dedicated volcano monitoring equipment cache for rapid deployment in the Latin America region is prepared and functional. During this year the cache will be maintained and upgraded; work will progress on the preparation of comprehensive data bases; technical and disaster management liaison will be further enhanced; and ongoing support of regional volcano centers in Colombia, Costa Rica, Guatemala, Ecuador and Peru will be increased.

As a follow-on to an innovative demonstration by the Foundation for Global Broadcasting of "Lifenet," a communications satellite-based damage assessment system, OFDA will this year undertake a major teleconference on volcano risk and evacuation planning. This event will be broadcast live, simultaneously from Costa Rica, Guatemala, Colombia, Ecuador and the U.S. Cascades Volcano Observatory. The participants will include all the senior officials from each country who, in times of crisis, would lead a disaster relief operation following a volcanic eruption.

This fiscal year will see significant progress toward completion of a national, integrated, multi-institutional seismic and volcano monitoring network in Costa Rica. Equipment will be installed and a hazards and risk assessment of the Central Valley completed and maps prepared. Training will also be provided to Costa Rican counterparts and revisions to the national building code developed.

Asia and Pacific Region (\$2.0 million)

FY 1988 program activities within the Asia and Pacific region will continue to build on currently successful institutional development and technical assistance activities begun under the 1987 strategy and include important new initiatives as well. The three-year strategy is designed to increase disaster management and preparedness capabilities, contingency planning for likely disasters within population centers, and warning technology applications and mitigation effectiveness. These objectives will be further developed in the target countries including Fiji, Bangladesh, the Philippines and Nepal. Although continuing economic, social and political problems will challenge many of the future project activities, we plan to upgrade the Fiji Meteorological Service high resolution satellite receiving station at Nadi in cooperation with NASA; to support through the Smithsonian Institution the Bangladesh storm warning public awareness activity; and to begin implementation of a comprehensive program of technical and public information dissemination on typhoons, floods, and other natural hazards in the Philippines which will continue over a three-year period.

One of OFDA's most important activities, the Asian Disaster Preparedness Center (ADPC) at the Asian Institute of Technology, is expanding rapidly and becoming recognized as a regional center of excellence in disaster management and technical assistance. OFDA will continue to provide support to qualified individuals within the region to attend courses and seminars held at the ADPC. In FY 1987 OFDA provided a three-year grant in support

of the two-year old ADPC. The current grant is designed to phase down U.S. Government institutional support as the center gains other donor support. The center serves as a collaborating agency with United Nations emergency offices as well as providing regional outreach to OFDA. This is one of the positive developments which have reinforced the advantages of working in concert with other international organizations in coordinated regional programs. Toward this end, OFDA plans increased technical assistance through multilateral and regional resources.

OFDA, in cooperation with the USGS, will conclude the Indonesia Volcano Monitoring and Research Program this year. The activity began in 1985 and has been an excellent example of the application of technology, technical assistance, and institution building at the host country level. This effort will culminate in the preparation of detailed reports and maps assessing the volcano hazard in Indonesia and recommending monitoring strategies and evacuation routing for those at highest risk.

In the spring of 1987 OFDA had completed the installation and preliminary training-related requirements for a \$800,000 joint OFDA/NOAA-NASA satellite ground station in Fiji which has become the primary tool supporting the Fiji Meteorological Service in its role as the regional tropical cyclone warning center for the Southwest Pacific. OFDA is currently providing critical upgrading of the South Pacific Severe Storm Detection and Warning System (E/SPSSD/WS) under an agreement with NASA. The continued support of this system will ensure that more than 4.3 million people scattered in an area larger than the United States will receive an uninterrupted and improved early warning of storms, cyclones, and dangerous flooding due to storm surge.

Strengthening Disaster Preparedness and Disaster Management in Indonesia is a three-year OFDA grant activity with the United Nations Development Program, which was fully funded in FY 1986 in the amount of \$700,000. A tripartite review conducted at the end of the first year of the project indicated that project objectives were generally on schedule. In 1988, the significant accomplishments will be completion of a key provincial-level interdepartmental staff refresher course and mobile team training for Region I. We also expect completion of the disaster assessment handbook. Final conclusions and recommendations on the assessment will be made available to national-level policy makers and planners. Complete preparations for implementation of an integrated risk monitoring system will be in progress this year.

An exciting spin-off of this training project has been the unexpected evolution of the project's administrative offices into a functioning Indonesia Disaster Management Center (IDMC). In 1988 the IDMC will continue to be the principal mechanism for OFDA-funded technical assistance and training in Indonesia.

Africa and Europe Region (\$1.0 million)

To provide a forum for an exchange of lessons learned in locust/grasshopper control for African countries, OFDA hosted a workshop in the Washington, D.C. area in January 1988. The workshop convened experts from A.I.D., industry, government and several universities to examine lessons learned

concerning assessments, pesticides, equipment, training and control activities. The workshop allowed us to document strengths and recommend needed improvements for future activities, with special emphasis on A.I.D. mission planning for locust control campaigns and applications of emerging technologies.

OFDA's policy of advocating earthquake risk-reduction techniques will be continued through FY 1988. Additionally, OFDA will begin to develop a strategy for effectively managing emergency responses in several European and Mediterranean countries. We will begin to identify and develop appropriate linkages with DOD and North Atlantic Treaty Organization resources and elements within the European Economic Community. Our strategy will include determining U.S. Government emergency response strengths, implementation capabilities, reaction time and logistical constraints. This planned activity will enable A.I.D. and the Department of State to better prepare for a possible major European earthquake disaster in the future.

