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AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D.C. 20523

PROJECT PAPER
AMENDMENT #4

INDONESIA: Expanded Program on Immunization
(EPI) (497-0253)

July 13, 1987

UNCLASSIFIED

EXPANDED PROGRAM ON IMMUNIZATION (EPI)

PROJECT 497-0253

PROJECT AMENDMENT IV

USAID/INDONESIA

OFFICE OF POPULATION AND HEALTH

JUNE 1987

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GLOSSARY

Agama	-- Religion
APBN-DIP	- Central Government Development Budget
APBN-Routine	- Central Government Routine Budget
ASEAN	- Association of South-East Asian Nations
ASKES	-- Civil Service Employee Health Insurance Fund
ASP	- Area-specific planning
BAPPENAS	- National Planning Board
BCG	- Baccillus Calmette-Guerin (vaccine for tuberculosis)
BinKesMas	- Directorate General for Community Health
BKKBN	- National Family Planning Program Coordinating Board
CDC/EH	- Communicable Disease Control and Environmental Health
CDD	- Control of Diarrheal Diseases
Cold Chain	- System of preserving vaccine from point of manufacture to point of vaccination
Dinas Kesehatan	- Province health office
DIP	- Approved GOI Budget
DPT	- Diphtheria, pertussis, and tetanus vaccine
DT	- Diphtheria, tetanus vaccine
DUP	- GOI Budget Request
EPI	- Expanded Program on Immunization
EPIIS	- Expanded Program on Immunization Information System
FETP	- Field Epidemiology Training Program
FKM	- School of Public Health
GOI	- Government of Indonesia
Infant	- Birth to thirty days old
INPRES	- Special Presidential Allocation
ITF	- Integrated Task Force
Juru Imunisasi	- Trained vaccinator
Kabupaten	- District (the administrative level below the province)
KaKanWil	- The MOH Provincial Health Officer

KanWil	- Provincial Health Office
KAP Survey	- Knowledge, Attitudes and Practices Survey
Kecamatan	- Subdistrict
KLB	- Disease Outbreak/Investigation
LAM	- Local area monitoring
MCH	- Maternal/child health
MOH	- Ministry of Health
MSLS	- Measles
NETP	- Nurses Epidemiology Training Program
OPV	- Oral polio vaccine
ORT	- Oral rehydration therapy
PHC	- Primary health care
PELITA IV (1984-1989)	- Fourth five-year Development Plan of the GOI
PIL	- Project Implementation Letter
PimPro	- Project officer
PKK	- Community-level women's organization for family welfare/education (Pendidikan Kesejahteraan Keluarga)
PLP	- Environmental Health
P2M & PLP	- Directorate General for Communicable Disease Control and Environmental Health
PosYandu	- Village integrated service delivery post
PusKesMas	- Community health center
REPELITA	- Five-year Development Plan of the GOI
SKN	- National Health System
TRG	- Project Technical Review group
TT	- Tetanus toxoid vaccine
Yanmedik	- Directorate General for Hospital Services

AGENCY FOR INTERNATIONAL DEVELOPMENT		1. TRANSACTION CODE		DOCUMENT CODE	
PROJECT DATA SHEET		<input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete		Amendment Number FOUR	
COUNTRY/ENTITY INDONESIA		3. PROJECT NUMBER 497-0253		3	
4. BUREAU/OFFICE ANE		5. PROJECT TITLE (maximum 40 characters) <input type="checkbox"/> EXPANDED PROGRAM ON IMMUNIZATION <input type="checkbox"/>			
6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 09 30 90		7. ESTIMATED DATE OF OBLIGATION (Under "B" below, enter 1, 2, 3, or 4) A. Initial FY 78 B. Quarter <input type="checkbox"/> C. Final FY 88			

8. COSTS (\$000 OR EQUIVALENT \$1 =)						
A. FUNDING SOURCE	FIRST FY			2 OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	8,527	2,473	11,000	7,500	12,200	19,700
(Grant)	(1,000)	(-)	(1,000)	(3,000)	(4,200)	(7,200)
(Loan)	(7,527)	(2,473)	(10,000)	(4,500)	(8,000)	(12,500)
Other U.S.						
Host Country		3,155	3,155	-	17,956	17,956
Other Donor(s)	382	-	382	6,699	3,291	9,990
TOTALS	8,909	5,628	14,537	21,699	45,647	67,346

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPRO- PRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) HE	514	550	550	3,200	9,500	4,000	3,000	7,200	12,500
(2)									
TOTALS				3,200	9,500	4,000	3,000	7,200	12,500

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)						11. SECONDARY PURPOSE CODE			
12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)									
A. Code									
B. Amount									

13. PROJECT PURPOSE (maximum 480 characters)

To explore ways to accelerate immunization activities; to strengthen the national immunization organization and infrastructure in order to meet the needs for accelerating immunization activities, including vaccines for other childhood diseases as they become available in Indonesia; and to develop the capacity in MOH to conduct studies and develop the capacity in MOH to conduct studies and develop activities to meet program needs.

14. SCHEDULED EVALUATIONS					15. SOURCE/ORIGIN OF GOODS AND SERVICES						
Interim	MM	YY	MM	YY	Final	MM	YY				
	04	81	11	86		06	90	<input checked="" type="checkbox"/> 000	<input checked="" type="checkbox"/> 941	<input checked="" type="checkbox"/> Local	<input type="checkbox"/> Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)

This Amendment is to provide additional funds for the design of more cost effective immunization delivery systems, expansion of the role of curative facilities, both private and public in the EPI and the use of improved communication technologies in the program strategy. Amendment activities are designed to strengthen the research and development capacities of the Ministry of Health (MOH) by supporting activities which seek to clarify problem definitions and which identify and test potential solutions to these problems. The PACD is extended by 3 years to September 30, 1990.

17. APPROVED BY	Signature JAMES M. ANDERSON. <i>James M. Anderson</i>	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
	Title ACTING DIRECTOR USAID/JAKARTA	
	Date Signed MM DD YY 07 13 87	MM DD YY

PROJECT AUTHORIZATION AMENDMENT NO. 2

Name of Country: Indonesia

Name of Project: Expanded Program on
Immunization

Number of Project: 497-0253

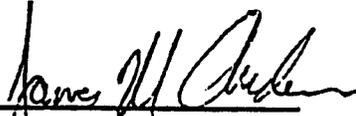
Number of Loan : 497-U-057

1. Pursuant to Part I, Chapter 1, Section 104(c) of the Foreign Assistance Act of 1961, as amended, the Expanded Program on Immunization Project for Indonesia (the "Cooperating Country") was authorized on January 11, 1979. That authorization was amended in June 1984. That authorization is hereby further amended as follows:

Paragraph one as amended, is further amended to authorize a new Life of Project funding of \$19,700,000, consisting of \$12,500,000 in loan funds and \$7,200,000 in grant funds. The Project Assistance Completion Date, as amended, is extended to September 30, 1990. The additional \$4 million in grant funding and \$3 million in loan funding herein authorized for obligation through September 30, 1990, is subject to the availability of funds in accordance with the AID OYB/allotment process.

2. Except as herein amended, the authorization and its amendments remain in full force and effect.

3. Prior to execution of the Project Loan and Grant Agreement Amendment, the Congressional Notification waiting period shall have passed without objection and USAID/Jakarta shall have received a cable notification that funds have been allotted.

Signature: 
James M. Anderson
Acting Director

Clearances: OPH:EVoulgaropoulos: CEV/W
PRO:MBonner: MB
FIN:RMcClure: RJL
CM:MStevenson: MS


Drafted: LA:GBisson: mar, 7/7/87

3. PROJECT BACKGROUND

3.1. Magnitude of the Problem

Indonesia is the world's fifth most populous country, with an estimated population of 168 million people in 1986. Its comparatively high crude birth rate results in about 5.12 million live births annually, with a concomitant number of children entering the critical neo-natal and infant period when the risk of morbidity and mortality is disproportionately high. Providing high quality preventive health services, including the delivery of vaccines, is a formidable challenge facing Indonesia's health system.

The infant mortality rate in Indonesia is 80.6/1000 live births, a level which is the highest among ASEAN nations and approaches infant mortality rates in South Asia and some African countries. About 30% of all annual deaths in Indonesia occur in the infant period and 40% of all infant deaths occur in the neonatal period. Communicable diseases of bacterial, parasitic, and viral origin are the immediate or proximal causes of the overwhelming majority of deaths among these age groups. Tetanus alone causes 43% of all neo-natal deaths, while diarrheal diseases and acute respiratory infections combined account for upwards of 60% of all mortality in both the infant and childhood periods.

The GOI has set ambitious targets for reducing infant and child mortality by the year 2000. To achieve these targets, focused efforts must be directed at the interventions which most dramatically affect child survival. Foremost among these efforts, the GOI has formulated an integrated package of child survival programs: diarrheal disease control, immunization, nutrition, family planning, and maternal/child health. Among these, the delivery of immunization services is acknowledged as the fastest and most efficient approach toward reducing infant mortality. Over 20% of infant deaths are directly vaccine preventable. Despite substantial progress in vaccine coverage among the target population, the Ministry of Health estimates that 120,000 infants and children die each year from diseases targeted by the Expanded Program on Immunization (EPI), equivalent to one death every five minutes.

3.2. EPI Targets and Objectives

The GOI's primary objective for EPI during PELITA IV (Indonesia's fourth five-year development plan, 1984-1989) is to reduce morbidity and mortality in children by ensuring immunization against the six EPI target diseases (diphtheria, pertussis, tetanus, polio, tuberculosis, and measles) before their first birthday.

More specifically, the EPI target established by the GOI for the end of PELITA IV is that all children under 12 months of age will have access to immunizations (defined as not having to travel more than 5 km to obtain immunization services) and that 65% of all children under 12

months of age will be fully immunized by their first birthday. "Fully immunized" is defined as having received one dose of BCG, three doses of DPT (diphtheria, pertussis and tetanus) and OPV (oral polio), and one dose of measles vaccine. An additional PELITA IV target is that 65% of pregnant women will have received two doses of TT (tetanus toxoid). The GOI's PELITA IV disease reduction targets have been specified as shown in Table 1.

Table 1: GOI PELITA IV Disease Reduction Targets

Disease	1984 Estimates		PELITA IV Reduction Targets	
	Morbidity (Cases)	Mortality (Deaths)	Morbidity (Cases)	Mortality (Deaths)
Diphtheria	280,000	48,000	50%	40%
Pertussis	5,500,000	28,000	50%	40%
Poliomyelitis	8,600	800	25%	-
Tuberculosis	413,000	unknown	25%	-
Measles	5,600,000	56,000	not specified	
Tetanus (Neo.)	95,000	86,000	not specified	

The GOI has not yet established specific targets for Pelita V (1989-1994) but has indicated that the primary objective of morbidity and mortality reduction will remain the same. This amendment, which spans parts of both Pelita IV and V, will support the continuation of the primary objective as well as the utilization of Pelita VI immunization coverage and disease reduction targets during the full project extension period.

3.3. Background Summary

The Historical Development attachment (Annex A) traces the expansion of immunization activities from the inauguration of the EPI in 1977 until the present. Wide geographic expansion, adoption of all WHO recommended vaccines, and enhancement of vaccine production capabilities are described as important milestones. The later years, described as the Consolidation Period, outlines the importance of initiatives in manpower development, integrated health posts, and social mobilization.

Annex A lists the primary accomplishments of the EPI as the provision of vaccine accessibility to the vast majority of the target populations, the development of a national EPI infrastructure, the adoption of the full range of recommended vaccines (BCG, DPT, OPV, TT, MSLS), and the attainment of over 60% immunization coverage for two of these vaccines.

3.4. Donor Coordination

EPI has coordinated and managed diverse inputs from five international donor agencies and other smaller donors to meet its yearly

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programmatic needs. Perhaps in no other program have donor agencies worked in such close cooperation to assure a complement of inputs toward one common goal. In the process, overlap and duplication have been essentially avoided. As the EPI budget plunged beginning in 1985, the donor agencies, working in unison with MOH, have guaranteed that EPI's momentum can be sustained. The contributions of the major donor agencies are summarized below.

The World Health Organization (WHO) has provided a common forum for policy dialogue. WHO has assigned a full-time epidemiologist to the EPI as well as an experienced field officer. WHO has assisted in the development of EPI training materials, contributed to institutional strengthening of the EPI, and supported program reviews.

The United Nation Children Fund (UNICEF) has provided cold chain equipment, immunization supplies and health education materials. UNICEF has also supported training activities, especially for vaccinators, PKK (Family Welfare Movement) and religious groups. UNICEF provides a full-time technical officer to the EPI program.

The Rotary International has committed \$6,100,000 for polio vaccine and \$15,000 for public information activities over a five-year period, beginning in July, 1987.

USAID's EPI project has contributed significantly to the success achieved in Indonesia. Two long-term and various short-term consultants have provided professional guidance in EPI expansion, management, surveillance and evaluation. Approximately 14,000 health center staff and field supervisors have been trained in technical and management procedures through collaboration with other donor agencies. Over 100 health professionals have received technical training at an in-country or foreign university. Outbreak investigations of immunizable diseases, serological surveys, immunization coverage surveys and baseline disease surveys have all been supported as vital components of monitoring and evaluation activities. Commodity procurements have assisted in vaccine production, vaccine storage and service delivery.

4. CHALLENGES FACING EPI - FINDINGS FROM THE 1986 EVALUATION

The GOI has conducted periodic comprehensive evaluations of EPI to monitor the program's progress, identify constraints that continue to impede the program, and chart new directions in its pursuit toward the program's ultimate objective, the control of EPI preventable diseases in Indonesia. Such a review was conducted from 24 November - 13 December 1986 by a joint GOI/UNICEF/USAID/WHO team consisting of 14 international and 18 national full-time staff members. Six provinces (Jakarta, East Java, West Java, South Sulawesi, Aceh, and Southeast Sulawesi) were selected to represent urban, high, medium, and low population provinces, and all aspects of the EPI program were subjected to intense scrutiny.

The review acknowledged the program's impressive achievements in geographic expansion, accessibility, immunization coverage, and infrastructure development described previously in this Amendment; it also identified the major obstacles that continue to impede further program development. In general, the review team found that problems with operational efficiency and allocative efficiency of the EPI program remain. Given the economic scenarios being painted by the economic planners, it is clear that major new infusions of funds from existing GOI budgetary sources for EPI will not be possible. To even consider reaching its PELITA IV targets, the unit cost per vaccine delivered must be reduced. From the review team's observations, several major areas exist in which greater operational efficiency of the EPI program could be achieved.

The review team also found that the MOH's programmatic priorities, as stated in PELITA IV and the Long Range Plan for Health, are not reflected in its budgetary allocation for EPI. Macro-analyses of yearly MOH expenditures illustrate the disproportionate amount consumed by curative medical services as compared to the preventive and promotive services, such as EPI, which will most optimally contribute to the MOH's objective of reducing infant and child mortality. While the team acknowledged that the reasons for present allocative priorities are multifactorial and simplistic solutions for redressing the curative/preventive allocative imbalance are frequently impractical, it emphasized the importance of allocative efficiency to sustain EPI's progress in the future. The Mission is looking at this problem in the design of the Health Sector Financing Project.

Beyond these general observations, the Review Team specified four major challenges facing EPI as it proceeds into the second decade of the program: (1) Missed Opportunities; (2) High Drop-Out Rates; (3) A Centralized Service Delivery Approach and (4) Reduced Budget. These are described below.

4.1. Missed Opportunities

The review team defined a missed opportunity to immunize as "a child or woman visiting a health care facility for any reason who could have and should have been immunized, but was not."

Data from a total of 104 children 2-14 months of age, attending six provincial hospitals for minor ailments not considered contraindications for immunization, were assessed for missed opportunities (Table 2). Overall, 73% of the children who required immunization did not receive them. None of the 28 children age 9-14 months who needed measles immunization received that vaccine.

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Table 2: Missed Opportunities for Immunizing Children 2-14 Months of Age Attending Outpatient Clinics at Six Provincial Hospitals

Province	Number of Children	Number Missed *	Percent Missed Opportunities %
South Sulawesi	16	15	94
Southeast Sulawesi	18	7	39
Aceh	20	16	80
Jakarta	20	16	80
West Java	16	10	63
East Java	14	11	79
TOTAL:	104	76	73

* Number of children who needed but did not receive immunization.

A survey of mothers with children less than 15 months of age was concurrently conducted to assess mothers' tetanus toxoid immunization status, antenatal care, and place of delivery (Table 3). Although overall, more than three fourths of the women surveyed had at least one antenatal visit, this opportunity was used only about half the time to provide tetanus immunization. The vast majority of these women delivered at home (except in Jakarta) where risk of tetanus is higher.

Table 3: Antenatal Care, Tetanus Toxoid Immunization Status, and Site of Delivery for Mothers with Children Under 15 Months of Age (Percent)

Province	Women Receiving Antenatal Care	Women Immunized		Dropout Rate	Delivery AT Home
		TT1	TT2		
Jakarta	93	29	22	24	26
East Java	85	59	46	22	79
West Java	89	77	69	10	79
Aceh	72	54	44	19	86
South Sulawesi	73	47	33	30	85
Southeast Sulawesi	54	39	32	18	91

The evaluation clearly established that the EPI delivery system is not taking maximum advantage of opportunities which conveniently present themselves to immunize those at risk. Several reasons were postulated as to the principal causes of these missed opportunities.

4.1.1. Program Inefficiencies

The failure of the EPI to properly implement various technical procedures, as recommended by WHO, frequently results in mothers leaving facilities either without being approached or in actually having been refused vaccine. Some obvious problems are:

- o Screening procedures for immunization status are not routine health center practices. The overall needs of each visitor, beyond the immediate reason for their presence, are rarely considered by health workers.
- o Persons seeking immunization are often refused because of poor compliance by health workers with existing program guidelines, or overly restrictive guidelines which do not conform with WHO standards. For example, contraindications policy is poorly understood, and children with minor ailments are often refused vaccine. New vaccine vials are frequently not opened unless a minimum of ten immunizations can be given.

- o Schedules of vaccine administration are frequently restricted to certain days, or even certain hours on specific days. People visiting clinics outside of designated vaccine administration periods are often refused vaccinations.
- o The organization of health centers and functional integration of tasks among staff frequently discourage optimum resource use. For example, MCH (maternal/child health) nurses who operate antenatal clinics neglect to provide immunization to their patients because this task is the functional responsibility of the juru imunisasi.
- o Vaccinators do not adequately explain the possible side effects that normally accompany immunization, leading to dissatisfaction, lack of confidence in the program, and ultimately, discontinuation.
- o Sterilization techniques are poorly understood and inconsistently followed. The serious side effects that could eventually develop not only pose a health hazard to the target population but also further erode public confidence in the EPI.

4.1.2. Absence of EPI in Clinical Facilities

Many clinical facilities such as hospitals and private clinics do not offer immunization services. This is particularly dangerous in the case of hospital inpatient services which are recognized as potential sources of communicable diseases transmission to already weakened patients. These high risk children should receive immunization upon admission and again before discharge. Because hospital outpatient services and private clinics represent a primary source of health care for a large portion of the population, lack of available immunization services represents a significant missed opportunity. There is no formal linkage between many of these facilities and the national EPI program.

A major constraint to program support by hospitals and private practitioners is a lack of understanding of the importance of preventive care in general, and immunization in particular. Surveys have shown that most urban doctors are not aware of the need for TT for pregnant women, believing that neonatal tetanus is a rural disease only. Medical, nursing, and midwifery schools do not stress this aspect of education and professional societies do not take the lead in supporting the "supply side" aspect of EPI.

4.2. High Drop-out Rates

High drop-out rates are a second major challenge facing the program. A child is fully protected with disease-specific immunity only when he/she is fully immunized, having received measles, BCG, all three

required doses of DPT, and all three required doses of OPV. An individual who begins the process of receiving immunizations but fails to achieve full protection is considered a drop-out. National immunization coverage data for 1985/86 (Figure 2) called attention to the problem of drop outs. While 60% of children 14 months of age or less had received DPT₁, only 26% had received DPT₃, compromising the immunogenic benefit accordingly. Drop-out rates for OPV were not quite as high, due mainly to the low immunization coverage of OPV₁. The physical infrastructure existed to make vaccine accessible and deliver it to 60% of the target population, yet much of that capacity was unused.

Data from the 1986 evaluation corroborated this finding and depicted more graphically the magnitude of the drop-out problem (Table 4). EPI program dropout rates were extremely high, ranging from 70% to 80% in provinces sampled. Vaccine specific drop-out rates for DPT and OPV averaged about 50% in the six provinces surveyed. Drop-out rates for TT were somewhat lower but still significant (Table 3). The review team noted that the principal reasons for drop-outs could largely be attributed to a lack of public demand for the service, resulting primarily from a lack of knowledge on the part of mothers regarding the importance and benefit of EPI.

Table 4: Immunization Coverage of Children 15-23 Months of Age, 1985/86 (Percent Immunized Based on Immunization Card or Recall)

Vaccine	Jakarta	East Java	West Java	Aceh	South Sulawesi	Southeast Sulawesi
DPT1	78	79	82	42	62	46
DPT2	60	72	66	27	43	40
DPT3	50	60	41	13	32	26
OPV1	74	78	68	41	41	34
OPV2	60	72	50	26	30	21
OPV3	49	59	34	13	23	15
Measles	25	55	29	10	28	18
BCG	77	78	81	42	55	56
EPI Program Drop-out Rates	71	37	73	82	72	80
Vaccine Specific Drop-out Rates						
DPT1-DPT3	36	24	50	69	48	54
OPV1-OPV3	34	24	50	68	44	56

The reasons for low demand for immunization are intuitively obvious. An immunization is an invasive procedure (an injection) with noxious sequelae (fever and pain at the site of injection) whose principal benefit is a non-event (non-occurrence of disease). Its acceptance among well educated populations, imbued with the germ theory and cognizant of the immunologic basis for vaccines, has only been possible in concert with intensive education programs and counseling. Immunization itself does not generate spontaneous demand. On the contrary, because of its side effects, immunization generates negative, or at best, latent demand. Demand for immunization arises when people understand the benefits to be obtained from preventing a disease and place a value on the service accordingly. In Indonesia, generating demand for EPI will require more intensive efforts to disseminate information and educate mothers about the health benefits which will accrue to their children as a result.

Traditionally, information dissemination about EPI and demand generation for EPI have largely been attempted through the distribution of posters, flipcharts, and other written media with very marginal success. These media have been costly and limited in distribution, most being seen at the health care center where they play a passive role in creating demand. Furthermore, the messages are incorrectly oriented -- the theme being to support the program rather than to save the life of your child. In the rural areas where TV and newspapers are relatively scarce, radio appears to be the only effective mass medium for public education.

