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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

APPRAISAL REPORT OF

A JOINT IDA-UNFPA POPULATION PROJECT

INDONESIA

February 29, 1972

Population Projects Department
CURRENCY EQUIVALENT

U.S.$ 1.00 = Rp 415
Rp 1 = U.S.$ 0.0024
Rp 1 million = U.S.$ 2,400

Indonesia Fiscal Year - April 1 to March 31

GLOSSARY

Abbreviations

ABRI = Armed Forces
AKRI = Police
ANM = Auxiliary Nurse-Midwife
BAPPENAS = National Economic Planning Agency
BPP = Office of Educational Development
DIP = Authority for Expenditure of Government Budget Funds
DKD = Voluntary Village Worker
FP = Family Planning
GDP = Gross Domestic Product
IPH = Institute of Public Health
IPPA = Indonesian Planned Parenthood Association
IPPF = International Planned Parenthood Federation
IUD = Intra Uterine Device
KAP = Knowledge, Attitude, and Practice
LEKNAS = Indonesian Institute of Sciences
LKBN = National Family Planning Institute
MCH = Maternal and Child Health
NFPCB = National Family Planning Coordinating Board
NTB = National Training Board
NTC = National Training Center
PCC = Project Coordinating Committee
PIU = Project Implementation Unit
PKC = Assistant Nurse
PKE = Assistant Midwife
PSC = Population Study Center
PTC = Provincial Training Center
RSU = General Hospital Administered by the Ministry of Health
STC = Subtraining Center
SURURI = Survey & Business Research Indonesia
TCPS = Yaws Examiner
UN = United Nations
UNESCO = United Nations Education, Scientific and Cultural Organization
UNFPA = United Nations Fund for Population Activities
UNICEF = United Nations Children's Fund
USAID = United States Agency for International Development
WHO = World Health Organization

Indonesian Terms

DUKUN = Indigenous Midwife
KABUPATEN = Regency
KAWEDANAN = District
KETJAMATAN = Subdistrict
MANTRI = Male Nurse
BUPATI = Regent
INDONESIA: BASIC DATA

1970 (Except where indicated)

Area ........................................ 1,904,345 km²
Population .................................... 121 million

Density:

- Indonesia .................................... 64/1 km²
- Java and Madura ................................ 590/1 km²

Birth Rate .................................... 48/1,000
Death Rate .................................... 22/1,000
Rate of Population Growth ................... 2.6% per annum
General Fertility Rate ......................... 207/1,000

Population By Age Groups (1961 Census):

- Under 15 Years ............................ 42.1%
- 15 - 64 Years .............................. 55.4%
- 65 Years and Over .......................... 2.5%

Population by Religion:

- Muslim ....................................... 90%
- Christian .................................... 8%
- Hindu ........................................ 3%
- Buddhist ..................................... 3%

Literacy (1961) - 10 Years of Age and Over .............. 43%

Labor Force (1961) - 10 Years of Age and Over ........... 34.5 million

Gross Domestic Product (GDP) ....................... U.S.$75 per capita
INDONESIA: A JOINT IDA-UNFPA POPULATION PROJECT

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This report is based on the findings of a mission in June 1971 to Indonesia comprising Mr. G. Zaidan (Chief of Mission), Messrs. H. M. Jones, J. R. Burfield, and K. V. Ranganathan from the Bank, as well as Miss C. Walsh (Nursing) and Messrs. R. Trengove (Architecture) and J. Ratcliffe (Evaluation) as consultants. The mission was joined by Mr. H. Gille, Associate Director of the United Nations Fund for Population Activities (UNFPA) and Mr. C. R. de Silva of the Bank's East Asia & Pacific Department. This report was prepared by Mr. H. M. Jones, with the cooperation of Miss I. Z. Hussain and Mr. J. R. Burfield in particular sections.
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INDONESIA: A JOINT IDA-UNFPA POPULATION PROJECT

SUMMARY AND CONCLUSIONS

i. This report appraises a population project in Indonesia for which an IDA credit of U.S.$13.2 million is proposed. The project has been developed jointly with representatives of the United Nations Fund for Population Activities (UNFPA) from which will be provided foreign exchange for the project in the same amount as the IDA credit. IDA will act as Executing Agent for the UNFPA funds, with responsibility for project supervision and for disbursement of the UNFPA grant.

ii. Indonesia is a country of 121 million people with a low per capita income and with a high population growth rate (2.6%). Nearly two-thirds of this population live on the islands of Java and Bali, two of the most heavily populated regions in the world. This combination of facts makes it unlikely that living standards can be significantly raised unless the rate of population growth can eventually be slowed. The Government is aware of this problem and has given strong policy support to a national family planning program. In 1970 it established a National Family Planning Coordinating Board (NFPCB) to take over and expand a program which had been initiated by a voluntary organization. Progress to date has been encouraging, but much higher numbers of continuing acceptors are necessary before any significant effect on the birth rate can be expected.

iii. The project consists of a widely dispersed construction program, involving over 300 separate structures, plus an integrated set of nonconstruction activities necessary to increase the effectiveness of the national program. The construction activities will be mainly in East Java, Bali, and the city of Djakarta (in West Java). The project, costing U.S.$33.0 million, over a 5-year period, will account for substantially all of the national program's physical expansion in East Java, Bali and Djakarta, and for the major part of program expansion, in such fields as motivation, training and evaluation, throughout the country. The institution building and technical assistance components of the project will benefit the entire national program.

iv. In functional terms, the project will:

a. improve motivation services by

1. providing support for a ten-fold increase in the number of nonmedical field workers, who are the only full-time field workers in family planning;

2. providing training schools for all categories of staff in the national family planning program;

3. strengthening the capability of the NFPCB to coordinate and direct an effective information program;

4. providing mobile information units to take family planning information to village level; and

5. introducing population education into in-school and out-of-school education.
b. improve family planning services by

1. renewing presently inadequate buildings which are the foci of the delivery system;

2. building training facilities to increase the number of para-medical staff who are responsible for providing the intra-uterine device (IUD) and contraceptive pill used by 90% of new acceptors; and

3. supporting the improvement and expansion of the hospital postpartum program.

c. strengthen NFPCB's capacity to coordinate the national program by

1. providing an advisory team covering overall program management, training and communications;

2. providing technical advisers and foreign fellowships to improve specific program functions and skills;

3. expanding the evaluation and research capability of the NFPCB at central and provincial levels, and enhancing Indonesian institutional research capability to provide essential contract research;

4. supporting an organizational restructuring to provide the strong managerial capability which the program requires; and

5. building administrative centers needed to house staff, foreign advisers, and equipment.

v. Total project costs are estimated at U.S.$33.0 million (Rp 13,695 million). The Association, UNFPA, and the Government will share these costs on a 40-40-20 basis. The Government's contribution of U.S.$6.6 million will go entirely to its share of the additional operating costs required by the project (IDA and UNFPA will also finance a portion of these costs, on a declining share basis). The total foreign exchange cost is estimated at U.S.$12.8 million. Total government expenditures for family planning are estimated to be about U.S.$58 million equivalent between 1972 and 1977.

vi. The NFPCB would be responsible for the administration and coordination of project activities, and would establish a Project Implementation Unit (PIU) for this purpose as part of its control organization. The PIU would have two sections -- one responsible for construction and the other for nonconstruction components. A consulting firm would be retained to advise and assist the PIU on all matters concerning project realization. During negotiations, assurances will be sought from the Government that it will associate other agencies with the implementation of specific project components. These agencies and components are: WHO - hospital postpartum program; UNESCO - communications and population education; UNICEF - vehicle procurement; UN Population Division - two of the evaluation and research components covering the Institute of Demography and the Population Study Center; and the Population Council of New York - demonstration field postpartum program. Should the Government fail to reach agreement with these agencies, other agencies of similar competence acceptable to IDA will be associated with these project components.
vii. With the exception of the central NFPCB headquarters buildings in Djakarta, the buildings to be constructed are small and scattered and are not suitable for international tendering, and will be built by prequalified local contractors on a competitive basis. A contract for the NFPCB headquarters will be awarded on the basis of international tenders. Nonconstruction equipment will also be procured on the basis of international competitive bidding except for the hospital equipment (valued at less than U.S.$25,000) to be procured by UNICEF to standardize with existing equipment. Vehicles will be procured by UNICEF on the basis of international competitive bidding except when the use of UNICEF's existing long-term negotiated fleet contracts is indicated in the interests of fleet standardization and economy.

viii. As a result of the project, it is estimated that the number of new acceptors of family planning would increase to a level more than three times higher than would be reached without the project. In 1970-71, about 180,000 new acceptors were reached. Without the project, this might rise to around 500,000 per year by 1975; with the project, a figure of 1.6 million is probable. The figures needed to measure with confidence the economic impact of the project do not exist. The use of arbitrary, but conservative assumptions, however, indicates that, in the long run, the project will contribute to an increase in per capita income and a reduction in unemployment. Project costs will be very low compared with project benefits.
INDONESIA: A JOINT IDA-UNFPA POPULATION PROJECT

I. INTRODUCTION

1.01 Since 1966, the Indonesian Government has become increasingly aware of the acute problems which a rapidly growing population pose for its efforts at economic development. With over 120 million people, the fifth largest population in the world, Indonesia has a current growth rate of 2.6%, giving an annual increment of some 3 million persons. In his 1971 National Day address, President Suharto said that "the success or failure of the planned parenthood drive is a challenge to the future of the Indonesian nation."

1.02 On assuming responsibility for family planning work, the Indonesian Government invited the Bank Group and the UNDP in July 1969 to help in developing a comprehensive program. A mission, jointly sponsored by the UN, WHO, and IBRD, visited Indonesia from September to November 1969. Its report, outlining a 5-year program to reach 6 million new acceptors in Java and Bali in that period, was presented to the President of Indonesia in July 1970, and formed the basis for the 5-year program subsequently adopted by the Government.

1.03 In response to a request from the Government to develop a project within the framework of this program, a preappraisal mission visited Indonesia in November and December 1970.

1.04 The Government also approached the United Nations Fund for Population Activities (UNFPA) independently in 1970 to fund specific projects within the 5-year program. To coordinate assistance to the Indonesian program, the Bank Group invited the UNFPA to join an appraisal mission which would aim to develop a joint project. The appraisal mission visited Indonesia in June 1971. As a result of this mission, and of subsequent discussions at headquarters, a joint IBRD-UNFPA project was developed.

II. DEMOGRAPHIC, SOCIAL, AND ECONOMIC BACKGROUND

2.01 In 1970, Indonesia had a population estimated at 121.2 million living on five large and some 3,000 smaller islands. Two-thirds of the population are concentrated on the islands of Java and Bali (only 7% of the land area) where population densities approach 550 per km$^2$, considerably greater than those of industrialized countries of western Europe, such as Belgium and The Netherlands. This contrasts with other islands, such as West Irian which accounts for almost 25% of the land area but has a density of only 2 per km$^2$. The population comprises a variety of ethnic groups, but the majority are of Malay origin. Diverse languages and dialects, culture, and social organizations distinguish the groups, the most important being the Javanese. Muslims comprise 90% of the population, the remainder being Christians (4%), Hindus (3%), and Buddhists (3%). Those who can read and write constituted 42% of the population of 10 years and over in 1961. Details
of the population are given in Annex 1.

2.02 Between the censuses of 1930 and 1960, the population of Indonesia grew from 60.7 million to 97.1 million. The rate of growth of the population was aged 1% per annum between 1931 and 1961, but fluctuated markedly. Vital rates underwent abrupt changes as a result of the World War, and subsequent War of Independence. Mortality dropped in the thirties, rose during the wars, and subsequently declined to an estimated level of 22 per 1,000 persons by 1970 in association with the control of malaria, yaws, smallpox, and other diseases. The birth rate appears to have remained almost constant and was estimated to be 48 per 1,000 persons in 1970. The result has been a rapid acceleration in the rate of growth of the population from 2% per annum in the fifties to an estimated 2.6% per annum in 1970.

2.03 According to the 1961 census data, 42.1% of the population was under 15 years and 25% was over 65 years. They indicated a high dependency burden of 88, which must have increased during the sixties due to constant high fertility levels and a decline in infant mortality.

2.04 The rapid growth of the Indonesian population has serious economic and social implications (see Annex 2), the obvious effects of which are rising unemployment and underemployment, and the severely restricted growth of per capita income. Estimates are unreliable, but there is clearly serious unemployment and underemployment throughout the country.

2.05 Unless population growth can be curbed, there is a serious question as to whether Indonesia can sustain even a moderate increase in the living standards of its population. The rate of growth of per capita income during the early sixties was scarcely perceptible in spite of an average growth rate of the GDP of 2.6% during the period.

III. FAMILY PLANNING SERVICES AND PROGRAM

A. Background

3.01 Family planning work in Indonesia was initiated by a voluntary organization, the Indonesian Planned Parenthood Association (IPPA), in 1957. Its work was restricted at first by an unfavorable political climate to an information program, directed mainly at women's organizations. Increasing awareness by the Government of the country's population problem and the need for family planning became evident in 1967, and a modest service program using facilities provided by the Ministry of Health was developed by IPPA. Its activities then expanded considerably from 8 branches and 52 clinics to 92 branches and 396 clinics by December 1969.

3.02 Government involvement in family planning started with the creation of the National Family Planning Institute (LKBN) in October 1968. The first 5-year plan (1969-74) included a family planning program designed to reach 3 million acceptors in Java and Bali by the end of the plan period. In spite of this activity, however, there was no effective national program. In July

1/ The dependency burden is calculated as the number of people in the age groups 14 and under, and 65 and over per 100 persons in the age group 15-64 years.
1969, the Government asked IBRD and UNDP to help develop a comprehensive government program. At the same time, it assumed responsibility for the IPPA clinical facilities in Java and Bali. A UN-WHO-IBRD mission visited Indonesia in October and November 1969. Following the submission of its report, the President of Indonesia directed that an operational plan be prepared to implement acceptable recommendations. For this purpose, a task force was appointed which produced a 5-year plan; it was based mainly on the recommendations of the UN-WHO-IBRD Report and adopted a target of 6 million new acceptors to be achieved by 1976.

B. Family Planning Organization and Administration

3.03 The organizational structure of the family planning program derives from Presidential Decision No. 8 of 1970. The President is responsible for the national family planning program with the Minister of State for Peoples' Welfare responsible for its immediate implementation. The National Council for Guidance of Family Planning was established at ministerial level to advise the President on the "guidance and control of all operations in the field of family planning." To achieve the "coordination, integration, and synchronization of efforts in realizing the national program of family planning carried out by the implementing units," the semi-autonomous LKBN was replaced by the National Family Planning Coordinating Board (NFPCB). In addition to its main coordinating function, the NFPCB is responsible for generating policy, drawing up implementation guidelines, and coordinating foreign aid. The structural pattern of the NFPCB, which started work in July 1970, is shown in Annexes 3 and 4.

3.04 NFPCB staff are seconded, and draw their basic salary, from other government departments, primarily the Ministry of Health, retaining such rights as those of promotion and transfer. Many senior NFPCB posts, particularly at the central level, are filled on a full-time basis. Most, however, are part-time appointments, additional to other official posts. All posts attract salary supplements, and related financial payments include compensation to Ministry of Health staff for family planning work, and inducements to those who refer new acceptors.

3.05 Responsibility for translating policies and plans into action lies with the implementing units. The main burden of providing family planning services in Java and Bali falls on the Ministry of Health. Within the Ministry, a directorate is responsible for maternal and child health (MCH) and family planning work. In common with other directorates, its functions are mainly consultative, coordinative, supervisory, and legislative. Execution of the Ministry's plan is primarily the responsibility of the provincial health departments which, because they fund most of their activities, have considerable autonomy. Administration of health services, including MCH and family planning, progresses from the Ministry of Health in Djakarta, through the health department in each province down to regency, district, sub-district, and village levels. Its structure at central level is shown in Annex 5, and at provincial level and regency level in Annex 6. Supplementary support is provided by those medical facilities (hospitals and clinics) of the Armed Forces (ABRI) and Police (AKRI) which are open to the general public. The (Christian) Council of Churches and the Muslim Mohammedijah also have facilities providing family planning services.

1/ The structure of the national health services is based on a long-term development program prepared by the Government with the assistance of WHO and UNICEF, and described in the Master Plan of Operations dated January 1969.
3.06 The IPPA is the most important voluntary organization and, since the Government took over the national program, its activities cover training, information, and services outside Java and Bali. The changing role of the IPPA foreshadowed organizational changes in 1970. A staff of full-time, salaried workers has replaced the group of experienced volunteers, with a clear separation of policymakers from executive officials. The organization is indicated in Annex 7. Although no final decisions have been made, there is general, informal agreement between the IPPA and the Government that, in Java and Bali, IPPA will play an important part in developing training, research, and information work. In the outer islands, the IPPA will still be responsible for almost every aspect of family planning activities.

3.07 The main organizational problem is the ineffective relationship between the NFPCB and the implementing units, in spite of the recent creation of an ad hoc working committee designed to improve coordination. This is due to the weak administrative component of the NFPCB's organization. To improve those functions essential to the development of its coordinating role, a modification of the organizational structure is proposed to secure a more effective focus on planning, budgeting, and supervision. This will be a condition of effectiveness. The proposed reorganization is outlined in Annex 8.

C. Attitudes Toward Family Planning Acceptance

3.08 The only Knowledge, Attitude and Practice (KAP) study of consequence to measure knowledge of attitudes toward and acceptance of family planning methods was sponsored by IPPA and the Ford Foundation in 1968 and limited to a sample population in Djakarta. The principal impressions were that knowledge of family planning methods is limited, that contraception is practiced by a small fraction of the population and the methods used are generally ineffective, and that despite the paucity of knowledge, there is a high level of interest in learning about family planning. Religious support for the program is increasing and is helped by the Minister of State for Peoples' Welfare, who is a respected Moslem leader. There is little overt opposition to the government family planning program.

D. Family Planning Services

3.09 In the national family planning program, the facilities and staff of the Ministry of Health's MCH program are used to deliver 80% of the services. Services are also delivered through MCH centers run by the Armed Forces, voluntary organizations, agricultural and industrial estates, and doctors and midwives in private practice. Because the program is still in an early stage of development, most women first hear about family planning through the MCH staff. Of a sample of new acceptors in the first quarter of 1971, 58% were referred by health workers, 10% by friends who were using contraceptive methods, and 17% by field workers. Of the government health workers, the midwife is an important figure and presently the principal contact with potential acceptors. In 1969, there were about 1,900 midwives working in government MCH services. Midwives and nurses are trained in separate courses for 3 years, after 9 years of general education. In some schools, the separate courses are being replaced by a 4-year course training nurse-midwives. The first 3 years cover general nursing and the fourth year provides specialist training, one of the options being midwifery. Midwives assist in deliveries,
run baby clinics, provide family planning services, and also have associated administrative responsibilities. At lower levels, the two most important categories are the assistant nurse (PKC) and the assistant midwife (PKE); each has 2 years of training following 6 years of general education. In East Java, there are no PKE training facilities; their functions are carried out mostly by untrained assistants to midwives.

3.10 Other important motivators in the field include traditional midwives (dukuns) who are responsible for about 80% of deliveries in rural areas. They are gradually being trained, with UNICEF assistance, in delivery procedures by government midwives. Successful trainees are provided with free delivery kits which are renewed each time a delivery is reported to the nearest government midwife. Their training includes a family planning element, and indigenous midwives are playing an increasingly important role in family planning motivation. In East Java, 6,700 of the 14,000 dukuns practicing in the province had been trained by August 1970. In addition to other health workers, and staff from other ministries with extension field staff who also try to recruit acceptors, the full-time nonmedical field workers are being recruited on an increasing scale and beginning to play an important part in the motivation of potential acceptors. To date, however, only 400 nonmedical field workers have been recruited in Java and Bali, and there are still important questions of organization, training and supervision to be resolved. Annex 9 describes the present state of the field worker program.

3.11 Potential acceptors are referred to family planning clinics, i.e., those MCH centers at which contraceptive methods are offered, either at special sessions or as a routine part of the MCH program. The program is female-oriented, with about 90% of new acceptors using either the IUD or contraceptive pill. In East Java, nearly 90% of the MCH centers are the responsibility of the provinces' health services and of these, 92% are in rural areas. Facilities at village level are rudimentary; for an average village of 2,800 people, there is usually a simple MCH center built by the community and visited perhaps twice a month by a midwife and more rarely by a doctor. At the sub-district (ketjamatan) level, with a typical population of 44,000 people, there is a permanently manned MCH center with a trained government midwife in charge; some have more than one MCH center. The district (kawedanan), a grouping of five sub-districts, is the main provincial sub-unit for health purposes, headed by a medical officer, with primarily administrative functions, and supporting staff as shown in Annex 10.

3.12 In the large cities, the ratio of government MCH centers to the population is lower than in rural areas, but they are supported by a much larger number of private facilities. In the city of Surabaja, for example, the ratio is 1:85,000 for government centers, but 1:35,000 when private centers are taken into account. In the smaller provincial towns, which also act as the headquarters of adjacent sub-districts, the ratio is still better -- in East Java, it is 1:25,000. Hospital and maternity services are centered in urban areas. In Djakarta, in 1969, 50% of the 160,000 deliveries were reported from maternity institutions.

3.13 The provision of MCH facilities and staff in East Java, Bali, and Djakarta, as examples of the services provided by provincial health authorities, is detailed in Annex 11. Because acceptors now use mainly those contraceptive methods which require the attention of trained medical and paramedical staff in health facilities, an improvement in the basic services
provided through the MCH program is of critical importance to the success of the family planning program. There are three serious constraints to development:

a. Shortage of Staff
The number of midwifery schools in Java and Bali is variably reported but best estimates are 6 in Djakarta, 15 in East Java, 1 in Bali, and 22 in the rest of Java, giving a total of 44 for the two islands. Details of the main midwifery schools in the provinces of East Java, Bali and Djakarta are in Annex 12. Provincial medical officers have roughly estimated that for existing MCH, maternity hospital, and administrative purposes, there is, for example, a shortage of 500 midwives in East Java and 700 in Djakarta. In East Java, the number of midwives gives a ratio of 1:33,000 people (compared with a ratio of 1:4,750 people in West Malaysia). In Bali, the ratio is one midwife for 12,500 people. The ratio of government midwives working in MCH centers and, therefore, available for the delivery of family planning services, is about 1:45,000 people. This is extremely low and indicates a need for at least twice as many midwives as presently employed and the improvement and expansion of training facilities.

b. Inadequate Buildings
There is a shortage of centers and many use inadequate buildings. In East Java, each rural center serves an average of 25,600 persons. In addition to the fact that not all are staffed, their irregular distribution means that wide areas of the country are inadequately serviced. Many of the existing centers are locally built of poor materials and others occupy rented accommodation. The village MCH center is often a room in a house rented for two afternoons a month and used as a dwelling for the rest of the time. In a survey made by the Bank in May 1971 of family planning clinics using MCH centers in East Java, nearly 90% needed new buildings or extensive renovations to bring them to standard in terms of space and facilities.

c. Inadequate Maternity Facilities
Maternity facilities in the larger cities such as Djakarta and Surabaja provide for only 50% of deliveries in urban areas. Although at the end of 1970 the average number of deliveries per bed in Djakarta in all facilities was 38, the rate of over 80 per bed for public maternity facilities is well above an acceptable rate of 60 deliveries per bed annually. The decentralization of maternity facilities to smaller 20-bed units in the suburbs of Djakarta and Surabaja is proceeding, but in Surabaja, for example, only 3 out of 16 MCH centers have been provided with such units. They have, however, proved successful in providing better coverage of maternity services and greatly expanded opportunities for family planning motivation by providing information and services to the recently-delivered mothers. For small urban, and rural areas, only some 20 beds are provided for maternity cases in each district (kawedanan).
E. Family Planning Program Performance

3.14 Of the 1,686 centers which reported family planning activity in September 1971, 86% are operated by government agencies and the remainder by private agencies (5%) and others, including the military forces (9%). Table 2 of Annex 13 shows the distribution of family planning clinics by agency and province. The target of family planning acceptors per clinic/month set by the Ministry of Health is 8.0 for the 1971-72 plan year. The actual rate has risen for all clinics to 8.7 for 1970 to 15.7 in the first quarter of 1971 and 25.6 in the second quarter of FY1972. Table 3 of Annex 13 shows the rates of acceptors per clinic/month by province. It illustrates an increase in the number of acceptors which is not entirely due to the opening of additional facilities. Data indicate that the centers are now devoting more time to providing family planning services.

3.15 From 1967 to 1970, the number of acceptors increased over 11 times from 11,363 to 132,307. In FY1970-71, the number of new acceptors totalled 183,442, exceeding the target by 58,442 acceptors. This increase continued in the first half of FY1972, when the full target for this year was exceeded by 35%. Whilst this is encouraging, the total number of women practicing family planning represents only 1.3% of the women in the fertile 15-44 years age group (compared, for example, with 24% in Taiwan). Details of new acceptors for Java and Bali are shown in Annex 13, which indicate that family planning acceptance is strongest in urban Djakarta and Bali. Female acceptors are generally young (over half are between 20 and 29 years) and have already had four children. The trend has been towards the contraceptive pill as the most frequently accepted method, but, as Annex 13 shows, there are interprovincial variations in contraceptive use. Throughout Indonesia, a vasectomy is not acceptable for cultural reasons; there is, however, a growing awareness among government planners of its potential importance to a family planning program. Abortion is illegal; no information is available on its prevalence in Indonesian society.

F. Training

3.16 To date, most family planning training has been done through the IPPA. Between 1963 and 1968, 44 doctors, 20 midwives and nurses, and 23 others were trained at the International Planned Parenthood Federation Regional Training Institute in Singapore. In September 1968, a national training center (NTC) was established by IPPA in Djakarta. It is designed to train and upgrade family planning workers and provincial training center (PTC) teachers, technically supervise PTC work, as well as guide and assist other family planning training programs. The faculty is employed part-time only. With the assistance of the Netherlands Government, a permanent center is being built. Six provincial training centers (PTC) were established by IPPA in mid-1969. They have no permanent buildings, and equipment and books are inadequate. Each PTC is a major unit for training field workers, and is able to train between 275 and 400 annually. The total IPPA training capacity is rated at 2,000 workers per annum. Details of personnel trained to June 1971 are shown in Annex 14. Some family planning training, but only as part of routine refresher courses, has also been undertaken in provincial health training centers.

3.17 The NFPCB has calculated training loads for the current fiscal year and broad estimates for the next 4 years (see Annex 15). There is, however, no clearly defined national training policy and plans to achieve the training
of more than 4,000 personnel annually are inadequate. Training responsibilities are confused and the present organization and utilization of available training centers are, therefore, unsatisfactory. None has either an adequate number of trained faculty of the correct type needed as trainers or sufficient equipment or accommodation for effective functioning. Their management lacks uniformity and purpose and, in consequence, the relevance of their training function to the national family planning program is often marginal. In the PTCs established by the IPPA, the training program has not been fully utilized. Trainees are drawn primarily from among employees of provincial health departments and selection for training is thus the responsibility of health officials. Many PTC facilities and staff are in fact made available to the IPPA by the Ministry of Health. With the lack of central direction, there is considerable overlapping of authority. Curriculum development lacks the necessary coordination. There is no uniformity of salary scales. Standards of training vary considerably, in the absence of firm decisions as to the training load, in both type and number of trainees, for each center. There is a need for the establishment of a national training committee, an immediate review of training problems and requirements, a clear statement of responsibility and policy, and detailed plans for its implementation (see Annex 16). The Government has given assurances that it will establish a standing committee on family planning training to be responsible for recommending to the Chairman of the NFPCB training policies and priorities the appointment of training responsibilities, and the use for training purposes of the facilities for which the project provides.

G. Information and Communications

3.18 The NFPCB has information bureaus at central, provincial and regency levels. The information component of the budget was substantially increased from Rp 63 million in FY1971 to Rp 357 million in FY1972. It covers mass communications items such as radio programs, bill board, posters, films, and press releases. The IPPA has accepted an increasingly important role in the dissemination of family planning information by preparing posters and leaflets, and organizing seminars for opinion leaders. It will continue to use mass media such as radio and the national press. With the assistance of USAID, the Ministry of Health is developing a program to develop personal-contact motivation to practice family planning.

3.19 Thus far, the most intensive information program is being carried out in Djakarta. Here, mass media can be used to reach a dense urban population, the field worker program is more developed than elsewhere in Java and a variety of information materials is used in motivation work. The national program's main problems in this field are the successful development of mass media techniques to cover the whole of Java and Bali, the development of information materials suitable for use by field workers, and the means to spread information on family planning to the mass of the rural population. Successful solutions to these problems are essential in maintaining increases in the number of new acceptors using the developing and expanding delivery system. Strengthening the Information and Motivation Bureau of the NFPCB to enable greater coordination of the two main implementing units (Ministry of Information and IPPA), and stimulation of research into improved motivation techniques is needed. The provision of mobile units for information work at village level is required and, with more and better trained field workers, will lead to improved knowledge of family planning methods and services.
H. Service Statistics, Evaluation, and Research

3.20 The NFPCB has established two bureaus in this field, one for reporting and recording, and the other for research and evaluation. The links between research, evaluation, and program operations, however, are unclear and ill-defined, a problem compounded by the fact that the two bureaus are under separate direction. The NFPCB has assumed the responsibility, as if it was an implementing unit for reporting and recording. Until now the several implementing units have evolved various systems which generally produce incomplete data. To mid-1969, the IPPA collected reports from its clinics, but often achieved only 70% coverage with most reports being submitted up to 6 months late. An improved and simplified reporting and recording system has been introduced recently. As a result of a better working relationship with the implementing units, and with the assistance of USAID, current performance data have improved considerably, being more comprehensive and up-to-date than data provided hitherto.