Disaster response actions in Africa will undoubtedly dominate OFDA staff time in FY 1988, with particular attention focused on Ethiopia, Sudan, and Mozambique. Much of the program efforts will concentrate on effective management of operations, transfer of technology to host country and regional institutions, transfer of long-term response activities to A.I.D.'s Bureau for Africa, and documentation of lessons learned for improving the development process as it relates to the impacts of disasters and environmental hazards. OFDA will continue to work closely with the Bureau for Africa to define the Agency's requirements for monitoring food shortages, nutritional deficiencies, and potential famine in Africa under the Bureau's Famine Early Warning System (FEWS).

FY 1989 Program

OFDA is requesting \$25.0 million for International Disaster Assistance in FY 1989. The proposed program includes \$19.0 million for worldwide disaster relief and \$6.0 million for non-relief activities, discussed more fully below by region.

OFDA's emergency relief coordination capability, which supports the primary goal of saving lives and reducing suffering, will become increasingly more sophisticated in FY 1989 due to improved regional and global communications systems, full implementation of incident command and control procedures and management, and close cooperation with and support from Department of Defense regional commands. Declared disasters will continue to be managed by senior staff within each geographic division of OFDA. Emphasis will be placed on using knowledgeable AID/Washington regional bureau personnel and field mission expertise in linking the most appropriate disaster response to strategic planning for development. In FY 1989, OFDA expects to fully utilize satellite-based portable communications between disaster sites, A.I.D. missions, and Washington, including on-site disaster data transmission and instantaneous communications.

A number of objectives will be pursued by OFDA's Operations Support Division in FY 1989 in support of the geographic divisions. These include the following: 1) systematically define OFDA's operational response criteria, 2) revise action procedures including documentation of lessons learned, 3) improve emergency planning based on increased warning leadtimes, 4) make more effective use of DOD logistical support, 5) establish procedures for increased use of local currency for local purchase of emergency commodities, and 6) deploy search and rescue assistance teams when necessary.

These objectives will integrate a number of major tasks which support OFDA's long-term strategy to 1) save lives and reduce suffering, 2) demonstrate U.S. humanitarian concern for victims of foreign disaster, and 3) demonstrate the capability of U.S. Government technical assistance and command and control in support of both OFDA field operations and host country disaster management.

To significantly improve its worldwide emergency relief operations in FY 1989, OFDA will implement the following initiatives: 1) stockpile light extrication search and rescue equipment, 2) develop closer ties with the emergency medical and mass casualty experts, 3) establish new co-funding agreements with other agencies of government, 4) enhance contingency planning at the regional and host country levels, and 5) deploy state-of-the-art communications equipment for emergency use as required.

Latin America and the Caribbean (\$2.0 million):

FY 1989 will see a continued emphasis on the initiatives begun in 1987 and 1988, with priority placed on encouraging the respective host governments, the A.I.D. missions, and other donors to join with OFDA in supporting and funding a wider range of interrelated disaster management activities. This is especially important given the tighter budgetary constraints and increased requirements for disaster relief assistance. With the increased understanding within the international development community of the interrelationships between hazard analysis, disaster preparedness, and economic development, OFDA will further highlight the significant natural hazards affecting the Latin America and Caribbean region. The final USGS Circum-Pacific Seismic Gap maps will be made available and the risk maps of South America earthquake, volcano and fault analysis will be disseminated to all participating governments, agencies and institutions in the private sector.

Early in FY 1989 we will use this and other hazard analysis material being supported through OFDA funding to mount a concerted effort at increasing hazard awareness, not only within A.I.D. but also within important international development funding agencies such as the World Bank and the International Monetary Fund (IMF). OFDA's efforts will be directed toward the hazards related to future development investments as well as to existing infrastructure and vulnerability of population centers.

The goal of the LAC region's host country disaster management strategy for FY 1989 is to document the capabilities, responsibilities, and lines of authority of appropriate lead agencies in all countries within the region. OFDA will concentrate on designing systems for increasing self-reliance and

operational readiness at the national level which substantially contribute to well-defined host government disaster management objectives in five priority countries. We will also focus on developing regional approaches for intergovernmental cooperation and bilateral support in disaster emergency response and problem-focused emergency training initiatives. By the end of FY 1989, we expect to have demonstrated significant accomplishment towards meeting host country disaster management objectives and be ready to begin the process anew in additional disaster-prone countries.

This effort becomes even more critical in light of the findings of the USGS that over the next decade billions of dollars will be lost due to damages caused by natural disasters worldwide. The USGS has indicated that by applying known earthquake mitigation techniques at an estimated additional 10% in construction costs, damage reduction of 50% to 75% can be achieved.

Combining these stark facts with the human loss we have seen over the last several years in the LAC region and the fact that more lives are in jeopardy each year due to urbanization and increased numbers of people living in marginally safe areas, it is clear that natural hazards awareness and accelerated training in disaster management and mitigation should be factored into development strategies.

In cooperation with participating international organizations, donors, and the UN system, OFDA will prepare for the International Decade for Natural Hazards Reduction (IDNHR), scheduled to begin in 1990. Work towards accomplishing the above objectives and related tasks will be integral to strengthening the IDNHR at the national level of participating third world countries in Latin America. In FY 1989, we anticipate supporting a number of the IDNHR program goals in several priority countries.