4.3. Centralized Service Delivery Approach

The EPI in Indonesia has generally applied the same basic method or approach to service delivery throughout the country. This approach, which was centrally conceived and supported, has resulted in the wide geographic expansion of services and full immunization rates of approximately 25% of the target population. The service delivery method is based on static sites (health centers/PosYandus), of which there are over 5,000 in Indonesia. Immunizations are provided to patrons who come to these centers in addition to health staff organizing EPI outreach activities to nearby villages.

Authority has been delegated to the provinces to administer the activities related to this basic EPI approach. However, there has been little incentive or opportunity for provinces to become involved in program planning or development. National EPI offices provide technical guidance, training, funds for project implementation and materials, supplies and equipment to all 27 provinces. Provincial and district EPI personnel use these resources, as well as others that may be available locally, to transmit technical information, organize and monitor immunization activities, provide training and supervision, and give needed materials, supplies, funds and equipment to program workers. This provides a logical participatory role for each administrative level but

creative development is generally "top down," with few opportunities to infuse new ideas below the central level. Local program leadership often lacks experience, support and a methodology to conduct analyses of coverage figures and known constraints. With few exceptions, there are no innovative approaches to social mobilization, community participation, policy reform, or procedural adaptations introduced at the local levels. Because of these circumstances, there has been an over-reliance on a centrally directed program that often fails to consider the local socio-cultural and geographic factors that affect service delivery.

The impressive results of another USAID project, CHIPPS, where EPI coverage rates of over 90% have been achieved in certain trial areas, demonstrate the need for approaches tailored to local problems and potentials. For any substantial change in decentralized program planning to occur, certain elements of support must be provided, namely, development of an adequate local information and performance monitoring system and a reservoir of personnel who can collect and interpret these data.

4.4. Reduced Budget

Perhaps the greatest immediate challenge facing EPI is the dwindling financial resources available from the GOI to fund the recurrent costs of the program. The precipitous drop in oil prices which occurred in late 1985 severely compromised the GOI's major source of foreign exchange. Government revenues plummeted and all budgets experienced draconian reductions beginning in IFY 86/87. The Ministry of Health's budget sustained a disproportionate share of those reductions. From 1985 to 1987 all sectors combined sustained an average 8% reduction in their central government allocations. By contrast, the MOH sustained a 33% reduction.

Funds for the MOH's health budget come from six separate sources. The major sources are the central government development and routine budgets (APBN-DIP and APBN Routine) plus a special presidential allocation (INPRES). Smaller amounts are provided from provincial and district routine and development budgets and foreign aid. Analyses done by the Planning Bureau of the MOH for 1985/86 indicate that approximately 35% of all public sector health expenditures from these sources are for hospitals, 24% are for health centers, 20% are for drugs (not including vaccines), 6% are for communicable disease control, 6% are for education and training, and the remaining 9% of expenditures are for other programs. Rough-cut estimates made by the Planning Bureau suggest that 75% of all GOI expenditures on health are for curative care and 25% are for the preventive/promotive programs which will have the greatest impact upon the major causes of morbidity and mortality among infants and children in Indonesia. Consequently, only a small portion of the GOI's shrinking budgetary resources is directed toward addressing the major health problems as stated in PELITA IV, the National Health System (SKN) and the Long Range Plan for Health. Although preventive programs such as

EPI are programmatically a high priority, they receive less attention when budget allocation decisions are made. The EPI budget is derived from the general budget for the Director General for Communicable Disease Control and Environmental Health (CDC/EH) (Table 5). This budget is obtained almost totally from the central government development budget (APBN-DIP).

Table 5: EPI Budgets as a Percentage of CDC/EH Budget, 1984/85-1987/88

Year	APBN DIP*	CDC & EH*	CDC/EH % of APBN DIP	EPI*	EPI of CDC/EH %	Hospitals*
1984/85	119.0	26.2	22.0	4.1	15.6	143.1
1985/86	125.4	28.1	22.4	7.1	25.2	144.3
1986/87	65.4	13.6	20.8	4.9	36.0	150.1
1987/88	22.8	4.9	21.5	1.4	28.6	162.4

* in billions of Rupiah

The GOI began making substantial budgetary commitments to EPI in 1984/85. By the following year, the GOI was contributing Rp. 7.1 billion to EPI, procured and financed all vaccines, and provided substantial support for other commodities and program monitoring activities.

In 1986/87 the EPI budget was cut to Rp. 4.9 billion, and slashed further to Rp. 1.4 billion in 1987/88. This is only 20% of EPI's 1985/86 allocation, a trend roughly paralleling the downward spiral of the APBN DIP. During both years, however, EPI funds maintain a 36% and 28% share of the CDC/EH budget, indicating the priority that it continues to give EPI in spite of its own dwindling resources. This year's GOI allocation to EPI, however, is only sufficient to purchase less than half the required amounts of DPT and BCG vaccines. The balance of vaccines needed for EPI in 1987/88 will be provided by donor agencies. The World Bank is acquiring the measles vaccine and Rotary International is donating the polio vaccine. UNICEF will be purchasing approximately a six month supply of TT and DT vaccines. The remaining MOH funds for this year are scheduled to support the maintenance of refrigerators and partial costs of vaccine transportation.

While EPI's allocation was decreasing, the total allocation for hospitals actually increased by 4% annually during the same period. This is more a function of the multiple budgetary sources from which the hospital budget is derived, than a reflection of greater priority and

commitment to this sector. The yearly GOI allocation for hospitals comes from six different budgetary sources. The APBN DIP contribution to hospitals has fallen as precipitously as contributions to EPI over the past two years. However, larger allocations from other budget sources have more than compensated for this shortfall, the result being the continuous incremental increase in total allocations to the hospital sector, as illustrated in Table 5.

The MOH's central development budget (APBN-DIP) has been reduced most drastically in response to revenue shortfalls. As long as EPI budgets are drawn mainly from this source, prospects for future funding are poor. Although officials within the Directorate General for Communicable Disease Control and Environmental Health have worked diligently to maintain the approximate proportion of their budget allocation to EPI, it is getting a constant portion of a steadily shrinking pie. Program sustainability requires improved operational efficiencies to decrease waste, a more favorable policy toward EPI financial support to obtain budget allocations from other GOI budget sources, and a willingness to explore various financial projects to support vaccine procurement.

5. PROJECT GOAL, PURPOSE, AND STRATEGY

The goal of this project is to assist the GOI to achieve its objectives to reduce infant and child mortality during Repelita IV and beyond through the development and expansion of the EPI. The original purposes of the present EPI project (497-0253) are:

- 1) to identify specific target areas and groups for coverage and deliver appropriate vaccines to immunize them against various diseases;
- 2) to strengthen the national immunization organization and infrastructure in order to meet the needs for accelerating immunization activities; and
- 3) to develop the capacity within the MOH to conduct studies and development activities to meet program needs.

The widespread availability of immunization services and the substantial increase in coverage rates described in the previous section of this Amendment characterize the significant progress that has been made toward achieving the first two objectives. At the present stage of EPI's development, and in view of the obstacles facing EPI, further investments in geographic expansion and infrastructure development will yield only marginal returns as measured by higher immunization coverage for the target population.

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Progress toward the third objective, however, has been less apparent. While recent evaluations of EPI have identified four structural problems that continue to plague the program, the factors contributing to these problems are poorly understood. Only when these problems have been critically analyzed will sufficient data exist to design effective interventions. Thus, under this Amendment, primary attention will shift to the assessment and development objective. The recent experience of the Mission indicates that its comparative advantage is in the area of operations assessment and policy dialogue. Investment into an operations research approach to defining problems and testing solutions is considered to be the most cost-effective approach toward achieving the MOH's desired levels of full immunization coverage.

The Mission has a comparative advantage in providing leadership in the area of operations assessment and policy dialogue. Its Child Survival strategy is centered around efforts to define and test ways to utilize the private sector and modern communication approaches, demonstrate these methods on a larger scale, and formulate policy to institutionalize successful methods into national services. The Office of Population and Health portfolio includes such activities as the Village Family Planning/Mother Child Welfare Project which emphasizes developing research agendas, field tests and policy development. Also, the Mission has assisted in the creation of the Integrated Task Force for Family Planning and Health (ITF) and continues to be an active participant in that body. The ITF establishes research agendas that relate to priority operational problems of key health and family planning programs, assists and monitors the development of innovative approaches that emerge from field studies, and lobbies important decision makers at the central and provincial levels to obtain support for the adoption of new systems.

The amendment will apply an operations assessment approach toward the four fundamental problems facing the immunization program:

- o missed opportunities
- o high drop-out rates
- o centralized EPI management
- o inadequate budgetary commitment to EPI.

The amendment will be divided into five stages, which are depicted in Figure 1. During the first stage, the Analytical Stage, studies will be conducted to clarify and define these four problems, providing program managers with a better understanding of why they occur. Fundamental analyses during this stage would necessarily include consumer and provider perceptions of EPI, health seeking behavior of target populations, and budgetary and cost benefit analyses of EPI. Case studies of isolated efforts which have effectively dealt with and overcome these problems would also be essential. CDC/EH, in collaboration with the ITF, will set the studies agenda for this Analytical Stage. Studies will be conducted by university-based groups

or other organizations which have demonstrated capacity to conduct EPI studies.

Building upon the preliminary studies conducted during the Analytical Stage, the Amendment will provide the MOH with the assistance necessary to design several possible interventions that address the four problem areas during the second stage, the Developmental Stage, of project implementation. The interventions will be sensitive to social, cultural, geographic, and programmatic differences of the various regions represented by the MOH's Area-Specific Planning Model (see administrative analysis, Annex B) and in most instances will be designed to represent a program which could be introduced and replicated in a specific region.

These interventions will be pilot tested and refined during the third stage, the Experimental Stage, of project implementation. The pilot tests will be conducted on a small operational scale and evaluated both quantitatively and qualitatively for impact and success. The results of pilot tests will be utilized to modify and refine the particular intervention models.

Intervention models emerging from the Experimental Stage will be demonstrated on a wider scale during the fourth stage, the Demonstration Stage. Demonstrations will be conducted in large geographic areas in regions represented in the MOH's Area-Specific Planning Model and that are consistent with where experiments were conducted. These demonstrations can better simulate the operational difficulties that can be expected during large-scale replications. The demonstrations will be evaluated quantitatively and qualitatively for impact and success by a joint team consisting of the MOH and external evaluators.

Successful demonstrations of innovative approaches will then enter the final, and most important stage of this operations assessment model, the Policy Dialogue Stage. Results of evaluations of these demonstrations will be submitted to the appropriate deliberative and decision making bodies in the MOH for discussion of their policy implications and potential for replication. Should decisions be made to replicate demonstration projects developed through this Amendment, funds for this purpose will not be provided under this Amendment.

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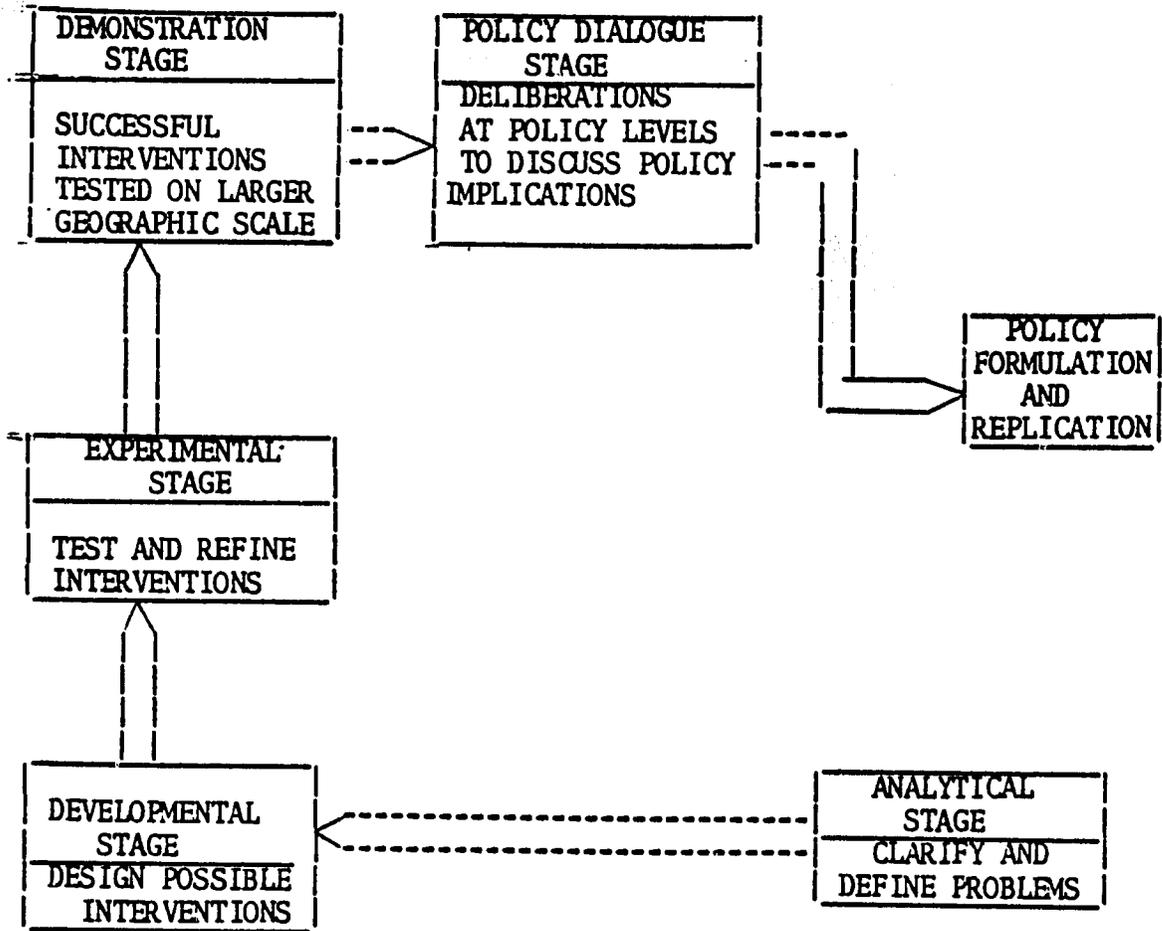


Figure 1: Strategy for EPI Amendment

Of critical importance to this strategy is the role of the Integrated Task Force for Family Planning and Health. Although the ITF is not an executing body, it can have a significant impact upon policy acceptance. A Steering Committee, consisting of two Director Generals from the MOH as well as the BKKBN Deputy for Planning and Analysis and the BKKBN Deputy for Program Operations, provides policy guidance for the ITF. More important, the ITF is the link for elevating policy options to respective agencies for official adoption into the replication scheme for health and family planning. Therefore, by virtue of its mandate, the ITF should facilitate every stage of this operations assessment process but should play a particularly prominent role during the Policy Dialogue Stage of this strategy. The Directorate for Immunization and Surveillance has been an active participant in the ITF and expects to exploit this channel to the greatest extent possible during the period of this Amendment.

Not all activities proposed under this project will have to go through every stage of this process. In some instances problems have already been defined, and this project will begin at the Developmental Stage. In other instances, activities have already been tested, and await only further refinement and large-scale testing in the Demonstration Phase. The operations research strategy which this project will utilize should be viewed as a strategic framework, and based upon their present stages of development, activities will enter the cycle accordingly.

6. PROJECT OUTPUTS

The Amendment will have four distinct outputs.

6.1. Reduce Missed Opportunities

The first output will be the development, testing and demonstration of effective, replicable approaches to reduce missed opportunities to immunize members of the EPI target groups. The project has two major components which support this output.

6.1.1. Reform of Program Guidelines

The 1986 Review of EPI clearly established that many persons seeking vaccination were refused immunization. The reasons were multifactorial, but by and large were related to either the health worker's interpretation of EPI program guidelines or the absence thereof. For this segment of the target population, demand for services exists but system inefficiencies impede the delivery of the immunization service. Reforming program guidelines and changing health workers' perceptions and compliance with existing guidelines so that members of the target population who enter health facilities do not leave without being immunized, are probably the fastest and most cost-effective ways to increase immunization coverage.

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Efforts to reform program guidelines will fall into three categories:

- o Better compliance with policies/procedures that support efficient EPI delivery. The technical guidelines that require improved compliance are, for the most part, screening procedures and contraindications policy. Both are major causes of missed opportunities. Both of these procedures are clear, yet for reasons as yet unclear, they are generally disregarded by health workers. This Amendment will analyze both provider and organizational behavior to determine the reasons for poor compliance. The results of this analysis will uncover several alternatives for obtaining greater compliance and they will be tested and demonstrated in accordance with the project's strategic paradigm.
- o Reform existing program guidelines that impede efficient EPI delivery. The 1986 evaluation identified several of these, such as restricted vaccine administration schedules, the one vial/ten immunizations regulation, outdated sterilization procedures, and the one syringe/one needle regulation. A comprehensive technical review would undoubtedly uncover others. Under this Amendment an EPI Technical Advisory Group will be organized within the Directorate for Immunization and Epidemiologic Surveillance to review program guidelines annually and identify those that are not in full agreement with WHO policies. Then, the Technical Advisory Group will conduct a special seminar once a year for national and provincial EPI decision makers to present the latest WHO program recommendations and to specifically discuss those previously identified dissonant guidelines. The outcome of the seminar will be written recommendations for technical changes which will be field tested and demonstrated for application in Indonesia. Successful demonstrations will be transformed into official MOH policy.
- o Introduction of new technologies and program guidelines to enhance efficient delivery of services. Data are continually being generated about the EPI program which have implications for MOH procedural guidelines. For example, new vaccine schedules and dosages are being developed to simplify administration; sterilization and cold chain procedures are constantly being refined; and a contraindications policy is evolving. No method exists at the present time to review this information and assess its implications for EPI.

With funds from this Amendment an EPI Reference Library will be established at the Center for Child Survival, University of Indonesia. This Library will have an on-line and continually updated data base on EPI, available to both decision makers and researchers. The Center for Child Survival will review this data base and make an annual report to the EPI Technical Advisory Group containing recommendations for reforming existing guidelines or introducing additional guidelines. These recommendations will be included on the agenda of the EPI Technical

Advisory Group's yearly seminar to discuss EPI program guidelines. Recommendations emerging from this seminar will be tested and demonstrated as described above.

This Amendment will also provide funds to field test new technologies which can facilitate more effective and efficient delivery of immunizations. Several new technologies currently in the developmental stage offer promising alternatives for vaccine delivery, sterilization, and cold chain maintenance. Some candidate technologies that could be field tested under this Amendment are single use vaccine injectors, low cost jet injectors, color change monitors that ensure correct time and temperature exposure of syringes and needles to achieve optimum sterilization using home use pressure cookers, timers for boiling and decontamination of syringes and needles, and heat sensitive cold chain monitors which can be affixed to the outside of vaccine cartons and monitor the integrity of the cold chain during supply and distribution. Field testing of these technologies would focus upon issues of cost, accuracy and ease of utilization vis-a-vis existing technologies which currently serve similar purposes.

6.1.2. Inclusion of EPI into Clinical Facilities

A major reason for missed opportunities is that many people seek medical care at clinical facilities that do not participate in EPI and have no vaccine services. Under this Amendment, EPI services will be incorporated into clinical facilities in both the public and private sectors.

In order to more accurately target facilities for inclusion into EPI, the Amendment will support a market survey of the target population to determine where mothers bring their children when they are ill. Research will be conducted in five urban areas to determine the health seeking behavior of the target population. Simultaneously, utilization patterns at major clinical facilities will be reviewed to ascertain utilization by the EPI target population. The combined results of both surveys will be used to determine the clinical facilities that will be targeted under this Amendment for inclusion into EPI.

The achievement of current levels of immunization coverage has been done largely through the delivery of services at government facilities. This component of the Amendment will significantly expand participation in EPI, especially within the private sector (hospitals, clinics, private medical practitioners). Greater private sector involvement is especially attractive because it can be done at marginal cost relative to other strategies to expand infrastructure and service availability. Private clinics and private practitioners are ubiquitous in Indonesia, particularly in urban areas, thus representing an existing service and manpower network where many people seek, and are willing to pay for, medical care. Because these clinics can charge a fee for the immunization service to recover their cost, EPI will not incur excessive recurrent

costs to provide vaccine. As a result, coverage achieved via the private sector will be done at a reduced unit cost, and should improve the operational efficiency of EPI as a whole.

Because the clinical sites being considered for inclusion into EPI will involve organizations outside the national EPI infrastructure, both in the private and public sectors, channels of communication will be opened to acquaint their leaders with immunization activities and invite their participation. Special education materials and presentations will be prepared to more convincingly convey to these health providers the key role of EPI in child survival. National professional organizations, such as the Indonesian Medical Society, the National Hospital Association, and the National Pediatric Association, will be asked to participate in this educational process. Upon receipt of official agreement to participate in delivering immunization, additional studies will be conducted to investigate how to most efficiently link these clinics in each province with national EPI activities, including technical training, vaccine distribution, the cold chain, and reporting and monitoring of diseases. Demonstrations of their participation will be conducted in the five urban areas as a model for replication in other urban centers in Indonesia.

6.2. Reduce Drop-Out Rates

The second output will be the introduction and demonstration of educational and motivational approaches to reduce drop-out rates in the EPI program. While the problem of drop-out rates is well documented, the reasons for discontinuation are less clear. The 1986 EPI review postulated that the major reason for drop outs was poor demand resulting from a lack of knowledge on the part of mothers. The 1986 review conclusively demonstrated the lack of demand for EPI services (Table 6). While it is intuitively apparent that lack of knowledge on the part of mothers is responsible for the low demand, the 1986 review was not able to provide definitive justification for this assertion. Studies will be conducted to determine the causes of drop outs as part of social marketing activities. Two components of this Amendment will support this output.

6.2.1. Generating Demand for EPI

This component will blend existing EPI services with a social marketing campaign in three urban areas and possibly one rural area. It will use modern communication and marketing technology to promote the concept of the fully immunized child to attain the socially desirable goal of reducing morbidity and mortality due to EPI diseases. The marketing technology will include market research, the design of marketing and communications strategies, the development of the EPI delivery system, evaluation, and replanning. The "product" will be immunization, including the correct schedule for vaccine administration, its benefits, and its side effects. The social marketing program will be aimed at generating greater demand for EPI and, consequently, higher

immunization coverage rates and hopefully a greater indication to pay for services.