3.21 Because the Bureau of Evaluation and Research has been established for one year only, little evaluation has been accomplished. Some research activities have been initiated by the implementing agencies, such as IPPA and the Ministry of Health, but the lack of sound research techniques and methodology has inhibited progress. Assisted by the Ford Foundation, the IPPA carried out a KAP study in 1968. The Institute of Public Health in Surabaja has carried out useful operational studies of MCH services. Research attention should be focused on studies which have the maximum operational significance. As reliable data are produced, subsequent studies should include contraceptive package surveys and KAP studies to provide baseline data against which performance can be matched. They require efficient coordination by the NFPCB.

I. Foreign Aid

3.22 Financial and commodity foreign assistance, detailed in Annex 17 and Annex 18, has grown from U.S.$2.0 million in FY1969 to U.S.$3.32 million in FY1971. In the past, assistance has been channeled through the Ministry of Health and IPPA. The NFPCB is now charged with coordinating all foreign aid for family planning activities. USAID has been the most important donor, directly through the Ministry of Health or indirectly through support to the International Planned Parenthood Federation (IPPF) which is the source of 80% of IPPA finance. Its aid has included oral contraceptives, vehicles, audiovisual and teaching aids as well as medical equipment. USAID will provide assistance for an expansion of health education. Sweden and Japan have also provided contraceptives. UNICEF has committed U.S.$6.0 million between 1971 and 1974 to help the Ministry of Health to upgrade its service structure and provide essential commodities. With UNFPA funds, UNICEF is financing the construction and equipment of one and the upgrading of two more midwifery teachers' schools in addition to providing transport for family planning services. WHO has provided consultancy services and sponsored studies in the fields of training and education; with projected UNFPA support amounting to almost U.S.$1.5 million in 1971-73, WHO will also support medical training in family planning, the extension of cytology services, and other health-related activities. IPPF support is provided through the IPPA. With the assistance of U.S.$0.2 million from the Netherlands Government, IPPA is building a national training center.
The Population Council has supplied IUDs and supported postpartum work in 26 hospitals in Java and Bali. The Ford Foundation has provided two consultants to work with IPPA, one in overall planning and the other in communications, as well as grants for surveys and studies. Aid is currently adequate to meet the needs for contraceptives and existing commitments will be increased to meet the demands of an expanding program. Should present sources fail or be unable to meet demands, the government would provide contraceptives as required by the program.

J. NFPCB Budget

3.23 Budget allocations for the government family planning program have risen substantially from U.S.$75,000 in FY1969 to U.S.$300,000 in FY1970, to U.S.$1,323,000 in FY1971, and in FY1972 to U.S.$3,968,250. Because of the late establishment of the NFPCB in FY1971, only 30% of the budgetary allocation was disbursed. According to the final revised DIP (authority for budget expenditure), the carry-over into FY1972 totalled U.S. $837,000, mainly under the items for infrastructure and administration.

3.24 In the NFPCB's budget for FY1972, provision for information and motivation services is nearly 25% of the total, representing twice the previous year's allocation. A further 25% of the budget is provided for the rehabilitation of offices, training schools, MCH/FP centers and equipment. Salary supplements, incentives and financial compensation to staff of health services account for 13% of the budget allocation. Administrative overheads are estimated at 17% of the total budget.

IV. THE PROJECT

Introduction

4.01 As the preceding account makes clear, population activities in Indonesia are going through a critical transition stage. Having accepted the necessity of making population control a major goal of government policy, and having established an organization and a program to provide the necessary services, the Government must now strengthen, broaden and greatly expand the scale of its efforts. This "scaling up" will require a sizeable program of construction, an expansion of health service personnel, a major training effort, the building up of demographic research, the further improvement of the statistical reporting system, and, to these ends, large increases in budgetary allocations, and considerable help from abroad in the forms of both capital and technical assistance. No country has unlimited absorptive capacity, and it would be unwise for Indonesia to attempt to do, throughout the country, everything that now needs to be done. Consequently, the construction and service elements of the project have been limited to three high-priority areas, the provinces of Djakarta, East Java and Bali. The technical assistance provided to the NFPCB and the research institutions will of course affect the development of the total system, not merely developments within the project areas. However, program expansion outside the project areas during the next 4-5 year period will be at a much slower rate than inside those areas.
4.02 The project has been developed with the UNFPA which has agreed to IDA acting as Executing Agent, thus being responsible for supervision and disbursement for the joint funds of the IDA credit and UNFPA grant.

4.03 The components include assistance for:

a. **Paramedical Education** (U.S.$1.51 million), constructing 10 new schools to graduate 50 nurse-midwives and 490 auxiliary nurse-midwives annually, together with vehicles and equipment;

b. **MCH/FP Centers** (U.S.$3.77 million), rebuilding 277 MCH/FP centers -- 226 in East Java, 34 in Bali, and 17 in Djakarta;

c. **Family Planning Training** (U.S.$3.07 million), constructing 6 new provincial training centers and 10 new sub-training centers for the training of medical and nonmedical staff of the national family planning program, together with vehicles, equipment, and training fellowships;

d. **Nonmedical Field Workers Program** (U.S.$4.04 million), covering salary support for 7,000 nonmedical field workers, 1,533 supervisory staff, 129 drivers, and vehicles;

e. **Evaluation and Research** (U.S.$5.7 million), providing 7 foreign advisers for a total of 20 man-years, 30 man-months for foreign short-term consultants, fellowships totalling 34 man-years, salary support for additional staff funds for essential operational research studies and seminars, and the establishment of a demonstration field postpartum program;

f. **Family Planning Administration Centers** (U.S.$0.89 million), providing 1 new center in Djakarta for NFPCB headquarters, and 6 new provincial centers at Surabaya, Semarang, Djogjakarta, Dempasar, Djakarta, and Bandung, as well as vehicles and equipment;

g. **Other Transport Requirements** (U.S.$1.24 million), providing vehicles for health services staff involved in MCH and family planning activities, 2 foreign advisers for a total of 6 man-years, spares and freight for all project vehicles, and support for a study of the utilization of health service vehicles;

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1/ Where appropriate, provision is made for maintenance and operating costs on a declining basis for the first 4 years of the project -- 80% in the first year, 60% in the second year, 40% in the third year, and 20% in the fourth year.

2/ A summary of project vehicle requirements is in Table 1 of Annex 27.

3/ All salary support is provided on a declining basis for the first 4 years of the project -- 80% in the first year, 60% in the second year, 40% in the third year, and 20% in the fourth year.
h. **Hospital Postpartum Program (U.S.$1.87 million)**, providing 1 foreign adviser for 2 years, salary support and equipment;

i. **Information and Communications (U.S.$2.07 million)**, providing 115 mobile information units, salary support for 237 additional staff, equipment, 36 man-months of short-term foreign consultant services, fellowships for 9½ man-years, and studies and seminars;

j. **Population Education (U.S.$0.98 million)**, providing 1 foreign adviser for 5 years, funds for seminars and research studies, fellowships for 24 man-years, teaching materials and equipment, and vehicles;

k. **Advisory Team (U.S.$0.45 million)**, providing 3 foreign advisers for 2 years in management, training, and communications, in addition to the technical expertise provided in other components, vehicles and office equipment; and

l. **Project Implementation Unit (U.S.$0.54 million)**, providing salary support for additional staff, fellowships for 4 man-years, and assistance from a firm of consultants in project management.

### A. Paramedical Education

4.04 This component provides facilities for graduating 50 nurse-midwives and 490 auxiliary nurse-midwives annually. This training flow takes into account existing shortages and the capacity of the provincial governments to absorb new staff; in East Java, for example, it will only reduce the ratio of midwives to the population to 1:31,000. The Government has given assurances that it will establish and maintain the additional new posts needed to employ staff trained in the schools provided in the project.

4.05 The shortage of paramedical staff for use in the delivery of paramedical services has been indicated above in para 3.13 (a). With the adoption of a 4-year course for nurse-midwives, the demand for additional staff cannot be met until 1979 at the earliest, taking into account the time required to build schools and enlarge classes. A cadre of professional staff requiring only 2 years training has to be developed to meet the shortage as soon as possible. They are auxiliary nurse-midwives (ANMs) -- multipurpose health workers responsible for community health care with emphasis on MCH and family planning. An outline of their proposed functions is in Annex 19, and of their training requirements in Annex 20. To reduce economic hardship, one of the major causes of student midwife attrition, and to provide for direction of trained staff to essential positions, the project provides for training stipends (see Annex 19) which should be linked to service agreements. The Government has given assurances that it will train students to graduate as auxiliary nurse-midwives after a 2-year course under service contracts providing for stipends.
**East Java**

4.06 The staffing and service pattern outlined in Annex 21 has been accepted as suitable and realistic by the health authorities of East Java. On this basis, the family planning program would require an additional 176 nurse-midwives -- 139 for supervisory duties at district level and 37 for duty in the maternity sections of regency hospitals. For this purpose, the project would graduate 50 nurse-midwives annually, which entails providing classroom and hostel accommodation for 240 students in a new school to be attached to the Dr. Soetomo Hospital in Surabaja. Teaching facilities for general nursing and midwifery are adequate at this hospital. The Government has given assurances that it will restrict the new school at Surabaja to the training of nurse-midwives.

4.07 To start ANM training in East Java, the project provides for two new schools, each to graduate 100 ANMs, attached to the hospitals at Malang and Blitar respectively, and two new schools, each to graduate 50 ANMs, attached to the hospitals at Tuban and Magetan respectively. The former will have accommodation for 240 pupils each and the latter for 115 pupils each. To provide the necessary rural health experience for student ANMs, provision is made for the renewal of the MCH/FP facilities in 16 district centers, with small dormitory accommodation for students on field visits. These centers are listed in Annex 22.

**Bali**

4.08 The project provides classroom and hostel accommodation for training 70 ANM students at the existing midwifery school in Denpasar. Bali will require 72 supervisory midwives, 151 nurse-midwives, and 186 ANMs according to the model staffing pattern. The island now has 115 midwives working in MCH/FP centers, leaving 32 centers without adequate staff. To meet the current deficit of staff and promote the training of ANMs, the project will provide 30 graduates annually. Adequate MCH/FP centers for rural practice are located close to the hospital.

**Djakarta**

4.09 The capacity of the city to satisfy the shortfall of some 750 midwives is limited because it is impossible to expand existing inadequate training schools. To promote ANM training and provide ANMs as essential supplementary staff to the existing midwives, the project provides for 100 ANM graduates annually, trained in two new schools attached to the Sumber Waras and Husada hospitals respectively. To this end, classroom and hostel accommodation for 15 students will be built at each location. Adequate facilities for field practice are readily available.

**West and Central Java**

4.10 To initiate ANM training as a pilot school for the subsequent expansion of the service components of the project to the rest of Java, it is proposed to provide one ANM school each in West and Central Java, each graduating 30 ANMs annually. The West Java school will be situated at Rangkasbitung, and the Central Java school will be at Kebumen. Both locations provide adequate training facilities.
Supplementary Training

4.11 To upgrade the quality of existing staff, the project provides stipends required to attract staff for retraining for which existing facilities will be used. The Government has given assurances that supplemental training will be provided to upgrade the existing qualifications of existing nurses and midwives, and assistant nurses and assistant midwives, to nurse-midwives and auxiliary nurse-midwives respectively.

B. Building of MCH/FP Centers

Rural

4.12 The project provides for the building of 199 rural, government MCH/FP centers in East Java to replace existing centers. Of these centers, 15 are at district level, with provision for a doctor and supporting staff, and 188 at sub-district level with a resident midwife and staff. An additional 16 district centers will be built with new dormitory accommodation for four trainees in each to facilitate the rural training practice of ANMs. In Bali, 34 sub-district centers, the focal supervisory centers in the island's health structure, will be built. The total number of existing MCH/FP centers will not be increased by this project component. New facilities are needed to replace existing centers, already inadequate for MCH purposes and unable to meet the demands of an expanding family planning program.

4.13 The program centers on the sub-district MCH/FP center, which is the headquarters of the midwife. This is the lowest level at which a full range of family planning services is regularly delivered; it accommodates staff essential for the support and supervision of workers engaged in the motivation and information aspects of the program. The sub-district level center is the key local facility for IUD insertions and for ensuring the proper examination of women both for precontraceptive assessment and postcontraceptive follow-up care. The centers selected for renewal are now located in dilapidated buildings, many in rented village houses without proper sanitation, privacy, or adequate space. Adequate buildings for the delivery of MCH/FP services are essential to ensure proper asepsis during examinations. The new buildings (35% of existing centers at district level and 36% of existing centers at sub-district level) will provide the adequate base from which staff can operate family planning services and give particular attention to women recently delivered at home. Sites are listed in Annex 22.

Urban

4.14 The project provides for the building of 11 MCH/FP centers in Surabaja and 17 in Djakarta, the two largest cities in Java. Of the 16 sub-district supervisory MCH/FP centers in Surabaja, 3 have adequate buildings and local budgetary provision has been made for 2 more, leaving 11 without adequate accommodation. The project ensures that all the city's sub-districts will have adequate MCH/FP facilities with a 10-bed maternity ward. At present, 12 of the 16 centers have resident doctors, in addition to supervisory midwives, midwives, and supporting staff. The project will facilitate the
expansion of the urban family planning program by providing adequate accommodation and allowing for an expansion of the family planning maternity-centered approach, which is working well in three of the city's centers. Of the 15 MCH/FP centers to be built in Djakarta, 9 will be centrally located and have 20-bed maternity wards, while 8 will cover peripheral areas and have 10-bed maternity wards. There are about 160,000 deliveries in Djakarta each year, of which about half are in maternity hospitals and clinics. Assuming a bed utilization rate of 60 per annum, the additional maternity facilities will provide for 15,600 deliveries annually, reducing the current capacity deficit for institutional deliveries by about 20%. The provision of small neighborhood maternity units instead of large hospital facilities is designed to achieve wider geographic coverage, the promotion of local interest and prestige to overcome the latent suspicion of institutional facilities, and the promotion of interest in family planning work among staff where doctors would be otherwise confined to outpatient work. Sites are listed in Annex 22.

C. Family Planning Training

4.15 This component covers the construction and equipping of 6 provincial training centers (PTCs) and 10 subtraining centers (STCs). Details of the necessary staff and equipment are described in Annex 23 and details of accommodation are in Annex 33. The PTCs will be used for the in-service training of medical officers, supervisory midwives, MCH/FP midwives, and ANMs. They will also deal with the training of mass communication personnel, statistical staff, and administrators. PTC staff will also carry out training evaluation, provide supervisory support to lower-level training activities, provide retraining, and prepare teachers for population education work. Each PTC should train 300-500 persons annually and facilities will be provided for instructional and dormitory accommodation for 50 trainees and staff. To improve the teaching standards of the training staff, the project provides for 20 man-years of fellowships for overseas training.

4.16 To provide for the training of supportive workers at village level (nonmedical field workers, group leaders, information officers, and social workers, etc.), 10 subtraining centers (STCs) will be established. They will have accommodation for 30 trainees and staff. The STCs must be accessible to village-level workers and their locations have been selected at regency headquarters. Decentralization will provide training as close to field conditions as possible and help to ensure closer support after training.

4.17 The training bureau of the NFPCB must assist the standing committee (see para 3.7) in determining priorities and in contracting training centers to implement training programs based on standard curricula. The several centers must concentrate on the training of specific types of personnel; to establish schools catering to all categories will involve wastage of resources and unnecessary dilution of training potential. Training levels and loads are shown in Annex 15. A clear definition of the job functions of each type of potential trainee is needed; an outline is provided in Annex 24, but a detailed study of the job functions of primary and supportive workers must be undertaken as soon as possible. Recommendations for training curricula are described in Annex 25.
To be fully effective, the ongoing training of dukuns and extensive family planning orientation for community leaders must be given by people well known to the community and must be provided at village level. These are continuing functions of midwives and field workers; they require transport and communications equipment, for which the project provides.

D. Nonmedical Field Workers Program

The project provides salary support, on a declining basis, for 7,000 nonmedical field workers and 1,400 additional group leaders, as well as a new supervisory structure of the field workers program. The latter comprises 115 supervisory staff at sub-district level, 12 at provincial level, and 6 at central level. Provision is also made for vehicles to ensure mobility necessary for effective guidance and supervision.

Nonmedical field workers are the only field staff involved full time in family planning. Government efforts to train more nonmedical field workers will be helped by the family planning training component of this project. The continuous recruitment of increasingly large numbers of new acceptors can be ensured only by the effective use of nonmedical field workers in face-to-face education and information work. Supervision is essential to control and direct the planned expansion of the number of field workers. Even with only some 400 field workers, the program is facing serious difficulties caused by lack of interdepartmental communication at field level, varied interpretations of the role of the field worker, and lack of adequate administrative direction from the center. A sound supervisory structure is required to introduce and maintain cohesion and direction. Annex 9 outlines the background to the family planning nonmedical field worker program as initially conceived, considers its problems, and makes recommendations on decisions urgently required to ensure the effectiveness of its contribution to the national family planning program. The Government has given assurances that the effectiveness of the nonmedical field workers program will be ensured by the implementation of financial and administrative measures to be agreed to by the Association.

E. Evaluation and Research

This project component is designed to:

a. strengthen the evaluation and research capability of the NFPCB at central and provincial levels;

b. enhance Indonesian institutional research capability in providing essential contract research as required and coordinated by the NFPCB; and

c. develop a specific research program based on a maternity-centered approach to family planning to provide information essential to the development of the national program.

In its present form, the NFPCB's evaluation and management information system will be unable to realize its potential importance to program success. To be fully effective, the bureau of reporting and recording and the bureau of evaluation and research must come under one technical director. The Government has given assurances that the bureau of reporting and recording and the bureau of evaluation and research will be brought under
the direction of one technically competent director. Their capabilities will be enhanced by providing a foreign adviser for 2 years with additional short-term consultation, fellowships for overseas training, as well as salary support for additional staff including a demographer, social scientist, and economist, funding for short-term studies, and for in-country seminars, equipment, and vehicles. This assurance will enable the NFPCB to take a positive lead in directing family planning research and provide an essential forum through which positive, fully documented aspects of the national family planning program can be publicized.

4.23 The NFPCB's provincial offices have neither the staff nor the equipment needed to carry out primary processing of provincial data. Collation, checking, and basic analysis must be done at this level where referral is easy and checked data are immediately available for operational staff. Salary support for the additional posts of one health controller/statistician and one clerical assistant, and a small provision for essential equipment is included for each of the six NFPCB provincial offices. The Government has given assurances that it will establish and maintain the additional posts required for the NFPCB's evaluation functions.

4.24 In order to take the leadership in guiding family planning research, the NFPCB should be able to use the best resources available in Indonesia for contract research. The project provides technical assistance, training support, and equipment inputs for institutions to carry out essential research projects which are operationally oriented. These institutions are the Institute of Demography and the Population Study Center of the Institute for Social and Economic Research. Annex 26 includes an outline of the studies which require urgent consideration, the technical assistance required, and details of the institutions which would be involved in contract research.

4.25 The project also makes provision for a specific research project based on the Taylor-Berelson proposals for an international study of the feasibility of providing comprehensive family planning services based on MCH services. The proposals consider that the use of staff and facilities for service delivery can be maximized by using a maternity-centered approach to family planning motivation. The project provides for a demonstration of this approach in one regency in East Java with one control regency in West Java. It will be developed in association with the Population Council as part of the international study. Beyond the purpose of testing the effectiveness of the approach in producing a steady increment in the numbers of family planning acceptors, the demonstration field postpartum program will determine quantitatively the optimum level of maternity care needed to produce the desired effects with regard to family planning as well as health. Annex 26 details the requirements of the demonstration field postpartum program which include two foreign advisers for 3 years, salary support on a declining basis over 4 years for additional staff, the construction of additional MCH/FP centers, vehicles, equipment and provision for surveys and studies to evaluate the demonstration field postpartum program. The Government has given assurances that it will establish and maintain the additional posts required for the demonstration field postpartum program.

F. Family Planning Administration Centers

4.26 The project provides for a central family planning administration center in Djakarta and for provincial offices in Surabaja, Semarang,
Djogjakarta, Djakarta, Denpasar and Bandung. The central NFPCB headquarters in Djakarta provide insufficient working accommodation and staff are unable to function efficiently. There are no offices available in the building for the advisory team, technical advisers, or planned staff expansion in the fields of evaluation and communications. The proposed building includes office space for the NFPCB and advisers, as well as space for evaluation equipment; it will constitute an effective center from which the national family planning program will be administered. Details of the office accommodation and warehouse space are described in Annex 33. The provincial NFPCB offices are similarly inadequately accommodated and provision is made for new family planning centers now accommodated in buildings owned by provincial health departments. The project also provides vehicles and office equipment for the NFPCB's central and provincial administrative services.

G. Other Transport Requirements

4.27 This component provides for 115 cars, 1,400 motorcycles, 2 foreign advisers, and survey funds, as well as spares and freight costs for all project transport requirements. Provision for vehicles has been included under each component. This component provides for 115 cars and 1,400 motorcycles which cannot be appropriately linked elsewhere. The cars and motorcycles are urgently needed for use by regency doctors and midwives respectively. The regency doctor is also the head of the NFPCB regency organization and is required to make regular visits to family planning and health units. Without reliable transport, this is impossible; many of the vehicles provided by UNICEF are obsolete or nearing the end of their economic life. The component provides for one vehicle for each regency. With the addition of family planning, the workload of midwives has increased considerably. To increase the rate of home visits, light motorized vehicle is required. UNICEF is providing 1,600 motorized bicycles for this purpose, but an additional 1,400 will be needed to cope with the expanding family planning program.

4.28 The organization established in cooperation with UNICEF by the Ministry of Health for the management, servicing, and repair of the health service fleet is in need of considerable strengthening. The project provides for two foreign advisers for 3 years -- one a fleet manager, and the other a maintenance organization manager to assist in the direction and maintenance of a fleet expanded by the demands of the family planning program. To improve fleet management and utilization, it also provides for a survey of current transport utilization. A summary of the project vehicle requirements is shown in Table 1 of Annex 27.

H. Hospital Postpartum Program

4.29 The Population Council established the International Postpartum Family Planning Program in 1966 as a demonstration of the value of such an approach in presenting family planning information, education, and services to women during pregnancy and after delivery. Indonesia was among the countries represented in the successful demonstration. This component provides for a foreign adviser for 2 years, salary support on a declining basis
over 4 years for additional staff, equipment and vehicles, in order to allow the Government to take over and expand the current program. To the 26 hospitals supported up to now by the Population Council, 30 hospitals will be added in the first year of the project and 30 in the next year. Details of the current and expanded programs and inputs needed for the latter are shown in Annex 28.

I. Information and Communications

4.30 To help with the development of a local capability in this new field, provision is made for essential audiovisual and office equipment, and the necessary transportation, as well as 36 man-months of foreign consultancy services, for fellowships and study tours, and for training seminars and workshops. In addition, salary support is provided on a declining basis over 4 years for essential, additional staff to strengthen the NFPCB's Information and Motivation Bureau. The project also provides for the testing and trial production of experimental documents and materials using mass communications media. Details are in Annex 29.

4.31 There is also an urgent need to develop the provision of family planning information at the peripheral service level. The project makes provision for 115 suitably equipped mobile family planning information units, details of which are at Annex 29. They would form part of the Ministry of Information's information unit in each regency. Each unit, in addition to using various media such as tapes, films, etc., would be able to reproduce, on a limited scale, material with local color for distribution down to village level. The Government has given assurances that it will establish and maintain the additional posts required to strengthen the information and communications program.

J. Population Education

4.32 This component is designed to help the Government in introducing the subject of population education into school curricula at the most suitable points and into out-of-school education. It provides for one foreign adviser for 5 years, short-term consultants, fellowships for training, equipment needed to develop texts and teaching aids, and support for seminars and workshops to train those who will be involved in furthering the subject of population education as well as community leaders whose influence on its introduction will be critical. Details are in Annex 30. Communication needs in the field of population education are presently both urgent and sensitive. Plans are needed for the design of curricula and materials, for children and youth, as well as adult community groups of differing ethnic and religious background. The direct, primarily clinical approach to family planning education will not be sufficient to change customs and attitudes which must be influenced by long-range education plans conceived quite differently from the strategy employed in urgently communicating information about the national family planning program.

K. Advisory Team

4.33 Besides the technical assistance provided where necessary for each component (a total of 11 advisers for 31 man-years), the project also provides for three foreign advisers for 2 years to strengthen the senior management capability of the NFPCB. The UNFPA has already made available U. S.
$400,000 as preproject financing and the advisers are in the process of recruitment by the Association. The advisers will be seconded to the Government of Indonesia and will be directly responsible to the Chairman of the NFPCB. One adviser will be responsible for program management, a second for family planning training, and a third for family planning communications. Their advice would be directed at the overall national program and not restricted to the scope of this project. The Government has given assurances that it will employ such advisers to the Association's satisfaction.

I. Project Implementation Unit

4.3h The project will be implemented by the NFPCB. This demands the effective development of those functions essential to the effective discharge of its coordinating role. It will be achieved by a modification of its organizational structure to secure more effective planning, budgeting, and supervision. A sound managerial element is needed to complement the present emphasis on the technical aspects of program development. To this end, the project provides salary support on a declining basis over 4 years to cover the essential additional posts of Deputy Chairman (Program Management) and two executive assistants. Four fellowship years are also provided for foreign training in administration and logistics. The proposed restructuring of the NFPCB is in Annex 8 and provides the basis for attaching an effective project implementation unit (PIU) (para 5.09 and Annex 34) to the NFPCB. To assist the PIU in the management of the project, provision is made for a firm of consultants to be retained, the functions of which would include the preparation of procedural and design guidelines, assistance with tendering procedures, and the establishment of an effective accounting system. The restructuring of the NFPCB and the appointment of a Deputy Chairman (Program Management) on a full time basis, after views on the qualifications and experience of candidates have been exchanged with the Association, are conditions of credit effectiveness.

V. COSTS, FINANCING, AND PROJECT IMPLEMENTATION

A. Costs

5.01 The total project cost is estimated at Rp 13,695 million. Of this, Rp 4,524 million (33%) would be for civil works, Rp 1,079 million (8%) for vehicles, Rp 1,992 million (14%) for technical assistance, Rp 498 million (4%) for equipment not related to civil works, and Rp 3,112 million (23%) for operating costs. Project costs are shown in Annex 31 and summarized in the following table:
Breakdown by Disbursement Category

<table>
<thead>
<tr>
<th>Item</th>
<th>Rp (In millions)</th>
<th>U.S.$ (In millions)</th>
<th>Foreign Exchange Per centage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Total</td>
</tr>
<tr>
<td>Civil Works:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>2,241</td>
<td>1,535</td>
<td>3,776</td>
</tr>
<tr>
<td>Furniture and Equipment</td>
<td>83</td>
<td>374</td>
<td>457</td>
</tr>
<tr>
<td>Professional Fees</td>
<td>249</td>
<td>42</td>
<td>291</td>
</tr>
<tr>
<td>Vehicles (including Spares and Freight)</td>
<td>208</td>
<td>871</td>
<td>1,079</td>
</tr>
<tr>
<td>Technical Assistance:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisory Services</td>
<td>208</td>
<td>705</td>
<td>913</td>
</tr>
<tr>
<td>Fellowships</td>
<td>83</td>
<td>208</td>
<td>291</td>
</tr>
<tr>
<td>Research/Survey Funds</td>
<td>705</td>
<td>83</td>
<td>788</td>
</tr>
<tr>
<td>Equipment (Audio-visual, etc.)</td>
<td>42</td>
<td>456</td>
<td>498</td>
</tr>
<tr>
<td>Operating Costs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>2,614</td>
<td></td>
<td>2,614</td>
</tr>
<tr>
<td>Maintenance</td>
<td>457</td>
<td>41</td>
<td>498</td>
</tr>
<tr>
<td>Contingencies</td>
<td>1,484</td>
<td>96</td>
<td>2,490</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8,384</td>
<td>5,311</td>
<td>13,695</td>
</tr>
</tbody>
</table>

5.02 The distribution of expenditures according to the functional components presented in the project description is as follows:

Breakdown by Functional Category

<table>
<thead>
<tr>
<th>Item</th>
<th>U.S.$ (In millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Civil Works</td>
</tr>
<tr>
<td>Paramedical Education</td>
<td>3.90</td>
</tr>
<tr>
<td>MCH/FP Centers</td>
<td>3.77</td>
</tr>
<tr>
<td>Family Planning Training</td>
<td>2.12</td>
</tr>
<tr>
<td>Nonmedical Field Workers</td>
<td>-</td>
</tr>
<tr>
<td>Evaluation/Research</td>
<td>0.28</td>
</tr>
<tr>
<td>Family Planning Administration Centers</td>
<td>0.81</td>
</tr>
<tr>
<td>Other Transport Requirements</td>
<td>-</td>
</tr>
<tr>
<td>Hospital Postpartum Program</td>
<td>-</td>
</tr>
<tr>
<td>Information and Communications</td>
<td>-</td>
</tr>
<tr>
<td>Population Education</td>
<td>-</td>
</tr>
<tr>
<td>Advisory Team</td>
<td>-</td>
</tr>
<tr>
<td>Project Implementation Unit</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10.88</td>
</tr>
<tr>
<td>Contingencies</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL PROJECT COST: 33.00
5.03 The budgeted costs for civil works, detailed in Annex 32, were based on current costs obtained from the Ministry of Public Works and Power, the provincial Directorates of Planning and Construction, the Building Information Center, and the National Building Research Institute. In addition, two of the five largest semi-nationalized building corporations were consulted. The unit cost rates employed vary from Rp 25,000 per m² for simple small unit construction, to Rp 40,000 per m² for multi-storey construction. Furniture and equipment costs are based on current market prices. Fees to cover the cost of architectural design and documentation, and adjudication of bids have been taken as between 5% and 8% of the cost of the works, depending on the degree of repetition. Costs of imported items are net of any duties, from which the project will be exempted. The costs of site surveys and of building permit taxes have been excluded. Schedules of accommodation for facilities for which the budgeted costs have been estimated are in Annex 33.