In FY 1989, OFDA will assist the World Bank, PAHO, Partners of the Americas, and the reinsurance industry to improve disaster planning based on probability assessments of large earthquake occurrence on the margins of the Circum-Pacific region. Also OFDA will strive to incorporate earthquake hazards mapping results and real-time earthquake location analysis into its LAC regional disaster planning strategies and disaster simulation exercises.

Asia and Pacific Region (\$2.0 million)

OFDA will establish an Asia/Pacific Regional Hazards Reduction Network consisting of three integrated sub-regional networks (South Asia, Southeast Asia, and the Pacific) in FY 1989. Within twelve months, the network, composed of host country experts, institutions, agencies and organizations, will have prepared a comprehensive Asia region strategic plan to significantly reduce population vulnerability to natural hazards during the next decade. A series of regional workshops will be convened to review current knowledge of hazards within each sub-region and to develop elements of the draft strategic plan to reduce vulnerability.

In addition to the above, OFDA will place increasing emphasis on established regional centers of excellence (University of Hawaii; Asian Institute of Technology; disaster preparedness institutions in India, Indonesia, Philippines) in building national and local community preparedness,

mitigation and response programs. Highest priority will be placed on improving early warning systems to forecast geological/ hydrological and meteorological disasters and on strengthening the capacity of endangered populations to respond to these disaster threats. To accomplish these ends, OFDA will concentrate on awareness-building within the development planning as well as the disaster assistance community. As in FY 1988, specific country targets will be designated for implementation of host country disaster preparedness projects. Flooding, landslides, volcanic eruptions and severe storms will receive priority treatment in terms of the hazards for which early warning, preparedness and mitigation will be directed. Additionally, new concentration will be placed on industrial accidents, including chemical explosions, pollution and toxic waste management in the Asia and Pacific region.

OFDA's disaster monitoring technology transfer program for the region in FY 1989 will focus on strengthening institutional linkages among host country and other early warning system operators, international organizations and host country disaster management authorities. The objective of this strategy is to provide quick, accurate, and usable information to A.I.D., American Embassies, and host country disaster managers for rapid decision-making whenever possible. Toward this end, OFDA will maintain a regional volcano crisis assistance capability on call through an agreement with the USGS and will begin to demonstrate the use of geographic information systems methodology for disaster evacuation planning.

In the Asia and Pacific region in FY 1989, where feasible, target host countries will be given the opportunity for greater participation in the use of storm probability forecasting techniques to improve their disaster warning leadtimes and emergency evacuation procedures. Closer working relationships between early warning agencies and Civil Defense authorities and other decision-makers will be developed with OFDA and A.I.D. mission assistance.

In FY 1989 priority will be placed on encouraging self-reliance and sound financial and budgetary planning for operations, equipment maintenance, and emergency relief response. We will concentrate as well on building disaster preparedness and mitigation strategies into development goals and objectives at the host country level by ensuring that vulnerability to hazards is considered in the A.I.D. project planning cycle of the Asia Bureau's programming process.

OFDA will accelerate contingency planning with DOD technical and managerial assistance and will develop disaster simulation activities based on identifiable quantified threats. We will seek to delineate in-country emergency response resources and will develop specific plans and milestones to measure progress towards host government disaster management institution-building, including training of key policy level and operational individuals.

In FY 1989, OFDA plans to develop host country disaster management constituencies through the efforts of several regional emergency management advisor(s). This position will integrate current and planned warning systems, evacuation planning, medical first-response capability (i.e., Red Cross liaison) and private voluntary organization (PVO) activities and coordination. The individual selected will establish measurable objectives

in each priority country, evaluate progress on an annual basis, and develop action plans for each country which link A.I.D. mission disaster management with the donor community, PVOs, A.I.D. regional Bureaus and OFDA in times of disaster.

Africa and Europe Region (\$2.0 million):

In FY 1989 OFDA will strive to integrate OFDA and A.I.D. mission planning through linkages with Country Development Strategy Statement objectives, the use of local currency, A.I.D./Washington regional bureau planning, and other donor programs. OFDA will promote co-funding with A.I.D. missions and/or other agencies or international organizations in project development activities. We will identify environmentally sensitive projects initiated by other organizations and work, as appropriate, to ensure that adequate disaster mitigation strategies are incorporated in project design. Wherever feasible, we will attempt to map out strategies and seek interagency cooperation to link other development programs to OFDA and A.I.D. mission disaster-related initiatives.

In the area of drought and famine surveillance, OFDA will continue in FY 1989 to serve in an advisory capacity to A.I.D.'s Office of Food for Peace (FFP) and Africa Bureau in support of famine early warning systems implementation and decision-making. OFDA anticipates the coordinated implementation of a Famine Early Warning System (FEWS) for Africa for FY 1989 under Bureau for Africa funding and management. FEWS is expected to be an essential tool in providing and analyzing information needed to help decision makers at all levels achieve food security for the people of Africa.

OFDA will identify a select group of host country individuals previously trained under OFDA auspices to convene regional disaster management symposia where strategic plans are drawn up to deal with potential disaster threats on a regional basis. These symposia will further document progress in self-reliance at the regional level in Africa. Technology transfer, as well as training activities, will be centered more on problem-focused initiatives whereby A.I.D. missions in Africa, host country authorities, A.I.D.'s Bureau for Africa and OFDA officials agree upon the specific goals and objectives of a particular training activity as it relates to a well-defined, disaster-related problem.