The social marketing activity will contain the following components:

- o Market research: This research will develop a profile of the target population, in this case pregnant women, mothers, or other family members who provide the main care for infants. The profile will include their perceptions of immunizations and its benefits, the cultural and anthropologic beliefs that affect these perceptions, and their reasons for avoidance or discontinuation of immunization.
- o Development of a marketing and promotions strategy: This will include the development of messages and the communication approaches that will be used to transmit messages, product design and packaging, and supply and distribution channels.
- o Development of a communications strategy: This strategy will determine the most appropriate media to be utilized to transmit messages to the target audience, to include radio, television, print media, posters, billboards, mass mailings, public events, training, conferences, and endorsements by influential figures.
- o Social marketing demonstration activity: The EPI social marketing program will be field tested in two large urban areas and one rural area.
- o Evaluation: The social marketing program will have a built-in, on-going monitoring and evaluation system to assess the effectiveness of different components of the total program.
- o Replanning: The social marketing program will make strategic modifications throughout the course of the demonstration projects, based upon feedback from the monitoring and evaluation plan.

The social marketing program will be developed in close cooperation and coordination with this Amendment's efforts to incorporate EPI services into clinical facilities, so that the supply and distribution system is developed simultaneously with the efforts to generate demand. EPI facilities in urban areas, where the EPI social marketing program will be tested, are still limited in comparison to the number of facilities where people seek health care. It is imperative that the supply system for immunization keep pace with the demand generated by the motivational and educational efforts that will be pioneered by the EPI social marketing program.

Similarly, the social marketing program proposed for rural areas will take advantage of the extensive network of community support for EPI represented by social mobilization efforts using the PKK

(described in Section 6.2.2). They represent a natural rural communications network and can be expected to play a prominent role in the communications strategy for the EPI rural social marketing pilot project.

Social marketing and its requisite approaches and technologies are only now being pioneered in Indonesia. While these marketing approaches are relatively new in the public sector, they have been used with considerable success by the private sector to market commercial products. Consequently, it is expected that the private sector will play a prominent role, under the supervision of the MOH, in conducting the marketing research, developing the marketing promotion and communications strategies, and conducting the EPI social marketing field demonstrations being proposed under this Amendment.

6.2.2. Social Mobilization

Given Indonesia's rich cultural heritage, and strong religious and community identity, community leaders have played a pivotal role in the most successful development programs. Efforts have been initiated in Indonesia to mobilize informal leaders to support the EPI program.

The National Family Welfare Movement (PKK) is a service organization for women in Indonesia that assists government services to reach designated target populations. Local chapters have been successfully involved in several intensive immunization campaigns during the past two years, such as the sweeping activities in Nusa Tenggara Barat Province to increase tetanus toxoid coverage. In some other provinces PKK volunteers have recently received special EPI training and expanded their role to include vital registration, in particular the listing of newborns in each household, identification and motivation of target populations, and screening children for immunization.

Another potential community resource has been local religious organizations. Some provinces have succeeded in linking the provision of two doses of tetanus toxoid to the granting of marriage licenses by religious leaders. This approach has also afforded opportunities to educate prospective parents on the benefits of immunizations for their future families.

Anecdotal evidence suggests that these past efforts in community participation have resulted in increased immunization coverage and remain a largely untapped source for social mobilization. A nation-wide evaluation of operational efficiency in EPI activities and of program impact by both the PKK and religious organizations is scheduled for implementation in July 1987. The EPI Amendment will utilize the results of this evaluation, as well as collective field experience, to design improved or refined approaches for social mobilization through these two community resources. The social mobilization efforts using PKK being pioneered via this component will also support the rural EPI social

marketing program. In addition, other community resources will be studied to determine their potential contribution in motivating and organizing mothers to continue with immunizations until completion. Following pilot testing, these new approaches will be demonstrated on a large scale.

6.3. Improve Institutional Capacity to Decentralize

The third output will be the MOH's improved capacity to decentralize the planning and management of the EPI. The GOI, partly in response to the impressive results of USAID's decentralized health planning project, CHIPPS, has already questioned the appropriateness of the uniform, centrally managed EPI system currently in use. Three components of this Amendment will support the achievement of this output.

6.3.1. The Implementation of Area-Specific Planning

A new area-specific planning approach, already conceptualized and approved by the MOH, will be studied and refined. Under this approach the EPI delivery system will be adapted to the unique socio-cultural and epidemiologic characteristics of aggregates of provinces or municipalities. Indonesia will be divided into four such aggregates: urban centers, acceleration provinces, provisional provinces, and remote provinces. Assistance will be provided for the formulation of criteria and characteristics unique to each of these aggregates, to assign provinces and geographic regions to the area-specific aggregates, and to formally establish MOH policies that support the area-specific planning approach.

Once provinces and regions have been assigned area-specific designations, this Amendment will support MOH efforts to tailor elements of EPI's planning, demand generation, and service delivery approaches to conditions in each grouping, and to introduce specific interventions supported via this Amendment into those areas where conditions allow for maximum impact (see the Administrative Analysis in Annex B).

6.3.2. Local Area Monitoring

A successful area-specific planning approach will have as a critical element local area monitoring systems. These LAMs will routinely monitor important epidemiologic and program indicators at the district and sub-district levels. This input will be used for making operational decisions at peripheral administrative levels. Consequently, this Amendment will support the development of LAM systems to reinforce decentralized decision making capacities which are integral to area-specific planning.

A system for local area monitoring of EPI disease activities has already been developed in Bali and several kabupatens (districts) in East Java, using standard monitoring indicators, such as immunization coverage

for DPT1 and OPV3, drop-out rates for multi-dose antigens, cold chain performance, and vaccine supplies as well as unique indicators that could apply to a particular area. Early results have indicated improved performances by these local EPI offices and enormous potential for the development of decentralized management. Under this Amendment, these pioneering efforts will be evaluated, and a refined local area monitoring system will be designed in which health center doctors will be more actively involved in making important EPI program decisions. These improved local area monitoring procedures will be implemented in demonstration areas in urban centers and acceleration provinces.

A sentinel health center will be developed to serve as an epidemiologic and programmatic early warning system for the LAM network in each kabupaten. The sentinel health center will serve as an epidemiologic and programmatic barometer, conducting the detailed case finding and follow-up needed to develop accurate community epidemiologic and programmatic profiles which might predict potential problems. The sentinel health center concept will be incorporated into each LAM system and will act as a sensitive peripheral appendage to the community to provide more disease-specific and patient-specific data for informed and objective decision making.

6.3.3. Manpower Development

Local area monitoring activities will become more efficient when competent supervision is available. Experience in two provinces indicates that the local physician epidemiologist who analyzes and interprets the monitoring data, and the nurse epidemiologist who supervises the collection of data and implementation of operational plans, play the most crucial roles in this process. Manpower development activities will be supported for the purpose of producing the province and district level physician epidemiologists and district level nurse epidemiologists possessing the requisite skills to support the LAM systems. The two year Field Epidemiology Training Program (FETP), where province and district level physician epidemiologists receive training, will undergo administrative and curricular reform and will be integrated into the Masters of Public Health Program at the Faculty of Public Health, University of Indonesia. This amendment will provide funds to facilitate the curricular reform and integration process, which will be detailed in a proposal available by July 1987. This integration will probably require an additional six to twelve months of service-oriented, field-based training on top of the normal two year didactic program for the Masters of Public Health degree. Funds from this amendment will also support some fellowship expenses for participants entering the program in 1987 and 1988.

The Ministry of Health currently operates a six month, field-oriented Nurse Epidemiology Training Program (NETP). Although still in its infancy, NETP's graduates have made significant contributions to epidemiologic monitoring capacities at district

administrative levels. This amendment will provide funds to further strengthen NETP, and support fellowship costs for graduates in sufficient numbers to staff the LAM systems being developed under this project.

6.4. Enhance Sustainability

The fourth and final output of this amendment will be an enhanced capacity of the MOH to sustain EPI services at current program levels. Two project components will support this output.

6.4.1. Increased GOI Budgetary Commitment to EPI

EPI receives GOI financial support primarily from the central development budget (APBN-DIP). As Indonesia's budgets have been reduced over the past two years, the APBN-DIP has borne the brunt of these reductions. Consequently, EPI's primary source of GOI funding has been drying up. Without tapping alternate GOI revenue sources, EPI funding from the GOI will be severely compromised in the future.

Under this Amendment efforts will be made to secure larger commitments of funds to EPI from its existing budgetary source (APBN-DIP) and to explore the possibility of securing funds from other budgetary sources accessible to the MOH such as INPRES, provincial development and routine budgets, and district development and routine budgets. The first step in this process will be an analysis of central, provincial, and district budgetary allocation processes. The results should indicate which budgetary sources could possibly be tapped by EPI, and the steps and procedures that must be taken to access funds.

The second set of activities will be a series of EPI cost studies which focus upon the cost-benefit and cost-effectiveness of EPI, and the measurement of the EPI's absorptive capacity over the past two PELITAS. The purpose of these studies will be to provide quantitative evidence of the cost-benefit of investments in EPI.

The third set of activities will be directed toward educating, motivating and convincing decision makers of the wisdom of increased financial investments in EPI. A series of meetings and special seminars will be held to present the results of EPI cost-benefit/effectiveness data to decision makers. Study tours will be provided for persons who make resource allocation decisions to visit countries where EPI has been given budgetary priority, such as Korea and Thailand, to see for themselves the return on investment which has accrued as a result.

These activities will attempt to create an environment more conducive to larger allocations for EPI, and to improve the ability of EPI staff to wage more effective battles in the competition for scarce public resources. This component of the Amendment directly complements the Missions' Health Sector Financing project, currently being developed jointly with the MOH. The purpose of that project is to explore ways to

divert funds away from clinical services, such as hospitals and pharmaceuticals, and toward child survival services. Its emphasis, however, is on the "push" side, i.e., how to divert resources from hospitals and pharmaceuticals. This component of the EPI Amendment will focus on the "pull" side, i.e., providing persons in the EPI with the information base and bureaucratic budgetary acumen to attract funds freed-up from the hospital or pharmaceuticals sector to EPI. This complementary approach will have a synergistic impact upon both projects.

6.4.2. Improved Self-Sufficiency in Vaccine Procurement

Securing increased GOI budgetary commitment to EPI is the most direct way to guarantee sustainability. However, this Amendment will also investigate other strategies to ensure sustainability of the most critical element of the EPI, vaccine procurement. Several possibilities will be explored and tested on a trial basis if shown to have promise. These are:

- o The establishment of a vaccine endowment fund to which both public and private contributions will be accepted;
- o initiation of a fee-for-service policy for vaccine delivery;
- o establishment of a vaccine revolving fund;
- o testing of various cost recovery mechanisms; and
- o an annual buy-in from the Civil Service Employee Health Insurance Fund (ASKES).

Other possibilities will also be investigated. Results from promising pilot studies will be referred to the policy making process in the MOH for the appropriate action.

7. PROJECT INPUTS

The Amendment will have four major inputs which are described below.

7.1. Technical Assistance

Because of the nature of this project and its emphasis upon operations research, program design and program development, a substantial technical assistance input is considered essential. The expertise of domestic and international consultants will be utilized to assist the MOH to clarify and define problem areas, identify and test potential solutions to EPI problems areas which are the focus of this Amendment, conduct demonstrations of innovative approaches, and facilitate a policy dialogue in the upper management echelons of the MOH.

The project will provide 132 person months of the services of five long-term advisors: A Project Technical Coordinator to oversee all EPI activities will be provided through a PASA with CDC, Atlanta, Georgia; two Epidemiologists will be provided through Host Country Contracts and a Child Survival Fellow (Epidemiologist) will be provided through a buy-in to Johns Hopkins University. These three Epidemiologists will assist with the assessment, development, and demonstration activities relating to reforming program guidelines, social mobilization, local area monitoring and inclusion of EPI into clinical facilities. A Communications Specialist to support the social mobilization and social marketing programs will be provided through AID's Health Communications project.

Draft scopes of work for these long-term advisors are included as Annex B to this Amendment. These consultants will work in the national EPI Office, National Surveillance Office and the Center for Community Health Education and will assist MOH leaders in project areas related to social marketing, epidemiology, training, studies, operations design, and management. The Project Technical Coordinator will arrange for all technical input into the EPI and will work closely with the Director General for Communicable Disease Control and Environmental Health.

The Project will also provide 25 person months of short-term domestic technical assistance, and 28 person months of short-term international technical assistance. The short-term technical assistance will support the activities of the five long-term advisors. Short-term foreign consultants will be provided through various AID/Washington based IQCs. Both the Health Communications project and the IQCs were competitively procured by AID/W with maximum consideration given to the use of Gray Amendment entities. They were established to facilitate Mission access to highly qualified technical assistance. Contracts for short-term technical assistance not available from the above centrally funded projects will be competed locally in Indonesia by the Ministry of Health using host country contracting procedures.

The USAID/Indonesia Mission Director in approving the Project Paper Amendment certifies that maximum consideration has been given for the use of Gray Amendment entities in the implementation of the amended project.

7.2. Manpower Development

The Field Epidemiology Training Program will be jointly conducted by the MOH and the Department of Education. Eight to twelve new students will receive academic training every year at the School of Public Health, University of Indonesia and field experience in collaboration with the MOH for a total of 36 trained students. Field training will probably consist of disease surveys or outbreak investigations in the provinces. Trainees will receive support for some fellowship expenses for their academic training, to include stipends and travel expenses related to their field training. This Amendment will also fund training activities for the professional development of the University and MOH staff involved with this program.

The Nurse Epidemiology Training Program will consist of two classes per year (over 3 years), with each class containing approximately fifteen participants for a total of 90 trained nurses. This activity is entirely under the auspices of the MOH and entails classroom instruction in addition to field exercises. Field experiences will include reviewing disease monitoring at all administrative levels, hospital prevalence studies, and disease surveys. The EPI project will provide support for participants in this program, including travel, incentives, materials, and data analyses; it will also support instructor costs during both the didactic and field portion of the program.

7.3. Program Monitoring

This input will provide support for all of the pilot tests and demonstration projects that will be conducted under this Amendment. These are expected to include:

- . new approaches to modifying organizational behavior aimed at improving compliance with existing EPI program guidelines,
- . testing and demonstration of modified or reformed EPI guidelines,
- . introduction of new program guidelines or technologies,
- . incorporation of clinical facilities into EPI in urban areas,
- . new approaches to social mobilization,
- . urban EPI social marketing,
- . new approaches to local area monitoring, and
- . potential approaches toward self-sufficiency in vaccine procurement.

7.4. Program Development

This input will provide support for all of the studies, meetings and seminars, and organizational development required for the design and refinement of EPI systems. These will include:

- . study of EPI provider perceptions and behavior;
- . seminars to identify program guidelines in need of reform or new guidelines which should be introduced;
- . development of an EPI Reference Library at the Center for Child Survival, University of Indonesia;
- . study of the health seeking behavior of the EPI target population in urban areas;
- . study of utilization patterns at major clinical facilities;
- . all preliminary market and client assessment and design activities preparatory to the urban EPI social marketing program;
- . evaluation of the social marketing program;
- . evaluation of the existing local area monitoring program;
- . formulation of criteria and characteristics of the area-specific planning provincial and geographic aggregates;
- . EPI budgetary analyses;
- . EPI cost-benefit/cost-effectiveness studies;
- . seminars on EPI cost-benefit effectiveness, and
- . study tours for MOH decision makers.

8. END OF PROJECT STATUS

The following conditions will exist at the end of the project Amendment period:

- Management and delivery systems will have been designed and management capacities will have been institutionalized to enable EPI to sustain 65% full immunization coverage levels through PELITA V. Strategies will have been developed to reduce the two operational problems which continue to plague program implementation: missed opportunities and drop-outs. The EPI program design will be decentralized according to designated regions, and service delivery and monitoring activities will reflect the social, cultural, geographic and epidemiologic characteristics of the region. The GOI will also be in a better budgetary position to provide recurrent costs for vaccines, equipment and supplies, training, and supervision to the EPI infrastructure.

The foundation will have been laid for a wider and more pluralistic participation in the EPI program. At present, only government health centers and their outreach network in the PosYandu participate in EPI. As a result of efforts conducted via this project, clinical facilities in the public and private sector, and physicians in private practice will be involved in the EPI program. Increased participation in EPI, especially by the private sector, will enhance prospects for sustainability and provide greater resources to maintain coverage rates at desired levels.

Through activities proposed in this Amendment, EPI will be in a position to play a lead role in the Mission's orchestrated assault upon infant and child mortality. This assault will be embodied in the upcoming Child Survival project. This Amendment constitutes one element in a strategy to consolidate projects in the Mission's O/PH portfolio into a comprehensive Child Survival Project scheduled to commence in 1990, and will encompass the Agency's stated interventions aimed at improving child survival. Because of its direct impact upon mortality reduction, a mature EPI program which fully immunizes 65% of the target population must be the central feature of this project, and serve as the foundation upon which other services and programs can be built. The activities proposed in this Amendment will strengthen and reinforce the foundation, and enable EPI to play the essential role envisioned for it in the upcoming project.

9. COST ESTIMATE AND FINANCIAL PLAN

9.1. USAID Costs

This EPI Amendment, as shown in Table 6, adds \$7 million in AID funds (\$3 million in loan funds and \$4 million in grant funds) and extends the PACD for three years to September 30, 1990. This brings the total (LOP) cost of the project to \$19.7 million (\$12.5 million in loans and \$7.2 million in grants).

Table 7 and 8 also illustrate a realignment of resources between the Original Budget (1) and New Funds (3) financial plans. For example, there has been a shift from commodities and vaccine to program monitoring and a slight increase in technical assistance. Program development funding demonstrates a new emphasis on studies designed to clarify operational problems and field tests targeted to refine solutions to those problems. Grant funds amounting to \$4 million will be used in all four components (Table 9): 1) Technical Assistance (\$3 Million); 2) Program Development (Studies-\$0.900 million) with some \$0.100 million divided evenly between 3) Manpower Development and 4) Program Monitoring. Loan funds totaling \$3 million will be employed in three of the four components: (1) Manpower Development (\$0.6 million), (2) Program Monitoring (\$2.3 million) and some \$0.1 million for (3) Program Development.

Existing project funds consist of a pipeline of \$3.383 million. \$1.2 million is reserved for vaccine procurement in case no alternate source of funding from the GOI or PL-480 Title I is identified. If an alternate source of funding is located, the \$1.2 million will be reprogrammed for other EPI operational activities. (\$0.817 million of devaluation savings will be de earmarked, decommitted and reprogrammed for the EPI Amendment toward the possible purchase of \$1.2 million in vaccine. This \$0.817 million may be combined with \$0.391 million of un earmarked funds to obtain the required \$1.2 million). \$0.671 million will be expended by the GOI through existing PILs. \$0.784 million will be earmarked and obligated through a new PIL to cover current project activities. \$0.300 of existing funds will be reprogrammed in the Amendment for the purchase of sterilizers to reduce disease transmission of secondary infections through immunization, and \$0.420 of existing funds will be reprogrammed in the Amendment for replacement vehicles.

The project inputs are spread out over a three year period, with intensive technical assistance and program development inputs planned for the first two years, with an overlapping implementation focus on program monitoring activities during the last two years of the project Amendment (Table 9). Table 6 illustrates the progression of budgets from the original of \$12.7 million to the proposed of \$19.7 million while Table 9 shows the three year expenditure by foreign exchange and local currency use.

Long and short term technical assistance will be funded via host country contracts and AID direct contracts with direct payments as well as through a local institutional contract. These contracts are subject to audit by AID/IG/AID and, in the case of institutional contracts, by local representatives of US CPA firms. Costs associated with program development, program monitoring, and in-country training will be committed via Project Implementation Letters (PILs). For the funding of these local costs, advances of funds will be made to the GOI. These expenditures will be subject to the Voucher Verification site review program conducted by Comptroller's Officer.

9.2. GOI Costs

The GOI will contribute approximately \$4 million to the amended project (see Table 8 - New Funds). GOI funds will pay for some of the bacterial vaccines, costs associated with vaccine transportation, refrigerator/freezer maintenance, vehicle maintenance, and some local travel. These funds are administered through the routine and development budgets at the provincial and central levels. The majority of the GOI contribution is directed to cold chain and vaccine support.

Table 6: Total Estimated Budget for New Funds by Project Component (US Dollars - 000)

Project Components	Project Inputs (line items)									
	T. A.		Man. Dev.		Pr. Mon.		Pr. Dev.		TOTAL	
	G	L	G	L	G	L	G	L	G	L
1. Reduce Missed Opportunities	660	0	0	0	0	300	250	0	910	300
2. Reduce Drop-out Rates	900	0	0	0	0	800	450	0	1,350	800
3. Decentralize Planning & Management	909	0	50	450	50	600	50	100	1,059	1,150
4. Sustain EPI Program	451	0	0	0	0	200	0	0	451	200
5. Project Evaluation	80	0	0	0	0	0	0	0	80	0
6. Contingency	<u>0</u>	<u>0</u>	<u>0</u>	<u>150</u>	<u>0</u>	<u>400</u>	<u>150</u>	<u>0</u>	<u>150</u>	<u>550</u>
TOTALS:	<u>3,000</u>	<u>0</u>	<u>50</u>	<u>600</u>	<u>50</u>	<u>2,300</u>	<u>900</u>	<u>100</u>	<u>4,000</u>	<u>3,000</u>

Note: Commodities and vaccines are not included as inputs as these are not funded from new amendment funding.