5.04 The estimates include provision of 10% for contingencies for unforeseen works and quantity changes. In addition, an allowance of 5% per annum is included for price escalation on all items. Inflation in Indonesia has recently been brought under control and an escalation rate of about 5% per annum is considered reasonable. Physical and escalation contingencies are the same for local and foreign expenditures.

B. Proposed Financing

5.05 The project would be financed jointly by a proposed IDA credit and a UNFPA grant. The UNFPA has agreed to make an unconditional pledge of its full contribution towards the estimated expenditure of the first 2 years of the project (about U.S.$8.0 million) and 25% of the final 3 years (about U.S.$1.3 million) from existing resources. The balance of U.S.$3.9 million has been pledged subject to the availability of funds. As usual under an IDA credit agreement, the Government would have residual responsibility for providing funds needed to complete the project. The financing plan prepared for the project is shown below:

<table>
<thead>
<tr>
<th></th>
<th>Rp (In millions)</th>
<th>U.S.$ (In Millions)</th>
<th>Percentage of Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDA Credit</td>
<td>5,478</td>
<td>13.2</td>
<td>40</td>
</tr>
<tr>
<td>UNFPA Grant</td>
<td>5,478</td>
<td>13.2</td>
<td>40</td>
</tr>
<tr>
<td>Government of Indonesia Contribution</td>
<td>2,739</td>
<td>6.6</td>
<td>20</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>13,695</strong></td>
<td><strong>33.0</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
5.06 IDA and UNFPA would be jointly responsible for the total costs net of taxes of civil works, transport, technical assistance and equipment. Operating costs, which are incremental and additional to the present costs of the national program, would be funded on a declining basis with IDA and UNFPA sharing 80% of these costs in the first year, 60% in the second year, 40% in the third year, and 20% in the fourth year. The Government would contribute the balance and be responsible for all operating costs in the fifth year of the project. Provision is made for such assistance because of the burden created by the Government's proposal to spend about U.S.$58 million (excluding the IDA-UNFPA contribution to the project) in the period 1972-77, about 60% of which covers operating costs to maintain the momentum of the national program.

5.07 The proposed credit would contribute U.S.$13.2 million equivalent or about 40% of the total project costs. The credit and grant would together cover the whole of the foreign exchange component and about 70% of local currency expenditures as well. The Government would contribute 20% of total project costs. The prior effectiveness of the UNFPA grant is a condition of credit effectiveness.

C. Implementation

5.08 To ensure the proper execution of the project, efficient coordination within the Government of Indonesia, and liaison with the Association, the NFPCB would be responsible for the administration and coordination of the project. In addition to its established mechanisms for coordination and cooperation, the NFPCB would establish a project implementation unit (PIU) as part of its central organization. The PIU would be headed by the Deputy Chairman (Program Management) of the NFPCB and would consist of two major wings -- one dealing with the project's physical planning and construction, headed by a Construction Coordinator, the other dealing with project technical assistance, transportation and equipment, headed by a Program Input Coordinator. The functions of these two administrators and the structure of the PIU are described in Annex 34. The PIU would have appropriate supporting staff, including an accountant, procurement officer, draftsmen and clerical staff. The Deputy Chairman (Program Management) would be assisted by a project implementation committee (PIC) comprising representatives of the Ministries of Health, Public Works, Information, Finance and Interior, and representatives of the international agencies and private foreign foundations involved in the implementation of the project.

5.09 The need to coordinate and establish overall building and operations procedures for the project and generally supervise all aspects of physical implementation, as well as the coordination of procurement of materials, vehicles, equipment and administration of fellowships and study tours, requires the employment of professional advisory manpower beyond the existing resources within the Government. It is proposed, therefore, to retain a firm of management consultants, on terms and conditions acceptable to the Association, to advise and support the PIU on all matters concerning the realization of the project. The establishment and staffing of the PIU, and the conclusion of contracts with the consulting firm are conditions of credit effectiveness.
5.10 Proper environmental and constructional standards for the physical components of the project, as well as general supervision of the implementation of construction, will be the responsibility of an architectural team. It is proposed that these functions should be performed by the Hospital Design Workshop of the School of Architecture of the Institute of Technology at Bandung, headed by the Deputy Head of the school. This team, augmented as required, and referred to as the Appointed Architect, will be retained by the Government of Indonesia, by a form of agreement on terms and conditions acceptable to the Association. The signing of this agreement is a condition of credit effectiveness. The Appointed Architect will work in close cooperation with the Construction Coordinator in the PIU, the Ministry of Health, the Ministry of Works, and its provincial directorates, as well as the Regional Housing Center of the Ministry of Works in Bandung. The Ministry of Works will be responsible for complete surveys and description of all sites, as well as detailed supervision of the execution of the works. The duties and functions to be performed by the Appointed Architect and the Ministry of Works are detailed in Appendix C of Annex 34. The Government has given assurances that it will acquire not later than 15 months from the signing of the Credit Agreement all land and rights in land required for the construction and operation of the facilities included in the project, and that it will provide to the boundary of each site, as necessary, connecting roads, sewerage, power, water and other supporting facilities. Fees for the professional services of the Appointed Architect will be determined on a fixed fee basis. Projects will be packaged for tendering according to recommendations agreed between the Appointed Architect and the Construction Coordinator and submitted to the NFPCB. A schedule showing the timing of the implementation of the construction components is in Annex 36.

Implementation of Nonconstruction Components

5.11 Nonconstruction components would be implemented through the appropriate bureaus of the NFPCB and the implementing units of the national family planning program. In order to ensure adequate support for the NFPCB in its implementation of specific components in which Indonesian technical expertise is presently inadequate, the Government has given assurances that it will make appropriate and effective arrangements satisfactory to the Association with WHO, UNESCO, UNICEF, other United Nations bodies, the Population Council, or other sources of expertise acceptable to the Association, for assistance in carrying out, respectively, the hospital postpartum program, the information and education activities, the vehicle and transportation components, the assistance to the Institute of Demography and of Economic and Social Research, and the demonstration field postpartum program.

Contracts and Procurement

5.12 Contracts for the construction of the family planning administration center in Djakarta, estimated to cost U.S.$316,000 equivalent, would be awarded on the basis of international competitive bidding. The rest of the civil works contracts, will be packaged by the Appointed Architect with the cooperation of the Construction Coordinator and the Ministry of Works. Since they comprise small units scattered at 310 sites in Java and Bali, they would not be suitable for international bidding and would be awarded on a competitive basis.
after bidding by prequalified local contractors. Some furniture contracts are likely to be awarded to local firms. Domestic manufacturers of furniture and equipment would be accorded a preferential margin equal to 15% of the CIF costs of competing imports or to the existing rate of duty, whichever is the lower.

5.13 Small amounts of hospital equipment (estimated at less than U.S. $25,000 equivalent) would be procured direct from UNICEF stocks to standardize with equipment previously supplied by UNICEF; other equipment (such as office, data processing and audiovisual equipment) would be either packaged for international bidding, or as is more likely, obtained by domestic tendering in Indonesia where a large number of overseas suppliers are represented.

5.14 Vehicles and spares would be procured by UNICEF for the Government on the basis of international competitive bidding except when the use of UNICEF's existing long-term negotiated contracts and preferential freight rates is indicated in the interests of (a) the standardization of vehicles supplied by the project with the existing fleet of over 600 vehicles already supplied by UNICEF for the health services; (b) economy in quality and variety of spares required; and (c) economy in maintenance because vehicles would be maintained together with the fleet under existing arrangements with the Ministry of Health.

Disbursements

5.15 Disbursements will be administered by the Association on behalf of UNFPA, who will deposit funds quarterly in advance in accordance with estimates of disbursements. IDA and UNFPA funds will be used jointly in equal proportions to finance the total cost of civil works, vehicles, technical assistance and equipment (about U.S.$19.5 million); 80% of the operating costs in the first year, 60% in the second year, 40% in the third year, and 20% in the fourth year of the project, representing approximately 32% of the total operating costs (about U.S.$24 million); about U.S.$4.5 million remains for contingencies. Disbursement requests against civil works, vehicles, technical assistance and equipment will be supported by the Association's usual requirements of contracts, invoices, statements of work performed and evidence of payment and shipment where applicable. For the operation and maintenance costs, claims will be supported by a statement of expenditures, certified by the Deputy Chairman (Program Management).

The Government has given assurances that the accounts and financial statements of the NFPCB related to the project will be audited at least annually by independent auditors acceptable to the Association. The UNFPA has already provided funds to finance the advisory team which is expected to be appointed shortly; it is intended that IDA funds be used, after effectiveness, to finance 50% of all expenditures already incurred to that date. UNFPA has no objection to guaranteeing 50% of all "agreements to reimburse" entered into by the Association; it will not, however, collect commitment fees for their portion of any irrevocable commitment.

5.16 In order to take into account the fact that the Bank Group and the United Nations do not have identical memberships, and that the availability of the additional final amount of the UNFPA grant remains subject to confirmation by the UNFPA, the arrangements for disbursement described in para 5.15 would not be followed when:
a. withdrawal of the proceeds of the credit in respect of the cost of goods and services is precluded by the fact that they were obtained from countries which are not members of the Bank (other than Switzerland); and

b. the UNFPA notified the Association that (i) any disbursement from the UNFPA grant would be in violation of rules applicable to the use of the UNFPA grant, or (ii) there were insufficient grant funds available for which to disburse.

In the case of (a), the Association, upon instruction from UNFPA, would disburse against such costs entirely out of the UNFPA grant as specified in such instructions. Provided it involves a Bank member or Switzerland, in the case of (b), the Association would disburse such UNFPA funds as are available, if any, and pursuant to the Development Credit Agreement, proceeds of its credit only. In the event of any non-shared disbursement of this kind, the UNFPA, and the Association would consult on the making of adjustments to future disbursements which may be appropriate or desirable in order that total disbursements from the UNFPA grant and from the credit remain, as nearly as practicable, equal.

5.17 Project expenditures are estimated to be approximately as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IDA Credit</td>
<td>2.5</td>
<td>5.5</td>
<td>3.2</td>
<td>1.5</td>
<td>0.5</td>
<td>13.2</td>
</tr>
<tr>
<td>UNFPA Grant</td>
<td>2.5</td>
<td>5.5</td>
<td>3.2</td>
<td>1.5</td>
<td>0.5</td>
<td>13.2</td>
</tr>
<tr>
<td>Government of Indonesia Contribution</td>
<td>0.3</td>
<td>0.8</td>
<td>1.3</td>
<td>1.8</td>
<td>2.4</td>
<td>6.6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5.3</td>
<td>11.8</td>
<td>7.7</td>
<td>4.8</td>
<td>3.4</td>
<td>33.0</td>
</tr>
</tbody>
</table>

A schedule of estimated disbursements is shown in Annex 37.

VI. SOCIO-ECONOMIC ANALYSIS

6.01 The conflict between the high rate of population growth and the objective of raising the living standards, and the elimination of unemployment for the large numbers has been clearly realized by the Indonesian Government. The project will reinforce and expand the Government's efforts to reduce fertility, thereby creating considerable social and economic benefits. It will contribute towards an increase in per capita income, an improvement in the balance of payments, and a reduction in unemployment. Improvement in maternal health through less frequent child bearing and the provision of better MCH services will reduce maternal mortality. Infant mortality will also decline due to better nutrition and care resulting from smaller families. In addition, it will also contribute in (a) reducing tension and social problems associated with economic pressures and unemployment, and (b) promoting social justice through equalization of opportunities by serving the poorer sections of the community with usually larger families.
6.02 The quantitative benefits estimated to be obtained from an additional reduction in fertility with project inputs over that with ongoing program are only illustrative. In the absence of data for Indonesia, in some cases, assumptions are based on experience in other countries.

6.03 The number of acceptors of family planning is estimated to increase from about 270,000 at present to approximately 1.6 million in 1975 with the project inputs instead of less than 500,000 without them. By 1980, it is estimated that about one-fifth of the females in reproductive ages in Java and Bali would accept family planning with the project inputs as against less than 10% without them. This proportion is estimated to increase to more than half by 2000 due to program improvement through the project, instead of less than one-fourth without it.

6.04 As a result of the above measures, the gross reproduction rate in Indonesia is estimated to decline from 3.2 at present to 1.7 (implying a birth rate of 27.4) by 2000 with the project inputs instead of 2.6 (implying a birth rate of 39) without them. This represents over twice as large a decline in fertility as a result of project inputs than would otherwise be the case. The population is estimated to be smaller by about 35% in 2000. With the ongoing program, the rate of growth of the population would be about 3% per annum in 2000, but would be reduced to less than 2% per annum with the project inputs. (An analysis of the demographic impact of the project is given in Annex 38.)

6.05 The way in which the effect of reduced population growth is translated into economic benefits is illustrated in Annex 39. The economic benefits of a reduction in population size, expressed in terms of an increased per capita income, are clear. The per capita gross domestic product (GDP) is estimated to be higher by 6% with the reduction in the population growth rate. The total cost of the project is in the order of 1% of the investment as necessary for an equivalent increase in per capita income.

6.06 A slowing of population growth would also have favorable balance-of-payment effects in an economy such as Indonesia's, which has required heavy food-grain imports in recent years. While these benefits would become substantial by 1980 if present food shortages and balance-of-payment tightness continued through the decade, expected developments in the agricultural and petroleum sectors are expected to make these benefits less important than they now appear.

6.07 In the long run, the project will contribute to a slowdown in the growth of the labor force (assuming no significant change in the participation rate). In a country with serious problems of employment and underemployment, and with uncertain prospects of solving these problems through high economic growth rates above, any reduction in the growth of the labor force should be beneficial. With the project, the labor force is estimated to be lower by nearly 5 million in the year 2000, with consequent favorable effects on the employment situation.
VII. AGREEMENTS REACHED AND RECOMMENDATION

7.01 During negotiations, assurances were obtained from the Government of Indonesia on the following points:

a. A standing committee on family planning training will be established to be responsible for recommending to the Chairman of the NFPCB training policies and priorities, the appointment of training responsibilities and the use for training facilities for which the project provides (para 3.17);

b. Sufficient additional posts will be established and maintained to employ staff trained in the new paramedical schools provided in the project (para 4.04);

c. Students will be trained to graduate as auxiliary nurse-midwives after a 2-year course under service contracts providing for stipends (para 4.05);

d. The new school in Surabaja will be restricted to the training of nurse-midwives (para 4.06);

e. Supplemental training will be provided to upgrade the existing qualifications of existing nurses, midwives, assistant nurses and assistant midwives to nurse-midwives and auxiliary nurse-midwives respectively (para 4.11);

f. The effectiveness of the nonmedical field workers program will be ensured by the implementation of such financial and administrative measures as agreed to by the Association (para 4.20);

g. The bureau of evaluation and research and the bureau of reporting and recording will be brought under the direction of one technically competent director (para 4.22);

h. Additional posts required for the NFPCB's evaluation functions (para 4.23), and for the demonstration field postpartum program (para 4.29) will be established and maintained;

i. Additional posts required to strengthen the information and communications program will be established and maintained (para 4.31);

j. Not later than 15 months from the signing of the Credit Agreement, all land and rights in land required for the construction and operation of the facilities included in the project will be acquired by the Government, which will also provide, to the boundary of each site, as necessary, connecting roads, sewerage, power, water, and other supporting facilities (para 5.10);
k. Appropriate and effective arrangements satisfactory to the Association will be made with WHO, UNESCO, UNICEF, other United Nations bodies, the Population Council, or other sources of expertise acceptable to the Association for assistance in carrying out, respectively, the hospital postpartum program, the information and education activities, the vehicle and transportation components, the assistance to the Institutes of Demography and of Economic and Social Research, and the demonstration field postpartum program (para 5.11);

l. The accounts and financial statements of the NFPCB related to the project will be audited at least annually by independent auditors acceptable to the Association (para 5.15);

7.02 As conditions of credit effectiveness:

a. the NFPCB organization will have been restructured substantially as set out in Annex 8 and an appointment on a full-time basis made to the post of Deputy Chairman (Program Management) after views on the qualifications and experience of candidates have been exchanged with the Association (para 4.34);

b. the PIU will have been established substantially as set out in Annex 34 and staffed to the satisfaction of the Association, and the management consultants employed (para 5.09);

c. the UNFPA’s grant to the joint project will have become fully effective under its agreements with the Government and the Association (para 5.07); and

d. the agreement retaining the Appointed Architect will have been made by the Government on terms and conditions satisfactory to the Association (para 5.10).

7.03 Subject to the assurances and fulfillment of conditions described above, the project provides a satisfactory basis for a development credit, of U.S.$13.2 million equivalent, to the Government of Indonesia, equal to 40% of total project costs.

February 29, 1972
DEMOGRAPHIC BACKGROUND

Population Growth

1. According to the 1930 census, the population of Indonesia, covering Java, Madura, and the outer islands, was 60.7 million. It reached 97.1 million in the next census of 1961. The census was undertaken in September 1971 following an unsatisfactory preenumeration in 1970. The results of the census are not yet available. The population estimates are, therefore, tentative and may change on the basis of census data. Various estimates of population for 1970 indicate that the size of the population would be around 121 million. The rate of growth of population fluctuated during 1931-61. It was around 1.5% per annum in the thirties, with a birth rate of about 48 and a death rate of more than 33. The death rate declined later to 27.8. In the decade of the forties, vital rates underwent abrupt changes as a result of the Japanese occupation during World War II. While fertility might have declined during this period, mortality increased sharply to 35.1, resulting in lower rate of growth of population of 0.9%. During the fifties, the decline in mortality and probable increase in fertility, due to the reunion of couples separated during the war, contributed to a growth rate of around 2% per annum. In the 1960's, the rate of growth of population was estimated at 2.5% per annum (see Table 1). In recent years, it is estimated to have accelerated to 2.9% due to the fall in death rates to 19 and a constant birth rate of about 48.

Regional Estimates

2. In 1961, about 65% of the population lived in Java and Madura, 16% in Sumatra, and 1.8% in Bali (see Table 2). East Java is the biggest province in Indonesia in terms of area and population. More than one-third of the population lives in East Java and Bali.

3. In area and population, East Java is the largest of Java's six provinces (see Table 3). With the island of Madura, it covers an area of 48,000 km², and at the 1961 census had a population of 21.8 million. The 1970 population estimate is 24.8 million. Surabaja, the provincial capital, has a population of about 2.1 million; with seven other municipalities, the urban population totals 3.3 million, or about 13% of the total provincial population.

4. Bali, an island close to East Java, has a population estimated at 2.1 million and covers an area of 5,561 km². Culturally, it is quite different from East Java; the people speak Balinese, a Polynesian language, and 90% are Hindu. With about 375 persons per km², Bali is one of the most densely populated islands.

Fertility and Mortality

5. In the absence of reliable, vital statistics, fertility and mortality estimates are based on age-structure data from the 1961 census. They are supported by some surveys in different parts of the country; so far, there has been no national survey. On these bases, the birth rate in 1961 was estimated
at 47.6 for the country as a whole. The corresponding general fertility rates\(^1\) and gross reproduction rates\(^2\) were 207 and 3.1 respectively. The death rate was estimated at 22.4, while the expectation of life at birth worked out at 45 years. Since 1961, there seems to have been little change in these rates except for a slight fall in the death rate. It is difficult to say how much reliance can be placed on regional estimates of fertility and mortality. While mortality does not differ among different regions in Indonesia, fertility is highest in West Java and lowest in Djogjakarta (Table 4). The age-specific fertility rate reveals a curve with a plateau typical of high fertility countries. Fertility is high at ages 20-29 with a peak at ages 25-29 years. It continues to be high at the later ages of 30-34 years (Table 5).

**Age and Sex Structure**

6. According to the 1961 census, the age structure of the population revealed that 42% of the population was under 15 years of age and 2.5% over 65 years (Table 6). The sex ratio was 103 females to 100 males. The age structure indicated a dependency ratio of 88. Although the actual age and sex structure of population will not be available until after the 1971 census data are released, it seems that the dependency ratio has not improved because of the constant high level of fertility during the intercensal decade.

**Age at Marriage**

7. The mean age at marriage is 25 years for males and 18 years for females. The proportion among single females has increased only slightly from 52% in 1930 to 56% in 1960. There has, therefore, been little increase in the mean age at marriage of females.

**Future Population Estimates**

8. According to the UN population projections of constant fertility and sharply declining mortality, the population of Indonesia will double before 1995 and reach 339 million by the year 2001. The rate of growth of population would be more than 3% in 1986 and 3.7% by the year 2001. Even if fertility is reduced to half, the population size will still be around 255 million and the rate of growth of population would remain at

**Education**

9. The literates, or those who can read and write in Latin characters, constituted 42.9% of the population of 10 years and over in 1961. Out of some 15.9 million children of 7-13 years of age, 8.2 million or 54.27% were at school. Assuming that there will be no moderation of fertility, the number of children in similar age group is estimated to increase to 29 million by 1986 and 44 million by 2001. Children in the secondary schools (13-18 years) would number around 36 million by year 2001 without a decline in fertility (Table 7).

---

1/ The number of births per 1,000 women in the reproductive age groups (15-44 years).

2/ The average number of females born to a woman during the whole of her reproductive period.
Urbanization

10. Less than 15% of the population in Indonesia lives in urban areas. After World War II, there was a steady migration to the towns, but their overall growth rate is estimated to be no greater than the national average; a lower than average increase in the natural growth rate has been supplemented by steady in-migration. The population of Djakarta has increased sharply from 533,000 in 1930 to around 1.8 million in 1955, and is now estimated to be about 4.2 million. It covers an area of 577 km²; the 1970 density was estimated at some 7,300 per km². Since 1947, migration to Djakarta from rural areas and small towns has proceeded continuously and since 1961 has exceeded 100,000 persons annually. With a relatively constant death rate and steadily rising birth rate, the natural rate of population increase rose from about 2% before 1960 to about 3% in 1970. One-half of the population is under 20 years of age. The Governor declared Djakarta a closed city in 1970. The tangible results of this rapid increase are expressed in rising unemployment, public health problems, inadequate public utilities, and congested housing conditions.

Ethnic Composition

11. The population comprises a variety of ethnic groups but the majority are of Malay origin. Diverse languages and dialects, culture, and social organizations distinguish the groups, the most important being the Javanese. Muslims comprise 90% of the population, the remainder being Christians (4%), Hindus (3%), and Buddhists (3%).
## Table 1

**POPULATION TRENDS IN INDONESIA, 1930-70**

(In thousands)

<table>
<thead>
<tr>
<th>End of the Year</th>
<th>Java and Madura</th>
<th>Outer Provinces</th>
<th>Indonesia</th>
<th>Rate of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Census 1930¹/</td>
<td>41,718</td>
<td>19,000</td>
<td>60,727</td>
<td>-</td>
</tr>
<tr>
<td>1940²/</td>
<td>48,416</td>
<td>22,060</td>
<td>70,476</td>
<td>1.5</td>
</tr>
<tr>
<td>1950²/</td>
<td>50,456</td>
<td>26,751</td>
<td>77,207</td>
<td>0.4</td>
</tr>
<tr>
<td>1961²/</td>
<td>63,289</td>
<td>34,161</td>
<td>97,450</td>
<td>2.1</td>
</tr>
<tr>
<td>1970³/</td>
<td>77,224</td>
<td>43,875</td>
<td>121,199</td>
<td>2.2</td>
</tr>
</tbody>
</table>

---

**Source:** Statistical Pocket Book of Indonesia 1963.

¹/ Government of Indonesia Census.
²/ Government of Indonesia Estimates.
³/ UN Population Projections - Medium Variant.
<table>
<thead>
<tr>
<th>Province</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>1,481</td>
<td>1,426</td>
<td>2,907</td>
</tr>
<tr>
<td>West Java</td>
<td>8,658</td>
<td>8,957</td>
<td>17,615</td>
</tr>
<tr>
<td>Central Java</td>
<td>8,968</td>
<td>9,440</td>
<td>18,408</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>1,092</td>
<td>1,149</td>
<td>2,241</td>
</tr>
<tr>
<td>East Java</td>
<td>10,602</td>
<td>11,220</td>
<td>21,822</td>
</tr>
<tr>
<td><strong>Total: Java and Madura</strong></td>
<td>30,801</td>
<td>32,192</td>
<td>62,993</td>
</tr>
<tr>
<td>D. I. Atjeh</td>
<td>822</td>
<td>807</td>
<td>1,629</td>
</tr>
<tr>
<td>North Sumatra</td>
<td>2,514</td>
<td>2,450</td>
<td>4,964</td>
</tr>
<tr>
<td>West Sumatra</td>
<td>1,118</td>
<td>1,201</td>
<td>2,319</td>
</tr>
<tr>
<td>Riau</td>
<td>637</td>
<td>598</td>
<td>1,235</td>
</tr>
<tr>
<td>Djambi</td>
<td>386</td>
<td>358</td>
<td>744</td>
</tr>
<tr>
<td>South Sumatra</td>
<td>2,466</td>
<td>2,382</td>
<td>4,848</td>
</tr>
<tr>
<td><strong>Total: Sumatra</strong></td>
<td>7,943</td>
<td>7,796</td>
<td>15,739</td>
</tr>
<tr>
<td>West Kalimantan</td>
<td>802</td>
<td>779</td>
<td>1,581</td>
</tr>
<tr>
<td>Central Kalimantan</td>
<td>251</td>
<td>245</td>
<td>496</td>
</tr>
<tr>
<td>South Kalimantan</td>
<td>726</td>
<td>747</td>
<td>1,473</td>
</tr>
<tr>
<td>East Kalimantan</td>
<td>287</td>
<td>264</td>
<td>551</td>
</tr>
<tr>
<td><strong>Total: Kalimantan</strong></td>
<td>2,066</td>
<td>2,035</td>
<td>4,101</td>
</tr>
<tr>
<td>North and Central Sulawesi</td>
<td>1,015</td>
<td>988</td>
<td>2,003</td>
</tr>
<tr>
<td>South and Southeast Sulawesi</td>
<td>2,475</td>
<td>2,601</td>
<td>5,076</td>
</tr>
<tr>
<td><strong>Total: Sulawesi</strong></td>
<td>3,490</td>
<td>3,589</td>
<td>7,079</td>
</tr>
<tr>
<td>Bali</td>
<td>884</td>
<td>899</td>
<td>1,783</td>
</tr>
<tr>
<td>West Nusatenggara</td>
<td>893</td>
<td>914</td>
<td>1,807</td>
</tr>
<tr>
<td>East Nusatenggara</td>
<td>984</td>
<td>983</td>
<td>1,967</td>
</tr>
<tr>
<td><strong>Total: Bali and Nusatenggara</strong></td>
<td>2,761</td>
<td>2,796</td>
<td>5,557</td>
</tr>
<tr>
<td>Maluku</td>
<td>403</td>
<td>387</td>
<td>790</td>
</tr>
<tr>
<td>West Irian</td>
<td>375</td>
<td>383</td>
<td>758</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>778</td>
<td>770</td>
<td>1,548</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>47,839</td>
<td>49,178</td>
<td>97,017</td>
</tr>
</tbody>
</table>

*Source:* Central Bureau of Statistics.
### Table 3

**JAVA AND BALI: PROVINCIAL POPULATION ESTIMATES AND DENSITIES, 1970**

<table>
<thead>
<tr>
<th>Province</th>
<th>Population 1/ (In millions)</th>
<th>Area $\text{Km}^2$ 2/</th>
<th>Density per $\text{Km}^2$</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>4.23</td>
<td>577</td>
<td>7,331</td>
<td>5.5</td>
</tr>
<tr>
<td>West Java</td>
<td>20.97</td>
<td>46,300</td>
<td>452</td>
<td>27.7</td>
</tr>
<tr>
<td>Central Java</td>
<td>21.36</td>
<td>34,206</td>
<td>624</td>
<td>28.2</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>2.41</td>
<td>3,169</td>
<td>760</td>
<td>3.2</td>
</tr>
<tr>
<td>East Java</td>
<td>24.83</td>
<td>47,922</td>
<td>517</td>
<td>32.7</td>
</tr>
<tr>
<td>Bali</td>
<td>2.09</td>
<td>5,561</td>
<td>375</td>
<td>2.7</td>
</tr>
<tr>
<td>Java and Bali</td>
<td>75.89</td>
<td>137,735</td>
<td>550</td>
<td>100.0</td>
</tr>
</tbody>
</table>

1/ Government of Indonesia Estimates.
## Table 4

**ESTIMATES OF REGIONAL FERTILITY AND MORTALITY DIFFERENTIAL IN INDONESIA (1961)**

<table>
<thead>
<tr>
<th>Region</th>
<th>Crude Birth Rate</th>
<th>Crude Death Rate</th>
<th>Rate of Natural Increase</th>
<th>Gross Reproduction Rate</th>
<th>General Fertility Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Java</td>
<td>49.8</td>
<td>22.5</td>
<td>27.3</td>
<td>3.459</td>
<td>0.2130</td>
</tr>
<tr>
<td>Central Java</td>
<td>46.8</td>
<td>22.3</td>
<td>24.5</td>
<td>3.161</td>
<td>0.2076</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>39.9</td>
<td>22.3</td>
<td>17.6</td>
<td>2.508</td>
<td>0.1681</td>
</tr>
<tr>
<td>East Java</td>
<td>42.7</td>
<td>22.2</td>
<td>20.5</td>
<td>2.771</td>
<td>0.1830</td>
</tr>
<tr>
<td>Java</td>
<td>46.1</td>
<td>22.3</td>
<td>23.8</td>
<td>3.059</td>
<td>0.2009</td>
</tr>
<tr>
<td>Sumatra</td>
<td>51.6</td>
<td>22.6</td>
<td>29.0</td>
<td>-</td>
<td>0.2240</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>48.2</td>
<td>22.4</td>
<td>25.8</td>
<td>-</td>
<td>0.2089</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>49.5</td>
<td>22.5</td>
<td>27.0</td>
<td>-</td>
<td>0.2185</td>
</tr>
<tr>
<td>Other Islands</td>
<td>49.6</td>
<td>22.5</td>
<td>27.1</td>
<td>-</td>
<td>0.2213</td>
</tr>
<tr>
<td>Outer Provinces</td>
<td>50.2</td>
<td>22.6</td>
<td>27.6</td>
<td>-</td>
<td>0.2176</td>
</tr>
<tr>
<td>Indonesia</td>
<td>47.6</td>
<td>22.4</td>
<td>25.2</td>
<td>3.1</td>
<td>0.2073</td>
</tr>
</tbody>
</table>

**Source:** Iskandar, S. Some Monographic Studies on the Population in Indonesia; University of Indonesia, Djakarta.
## Table 5

**INDONESIA: AGE-SPECIFIC FERTILITY RATES, 1965-70**  
(Births per 1,000 of Women)

<table>
<thead>
<tr>
<th>Age</th>
<th>Age-Specific Fertility Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 20 years</td>
<td>0.119</td>
</tr>
<tr>
<td>20 - 24 years</td>
<td>0.324</td>
</tr>
<tr>
<td>25 - 29 years</td>
<td>0.334</td>
</tr>
<tr>
<td>30 - 34 years</td>
<td>0.257</td>
</tr>
<tr>
<td>35 - 39 years</td>
<td>0.175</td>
</tr>
<tr>
<td>40 - 44 years</td>
<td>0.078</td>
</tr>
<tr>
<td>45 - 49 years</td>
<td>0.022</td>
</tr>
</tbody>
</table>

**Source:** U.N. Estimates.
### Table 6

**INDONESIA: POPULATION BY SEX AND AGE, 1961**

(All figures in thousands)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 4</td>
<td>8,462</td>
<td>8,580</td>
<td>17,042</td>
<td>17.7</td>
</tr>
<tr>
<td>5 - 9</td>
<td>7,684</td>
<td>7,639</td>
<td>15,323</td>
<td>15.9</td>
</tr>
<tr>
<td>10 - 14</td>
<td>4,319</td>
<td>3,861</td>
<td>8,179</td>
<td>8.5</td>
</tr>
<tr>
<td>15 - 19</td>
<td>3,834</td>
<td>3,874</td>
<td>7,708</td>
<td>8.0</td>
</tr>
<tr>
<td>20 - 24</td>
<td>3,452</td>
<td>4,339</td>
<td>7,791</td>
<td>8.1</td>
</tr>
<tr>
<td>25 - 34</td>
<td>7,334</td>
<td>8,542</td>
<td>15,876</td>
<td>16.5</td>
</tr>
<tr>
<td>35 - 44</td>
<td>5,720</td>
<td>5,363</td>
<td>11,083</td>
<td>11.5</td>
</tr>
<tr>
<td>45 - 54</td>
<td>3,559</td>
<td>3,483</td>
<td>7,042</td>
<td>7.3</td>
</tr>
<tr>
<td>55 - 64</td>
<td>1,898</td>
<td>1,850</td>
<td>3,748</td>
<td>3.9</td>
</tr>
<tr>
<td>65 - 74</td>
<td>796</td>
<td>829</td>
<td>1,625</td>
<td>1.7</td>
</tr>
<tr>
<td>75 +</td>
<td>378</td>
<td>407</td>
<td>784</td>
<td>0.8</td>
</tr>
<tr>
<td>Unknown</td>
<td>60</td>
<td>57</td>
<td>117</td>
<td>0.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>47,494</td>
<td>48,825</td>
<td>96,319</td>
<td>100.0</td>
</tr>
</tbody>
</table>

1/ These figures do not include West Irian which had a population of 700,000 and which was under Dutch administration at the time.