In recognition of the extraordinary locust plague of the preceding two and one-half years, OFDA will pay particular attention to dealing with the special problems of locust and grasshopper outbreaks in the context of Mission Disaster Relief Plans. Towards this end, A.I.D. missions will be urged to update their plans to reflect host country action plans and resource inventories, as well as obvious gaps and weaknesses of the system. Where necessary, OFDA will provide technical assistance. The disaster planning process will also identify training needs. Familiarity with the concerns of individual locust-outbreak countries gained through the activities of 1986-88 will have identified those countries who would welcome, and would benefit by, testing of various pest control methods. Cost of tests will continue to be shared by OFDA and A.I.D.'s Science and Technology Bureau. There is urgent need to explore alternative control techniques aimed at eventually replacing chemicals as the principal locust

control method in Africa. Together with other A.I.D. Bureaus, OFDA will continue to promote workshops on pest and pesticide management with particular emphasis on safe storage, handling and disposal of pesticides in the African setting. In addition, the fragility of Sahelian country economies will continue to render them vulnerable to exaggerated consequences of disasters. A major constraint to providing emergency assistance involves mobilization of in-country response infrastructure. OFDA's objective will be to continue to support early warning systems to identify potential disasters as soon as possible.

U.S. Foreign Disaster Assistance FY 87+
 OFDA Administered Funds
 October 1, 1986 - September 30, 1987

<u>COUNTRY</u>	<u>DATE</u>	<u>DISASTER</u>	<u>DEAD</u>	<u>AFFECTED</u>	<u>AMOUNT(\$)</u>	<u>TYPE OF ASSISTANCE</u>
Africa Regional* ¹	00/00/86	Insect Infestation	-	-	35,762	TDYs of experts to review/plan control campaigns
Africa Regional ¹	00/00/87	Insect Infestation	-	-	154,478	Assessment team; pesticide safety training experts
Argentina	01/30/87	Fire	-	152,000	85,860	USFS assistance; Ambassador's Authority used for local purchase of firefighting equipment
Argentina	02/23/87	Storm	1	1,000	5,000	Ambassador's Authority used for local relief program
Bangladesh	08/18/87	Flood	1,786	29,700,000	1,560,000 ²	Ambassador's Authority donated to BDG relief fund; grant to BDG for wheat seed procurement
Benin	03/20/87	Epidemic	24	56	13,050	Ambassador's Authority used for purchase of vaccines
Bermuda	09/25/87	Hurricane	-	0	9,000	Coast Guard airlift of 150 rolls of plastic sheeting
Botswana	04/09/87	Drought	-	671,000	25,000	Ambassador's Authority used for local relief program
Burkina Faso	02/21/87	Insect Infestation	-	-	421,732	Disaster Relief Coordinator; helicopter support; pesticides; entomologist
Burkina Faso*	11/27/84	Drought	-	-	102,512	Additional funds for dam/spillway repairs
Burkina Faso*	06/26/86	Insect Infestation	-	-	29,277	Repair and replace 12 water tanks to Leghorn stockpile
Cameroon*	08/25/86	Lethal Gas Eruption	-	-	56,352	Topographic maps; final report; TDYs to investigate report of second Lake Nyos eruption; USGS support
Cameroon	03/24/87	Insect Infestation	-	-	10,000	Communications specialist
Chad	02/12/87	Insect Infestation	-	-	1,254,211	Technical assistance; procurement and transport of pesticide; contract for aircraft
Chad	06/30/87	Rat Infestation	-	-	23,515	Local support for control program; rodenticide
Chad*	07/25/86	Insect Infestation	-	-	1,955	Meeting of experts to discuss locust control program
Chile	07/17/87	Flood	55	116,364	503,450	Ambassador's Authority; blankets; grants for emergency shelter
Chile*	03/05/85	Earthquake	-	-	12,319	Replace 5,999 water jugs to Panama and New Windsor stockpiles
China, P. Rep.	05/19/87	Fire	191	56,092	90,000	Ambassador's Authority; fire-resistant clothing and equipment
Cook Islands	01/03/87	Cyclone	0	2,000	26,761	Ambassador's Authority used for local purchase of building materials and relief supplies; transport of tarps
Dominican Rep. ¹	00/00/87	Hurricane	-	-	15,000	Pre-disaster; DOD airlift of assessment team
Ecuador	03/08/87	Earthquake	300	75,000	2,635,586	DOD airlift of tents, blankets, and plastic; USGS specialist; bridges and related costs; replacement of blankets

U.S. Foreign Disaster Assistance FY 87+
OFDA Administered Funds
October 1, 1986 - September 30, 1987