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Table 7: FINANCIAL PLAN

ELEMENT	EXISTING AGREEMENT		THIS AMENDMENT		TOTAL	
	L	G	L	G	L	G
I. Technical Assistance	-	2,506	-	3,000	-	5,506
II. Vaccine	1,200	-	-	-	1,200	-
III. Commodities	5,043	-	-	-	5,043	-
IV. Program Monitoring	754	241	2,300	50	3,054	291
V. Manpower Development	2,503	453	600	50	3,103	503
VI. Program Development	-	-	100	900	100	900
TOTALS:	9,500	3,200	3,000	4,000	12,500	7,200
	12,700		7,000		19,700	

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Table 8: Summary Cost Estimate and Financial Plan for Existing and Amendment Activities

EXPANDED PROGRAM ON IMMUNIZATION AMENDMENT
SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(U.S. \$000)

NO.	ELEMENT	ORIGINAL BUDGET (1)				(2)					NEW FUNDS (3)*			PROPOSED (4 = 2 + 3)				LOP		
		REVISION - NOVEMBER 1985				REVISED EXISTING BUDGET					JUNE 1987			GRAND TOTAL						
		USAID		GOI	TOTAL	USAID		GOI	GOI/AID	TOTAL	USAID		GOI	TOTAL	USAID				GOI	GOI/AID
		LOAN	GRANT	LOAN		GRANT	TOTAL	TOTAL	LOAN		GRANT	TOTAL	LOAN		GRANT	TOTAL	TOTAL		TOTAL	
I.	Technical Assistance	-	2,420	-	2,420	-	2,506	2,506	-	2,506	-	3,000	-	3,000	-	5,506	5,506	-	5,506	
II.	Vaccine	-	-	6,801	6,801	1,200a	-	1,200	6,801	8,001	-	-	2,200	2,200	1,200a	-	1,200	9,001	10,201	
III.	Commodities	4,564	-	4,391	8,955	5,043	-	5,043	4,391	9,434	-	-	-	-	5,043	-	5,043	4,391	9,434	
	a. Vaccine Production (Bio Farma)	(1,467)	-	-	-	(1,464)	-	(1,464)	-	(1,464)	-	-	-	-	(1,464)	-	(1,464)	-	(1,464)	
	b. Transport	(910)	-	(2,668)	-	(1,389)b	-	(1,389)	(2,668)	(4,057)	-	-	-	-	(1,389)	-	(1,389)	(2,668)	(4,057)	
	c. Cold Chain	(2,167)	-	(773)	-	(1,890)	-	(1,890)	(773)	(2,663)*	-	-	-	-	(2,890)	-	(2,890)	(773)	(2,663)	
	d. Data Processing Equipment	(20)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	e. Vaccination Equipment	-	-	(266)	-	(300)c	-	(300)	(266)	(566)	-	-	-	-	(300)	-	(300)	(266)	(566)	
	f. Admin. Equipment	-	-	(684)	-	-	-	(684)	(684)	(684)	-	-	-	-	-	-	(684)	(684)	(684)	
IV.	Program Monitoring	1,546	330	2,520	4,396	754	241	995	2,520	3,515	2,300	50	1,200	3,550	3,054	291	3,345	3,720	7,065	
	a. Evaluation	(40)	-	(2,496)	-	(40)	(241)	(281)	(2,496)	-	-	-	-	-	(40)	(241)	(281)	(2,496)	(2,777)	
	b. Health Education, Operations Research, Epidemiology Surveys	(1,116)	-	(24)	-	(714)	-	(714)	(24)	(738)	-	-	-	-	(714)	-	(714)	(24)	(738)	
	c. Contingency	(390)	(330)	-	(423)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
V.	Manpower Development	3,390	450	244	4,084	2,503	453	2,956	244	3,200	600	50	600	1,250	3,103	503	3,606	844	4,450	
	a. Participants	(920)	(450)	-	-	(743)	(453)	(1,196)	(122)	(1,318)	-	-	-	-	(743)	(453)	(1,196)	(422)	(1,218)	
	b. In-country Training	(2,470)	-	-	-	(1,760)	-	(1,760)	(122)	(1,882)	-	-	-	-	(1,760)	-	(1,760)	(422)	(2,182)	
VI.	Program Development	-	-	-	-	-	-	-	-	-	100	900	-	1,000	100	900	1,000	-	1,000	
	abc from existing funds a:1,200; b:375; c:300																			
TOTAL:		9,500	3,200	13,956	26,656	9,500	3,200	12,700	13,956	26,656	3,000	4,000	4,000	11,000	12,500	7,200	19,700	17,956	37,656	
			12,700									7,000					19,700			

* Sub elements under major elements are different for the amendment from original project sub elements. Therefore sub element amounts for the amendment are not included on this total. Sub element figures will not total major element amounts. For amendment sub element amounts please see table 9.

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Table 9: Summary of Expenditures by Local Cost and Foreign Exchange Estimates.

(U.S. \$000)

JUNE 1987

NO.	DESCRIPTION	U.S. FY	1988				1989				1990				TOTAL				COMBINED	
			LOAN		GRANT		LOAN		GRANT		LOAN		GRANT		LOAN		GRANT		TOTALS	
			FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
I.	Technical Assistance	-	-	1,000	-	-	-	1,000	-	-	1,000	-	-	-	-	3,000	-	3,000	-	
II.	Vaccine	1,200*	-	-	-	-	-	-	-	-	-	-	1,200*	-	-	-	-	1,200*	-	
III.	Commodities	0,300*	0,375*	-	-	-	-	-	-	-	-	-	0,300*	0,375*	-	-	-	0,300*	375*	
	a. Transport (35) --	-	(0,375)*	-	-	-	-	-	-	-	-	-	-	(0,375)*	-	-	-	-	(375)*	
	b. Vaccination Equipment	(0,300)*	-	-	-	-	-	-	-	-	-	-	(0,300)*	-	-	-	-	(0,300)*	-	
IV.	Program Monitoring	-	0,595	-	0,010	-	0,965	-	0,030	-	0,740	-	0,010	-	2,300	-	0,050	-	2,350	
V.	Manpower Development	-	0,200	-	0,020	-	0,200	-	0,020	-	0,200	-	0,010	-	0,600	-	0,050	-	0,650	
VI.	Program Development	-	0,034	-	0,510	-	0,033	-	0,190	-	0,033	-	0,200	-	0,100	-	0,900	-	1,000	
T O T A L:		1,500	1,204	1,000	0,540	-	1,198	1,000	0,240	-	0,973	1,000	0,220	1,500	3,375	3,000	1,000	4,500	4,375	
		4,244				2,438				2,193				8,875 (1,875)*				8,875		
		7,000 + 1,875* = 8,875																		

*FROM EXISTING PROJECT FUNDS:

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Table 10 outlines estimated expenditures for new amendment funds. Estimates were calculated as follows:

I. Program Development

A. Missed Opportunities

1. Reform Guidelines = Based upon steps for development of studies outlined in Administrative Analysis (Annex B). Studies are estimated to average \$5,000 each, with a total of 6 being performed each year. Amounts for workshops (2), studies, training (3), and seminars (3) are based upon experience of EPI officials and includes transportation, per diems, materials, data processing, trainer fees, and contractual costs.
2. Inclusion of EPI into Clinics = Based upon requirements for this initiative to be implemented in 5 urban areas. Two separate studies (health seeking behavior and utilization patterns) will be required in each area, estimated to average \$5,000 each. Amounts for workshops (5), studies, and meetings (2) are based upon experience of EPI leaders and include transportation, per diems, materials, data processing, contractual costs, and rental fees.

B. Drop-out Rates

1. Social Marketing = Based upon requirements for a demand generation program to be established in 3 urban and 1 rural area. Marketing studies (12) are estimated to average \$20,000 each. Amounts for workshops (16) and studies are based upon field experience with social marketing activities, especially in West Java Province, and include transportation, per diems, materials, data processing, and contractual costs.
2. Social Mobilization = Based upon the need for objective identification of community sources in at least 11 locations. Studies (11) are estimated to average \$10,000 each. Amounts for the studies and workshops (4) are based upon field experience with PKK and Agama organizations and include transportation, per diems, materials, data processing, contractual costs, and rental fees.

C. Decentralize Management

1. Area Specific Planning = Based upon the steps for development of area specific workplans outlined in Administrative Analysis (Annex B). Field reviews (24) refer to central EPI staff conducting assessments of effectiveness of these workplans in the provinces. Amounts for the workshops (12) and reviews are based upon experience of EPI officials and include transportation, per diems, materials, and rental fees.

2. Local Area Monitoring (LAM) = Based upon the steps required for initial review of some aspects of LAM and annual workshops for operational assessments. Studies (3) are estimated to average \$6,600 each. Amounts for workshops (6) and studies are based upon field experience with LAM, especially in Bali, and include transportation, per diems, materials, data processing, and contractual fees.

II. Program Monitoring

A. Missed Opportunities

1. Reform Guidelines = Based upon the requirement for 3 types of reformation. Field tests (15) are estimated to average \$2,000 each, while field demonstrations (15) average \$10,000 each. Amounts for field tests, workshops (6), and demonstrations are based upon field experience and include transportation, per diems, materials, data processing, and contractual costs.
2. Inclusion of EPI into Clinics = Based upon the need for a field test and demonstration to be conducted in 5 urban areas. Field tests (10) are estimated to average \$2,000 each and demonstrations (10) \$9,000. Amounts for field tests, workshops, and demonstrations are based upon field experience and include transportation, per diems, materials, data processing, and contractual fees.

B. Drop-out Rates

1. Social Marketing = Based upon the requirement for pretesting marketing and communications strategies as well as providing a field demonstration of the strategies in each area. The 4 pretests are estimated to average \$5,000 each while the 8 field demonstrations are estimated to average \$31,250 each. Higher costs estimates for social marketing demonstrations are due to involvement of mass media communications. Amounts for pretests, workshops (4), and demonstrations are based upon field experience in West Java and include transportation, per diems, materials, data processing, and contractual fees.
2. Social Mobilization = Based upon the perceived need by EPI officials for effective field demonstrations of social mobilization. Field tests (2) are estimated to average \$10,000 each and field demonstrations \$16,000 each. Cost estimates for demonstrations (30) are higher due to the larger number of participants and institutions involved in such an effort. Amounts for field tests, workshops (21), and demonstrations are based upon field experience and include transportation, per diems, materials, data processing, and contractual fees.

C. Decentralize Management

1. Local Area Monitoring (LAM) = Based upon the requirement for LAM to be implemented at health center levels. Training must precede field demonstrations and be modified after the demonstrations. Two hundred fifty Sentinel Area workers are trained for \$120 per participant while 1,200 Puskesmas workers are trained for \$100 per participant because of less time required. Field demonstrations (19) are estimated to average \$20,000 each. Amounts for training, workshops and field demonstrations are based upon experience and include transportations per diem, materials, data processing, training fees, and contractual costs.

D. Sustain EPI Program

1. Budgetary = Based upon the requirement to increase self-sustainability by the MOH. Studies (5) are estimated to average \$21,000 each. Amounts for studies, workshops (8) and meetings (2) are based upon experience and include transportation, per diems, materials and data processing.
2. Vaccine = Based upon the need for MOH vaccine sustainability. Amounts for meetings (5) are estimates based upon experience and include transportation, per diems, and honoraria and materials.

III. Manpower Development

A. Decentralize Management

1. Field Epidemiology Training Program (FETP) = Based upon the requirement for producing professionals who are competent in field epidemiology. Stipends for students (60) are estimated to be \$1,500 per year for each person. Field exercises are estimated to be \$1,750 per student each year (60). Staff development is estimated to be \$10,000 per faculty member each year (6). Amounts for workshops (9), training and fellowships are based upon field experience and includes stipends, transportation, per diems, materials, data processing, and trainer fees.
2. Nurse Epidemiology Training (NETP) = Based upon the requirement for producing nurses who are skilled in field epidemiology. Stipends for students (60) are estimated to average \$1,000 per year for each person. Field exercises (3) are estimated to be \$1,500 per year for each student. Staff development is estimated to be \$10,000 per faculty member each year (4). Amounts for workshops, training, and fellowships are based upon field experience and includes stipends, transportation, per diems, materials, data processing, and trainer fees.

Table 10: Estimated Expenditures of New (Amendment) Funds
(US dollars - 000)

<u>PROJECT ACTIVITY</u>	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>TOTAL</u>
I. PROGRAM DEVELOPMENT				
<u>A. Missed Opportunities</u>				
1. Reform Guidelines:				
a. Annual Seminar for Guideline Identification	5	5	5	15
b. Annual Training for Proposal Development	15	15	15	45
c. Field Studies for Problem Definition (5,000 x 6/year)	30	30	30	90
d. Workshops for Designing Interventions (5,000 x 2/year)	10	10	10	30
Subtotals	60	60	60	180
2. Inclusion of EPI into clinics (5 urban areas):				
a. Meetings with Professional Organizations (5,000 x 2)	10	-	-	10
b. Studies for Target Clinic Identification (5,000 x 2 x 5 areas)	50	-	-	50
c. Workshops for Guideline and Materials Development (2,000 x 5 areas)	-	10	-	10
Subtotals	60	10	-	70
TOTAL Missed Opportunities	120	70	60	250
<u>B. Drop-Out Rates</u>				
1. Social Marketing (3 urban, 1 rural area):				

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<u>Project Activity</u>	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>Total</u>
a. Market Research for Profile Development - 2 studies pre-intervention, 1 study post-intervention/area (20,000 x 3 x 4 areas)	160	-	80	240
b. Workshops for Marketing Strategy Development (5,000 x 2 x 4 areas)	20	20	-	40
c. Workshops for Communications Strategy Development (5,000 x 2 x 4 areas)	20	20	-	40
SUBTOTALS	----- 200	----- 40	----- 80	----- 320
 2. Social Mobilization:				
a. Field Studies for Identification of Community Sources (10,000 x 11 studies)	110	-	-	110
b. Workshops for Mobilization Approach Development (5,000 x 4 workshops)	-	20	-	20
SUBTOTALS	----- 110 ----	----- 20 ----	----- - ----	----- 130 ----
TOTAL Drop-Out Rates	310	60	80	450
 C. <u>Decentralize Management</u>				
1. Area Specific Planning (4 areas):	20	20	20	60
a. Workshops for Development Annual Area Specific Workplans (5,000 x 4 workshops/year)				
b. Field Reviews of Workplans (1,667 x 2 x 4 areas/year)	14 --	13 --	13 --	40 --
SUBTOTALS	34	33	33	100

	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>Total</u>
2. Local Area Monitoring (LAM):				
a. Field Studies for LAM Development (6,600 x 3 studies)	20	-	-	20
b. Workshops for LAM Design (5,000 x 2 workshops/year)	10 --	10 --	10 --	30 --
SUBTOTALS	30	10	10	50
	==	==	==	===
TOTAL Decentralize Management	64	43	43	150
4. Contingency	50 ===	50 ===	50 ===	150 =====
GRAND TOTAL PROGRAM DEVELOPMENT	544	223	233	1,000

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	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>Total</u>
II. PROGRAM MONITORING				
A. <u>Missed Opportunities</u>				
1. Reform Guidelines:				
a. Field tests for Refining Interventions (2,000 x 5 tests/year)	10	10	10	30
b. Workshops for Finalizing Interventions (2,500 x 2 workshops/year)	5	5	5	15
c. Field Demonstrations (10,000 x 5 demonstrations/year)	50	50	50	150
	---	---	---	---
SUBTOTALS	65	65	65	195
2. Inclusion of EPI into Clinics (5 urban areas):				
a. Field tests for Refining Approaches (2,000 x 5 tests)	-	10	-	10
b. Workshops for Finalizing Approach (1,000 x 5 workshops)	-	5	-	5
c. Field Demonstrations (9,000 x 5 demonstrations x 2)	-	45	45	90
	---	---	---	---
SUBTOTALS	-	60	45	105
	---	---	---	---
TOTAL Missed Opportunities	65	125	110	300
B. <u>Drop-out Rates</u>				
1. Social Marketing (3 urban, 1 rural area):				
a. Pretest Marketing & Communications Strategies (5,000 x 4 areas)	-	20	-	20

	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>Total</u>
b. Workshops for Refining Strategies (5,000 x 4 areas)	-	20	-	20
c. Field Demonstrations (31,250 x 4 demonstrations x 2)	-	125	125	250
	<hr/>	<hr/>	<hr/>	<hr/>
-SUBTOTALS	-	165	125	290
2. Social Mobilization:				
a. Field Tests for Refining Approaches (10,000 x 2 tests)	-	20	-	20
b. Workshops for Finalizing Approaches (5,000 x 2 workshops)	-	10	-	10
c. Field Demonstrations (16,000 x 10 demonstrations/year)	160	160	160	480
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SUBTOTALS	160	190	160	510
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TOTAL Drop-Out Rates	160	355	285	800

C. Decentralize Management

1. Local Area Monitoring (LAM):

a. Workshops for Training Sentinel Area Workers (120 x 250 participants)	30	-	-	30
b. Train PusKesMas Workers in LAM (100 x 1200 participants)	80	40	-	120
c. Field Demonstrations (20,000 x 19 demonstrations)	100	150	130	380
d. Workshops for Training PusKesMas Workers after 12 months Utilizing LAM (100 x 1200 participants)	-	40	80	120
	---	---	---	---
TOTAL Decentralize Management	210	230	210	650

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	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>Total</u>
<u>D. Sustain EPI Program</u>				
1. Budgetary:				
a. Financial Studies (21,000 x 5 studies)	35	70	-	105
b. Workshops for Establishing MOH Data Base (5000 x 8 workshops)	15	15	10	40
c. Meetings for Implementing Policy Dialogue (5000 x 2/year)	10 ---	10 ---	10 ---	30 ---
SUBTOTALS	60	95	20	175
2. Vaccine:				
a. Meetings for Establishing Sustainable Program (5,000 x 5 meetings)	10 ---	10 ---	5 --	25 ---
TOTAL Sustain EPI Program	70	105	25	200
<u>E. Contingency</u>	100 ---	180 ---	120 ---	400 ----
GRAND TOTAL PROGRAM MONITORING	605	995	750	2350

55.

	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>Total</u>
III. MANPOWER DEVELOPMENT				
A. <u>Decentralize Management</u>				
1. Field Epidemiology Training (FETP):				
a. Fellowships (1500 x 20 students/year)	30	30	30	90
b. Field Exercises (1750 x 20 students/year)	35	35	35	105
c. Workshops for Curriculum Development (5000 x 3 workshops/year)	15	15	15	45
d. Staff Development (10,000 x 2 faculty/year)	20	20	20	60
	---	---	---	---
SUBTOTALS	100	100	100	300
2. Nurse Epidemiology Training (NETP):				
a. Fellowships for MOH training ¹ (1000 x 20 students/year)	20	20	20	60
b. Field Exercises (1500 x 20 students/year)	30	30	30	90
c. Workshops for Curriculum Development (5000 x 2 workshops/year)	10	10	10	30
d. Staff Development (1000 x 1 faculty x 2)	10	10	-	20
	---	---	---	---
SUBTOTALS	70	70	60	200
	---	---	---	---
TOTAL Decentralize Management	170	170	160	500
B. <u>Contingency</u>	50	50	50	150
	---	---	---	---
GRAND TOTAL MANPOWER DEVELOPMENT	220	220	210	650

10. SUMMARY OF SUPPORTING DOCUMENTATION

10.1. Administrative Analysis

The Administrative Analysis (Annex B) outlines the proposed project administrative structure at both the central and provincial levels. Supported by an organizational chart for the EPI project, Annex B establishes overall responsibility both for the project and for coordination with the Integrated Task Force (ITF) in the office of the Directorate General for Communicable Disease Control and Environmental Health (DG/CDC). The Directorate for Immunization and Epidemiologic Surveillance will assist the DG/CDC in coordinating all project inputs and supervising overall project implementation. Day-to-day operations will be shared by the Sub-Directorates of Immunization and of Epidemiologic Surveillance. A Project Steering Committee, whose membership will represent a broad range of national and international technical expertise, will provide policy and operational guidance as requested.

Responsibility of other MOH administrative bodies for selected activities is also specified. At the provincial level, a major emphasis will be placed upon coordinating the efforts of provincial officers toward the systematic and effective planning and implementation of provincial EPI activities.

Annex B further specifies the project's emphasis upon the orderly and timely development of annual area-specific workplans. A sequence of events is presented in graphic and narrative forms with a principal emphasis of this scheduling being to coordinate the development and implementation of project workplans with the MOH's April-March annual planning and development cycle. To ensure that the project is able to continue without delay following agreement to the Amendment, activities have already been initiated which will lead to the project's being fully coordinated with the 1988/89 MOH cycle.

A final element of the administrative analysis underscores the project's emphasis upon measures that will be taken to effectively manage its diverse and numerous analytical assessments. Guided by an established operations assessment framework, the Project Technical Review Group will follow a management system which is described and illustrated in Annex B.

10.2. Implementation Plan

The Implementation Plan (Annex C) provides a summary of mechanisms that will be used for contracting technical assistance. Scopes of work are outlined for each of the long-term consultants. Proposed inputs from short-term consultants are also provided.

10.3. Monitoring and Evaluation Plan

The monitoring and evaluation plan (Annex D) establishes monitoring responsibility within the Project Steering Committee under the direction of the DG/CDC. The EPI Project Technical Review Group (TRG), under the direction of the Chief of the EPI Directorate, will monitor the progress and findings of assessments and demonstrations approved and funded under the project. Both the DG/CDC and the TRG will use information generated through an EPI Information System (EPIIS) to track the progress of each separate assessment and development activity. The focus of project monitoring will be upon progress achieved in responding to the four major EPI challenges: reduction of missed opportunities, reduction of drop-out rates, decentralization of EPI planning and management, and sustained EPI services and programs. Indicators of progress and progress benchmarks for each project component are described and illustrated in tabular format in Annex D. Two evaluation activities are planned. A mid-term evaluation will take place in January 1989, with the primary objective of evaluating the project's progress in the measured design and implementation of the project's many assessment and demonstration activities. A final evaluation, scheduled for June or July 1990, will assess the extent to which the project has achieved specified project objectives.

ANNEX A

BACKGROUND SUMMARY

The Government of Indonesia's (GOI) commitment to immunization as a means of preventing and controlling communicable diseases has been persistent and forceful. Smallpox eradication was achieved in 1972, making Indonesia one of Asia's first smallpox-endemic nations to eradicate that disease. In the process, an infrastructure was developed to launch a nationwide assault upon communicable diseases, a large cadre of manpower was trained, and an awareness was created in public health officials that immunization could halt the previously inexorable transmission of a major infectious disease.

Once smallpox had been eradicated, the Ministry of Health (MOH) used that program's now idle but proven effective capacity to introduce BCG (tuberculosis) immunizations in 1973 for all children under 15 years of age. Simultaneously, the MOH's Directorate General for Communicable Disease Control began field trials to assess the feasibility of including additional antigens, specifically DPT and TT, into its fledgling immunization program. These efforts culminated in 1977 when the Minister of Health declared Indonesia's national commitment to an Expanded Program on Immunization.

A.1. Inauguration and Expansion of EPI (1977-1982)

Working definitions of a fully immunized child evolved gradually during EPI's early years. DPT (two doses) and TT for pregnant women (two doses) were combined with BCG to constitute the EPI vaccine schedule in 1977. By 1982 program emphasis had shifted to children less than 14 months of age, with a fully immunized child being defined as one who had received complete immunization against diphtheria-pertussis-tetanus (DPT - three doses), polio (OPV - three doses), tuberculosis (BCG one dose) and measles (one dose). Tetanus toxoid (two doses) for pregnant women and women of reproductive age remained an established component of EPI. These operational definitions and vaccine schedules remain valid.

The EPI program was inaugurated in 20 districts with a total population of 2.8 million persons. Services were institutionalized at the Community Health Center (PusKesMas), with service delivery the responsibility of a trained vaccinator (juru imunisasi). One vaccinator was generally assigned to each PusKesMas, providing services in the stationary facility and via a fixed schedule of outreach visits to neighboring villages. By 1982, the full range of immunizations, with the exception of measles, was available in 60% of all health centers. While surveillance data indicated that only 10% of eligible children had been fully immunized and 19% of eligible women had been fully immunized with two doses of TT, the program was clearly established as a major health care intervention in Indonesia.