Source: Central Bureau of Statistics.
### Table 7

**PROJECTED SCHOOL AGE POPULATION, 1971-2001**

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary 7-12 Years</th>
<th>Secondary 13-18 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>20,019</td>
<td>18,035</td>
</tr>
<tr>
<td>1976</td>
<td>22,399</td>
<td>19,506</td>
</tr>
<tr>
<td>1981</td>
<td>25,276</td>
<td>21,857</td>
</tr>
<tr>
<td>1986</td>
<td>28,843</td>
<td>24,679</td>
</tr>
<tr>
<td>1991</td>
<td>32,801</td>
<td>28,197</td>
</tr>
<tr>
<td>1996</td>
<td>37,523</td>
<td>32,108</td>
</tr>
<tr>
<td>2001</td>
<td>43,714</td>
<td>36,825</td>
</tr>
</tbody>
</table>

**Source:** Iskandar, S. Some Monographic Studies on Population in Indonesia, Djakarta.
SELECTED ECONOMIC TRENDS

Labor Force

1. No reliable recent estimates of labor force or of employment are available for Indonesia. The census of 1961 provided an estimate of the incidence of unemployment. According to the definition used, unemployment included that part of the population 10 years and over who were unemployed for more than 2 months during the period of 6 months preceding the enumeration. For the country as a whole, the unemployment rate was 5.4% -- 7% for females and 4.8% for males. The total labor force in 1961 was estimated at 34.5 million, of which 1.9 million were supposed to be unemployed. This, however, does not reflect the extent of vast underemployment in the rural areas. The following table indicate the size of the labor force in rural and urban areas:

Table 1

INDONESIA: LABOR FORCE IN RURAL AND URBAN AREAS, 1961
(In millions)

<table>
<thead>
<tr>
<th>Area</th>
<th>Population 10 Years and Over</th>
<th>Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Rural</td>
<td>26.4</td>
<td>27.6</td>
</tr>
<tr>
<td>Urban</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>31.4</td>
<td>32.6</td>
</tr>
</tbody>
</table>

2. The results of the census in 1961 do not provide data from which estimates of underemployment can be made. The labor force sample survey in Java and Madura in 1950 collected information on the number of days in a year and the number of hours per day worked by the agricultural labor force. The total number of man-hours effectively used in agricultural production per year was estimated at 22.353 million (i.e., the sum of 15.462 million man-hours in the peak season, and 6.891 million man-hours in the slack season). Assuming a total of 60 days off work per year (the total of Sundays and 8 national/religious holidays), and an average work day of 7 hours, the total potential man-hours per year in Java should be 33,604 million man-hours. The underemployment rate per year in agriculture on this basis is estimated at 33.5%, or about one-third of the total labor force.

3. On the basis of these observations, it can be estimated that no less than 10 million out of 30 million persons in the labor force in rural areas were underemployed in 1961. They could rather be considered as unemployed, for during the slack season those who are working do not find work for more than 4 hours. Even in the peak season the maximum number of hours worked is only six.
Table 2

<table>
<thead>
<tr>
<th>Season</th>
<th>Mean Number of Hours Worked Per Day</th>
<th>Mean Number of Days Worked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak</td>
<td>6.16</td>
<td>154</td>
</tr>
<tr>
<td>Slack</td>
<td>3.8</td>
<td>162</td>
</tr>
</tbody>
</table>

4. The phenomenon of underemployment also exists in the urban areas of Java. On the basis of a survey made in 1958, it has been estimated that unemployed persons -- those aged 12 years and over, who are working for less than 30 hours per week but eager to work longer and seeking additional employment -- numbered 76,000 in urban areas. The underemployment rate in the urban areas was, therefore, estimated at 1.86% for males, 4.7% for females, and 2.7% for both sexes.

5. The above analysis indicates that around 1961 a minimum of 2 million workers were reported to be unemployed and more than 10 million did not have adequate employment. 1/

6. During 1961-71, the employment situation is unlikely to have improved substantially because of the slow growth of the economy, which could not have brought about any structural change.

7. Estimates of labor force without fertility control are also made by Iskandar. Assuming the same ratio of the rural labor force to total as obtained from the 1961 census, the estimates for 1971 are as follows:

Table 3

<table>
<thead>
<tr>
<th>Area</th>
<th>Working Age Population 15 - 64 Years</th>
<th>Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Rural</td>
<td>27.1</td>
<td>28.5</td>
</tr>
<tr>
<td>Urban</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>32.3</td>
<td>33.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase in Labor Force, 1961-71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Rural</td>
</tr>
<tr>
<td>Urban</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

8. According to the above table, the addition to the labor force during 1961-71 has been about 8 million in the rural areas and 1 million in urban areas. Job opportunities would have mainly reduced the existing unemployment and the addition of 9 million persons would have substantially added to unemployment. The incidence of unemployment may, therefore, be as

1/ The analysis is based on estimates given in Iskandar, S. Some Monographic Studies on Population in Indonesia.
large as one-fourth of the labor force. The elimination of unemployment of this magnitude without considering underemployment is extremely difficult.

Per Capita Income and Consumption

9. The gross domestic product of Indonesia was estimated at Rp 347.5 billion in 1951. Population in that year was estimated at 77.2 million. The per capita GDP was only U.S. $45 in that year. The annual increase in GDP has been negligible over the two decades starting in 1951.

10. More than half the increase in GDP at constant prices was offset by the more than 2% per annum growth rate of population during 1951-60. In 1961-67, a negligible increase of 0.2 was recorded in the per capita income as almost all the increase in GDP at 2.6% was eliminated by population growth of 2.4%. In 1967, there was an actual decline in the per capita income by 1.5%. Since 1968, the growth rate of GDP has been substantial. It, however, fluctuated as in 1969 the growth rate was lower than in the earlier years. In 1970, it regained and reached a peak. The data are summarized in the following table:

Table 4

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Total GDP</th>
<th>Per Capita GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-60</td>
<td>2.1</td>
<td>3.8</td>
<td>1.7</td>
</tr>
<tr>
<td>1961-67</td>
<td>2.4</td>
<td>2.6</td>
<td>0.1</td>
</tr>
<tr>
<td>1967</td>
<td>2.5</td>
<td>1.0</td>
<td>-1.5</td>
</tr>
<tr>
<td>1968</td>
<td>2.5</td>
<td>6.9</td>
<td>4.3</td>
</tr>
<tr>
<td>1969</td>
<td>2.5</td>
<td>5.1</td>
<td>2.5</td>
</tr>
<tr>
<td>1970</td>
<td>2.5</td>
<td>7.9</td>
<td>5.3</td>
</tr>
</tbody>
</table>

11. Calorie-intake per capita per day was estimated at 1,980 in 1960. This, of course, is below acceptable standards. There was little improvement in the nutritional standards in Indonesia during the sixties. The per capita food availability declined by 1.17% during 1961-67 and 2.4% during 1967. An increase of 3.8% was recorded in 1968. Again a decline of 0.3% was experienced in 1969. Until recently, most of the increase in food production was absorbed by the accelerating growth rate of population as shown in the following table:

Table 5

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Food</th>
<th>Population</th>
<th>Food Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961-67</td>
<td>1.6</td>
<td>1.2</td>
<td>2.4</td>
<td>-1.1</td>
</tr>
<tr>
<td>1967</td>
<td>1.6</td>
<td>-</td>
<td>2.5</td>
<td>-2.4</td>
</tr>
<tr>
<td>1968</td>
<td>4.8</td>
<td>6.4</td>
<td>2.5</td>
<td>3.8</td>
</tr>
<tr>
<td>1969</td>
<td>3.1</td>
<td>2.3</td>
<td>2.6</td>
<td>-0.3</td>
</tr>
</tbody>
</table>
INDONESIA
CENTRAL ORGANIZATION OF THE MINISTRY OF HEALTH

MINISTER OF HEALTH

SECRETARY GENERAL

BUREAU 1 - Statistics and Evaluation
BUREAU 2 - Organization and Construction
BUREAU 3 - Personnel
BUREAU 4 - Logistics
BUREAU 5 - Education
BUREAU 6 - Law and Legislation
BUREAU 7 - Special Affairs (Foreign Relations)

DIRECTOR GENERAL
Health Promotion and Medical Care

DIRECTORATE OF MEDICINE
DIRECTORATE OF MENTAL HEALTH
DIRECTORATE OF DENTAL HEALTH
DIRECTORATE OF NUTRITION
DIRECTORATE OF REHABILITATION AND HEALTH PROMOTION
DIRECTORATE OF M.C.H. AND FAMILY PLANNING

UNDER FIVE CLINICS
HEALTH CENTERS
SOCIAL OBSTETRICS
FAMILY PLANNING

DIRECTOR GENERAL
Communicable Disease Control

DIRECTORATE OF CONTROL, ERADICATION AND IMMUNIZATION
DIRECTORATE OF QUARANTINE
DIRECTORATE OF HYGIENE AND SANITATION
DIRECTORATE OF LABORATORY SERVICE

DIRECTOR GENERAL
Pharmacy

DIRECTORATE OF INVESTIGATION AND RESEARCH
DIRECTORATE OF PRODUCTION
DIRECTORATE OF DISTRIBUTION

ANNEX 5
IBRD-5589(3R)
INDONESIA

PROVINCIAL HEALTH STRUCTURE

GOVERNOR

EXECUTIVE DIRECTOR
(Health Cabinet Member)

INSPECTOR OF HEALTH

COMMUNICABLE DISEASES CONTROL

COMMUNICATION DISEASES CONTROL

PHARMACY

HEALTH PROMOTION
AND FAMILY PLANNING

HEALTH PROMOTION
AND FAMILY PLANNING
(MCH)

MEDICAL CARE

COMMUNICABLE
DISEASE CONTROL

BUPATI

Administrative Responsibility

CHIEF MEDICAL OFFICER
(Kabupaten Level)

Technical Responsibility

KABUPATEN HOSPITAL

MCH CENTERS
(Kawedanan)
(A)

FIVE MCH CENTERS
(Ketjamatan Level)
(B)

SATELLITE CLINICS
(C)
REORGANIZATION OF THE NFPCB

1. The NFPCB will be reorganized substantially on the following lines:

   a. The NFPCB will be responsible for:

      i. advice on the formulation of national family planning policies;
      
      ii. formulation of a national family planning program which reflects the policies approved by the Borrower;
      
      iii. coordination and supervision of the implementation of the national program; and
      
      iv. coordination and supervision of all assistance for family planning from foreign and domestic sources including externally financed projects included therein.

   b. The NFPCB will be headed by a Chairman who, in performing his tasks, will be directly responsible to the President of Indonesia. The Chairman will be advised and assisted by the National Family Planning Consultative Committee comprised of the Secretaries General of the Ministries involved in the implementation of the national program and other individuals called upon by the Chairman.

   c. The NFPCB will have three Deputy Chairmen -- Deputy I will be responsible to the Chairman for overall program planning and budgeting, supervision of program implementation, logistics, implementation of special projects, and direction of the PIU. He will also act on behalf of the Chairman during the latter's absence. Deputy II will be responsible to the Chairman for the technical direction and coordination during implementation of that part of the national program dealing with information and motivation, education and training, and medical services. Deputy III will be responsible to the Chairman for technical direction and coordination of the part dealing with evaluation and research, and reporting and recording. The Chairman will also be assisted by an administrative secretary who will be responsible for the administration of headquarters facilities and staff.

   d. The NFPCB will be provided with adequate supporting staff for the execution of its tasks, including specifically staff for:

      i. evaluation and research;
      
      ii. the field postpartum program; and
      
      iii. information and communications.

2. A diagram outlining the proposed new structure is attached to this annex.

3. A team of three advisers will be attached to the central NFPCB for 2 years to strengthen its senior management capability. The proposed
terms of reference for the adviser in family planning communications are in para 5 of Annex 29. The proposed terms of reference for the advisers in program management and family planning training are given below:

a. **Adviser in Program Management**
The function of the adviser in program management would be to assist the Chairman of the NFPCB in the formulation and execution of policies designed to develop the national family planning program. The specific responsibilities of the program adviser would include providing guidance on:

i. the development of effective relationships in program planning and execution between the NFPCB and the program's implementing units, particularly the Ministry of Health;

ii. the provision of family planning services through the facilities, particularly thru maternal and child health services, operated by the implementing units;

iii. the use of service data, survey and research results, program evaluation data and the results of an effective supervisory system in expanding or modifying the use of human and financial resources available for the development of the national program;

iv. the need to coordinate effectively all services of non-Indonesian assistance to achieve the national program's objectives;

v. the appropriate use of new family planning techniques and methods in the development of the national program; and

vi. the most effective balance, consistent with local circumstances, between the provision of services and the stimulation of demand for family planning required to promote the national program's objectives.

b. **Adviser in Family Planning Training**
The functions of the training adviser would be to provide guidance to the Chairman of the NFPCB on the development of a program to meet the training needs of the National Family Planning Program. In this regard, he will make the fullest use of all expertise available in this field in the country as well as from international agencies. The specific responsibilities of the training adviser would include guidance on:

i. development of an overall training policy in family planning;

ii. development of a training strategy and training system to meet the training needs of the family planning program;
iii. preparation, within the strategy, of an operational plan, including development of curricula based on expected job-functions for training of all categories of personnel involved in the implementation of the National Family Planning Program;

iv. development of a system for coordination of all agencies implementing the training programs;

v. working with governmental and non-governmental agencies to help in integrating family planning as a part of pre-service training, medical and nursing education, etc.;

vi. development of training evaluation and feed-back for ensuring the relevance of specific training activities to meet program needs;

vii. to stimulate needed research and innovative techniques in training with particular reference to training methods, training systems, etc.; and

viii. development of programs for training of trainers.
INDONESIA
PROPOSED STRUCTURE OF THE NFPCB'S CENTRAL OFFICE

NATIONAL COUNCIL FOR GUIDANCE OF FAMILY PLANNING

PRESIDENT

MINISTER OF PEOPLE'S WELFARE

CHAIRMAN

NATIONAL IMPLEMENTATION COORDINATION COMMITTEE

SECRETARIAT

DEPUTY CHAIRMAN III
(Research and Evaluation)

DEPUTY CHAIRMAN I
(Program Management)

DEPUTY CHAIRMAN II
(Program Development)

RESEARCH & EVALUATION
REPORTING & RECORDING
PROGRAM PLANNING
SPECIAL PROJECTS
LOGISTICS
SUPERVISION
INFORMATION & MOTIVATION
EDUCATION & TRAINING
MEDICAL SERVICES
FAMILY PLANNING FIELD WORKER PROGRAM

1. The family planning field worker program was developed because the spread of family planning information through mass media was insufficient, and there was need for a more personal approach. The field workers were to be full-time nonmedical personnel who would be available to spread family planning knowledge in the community and, if necessary, remove resistance to the adoption of family planning and contraception. The program was started in October 1970, and until April 1971, it was organized by the Indonesian Planned Parenthood Association (IPPA); since then, the NFPCB has assumed responsibility.

2. The family planning field worker program comprises the selection and training of field workers, group leaders, supervisors, and inspectors. Field workers should have a junior high school education and be between 26 and 45 years old. They receive 3 weeks training and both PTCs and STCs have been used for this purpose. Field workers are expected to recruit from 8 to 10 acceptors monthly. At present, they are unofficially attached to the clinics but they are administratively independent, being paid and directed from the central NFPCB headquarters. Some 400 field workers are employed by the NFPCB at present, together with a director and associated staff at central level. The field workers are concentrated in the provinces of Djakarta, West Java, Central Java, and Bali.

3. The present disposition of field worker program staff is:

<table>
<thead>
<tr>
<th>Province</th>
<th>Field Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta (assigned to military clinics)</td>
<td>48</td>
</tr>
<tr>
<td>West Java - Bandung</td>
<td>89</td>
</tr>
<tr>
<td>Central Java - Semarang</td>
<td>76</td>
</tr>
<tr>
<td>Central Java - Karanganjan</td>
<td>35</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>53</td>
</tr>
<tr>
<td>Bali</td>
<td>49</td>
</tr>
<tr>
<td>East Java (assigned to Surabaja municipality)</td>
<td>35</td>
</tr>
<tr>
<td>TOTAL</td>
<td>385</td>
</tr>
</tbody>
</table>

The program targets by April, 1971, were to recruit 767 field workers, 85 group leaders, 15 supervisors, and 6 inspectors. The current NFPCB budget makes provision for Rp 147 million (U.S. $354,000) covering the recruitment and placement of about 2,500 field workers, 250 group leaders, other supervisory staff, and equipment for the six provinces in Java and Bali. The program is lagging behind its implementation schedule.

4. This is the result of the current confused position of the field worker program which is still nebulous. The field workers trained in East Java, for example, are paid and administered by the Surabaja municipality health services; their functional relationship, if any, to the NFPCB
scheme is not clear. The NFPGB has established a committee to make recommendations to the chairman on the best way in which to implement the field worker project. Among the principal difficulties facing the project are:

a. The fact that the NFPGB, a coordinating agency, is trying to implement the project. Thus far, no decision has been reached on the program's status or which agency or ministry will be responsible for implementation.

b. There is resistance, particularly at peripheral service levels, to the idea of full-time non-medical family planning field workers. This is partly due to inadequate communication within the NFPGB organization so that even the nebulous instructions of the center have not been appreciated at lower levels. The field workers are also seen as a body of workers in direct competition with the paramedical staff of MCH/FP centers for the small rewards available for successful motivators. This situation is aggravated by the fact that particularly at peripheral levels, family planning is seen as the exclusive preserve of the health services.

c. The program has not been organized in a systematic way so that some field workers are using concepts and work patterns which differ from those laid down centrally. There is considerable confusion regarding the payment of field workers' salaries. Even for the small number of field workers in the field, the supplies of equipment and bicycles have not been effectively distributed.

d. Salaries (Rp 2,500 per month per field worker) are inadequate, and field workers cannot be expected to work full-time. The field worker's job is regarded as complementary to other occupations; this is taken to justify the recruitment of paramedical staff as field workers.

e. Although there is a curriculum for field worker training, it is not adequate because basic job functions have not been fully developed and incorporated in the curriculum. There are difficulties in training because some teachers do not have the essential practical experience required in field worker training. It is apparent that there is, in any case, little uniformity in training.

f. With the lack of overall control, field workers are not assigned according to any predetermined plan. After training, they have no contracts and can leave their job easily with a consequent waste of training resources. There is little uniformity in the selection procedures. In Bali, nearly all the field workers who have been recruited are already employed as midwives and nurses, etc. The provision of supervisory staff, i.e., group leaders, etc., has not kept pace with even the slow recruitment of field workers, and there is, in consequence, a serious lack of guidance and
supervision which is critical to the success of such a new program. There is, in most cases, no leadership at the local level. Supervisors and group leaders are, in most instances, themselves new to family planning and also require close guidance.

5. The NFPCB committee needs, therefore, to take urgent action in proposing recommendations which should be directed toward:
   a. systematic planning and organization;
   b. preparation of budget provision which will be based on the national family planning program targets. They are not now met by the general allocation of three field workers to a "complete clinic" which produces too intensive a ratio of 1:4,500 persons;
   c. an early decision on the agency responsible for implementation;
   d. early resolution of administrative problems of salary and working conditions, including effective contracts;
   e. improving salaries for field workers and supervisory staff; and
   f. strengthening the supervisory structure.

6. To this end, the following recommendations are made:
   a. Provide field workers at a general ratio of 1:10,000 persons which will ensure a good motivational program. They should be paid an effective salary of Rp 3,500 per month.
   b. The Ministry of Health, with provincial health authorities, must be closely associated with field worker project implementation because of their extensive administrative network and major responsibility for the delivery of family planning services.
   c. The basic functions of the field workers should be clearly and specifically described and followed uniformly by all implementing units. These functions should include identification of eligible couples; family and community-centered family planning education; collaboration with the MCH/FP clinic personnel in providing MCH/FP services; distribution of conventional contraceptives themselves, as well as through nonmedical depot holders like village leaders; and responsibility for primary-level reporting and recording along with the MCH/FP clinic personnel; etc.
   d. Priority must be given to train the field workers and group leaders in local subtraining centers based on their specific job functions. Their training must be specifically oriented to prepare these workers to effectively carry out their job functions and should not be merely informational in nature. If efficiently used, present training facilities are adequate for training the 1971-72 recruitment targets. The family planning training component of the project develops an adequate training capability for subsequent years.
e. There must be adequate supervisory guidance of the field workers and an effective administrative, as well as supervisory, structure. These can be assured by:

i. appointing one group leader to every five field workers, who would work directly under his control and supervision. Group leaders would be attached to the district level MCH/FP center.

ii. appointing one full-time assistant supervisor to the NFPCB officer at regency level, who would be responsible for supervising and giving technical guidance to the group leaders.

iii. appointing an effective unit attached to the provincial office of the Inspector of Health to work with the Director of Health Promotion and Family Planning. It would consist of 1 supervisor, 1 assistant supervisor, and 3 supporting administrative staff. For the purposes of DIP (budget authority), the director would be the project officer.

iv. appointing a coordinator to the provincial NFPCB offices to supervise all aspects of the family planning field worker project for the NFPCB and coordinate staff activities between the various agencies to whom they have administrative and program responsibilities.

v. appointing an effective unit at central NFPCB to coordinate all activities, which should consist of 1 director (of the rank of bureau chief), 2 senior coordinators to provide immediate supervision of activity at provincial level, as well as supporting staff comprising 1 accountant, 1 clerk, and 1 typist.

7. In summary, the field worker program should aim to have the following staff in position in the next few years:

<table>
<thead>
<tr>
<th>Staff</th>
<th>1972-73</th>
<th>1973-74</th>
<th>1974-75</th>
<th>1975-76</th>
<th>1976-77</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Worker<strong>1</strong></td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Group Leader<strong>2</strong></td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>200</td>
<td>1,400</td>
</tr>
<tr>
<td>Assistant Supervisor</td>
<td>40</td>
<td>40</td>
<td>35</td>
<td>-</td>
<td>-</td>
<td>115</td>
</tr>
<tr>
<td>Provincial Unit Staff</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Provincial Coordinator</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Central Unit Staff</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Driver</td>
<td>2</td>
<td>32</td>
<td>30</td>
<td>30</td>
<td>35</td>
<td>129</td>
</tr>
</tbody>
</table>

**1** Based on a ratio of 1:10,000 and a Java/Bali population of 80 million, and allowing for 1,000 trained field workers before the project starts.

**2** Based on a ratio of 1:5 field workers, and allowing for 200 trained group leaders before the project starts.
8. The costs of this component, excluding contingencies, are estimated as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries¹/</td>
<td>219,000</td>
<td>430,000</td>
<td>639,000</td>
<td>838,000</td>
<td>971,000</td>
<td>3,097,000</td>
</tr>
<tr>
<td>Transport²/</td>
<td>26,000</td>
<td>108,000</td>
<td>185,000</td>
<td>260,000</td>
<td>166,000</td>
<td>765,000</td>
</tr>
<tr>
<td>Maintenance</td>
<td>10,000</td>
<td>20,000</td>
<td>38,000</td>
<td>56,000</td>
<td>76,000</td>
<td>200,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>255,000</td>
<td>558,000</td>
<td>862,000</td>
<td>1,154,000</td>
<td>1,213,000</td>
<td>4,042,000</td>
</tr>
</tbody>
</table>

¹/ Based on: 7,000 field workers at Rp 3,500 per month
1,140 group leaders at Rp 5,000 per month
115 assistant supervisors at Rp 10,000 per month
6 provincial units staff, each comprising:
  1 supervisor at Rp 15,000 per month
  1 assistant supervisor
  3 clerical staff
6 provincial coordinators at Rp 15,000 per month
1 central unit staff comprising:
  1 director at Rp 20,000 per month
  2 senior coordinators at Rp 15,000 per month
administrative staff
129 drivers.

²/ Comprises: 129 cars at U.S. $2,000 each
1,600 120-cc motorcycles at U.S. $220 each
4,500 bicycles at U.S. $30 each.
PRESENT STAFFING PATTERN OF TYPICAL HEALTH CENTER
AT DISTRICT LEVEL IN EAST JAVA

1 Doctor
1 Health Controller
1 Midwife
1 Nurse
2-3 Assistant Nurses
1 Assistant to the Midwife
1 Assistant Sanitarian
1 Clerk
1 Laboratory Technician

Auxiliary Staff includes¹/

Malaria Workers (home visiting for smear testing)
Smallpox Vaccinator
TCPS Worker (home visiting for yaws examinations)
Voluntary Village Workers (DKDs)

¹/ In a few centers, the staff includes a dentist and a dental nurse.
HEALTH SERVICES AND FACILITIES IN EAST JAVA, BALI, AND DJAKARTA

1. This annex describes the structure and services of provincial health authorities by reference to the provinces of East Java, Bali, and Djakarta.

2. The execution of health planning is primarily the responsibility of the provincial health departments. Because provinces and regencies in large part fund their own services, they have considerable autonomy. In each province, the Inspector of Health is responsible to the Governor. Under the Inspector, maternal and child health, and family planning services are the responsibility of a directorate. Administration of health services, including maternal and child health, and family planning, progresses from the Ministry in Djakarta through the health department in each province down to regency, district, sub-district, and village levels.

East Java

Village Level

3. In any one of the 8,044 rural villages in East Java, medical facilities are rudimentary. The average village has a population of some 2,800 persons. Some, but not all, have a simple polyclinic, perhaps associated with a simple type of MCH center, usually built by the community and staffed by a male nurse (mantri). The polyclinics provide first aid, aim at an early diagnosis of communicable disease, and are visited on occasion by a doctor and also by a midwife. Health services are not free; patients pay a fee of about Rp 10 (U.S. $0.026) used to buy medicines and stationery, etc.; contraceptives are provided free of charge.

4. The majority of village deliveries are conducted at home by the traditional midwife (dukun). In cooperation with UNICEF, a major effort has been made to provide training in delivery procedures by government midwives; this takes up half a day weekly for 5 months. In recognition of this training, the dukun is provided with a free delivery kit, the components of which are renewed each time she reports a delivery to the nearest government midwife. The provincial authorities estimate that there are over 14,000 dukuns in East Java, 6,758 of whom had been trained by August 1970. In addition to attending a delivery, the dukun assists in cooking, washing, and general household duties for about 40 days after delivery and is, therefore, an important member of the community.