COUNTRY	DATE	DISASTER	DEAD 976	AFFECTED 150,000	AMOUNT(\$) 1,299,115	TYPE OF ASSISTANCE
El Salvador	10/10/86	Earthquake				DOD airlifts of blankets, plastic, tents and water tanks from Panama stockpile and replacement costs; housing repair program; technical assistance
Equatorial Guinea	03/06/87	Fire	0	313	10,000	Ambassador's Authority donated to local voluntary agencies
Ethiopia	06/16/87	Drought	367	330,000	50,000	Grant to LWF for emergency medical program in the Ogaden
Ethiopia	07/28/87	Insect Infestation	-	-	380,516	Pesticide; protective gear; grant to FAO for logistical support
Ethiopia	09/14/87	Drought	-	6,000,000	1,807,000	Grants to support U.N. logistics and coordination role
Ethiopia*	10/14/84	Drought	-	-	506,749	Grant to AJDC for agricultural rehabilitation program; grant to AICF for orphan reunification program
Ethiopia* ¹	00/00/85	Drought	-	-	66,208	Truck evaluation and repair program for relief operations
Fiji	01/02/87	Cyclone	1	3,000	25,000	Ambassador's Authority donated to GOF for purchase of health and sanitation equipment
Gambia	10/14/86	Insect Infestation	-	-	568,091	Large-plane spraying operation; pesticides, fuel, and air freight
Gambia	02/13/87	Insect Infestation	-	-	554,898	Technical assistance to develop plan for survey and operations; pesticides; support for plane; radio equip.; seed spreaders
Greece*	09/16/86	Earthquake	-	-	22,567	INTERTECT housing assessment
Guinea-Bissau	05/28/87	Insect Infestation	-	-	7,033	Technical assistance
Guinea-Bissau	08/27/87	Storm	1	3,700	25,000	Ambassador's Authority donated to GOGB for repair of schools
Haiti	10/30/86	Flood	69	45,000	34,488	Ambassador's Authority used for local purchase of potable water equipment; water tanks; medical supplies
Haiti	07/04/87	Civil Strife	30	100	15,000	Ambassador's Authority used for local purchase of medicines
Indonesia	05/12/87	Landslide	131	51	29,615	Ambassador's Authority contributed to GOI relief fund; technical assistance
Korea, Rep. of	07/20/87	Typhoon	253	56,000	25,000	Ambassador's Authority donated to Korean Red Cross
Laos	07/31/87	Epidemic	-	-	4,000	Grant to UNICEF
Malaysia	02/04/87	Fire	0	1,000	4,000	Ambassador's Authority contributed to GOM Fire Relief Fund
Maldives	04/14/87	Flood	0	300	25,000	Ambassador's Authority donated to GORM Relief Fund
Mali	02/12/87	Insect Infestation	-	-	442,433	Mission staff support and logistics; procurement and transport of pesticide; helicopter support

U.S. Foreign Disaster Assistance FY 87+
OFDA Administered Funds
October 1, 1986 - September 30, 1987

<u>COUNTRY</u>	<u>DATE</u>	<u>DISASTER</u>	<u>DEAD</u>	<u>AFFECTED</u>	<u>AMOUNT(\$)</u>	<u>TYPE OF ASSISTANCE</u>
Mali*	08/05/86	Insect Infestation	-	-	454,840	Local support costs; pesticide; TDYs of experts to discuss control program
Mauritania	03/24/87	Insect Infestation	-	-	127,500	Ambassador's Authority; face masks; radio equipment, support vehicles
Mauritania*	09/27/86	Insect Infestation	-	-	170,000	Local support for spraying operation
Mauritania*	12/05/84	Drought	-	-	239,947	Internal transport of USG food commodities
Mozambique	01/08/87	Civil Strife	-	4,600,000	4,140,769	Grants to UNICEF, CARE, Air Serve and WPRO for emergency programs
Nepal	08/21/87	Flood	6	-	25,000	Ambassador's Authority given to GON relief effort
Niger	03/13/87	Insect Infestation	-	-	303,419	Ambassador's Authority used for insect survey and grant to GON; helicopter support and fuel; radio equipment
Nigeria	05/12/87	Epidemic	1,000	1,200	64,850	Laboratory equipment and transport; technical assistance
Panama	10/16/86	Flood	2	3,500	25,000	Ambassador's Authority used for local purchase of food, mattresses, and other relief supplies
Papua New Guinea	02/11/87	Earthquake	1	4,000	92,500	Ambassador's Authority donated to PNG National Disaster Committee; DOD airlift of tents and plastic
Philippines	08/17/87	Typhoon	85	971,500	241,461	Ambassador's Authority donated to GOP for relief program; housing rehabilitation program
Poland	05/13/87	Accident	183	-	25,000	Ambassador's Authority used for DOD airlift of AFIP team
St. Vincent*	09/26/86	Flood	-	-	75,000	Local purchase of materials for housing repair program
Senegal	02/19/87	Insect Infestation	-	-	1,917,087	Technical assistance; small-plane spraying operation; pesticides; helicopter support; local control program
Senegal*	08/14/86	Insect Infestation	-	-	773,056	Costs of continued large-plane spraying operation; technical assistance; TDYs of experts to discuss control program
Senegal*	09/12/83	Drought	-	-	96,000	Addition to food transport grant to GOS
Solomon Islands*	05/20/86	Cyclone	-	-	19,496	Transport of 8 water tanks (3,000-gal. capacity) from Guam stockpile
Somalia*	03/31/85	Epidemic	-	-	2,453	Replace 2,010 water jugs from Leghorn stockpile
Somalia	04/30/87	Drought	600	500,000	285,803	Ambassador's Authority; food management and health experts; grant to UNICEF for emergency medical program

U.S. Foreign Disaster Assistance FY 87+
OFDA Administered Funds
October 1, 1986 -- September 30, 1987