Essential program support services were introduced and developed during this period. Domestic bacterial vaccine production reached 5.6 million doses of DPT, 13.2 million doses of BCG, and 5.6 million doses of TT. An effective cold chain (the system for preserving vaccine from the point of manufacture to the point of vaccination) had been developed down to the village level, which was especially effective down to the regency level. A massive training program provided essential skills to 100% of the program's vaccinators, 600 EPI managers, and 500 persons responsible for vaccine logistics and cold chain management. Surveillance, reporting, and monitoring systems were instituted to estimate immunization coverage and the incidence of EPI target diseases.

Donor agencies established a pattern of collaborative support during this period, which continues to characterize EPI. WHO, UNICEF, and USAID worked jointly to assure that their resources were complementary, together providing \$15 million for the purchase of vaccine and equipment, training of EPI manpower, and technical assistance.

A.2. EPI Consolidation (1982-1986)

While the vaccine schedule and service infrastructure evolved during the first five years of EPI's existence, the subsequent five years concentrated largely on strengthening and refining the program activities and management processes necessary to continue to increase immunization coverage. The program's expansion to 90% of all health centers during this period came closer to the GOI's goal of universal coverage. EPI's focus shifted accordingly, toward refining operations at peripheral and community points of service delivery.

More than 4000 PusKesMas physicians have received training in EPI protocols over the past five years, eliciting enhanced participation and efficiency from EPI's most peripheral fixed service delivery point. EPI became one of the five major responsibilities of the PusKesMas, and its outreach component was included in the integrated package of preventive health services which constitutes the GOI's national primary health care strategy.

Several innovative and promising prototypes have been tested during this period to elicit greater community involvement in EPI. Recognizing the influence of community-based organizations to motivate and encourage mothers, EPI has experimented, with some success, with the use of local Family Welfare (PKK) and religious groups to educate mothers and screen children for immunization. Formal and informal leaders at the village level have been urged to play a greater role in EPI. Linkages that have been established between EPI and other ministries and departments with peripheral infrastructures have shown potential in delivering EPI messages to target audiences.

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The years between 1982 and 1986 have witnessed a rapid proliferation of information available for EPI surveillance and monitoring. Consolidated weekly and monthly morbidity and mortality reports are in the process of being institutionalized. A sentinel reporting system situated in selected hospitals and 60 strategically-placed health centers was introduced in 1982 to report vaccine-preventable diseases on a routine basis. In 1986, a local area monitoring system was instituted on a pilot basis in Bali to track simple indicators of program performance and analyze trends in immunization coverage, dropouts, incidence of disease and outbreak. All of these monitoring and surveillance systems have been significantly strengthened by the infusion of local epidemiologists trained under the EPI Field Epidemiology Training Program (FETP).

A.3. Primary Accomplishments

EPI has evolved rapidly over the past ten years into a mature program recognized as the cutting edge of the MOH's integrated child survival strategy. From the remnants of the smallpox program it has developed the manpower, infrastructure, delivery systems, and surveillance methodologies needed to launch a nationwide assault upon the six major infectious diseases which have historically threatened Indonesia's infant and child population. Such a massive effort has obviously been marked by major accomplishments. The following section summarizes the primary accomplishments most intrinsic to EPI's success during its first ten years.

o Geographic Expansion and Accessibility

The number of health centers included in the EPI delivery system for bacterial vaccines (BCG and DPT) has increased since 1977 to over 90% of Indonesia's 5639 health centers. Sixty seven percent of these Puskesmas are now providing viral vaccines which were first introduced only in 1982. As Figure 5 illustrates, geographic expansion has been steady and deliberate, and has allowed for the development of such program support activities as logistics, manpower development, reporting and surveillance, and program management and monitoring.

HEALTH CENTERS

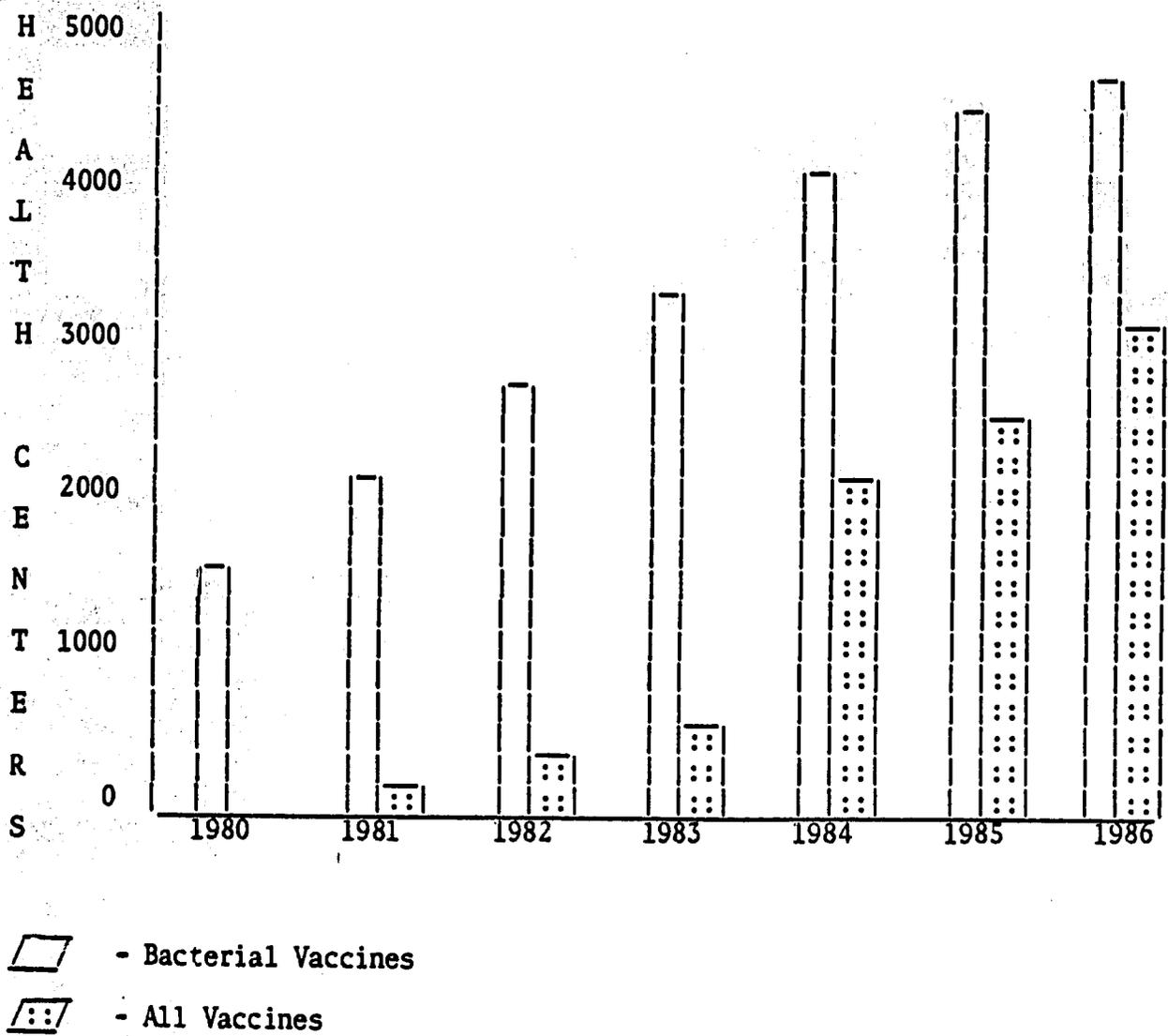


Figure 2: Geographic Expansion of EPI into Health Centers (1980-1986)

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EPI's expansion to the PosYandu (village integrated service delivery posts) has further facilitated its geographic spread and significantly compounded its effectiveness by combining EPI with other essential child survival services, many of which, like family planning and nutrition, had existing infrastructures and constituencies upon which EPI could draw. With its location in the community and focus on EPI target groups, the PosYandu has made EPI infinitely more accessible to a larger percentage of Indonesia's infants and children.

o Development of a National EPI Infrastructure

EPI's nationwide expansion into health centers has been accompanied by the simultaneous development of massive numbers of trained manpower to manage the program, provide services, and monitor its progress. This manpower infrastructure has been essential for the program's development, and represents a tremendous resource for EPI as it mounts further programs to increase immunization coverage. The categories of personnel who have been trained and the type of training provided are shown in Table 11.

Table 11: EPI Training Outputs, 1979-1987

Type of Personnel	Type of Training	No. Days.	Life of Project Cumulative Persons Trained
1. Vaccinators/Midwives	Immunization	10	7188
2. Health Center Doctors	Immunization	4	4845
3. Staff - Medical Schools	EPI/CDD Curricula*	6	42
4. Hospital/H.C. Staffs	Integrated EPI/CDD	10	16
5. Central Staff	EPI Senior Level	14	25
6. Central/Provincial Staff	Logistics & Cold Chain	14	113
7. Provincial/District Staff	Local Area Monitoring	5	700
8. Central/Provincial Staff	Refrigerator Repair	14	49
9. Central/Provincial Staff	Integrated Mid-level	14	17
10. Nursing School Staff	EPI/CDD Curricula	14	32
11. Provincial/District Staff	EPI Mid-level	10	691
12. Health Center Doctors	Sentinel Management	5	46

* CDD = Control of Diarrheal Diseases

The vaccine distribution system and cold chain have managed to keep pace with the program's rapid expansion during this period. Evaluations have shown that requests for vaccine usually receive rapid responses within acceptable time periods. Cold chain facilities have not only been extended to 90% of all Puskesmas but also equipment has been maintained, temperature conditions have generally been kept within acceptable limits, and vaccine viability has usually been satisfactorily preserved (see Table 12).

Establishing the human and physical infrastructure needed to expand EPI's geographic coverage nationwide has been the most difficult and capital intensive part of EPI development. This accomplishment will allow EPI to focus upon the more creative and innovative approaches which will be necessary to overcome remaining obstacles to increase immunization coverage.

Table 12: Cold Chain Conditions in 59 Health Facilities, 1986

Vaccine Cold Effectiveness Indicators	Number	Total (%)
Refrigerator working	55	95
Thermometer in refrigerator	51	85
Temperature records maintained	41	70
Temperature satisfactory at time of visit	47	80
DDT/TT/DT frozen at time of visit*	7	12
Expired vaccine in stock	7	12
Stock records available	50	85
Frozen cold packs or ice in refrigerator	46	80

* DT = diphtheria, tetanus vaccine

o Immunization Coverage

Although high immunization coverage has not been uniform throughout the country, coverage rates for selected immunizations have steadily increased. Figure 2 compares immunization coverage rates for EPI vaccines between 1979 and 1985. Coverage rates were still quite low for DPT₁, DPT₂, TT₁ and TT₂ in 1979. Because these vaccines were only introduced two years earlier, this finding is not surprising. The viral vaccines had not yet been introduced at that time. By 1985 DPT₁ and BCG were being provided to more than 60% of the target population and about one quarter of the target population was considered fully immunized. Consequently, the EPI delivery system had demonstrated its capacity to reach 60% of the target population only eight years after the program's inception. However, as will be explained later in this Amendment, that capacity has not been utilized to its fullest extent, and full immunization remains disappointingly low.

o Vaccine Expansion

From a limited program providing only BCG in 1976, EPI has systematically and deliberately incorporated other vaccines and additional boosters into its vaccine schedule. Two doses of DPT for children and two doses of TT for pregnant women were combined with BCG in 1977. Viral vaccines were progressively introduced into the EPI beginning in 1981 (see Figure 1). Now, EPI's definitions of a fully immunized child and the immunization schedule more closely conform with international WHO standards, as shown in Table 13.

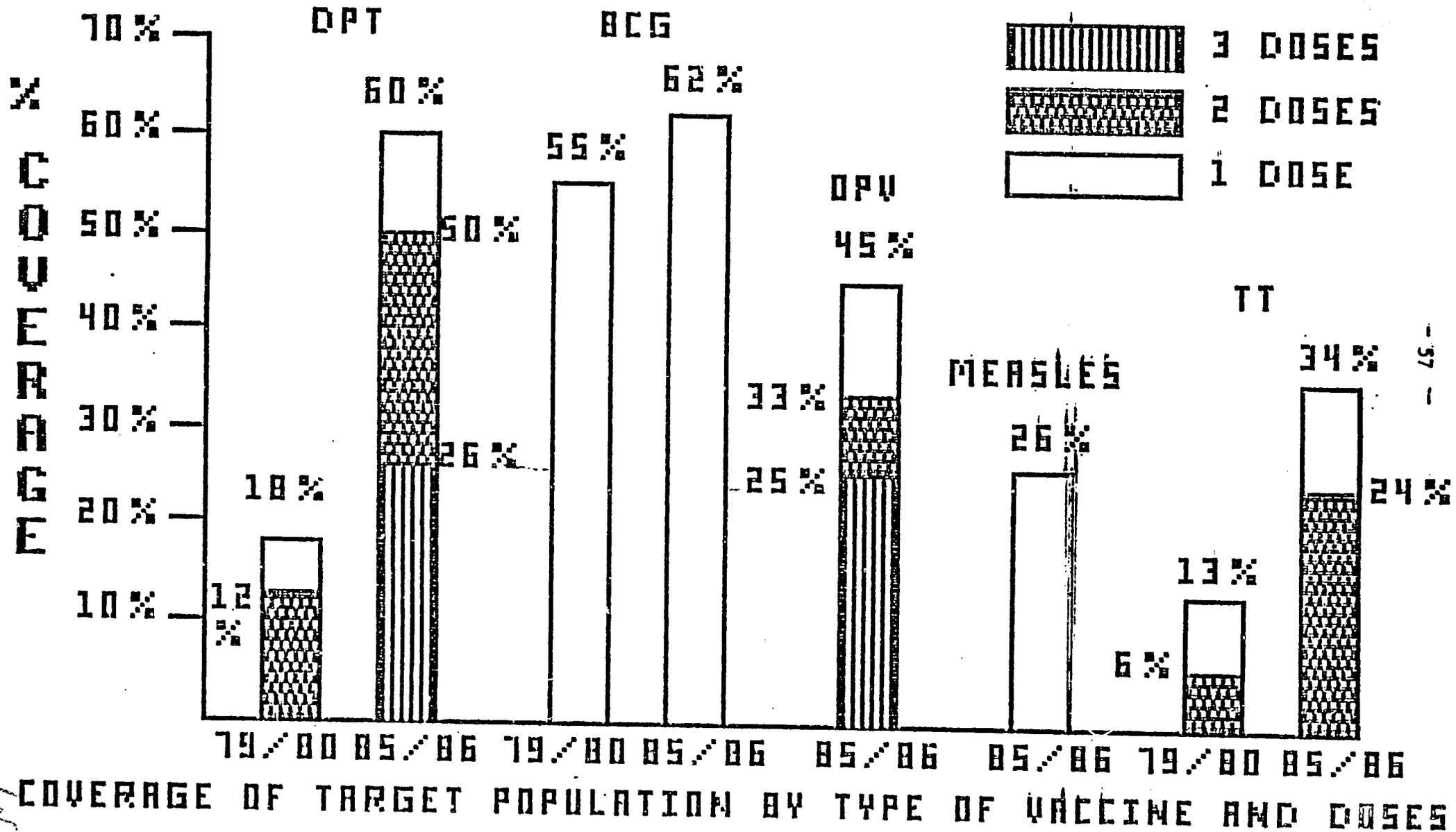
Table 13: EPI Immunization Schedule, 1987

Vaccine	Recommended Schedule		Eligible Age Groups	
	No. of Doses	Interval	Youngest	Oldest
BCG	1	NA	Birth	14 months
DPT	3	4 weeks	3 months	14 months
Measles	1	NA	9 months	14 months
OPV	3	4 weeks	3 months	14 months
TT	2	4 weeks	School girls and pregnant women	

In comparison to bacterial vaccines, the viral vaccines are expensive. The decision to incorporate viral vaccines into the EPI schedule carried significant recurrent cost considerations. That the MOH was willing to incur these costs in return for a full and comprehensive EPI program reflected the importance with which it was, and still is, viewed. As economic hard times have befallen the MOH, this commitment has been sorely tested. But the hard core of support built up during these years of growth, development, and progress will sustain EPI during this adverse period.

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**Figure 3 : IMMUNIZATION COVERAGE RATES FOR EPI VACCINES
1979/80 AND 1985/86**



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ANNEX B

ADMINISTRATIVE ANALYSIS

The project Amendment will be administered through the Ministry of Health, as outlined in Figure 4 and explained below.

B.1. Organizational Structure

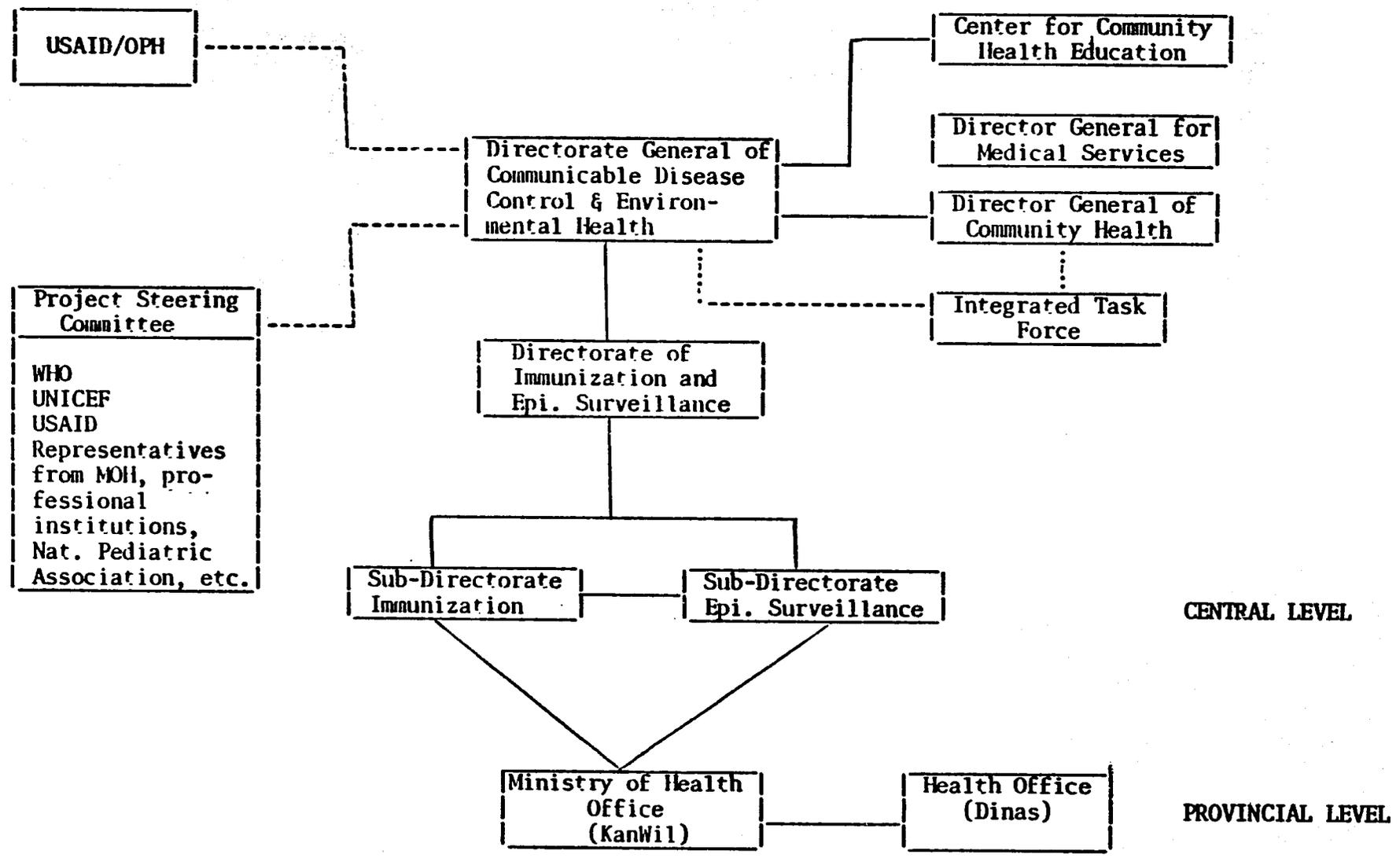
B.1.1. Project Organization at the Central Level

The Director General of Communicable Disease Control and Environmental Health will have overall responsibility for the project and for coordination with the ITF. The ITF will provide an opportunity to share the experiences from the planning, implementation, monitoring and evaluation components of the program with other health and family planning activities. The results of such an interplay, as coordinated by the ITF, can provide valuable inputs for EPI program development, especially in the formulation of official policies. The Directorate of Immunization and Epidemiologic Surveillance will be responsible for coordinating all activities and supervising overall implementation of the project. Most day-to-day operations will be shared by two Subdirectorates: the Sub-Directorate of Immunization (vaccine procurement, vaccine/supply distribution, social mobilization, social marketing) and the Sub-Directorate of Epidemiologic Surveillance (FETP, NETP, local area monitoring). Both Sub-Directorates will share responsibility for area-specific planning, missed opportunities, routine reporting, project sustainability, technical advice to the KanWil (MOH provincial health office), and Dinas (provincial health office), and other central activities.

A Project Steering Committee will be formed and chaired by the Director General or his representative, will provide policy and operational guidance as requested. Its members will include representatives from WHO, UNICEF, MOH, USAID, the National Pediatric Association, and professional institutions. All EPI activities implemented through local health centers will be coordinated with the Director General for Community Health. The introduction of EPI activities into clinical facilities will be coordinated with the Director General for Medical Services. The Center for Community Health Education will provide technical assistance for communications and social marketing activities.

B.1.2. Project Organization at the Provincial Level

At the provincial level, there is a dual management system for public health services, composed an MOH provincial officer (KaKanWil), who is technically responsible to the Minister of Health, and a provincial health officer (Dinas Kesehatan), who is administratively



Legend: Structural Relationship: _____
 Coordination : - - - - -

Figure 4: Organizational Chart for the EPI Project

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responsible to the Governor. Specific projects, such as the EPI, are the responsibility of project officers (PimPros) who are appointed by and report to the KaKanWil. The Dinas Kesehatan is responsible for the overall coordination of all public health services in the province. The KanWil office will receive technical guidance for the EPI from the two central EPI-related Sub-Directorates and available program resources from the Directorate General for Communicable Disease Control and Environmental Health. Provincial EPI leaders will then be responsible for implementing and supervising the EPI activities embodied in this Amendment at every lower administrative level.

B.2. Project Management

B.2.1. Development of Annual Area-Specific Workplans

A new annual project planning cycle will be instituted this fiscal year to encourage a more organized procedure for national EPI planning. The sequence of events is presented in Figure 5 and is described chronologically below.