Sub-District and District Levels

5. Villages are grouped for both civil and health administration into sub-districts. In East Java, there are 534 sub-districts, of which 507 are in rural areas and have a typical population of some 4,500 persons. At this level, there is an MCH/polyclinic center with a trained government midwife in charge. For health purposes, about five sub-districts are grouped into a district. At district headquarters, a doctor coordinates activities in the
sub-divisions from one of the five health centers. Some sub-divisions have more than one MCH center and (less often) have a government doctor. There are 139 districts (six in urban areas) in East Java, grouped into 37 regencies. A typical regency has an area of some 1,700 km² and a population of about 800,000; for health purposes, it is the main provincial sub-unit. It has a chief medical officer with primarily administrative functions, usually a 100-bed hospital (including about 10 maternity beds) with a doctor in charge, and a third physician responsible for communicable disease control. Each regency has a supervisory midwife, who also has midwifery duties.

6. MCH facilities in East Java are detailed in Table 1. Of the 929 government centers, 92% are in rural areas; of 138 private centers, 59% are in rural areas. Taking only government centers, each serves about 25,600 persons. They are not fully staffed. Of the 750 midwives reported by the provincial authorities 494 are attached to rural government MCH centers - a ratio of one to 14,000 people.

Municipal Areas

7. There are eight municipalities in East Java, subdivided into sub-districts and smaller municipal units. Surabaja, the provincial capital, has a population of about 2.1 million and has 16 sub-divisions. The municipalities are also the headquarters of administratively distinct but contiguous rural sub-divisions. Health services are provided on a more intensive basis than in rural areas and there is an evident trend towards the hospitalization of obstetrical cases. The basic health pattern is similar but there are substantial numbers of additional hospitals and health centers established by private agencies.

Bali

8. The health service structure in Bali is similar to that of East Java but, as Table 2 shows, there is a more complete coverage. Bali is divided into eight regencies and 50 sub-districts; there are no districts or municipalities. There is one government MCH center for 10,500 people. Not all the centers are staffed, but there is one trained midwife for 12,500 people. Twenty-one MCH centers also have maternity facilities, but underutilization is evident in the low utilization rate of 17.4 deliveries per bed during 1970.¹/

Djakarta

9. Djakarta has provincial status and is divided into five municipalities, each subdivided into a total of 27 sub-districts. In each municipality, there is a general health center with a doctor in charge of health administration for the area. Each sub-district has a smaller center supplemented with satellite MCH centers - 77 in all - run by private agencies, the Armed Forces, and the university medical school. Djakarta has 16 general hospitals, one maternity hospital, and 86 maternity clinics (see Table 3). Government estimates place the total number of deliveries in Djakarta between 160,000 and 180,000, annually. In 1969, some 80,000 (or 50%) deliveries were reported from maternity facilities; a further 40% were domiciliary deliveries attended by a doctor.

¹/ Sixty deliveries per bed per annum is an acceptable rate.
midwife, or dukun. At the end of 1970, there were 2,060 maternity beds in Djakarta. In 1970, the average number of deliveries per bed was 38. The detailed pattern of bed utilization is not available for 1970, but is similar to that of the previous year, which is shown in Table 3. This overall utilization rate conceals differences associated with types of facility, agency, and location in Djakarta. Public maternity facilities are generally overcrowded, many with more than 80 deliveries per bed annually, whereas private facilities are mostly underutilized.
Table 1

EAST JAVA: MCH FACILITIES

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<tr>
<th>Regency</th>
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<th>Midwives</th>
<th>Sub-Dis-Population (1968)</th>
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Table 2

BALI: MCH FACILITIES

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<th>Regencies</th>
<th>Sub-Districts</th>
<th>Villages</th>
<th>Population (1970)</th>
<th>MCH Centers</th>
<th>Midwives</th>
<th>Assistant Midwives</th>
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<td></td>
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<td>G  M  P</td>
<td>G  M  P</td>
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<td>2,068,340</td>
<td>197  7  18</td>
<td>165  8  13</td>
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G = Government
M = Military
P = Private
### Table 3

**DJAKARTA: MATERNITY FACILITIES**

**AVERAGE DELIVERIES FOR BED BY AREA AND BY TYPE OF CLINIC
1968 AND 1969**

<table>
<thead>
<tr>
<th>Area</th>
<th>Type of Hospital</th>
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<th>1969</th>
<th>1968</th>
<th>1969</th>
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<tbody>
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<td></td>
<td></td>
<td>Per Bed</td>
<td>Per Year</td>
<td>Per Bed</td>
<td>Per Year</td>
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</table>

**Source:** Djakarta Metropolitan Health Department.
## Table 3
### DJAKARTA: MATERNITY FACILITIES
**AVERAGE DELIVERIES FOR BED BY AREA AND BY TYPE OF CLINIC**
**1968 AND 1969**

<table>
<thead>
<tr>
<th>Area</th>
<th>Type of Clinic</th>
<th>Clinics</th>
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<th>Maternity Deliveries</th>
<th>Per Bed</th>
<th>Per Year</th>
<th>Clinics</th>
<th>Beds</th>
<th>Maternity Deliveries</th>
<th>Per Bed</th>
<th>Per Year</th>
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<td>90</td>
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*Source: Djakarta Metropolitan Health Department.*
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<tr>
<td>RSU Malang</td>
<td>200</td>
<td>163</td>
<td>29</td>
</tr>
<tr>
<td>RS Dr. Subandi, Djember</td>
<td>60</td>
<td>61</td>
<td>12</td>
</tr>
<tr>
<td>RS Gambiran, Kediri</td>
<td>50</td>
<td>64</td>
<td>11</td>
</tr>
<tr>
<td>RS Bangkalan</td>
<td>-</td>
<td>41</td>
<td>8</td>
</tr>
<tr>
<td>RS Bodjonegoro</td>
<td>55</td>
<td>46</td>
<td>-2/</td>
</tr>
<tr>
<td>Subtotal</td>
<td>902</td>
<td>804</td>
<td>104</td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSAL, Surabaja</td>
<td>297</td>
<td>76</td>
<td>353/</td>
</tr>
<tr>
<td>RSAL, Malang</td>
<td>20</td>
<td>127</td>
<td>65</td>
</tr>
<tr>
<td>Subtotal</td>
<td>317</td>
<td>203</td>
<td>65</td>
</tr>
<tr>
<td>Private</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS Vincent A Paulo, Surabaja</td>
<td>30</td>
<td>59</td>
<td>9</td>
</tr>
<tr>
<td>Mardi Santoso, Surabaja</td>
<td>66</td>
<td>82</td>
<td>13</td>
</tr>
<tr>
<td>RS William Booth, Surabaja</td>
<td>62</td>
<td>47</td>
<td>13</td>
</tr>
<tr>
<td>RS Panti Waluja, Malang</td>
<td>30</td>
<td>43</td>
<td>8</td>
</tr>
<tr>
<td>Reksa Wanita, Modjokerto</td>
<td>73</td>
<td>62</td>
<td>-2/</td>
</tr>
<tr>
<td>RS Sidi Chotidjah 4/</td>
<td>71</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Subtotal</td>
<td>332</td>
<td>293</td>
<td>43</td>
</tr>
<tr>
<td>TOTAL All Schools</td>
<td>1,551</td>
<td>1,300</td>
<td>212</td>
</tr>
</tbody>
</table>

DJAKARTA

<table>
<thead>
<tr>
<th>Government</th>
<th>Students in</th>
<th>Maternity</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budi Kemuliaan, Djakarta</td>
<td>196</td>
<td>36</td>
<td>138</td>
</tr>
</tbody>
</table>

Military

| RSAL Djakarta | NA | NA | 27 | 1,680 |

Private

| Sint Josef of St. Carolus Hospital | NA | 26 | 79 | 4,031 |
| RS Jajasan, Djakarta | 82 | 15 | 51 | 1,309 |
| RS Husada | NA | 6 | 63 | 1,510 |
| Angkatan Darat, RS PAD | NA | 6 | 94 | 3,436 |
| TOTAL All Schools | 278 | 89 | 452 | 18,182 |

BALI

<table>
<thead>
<tr>
<th>Government</th>
<th>Students in</th>
<th>Maternity</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSU Denpasar</td>
<td>116</td>
<td>32</td>
<td>117</td>
</tr>
</tbody>
</table>

---

1/ No admission in 1970 because of a staff shortage.
2/ Will begin to graduate students in 1971.
3/ Graduates estimated.
FAMILY PLANNING SERVICES AND PERFORMANCE

1. The Government of Indonesia Task Force which outlined the 5-year national family planning program adopted the target of 6 million new acceptors which the UN-WHO-IBRD Report recommended, but rephased it as the table below indicates.

<table>
<thead>
<tr>
<th>UN-WHO-IBRD Mission</th>
<th>Calendar Year</th>
<th>Annual Target</th>
<th>Fiscal Year</th>
<th>NFPCB Annual Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>-</td>
<td>1970-71</td>
<td>125,000</td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>300,000</td>
<td>1971-72</td>
<td>200,000</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>600,000</td>
<td>1972-73</td>
<td>550,000</td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>1,200,000</td>
<td>1973-74</td>
<td>1,000,000</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>1,800,000</td>
<td>1974-75</td>
<td>1,700,000</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>2,100,000</td>
<td>1975-76</td>
<td>2,500,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>6,000,000</td>
<td></td>
<td>6,075,000</td>
<td></td>
</tr>
</tbody>
</table>

2. Family planning services in the government program are provided through existing MCH facilities, frequently referred to as family planning "clinics." Data for family planning facilities and performance for 1969 and earlier years were obtained by IPPA and covered the whole of Indonesia. In December 1969, shortly after the Government assumed responsibility, there were 310 family planning clinics. To that date, IPPA reported a small but steady growth in the number of acceptors per clinic/month -- from 4.6 in 1967 to 8.8 in 1968, and 10.8 in 1969. IPPA retains its responsibility for the 99 clinics in the outer islands which have about 400 acceptors per month. As noted earlier, the program really got underway only in 1966 and full responsibility was not assumed by the Government until mid-1969. In the absence of a standard reporting system, family planning data are unreliable before 1968, and since then indicate consistency of coverage but about 15% of the centers fail to report each month. Sophisticated measurements, such as those used to indicate progress in large developed programs, are only now being developed.

3. In September 1971, the NFPCB reported that of the 1,604 family planning clinics, 1,686 family planning clinics reported new acceptors during the month (93.4%). Of these, 1,443 were operated by the Government, 79 by private agencies, and 164 by other institutions. There was an increase of 90 over the previous month, half of which were reported from East Java. The distribution of family planning clinics is shown in the following table:
### Table 2

**DISTRIBUTION OF FP CLINICS BY PROVINCE, SEPTEMBER 1971**

<table>
<thead>
<tr>
<th>Province</th>
<th>Total Listed Clinics</th>
<th>Total Reporting Clinics</th>
<th>Average Hours of Work per Clinic/Month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Government Private 1/</td>
<td>Government Private 2/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Others</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Government Private 1/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Others</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Djakarta</td>
<td>49</td>
<td>19</td>
<td>65</td>
</tr>
<tr>
<td>West Java</td>
<td>328</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>Central Java</td>
<td>304</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>82</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>East Java</td>
<td>656</td>
<td>24</td>
<td>54</td>
</tr>
<tr>
<td>Bali</td>
<td>119</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,538</td>
<td>90</td>
<td>176</td>
</tr>
</tbody>
</table>

1/ Operated by medical and paramedical staff in their private capacity.
2/ Includes clinics operated by the Armed Forces and voluntary organizations.

**Source:** National Family Planning Coordinating Board.

The target of acceptors per clinic/month set by the Ministry of Health is 8.0 for the 1971-72 plan year. For all clinics, the actual rate has risen from 8.7 for 1970 to 15.7 for January-March 1971, and to 25.6 for July-September 1971. Table 3 shows the rate of acceptors per clinic/month by province:

### Table 3

**JAVA AND BALI: ACCEPTORS PER CLINIC/MONTH**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>17.7</td>
<td>23.2</td>
<td>22.4</td>
<td>24.6</td>
</tr>
<tr>
<td>West Java</td>
<td>6.7</td>
<td>15.8</td>
<td>17.7</td>
<td>21.1</td>
</tr>
<tr>
<td>Central Java</td>
<td>6.1</td>
<td>9.3</td>
<td>18.9</td>
<td>23.6</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>10.1</td>
<td>9.8</td>
<td>16.3</td>
<td>17.9</td>
</tr>
<tr>
<td>East Java</td>
<td>10.4</td>
<td>20.0</td>
<td>17.2</td>
<td>31.9</td>
</tr>
<tr>
<td>Bali</td>
<td>7.2</td>
<td>15.0</td>
<td>17.5</td>
<td>17.4</td>
</tr>
<tr>
<td>Java and Bali</td>
<td>8.7</td>
<td>15.7</td>
<td>18.4</td>
<td>25.6</td>
</tr>
</tbody>
</table>

**Source:** National Family Planning Coordinating Board.

The above table illustrates the general increase in the use of facilities, indicating an increase in the number of acceptors not entirely due to the opening of more facilities. Data indicate that the time devoted to family planning services rose from 45 hours per clinic/month in May 1971, to 49 hours in June, and to 54 hours in September.
Details of new acceptors for Java and Bali are summarized in the table below, and detailed in tables 5 to 12:

### Table 4

<table>
<thead>
<tr>
<th>Year</th>
<th>IUD</th>
<th>Pill</th>
<th>Others1/</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>1967</td>
<td>5,904</td>
<td>52.0</td>
<td>2,795</td>
<td>24.6</td>
</tr>
<tr>
<td>1968</td>
<td>15,871</td>
<td>60.3</td>
<td>5,199</td>
<td>19.8</td>
</tr>
<tr>
<td>1969</td>
<td>22,896</td>
<td>56.7</td>
<td>10,704</td>
<td>26.5</td>
</tr>
<tr>
<td>1970</td>
<td>60,515</td>
<td>45.7</td>
<td>51,747</td>
<td>39.1</td>
</tr>
<tr>
<td>1971/</td>
<td>113,635</td>
<td>42.0</td>
<td>138,771</td>
<td>51.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>218,821</td>
<td>45.5</td>
<td>209,216</td>
<td>43.5</td>
</tr>
</tbody>
</table>

1/ Includes condoms and vaginal foam tablets.

From 1967 to 1970, the number of new acceptors has increased 11.6 times from 11,363 to 132,307. The biggest increase was experienced during the period 1969–70. In FY1970–71, the number of new acceptors totalled 183,442, which exceeded the target set for that fiscal year by 58,442 acceptors. Of these, East Java accounted for 36%, followed by West Java with 23%, Central Java with 16%, Djakarta with 14%, Bali with 7%, and Djogjakarta with only 4%. Over one-third of the total number of new acceptors were recruited during the last quarter of FY1971. The number of acceptors for the first half of the FY1971–72 represents 33% more than the target set for that year. Whilst all provinces show a steady increase in the number of new acceptors, East Java has nearly tripled the number of new acceptors and to September 1971 was responsible for over 40% of the national program's total. This increase is encouraging, but as yet only 1.3% of women in the fertile age group of 15-44 years practice family planning compared with 24% in Taiwan.

According to data derived from a random sample in West Java drawn from official service statistics of April 1971, 55.5% of the acceptors were between the ages of 20 and 29 years, and 44% between 20 and 34 years. The average number of children they had was 4.2. Of their level of education, 12.4% were illiterate and 47% had finished their elementary level. The acceptors' husbands were mainly farmers, government employees, and tradesmen. Most of the new acceptors (97.5%) had not used any contraceptive method before going to the clinic. The main motivation for accepting family planning services was a desire not to have more children. Their principal means of information on family planning had been received through the health personnel.

Throughout Java and Bali, the trend has been towards the adoption of the contraceptive pill as the most important method. Nevertheless, there are differences in contraceptive use between provinces (see Table 6). In Djakarta, during the first half of FY1971–72, 62.8% of the new acceptors used the IUD; in West Java, 76.1% preferred the contraceptive pill, whilst in Central Java, Djogjakarta, and Bali, the IUD was the most widely used method (55.9%, 56.6%, and 77.1% respectively). In East Java, there was an equal number of acceptors using the contraceptive pill and the IUD in 1970, although
subsequent data show the preference of acceptors for the contraceptive pill (58.2%). To a great extent, the choice of a particular method may be accounted by staff preferences in the health facilities. According to the June 1971 returns (Table 12), government clinics have more contraceptive pill acceptors (51.1%) than others, as do other institutions (51.2%); private clinics, however, have more acceptors who prefer the IUD (55.8%) and this may reflect the fact that relatively more doctors are available for IUD insertion at private clinics than at government clinics. Social factors also have an influence; in many rural areas, for example, contraceptive pills are associated with sickness and not, therefore, very popular. Throughout Indonesia, a vasectomy is not acceptable for cultural reasons, and an abortion is legal only when the life of the mother is in danger. There is no information on the incidence of abortion in Indonesian society.
FAMILY PLANNING ACCEPTORS BY METHOD

Table 5

DJAKARTA: NEW ACCEPTORS BY METHOD, 1967-71

<table>
<thead>
<tr>
<th>Period</th>
<th>I U D</th>
<th></th>
<th>Pill</th>
<th></th>
<th>Others</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>1967</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. - March</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>April - June</td>
<td>618</td>
<td>34.7</td>
<td>510</td>
<td>28.6</td>
<td>655</td>
<td>36.7</td>
<td>1,783</td>
<td>100.0</td>
</tr>
<tr>
<td>July - Sept.</td>
<td>1,106</td>
<td>36.6</td>
<td>924</td>
<td>30.6</td>
<td>992</td>
<td>32.8</td>
<td>3,022</td>
<td>100.0</td>
</tr>
<tr>
<td>Oct. - Dec.</td>
<td>1,092</td>
<td>37.4</td>
<td>1,055</td>
<td>36.2</td>
<td>771</td>
<td>26.4</td>
<td>2,918</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>2,816</td>
<td>36.5</td>
<td>2,489</td>
<td>32.2</td>
<td>2,418</td>
<td>31.3</td>
<td>7,723</td>
<td>100.0</td>
</tr>
<tr>
<td>1968</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. - March</td>
<td>1,108</td>
<td>67.5</td>
<td>263</td>
<td>16.0</td>
<td>271</td>
<td>16.5</td>
<td>1,642</td>
<td>100.0</td>
</tr>
<tr>
<td>April - June</td>
<td>1,417</td>
<td>68.9</td>
<td>292</td>
<td>14.2</td>
<td>349</td>
<td>16.9</td>
<td>2,058</td>
<td>100.0</td>
</tr>
<tr>
<td>July - Sept.</td>
<td>1,682</td>
<td>68.8</td>
<td>384</td>
<td>15.7</td>
<td>377</td>
<td>15.4</td>
<td>2,443</td>
<td>100.0</td>
</tr>
<tr>
<td>Oct. - Dec.</td>
<td>1,891</td>
<td>68.1</td>
<td>473</td>
<td>17.1</td>
<td>411</td>
<td>14.8</td>
<td>2,775</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>6,098</td>
<td>68.4</td>
<td>1,412</td>
<td>15.8</td>
<td>1,408</td>
<td>15.8</td>
<td>8,918</td>
<td>100.0</td>
</tr>
<tr>
<td>1969</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. - March</td>
<td>1,856</td>
<td>62.2</td>
<td>601</td>
<td>20.1</td>
<td>527</td>
<td>17.7</td>
<td>2,984</td>
<td>100.0</td>
</tr>
<tr>
<td>April - June</td>
<td>2,146</td>
<td>61.8</td>
<td>683</td>
<td>19.7</td>
<td>642</td>
<td>18.5</td>
<td>3,471</td>
<td>100.0</td>
</tr>
<tr>
<td>July - Sept.</td>
<td>1,835</td>
<td>52.8</td>
<td>808</td>
<td>23.2</td>
<td>833</td>
<td>24.0</td>
<td>3,476</td>
<td>100.0</td>
</tr>
<tr>
<td>Oct. - Dec.</td>
<td>2,335</td>
<td>57.2</td>
<td>887</td>
<td>21.7</td>
<td>862</td>
<td>21.1</td>
<td>4,084</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>8,172</td>
<td>58.3</td>
<td>2,919</td>
<td>21.3</td>
<td>2,864</td>
<td>20.4</td>
<td>14,015</td>
<td>100.0</td>
</tr>
<tr>
<td>1970</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. - March</td>
<td>3,079</td>
<td>64.2</td>
<td>852</td>
<td>17.8</td>
<td>867</td>
<td>18.0</td>
<td>4,798</td>
<td>100.0</td>
</tr>
<tr>
<td>April - June</td>
<td>3,388</td>
<td>64.3</td>
<td>982</td>
<td>18.6</td>
<td>898</td>
<td>17.1</td>
<td>5,268</td>
<td>100.0</td>
</tr>
<tr>
<td>July - Sept.</td>
<td>3,857</td>
<td>66.0</td>
<td>1,053</td>
<td>18.1</td>
<td>925</td>
<td>15.9</td>
<td>5,835</td>
<td>100.0</td>
</tr>
<tr>
<td>Oct. - Dec.</td>
<td>4,004</td>
<td>62.8</td>
<td>1,348</td>
<td>21.2</td>
<td>1,021</td>
<td>16.0</td>
<td>6,373</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>14,328</td>
<td>64.3</td>
<td>4,235</td>
<td>19.0</td>
<td>3,711</td>
<td>16.7</td>
<td>22,274</td>
<td>100.0</td>
</tr>
<tr>
<td>1971</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. - March</td>
<td>4,793</td>
<td>62.5</td>
<td>1,842</td>
<td>24.0</td>
<td>1,030</td>
<td>13.4</td>
<td>7,665</td>
<td>100.0</td>
</tr>
<tr>
<td>April - June</td>
<td>4,311</td>
<td>62.7</td>
<td>2,052</td>
<td>29.8</td>
<td>513</td>
<td>7.5</td>
<td>6,876</td>
<td>100.0</td>
</tr>
<tr>
<td>July - Sept.</td>
<td>5,548</td>
<td>63.1</td>
<td>2,693</td>
<td>30.7</td>
<td>547</td>
<td>6.2</td>
<td>8,788</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>14,652</td>
<td>62.8</td>
<td>6,587</td>
<td>28.2</td>
<td>2,090</td>
<td>9.0</td>
<td>23,329</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: National Family Planning Coordinating Board.

Footnote: January-September 1971.
### Table 6

**JAVA AND BALI: NEW ACCEPTORS BY PROVINCE AND METHOD, 1971**

<table>
<thead>
<tr>
<th>Provinces</th>
<th>I U D No.</th>
<th>I U D %</th>
<th>Pill No.</th>
<th>Pill %</th>
<th>Others No.</th>
<th>Others %</th>
<th>Total No.</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>14,652</td>
<td>62.8</td>
<td>6,587</td>
<td>28.2</td>
<td>2,090</td>
<td>9.0</td>
<td>23,329</td>
<td>100.0</td>
</tr>
<tr>
<td>West Java</td>
<td>10,425</td>
<td>17.8</td>
<td>44,649</td>
<td>76.1</td>
<td>3,582</td>
<td>6.1</td>
<td>58,656</td>
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</tr>
<tr>
<td>Central Java</td>
<td>27,193</td>
<td>55.9</td>
<td>16,748</td>
<td>34.4</td>
<td>4,682</td>
<td>9.7</td>
<td>48,623</td>
<td>100.0</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>6,081</td>
<td>56.6</td>
<td>2,112</td>
<td>19.6</td>
<td>2,556</td>
<td>23.8</td>
<td>10,749</td>
<td>100.0</td>
</tr>
<tr>
<td>East Java</td>
<td>42,184</td>
<td>37.5</td>
<td>65,537</td>
<td>58.2</td>
<td>4,878</td>
<td>4.3</td>
<td>112,599</td>
<td>100.0</td>
</tr>
<tr>
<td>Bali</td>
<td>13,100</td>
<td>77.1</td>
<td>3,138</td>
<td>18.5</td>
<td>747</td>
<td>4.4</td>
<td>16,985</td>
<td>100.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>113,635</td>
<td>42.0</td>
<td>138,771</td>
<td>51.2</td>
<td>18,535</td>
<td>6.8</td>
<td>270,941</td>
<td>100.0</td>
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</table>


### Table 7

**JAVA AND BALI: NEW ACCEPTORS BY PROVINCE AND METHOD, 1970**

<table>
<thead>
<tr>
<th>Provinces</th>
<th>I U D No.</th>
<th>I U D %</th>
<th>Pill No.</th>
<th>Pill %</th>
<th>Others No.</th>
<th>Others %</th>
<th>Total No.</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>14,328</td>
<td>64.3</td>
<td>4,235</td>
<td>19.0</td>
<td>3,711</td>
<td>16.7</td>
<td>22,274</td>
<td>100.0</td>
</tr>
<tr>
<td>West Java</td>
<td>7,248</td>
<td>25.6</td>
<td>16,850</td>
<td>59.4</td>
<td>4,262</td>
<td>15.0</td>
<td>28,360</td>
<td>100.0</td>
</tr>
<tr>
<td>Central Java</td>
<td>10,339</td>
<td>46.1</td>
<td>8,639</td>
<td>38.5</td>
<td>3,448</td>
<td>15.4</td>
<td>22,426</td>
<td>100.0</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>2,128</td>
<td>43.8</td>
<td>1,349</td>
<td>27.8</td>
<td>1,384</td>
<td>28.4</td>
<td>4,861</td>
<td>100.0</td>
</tr>
<tr>
<td>East Java</td>
<td>19,250</td>
<td>42.8</td>
<td>19,160</td>
<td>42.6</td>
<td>6,555</td>
<td>14.6</td>
<td>44,965</td>
<td>100.0</td>
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<tr>
<td>Bali</td>
<td>7,222</td>
<td>76.7</td>
<td>1,514</td>
<td>16.1</td>
<td>685</td>
<td>7.3</td>
<td>9,421</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>60,515</td>
<td>45.7</td>
<td>51,747</td>
<td>39.1</td>
<td>20,045</td>
<td>15.2</td>
<td>132,307</td>
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### Table 8

**JAVA AND BALI: NEW ACCEPTORS BY PROVINCE AND METHOD, 1969**

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<th>Provinces</th>
<th>I U D No.</th>
<th>%</th>
<th>Pill No.</th>
<th>%</th>
<th>Others No.</th>
<th>%</th>
<th>Total No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>8,172</td>
<td>58.3</td>
<td>2,979</td>
<td>21.3</td>
<td>2,864</td>
<td>20.4</td>
<td>14,015</td>
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<tr>
<td>West Java</td>
<td>1,736</td>
<td>45.8</td>
<td>1,482</td>
<td>39.1</td>
<td>574</td>
<td>15.1</td>
<td>3,792</td>
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<tr>
<td>Central Java</td>
<td>4,701</td>
<td>65.8</td>
<td>1,778</td>
<td>24.9</td>
<td>661</td>
<td>9.3</td>
<td>7,140</td>
<td>100.0</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>1,405</td>
<td>51.4</td>
<td>664</td>
<td>24.3</td>
<td>666</td>
<td>24.3</td>
<td>2,735</td>
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<td>East Java</td>
<td>4,768</td>
<td>48.6</td>
<td>3,151</td>
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<td>1,889</td>
<td>19.3</td>
<td>9,808</td>
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<td>Bali</td>
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<td>73.3</td>
<td>650</td>
<td>22.5</td>
<td>120</td>
<td>4.2</td>
<td>2,884</td>
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<td>TOTAL</td>
<td>22,896</td>
<td>56.7</td>
<td>10,704</td>
<td>26.5</td>
<td>6,774</td>
<td>16.8</td>
<td>40,374</td>
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</table>

**Source:** National Family Planning Coordinating Board.

### Table 9

**JAVA AND BALI: NEW ACCEPTORS BY PROVINCE AND METHOD, 1968**

<table>
<thead>
<tr>
<th>Provinces</th>
<th>I U D No.</th>
<th>%</th>
<th>Pill No.</th>
<th>%</th>
<th>Others No.</th>
<th>%</th>
<th>Total No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>6,098</td>
<td>68.4</td>
<td>1,412</td>
<td>15.8</td>
<td>1,408</td>
<td>15.8</td>
<td>8,918</td>
<td>100.0</td>
</tr>
<tr>
<td>West Java</td>
<td>1,631</td>
<td>53.7</td>
<td>738</td>
<td>24.3</td>
<td>667</td>
<td>22.0</td>
<td>3,036</td>
<td>100.0</td>
</tr>
<tr>
<td>Central Java</td>
<td>3,127</td>
<td>41.7</td>
<td>1,559</td>
<td>20.8</td>
<td>2,820</td>
<td>37.6</td>
<td>7,506</td>
<td>100.0</td>
</tr>
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<td>Djogjakarta</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>East Java</td>
<td>3,252</td>
<td>72.1</td>
<td>995</td>
<td>22.1</td>
<td>261</td>
<td>5.8</td>
<td>4,508</td>
<td>100.0</td>
</tr>
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<td>Bali</td>
<td>1,763</td>
<td>76.0</td>
<td>495</td>
<td>21.3</td>
<td>65</td>
<td>2.7</td>
<td>2,323</td>
<td>100.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15,871</td>
<td>60.4</td>
<td>5,199</td>
<td>19.8</td>
<td>5,221</td>
<td>19.8</td>
<td>26,291</td>
<td>100.0</td>
</tr>
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</table>

1/ Data for Djogjakarta were not provided separately.