COUNTRY	DATE	DISASTER	DEAD	AFFECTED	AMOUNT(\$)	TYPE OF ASSISTANCE
South Africa	01/30/87	Food Shortage	-	1,200,000	125,000	Grant to Operation Hunger for continued support of feeding programs
South Africa	09/29/87	Flood	251	50,000	25,000	Ambassador's Authority donated to S. Africa Red Cross
Sri Lanka	04/24/87	Civil Strife	109	200	25,000	Ambassador's Authority used for local relief program
Sri Lanka	08/27/87	Displaced Persons	7,000 ³	500,000	1,698,857 ²	Ambassador's Authority and grant to GSL for resettlement program and medical supplies
Sudan	02/15/87	Insect Infestation	-	-	600,000	Grant to EEC for purchase of propoxur
Sudan	06/30/87	Rat Infestation	-	-	233,819	Rodenticide, bags and dye for bait
Sudan*	08/26/86	Civil Strife	-	-	432,649	Grant to WVRO for emergency feeding program in the south; grant to CRS for inland transport of food
Tokelau	04/11/87	Storm	-	1,700	10,000	Ambassador's Authority donated to the Tokelau Relief Fund
Tuvalu	03/12/87	Cyclone	-	-	25,000	Ambassador's Authority donated to GOT for purchase of building supplies
Vanuatu	02/08/87	Cyclone	48	48,000	350,500	Ambassador's Authority used for local purchase of relief supplies; DOD airlift of tents and plastic
Venezuela	09/08/87	Landslide	96	15,000	31,600	Ambassador's Authority donated to Venezuelan Red Cross; assessment TDY
Yemen	04/16/87	Insect Infestation	-	-	135,598	Disaster assessment; Ambassador's Authority used to procure generators; pesticides
Total			13,566	45,258,076	\$25,744,737	

74 Disasters

54 New Declared Disasters
(44 Countries)

18 Carried over from previous year(s)

4 Undeclared (Africa Regional Insect Infestation
FY 86 and FY 87, Ethiopia Drought, and
Dominican Republic)

17 Disaster types

+ Preliminary figures subject to revision

* Carried over from previous year(s)

1 Undeclared

2 Includes funds from an A.I.D. Development Assistance Account

3 Approximate number killed over 4-year period

Note: The numbers of dead and affected for disasters carried over from previous year(s) have been previously counted and are not included in this report; otherwise, a dash (-) indicates that information is currently unavailable.



OFFICE OF INTERNATIONAL TRAINING

Responsible Officer:



BARBARA OTIS
Director (Acting)
Office of International Training

PARTICIPANT TRAINING

Overview

Participant training for the purpose of human resource development has been a major activity of U.S. foreign assistance since before the establishment of the Marshall Plan in 1947. More than 250,000 participants have been trained in the United States and in Third World countries by A.I.D. (and predecessor agencies) during the last 44 years.

A.I.D. training contributes to development objectives in A.I.D.-recipient countries through project specific staff development programs and through general training projects which contribute to the broad pool of trained manpower available for development work.

A.I.D. participants are primarily mid-level career managers and technicians from the public and private sectors who are jointly selected by A.I.D. and the host country. In FY 1987, academic (degree) training accounted for 45% (7,906 participants) of all training, while technical (non-degree) training constituted 55% (9,779 participants).

Academic programs generally vary in length depending upon a participant's initial level of English language proficiency, the field of study, and the degree objective (e.g., B.S., M.S., or Ph.D.). In FY 1987 of the total number of all participants (17,685 participants), approximately 10% were enrolled in Ph.D. programs, 19% were in Masters programs, and 16% were in undergraduate programs. Technical programs also tend to vary in length with programs running from one to three months on an average. Technical training programs may include classroom courses, seminars, on-the-job training, observation visits, or a combination of these.

In FY 1987 A.I.D. participants studied at over 500 institutions throughout the United States, making this a very broad-based program. Participants were trained in specific skill areas in development-related fields: agriculture (23%), industry and energy (21%), public administration (20%), and health and family planning (13%).

In the Latin American and Caribbean region, there has been a special emphasis on training for the socially and economically disadvantaged, with much of the academic training at the undergraduate level. Virtually all participants return home, most to pre-determined jobs in key development fields, to work for a stipulated length of service.

Increased Emphasis on Participant Training

In 1982, the Agency began giving greater emphasis to participant training. As a result, the number of A.I.D. participants in U.S. training has grown dramatically. In FY 1979, fewer than 6,000 participants were trained, of which 17% were women. By FY 1985, that number had risen to 12,500, with

20% being women. The goal of 15,000 participants was reached in FY 1986; in FY 1987, the number reached 17,685 participants. Twenty-five percent or 4,405 of these participants were women. Both the number of U.S. trainees and the number and percentage of women are the highest to date for the Agency.

For FY 1988 it is estimated that 16,879 participants will be trained in the United States; for FY 1989 the estimated number is 17,335 participants. Overall estimates for these two fiscal years are somewhat lower due probably to uncertainties in the Agency's funding levels.

In FY 1987, the Asia/Near East region had 40% of all participants, with 21% from the Near East and 19% from Asia. The Latin America and Caribbean region significantly increased its percentage from 19% in FY 1984 to 40% in FY 1987. This was due primarily to the Caribbean and Latin American Scholarship Program (CLASP) and particularly the Central American Peace Scholarships (CAPS) Program resulting from the recommendations of the National Bipartisan Commission on Central America. The Africa region had 20% of the participant total.