May - Suggestions for an annual workplan are prepared by the Directorate of Immunization and Epidemiologic Surveillance based upon inputs from the MOH staff, Integrated Task-Force (ITF), Project Steering Committee, and resident consultants. This will be the first step for the development of a detailed work plan to be implemented in April of the following year. Thus, the plan is initiated 10 months prior to usage to ensure comprehensive involvement by both central and local program leaders.

June - MOH staff will translate general suggestions into operational proposals.

July - The operational proposals will be introduced and discussed at the national EPI meeting at which all provincial program leaders will be in attendance. Instructions will be given to adapt and modify proposals to local requirements and/or suggest additions or deletions. Then, based upon these results, every province will be asked to draft their province-specific project workplans in conjunction with GOI counterpart budgets.

September - All provincial workplans will be reviewed by central EPI staff. Any necessary modifications will be made and then combined into four area-specific EPI workplans corresponding to the geographic and administrative aggregates in the EPI area-specific planning model.

October - The Directorate for Immunization and Epidemiologic Surveillance will convene separate planning meetings attended by EPI representatives from the provinces and municipalities of each of the four areas. Individual workplans from each area will be discussed, adapted, and improved resulting in comprehensive area-specific workplans for each geographic region.

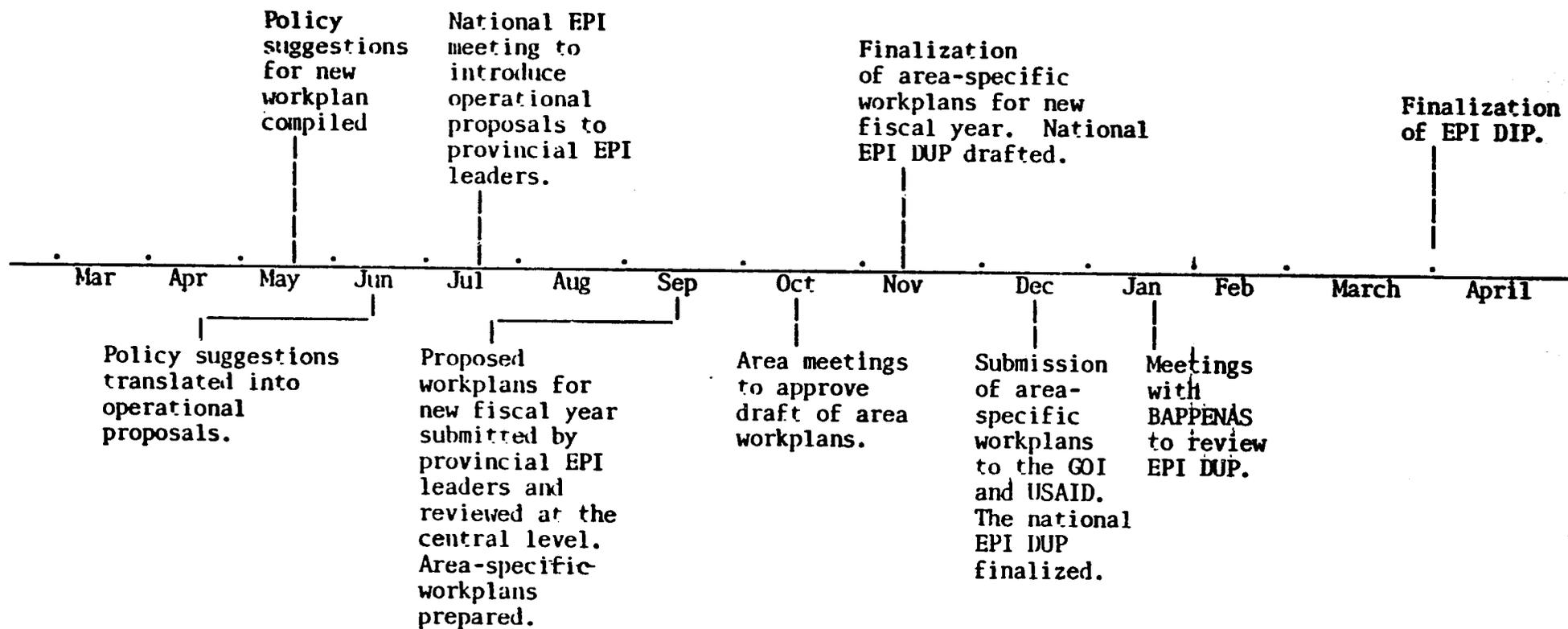


Figure 5: Planning Cycle for Development of Annual EPI Workplans

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November - Finalized annual workplans for the four areas will be prepared along with the supporting national EPI DUP (GOI budget request).

December - Area-specific workplans will be submitted to the GOI and USAID. The supporting national EPI DUP will be finalized.

January - Meetings with BAPPENAS will be conducted to review the proposed EPI DUP.

March - AID project funds and GOI counterpart and reimbursable budgets will be committed through the EPI DIP (approved GOI budget).

The cycle outlined above describes the area-specific planning model which will be instituted beginning in IFY 1988/89. However, several project activities can be implemented immediately following obligation of funds from this Amendment and prior to IFY 88/89. Some examples are the FETP and NETP training programs, several analytical assessments, demonstration projects for social mobilization, and area-specific planning. Existing project funds will support all projected activities through September 1987, at which time the MOH will submit a plan for the use of project funds for the period 1 October 87-31 March 88. All project activities subsequent to April 1988 will be planned and committed using the annual area-specific planning cycle.

B.2.2. Management of Analytical Studies

Because this project utilizes an operations assessment framework, and will be research and development intensive, a significant number of studies and assessments will be conducted as described in the project input for program development. To assure the suitability of assessments and their conformity with project Amendment components and outputs, the Directorate for Immunization and Epidemiologic Surveillance has developed a system to manage the assessment program, as illustrated in Figure 6.

A Project Technical Review Group will be formed, composed of representatives from the MOH, members of the ITF, external technical experts, and resident consultants from donor agencies. This group will develop an annual plan of prioritized study topics and an agenda for implementation for consideration and approval by the Director General for Communicable Disease Control and Environmental Health or his representative. Only those topics that specifically relate to program goals and activities will be selected and made part of an annual agenda. This workplan for analytical studies will then be submitted to USAID for approval prior to any implementation.

The ITF can assist in reviewing annual agendas for study topics, offer suggestions for refinement, and suggest alternate or shared sources of funding when subjects overlap with other health or family planning projects. The ITF has been given a mandate to coordinate and monitor pilot projects that relate to Indonesian integrated health and family

planning activities and will, therefore, actively participate in EPI evaluations of all analytical assessments and in the development of EPI policies that result from these assessments.

Upon USAID approval, the Director General has two alternate actions from which to select in order to translate the agenda of analytical studies into concrete assessments. First, if there are already objectively written proposals for conducting scientific studies on any topic, as evaluated by the Project Technical Review Group, they can be immediately considered for implementation by professional institutions. Under these conditions, contracts may be developed and supported through the PIL administrative mechanism when they are in conformance with AID regulations. When detailed proposals do not exist for direct implementation, the Director General will sponsor training seminars for proposal development. When proposals are adequately developed, contracts will be negotiated with the appropriate institutions.

It is important that results from these analytical studies be influential in the development of project policy. To ensure this level of impact, final results of studies will either be presented directly to the Director General with recommendations for relevant policy changes or to the ITF. The Steering Committee of the ITF can place results into the policy making process for both family planning and health programs.

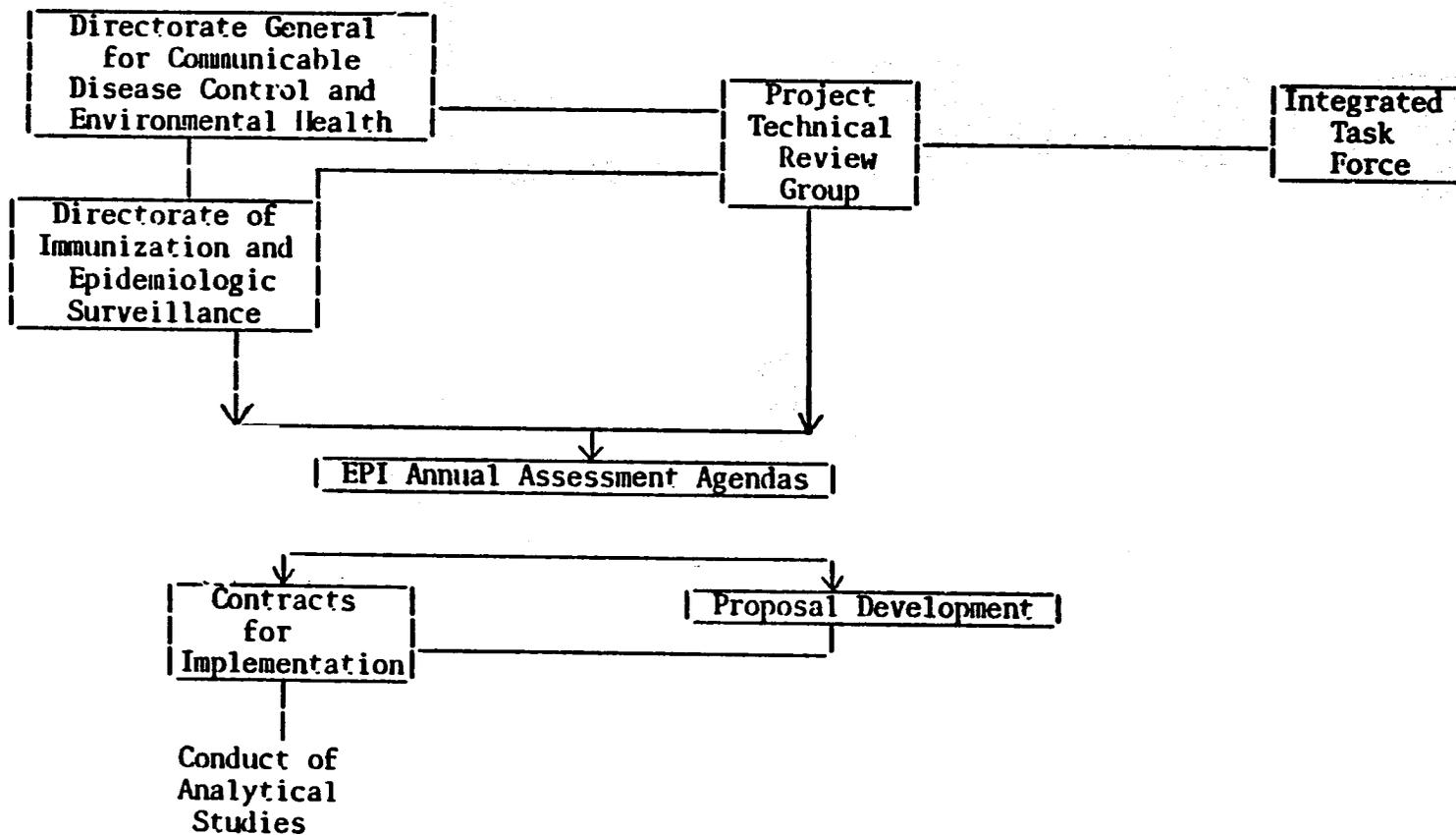


Figure 6: Development of Contracts for Analytical Studies for the EPI Project

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ANNEX C

IMPLEMENTATION PLAN

C.1. Contracting for Technical Assistance

Long-term technical assistance funded under this project will consist of five external advisors to provide: 1) overall project management, coordination and financial guidance; 2) expertise in social marketing and mobilization to decrease drop-out rates; 3) assistance in decentralization activities, especially for local area monitoring and FETP/NETP; 4) guidance in research development; and 5) assistance in studies related to project guideline revisions. The total long-term technical assistance being provided amounts to 132 person months.

The services of the long-term consultants (LTC) will be procured through several administrative mechanisms all funded through this Amendment. Project technical coordination will be attained through a three-year Participating Agency Service Agreement (PASA) between AID and the Centers for Disease Control in Atlanta, Georgia. A Communication/Social Mobilization specialist will be accessed through a two year buy-in to a centrally funded contract with the Academy for Educational Development (AED) in Washington, D.C. A Technical Consultant in Epidemiology and a Technical Consultant for Analytical Assessments will be contracted through Host Country Contracts with the Ministry of Health for periods of 36 and 24 months, respectively. The final LTC, a Child Survival specialist, will be a one year buy-in to the centrally funded contract with the Child Survival Fellows Program, School of Hygiene and Public Health at the Johns Hopkins University. The Hopkins contract will become effective in July, 1987 while the four other contracts will commence on September 30, 1987.

Short-term international technical assistance funded under this project will total 28 person months and will assist in: 1) design and evaluation of social marketing demonstration activities; 2) faculty and curriculum development for the FETP and NETP; 3) training in research design and proposal development for professional institutions; and 4) formative research design for analyzing the efficiency of project guidelines. These short-term consultants will be accessed through buy-ins to existing centrally funded contracts with organizations which can provide the requisite TA.

Short-term domestic technical assistance funded under this project will total 25 person months and will assist in the: 1) design and implementation of provider behavior research; 2) development of an EPI Information Center; 3) design and implementation of health seeking behavior evaluation and assessment plans; and 4) improvement of the EPI budgetary commitment. These Indonesian consultant services will be provided under a Mission-funded three year host country institutional

contract. A local professional organization will be selected through a competitive process and will function as the prime contractor for short-term technical assistance to the national EPI offices within the MOH. The selected contractor will identify consultants upon request of the MOH through USAID and will be responsible for the quality of their work. Proposed candidates must be acceptable to both the MOH and USAID.

C.2. Contracting for Program Development Activities

The Chief of the Directorate of Immunization and Epidemiologic Surveillance, through technical assistance provided by the EPI Project Technical Review Group and Task Force on Integration, will submit annual area-specific evaluation and assessment plans. These plans will identify realistic topics for analytical studies that directly relate to desired project outputs and present estimated costs associated with proposal development, study implementation, and analysis of results. Funds will be earmarked and committed upon USAID approval of annual workplans by a Project Implementation Letter. Once research workplans have been formulated, proposal development workshops will be held to produce technical proposals of acceptable technical quality. These proposals must be approved by USAID before funds can be disbursed. Funds will be disbursed via host country contracts with technical implementing organizations.

C.3. Commitment of Funds for Program Monitoring Activities

These funds will be committed annually with Project Implementation Letters in accordance with the annual area-specific planning cycle described in the Administrative Analysis. To fund first-year activities prior to the commencement of the first yearly planning cycle, a Project Implementation Letter (PIL) based upon a supplementary budget request from the MOH will commit funds for the period October 1987 - March 1988.

C.4. Commitment of Funds for Social Marketing

Because many of the activities being proposed under the social marketing component of this product are not traditionally within the government's domain, and because of the successful track record and experience of private and commercial firms in social marketing, a significant portion of the developmental work and some of the implementation work will most appropriately be done by private or commercial agencies. Consequently, this Amendment expects to use commercial market research and advertising firms to support the EPI social marketing demonstration project supported under this Amendment. An umbrella type host country contract with various types of subcontracts following competitive bidding procedures consistent with AID contracting guidelines will be utilized to contract for the services of commercial agencies to work closely with the government on the social marketing program.

C.5. Scopes of Work

Long-term technical assistance amounting to 132 person months will be provided by a Project Technical Coordinator who will act as lead consultant for a team of four other long-term consultants who will each be engaged under an identified contracting mechanism for periods of time ranging from one to three years. Scopes of work for the five long-term technical assistance positions follow: Project Technical Coordinator, Communications/Social Mobilization Specialist, Technical Consultant in Epidemiology, Technical Consultant for Analytical Assessments, and Child Survival Specialist.

The Project Technical Coordinator (132 pm) will assist the EPI in:

- o Planning, monitoring, and coordinating the activities of all long-term and short-term technical assistance for communicable disease control;
- o Providing liaison with central CDC/EPI and USAID on matters concerning technical and administrative aspects of project implementation including contracting;
- o Monitoring, through the Project Steering Committee, the timely development, implementation, and evaluation of the EPI Amendment's research and demonstration activities;
- o Developing channels of communication among internal MOH entities such as FKM (the Schools of Public Health), the Center for Child Survival, BinKesMas (the Directorate General of Community Health), Yanmedik (the Directorate General for Hospital Services), and CDC/EPI on matters concerning operations, research, demonstration activities, and evaluation efforts associated with the EPI;
- o Providing liaison among agencies such as MOH, ITF, BAPPENAS (the National Planning Board), PKK, the Ministry of Religion, USAID, other donor agencies and research groups, technical consultants, and long/short-term consultants on matters concerning operations, research, demonstration activities, and evaluation efforts associated with the EPI;
- o Providing specific technical assistance relevant to the enhancement of the Ministry of Health's capacity to sustain EPI and other disease control services and programs at current levels, with an emphasis on:
 - Designing and overseeing the initiation of studies that will provide data to be used to support EPI requests for sustained levels of GOI financial and political commitment;
 - Designing and overseeing the implementation of a program of seminars and study tours whose aim is to provide information to key decision makers responsible for ensuring sustained support of EPI activities;

- Designing and overseeing the implementation and evaluation of studies to determine viable alternative approaches for making vaccine procurement more financially sustainable within Indonesia;
- o Providing logistical and technical support for foreign and domestic technical consultants to the EPI; and
- o Overseeing general EPI project activities as well as other AID-supported communicable disease control projects, from project implementation to closing (e.g., reviewing all project documentation, progress reports and contracts, and disseminating information to appropriate GOI, USAID, and other donor agency bodies).

The Communications/Social Mobilization Specialist (24 pm), under the supervision of the Project Technical Coordinator, will assist the EPI in:

- o Analyzing the July 1987 evaluation of operational efficiency in EPI activities and program impact by the PKK and by religious leaders (Agama);
- o Improving, refining and monitoring the continued EPI use of PKK and Agama resources;
- o Designing and monitoring the implementation of a plan of action to identify and test the use of additional community resources in support of EPI objectives;
- o Providing technical input into the development of a marketing and promotions strategy for the EPI social marketing plan;
- o Providing input and support to the design and development of a communications plan for EPI;
- o Collaborating with MOH officials and long-term consultants to design and prepare testing instruments for formative research in program guideline reforms;
- o Supporting the educational and communications components of MOH efforts to incorporate EPI into clinical facilities;
- o Overseeing the design of a social marketing strategy for AID-supported projects from the Office of Population and Health and assisting in the understanding and promotion of that strategy within the ITF; and
- o Collaborating with MOH officials to provide long-term systematic communication planning and design, including adoption of face-to-face training, graphic materials, and mass media into other ongoing health and family planning activities.

The Technical Consultant in Epidemiology (12 pm), under the supervision of the Project Technical Coordinator, will assist the EPI in:

- o Establishing criteria to determine the placement of provinces and municipalities into one of four area-specific planning (ASP) categories (i.e., urban centers, acceleration provinces, provisional provinces, and remote provinces);
- o Assigning all Indonesian provinces and municipalities to one of four ASP areas;
- o Developing and introducing EPI interventions specific to ASP areas;
- o Developing and overseeing the implementation of an action plan to demonstrate LAM procedures in representational areas in Indonesia;
- o Developing and overseeing the implementation of a plan to expand sentinel the health centers concept into each LAM demonstration area;
- o Developing and overseeing the implementation of a training program to provide provinces and districts with physician and nurse epidemiologists;
- o Designing and overseeing a process of administrative and curricular reform of the Field Epidemiology Training Program (FETP) and of the Nurse Epidemiology Training Program (NETP);
- o Designing and overseeing the process for integration of FETP/NETP into the MPH program at the University of Indonesia's Faculties of Public Health;
- o Designing and overseeing annual training plans for analytical studies for EPI and diarrheal diseases and assisting in the development of those plans within the ITF; and
- o Monitoring the conduct of analytical studies related to the EPI and diarrheal diseases.

The Technical Consultant for Analytical Assessments (24 pm), under the supervision of the Project Technical Coordinator, will assist the EPI in:

- o Providing technical support to the development of annual scientific research agendas for EPI and diarrheal diseases;
- o Identifying institutions possessing the technical capacity to conduct analytical studies:

- Test approaches to modify organizational behavior associated with improved provider compliance with existing technical guidelines;
- Identify clinical facilities within which the integration of EPI activities can be tested and/or demonstrated;
- Provide data which will support EPI requests for sustained levels of GOI financial and political commitment;
- Determine viable alternative approaches for making vaccine procurement more financially sustainable;
- o Providing technical support for the development of research protocols, and developing and overseeing the maintenance and monitoring of a tracking system for all EPI assessment and demonstration activities;
- o Monitoring analytical studies as determined by the EPI Technical Advisory Group and the Diarrheal Diseases Technical Advisory Group; and
- o Providing technical guidance in analyzing and interpreting results of analytical studies as required by MOH and ITF officials.

The Child Survival Specialist (12 pm), under the supervision of the Project Technical Coordinator, will assist the EPI in:

- o Supporting the development of an agenda for a series of national seminars which will review existing EPI technical guidelines;
- o Supporting the development of an EPI Information Center at the Center for Child Survival;
- o Developing a process for reviewing technical papers related to EPI international developments;
- o Supporting the development of analytical studies to identify clinical facilities which will integrate EPI delivery into their health services delivery system;
- o Developing the process to integrate EPI activities in clinical facilities in each of the five largest population areas in Indonesia; and
- o Facilitating the formation and operation of the EPI Technical Advisory Group and assisting this group in promoting activities within the ITF.

C.6. Implementation Schedule

The schedule of major actions indicates the important milestones expected to be achieved over the three-year Amendment period. Specific activities will be detailed in the annual area-specific workplans whose development and implementation will be synchronized with the annual DUP/DIP planning cycles. Since annually project planning will not synchronize with the DUP/DIP cycle until the planning period for 1988/89, a supplemental allocation will be committed via a PIL for activities which require funds from this Amendment for the remainder of IFY 87.