**Source:** Indonesia Planned Parenthood Association.
Table 10

JAVA AND BALI: NEW ACCEPTORS BY PROVINCE AND METHOD, 1967

<table>
<thead>
<tr>
<th>Provinces</th>
<th>I U D No.</th>
<th>I U D %</th>
<th>Pill No.</th>
<th>Pill %</th>
<th>Others No.</th>
<th>Others %</th>
<th>Total No.</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>2,816</td>
<td>36.5</td>
<td>2,489</td>
<td>32.2</td>
<td>2,418</td>
<td>31.3</td>
<td>7,723</td>
<td>100.0</td>
</tr>
<tr>
<td>West Java</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Central Java</td>
<td>449</td>
<td>80.0</td>
<td>112</td>
<td>20.0</td>
<td>-</td>
<td>-</td>
<td>561</td>
<td>100.0</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>East Java</td>
<td>1,183</td>
<td>79.6</td>
<td>113</td>
<td>7.6</td>
<td>190</td>
<td>12.8</td>
<td>1,486</td>
<td>100.0</td>
</tr>
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<td>Bali</td>
<td>1,456</td>
<td>91.4</td>
<td>81</td>
<td>5.1</td>
<td>56</td>
<td>3.5</td>
<td>1,593</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>5,904</td>
<td>52.0</td>
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<td>24.6</td>
<td>2,664</td>
<td>23.4</td>
<td>11,363</td>
<td>100.0</td>
</tr>
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</table>

Source: National Family Planning Coordinating Board.
<table>
<thead>
<tr>
<th>Province</th>
<th>Number of Clinics (March 1971)</th>
<th>Estimated Total Population (In millions)</th>
<th>Estimated Number of Women Aged 15 - 44 (In millions)</th>
<th>Estimated New Acceptors</th>
<th>Acceptors Per 1,000 Fertile Women Aged 15 - 44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td>110</td>
<td>4.23</td>
<td>0.76</td>
<td>25,141</td>
<td>5.9</td>
</tr>
<tr>
<td>West Java</td>
<td>384</td>
<td>20.97</td>
<td>3.77</td>
<td>42,321</td>
<td>2.0</td>
</tr>
<tr>
<td>Central Java</td>
<td>320</td>
<td>21.36</td>
<td>3.84</td>
<td>31,663</td>
<td>1.5</td>
</tr>
<tr>
<td>Djogjakarta</td>
<td>86</td>
<td>2.41</td>
<td>0.44</td>
<td>6,637</td>
<td>2.7</td>
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<tr>
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<td>463</td>
<td>24.83</td>
<td>4.47</td>
<td>64,717</td>
<td>2.6</td>
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<tr>
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<td>2.06</td>
<td>0.37</td>
<td>12,963</td>
<td>6.3</td>
</tr>
<tr>
<td>TOTAL</td>
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<td>75.86</td>
<td>13.65</td>
<td>183,442</td>
<td>2.4</td>
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</table>

Source: National Family Planning Coordinating Board.
Table 12
NEW ACCEPTORS BY PROVINCE, METHOD, AND TYPE OF CLINIC, JUNE 1971

<table>
<thead>
<tr>
<th>Method</th>
<th>Djakarta</th>
<th>West Java</th>
<th>Central Java</th>
<th>Djogjakarta</th>
<th>East Java</th>
<th>Bali</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government Clinics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pill</td>
<td>313</td>
<td>4,162</td>
<td>1,865</td>
<td>285</td>
<td>5,331</td>
<td>432</td>
<td>12,388</td>
<td>51.1</td>
</tr>
<tr>
<td>IUD</td>
<td>867</td>
<td>1,127</td>
<td>3,362</td>
<td>773</td>
<td>3,130</td>
<td>1,214</td>
<td>10,473</td>
<td>43.2</td>
</tr>
<tr>
<td>Condom</td>
<td>24</td>
<td>225</td>
<td>250</td>
<td>192</td>
<td>182</td>
<td>76</td>
<td>949</td>
<td>3.9</td>
</tr>
<tr>
<td>Foaming Tablet</td>
<td>29</td>
<td>78</td>
<td>153</td>
<td>43</td>
<td>89</td>
<td>29</td>
<td>421</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1,233</td>
<td>5,592</td>
<td>5,630</td>
<td>1,293</td>
<td>8,732</td>
<td>1,751</td>
<td>24,231</td>
<td>100.0</td>
</tr>
</tbody>
</table>

| **Private Clinics** |          |           |              |             |           |      |       |       |
| Pill     | 90       | 159       | 94           | 24          | 80        | 20   | 467   | 36.7  |
| IUD      | 142      | 67        | 204          | 25          | 111       | 162  | 711   | 55.8  |
| Condom   | 10       | 5         | 16           | 19          | 9         | -    | 59    | 4.6   |
| Foaming Tablet | 3       | 7         | 10           | 2           | 15        | -    | 37    | 2.9   |
| **Subtotal** | 245     | 238       | 324          | 70          | 215       | 182  | 1,274 | 100.0 |

| **Other Clinics** |          |           |              |             |           |      |       |       |
| Pill      | 289      | 332       | 13           | 35          | 372       | 38   | 1,079 | 51.2  |
| IUD       | 391      | 108       | 67           | 44          | 254       | 22   | 886   | 42.0  |
| Condom    | 47       | 19        | 7            | 4           | 9         | 1    | 87    | 4.2   |
| Foaming Tablet | 28      | 1         | -            | 1           | 23        | 1    | 54    | 2.6   |
| **Subtotal** | 755     | 460       | 87           | 84          | 658       | 62   | 2,106 | 100.0 |

| **TOTAL** |          |           |              |             |           |      |       |       |
| Pill     | 692      | 4,653     | 1,972        | 344         | 5,783     | 490  | 13,934| 50.4  |
| IUD      | 1,400    | 1,302     | 3,633        | 842         | 3,495     | 1,398| 12,070| 43.9  |
| Condom   | 83       | 249       | 273          | 215         | 200       | 77   | 1,095 | 3.9   |
| Foaming Tablet | 60      | 86        | 163          | 46          | 127       | 30   | 512   | 1.8   |
| **Grand Total** | 2,233  | 6,290     | 6,041        | 1,447       | 9,605     | 1,995| 27,611| 100.0 |

Source: National Family Planning Coordinating Board.
### TOTAL NUMBER TRAINED IN FAMILY PLANNING UP TO JUNE 1971

<table>
<thead>
<tr>
<th>Training Institution</th>
<th>Doctor</th>
<th>Midwife</th>
<th>Field Worker 1/</th>
<th>Information Officer</th>
<th>Social Worker</th>
<th>Reporting &amp; Recording Personnel</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Training Center (IPPA)</td>
<td>75</td>
<td>97</td>
<td>70 2/</td>
<td>34</td>
<td>96</td>
<td>-</td>
<td>34</td>
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<td>Provincial Training Center Djakarta</td>
<td>142</td>
<td>94</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>156</td>
<td>58</td>
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<td>Provincial Training Center Bandung</td>
<td>75</td>
<td>74</td>
<td>188 3/</td>
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<td>-</td>
<td>-</td>
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<td>Provincial Training Center Semarang</td>
<td>89</td>
<td>193</td>
<td>157</td>
<td>98</td>
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<td>-</td>
<td>124</td>
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<td>Provincial Training Center Djogjakarta</td>
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<td>49</td>
<td>189</td>
<td>44</td>
<td>-</td>
<td>62</td>
<td>39</td>
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<tr>
<td>Provincial Training Center Denpasar</td>
<td>51</td>
<td>73</td>
<td>161</td>
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<td>-</td>
<td>97</td>
<td>-</td>
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<td>Provincial Training Center Surabaja</td>
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<td>559</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>592</td>
<td>729</td>
<td>851</td>
<td>735</td>
<td>96</td>
<td>315</td>
<td>256</td>
</tr>
</tbody>
</table>

1/ Includes both paramedical and nonmedical field workers.
2/ Includes 26 group leaders.
3/ Includes 30 group leaders.
ANNEX 15

ESTIMATED TRAINING LOAD FOR IN-SERVICE TRAINING IN FAMILY PLANNING
FOR ALL TRAINING INSTITUTIONS IN JAVA AND BALI, 1971-76 1/

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainer</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
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<td>134</td>
</tr>
<tr>
<td>Administrator</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<td>230</td>
</tr>
<tr>
<td>Social Worker</td>
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<td>15</td>
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<td>25</td>
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</tr>
<tr>
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TOTAL 364 1,007 530 616 1,719 2,675 1,593 2,596 1,919 3,117 16,136

1/ No re-training included. Targets subject to review by the National Training Board when established, and annually thereafter.
2/ The total training load for the National Training Board over the next 5-year period will be heavy (doctors in charge of regency health services, medical officers in charge of MCH/FP at regency level -- for 1 month training program, seminars for administrators, special workshops, etc., in addition to the training of trainers for family planning training centers) but at this stage not definable in absolute numbers.
3/ Constitutes the nonmedical field worker personnel.
STANDING COMMITTEE ON FAMILY PLANNING TRAINING

1. To provide for adequate coordination of family planning training policies and requirements, a standing committee on family planning training should be established. It would be responsible for recommending to the Chairman of the NFPCB training policies and priorities, the appointment of training responsibilities and the use for training purposes of the facilities included in the project. It must be fully representative of all the agencies involved in family planning training and might comprise the following:

   Chairman - NCPCB Chairman
   Secretary - Chief, NFPCB Bureau of Training & Education
   Members - Director, MCH/FP, Ministry of Health
             IPPA Secretary General
             Chief, Education Bureau (5), Ministry of Health
             Representative of University of Indonesia
             (from Demographic Center)
             Senior Professor of Obstetrics and Gynecology
             Representative of Armed Forces Family Planning Committee
             Representative of Ministry of Information.

2. The National Training Center (NTC) should come under the immediate review of the standing committee through a subcommittee or management board. The chairman should be the Secretary-General of the IPPA with the Director of the NTC as member-secretary. The subcommittee would be responsible for overall management under the auspices of the IPPA, and for making decisions on programs, policies, and a budget, as well as supporting the Director in relating to the needs and expectations of the implementing agencies of the family planning program in Indonesia. The NTC must have full-time staff and be directed to training senior administrative staff and medical staff and to the orientation of senior policymakers.
FOREIGN ASSISTANCE TO INDONESIA IN FAMILY PLANNING, 1968-71
(U.S.$ equivalent of aid amount)

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<tr>
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<td>WHO</td>
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1/ Includes provision for family planning/health manpower development.
2/ The total figure proposed by WHO for its country program.
3/ In addition, UNICEF has made a long-term commitment to assist the Ministry of Health to upgrade general health services by contributing about U.S.$1.5 million annually from 1969-74.
## FOREIGN ASSISTANCE TO INDONESIA IN FAMILY PLANNING, 1969-70

<table>
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<tr>
<th>Recipient</th>
<th>Donor</th>
<th>Field</th>
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<tr>
<td>NFPCB - Ministry of Health</td>
<td>WHO</td>
<td>Services</td>
<td>Technical advisers; studies</td>
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<td></td>
<td>Information</td>
<td>Technical assistance</td>
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<tr>
<td></td>
<td></td>
<td>Training</td>
<td>Technical assistance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research and Evaluation</td>
<td>Technical assistance; studies</td>
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<td></td>
<td>USAID</td>
<td>Services</td>
<td>Drugs; transport; medical kits; office equipment</td>
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<td>Logistics</td>
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<td></td>
<td></td>
<td>Training</td>
<td>Equipment; teaching aids</td>
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<td></td>
<td>UNICEF</td>
<td>Services</td>
<td>Technical advisers; medical kits; equipment; trans-</td>
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<td>Training</td>
<td>port; dukun kits</td>
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<td>JAPAN</td>
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<td>Construction; technical assistance</td>
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PARAMEDICAL EDUCATION

Introduction

1. The ability to meet the targets for family planning depends primarily on the ability to train the necessary paramedical personnel to help carry out the program. At present, the most important worker in this category is the midwife; the emphasis should be rapidly moved to nurse-midwives supported by auxiliary nurse-midwives (ANMs).

2. On the average, some 15-20% of those who apply for admission to midwifery schools are admitted. There are high attrition rates during the courses to which several considerations apply. In spite of 9 years of general education, the education level of candidates is low. More stringent selection procedures are required to obviate the additional test given to pupil midwives 3 months after entry. There are presently no stipends or grants for students; each student pays admission fees (of about Rp 1,500) and a monthly fee which ranges from school to school between Rp 750 and Rp 1,500, together with 12 kilos of rice. There is no established common level of fees. Students are expected to do all the domestic work in the hospital to which they are attached for training, and also help in the hostels. The cost of training one midwifery student annually is Rp 360,000; of this the Government makes provision for Rp 36,000; the remainder being covered by fees and the labor of students as domestics and general nurses in the hospitals. In consequence, the status of the student is very low and the extra duties leave little time for studying, with a consequently high failure rate in examinations. Parents are frequently unable to maintain fee payments. Many students become rapidly disenchanted with inadequate hostel accommodation, and in many cases, the need to live in cities in private accommodation heightens the adverse urban cultural impact. Attrition is also, in part, the result of a lack of qualified teachers, and also a high teacher-student ratio (of 1:80 or more) is not uncommon.

3. Classroom accommodation is frequently inadequate and equipment is in short supply. Anatomical charts, models, films, and posters, etc., are essential visual aids for training and teaching in midwifery and family planning. Models are needed to teach IUD insertion methods to midwifery students so that certain degrees of skill, manual dexterity, and confidence are achieved before actual insertions are performed. Library facilities are very poor, since there are few texts in the Indonesian language; consequently students have to rely upon lecture notes.

4. Dormitories are, in general, overcrowded and inadequate. Hostels are required for students which will be their home during training; more amenities and recreational facilities are needed to allow students to relax after training and work duties, which are hard and tiring.

5. The problem of attrition rates is complex and requires detailed study. It appears that it would be ameliorated, at least in part, by:

   a. abolishing fees and providing stipends to remove economic constraints with the introduction of service agreements;

   b. providing adequate domestic staff in schools, hostels, and hospital wards to allow students more time to study and practice;
c. providing more clerical staff to relieve teaching staff and students in schools and hospitals, of heavy load of paper work;

d. providing better physical facilities; and

e. providing more and better qualified teachers.

Staffing

6. The change of program commencing in 1971, from 3 years of midwifery training to 3 years of nurse training and 1 year of midwifery training, will produce well-trained nurse-midwives. The curriculum for their training has been developed to include an adequate component of family planning training. But the length of the new course will initially limit the number of graduate midwives trained. This would, therefore, be the ideal time to begin the training of auxiliary nurse-midwives, a cadre of which forms the backbone of the health services of many developing countries.

7. The ANM concept has already been accepted by the Government of Indonesia, but still has to be effected. The ANM should be an active multi-purpose worker, responsible for the health care of a given population, with emphasis on MCH and family planning. She would not replace the midwife, but would fall under her professional supervision and administrative control. To be fully effective, the ANN must live in the area to which she is assigned. Following 9 years of general education, the ANN program should consist of 2 years of basic training; it is described in Annex 20.

ANM Functions

8. The functions of the ANM would include:

   a. **Family Planning**
      Direct responsibility for educating members of the community in family planning, in close cooperation with village leaders, other Government family planning workers, particularly field workers, and voluntary associations. Responsibility for providing contraceptive services, such as the distribution of contraceptive pills, condoms, etc. Responsibility for the follow-up care of contraceptive acceptors of all kinds, and their referral if necessary. Assistance in the preparation of the necessary records and reports.

   b. **Maternal Health**
      Responsibility for the prenatal, intranatal, and postnatal care of all mothers known to her, and their referral where necessary. Health education of the mother in family care and family planning in the home and at the center.

   c. **Child Health**
      Responsibility for the care of newborn, infant, preschool, and school children -- general care, nutrition, prevention of deficiency and communicable diseases (vaccination, immunization, etc.).
d. **Dukun Training and Supervision**
Responsibility for the training and supervision of the dukuns in her area, and their orientation to family planning.

9. To provide career possibilities, the ANM should have the opportunity of becoming a fully qualified nurse-midwife. After she has completed at least 5 years of field experience, further training for 1 year should be available to complete her qualifications.

**Supplementary Training**

10. In order to boost the number of paramedical staff available for MCH/FP work, supplementary training programs should be considered. Special attention should be paid to the requirements of the demonstration field paramedical program in East Java. The most urgent areas are:

   a. **Nurse-Midwives**
   A 1-year post basic program in midwifery and family planning for existing qualified nurses has been accepted by the Government, and an acceptable curriculum has already been prepared. It could be implemented in existing schools, candidates being replaced at the rate of 100 per year in their present positions by new nurse graduates. Division E and the Division of Nursing of the Ministry of Health should be responsible for:

   i. selecting suitable midwifery schools;
   ii. selecting the best available students;
   iii. ensuring their replacement by new graduates; and
   iv. negotiating program implementation with the medical directors of the selected training schools.

   To attract candidates of the requisite calibre, stipends of Rp 5,000 per month must be paid. In return, candidates should undertake to work as directed by the Government for 3 years.

   b. **Auxiliary Nurse-Midwives**
   To meet the urgent demands of the MCH/FP program, consideration should be given to planning and implementing supplementary training programs for existing assistant nurses (PKGs) and assistant midwives (PKEs). The former would require training in midwifery and family planning, and the latter would require training in nursing and family planning. No syllabus has been prepared by the Government, but the ANM syllabus (see Annex 20) could be adopted as appropriate for each staff category. Preparation should be, in either case, of 1 year's education. As an incentive to further training of staff already employed, and probably married, stipends of Rp 3,500 must be available. In return, candidates would have to undertake to work for 3 years in the MCH/FP program as directed by the Government.
Tutor Training

11. A serious problem facing the expansion of paramedical education is the inadequate number and quality of teaching staff. With WHO/UNICEF assistance, short courses (3 months) in methods of teaching are being conducted for qualified nurse-midwives or midwives, with at least 3 years of experience. In order to meet the problem more directly, a UNFPA-assisted UNICEF project is being developed to prepare nurses and midwives as nurse-teachers and midwife-teachers. It provides 1-year courses for which an adequate syllabus has been prepared. Three schools -- in Surabaja, Djakarta, and Macasser -- are being established to admit 90 students annually. The school in Surabaja was to admit its first pupils in July, 1971. In Djakarta, the new school buildings will be ready by January, 1972. The graduates from these schools should be posted to the new schools established under this project, in addition to filling staff complements at existing schools. In addition, the Government of Indonesia nominates candidates for a WHO/New Zealand Government program which enables nurses and nurse-midwives, ineligible for admission to post basic nursing programs in their own country, to obtain post basic preparation in teaching, public health, nursing services, administration, etc. The program lasts for 1 year and includes 3 months' intensive English language training. Candidates from Indonesia for the 1972 courses should be selected for preparation in teaching. If full use is made of the several opportunities, sufficient tutors will be available for the expanded paramedical education component of this project.

Sanction for Posts

12. Development of the MCH/FP program depends on staff expansion which, in turn, depends on the provision of more and better training facilities. The objective will not be realized, however, until the Government sanctions more posts. There are no vacant posts in Djakarta for the midwives who will graduate in 1971; the 19 nurse-midwives who graduated from the Denpasar school in December, 1970, are employed only on an ad hoc daily basis. Where necessary, the central Government should underwrite the provincial Government's sanction for nurse-midwife and auxiliary nurse-midwife posts.
TRAINING REQUIREMENTS FOR THE AUXILIARY NURSE-MIDWIFE

1. A candidate for auxiliary nurse-midwife training should have reached the age of 17 years and have a minimum of 9 years education. The program should be of 2-year duration.

2. Its objectives should be to:
   a. produce a well-prepared family planning/family health worker;
   b. emphasize the far-reaching effects on family and community health of family planning and good maternal and child health (MCH) practice;
   c. develop an appreciation of the significance of population growth and its impact on social change, national economic development, and health services; and
   d. develop in the student the ability to work as a member of a team in family planning and in family health.

The Syllabus

3. Until such time as a Nurses and Midwives Council is established in Indonesia, requirements for training should be laid down and the syllabus planned by Bureau V (Education and Training) of the Ministry of Health and the Division of Nursing of the Ministry of Health.

4. To meet the objectives of the program and to enable the ANM to carry out her functions effectively, it is suggested that the program include family planning, nursing, midwifery, and public health with practical experience in each area and with family planning integrated throughout. Allowing for 4 weeks' vacation annually, training should include:

   a. 7 months - Nursing and Family Planning
   b. 12 months - Midwifery and Family Planning
   c. 3 months - MCH, Family Planning, Public Health in Rural Health Training Centers, based on a rotation plan.

5. The syllabus should include the following subjects:

   a. Family Planning
      i. Philosophy of family planning -- introduction to the national family planning program; demographic, socio-economic, religious, cultural, and health aspects of family planning.
      ii. Human reproduction -- anatomy and functions of male and female reproductive organs; physiology of menstruation; contraception; methods of contraception -- traditional, modern; their use, effectiveness, contraindications, complications, and side-effects; determination of referral cases; follow-up of acceptors; case finding and case holding.
iii. Information -- motivation methodology, communications, interviewing.

iv. Health education -- aims and principles; methods; follow-up; techniques for teaching individuals and groups in family planning.

v. Administration -- organization of MCH/FP clinics; preparation of the necessary equipment; maintenance of records and reports.

vi. Integration of family planning into MCH and postpartum programs.

Total hours: 96

b. General Nursing

i. General needs of the patient -- nursing care in various conditions and diseases, e.g., bronchitis, pneumonia, rheumatic fever and heart failure; preoperative and postoperative care of patients who have undergone surgery; family planning needs identified and referred.

ii. Pediatrics -- normal child growth and development; recognition of deviations from the normal -- physical or mental; child care and nutrition; prevention of infections -- vaccinations and immunization; nursing care of sick children; family planning advice to parents.

iii. Communicable diseases -- communicable diseases prevalent in the country, including diseases of the intestinal tract; their prevention and control -- vaccinations, immunization, and BCG; clean water supply; refuse disposal; nursing care of patients with infections or contagious diseases; problem of overcrowding; poor sanitation and exposure to infection in the large size, low-income families.

iv. Ophthalmic conditions and diseases prevalent in the country -- prevention and nursing care.

v. Food and nutrition -- nutritional requirements of mother and child in relation to other members of the family; nutritional requirements of preschool and school child; essential food factors -- proteins, carbohydrates, fats, minerals, and vitamins; nutritional deficiencies and their prevention, e.g., anemia, blindness, beri-beri, etc.; balanced diets using the foods available in the country; nutrition in relation to family planning, size of family, food cost, and budgeting; improving family nutrition through family planning.

vi. Microbiology -- organisms causing diseases, e.g., venereal diseases; incidence of diseases; infection; asepsis and antisepsis; sterile techniques required for midwifery, insertion of IUDs, dressings, etc.

vii. Pharmacology -- drugs and mixtures, including oral contraceptives; their usage, dosage, and administration.
viii. Personal and community health -- principles of hygiene and sanitation applied to person, home, and environment; prevention of infection; role of the ANM in health education.

ix. Community nursing -- domiciliary services; midwifery; maternal and child health; home visiting; home nursing; family planning; control of communicable diseases; environmental sanitation.

c. Obstetrics

i. General care of mother -- temperature, pulse, respiration, blood pressure, weight, and urine testing; palpation and auscultation.

ii. Principles of hygiene -- sanitation and nutrition in relation to the mother.

iii. Causes of infection in midwifery and their prevention; principles of asepsis and antisepsis applied to midwifery.

iv. Anatomy and physiology of the female pelvis, reproductive organs, and the breasts.

v. Physiology, diagnosis, and management of normal pregnancy.

vi. Signs and symptoms suggesting deviation from normal pregnancy -- toxemia, antepartum hemorrhage, and other obstetric complications; their causes, prevention, and treatment.

vii. Physiology, mechanisms, and management of normal labor.

viii. Signs and symptoms suggesting departure from normal labor.

ix. Physiology and management of the puerperium.

x. Signs and symptoms suggesting departure from normal puerperium -- puerperal pyrexia, puerperal asepsis; causes, prevention, and management.

xi. Care of the breasts under normal and pathological conditions.

xii. Care of the newborn infant -- recognition of congenital abnormalities; establishment of breast feeding and artificial feeding; recognition of disorders occurring during the first month of life with special reference to those in which skilled medical or surgical care may be needed.

xiii. Resuscitation of the newborn infant as required; care of the premature infant.

xiv. Ophthalmia neonatorum and other infections in the infant.

xv. Venereal diseases -- their signs, symptoms and dangers, and
the risk of contagion; the midwives' responsibilities for advocating early and continued treatment.

xvi. Postpartum contraception.

xvii. Use of drugs and solutions as they may be required in midwifery practice; their dosage and strength; mode of administration or application and the dangers involved.

xviii. Maternal mortality, stillbirths, neonatal mortality, infant mortality -- the meaning of these terms; steps taken to prevent and reduce such mortalities; responsibilities of the midwife.

xix. Records and reports -- prenatal, intranatal, and postnatal records; family planning records.

d. Practical Midwifery
Experience must include the following:

i. Prenatal care of at least 20 pregnant women.

ii. Responsibility for not less than 20 women during labor. If possible at least five of these should be delivered in their own homes.

iii. Responsibility and care for not less than 20 postpartum women and their infants, five in their own homes if possible.

iv. Active participation in the family planning program with particular emphasis on the postpartum program.

e. Community Nursing
This experience should be planned during the 2 months rural health experience at which time the student ANM will participate, under supervision, in all activities, MCH/FP polyclinic, home-visiting, school health, and dukun training.

Duration of program: 2 years.

Hours of duty: 8-hour day; 5-1/2-day week; 44 hours each week; 4 weeks annual leave; 834 hours theory and approximately 3,390 hours for practical experience in wards, maternity wards, labor rooms, MCH/FP clinics, and health centers.
### Suggested Auxiliary Nurse-Midwife Curriculum

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<tr>
<td>Human Reproduction</td>
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<tr>
<td>Introduction to the National Family Planning Program</td>
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<td>Visits to MCH/FP clinics, health centers, wards. Home visiting with a nurse, midwife, or field worker.</td>
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<td>Philosophy of Family Planning</td>
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<td>Demographic Aspects of FP</td>
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<td>Socio-Economic Aspects of FP</td>
<td>4</td>
<td></td>
<td>Visit to laboratory, Wards, MCH/FP clinics, health centers; home visiting with public health nurse.</td>
</tr>
<tr>
<td>Cultural Aspects of FP</td>
<td>4</td>
<td></td>
<td>Medical wards.</td>
</tr>
<tr>
<td>Religious Aspects of FP</td>
<td>4</td>
<td></td>
<td>Surgical wards.</td>
</tr>
<tr>
<td>Health Aspects of FP</td>
<td>4</td>
<td></td>
<td>Gynecological wards, MCH/FP centers, postpartum wards.</td>
</tr>
<tr>
<td>Micro-biology</td>
<td>20</td>
<td></td>
<td>Pediatric wards, MCH/FP clinics, health centers (polyclinics).</td>
</tr>
<tr>
<td>Personal and Community Health</td>
<td>30</td>
<td></td>
<td>Infectious disease wards or hospitals, health centers; visits with public health nurse, malaria worker, smallpox vaccinator, etc.</td>
</tr>
<tr>
<td>Medical Nursing</td>
<td>30</td>
<td></td>
<td>Ophthalmology ward, pediatric ward, health center, MCH/FP center.</td>
</tr>
<tr>
<td>Surgical Nursing</td>
<td>30</td>
<td></td>
<td>Classroom.</td>
</tr>
<tr>
<td>Gynecological Nursing</td>
<td>30</td>
<td></td>
<td>Diet kitchen with nutritionist, MCH/FP center.</td>
</tr>
<tr>
<td>Family Planning:</td>
<td></td>
<td></td>
<td>MCH/FP centers, health centers, home visiting.</td>
</tr>
<tr>
<td>Structure and Functions of the Generative Organs</td>
<td>16</td>
<td></td>
<td>Wards.</td>
</tr>
<tr>
<td>Methods of Contraception</td>
<td></td>
<td></td>
<td>Wards, MCH/FP clinics.</td>
</tr>
<tr>
<td>Pediatric Nursing</td>
<td>40</td>
<td></td>
<td>Wards, MCH/FP centers, health centers.</td>
</tr>
<tr>
<td>Communicable Diseases:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing Care, Prevention, and Control</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ophthalmology Nursing Care</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-Aid and Bandaging</td>
<td>10</td>
<td></td>
<td>Classroom.</td>
</tr>
<tr>
<td>Food and Nutrition</td>
<td>30</td>
<td></td>
<td>Diet kitchen with nutritionist, MCH/FP center.</td>
</tr>
<tr>
<td>Community Nursing</td>
<td>20</td>
<td></td>
<td>MCH/FP centers, health centers, home visiting.</td>
</tr>
<tr>
<td>Pharmacology:</td>
<td></td>
<td></td>
<td>Wards.</td>
</tr>
<tr>
<td>Drugs, Their Usage, Dosage, and Administration</td>
<td>10</td>
<td></td>
<td>Wards, MCH/FP clinics.</td>
</tr>
<tr>
<td>Family Planning:</td>
<td></td>
<td></td>
<td>Wards, MCH/FP centers, health centers.</td>
</tr>
<tr>
<td>Oral Contraceptives</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spermicidals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles and Aims of Health Education</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjects</td>
<td>Total Hours</td>
<td>Theory</td>
<td>Practical</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------------</td>
<td>--------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Obstetrics:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstetrical Anatomy and Physiology</td>
<td>30</td>
<td></td>
<td>Wards and delivery room.</td>
</tr>
<tr>
<td>Nutrition Applied to Pregnancy</td>
<td>10</td>
<td></td>
<td>Antenatal clinic, MCH/FP clinics.</td>
</tr>
<tr>
<td>Micro-biology:</td>
<td>10</td>
<td>Antenatal clinic, MCH/FP clinics, antenatal wards.</td>
<td></td>
</tr>
<tr>
<td>Infection, Asepsis, and Antisepsis</td>
<td>10</td>
<td></td>
<td>Wards and delivery room.</td>
</tr>
<tr>
<td>Management of Normal Pregnancy</td>
<td>40</td>
<td>Antenatal clinic, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Signs and Symptoms of Departure from Normal Pregnancy</td>
<td>40</td>
<td>Antenatal clinic, MCH/FP clinics, antenatal wards.</td>
<td></td>
</tr>
<tr>
<td>Mechanisms and Management of Normal Labor</td>
<td>20</td>
<td>Maternity wards and delivery rooms.</td>
<td></td>
</tr>
<tr>
<td>Signs and Symptoms of Departure from Normal Labor</td>
<td></td>
<td>Maternity wards and delivery rooms.</td>
<td></td>
</tr>
<tr>
<td>Puerperium:</td>
<td>10</td>
<td>Postnatal wards.</td>
<td></td>
</tr>
<tr>
<td>Management of Normal/Abnormal</td>
<td>10</td>
<td>Postnatal wards, MCH/FP centers.</td>
<td></td>
</tr>
<tr>
<td>Family Planning:</td>
<td>16</td>
<td>Maternity wards and nursery.</td>
<td></td>
</tr>
<tr>
<td>Postpartum Contraception</td>
<td></td>
<td>MCH/FP center.</td>
<td></td>
</tr>
<tr>
<td>Child Care:</td>
<td>20</td>
<td>Maternity wards, delivery room.</td>
<td></td>
</tr>
<tr>
<td>Care of Newborn</td>
<td></td>
<td>Maternity wards, delivery room.</td>
<td></td>
</tr>
<tr>
<td>Care of Premature Infant</td>
<td></td>
<td>Wards and delivery room.</td>
<td></td>
</tr>
<tr>
<td>Family Planning:</td>
<td>12</td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Information, Motivation</td>
<td>15</td>
<td>Venereal disease clinic.</td>
<td></td>
</tr>
<tr>
<td>Obstetrical Complications</td>
<td></td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Pharmacology:</td>
<td>10</td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Drugs Used in Midwifery</td>
<td></td>
<td>Venereal disease clinic.</td>
<td></td>
</tr>
<tr>
<td>Family Planning:</td>
<td>12</td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Administration, Integration of FP into MCH, Postpartum Program</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venereal Diseases</td>
<td>66</td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Records and Reports</td>
<td>66</td>
<td>Venereal disease clinic.</td>
<td></td>
</tr>
<tr>
<td>Maternal Mortality Rate</td>
<td>6</td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Stillbirths</td>
<td></td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Neonatal Mortality Rate</td>
<td></td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td></td>
<td>Maternity wards, MCH/FP clinics.</td>
<td></td>
</tr>
<tr>
<td>TOTAL HOURS THEORY</td>
<td>834</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rural Health Experience for
Student Auxiliary Nurse-Midwives

6. As the auxiliary nurse-midwife is being prepared to work in rural areas, it is essential that part of her preparation takes place at rural MCH/FP clinics and health centers.