Examples of training programs that have contributed to the increase in A.I.D. participants are as follows:

Asia/Near East

- Pakistan Development Support Training project began in 1983 and is presently funded for \$40 million. The primary goal is to upgrade the management and technical expertise of Pakistanis in the federal and provincial governments as well as the private sector, who are involved in the implementation of Pakistan's priority social and economic development programs. This objective is being achieved through a variety of United States, in-country and third country training, and through support to a number of Pakistani training institutions. The project will train approximately 3,250 participants in the United States; 3,000 in Pakistan; and 778 in third countries.

- Indonesia General Participant Training project was approved in 1983 and is currently budgeted at \$29 million. The project is to expand public and private sector manpower capabilities through a program of specialized overseas training. Approximately 400 short-term and 435 long-term participants will receive training in the United States and third countries over the life of this project. The project includes assisting the Government of Indonesia in establishing and institutionalizing an Overseas Training Office (OTO). The OTO is responsible for planning, administering and monitoring overseas training programs of the Indonesian public and private sectors as well as the international donor community.

-- Egypt Development Training project was initiated in FY 1985 with life-of-project funding of \$109 million. This project provides cost-effective education and training opportunities for key Egyptians in priority development sectors. The project is also designed to help the Egyptian Government 1) rationalize procedures for identifying training needs; 2) select the most cost-effective training opportunities; and 3) optimize the use of individuals once trained. Two of the major components of the project are Peace Fellowships (\$35.9 million) and Non-Project Training (\$17.4 million). The Peace Fellowship component is a follow-on to the earlier Peace Fellowship Project (263-0110). The new activity will continue efforts of the previous project by providing scholarships for approximately 2,110 Egyptians to study for up to two years in U.S. universities in disciplines critical to Egypt's economic growth.

The Non-Project Training component is intended to update the skills of approximately 1,500 Egyptian scientists and technicians and to solve technical and managerial problems in the public and private sectors.

-- Tunisia Technology Transfer project began in FY 1981 and is intended to increase the Government of Tunisia's capability to acquire and manage new technology. An additional \$5 million in A.I.D. funding was allocated to the project in FY 1987 bringing the life-of-project total to \$25.1 million. These funds will provide U.S. academic training for approximately 700 Tunisians in engineering and related fields. The project is expected to make a major contribution to Tunisia's technical resource base for future national development. An evaluation of the Technology Transfer Project was carried out in late FY 1987. Results of the evaluation will be used to modify the training program to give emphasis to a broader range of technical and managerial skills training. A.I.D. plans to obligate an additional \$5 million for this activity in FY 1988.

-- Yemen Development Training III project was initiated in FY 1984, as a follow-on to the highly successful Development Training II activity. Like its predecessor, Development Training III is intended to increase the number of Yemeni trained public, semi-private and private sector individuals at the policy, planning, managerial, technical and administrative levels, and to enhance their awareness of technological solutions to development problems. With adult literacy currently around 10%, Yemen faces major obstacles in achieving its national development goals until it can mobilize sufficient trained manpower to move the economy ahead. A.I.D. has authorized \$40 million for this training activity. The project will support 300 academic and 1,100 technical training programs, develop training plans for various ministries of the Yemen Arab Republic Government, and establish a Technology Transfer and Training Center in the country.

Latin America and the Caribbean

- The Caribbean and Latin American Scholarships Program (CLASP) will train approximately 12,760 participants over the life of the program, FY 1985 to 1993. The program, valued at \$226 million, targets individuals and groups who have traditionally lacked access to training in the United States. It is providing an increased focus on the socially and economically disadvantaged, undergraduate training, women (40% of all trainees planned) and minority groups. The program includes the Central American Peace Scholarships project at \$170 million, the Presidential Training Initiative for the Island Caribbean at \$20 million, the \$26 million Andean Peace Scholarship program and the \$17 million Latin American and Caribbean Training Initiatives II project. One of the basic goals of CLASP is to strengthen the mutual ties of friendship and understanding between the countries of the Latin American and Caribbean region and the United States. Participants are being exposed extensively to democratic values and American community life under the project.

Africa

- The Human Resources Development Assistance project began in FY 1988 as a \$53 million effort covering 24 countries. The difference in emphasis of the new project compared to its predecessors is an increase in third country and in-country programs as well as a significant expansion of training for the private sector and for women. The new project establishes a regional mechanism for participant data collection and dissemination, including training costs. It should be more cost effective because of the increase in training in Africa and contributions from the U.S. and African private sectors. About 1,550 participants will be trained in the United States, 890 in third countries, 3,475 in-country and 1,075 in regional seminars for a total of 6,990.
- The African Graduate Fellowship Program III, a \$42 million project begun in FY 1985, trains high caliber participants from 41 countries, primarily at the graduate degree level in U.S. colleges and universities.

The \$62 million Training of Disadvantaged South Africans project begun in FY 1982 is bringing an average of 80 graduates and undergraduates each year to the United States.

- In Botswana a \$27 million Work Force and Skills Training II project is assisting the Government of Botswana to alleviate shortages of skilled and educated manpower and simultaneously providing assistance in employment generation. Over the life of the project, 72 Botswana will have had long-term training in the United States and over 1,000 are expected to receive short-term training.