C.7. Schedule of Major Actions

C.7.1. Project Management

<u>Action</u>	<u>Completion Date</u>	<u>Estimated Responsible Party</u>
. Project Amendment Agreement signed	July 1987	GOI/AID
. Contracts signed for all LTCs	August 1987	AID
. Submission of request for 1987/88 supplemental funding	July 1987	GOI
. Funds committed for 1987/88 supplemental period	September 1987	AID
. Development of integrated area-specific workplans for 1988/89	October 1987	GOI
. Funding request for 1988/89 area-specific workplans	January 1988	GOI
. Funds committed for 1988/89 area-specific workplans	April 1988	AID
Mid-term evaluation	January 1989	GOI/AID
Final evaluation	June 1990	GOI/AID

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C.7.2. Reducing Missed Opportunities

<u>Action</u>	<u>Estimated Completion Date</u>	<u>Responsible Party</u>
. EPI Reference Library established in the Center for Child Survival	January 1988	GOI
. Analytical stage studies completed for reforming EPI program guidelines	June 1988	GOI
. Analytical stage studies completed for including EPI into clinical facilities	June 1988	GOI
. National seminar to discuss modifications in EPI program guidelines	September 1988	GOI
. Commencement of demonstration projects to support reform of EPI program guidelines	January 1989	GOI
. Commencement of demonstration stage for including GOI into clinical facilities	January 1989	GOI

C.7.3. Reducing Drop-out Rates

<u>Action</u>	<u>Estimated Completion Date</u>	<u>Responsible Party</u>
. Demonstration of social mobilization program commences using PKK and Agama	October 1987	GOI
. Market research for social marketing program completed	December 1987	GOI
. Marketing and communications plan completed	April 1988	GOI
. Commencement of social marketing demonstration in urban areas	September 1988	GOI
. Review of social marketing demonstration project	June 1989	GOI
. Introduction of modifications in demonstration project	September 1989	GOI

C.7.4. Decentralized EPI Planning and Management

<u>Action</u>	<u>Estimated Completion Date</u>	<u>Responsible Party</u>
. FETP/FKM integrated training plan developed and approved	August 1987	GOI
- First intake of integrated FETP/FKM trainees	August 1987	GOI
. Criteria established to define area-specific regions	September 1987	GOI
. Evaluations of existing local area monitoring systems completed	September 1987	GOI
. Demonstration of redesigned local area monitoring systems commence	October 1987	GOI
. First intake of NETP trainees	October 1987	GOI
. Annual area-specific planning cycles, as described in administrative analysis, institutionalized	April 1988	GOI

C.7.5. Sustaining EPI Budgets

<u>Action</u>	<u>Estimated Completion Date</u>	<u>Responsible Party</u>
. Study tour for MOH decision makers	July 1988	GOI/USAID
. Completion of EPI analytical and cost studies	December 1988	GOI
. Analytical stage studies to explore alternatives for vaccine procurement completed	July 1989	GOI

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ANNEX D

MONITORING AND EVALUATION PLAN

D.1. Monitoring

D.1.1. Monitoring Responsibilities

Responsibility for monitoring project implementation rests with the Project Steering Committee under the direction of the Director General for Communicable Disease Control and Environmental Health. The Chief of the Directorate for Immunization and Epidemiologic Surveillance will monitor day-to-day operations. He will be assisted by an EPI Technical Review Group which will meet on a routine basis to review assessment and demonstration proposal protocols and to monitor the progress and findings of studies and demonstrations approved and funded under the project.

D.1.2. Use of Monitoring Information

Successful implementation of the project calls for the orderly implementation and clear documentation of project outputs. Although a certain emphasis will be placed upon the production of monitoring reports for annual project planning purposes, a regular monthly flow of reports will be necessary if the project is to monitor the progress of its many activities. Each separate activity will be monitored through a tracking system which will specify dates by which specific benchmarks are expected to have been achieved. While the project will need to be somewhat flexible in its assignment of temporal parameters within which benchmarks are to be accomplished, the project manager and those persons or organizations responsible for each assessment and demonstration activity will need to maintain a regular exchange of information on progress towards the completion of each activity. As analytical studies and demonstration projects are completed, attention will focus on the timely preparation, effective dissemination and subsequent discussion of findings associated with each completed activity. Finally, as discussions on study and demonstration activities are completed, recommendations associated with the results of project activities will be brought to the attention of policy makers (EPI Officer and the Steering Committee of the ITF) responsible for taking appropriate follow-up action.

D.1.3. Focus of Project Monitoring

The EPI's monitoring system will provide information to track the progress achieved toward meeting major EPI Amendment objectives. A major focus of the EPI information system (EPIIS) will be upon the accomplishment of major benchmarks related to the four principal project outputs:

- o Completion of replicable approaches to reduce missed opportunities to immunize members of the EPI target groups;

- o Completion of replicable educational and motivational approaches to reduce the drop-out rates in the EPI;
- o Improved capacity of the Ministry of Health to decentralize planning and management of the EPI; and
- o Enhanced Ministry of Health capacity to sustain EPI services and programs at current levels.

For purposes of monitoring progress in achieving these outputs, indicators of progress have been established for each project component and benchmarks have been identified for monitoring progress. These are illustrated in Table 14 at the end of this Annex and are described below.

D.1.3.1. Replicable Approaches to Reduce Missed Opportunities

During the three years covered by the EPI Amendment, the project will devote a considerable amount of its energy and resources toward evaluating approaches that might effectively address the missed opportunities issue. Although study designs to assess alternative approaches have yet to be developed, it is clear that the studies will focus upon provider compliance with existing and new immunization policy, and the integration of EPI activities into existing clinical facilities. As such, benchmarks which will be used to track progress in developing viable approaches toward the reduction of missed opportunities are:

- early establishment of an EPI Technical Review Group;
- design and completion of provider and organization behavior studies;
- development of an EPI technical information center;
- design and completion of health seeking behavior research; and
- initiation of MOH policy to reflect research findings.

D.1.3.2. Reduction of Drop-out Rates

Much of the emphasis on developing interventions that will reduce drop-out rates will focus on the twin tools of social mobilization and social marketing. As noted earlier in this Amendment documentation, the EPI has enjoyed considerable initial success in working with the PKK and with religious groups as a means of maintaining a client's continued affiliation with the EPI. Thus, monitoring project activities associated with the reduction of drop-out rates will be following the benchmark development of an action plan which will be designed to improve and refine the use of the PKK and religious organizations. At the same time, it is expected that the EPIIS will track the development and implementation of studies which will be designed to explore and demonstrate effectiveness in mobilizing additional community resources toward the reduction of EPI drop-out rates.

With reference to social marketing, private industry has repeatedly demonstrated the effectiveness of the concentrated marketing of a product

toward its increased acceptance and use. In the case of the EPI, the product will be the "fully-immunized" child. And, as benchmarks on the road leading to effective use of social marketing to promote EPI's product, the EPIIS will be tracking the sequential development and identification of marketing approaches and of institutions, programs and personnel who will participate in the marketing assessment effort. Once these two benchmarks are reached, the EPIIS will be looking to the actual implementation of a marketing plan as a demonstration activity in at least two major population areas within Indonesia.

D.1.3.3. Decentralized Planning and Management of the EPI

Monitoring the progress achieved toward decentralized planning and management of the EPI will focus on refinement and effective utilization of two existing administrative concepts: area-specific planning (ASP) and local area monitoring (LAM). As benchmarks, it is expected that the EPIIS will monitor the establishment of criteria which will be used to assign municipalities and provinces to one of four ASP designations. Once this benchmark is achieved, progress will be charted on the actual assignment of areas to the ASP and to the development of ASP-specific EPI intervention guidelines.

With reference to monitoring the EPI's effective use of the LAM concept for decentralization purposes, the EPIIS can be expected to provide information on evaluations of the effectiveness of the local area monitoring concept in areas where it is now being implemented. The EPIIS will also furnish information on expected implementation of the LAM concept in other selected areas as well as on the concomitant designation of sentinel health centers in each new LAM area.

In support of the decentralization effort, activities under the EPI Amendment will also focus on the development of trained epidemiologists for selected provinces and districts. Consequently, the EPIIS can be expected to yield benchmark information on the development of an actual training program, on the training of epidemiologists - both nurses and physicians - in accordance with the training plan, and on the success achieved in integrating the existing Field Epidemiology Training (FETP) and Nurse Epidemiology Training (NETP) programs as standard curricula offered by Indonesia's schools of public health.

D.1.3.4. EPI Sustainability

As the final major component of the EPI Amendment, activities designed to develop sustainable of EPI services and programs will receive special monitoring attention under the Amendment. The EPIIS will provide data that will track the project's progress toward the completion of studies that demonstrate the viability and cost effectiveness of EPI activities. The EPIIS will also document the development of educational initiatives that will be targeted toward key decision makers who will

need to have accurate information relevant to EPI objectives and outputs if they are to support EPI future requests for continued funding at current or increased levels. Finally, with reference to increased self-sufficiency in vaccine procurement, the project's managers can be expected to use the project's information system to document and act upon the results of studies whose objective will focus on assessing the feasibility of alternative approaches to continued financing of vaccine procurement.

D.2. Evaluation

A review of operational considerations and activity scheduling included in the EPI Amendment indicates that the project would be best served by an evaluation scheduled at midpoint in the life of the project Amendment period and by a final evaluation scheduled approximately three months prior to the project's scheduled completion. Both evaluations will be conducted by an experienced team of national and international consultants, none of whom will have had a direct association with implementation of Indonesia's EPI Amendment activities. In conducting the evaluations, investigators can be expected to require full access to information produced by the project's information system.

D.2.1. Mid-Term Evaluation

This evaluation will take place during the month of January 1989. Its primary focus will be the degree to which the project has obtained reasonable progress toward meeting established project benchmarks in each of the four principal project output components. Attention during the mid-term evaluation will also focus on the project's success in the measured design, implementation, and evaluation of the project's many assessment and demonstration activities. Results will act as input into the design of the future Child Survival Project.

D.2.2. Final Evaluation

This evaluation will take place in June (or possibly July) 1990. An evaluation team will be responsible for assessing the extent to which the project has achieved or can be expected to have achieved, by September 1990, specified project objectives. The final evaluation will also address the degree to which the project's accomplishments have resulted in or can be expected to have resulted in significant improvements to the EPI's operations and administration with specific reference to weaknesses cited in the 1986 joint evaluation. Sustainability of program financing and vaccine procurement will also be addressed during this evaluation. Finally, the evaluation team will be asked to assess the extent to which project goals were accomplished.

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Table 14: Indicators of Progress

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
<p>1. Completion of replicable approaches to reduce missed opportunities to immunize members of EPI target groups.</p>	<p>1. <u>The reform of program guidelines.</u></p> <p>1.1. Compliance with established policy.</p> <p>1.2. Changes/reform of existing policy.</p>	<p>1. EPI designs operational guidelines for EPI Technical Advisory Group.</p> <p>1.1. EPI designs and conducts research study to test approaches to modifying organizational behavior compliance with existing technical guidelines.</p> <p>1.2.1. EPI TA Advisory Group identifies existing guidelines which require reform and/or change.</p> <p>1.2.2. National and provincial EPI decision makers meet regularly to review existing guidelines.</p>	<p>1. EPI Technical Advisory Group established.</p> <p>1.1.1. Completion of compliance research study.</p> <p>1.1.2. MOH guidelines developed on existing policy.</p> <p>1.2.1. TA Advisory Group schedule established.</p> <p>1.2.2.1. Three annual seminars held to review existing guidelines requiring reform and change.</p> <p>1.2.2.2. MOH guidelines on change in existing policy developed.</p>

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(Continuation)

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
<p>1. Completion of replicable approaches to reduce missed opportunities to immunize members of EPI target groups. (continued)</p>	<p>1.3. Development of technical guidelines.</p>	<p>1.3.1. Steps taken to develop technical resource facility.</p> <p>1.3.2. Process established for reviewing and acting on technical issues related to EPI international development.</p>	<p>1.5.1. EPI Information Center established at the Center for Child Survival.</p> <p>1.3.2.1. Semi-annual reports produced related to review of international papers.</p> <p>1.3.2.2. Research conducted to demonstrate replicability of international findings.</p> <p>1.3.2.3. MOH policy to include replicable research findings developed.</p>
	<p>1.4. Inclusion of EPI into clinical facilities.</p>	<p>1.4.1. EPI designs and conducts research to identify clinical facilities which will integrate EPI delivery into clinical facility health services package.</p>	<p>1.4.1.1. EPI target clinical facilities in each of five largest urban areas identified.</p> <p>1.4.1.2. Special EPI educational materials developed with focus on clinical facility role.</p>

(Continuation)

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
I. Completion of replicable approaches to reduce missed opportunities to immunize members of EPI target groups. (continued)	1.4. Inclusion of EPI into clinical facilities. (continued)	1.4.2. EPI designs and conducts study to identify process for linking participating clinical facilities with EPI activities.	1.4.2.1. National professional organizations agree to participate in clinical facility educational process. 1.4.2.2. Facilities in each of the five largest population areas agree to participate in EPI. 1.4.2.3. Participating clinical facilities formally included in national and provincial EPI activities. 1.4.2.4. Documentation produced to define process for increasing number of clinical facilities which actively participate in EPI.

(Continuation)

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
<p>2. Completion of replicable educational and motivational approaches to reduce drop-out rates in the EPI.</p>	<p>2.1. Improvement/refinement of use of PKK and agama resources for motivational purposes in EPI.</p>	<p>2.1. Following completion of July 1987 evaluation of operational efficiency in EPI activities and program impact by women's organization (PKK) and religious organizations (agama), EPI designs process for improving/refining use of PKK and agama community resources.</p>	<p>2.1. Action plan to improve/refine use of PKK and agama developed and implemented.</p>
	<p>2.2. Identification of additional community resources for motivation for EPI.</p>	<p>2.2.1. EPI designs and conducts study to identify additional community resources.</p>	<p>2.2.1. Additional community resources identified.</p>
		<p>2.2.2. EPI designs and conducts pilot study to test efficiency of additional community resources participation in EPI.</p>	<p>2.2.2. Additional community resources participation in EPI tested.</p>
	<p>2.3. Development of social marketing approach to promote EPI.</p>	<p>2.3.1. EPI designs and conducts marketing survey around product of "fully-immunized child."</p>	<p>2.3.1. Marketing approach for "fully-immunized child" product designed and documented.</p>
		<p>2.3.2. EPI designs process for identifying institutions, programs, and personnel who will participate in marketing the product of "fully-immunized child."</p>	<p>2.3.2. Institutions, programs, and personnel identified to participate in marketing program.</p>

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(Continuation)

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
2. Completion of replicable educational and motivational approaches to reduce drop-out rates in the EPI. (continued)	2.3. Development of social marketing approach to improve EPI. (continued)	2.3.3. Participants in marketing effort design and implement marketing plan.	2.3.3. Marketing plan implemented in at least two areas to demonstrate marketing approach impact on drop-out rates.

(Continuation)

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
<p>3. Improve capacity of Ministry of Health to decentralize planning and management of EPI.</p>	<p>3.1. Implementation of area-specific planning (ASP).</p>	<p>3.1.1. MOH establishes criteria to determine placement of provinces and municipalities into one of four ASP categories (urban centers, acceleration provinces, provisional provinces, remote provinces).</p>	<p>3.1.1.1. ASP criteria established.</p> <p>3.1.1.2. Provinces and municipalities are assigned to one of four ASP areas.</p>
		<p>3.1.2. MOH develops and introduces EPI interventions specific to ASP areas.</p>	<p>3.1.2.1. Manuals developed for ASP-specific EPI interventions.</p> <p>3.1.2.2. EPI interventions introduced in ASP areas.</p>
	<p>3.2. Development of local area monitoring (LAM).</p>	<p>3.2.1. EPI develops and implements evaluation plan for areas where LAM concept has already been introduced.</p>	<p>3.2.1. LAM evaluations completed in all areas where concept exists.</p>
		<p>3.2.2. EPI develops and implements action plan to demonstrate LAM procedures in representational areas in Indonesia.</p>	<p>3.2.2. EPI LAM procedures demonstrated in selected areas throughout Indonesia.</p>
		<p>3.2.3. EPI develops and implements plan to expand sentinel health centers into LAM demonstration areas.</p>	<p>3.2.3. Each LAM demonstration area includes sentinel health centers established in accordance with an action plan.</p>

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(Continuation)

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
3. Improve capacity of Ministry of Health to decentralize planning and management of EPI. (continued)	3.3. Development of Epidemiologist training.	3.3.1. EPI designs and implements process of administrative and curricular reform of field epidemiology training program (FETP) and nurse epidemiology training program (NETP). 3.3.2. EPI designs and implements process for integration of FETP/NETP into MPH program at the University of Indonesia's Faculty of Public Health (FKM). 3.3.3. MOH/EPI develop and implement a training plan for providing provinces and districts with physician and nurse epidemiologists.	3.3.1. FETP/NETP administration and curricula reforms implemented. 3.3.2. FETP/NETP integrated into MFH program of FKM. 3.3.3.1. Physician and nurse epidemiologists training plan is developed. 3.3.3.2. Physician and nurse epidemiologists are trained in accordance with training plan.

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(Continuation)

OUTPUTS	COMPONENTS	INDICATORS OF PROGRESS	BENCHMARKS
4. Enhance Ministry of Health capacity to sustain EPI services and programs at current levels.	4.1. Increased budgetary commitment to EPI.	4.1.1. EPI designs and initiates studies which will provide data to be used to support EPI requests for sustained level of GOI financial and political commitment. 4.1.2. EPI designs and conducts a program of seminars and study tours whose aim is to provide information to key decision makers responsible for ensuring sustained support of EPI activities.	4.1.1. EPI program support studies completed and documented. 4.1.2. Program of seminars and study tours carried out in accordance with established program.
	4.2. Improved self-sufficiency in vaccine procurement.	4.2. EPI designs and conducts studies to determine viable alternative approaches to making vaccine procurement more financially sustainable.	4.2.1. Feasibility studies focusing on alternatives for ensuring sustainability of vaccine procurement completed. 4.2.2. GOI policy dialogue conducted.

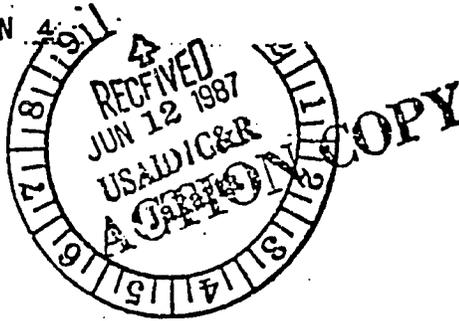
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ANNEX E

AMENDMENT APPROVAL MESSAGES AND RESPONSE

ACTION AID 3 INFO ECON CHRON

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E.O. 12356: N/A
TAGS: N/A
SUBJECT: EXPANDED PROGRAM ON IMMUNIZATION AMENDMENT
(497-4253)

REF: (A) STATE 158412; (B) DU RETTE-BONNER TELCON
6/10/87

1. ON JUNE 4, C/AID APPROVED DELEGATION TO USAID/JAKARTA MISSION DIRECTOR OF AD ROC AUTHORITY TO EXTEND THE PACD OF SUBJECT PROJECT FROM EIGHT TO ELEVEN YEARS. ANE/PD IS POUCHING COPY OF DOCUMENTS TO MISSION.

2. PER REF B WE UNDERSTAND THAT MISSION WILL PROVIDE INFORMATION FOR CONGRESSIONAL NOTIFICATION WITHIN THE NEXT FEW DAYS. WHITEHEAD

BT
#9795

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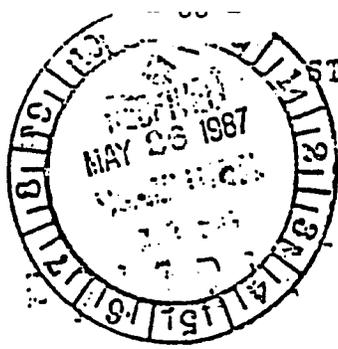
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STATE 158412

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ACTION INFO ECON CHRON



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E.O. 12356: N/A
TAGS: N/A
SUBJECT: PROPOSED EXPANDED PROGRAM ON IMMUNIZATION
AMENDMENT (497-2253)

REF: JAKARTA 5421

1. AA/ANE BLOCE CONCURS WITH USAID/JAKARTA REQUEST TO PREPARE, REVIEW AND AUTHORIZE SUBJECT PROJECT AMENDMENT IN THE MISSION, UPON ADMINISTRATOR APPROVAL OF BUREAU REQUEST FOR AD HOC DELEGATION OF AUTHORITY TO EXTEND THE PROJECT ASSISTANCE COMPLETION DATE (PACD) BY 36 MONTHS. REVIEW COMMENTS AND GUIDANCE FOR AMENDMENT PREPARATION FOLLOW.

2. ISSUE: PLANNING FOR SUSTAINABILITY. BUREAU NOTED THAT PER MINISTRY OF HEALTH (MOH) HAD SUBSTANTIALLY REDUCED ITS BUDGET FOR PREVENTIVE HEALTH CARE, INCLUDING EXPANDED PROGRAM ON IMMUNIZATION (EPI) ACTIVITIES, WHILE AT THE SAME TIME INCREASING ITS HOSPITAL BUDGET BY FOUR PERCENT. THIS SHIFT MAY BE A FRAGMATIC REACTION TO DCMOR INTERESTS TO FINANCE PREVENTIVE RATHER THAN CURATIVE HEALTH ACTIVITIES. NEVERTHELESS, WE ARE CONCERNED THAT SUCH A SHIFT WILL BE DETRIMENTAL TO THE LONG-TERM GOAL OF SUSTAINING IMMUNIZATION PROGRAMS. PER

BUREAU REQUESTS THAT THE MISSION ADDRESS THIS ISSUE IN DETAIL AND OBTAIN COMMITMENT FROM THE GOVERNMENT OF INDONESIA TO INCREASE FUTURE YEAR BUDGETS FOR EPI AND PREVENTIVE HEALTH ADEQUATELY BY PHASES OVER THE LIFE OF THE PROJECT. WE FIND IT DIFFICULT TO JUSTIFY THE AMENDMENT OR FUTURE HEALTH SECTOR FINANCING IF THE MOH IS UNWILLING TO DIRECT ADEQUATE GOI RESOURCES TO PREVENTIVE AREAS.

3. CONCERN: GREATER INVOLVEMENT OF PRIVATE SECTOR. WE ENCOURAGE MISSION EFFORT TO INVOLVE THE PRIVATE SECTOR, BUT REPTEL PROVIDES LIMITED INFORMATION ON WHAT ACTIVITIES ARE CONTEMPLATED OTHER THAN CONTRACTING FOR SOCIAL MARKETING ACTIVITIES OR POSSIBLY USE OF PRIVATE CLINICS. MORE AUTHENTIC PRIVATE SECTOR INVOLVEMENT WOULD INVOLVE THE PRIVATE COMPANIES IN SELF-SUSTAINING COMMERCIAL ACTIVITIES, INCLUDING VACCINE PRODUCTION AND DISTRIBUTION. IN REGARD TO THE VACCINE ENDOWMENT FUND,

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WE ARE NOT OPTIMISTIC THAT THIS FUND WOULD BE SUPPORTED AT PRESENT THROUGH PRIVATE CONTRIBUTIONS OR GOVERNMENT INCENTIVES. WE SUGGEST THAT DURING AMENDMENT PREPARATION THE MISSION EXPLORE THE EXTENT TO WHICH PRIVATE SECTOR INVOLVEMENT IS FEASIBLE AND FOCUS POLICY DISCUSSIONS AND PROJECT IMPLEMENTATION ON THESE AREAS.