7. To introduce her to the concept of MCH/FP and family health during the first year, arrangements should be made for visits of observation to these clinics, and to observe home visiting techniques with nurse-midwife or midwife, family planning field worker, vaccinators, sanitarians, malaria workers, etc.

8. During the second year, the program should be planned so that each student has a minimum of 12 weeks' supervised practice in selected MCH/FP clinics and health centers. These selected centers will have living accommodation attached to where the student will live.

9. The experience should be planned by the nurse-midwife tutor in consultation with the medical officer and nurse-midwife at the center, and to ensure adequate supervision of the students, if possible, not more than four should be sent to a center at any one time.

10. Before a student is sent to a rural center for practical experience, she must have been responsible for not less than five women during labor and delivery, and must have been responsible for the nursing care of five postpartum mothers and their infants.

Practical Rural Health Experience

a. Weeks 1-2
This should be a period of orientation to and further observation of all activities at the MCH/FP clinic and health center -- MCH/FP clinic including IUD insertions; infant and preschool clinics; polyclinic; vaccination and immunization clinics including BCG; dukun training classes; health education -- family planning, individual and group teaching; home visits with the various MCH/FP and health center staff to observe the techniques of home visiting, follow-up of acceptors, and if possible a home delivery.

b. Weeks 3-12
During this period, under supervision, the student ANM will participate, in rotation, in all the activities of the centers. If possible, she should be responsible, under supervision, for not less than five women during labor and delivery, and for the nursing care of five postpartum mothers and their infants in the home. (If home deliveries are not available, this experience could be arranged in the maternity ward of the MCH/FP clinic.)

c. Prenatal Clinic
Preparation of the clinic, interviewing and taking history of the mothers, weighing, urine testing, blood pressure, palpation and auscultation, advising on general health and family planning as required.
d. **Family Planning Clinic**
Preparation of the clinic; sterilization of equipment required including IUDs; distribution of conventional contraceptives; keeping records and reports; individual and group teaching as required.

e. **Infant and Preschool Child Clinic**
Preparation of the clinic; interviewing mothers; weighing and measuring babies and children; assisting the doctor with examinations and treatment; advising on general care, nutrition, vaccinations and immunizations, and family planning as required.

f. **Polyclinic**
Assisting the doctor and nurse in examinations, treatments, etc.; health teaching.

g. **Group Teaching**
Have the opportunity to plan and conduct at least two classes for mothers -- one on some aspects of family planning.

h. **Administration of the Center**
Records, reports, and statistics; planning of home visits.

i. **Home Visiting**
The student ANM, having had a period of observation in home visiting with the health center personnel, should be given a small area of about 50 families. In this area, she will be responsible, to the nurse-midwife, for the follow-up of all cases -- family planning, maternal and child health, and others -- as required.
RECOMMENDED INTEGRATED MCH/FP STAFFING PATTERN
FOR EAST JAVA, BALI, AND DJAKARTA AT REGENCY LEVEL AND BELOW

1. The annex outlines the present staff of the MCH/FP structure at and below regency level and recommends additions (underlined) to ensure a more adequate family planning service coverage.

A. East Java

Regency: Population of about 800,000.

Structure
i. Offices of Administration and Records
ii. Small hospital, with about 10 maternity beds, but often without the equipment or medical skills for operative obstetrics
iii. MCH/FP center.

Staff
i. Administrative medical officer
ii. Doctor-in-charge of hospital
iii. Medical officer for communicable disease control, Medical officer for health promotion (nutrition, sanitation, etc.), Medical officer for MCH/FP
iv. Nurse-midwife assigned to maternity section of hospital
v. One supervisory midwife to assist the family planning medical officer in supervising midwives and ANMs
vi. Statistical assistant to ensure the adequate recording and reporting of family planning data from centers at regency level and below
vii. One assistant supervisor for the nonmedical field worker program.

District: (Comprised of about five sub-districts) Total population about 200,000.

Staff
i. Medical officer to supervise the work of the sub-district level health centers
ii. Supervisory midwife to supervise the work of midwives in the sub-districts
iii. Three group leaders for supervising the nonmedical field workers' program (one for every five nonmedical field workers).

Sub-District: Population of about 44,000

Structure
i. MCH center with family planning facilities at sub-district headquarters
ii. Two MCH/FP centers elsewhere in the sub-district.

Staff

i. One nurse-midwife at the MCH/FP center
ii. Two auxiliary nurse-midwives to work under the overall supervision of the midwife but responsible for all aspects of MCH and family planning work, resident at centers to be established at strategic sites in the sub-district, but outside headquarters
iii. Four nonmedical field workers, one each for a population of about 10,000 for family planning education.

Supportive Workers

2. In addition to the staff listed above, who will be primarily responsible for the integrated MCH and family planning program implementation, social workers and information officers, etc., at the sub-district and regency levels, other health workers such as health controller, malaria workers, yaws workers, and vaccinators, as well as the dukuns and D.K.D.s\(^1\) at the village level, should be involved in bringing acceptors.

B. Bali

3. For the eight regencies, with a total population of 2.1 million, a more intensive staffing pattern in accordance with existing plans for Bali is recommended.

Regency: Average population 280,000.

Staff

i. Administrative medical officer for the regency
ii. Doctor-in-charge of the hospital
iii. Medical officer for communicable disease control,
Medical officer for health promotion,
Medical officer for MCH and family planning
iv. One supervisory midwife to assist the medical officer in supervising the midwives and ANMs
v. One nurse-midwife to work in the hospital
vi. Another eight supervisory midwives to supervise the work of nurse-midwives and ANMs at and below the sub-district level, at the rate of one per five midwives or ANMs.
vii. One assistant supervisor for the nonmedical field workers' program
viii. Five group leaders to supervise and support community education, at the rate of one for every five nonmedical field workers.

Sub-District: Average population 45,000.

Staff

i. One nurse-midwife at the sub-district health center
ii. One nurse-midwife or one auxiliary nurse-midwife for every two villages at an overall rate of one nurse-midwife to two ANMs.

\(^1\) Part-time health workers, appointed and paid by village authorities.
iii. One nonmedical field worker for every 10,000 population.

Supportive Workers

i. One social worker, one information officer, and one health controller for each regency

ii. One social worker assistant and one information officer for each sub-district

iii. About 25 dukuns for each sub-district

iv. Other health workers such as malaria workers, yaws workers, vaccinators, etc.

C. Djakarta

4. For five municipalities and 27 sub-districts, each with a population of 200,000, the following staffing pattern is recommended:

Municipality: Average population 1 million.

Staff

i. Administrative medical officer for the municipality

ii. One doctor-in-charge of the hospital

iii. Medical officer for communicable disease control, Medical officer for health promotion, Medical officer for MCH and family planning

iv. One supervisory midwife to assist the medical officer in supervising the nurse-midwives and ANMs

v. One assistant supervisor for the nonmedical field worker program.

Sub-District: Average population 250,000.

Staff

i. One medical officer for the health center

ii. One doctor-in-charge of the hospital

iii. Four nurse-midwives for each health center

iv. Four auxiliary nurse-midwives assigned to the health center and hospitals, and seventeen ANMs for community MCH and family planning work at the rate of one per 15,000 population

v. Twenty-five nonmedical field workers, at the rate of one per 10,000 population

vi. Five group leaders, at the rate of one per five nonmedical field workers.

Supportive Workers

5. In addition to the staff listed above, the social workers and information officers, etc., at the sub-district and municipal levels, the other health workers such as health controller, malaria worker, yaws workers, and vaccinators, etc., as well as the dukuns, should be involved in bringing more acceptors.
Table 1

RECOMMENDED NUMBER OF STAFF
FOR INTEGRATED MCH AND FAMILY PLANNING WORK
IN EAST JAVA, BALI AND DJAKARTA

<table>
<thead>
<tr>
<th>Staff Category</th>
<th>East Java</th>
<th>Bali</th>
<th>Djakarta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Medical Officers</td>
<td>37</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Hospital Medical Officers</td>
<td>37</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>Medical Officers</td>
<td>250</td>
<td>24</td>
<td>42</td>
</tr>
<tr>
<td>Supervisory Midwives</td>
<td>176</td>
<td>72</td>
<td>5</td>
</tr>
<tr>
<td>Nurse-Midwives</td>
<td>571</td>
<td>151</td>
<td>108</td>
</tr>
<tr>
<td>Auxiliary Nurse-Midwives</td>
<td>1,068</td>
<td>186</td>
<td>297</td>
</tr>
<tr>
<td>Nonmedical Field Workers</td>
<td>2,136</td>
<td>200</td>
<td>675</td>
</tr>
<tr>
<td>Group Leaders</td>
<td>417</td>
<td>40</td>
<td>135</td>
</tr>
<tr>
<td>Assistant Supervisors</td>
<td>37</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Supportive Workers</td>
<td>1,179</td>
<td>124</td>
<td>69</td>
</tr>
<tr>
<td>Dukuns</td>
<td>14,000</td>
<td>1,250</td>
<td>5,000</td>
</tr>
<tr>
<td>D. K. D.s</td>
<td>8,010</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Health Workers</td>
<td>2,553</td>
<td>224</td>
<td>123</td>
</tr>
</tbody>
</table>
## Table 2

**RECOMMENDED STAFFING PATTERN FOR INTEGRATED MCH AND FAMILY PLANNING SERVICES AT AND BELOW LEVEL OF REGENCY IN EAST JAVA**

<table>
<thead>
<tr>
<th>Staff Category</th>
<th>Present MCH Staff</th>
<th>Total MCH &amp; FP Staff as per UN-WHO-IBRD Report</th>
<th>Recommendations of Appraisal Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sub-District Level</td>
<td>District Level</td>
<td>Regency Level</td>
</tr>
<tr>
<td>I. Administrative Medical Officers</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Hospital Medical Officers</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Medical Officers</td>
<td>-</td>
<td>1</td>
<td>2 1/</td>
</tr>
<tr>
<td>Supervisory Midwives</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Nurse-Midwives 2/</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Auxiliary Nurse-Midwives</td>
<td>2 3/</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>II. Nonmedical Field Workers</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Group Leaders</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Supervisors</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>III. Supportive Workers</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Nurses (Mantris)</td>
<td>4 5/</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Dukuns</td>
<td>25 2/</td>
<td>-</td>
<td>25 2/</td>
</tr>
<tr>
<td>D.K.D.s</td>
<td>15 2/</td>
<td>-</td>
<td>15 2/</td>
</tr>
<tr>
<td>Other Health Workers</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

1/ Medical officers in charge of (a) health promotion and (b) communicable disease control at the regency level.

2/ Now only midwives.

3/ Now only assistants to midwives and assistant midwives.

4/ In ratio of one group leader for five field workers.

5/ One social assistant and one information officer at sub-district level and one social worker, one information officer, and one health controller at regency level.

6/ Number estimated.

7/ Number estimated.

8/ One malaria worker, one yaws worker, one smallpox vaccinator, and one assistant sanitarian at sub-district level and one malaria supervisor, one sanitarian, and one administrator at regency level.
## SITES FOR MCH/FP CENTER CONSTRUCTION

### I. ANM SCHOOLS

1. **At district level with ANM dormitory accommodation (16)**

<table>
<thead>
<tr>
<th>Regency</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TUBAN</strong></td>
<td>Tuban</td>
</tr>
<tr>
<td></td>
<td>Rongol</td>
</tr>
<tr>
<td></td>
<td>Djarirogo</td>
</tr>
<tr>
<td></td>
<td>Pareangen</td>
</tr>
<tr>
<td><strong>MAGETAN</strong></td>
<td>Gorang - Gareng</td>
</tr>
<tr>
<td></td>
<td>Pontjol</td>
</tr>
<tr>
<td></td>
<td>Karangredjo</td>
</tr>
<tr>
<td></td>
<td>Sukomoro</td>
</tr>
<tr>
<td><strong>BLITAR</strong></td>
<td>Srengat</td>
</tr>
<tr>
<td></td>
<td>Lodojo</td>
</tr>
<tr>
<td></td>
<td>Sanan kulon</td>
</tr>
<tr>
<td></td>
<td>Taluh</td>
</tr>
<tr>
<td><strong>SIDOARDJO</strong></td>
<td>Kwanjar</td>
</tr>
<tr>
<td></td>
<td>Blo'-a</td>
</tr>
<tr>
<td></td>
<td>Alsabaja</td>
</tr>
<tr>
<td></td>
<td>Sepula</td>
</tr>
</tbody>
</table>

1/ Clinics located in Bangkalan Regency
### 2. At district level (15)

<table>
<thead>
<tr>
<th>Regency</th>
<th>District</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modjokerto</td>
<td>Sooko</td>
<td>Sooko</td>
</tr>
<tr>
<td></td>
<td>Gondang</td>
<td>Gondang</td>
</tr>
<tr>
<td></td>
<td>Godeg</td>
<td>Gedeg</td>
</tr>
<tr>
<td>Bodjonegoro</td>
<td>Kalitiduh</td>
<td>Kalitiduh</td>
</tr>
<tr>
<td>Madiun</td>
<td>Saradan</td>
<td>Saradan</td>
</tr>
<tr>
<td></td>
<td>Wungu</td>
<td>Wungu (desa Modjopurno)</td>
</tr>
<tr>
<td>Ngawi</td>
<td>Ngrambe</td>
<td>Ngrambe</td>
</tr>
<tr>
<td>Tulungagung</td>
<td>Tjampurdarat</td>
<td>Tjampurdarat</td>
</tr>
<tr>
<td>Trenggalek</td>
<td>Karang n</td>
<td>Karangan</td>
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### B. Surabaja

<table>
<thead>
<tr>
<th>Sub-District</th>
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<tbody>
<tr>
<td>Semampir</td>
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<td>Peban Tjantian</td>
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<td>Bubutan</td>
<td>Kalibutuh</td>
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<td>Pedigiling</td>
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<td>Djemur</td>
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<tr>
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### C. Jakarta

1. **At sub-district level with 10 beds**

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<td>Pasar Minggu</td>
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<td>Mampang Prapatan</td>
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<td>Kampung Ambon</td>
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<td>Pondok Pinang</td>
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<td>Gandaria</td>
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2. **At sub-district level with 20 beds**

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<td>Kebajoran Lama</td>
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<tr>
<td>Kodja</td>
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D. Bali

1. At sub-district level

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<th>Location</th>
<th>Petang</th>
<th>Belahkiuh</th>
<th>Kuta</th>
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<th>Bandjar</th>
<th>Buleleng</th>
<th>Busungbiu</th>
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II. PARAMEDICAL SCHOOLS

1. Auxiliary-Nurse Midwife Schools

<table>
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<th>Tuban</th>
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<td>Djakarta</td>
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<td>Husada</td>
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<td>Bali</td>
<td>Denpasar</td>
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2. Nurse-Midwife School

| East Java | Surabaja |
III. TRAINING CENTERS

1. Provincial Family Planning Training Centers

- Djakarta
- Semarang
- Surabaya
- Bandung
- Djogjakarta
- Denpasar

2. Family Planning Sub-Training Centers

- Djember
- Malang
- Madiun
- Tjirebon
- Sukabumi
- Bogor
- Blitar
- Banjumas
- Temanggung
- Ambarawa
ANNEX 23

REQUIREMENTS FOR IN-SERVICE TRAINING CENTERS

Provincial Training Centers

a. Staff
   (Project additions underlined.)
   - Director, medical officer, senior nurse-midwife, information officer, statistician, health educator, librarian, two teaching assistants for field training.

b. Accommodation
   - See Annex 33 for schedule of accommodation.

c. Transport
   - 1 bus to carry 35 persons,
     2 cars,
     3 minibuses

d. Equipment
   - 1 film projector, 2 film strip projectors,
     1 overhead projector, 1 set of silk screen equipment,
     1 set of photographic equipment,
     1 electric duplicator,
     1 set of artists' equipment,
     1 public speaking equipment,
     1 tape recorder (regular),
     1 tape recorder (battery-operated),
     1 video tape recorder with tapes and accessories.

Subtraining Centers

a. Staff
   (Project additions underlined.)
   - Principal, senior nurse-midwife, information officer, teacher, assistant librarian, two teaching assistants.

b. Accommodation
   - See Annex 33 for schedule of accommodation.

c. Transport
   - 1 bus to carry 35 persons,
     1 car,
     3 minibuses

d. Equipment
   - 1 generator (2 1/2 Hp.),
     1 16-mm. film projector
     2 film strip projectors,
     1 overhead film projector,
     1 tape recorder (regular),
     1 duplicator,
     1 video tape recorder with tapes and accessories.
FAMILY PLANNING FUNCTIONS OF PERSONNEL AT REGENCY LEVEL AND BELOW

A. Regency Level

MCH/FP Medical Officer

1. The MCH/FP medical officer should assist the administrative medical officer in charge of the regency health administration in the overall control and supervision of MCH/FP work, including administration. He would also be responsible for coordinating the MCH and family planning work of all implementing units in the regency. He would undertake regular tours to health centers to supervise and support the MCH and family planning work. He would ensure the regular flow of family planning supplies and services to MCH/FP centers, and promote and direct the field, as well as the hospital, post-partum program in the regency.

Supervisory Nurse-Midwife and Nurse-Midwife

2. In the existing health services pattern, there is already a supervisory midwife at the regency level health administration. The supervisory midwife works in the hospital and supervises the MCH work of the midwives and their assistants. One nurse-midwife at this level should be added so that she can relieve the supervisory midwife of her hospital work. The supervisory midwife can then devote attention to the supervisory guidance and support of the nurse-midwives and ANMs working at MCH/FP centers in the regency. Her functions should also include organizing and supporting postpartum programs, assisting the kabupaten MCH/FP medical officer, and giving support and guidance to voluntary agencies.

Statistical Assistant

3. This person is responsible for collecting and compiling data from the records and reports of the MCH/FP centers in the regency and transmitting it to the provincial and central NFPCB offices. He will also be responsible for the routine evaluation of MCH/FP services in the regency and for providing the medical administrator with data for planning at this level.

Assistant Supervisor

4. This worker could be chosen from the ranks of supervisory midwives, midwifery teachers, public health nurses, social workers, and information officers. The assistant supervisor is primarily responsible for the supervision, support, and guidance of field workers in the regency. Her responsibilities should also include in-service training and orientation, as well as population education (consultancy for the school system), at the regency level.

B. District

MCH/FP Medical Officer

5. The medical officer at the district MCH/FP centers in East Java
supervises all family planning workers (both medical and nonmedical) in his area of jurisdiction, in addition to being responsible for general administration, clinical referrals of contraceptive acceptors with complications, hospital beds in the health center, and general health administration. Through the services of the health controller, he would also guide and supervise other health workers such as malaria workers, yaws workers, and vaccinators, etc., in their supportive role in family planning program implementation.

**Supervisory Midwife**

6. The supervisory midwife at district level in East Java will be mainly concerned with supervisory support and guidance to nurse-midwives in her area for an integrated MCH/FP program. This supervision is very important because of the large amount of clinical and educational responsibility of nurse-midwives at the sub-district MCH/FP centers and also because there are too many sub-districts (20) in a regency for one medical officer to manage.

**Group Leader**

7. One group leader is required for every five nonmedical field workers. He would work under the overall control and supervision of the assistant supervisor at the regency level, even though he may come under the administrative control of the medical officer at the health center to which he is assigned.

8. The group leader's primary function is family planning program implementation. His responsibilities include:

   a. Supervisory support and guidance to nonmedical field workers;

   b. Responsibility for organizing, promoting, and executing mass communication activities with the help and participation of the social work assistants, information officers, and other official and nonofficial personnel; and

   c. Responsibility for planning, organizing, and conducting village leader training sessions with the help of nurse-midwives, ANMs, nonmedical field workers, and other supportive workers at the sub-district level and below.

**C. Sub-District Nurse-Midwife**

9. One nurse-midwife per 44,000 population (one per sub-district health center in the rural areas, and four per health center in Djakarta) is required. Primary functions include provision of contraceptive services such as the IUD insertion and distribution of contraceptive pills, and overall supervision of ANMs and all family planning activities. Her responsibilities comprise:

   a. Residence in the town or village where the sub-district-level health center is located;

   b. Direct responsibility for providing contraceptive services, such as IUD insertions and contraceptive pills;
c. Responsibility, with the help of administrative assistance, for reports and returns of program progress (number of acceptors in the sub-district area, and characteristics such as age, parity, period of adoption, discontinuance, etc.);

d. Participation in community educational activities such as orientation for village leaders and taking the leadership in organizing training in cooperation with field workers, group leaders, and social workers;

e. Visitation on a scheduled basis, to ANMs to provide on-the-job supervisory support and guidance;

f. Responsibility for all MCH work (immunizations, school health work, as well as antenatal, natal, and postnatal cases) in the immediate vicinity of the center;

g. Responsibility for training, supervising, and guiding the dukuns in her area; and

h. Collection and compilation of information on births from dukuns and community leaders.

Auxiliary Nurse-Midwife

10. The auxiliary nurse-midwife (ANM) is not a complete replacement for the nurse-midwife who is more highly trained. The ANM would perform basic MCH and family planning functions under the overall supervision of a nurse-midwife. Phased continuing professional education is required to help ANMs qualify as full nurse-midwives over a period of time determined by the demands of the MCH and family planning program. Two ANMs should be added to the present staff of one midwife for each sub-district-level health center. They would be under the administrative control of the midwife, but assigned to a defined area and given responsibility for all MCH and family planning activities in that area. To be effective and efficient, the ANM must live in her jurisdictional area. The duties of an ANM, similar to those of the nurse-midwife, include:

a. Direct responsibility for providing contraceptive services such as the storage and distribution of contraceptive pills;

b. Responsibility for follow-up care of contraceptive acceptors and their referral, where necessary;

c. Participation in family planning educational activities such as orientation for village leaders;

d. Assistance in the preparation of the necessary reports and records;

e. Responsibility for MCH work such as immunizations, school health work, as well as antenatal, natal, and postnatal cases; and

f. Assistance in training and supervising dukuns.
Nonmedical Field Worker

11. One nonmedical field worker per 10,000 population (4-5 per sub-district) in rural areas, and about 25-30 per sub-district in Jakarta) is required. While the nonmedical field worker's primary function is educational, his responsibilities would include:

   a. Residence in his jurisdictional area, but administratively assigned to the sub-district-level health center;

   b. Responsibility for preparing and revising the list of "eligible couples" in villages in his area; this list should also be available at the sub-district-level health center for periodical evaluatory purposes

   c. Motivation of eligible couples through family-centered face-to-face education;

   d. Identification of interested influential leaders in the community and provision of education through individual contact, group techniques, and orientation training, and assistance through these leaders to help target couples recognize small family size as desirable and adopt contraception;

   e. Assistance in providing adequate follow-up sessions which include dispelling doubts about contraceptive methods, and recognizing complications and referring them to the nearest health center for proper treatment;

   f. Maintenance of simple records of eligible couples and acceptors including continuous and accurate information of births and deaths (especially infant deaths) collected from dukuns, village officials, and others;

   g. Assistance in other MCH activities such as immunization, mothers' classes, and antenatal education, etc.;

   h. In the field postpartum program, responsibility for reporting possible acceptors (antenatal cases) to the health centers, and educating acceptors for the postpartum program; and

   i. Assistance in distributing conventional contraceptives.

Social Worker Assistant and Information Officer

12. While the social worker assistant and information officer are not primary workers in family planning, they do have, however, very important roles to play in the identification and orientation of village leaders. They should be involved in planning and executing mass communication activities such as dramas, puppet shows, and public meetings at the sub-district level and below.
RECOMMENDED CURRICULA FOR IN-SERVICE TRAINING
OF FAMILY PLANNING WORKERS

Introduction

1. In-service training is not an attempt at comprehensive professional preparation of workers, but is intended to train workers to develop knowledge and skills for the performance of critical functions needed to take the program towards predetermined goals. In family planning program implementation, this means:
   a. stating in clear terms the goals of the program;
   b. identifying and describing the critical functions that each category of worker is to perform in achieving the goal;
   c. preparing and pretesting a "job-oriented training curriculum" for each category of worker;
   d. using the curricula for in-service training; and
   e. revising them by a continuing process of feed-back.

2. The curricula for training family planning workers in Indonesia do not, at present, satisfy these requirements; the content is focused on providing information. It is recommended that a curriculum development and review committee is established at the NTC to ensure that training is relevant to the functions of the various workers, which may change as the program progresses. To be effective, instructors and representatives of the program implementing units should serve together to determine the curricula for in-service training.

3. It is also recommended that the NTCs and PTCs establish "field demonstration and study areas" in which an MCH/FP program could be demonstrated and used by:
   a. training centers for "skill practice"; and
   b. instructors (just like the operation theater in teaching of surgery to the medical students), to improve the professional growth of the training faculty and give them the opportunity to make training program-oriented.

These study areas would also be used to:
   a. demonstrate program effectiveness to administrators;
   b. try out new methodologies in program development as well as training; and also
   c. promote small program-oriented studies for program improvement.
Curricula for Non-Medical Field Workers and Group Leaders

4. The period of training would be 15 working days, and the curricula should include the following:

a. Introduction to family planning program in Indonesia -- its necessity, objectives, goals, and program implementation at various levels;

b. The role of the field worker in the family planning program including detailed job description;

c. The knowledge and skills necessary for the field worker to satisfy his job function needs;

d. Lectures and group discussions to help the field worker gain the required knowledge; this may be supplemented by using films and filmstrips.

e. Skill practice in the clinic and demonstration area, as well as field practice to acquire sufficient skills required of a field worker, e.g., how to identify interested influential leaders, how to conduct a family interview for face-to-face education, and how and what records and reports to get, etc.;

f. Emphasis on the most critical functions of a field worker;

g. Field worker's role in an integrated MCH and family planning program, especially his working relationship with the ANM and midwife;

h. Community profile of the village and general and health administration of village, sub-district, regency, province, and central governments in Indonesia;

i. Religion and family planning;

j. Field-oriented postpartum program;

k. Methods of contraception, their use, effectiveness, and side-effects, etc.; and

l. Elementary human anatomy and physiology of the reproductive system.

5. Training for the field worker should also include sessions on supervision (both knowledge and skill practice), use of mass media (dramas, puppet shows, etc.) at local level, organization, and conduct of short orientation sessions for village leaders, and the use of public speaking equipment, films, strip projectors, etc.

6. At least 50% of the training should be field-oriented -- that is, demonstration and skill practice, etc.
Auxiliary Nurse-Midwives, Nurse-Midwives, and Supervisory Midwives

7. Period of training required is 15 days, and the curriculum should include the following:

   a. Introduction to family planning program in Indonesia -- its necessity, objectives, goals, and program implementation at various levels;

   b. The roles of the ANM, nurse-midwife, and supervisory midwife in the family planning program, including detailed job description;

   c. The knowledge and skills necessary for the ANM or midwife to satisfy her job function needs;

   d. Lecture and group discussions to help the trainee gain the required knowledge;

   e. Methods of contraception, their use, effectiveness, contraindications, complications or side-effects and their treatment, if simple;

   f. Skill practice in clinic for IUD insertion, pill distribution, follow-up in the homes, treatment of simple side-effects, and determination of referral cases;

   g. Skills in interviewing patients in a clinic;

   h. Knowledge and skills for maintenance of records and reports relevant to MCH and family planning and their relevance to the program; (Sessions may include training in simple methods of evaluation of program -- continuation rates and pregnancy rates, etc.)

   i. Knowledge and skills on simple administrative methods and office management;

   j. Field-oriented programs as well as hospital postpartum programs including the skills and knowledge required of midwives;

   k. Community education in family planning; and

   l. Elementary human anatomy and physiology of the reproductive system.