Ongoing Programs

The Agency continues to promote and support participant training through ongoing programs:

The Office of International Training provides funds for training evaluation and support which includes support services for A.I.D. participants, such as port-of-entry reception, supplementary hospitality services, evaluation of training programs and field support.

The labor organization development program is strengthening labor relations to improve the economic status and welfare of workers in developing countries. Each year this activity provides short-term training for more than 80 officials involved with labor activities from a large number of A.I.D. countries.

A.I.D. developed and is using a microcomputer system for A.I.D. Missions to better manage their participant training activities. This system, the Participant Training Management System (PTMS), enables Missions to automate participant tracking and monitoring activities and to provide more comprehensive information on all aspects of training. During FY 1987 and FY 1988, a streamlined and more sophisticated PTMS is being installed in A.I.D. Missions around the world.

The Agency has developed a Training Cost Analysis system (TCA) to assist Missions and Washington offices to manage training projects. It was designed to assist A.I.D. staff to determine what activities should be included in the participant training process, who should be responsible for each part of the process, and what the estimated costs of the training project should be. It is also designed for use in the competitive bidding process by contractors and for standardized reporting by contractors. By providing a standard format for cost proposals, A.I.D. will be able to identify costs which are not consistent with A.I.D. estimates and which are not consistent with statements made in the technical proposal. With a standardized reporting system, A.I.D. will be able to aggregate cost data and provide average costs for each segment of the training process. In order to implement this system, A.I.D. has held training courses in 8 overseas Missions and in Washington. The training process will continue in FY 1988 and FY 1989.

The Agency also continues to work closely with placement and service contractors, the academic community, and non-profit and volunteer organizations to ensure the success of a participant's stay in the United States. These activities include an expanded and more efficient health insurance program, orientation programs with a focus on American culture and values, and enrichment programs centered on themes such as American volunteerism, civic and community activities, free enterprise and the democratic system. More opportunities are being provided to participants for home hospitality and involvement with American families.

Under the Reimbursable Training Program training activities are fully funded by other governments and international organizations but administered by A.I.D. Nations throughout the world increasingly recognize that training is vital to achieve sustained economic development. Some of these nations have set aside their own funds or have designated funds received from donor organizations to be used for training in the United States.

Since 1977, A.I.D. has been working cooperatively with several Third World countries (for example, Nigeria and Bahrain) to arrange training support services (such as selection, placement, supervision and counseling, language proficiency, travel and residence services, financial management). Operating under Section 607 of the Foreign Assistance Act, the Reimbursable Training Program has provided A.I.D. with a very important mechanism for providing training for development, in both low-income and middle-income countries, at virtually no cost to the U.S. taxpayer. Under this program 502 students trained in the United States in FY 1987; 300 are projected for FY 1988 and 500 for FY 1989.

A.I.D. has been concerned with increasing the placement of participants in historically black colleges and universities (HBCUs) in the United States. This effort has achieved results. In FY 1987, 875 participants were placed in academic and technical programs at HBCUs for training valued at over \$7 million.

New Initiatives for FY 1988 and FY 1989

A.I.D. expects to continue its emphasis on training in the United States and third world countries and to increase the percentage of those participants who are women.

A.I.D. is giving major attention to private sector training and to English language training for A.I.D. participants.

While admission standards for English language training competency in U.S. universities have risen during the past few years, the number of participants arriving for training in the United States with adequate English language skills has decreased. In FY 1987, the Office of International Training (OIT) undertook studies in 12 countries to identify more cost-effective methods of providing in-country English language training. In FY 1988 OIT will continue to provide technical assistance to support the improvement of indigenous institutions in eight additional countries so that students there will receive better quality language instruction before they come to the United States.

An important objective of participant training in FY 1988 and FY 1989 is to encourage more training for individuals from the private sector in all regions. Participant training can be used as a vehicle to strengthen and stimulate private sector development. In support of this, the Agency is frequently using U.S. private industry to conduct specialized training,

often in conjunction with academic programs. The potential for cost-sharing is a bonus for A.I.D. and the possibility of developing trade and investment relationships is a benefit to both U.S. and host country businesses. New programs and initiatives are being created to boost training for the indigenous private sector and capitalize on the training capabilities of U.S. business.

An example of this thrust is Entrepreneurs International, a new training initiative that brings entrepreneurs and emerging business leaders to the United States for on-the-job training with U.S. business. Entrepreneurs International is meeting its primary objective of training to support private enterprise development. The training is low cost since U.S. businesses are donating the actual training. In addition, trade and investment relationships are materializing. The program started in late FY 1987. Twenty participants from seven countries trained with U.S. companies around the country. Fields of training included agribusiness, forestry, food processing, hotel management, paper production, finance and accounting, and travel agency management. Contingent upon further funding being made available, in FY 1988 and FY 1989 A.I.D. plans to expand Entrepreneurs International. Over 100 participants are expected in FY 1988, and as many as 200 in FY 1989. Eventually most A.I.D. Missions may participate in this program.

A large number of private sector, university, and international organizations provide training services to A.I.D. In FY 1987, for example, about 185 contractors, grantees and other private groups managed participants under 320 separate contracts and grants funded by A.I.D. The 25 largest contractors, however, handled about 73% of all A.I.D. participants in the United States. The Agency is monitoring these contractors closely to assure that participants receive high quality training services at a reasonable cost.