4. WILL ADVISE SEPTEL ON AD HOC DELEGATION FOR PACD EXTENSIO. PLEASE PROVIDE INFORMATION FOR CONGRESSIONAL NOTIFICATION WHEN AVAILABLE. ARMACOST
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AMENDMENT TO PROJECT EXPANDED PROGRAM ON IMMUNIZATION (497-253)

This addresses the concerns expressed in State 158412 about the Amendment to the Expanded Program on Immunization.

1. Planning for Sustainability:

A. Additional information has been obtained regarding public sector health expenditures and EPI budgets which alters perception that MOH is unwilling to direct adequate GOI resources to preventive areas. These corrections have been incorporated into the Amendment document. The MOH was not reacting to donor interests in preventive activities, including the EPI, when it provided for an increase in the hospital budget. The reduced GOI budget allocation for EPI over the past two years, especially in comparison to the hospital sector, is more a function of the multiple sources from which the hospital sector draws its budget than a reflection of greater priority or commitment to this sector. The yearly GOI allocation for hospitals comes from six different budgetary sources. The EPI budget comes from a single source, the central development budget (APBN-DIP). Since 1985, the Ministry of Health's APBN-DIP has sustained an 80 per cent reduction. The APBN-DIP contribution to hospitals has, in fact, fallen more precipitously than its contribution to EPI over the past two years. However, larger allocations from other sources, particularly central and original routine budgets which provide recurrent costs for the MOH's extensive mortgage in hospitals, have compensated for this short fall, the result being the 4 per cent increase in total expenditures for hospitals mentioned in ref (A). EPI has no alternate budgetary source from which to compensate for reductions in its APBN-DIP allocation.

B. Mission is convinced that MOH has long-term goal of sustaining the immunization program and that the new Amendment enhances their ability to achieve this sustainability. We do not believe that the only way to sustain a preventive health care program is through increases in future year GOI budgets. In fact this may be counter productive without also seeking efficiencies within the system and alternate sources of funding. The EPI Amendment has developed a strategy to educate, motivate, and convince decision makers within the MOH and other ministries of the wisdom of increased investment in the EPI from alternate budgetary sources. This project will work in tandem with the health sector financing project, due for obligation in early FY 88, to assist the MOH in developing policies which will result in an increasingly larger portion of the total MOH budget allocated for child survival programs such as EPI. Mission feels that, given existing constraints, the GOI cannot now make any quid pro quo commitments for greater allocations to EPI but it is a topic of considerable importance to both MOH and USAID and an area in which specific plans are developing.

C. In addition, the EPI Amendment addresses the critical issues of sustainability in other ways. For example, proposed activities will

increase the efficiency of program operations which will reduce unnecessary waste. The Amendment will also explore ways for self-sufficiency of the most critical element of the EPI-vaccine procurement. For example, vaccine purchase could be shifted to the InPres budget. The InPres budget, from which pharmaceuticals are procured has been left relatively in tact over the past two years. Other possibilities for vaccine sustainability will be tested on a trial basis, such as the special endowment fund, initiation of a fee for service policy for vaccine delivery, establishment of a vaccine revolving fund, testing of various cost recovery mechanisms, and assistance from the civil service employee health insurance fund.

2. Greater Involvement of Private Sector:

A. The private sector will definitely be more involved through the development of EPI Social Marketing but it is premature to describe that involvement. In Indonesia, social marketing and its requisite approaches and technologies are only now being pioneered with considerable success in the private sector to market commercial products. An effort will be made during the Amendment period to promote the concept of the fully immunized child to decrease morbidity and mortality of EPI diseases. However, the details of the social marketing program that will emerge to support this effort will depend upon the outcome of preliminary marketing activities, including market research to generate a profile of the target population, the design of marketing strategies to identify messages and product design, and the development of communications strategies to determine the types of approaches to be employed to transmit these messages. The private sector is expected to play a prominent role, under the supervision of the MOH, in conducting this marketing research and in developing the marketing promotion and communications strategies. Also, the social marketing program will be designed to introduce EPI services into clinical facilities and the social mobilization activities of the community level women's organization for family welfare and education (PKK). These fundamental steps for the development of modern communications and marketing technologies into a practical program for EPI in Indonesia must be executed first before social marketing activities can be elaborated with precision.

B. Additional private sector involvement will occur with the development of social mobilization activities in Indonesia. For example, the Indonesian medical association recently signed an agreement with the American medical association to cooperatively develop local project activities with private practitioners designed to improve child survival. Some of these activities could be the promotion of immunizations. Additional efforts will be made during the Amendment period to study various community resources to determine their potential contribution in motivating and organizing mothers to continue with immunizations until completion. Recent activities in 1986 to activate the PKK and religious leaders will be studied and possibly expanded. However, it is impossible at this time to anticipate results of these studies.

C. The possibility for self-sustaining commercial activities will be monitored as private sector involvement is developed. Realistic opportunities for initiation of such activities will be supported. It should be realized, however, that at the present time there is a government policy which restricts the production of EPI vaccines to a single manufacturer. Distribution schedules are also presently part of contracts made with this manufacturer. Nonetheless, where possible other commercial ventures can be explored. For example, PATH will soon assist in a special field study in one province designed to decrease the impact of Hepatitis B. The vaccine for this study will come from a different manufacturer than that of the EPI vaccines.

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

MAY 19 1987

ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR, BUREAU FOR ASIA AND NEAR EAST

FROM: ANE/PD, Peter Bloom *for R. Venezia*
SUBJECT: INDONESIA - Expanded Program on Immunization
[497-0253]

Action: USAID/Jakarta requests your concurrence with their proposal to prepare, review and authorize an amendment to the Expanded Program on Immunization (EPI), increasing the life of project funding from \$9.5 million to \$12.5 million in grant funding and from \$3.2 million to \$7.2 million in loan funding. Your concurrence is also requested to seek Administrator approval of an ad hoc delegation of authority to the USAID/Jakarta Mission Director to extend the project assistance completion date [PACD] by 36 months to September 30, 1990, for a life-of-project of 11 years.

Discussion: The proposed project amendment will continue assistance to the Government of Indonesia (GOI) to establish a national immunization organization and increase coverage rates, but will particularly emphasize the strengthening of the research and development capacities of the Ministry of Health. Amendment activities will include the design of cost-effective EPI delivery systems, the expansion of the role of public and private curative facilities in EPI, and the use of improved communication technologies for EPI.

The Mission proposes the extension of the PACD by 36 months in order to continue and institutionalize ongoing EPI activities until a comprehensive child survival project (including EPI and oral rehydration therapy) is initiated in FY 1990. The amendment will finance technical assistance (\$4.0 million), manpower development (\$0.9 million), program monitoring (\$1.0 million), and program development (\$1.1 million). Funds will come from the F.A.A. Section 104 Health Account. Savings in the ongoing project from devaluations may be used to procure vaccines.

The 1986 evaluation of the project followed by a joint donor review indicated significant project accomplishments. In particular, the evaluation noted that national immunization coverage for diphtheria/pertussis/tetanus vaccine has risen from 18 percent in 1979 to approximately 65 percent in 1986 and that 47,000 deaths are now being prevented annually through vaccine administration. Remaining major problems to be addressed by the amendment include the following: (1) Many clinics, especially

private ones, do not participate in the national EPI program; (2) many participants drop out before completion of vaccine series; (3) delivery systems are overly centralized and less responsive to varying socio-cultural and geographical areas; and (4) EPI budgets are inadequate and declining.

Bureau review. The Project Review Committee (PRC) has reviewed the proposal and recommends approval. The issue and concern raised are summarized below.

Issue: Planning for sustainability. The PRC noted that the GOI has recently reduced the EPI and preventive budget, while, at the same time, it has increased the hospital budget by four percent. This shift may be detrimental to the long-term sustainability of immunization programs in Indonesia. The PRC requests that the Mission address this issue in detail and obtain GOI commitment to increase future year budgets for EPI and preventive health adequately by phases over the life of the project.

Concern: Greater private sector involvement. The PRC recommends that the Mission explore the extent to which private sector involvement other than contracting for marketing or use of private clinics is feasible and focus project activities and policy discussions on those areas.

Recommendation: That you concur in USAID/Jakarta's request (1) to prepare, review and authorize an amendment to the Expanded Program on Immunization Project, increasing life-of-project funding to \$19.7 million; and (2) to seek the Administrator's approval to extend the PACD by 36 months to September 30, 1990, by signing the attached cable (Tab A) and Action Memorandum (Tab B).

Approved: John A. Norri
Disapproved: _____
Date: 5/21/87

Attachments: A. Cable to Jakarta
B. Action Memorandum to A/AID

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523



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DEPUTY ADMINISTRATOR

AID
EXECUTIVE SECRETARIAT

ACTION MEMORANDUM FOR THE DEPUTY ADMINISTRATOR

THRU: *[Signature]* AA/PPC, Richard E. Bissell

FROM: *[Signature]* AA/ANE, Julia Chang Bloch *[Signature]*

SUBJECT: INDONESIA - Expanded Program on Immunization
(497-0253) Project Assistance Completion Date
Extension

Purpose: We request that you delegate to the USAID/Jakarta Mission Director ad hoc authority to extend the project assistance completion date (PACD) of the Expanded Program on Immunization (EPI) Project from eight to eleven years or to September 30, 1990.

Authority: Under Delegation of Authority Number 133, you have delegated to the Assistant Administrator for Asia and the Near East authority to approve life-of-project extensions that do not result in a total life-of-project of more than ten years. You have retained for yourself authority to approve extensions beyond this limit.

Discussion: Indonesia is an A.I.D.-emphasis country for child survival programs, and EPI is the centerpiece of the Mission's child survival strategy. The EPI Project as amended has an eight-year life-of-project funding of \$12.7 million and includes objectives to reduce the infant mortality rate from 98/1000 live births in 1980 to 70/1000 live births in 1990 and the child mortality rate from 21/1000 in 1980 to 14/1000 in 1990. The Mission is proposing a \$7.0 million amendment with an extended PACD of 36 months to continue efforts towards a sustainable EPI program, emphasizing in particular the strengthening of research and development capacities of the Ministry of Health. Amendment funding will come from the F.A.A. Section 104 Health Account.

Indonesia's immunization program has made remarkable progress since its establishment in 1977, with coverage expanding from 55 to more than 3,200 sub-districts or 90 percent coverage. Vaccine coverage for diphtheria/pertussis/tetanus has increased from 18 percent in 1979 to 65 percent in 1986. The 1986 EPI evaluation and joint USAID/UNICEF/WHO/Ministry of Health review confirmed these achievements as well as the existence of remaining problems. The proposed project amendment will address

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major problems; namely, that many clinics do not participate in the national EPI activities; that many participants drop out before completion of vaccine series; that delivery systems are overly centralized and unresponsive to varying socio-cultural and geographical areas; and that EPI budgets are inadequate and declining.

Addressing the remaining problems will involve long-term institutional and policy changes requiring technical assistance support and training inputs. The Mission proposes a three-year extension of this project in order to continue important EPI activities until about 1990 when other projects focusing on child survival interventions are completed. The Mission plans to initiate a Comprehensive Child Survival Project in 1990, combining child survival interventions within one project for better program integration and effectiveness. The three-year PACD extension together with the proposed EPI Project amendment will permit the Mission to consolidate its child survival efforts over time. The ANE Bureau supports the Mission proposal to prepare a project amendment for the above-outlined objectives and to extend the PACD by 36 months.

Recommendation: That you delegate to the USAID/Jakarta Mission Director ad hoc authority to extend the PACD of the Expanded Program on Immunization Project from eight to eleven years or to September 30, 1990.

Approved: Smarter D

Disapproved: _____

Date: 6/4/87

GC:HFry: 11/10/87 Date 6/4/87

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AID/ANE/TR:BTURNER/CJOHNSON {DR}
AID/GC/ANE:HMORRIS {DRAFT}

PRIORITY JAKARTA

AIDAC

E.O. 12356: N/A

TAGS: N/A

SUBJECT: PROPOSED EXPANDED PROGRAM ON IMMUNIZATION
AMENDMENT {497-0253}

REF: JAKARTA 6421

1. AA/ANE BLOCH CONCURS WITH USAID/JAKARTA REQUEST TO PREPARE, REVIEW AND AUTHORIZE SUBJECT PROJECT AMENDMENT IN THE MISSION, UPON ADMINISTRATOR APPROVAL OF BUREAU REQUEST FOR AD HOC DELEGATION OF AUTHORITY TO EXTEND THE PROJECT ASSISTANCE COMPLETION DATE {PACD} BY 36 MONTHS. REVIEW COMMENTS AND GUIDANCE FOR AMENDMENT PREPARATION FOLLOW.

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4. WILL ADVISE SEPTTEL ON AD HOC DELEGATION FOR PACD EXTENSION. PLEASE PROVIDE INFORMATION FOR CONGRESSIONAL NOTIFICATION WHEN AVAILABLE. 44

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REPUBLIC OF INDONESIA
NATIONAL DEVELOPMENT PLANNING AGENCY
JAKARTA, INDONESIA

No. : 2290 /D.I/7/1987

Jakarta, July 6, 1987

Mr. James M. Anderson
Acting Director
USAID
American Embassy
Jakarta

Re : Expanded Program on Immunization
Project No. 497-0253

Dear Mr. Anderson,

On behalf of the Government of Indonesia, we hereby request a loan of \$ 3.0 million and a grant of \$ 4.0 million to further the objectives of the Expanded Program on Immunization Project. These funds will primarily be used for the strengthening of the research and development capacity of the Ministry of Health. The Government of Indonesia will provide the rupiah equivalent of \$ 4.0 million (including in kind) to support this amendment. Total GOI contribution will be \$ 17.956 million.

This new loan amendment would increase the loan portion of the project to \$ 12.5 million and the grant amendment will increase the grant portion to \$ 7.2 million. The life of project activities would be extended to September 30, 1990.

Looking forward to your favorable consideration and thank you for your kind cooperation.

Yours sincerely,



M. Siregar

Cc. :

1. Minister of State for National Development Planning/Chairman of Bappenas
2. Minister of State/Vice Chairman of Bappenas

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ANNEX G
ENVIRONMENTAL IMPACT

I. Description of the Project

The goal of this project is to assist the GOI to achieve its objectives to reduce infant and child mortality during Repelita IV and beyond through the development and expansion of the EPI. The original purposes of the present EPI project are:

- 1) to identify specific target areas and groups for coverage and delivery appropriate vaccines to immunize them against various diseases;
- 2) to strengthen the national immunization organization and infrastructure in order to meet the needs for accelerating immunization activities; and
- 3) to develop the capacity within the MOH to conduct studies and development activities to meet program needs.

Significant progress has been made toward achieving the first two objectives. This amendment will focus on the achievement of the third objective. Investment into an operations research approach to defining problems and testing solutions is considered to be the most cost-effective approach toward achievement of the MOH's desired levels of full immunization coverage.

II. Identification and Evaluation of Environmental Impact:

No funding will be supplied for activities effecting the environment such as construction of facilities of any type. In accordance with 22CFR Part 216.2 (c)(2)(VIII) and 216.3(a)(1), an Initial Environmental Examination is not required for this project.

Expanded Program on Immunization (EPI): Project Amendment

ANNEX H

5C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A includes criteria applicable to all projects. Part B applies to projects funded from specific sources only: B(1) applies to all projects funded with Development Assistance; B(2) applies to projects funded from Development Assistance loans; and B(3) applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

Yes. See Annex VIII, Agricultural and Rural Sector Support Program (497-0357) PAAD. Yes. See 5C(3) of this Annex.

A. GENERAL CRITERIA FOR PROJECT

1. FY 1987 Continuing Resolution Sec. 523; FAA Sec. 634A. Describe how authorization and appropriations committees of Senate and House have been or will be notified concerning the project.

A CN has been prepared. Obligation will occur following expiration of the Congressional notification period without objection.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance, and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a) Yes.
(b) Yes.

3. FAA Sec. 611(a)(2). If legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No further legislative action is required.

4. FAA Sec. 611(b); FY 1987 Continuing Resolution Sec. 501. If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.)

N/A.

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project? N/A.
6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. No.
N/A.
N/A.
7. FAA Sec. 601(a). Information and conclusions on whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions. The amended Project will develop and expand the GOI program to reduce infant and child mortality. As such FAA section 601(a) does not apply to the amended Project.
8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise). The amended Project will finance long and short-term technical assistance from the United States.
9. FAA Secs. 612(b), 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars. The GOI will fund over 36% of the amendment's cost, mostly for local costs.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release? No.

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11. FY 1987 Continuing Resolution Sec. 521.
If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? N/A.
12. FY 1987 Continuing Resolution Sec. 558
(as interpreted by conference report).
If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities (a) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (b) in support of research that is intended primarily to benefit U.S. producers? N/A.
13. FY 1987 Continuing Resolution Sec. 559.
Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel? No.

14. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible:
- (a) stress the importance of conserving and sustainably managing forest resources; (a) N/A.
 - (b) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (b) N/A.
 - (c) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (c) N/A.
 - (d) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (d) N/A.
 - (e) help conserve forests which have not yet been degraded, by helping to increase production on lands already cleared or degraded; (e) N/A.
 - (f) conserve forested watersheds and rehabilitate those which have been deforested; (f) N/A.
 - (g) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (g) N/A.
 - (h) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (h) N/A.
 - (i) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (i) N/A.
 - (j) seek to increase the awareness of
- Yes. See Annex G.

U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (k) utilize the resources and abilities of all relevant U.S. government agencies?

15. FAA Sec. 119(g)(4)-(6). Will the assistance (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (a) N/A.
(b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (b) N/A.
(c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (c) N/A.
(d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas? (d) N/A.
16. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (either dollars or local currency generated therefrom)? N/A.
17. FY 1987 Continuing Resolution Sec. 532. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution? No.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FAA Secs. 102(b), 111, 113, 281(a). Describe extent to which activity will (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and N/A.

insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.

- b. FAA Secs. 103, 103A, 104, 105, 106, 120-21. Does the project fit the criteria for the source of funds (functional account) being used? Project meet fully the criteria for FAA section 104.
- c. FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)? N/A.
- d. FAA Secs. 110, 124(d). Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or if the latter cost-sharing requirement being waived for a "relatively least developed" country)? Yes.
- e. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority? N/A.

f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.

The amended Project will strengthen the national immunization organization and infrastructure and develop capacity within the MOH to conduct activities to meet program needs

g. FY 1987 Continuing Resolution Sec. 540. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?

No.

Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?

No.

Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?

No.

h. FY 1987 Continuing Resolution. Is the assistance being made available to any organization or program which has been determined to support or participate in the management of a program of coercive abortion or involuntary sterilization?

No.

If assistance is from the population functional account, are any of the funds to be made available to voluntary family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services?

N/A.

i. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes.

j. FY 1987 Continuing Resolution. How much of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?

No set percentage of amended Project funds will be available for Grey Amendment entities only; however, such entities will be used to the maximum extent practicable in implementing the Project.

k. FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including projects involving the planting of exotic plant species), will the program or project (a) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (b) take full account of the environmental impacts of the proposed activities on biological diversity?

N/A.

l. FAA Sec. 118(c)(14). Will assistance be used for (a) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (b) actions which significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas?

N/A.

m. FAA Sec. 118(c)(15). Will assistance be used for (a) activities which would result in the conversion of forest lands to the rearing of livestock; (b) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (c) the colonization of forest lands; or (d) the construction of dams or other water

N/A.

control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

2. Development Assistance Project Criteria
(Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest.

Indonesia has an unblemished record for AID loan repayments.

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest?

N/A.

c. FY 1987 Continuing Resolution. If for a loan to a private sector institution from funds made available to carry out the provisions of FAA Sections 103 through 106, will loan be provided, to the maximum extent practicable, at or near the prevailing interest rate paid on Treasury obligations of similar maturity at the time of obligating such funds?

N/A.

d. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities?

Yes.

3. Economic Support Fund Project Criteria

Not ESF-funded.

- a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA? N/A.
- b. FAA Sec. 531(e). Will this assistance be used for military or paramilitary purposes? N/A.
- c. ISDCA of 1985 Sec. 207. Will ESF funds be used to finance the construction, operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such country is a party to the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (the "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States? N/A.
- d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N/A.

Expanded Program on Immunization (EPI): Project Amendment
ANNEX H

5C(3) - STANDARD ITEM CHECKLIST

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. PROCUREMENT

1. FAA Sec. 602(a). Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?
2. FAA Sec. 604(a). Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him?
3. FAA Sec. 604(d). If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?
4. FAA Sec. 604(e); ISDCA of 1980 Sec. 705(a). If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)
5. FAA Sec. 604(q). Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those

Indonesia does not so discriminate against U.S. marine insurers.

N/A.

N/A.

countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)

6. FAA Sec. 603. Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?
No. Section 901(b) applies.
7. FAA Sec. 621(a). If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?
Yes.
8. International Air Transportation Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?
Yes.
9. FY 1987 Continuing Resolution Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?
All AID direct contracts will so provide.
10. FY 1987 Continuing Resolution Sec. 524. If assistance is for consulting service through procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)?
Yes. Any such expenditure will be so available.

B. CONSTRUCTION

1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services be used? N/A.
2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? N/A.
3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the CP), or does assistance have the express approval of Congress? N/A.

OTHER RESTRICTIONS

1. FAA Sec. 122(b). If development loan repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter? Yes.
2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? N/A.
3. FAA Sec. 620(h). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? Yes.

4. Will arrangements preclude use of financing:

- a. FAA Sec. 104(f); FY 1987 Continuing Resolution Secs. 525, 540. (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice abortions; (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (3) to pay for any biomedical research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; or (4) to lobby for abortion? (1) Yes.
- b. FAA Sec. 483. To make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated? Yes.
- c. FAA Sec. 620(g). To compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President? Yes.
- d. FAA Sec. 660. To provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes.
- e. FAA Sec. 662. For CIA activities? Yes.
- f. FAA Sec. 636(i). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? Yes. A world-wide light weight vehicle waiver applies.
- g. FY 1987 Continuing Resolution Sec. 503. To pay pensions, annuities, retirement pay, or adjusted service compensation for military personnel? Yes.

- h. FY 1987 Continuing Resolution Sec. 505.
To pay U.N. assessments, arrearages or dues? Yes.
- i. FY 1987 Continuing Resolution Sec. 506.
To carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)? Yes.
- j. FY 1987 Continuing Resolution Sec. 510.
To finance the export of nuclear equipment, fuel, or technology?
- k. FY 1987 Continuing Resolution Sec. 511.
For the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights? Yes.
- l. FY 1986 Continuing Resolution Sec. 516.
To be used for publicity or propaganda purposes within U.S. not authorized by Congress? Yes.