8. Training of midwives and supervisory midwives should, in addition, include knowledge and skill practice sessions on supervision, training methods, and curricula for training of dukuns; vital statistics and their relevance to family planning program; management of complications of various methods of contraception; office management in maintenance and transmission of reports and records; and relevance and interpretation of the use of these data in the family planning program implementation.
Medical Workers  
(Working in Health Centers and Hospitals)

9. Period of training required is 15 working days, and the curriculum should include the following:

a. Introduction to family planning program in Indonesia -- its necessity, objectives, goals, and program implementation at various levels;

b. The role of the medical officer in the family planning program including details of job description;

c. Administrative procedures in the family planning program, including office management, records and reports and their relevance to the program, supply requisitioning, and transport management, etc.;

d. Plan of action for implementing the family planning program at local level, details of functions of each worker, and their role in family planning work;

e. Evaluation of MCH and family planning program at local levels -- data needed, their compilation, interpretation, and utilization of such data for program improvement;

f. Postpartum program -- both field-oriented and hospital-based;

g. Family planning as an integral part of MCH services;

h. Community education in family planning;

i. Religion and family planning;

j. Methods of contraception, their use, effectiveness, side-effects and complications, and their treatment; this area should include training and practice in the clinic for IUD insertion, and the physiology and pharmacology of contraceptive pills.

k. Comprehensive revision of reproductive biology as a brief but intensive course; and

l. Supervision -- both theory and practice.

10. At least 25% of the training time must be spent in the clinic and another 25% in field-oriented training.

Administrative Medical Officers and Medical Officers in charge of MCH and Family Planning at the Regency Level

11. Period of training required is 30 working days. Curriculum should include all areas suggested for the medical workers, plus the following:
a. Determination of targets and detailed program plan for integrated MCH and family planning program for a regency;

b. Economics and demography of population control and their practical applications to program achievements at the regency, provincial and national levels;

c. Principles of program management, including personnel management, budgeting, fiscal management, sociology of administration, systems approach, programming-budgeting, review and replanning techniques, and supervision in management, etc.;

d. A full refresher course on up-to-date contraceptive technology;

e. Basic principles of research methodology to enable trainee to understand the value of research in the various aspects of the family planning program;

f. Multidisciplinary approach to family planning, why and how; and

g. Nonclinical approach to population control.

Supportive Workers
(Social Workers, Information Officers, and Health Workers, etc.)

12. Period of training required is 3 days, and the curriculum should include the following:

a. Introduction to family planning program in Indonesia -- its justification, objectives, goals, and the organizational structure of the integrated MCH/FP program at various levels;

b. The role of social workers/information officers/health workers in family planning and how exactly they can support the program as a part of their regular duties and also the special functions they should perform to support the various components of family planning program implementation;

c. Elementary and very simple description of human reproductive anatomy and physiology;

d. Elementary knowledge of the IUD and contraceptive pills; and

e. Religion and family planning.

Dukuns

13. Period of training required is 3 days, or 6 afternoon sessions. The curriculum should include the following:

a. Family planning and its justification for socio-economic improvement of the Indonesian family;
b. Religion and family planning;

c. Roles of ANM, field workers, and midwife in MCH and family planning activities at the village level;

d. Elementary knowledge about human reproductive system, IUD and contraceptive pills, possible side-effects due to contraception, and how to recognize and refer them;

e. Role of dukuns in case referral for IUD, contraceptive pills, and conventional contraceptives; and

f. Importance and procedure for notifying midwives and/or ANMs of births.

Village Leaders

14. The orientation program for village leaders is mainly intended to help them to:

   a. recognize the need for the FP program in their village;

   b. understand the components of the program at this level; and

   c. give their active support by their involvement in program implementation in the village.

15. They should also be given enough information to be able to support the education of eligible couples in the community to accept family planning. A one-day orientation program should be scheduled for a time and place agreed upon in advance by the leaders. In addition to family planning workers and supportive workers, formal leaders like the ulemas and village-level religious leaders, village officials, and village headmen should be invited to orientation sessions in which the dukuns could play a very important role. Village leaders should include those identified by field workers as interested and influential leaders. Each orientation session should not have more than 30 participants. In large villages, more than one session may be required. The agenda for the session need not be structured. It should begin by asking leaders to identify community needs in their own village, to which the need for family planning should then be related. It is always advantageous to provide treatment for minor ailments before launching a village FP program. During the session, the workers should give information to leaders on the justification of family planning on such topics as family welfare, for health and economic improvement, religion and family planning, as well as simple facts about the IUD and contraceptive pills.
This annex contains the following sections:

A. Evaluation and Management Information System;
B. Implementation of FP Research and Evaluation;
C. Operational Studies and Other Essential Research;
D. Program for Study and Training in Demography at the University of Indonesia;
E. Development of the Population Study Center of the Indonesian Institute of Sciences;
F. Field Postpartum Program;
G. Technical Assistance Requirements;
H. Summary of Component Inputs; and
I. Implementation.

A. Evaluation and Management Information System

2. In its present form, the evaluation and management information system of the NFPCB is unable to realize its potential importance to program success. Divided in terms of both function and supervision, it lacks competent technical direction and status within the overall organization and is, therefore, not fully effective. If the system is adequately to fulfill its function, it is necessary to merge the present bureaus of reporting and recording, and research and evaluation under one, technically competent director of at least deputy chairman status.

3. Strong, assertive leadership is required to effect the following changes which are vital to the adequate functioning of the system:

   a. The establishment of a research and evaluation policy which is consistent with overall program policies and objectives. The links between research, evaluation, and program operations need to be spelled out in detail and a decision must be taken regarding the proper balance and priorities among large-scale descriptive/publicity surveys, operational and basic research projects, service statistics, and evaluative (cost-benefit/cost-effectiveness) studies.

   b. The reallocation of program inputs and redirection of program emphasis on a national or local basis, consistent with recommendations drawn from research/evaluation findings.
c. The rationalization and further simplification of the present reporting and recording procedures. Although the assumption by the NFPCB of the responsibility for collecting FP service data appears justified (i) in the light of the fact that health service clinics comprise only some 40% of those now reporting, and (ii) in the absence of a major revision of the total reporting and recording procedures of health services, much more attention must be directed towards upgrading the capability to assess service data at the provincial level. This is necessary to facilitate identification of program successes or failures at the operational level, and their implications for corrective action, or further inquiry. Besides the provision of additional trained staff at provincial level, the central NFPCB should also develop a supervisory team to assist and upgrade provincial staff capability.

d. The assumption of a strong and effective leadership role in research and evaluation based on policy priorities and problems identified by service data. At present, the NFPCB is reliant upon the recommendations of a research review panel comprised of members of the various implementing research units. Although the participation of the research unit directors is to be commended, reliance can lead to the acceptance of research projects less in line with the priority needs of the program than with the interests of the participating organizations, and should be minimized.

e. Present budget allocations in this area are tied to specific projects, i.e., no provision is made for studies that have not been planned at least one year in advance. Although it is desirable to have major research/evaluation projects planned well in advance, management information of a crucial nature often arises from short-term studies undertaken in direct and rapid response to a specific program or management problem of an "emergency" nature. A small proportion of the research evaluation budget needs to be allocated for such short-term studies.

f. In-country research seminars are valuable not only for providing a sense of professional solidarity (as an incentive to perform research) to those who direct and participate in research activity, but also for providing a forum through which positive and fully documented program aspects can be publicized. The value and positive influence of such seminars on the political sphere should not be underestimated. Although the responsibility for organizing such seminars might lie outside the research and evaluation section, funds should be made available for travel, honoraria, publication of seminar proceedings, etc.
B. Implementation of Family Planning Research and Evaluation

4. Expressed in economic terms, Indonesia's FP program is basically one of supply. Program focus is limited to the delivery of services, and the demand side of the program has received little or no attention. There is nothing unusual in this approach; virtually all national FP programs are based on extension and improvement of contraceptive services, and the existing structure of demand for those services has received only token attention.

5. Implicit within this stereotyped delivery system approach to the population problem is the assumption that the problem is due to excess or unwanted births which can be eliminated or drastically reduced by making contraceptive technology and services widely available. Unfortunately, the experience of established FP programs suggests this is not the case; virtually every established program is suffering from critical underutilization of FP clinics and services. The results promised by those who advocate total concentration on the delivery system simply have not been forthcoming. Even Taiwan cannot demonstrate unequivocally that the program itself has brought about a definite, measurable reduction in the fertility rate of the nation.1/

6. The question is why do some societies express low fertility rates and others express high fertility rates? Efficient delivery of contraceptive technology and services is only one reason. That it is not a sufficient reason is made clear by the fact that the U.S. and Western European societies experienced their massive fertility declines prior even to the existence of modern contraceptive technology. The necessary and sufficient reasons must, therefore, lie in the "demand" structure of society, within the motivations of individual couples and the relationships between these and family size. Although this area has been the object of increased interest of late2/, little more than conjecture has been directed towards providing an increased understanding of the nature and structure of these motivations and relationships. Yet it must be clear that any attempt to alter or influence the FP demand structure of a population must be based on a thorough understanding of that structure.

7. In all aspects of research and evaluation, except the collection of service data, the NFPCB acts as a coordinating agency. Research studies and evaluation projects which the NFPCB deems necessary are contracted out to governmental and private research institutions for the collection and analysis of data. Currently, there are five institutions through which family planning research and evaluation studies may be contracted. They are: Indonesia Planned Parenthood Association (IPPA), National Institute of Economic & Social Research (LEKNAS), the Demographic Institute of the University of Indonesia, the Institute of Public Health (IPH), and Survey & Business Research Indonesia (SUBURI). All are located in Djakarta except IPH, which is located at Surabaja in the province of East Java. Each of these institutions has its own particular and varied research skills, commitments, and areas of research interest, although each is related formally

to and has had experience with the field of family planning. A brief summary statement of the present capability and potential contribution of each of these institutions in terms of acceptable contract research it might undertake for the NFPCB over the period of the project follows:

**Indonesia Planned Parenthood Association (IPPA)**
This is a private, voluntary organization which is funded largely by the IPPF. In the past, IPPA has demonstrated a facility for suggesting practical, and timely, problems to be researched; it is to be hoped IPPA will continue to fulfill this function. Its role in family planning has been reduced (by the expanded government role) largely to training of family planning personnel. It is recommended that IPPA limit its implementation efforts in research and evaluation to the area of training, e.g., evaluation of the effectiveness of present courses of training, demonstration of differential effectiveness of various techniques of static, and in-service and field training.

**National Institute of Economic & Social Research (LEKNAS)**
The institute is one of eleven institutes of the Indonesian Institute of Sciences (LIPI), established by the Government to promote and coordinate scientific research. As a government institute, LEKNAS's primary responsibility is to conduct studies and research to provide support for national planning operations, and to assess and evaluate government development activities. The particular structure of LEKNAS is conducive to multidisciplinary research projects because it assembles within one institute representatives of the social sciences and economics, organized into two major divisions -- the Social Sciences Division and the Economics Division. At present, the research staff of the Social Sciences Division consists of two sociologists, one political scientist, one anthropologist, two demographers, and one historian; the Economics Division has seven economists of various specializations.

A Population Studies Center (PSC) was created as a separate body of the Social Sciences Division in September 1969. The objectives of the PSC are to:

1. conduct basic and applied research in the field of population studies;
2. undertake such demographic research as can be utilized by the Government in the formulation of social and economic policies and development programs;
3. evaluate the results of government population programs to obtain more efficient methods in achieving government objectives;
4. carry out demographic research as required by government agencies which do not possess the necessary personnel and facilities;
5. cooperate with other institutes and agencies in Indonesia, as well as abroad, in the field of population studies; and
vi. provide library services to demographers and other scholars in related fields, and to the general public interested in population studies.

The objective of the Center is to become a center for multidisciplinary research in population studies. At present, it is staffed with a demographer as the Head, and two research associates (a demographer and an anthropologist). There are plans to recruit six additional professional staff members. The Center will also use other LEKNAS staff members, and other research workers in the country, for the execution of specific research activities.

Demographic Institute, University of Indonesia

The Demographic Institute is of key importance in the future development of demographic research and training in Indonesia, and hence to the development of a national FP research capability. The charge of the Institute is to conduct scientific research in the field of population, to offer training in demography to other interested parties, and to assist governmental bodies in demographic research. The Institute is under capable and technically sound direction. It has embarked upon an ambitious course of providing training in demography to 100 individuals associated with academic and research institutions throughout Indonesia. This program will utilize the full capabilities of the Institute until approximately 1974, and it is unlikely that the Institute will be able to -- or should -- undertake any research of significant scope for the family planning program until that time. Details of assistance required are shown in Section D of this annex.

Institute of Public Health (IPH), Surabaja

The IPH has two broad divisions, one concerned with training and one with research and development. Within the latter division is located the Demographic Section, the express charge of which is to undertake research in the social and operational aspects of family planning as a public health problem. The Demographic Section has been able to generate and implement research of an applied, eminently practical nature, of direct relevance to family planning program operations. In the process, a small core of experienced research staff has been built up, which is experienced in a variety of research methodologies. Although the survey method has been heavily relied upon, participant-observational and "casual" interview techniques have also been used. The IPH could assume responsibility for the implementation of a major portion of the operational research requirements of the NFPCB.

Survey & Business Research (SUBURI), Indonesia

SUBURI is one of several independent marketing and business organizations located in Djakarta, which have been providing governmental and private business organizations with crucial management information derived from a wide variety of research studies. SUBURI has a permanent staff of 18 and a Djakarta project staff of 90, plus a corps of trained project staff and supervisors in other major Indonesian cities. The interests and expertise of this institution are broad -- operations research, management feasibility studies, KAP surveys, systems analysis, and cost-benefit/cost-effectiveness analyses.
C. Operational Studies and Other Essential Research

8. In developing a program by which FP services are delivered through an existing MCH system, it is essential to know whether the existing facilities and staff are adequate for the additional load. Several problems have already emerged in Indonesia which suggest that the integration of FP and MCH is straining the delivery capacity of a system which is, perhaps, inadequate even for routine MCH services. It is important to identify these problems and make provision for their study to isolate the causes and recommend solutions. Of course, it is equally important that the scope of research focus is not limited to the delivery system itself; research in those areas outside the delivery system but which have direct program relevance is also considered essential. The mission considers that the following problems require urgent study:

a. Study of Job Functions of FP Workers
   Most FP workers will carry out FP duties in addition to their routine jobs. To establish whether work loads are feasible and to provide information for adequate training curricula and essential personnel data (e.g., salary assessments), a study of the job functions of all FP primary and supportive workers in both NFPCB and implementing units is required. Within this category, two groups should receive special and immediate attention -- midwives and field workers. The field worker is a new category of personnel and will comprise a large and important component of the program. For these reasons, and since field worker training is still very much in progress, a critical comparison of job function and job description is necessary. In addition, it is felt that a study to identify the barriers to effective field worker performance, including the attitudes of the field worker toward FP, is necessary.

   The midwife, of course, is the key person in delivery of FP services. Preliminary results of a very small study indicate that up to 60% of the midwife's time is spent keeping records; a more comprehensive study is required to document this fact, and to determine how much of this burden is due to FP record-keeping duties. If true, such a study could be used to revise the total record-keeping system of the health services, and of the NFPCB. This would be vital to the effective delivery of services in the event of the increased utilization of services expected from project inputs.

b. Study of Ways and Means to Increase MCH and Maternity Facility Utilization
   FP services are to be provided through MCH facilities said to be underutilized, and through maternity facilities that are quite definitely underutilized, i.e., with delivery rates well below the acceptable rate of 60 deliveries per bed annually. Quite clearly, it is in the interest of a combined MCH/FP program to increase utilization of both MCH and maternity facilities to the maximum.
There are indications that the MCH facilities, e.g., antenatal and postnatal checkups, are more heavily utilized than maternity facilities. A study is urgently required to assess general underutilization and specific differential utilization, since motivation towards family planning acceptance is particularly high among recently-delivered women in hospitals and clinics. The study should consider the location of clinics and their human and physical environment as factors in determining optimum usage. It should consider the possible advantages of mobile against static clinics. The following possible reasons for underutilization might be examined:

i. Traditional trust in local dukuns;

ii. Reluctance to leave home and be separated from husband and children;

iii. Inadequacies in the personal or technical aspects of MCH services;

iv. Fear of hospitals, clinics, and/or unattractive surroundings;

v. The fees charged for a clinic or hospital delivery; and

vi. The private practice of medical and paramedical personnel and its influence upon clinic attendance.

c. Comparison of Fully-Integrated vs. Semi-Integrated FP Services

At present, FP is integrated with MCH only in that the services are provided in the same buildings; the great majority of clinics offer FP services only on certain days of the week, and not on the same days MCH services are offered. An experimental study is required to determine whether or not this practice of separate service is preferred by the client; if not, to identify the barriers to truly integrated services (e.g., preparation and maintenance of all the paraphernalia required for generalized service necessitates a significantly greater and unrealistic effort on the part of the midwife).

d. Preproject Implementation Baseline Survey

In order to evaluate the impact of the national family planning program on the values and fertility rates of Indonesians, it is imperative to know with some accuracy what these values and rates are at the present time. To this end, it is imperative that a large-scale national sample survey be mounted as soon as possible. Such a survey would provide a baseline of information against which future studies of a similar nature could be compared to measure the changes in these two crucial areas wrought over a period of time by the total program. In addition, such a study would provide baseline data against which the effectiveness of differential program inputs could be compared; and since IDA project inputs are not to be spread
evenly throughout Java, such information will play a vital role in the evaluation of the effect of the IDA project inputs vis-à-vis the national program inputs.

e. Basic Research with Policy Implication Beyond the Delivery System

To date, all of the ongoing, planned and suggested FP research in Indonesia is focused on the "supply" side of the program, i.e., directed towards the delivery system. This is not an inappropriate focus, since the FP program as presently conceived has limited itself to delivery of services, and the measure of the program will be the impact of inputs into the delivery system. For example, the field worker input will be evaluated in post hoc terms, by calculating the number of FP acceptors due directly to their efforts. However, it is of utmost importance that the potential impact of such a supply-based program be investigated, i.e., is it feasible and realistic to limit inputs only to the delivery system side, or should inputs also be directed toward increasing the demand for FP among the population?

Increased inputs into the supply side of the program will not necessarily result in an increased utilization of those inputs. For example, the whole concept of field workers is based on the assumption that a demand for FP exists, but little is known as to the extent or structure of the demand. There is undoubtedly a point beyond which increased inputs into the delivery system, e.g., field workers, will result in diminishing returns. It would be preferable to know that point in advance, for, beyond this point, society must choose between increasing population pressures or instituting program measures which directly affect demand for FP, e.g., increased and varied incentives to acceptors, and the alteration of those laws which directly or indirectly affect fertility such as age at marriage, child labor laws, social security measures, taxation, etc. In order to plan for such eventualities, a successful FP program will examine those factors which affect the demand for FP with as much care as those which affect the delivery system itself.

Virtually nothing is known about the extent or structure of demand for FP in Indonesia today, except that large families are preferred. Why this is so has yet to be investigated; yet a knowledge and understanding of fertility determinants are crucial to (i) an estimation of the potential of a program limited to inputs into a delivery system, and (ii) identification and/or isolation of those specific high fertility motivations which might be countered or neutralized by program inputs "beyond the delivery system."

f. Cost-Effectiveness Analysis of the Program

The IDA project is comprised of a number of specific inputs into Indonesia's FP system. The recommended mix of these inputs is considered to be optimum based on available data. However, since the available data are sketchy, it will be necessary periodically to evaluate this mix in the light of the actual experience of the program. Cost-effectiveness analysis is one method whereby program inputs can be related to actual program performance, i.e., it
provides data basic to decisions regarding redirection of resources from input units which are contributing little to program success to those which are effecting rapid gains. Certain conceptual problems are associated with the application of cost-effectiveness analysis to FP programs, usually having to do with how inputs and outputs are defined and how program outputs are measured. Nevertheless, this aspect of program evaluation cannot be ignored, and the fact that the various Indonesian provinces will receive differential inputs should facilitate such evaluation.

g. **Incentive Systems**
   In order to frame an effective policy towards the possible use of incentive systems to accelerate the acceptance of family planning by the community, pilot studies are required to test the social and administrative consequences of various incentive schemes, such as adopter and diffuser incentives, education bonds, and bonds as an insurance in old age case.

h. **Other Essential Research**

i. **Midwifery Attrition**
   Data on attrition rates during midwifery training (calculated at 40%) and after graduation (estimated at 10% annually) are inadequate. Course attrition may be due, among other things, to erroneous admission criteria, inadequate (or nonexistent) hostel accommodation, or the need to pay fees and a corresponding lack of training allowances. In building new midwifery schools, it is necessary to maximize their effectiveness by considering the quality as well as quantity of students. A study of attrition rates with implications for their moderation is required.

ii. **IUD and Pill Continuation Rates and Incidence of Side-Effects**
   Little reliable data are available regarding either continuation rates or incidences of side-effects among IUD and pill acceptors. Since follow-up of acceptors who fail to return to the clinic is lacking, official program data reflect the experience of women who return regularly for check-ups and/or supplies, and so are misleading. For example, IUD retention rates calculated from clinic data indicate a retention rate of some 92% at the end of 12 months and 86% for 24 months. Small, localized studies demonstrate continuation rates not much lower than this, but are suspect because of a high percentage of lost-to-follow-up cases. Accurate data regarding continuation and side-effects are necessary to properly focus program effort. For example, if continuation rates are indeed high and side-effects low, then program personnel can safely direct their efforts toward recruiting new acceptors; if, however, the reverse is true, then intensive follow-up of new acceptors is the effort called for, since only continued protection results in reduced fertility.
iii. **Distribution Channels for Conventional Contraceptives**

Experience in other countries (e.g., India) indicates that given efficient, adequately supplied channels for the distribution of conventional contraceptives, the number of FP acceptors can be increased considerably with limited additional program inputs. Current proposals in Indonesia limit distribution to existing health, particularly MCH, outlets. Studies of distribution logistics are needed, as well as studies of possibilities for extending outlets and widening promotional opportunities.

iv. **Experimental-Demonstration Areas**

As new ideas for program operations approaches are generated or grow out of program experience, they will need to be tested for feasibility and acceptability before incorporation into the official program. Thus, it is essential that the NFPCB accept the concept of experimental or demonstration areas wherein new program approaches can be put to the test of actual practice. FP programs which do not provide areas for the pretesting of new or revised program operations soon become static and resistant to change. Few administrators will accept the introduction of new approaches unless they have already been proven in other programs or demonstration projects.

Two general studies which should be examined on an experimental basis in Indonesia are the following: First, linking nutrition inputs to FP and/or MCH attendance in order to increase utilization of facilities and, therefore, numbers of acceptors. The second general study has to do with experimentation with incentives, perhaps in several areas -- adjustment in amount of incentive; incentives to FP acceptors who recruit new acceptors; recompense for income lost (e.g., 3-5 days' wages) while client recuperates from sterilization procedures; provision of free maternity facilities and food to mothers who intend to adopt contraception; etc.

9. These studies must be undertaken as soon as feasible. They should be initiated through the reorganized NFPCB Research and Evaluation Section, using as far as possible the Indonesian research capability supported, as necessary, by foreign expertise. In order to strengthen the NFPCB to enable it to coordinate such a research program effectively, the project provides for essential additional staff including a social scientist, a demographer, and an economist. Support in the form of additional equipment and vehicles is also provided.
D. Program for Study and Training in Demography, University of Indonesia

10. Indonesia has a critical need for demographers to undertake higher level teaching and research in the fields of population and to assist in analyzing demographic data required for social and economic development plans and projects. The Government, seriously concerned with planned economic and social development of the country, keenly feels and recognizes the need for continuous research in population dynamics to provide bases for decision-making and action programs in the diverse fields of human welfare. The National Economic Planning Agency (BAPPENAS) has supported the creation or strengthening of three institutes or agencies to undertake different specialized functions of research, training, and the coordination of action programs in the field of population. These institutes or agencies are:

a. Population Studies Center in Indonesian Institute of Science, created in 1969 to conduct research on the socio-economic aspects of population dynamics.

b. Institute of Demography, established in 1964 as a unit of the Faculty of Economics, University of Indonesia; strengthened to train demographers and promote teaching and research in demography in state universities and subsequently in private universities.

c. The National Family Planning Coordinating Board (NFPCB), was established in 1970 to coordinate and implement national population policy and action programs.

The Government is also actively interested in strengthening the Central Bureau of Statistics to effect and ensure overall improvement in national demographic statistics. Whereas the need for competent and well-trained demographers is very substantial, only a few Indonesians are available with such training and experience.

11. The Institute of Demography at the University of Indonesia has drawn up a crash training program to produce in 5 years (1970-75) approximately five demographer-faculty members in each of the 22 state universities of the country. This scheme calls for training of demographers to be conducted in five batches. The successful participants will be awarded academic certificates by the university. The expenses for the training of the first batch of participants, which covers a period of 15 months starting from June 1970, has been provided by the Ford Foundation. The Population Council (New York) has provided a grant of U.S.$10,000 to initiate the Institute's research program. Furthermore, the Australian National University is going to provide an expert to assist in the teaching of demography, and the Population Council is planning to make an expert available to assist in the implementation of the demographic research program.
12. The objective of the Institute of Demography is to train a minimum number of staff members (4-5) of all 22 state universities in order to:

   a. initiate coordinated demographic research in the provinces and regions, and special areas of the country;

   b. introduce teaching of demography in the state universities in the provinces; and

   c. provide consultative and technical support to country-wide family planning action program.

13. Details of the project are:

   a. Technical Assistance
   To augment the Institute's teaching staff, and to assist the Director in guiding the participants' research work, a senior foreign adviser is needed. The adviser will be an academically trained demographer with a complementary background in economics/sociology or statistics. He should have 3-5 years' experience in teaching and designing population research and sample surveys as well as knowledge of computer data analysis. The Australian National University is providing the Institute with a junior expert to assist in the teaching of demography and in the overall programming and development of the Institute for the fall semester of 1971 and for 2 years beginning in the fall of 1972. The Population Council will provide an adviser on research beginning early in 1972.

   b. Administrative Support
   The estimate includes salaries for the Institute staff for a total of 4 years. The rates are based upon those admitted by the Ford Foundation for the first 15 months' duration of the project. To carry out the instructional program, the Institute will need part-time teachers on fee-for-service basis. Until the requested laboratory equipment is purchased and installed, the Institute is obliged to pay a rental charge for the use of the data processing services of the Central Bureau of Statistics. Miscellaneous provisions of office supplies have been estimated at recurring U.S.$1,000 per annum.

   c. Fellowships
   For subsistence during the period of training, each participant will be paid a monthly subsistence stipend at the rate of Rp 25,000 per month (U.S.$60). The participants will be paid the exact cost of transportation from their official base to Djakarta and return.
d. **Equipment**

In order to build up the minimum laboratory facilities for the processing of data, the Institute will need the following equipment:

- 2 Electric calculating machines
- 2 Manual calculating machines
- 4 Electric adding machines
- 4 Manual adding machines
- 2 Typewriters
- 2 Filing cabinets.

e. **Transport**

One minibus will be provided.

Estimates are shown in Section H of this annex.

### E. Development of the Population Study Center of the Indonesian Institute of Sciences (LEKNAS)

14. There is an urgent need in Indonesia for continuous research in population which is capable of providing scientific bases for decision-making, formulation of national policies, and planning for national and regional development and population programs. For effective planning, a continuing assessment and evaluation of development plans and population programs based on reliable data and analyses are essential. So far, population research activities have been substantial but of an ad hoc nature. There have been few studies with a national coverage. The rapid increase of population puts pressure on the decision-makers of the country for new and improved data and analyses based on scientific research. It is not the large size of the population of Indonesia alone which attracts attention but the complexity of the problem also which demands intensive and continuous investigation to provide the necessary scientific support for the planning and implementation of programs designed to improve the human situation in Indonesia.

15. A description of the organization and functions of LEKNAS and the PSC is provided in Section B of this annex. This component of the project provides for the development of the PSC as a major multidisciplinary social sciences-population research center in Indonesia. It includes assistance specifically for the development of a considerably improved staff capability and for research projects basic to the development of governmental population plans and programs.
16. Keeping in view the research needs of the country and the consideration for appropriate staff development in a planned manner, the following general areas are the proper focus for specific, multidisciplinary research projects to be undertaken by the PSC:

a. The balance between population size, density, and available resources;

b. Factors underlying present patterns of transmigration and urbanization;

c. Direct and indirect relationships between family size and the socio-economic well-being of the family; and

d. Couple perceptions of the role FP plays in their achievement of life goals.

17. In order to effectively research specific aspects of the above general areas, certain basic requirements must be fulfilled. First, research of this basic nature will require a longitudinal approach and a close continuing association between the study population and the research staff. Therefore, semi-permanent research areas which comprise a representative sample of the country must be established. Such areas, through a once- or twice-weekly canvass of all resident families would provide an accurate registration of vital events and a mechanism for continuous monitoring of the FP program. Through cooperation and coordination with the Demographic Institute, it should be possible for the PSC to enlist the part-time services of those who have been trained by the Demographic Institute and who are already situated throughout Indonesia; thus the sample areas can be established and maintained at considerably less expense than would be the case where local expertise and supervision were lacking.

18. The second basic requirement is that the nature of the specific problem to be investigated must be allowed to determine the methodological approach to data collection. The unique strength of the PSC lies in the multidisciplinary composition of its research staff. To utilize this staff effectively, the unique and particular research methodologies of the various disciplines comprising the PSC must be brought to bear on those problems to which their application is appropriate.

19. The PSC would direct specific attention to the following research projects:

a. Population Survey and Continuous Registration of Vital Events in Sample Areas
   Through a weekly canvass of each family in the sample area, the following information will be provided: demographic, economic and social characteristics of the sample population;
accurate estimates of birth rates, death rates, migration rates of population growth; and the incidences of pregnancy, and spontaneous and indirect abortion.

b. Population Implications of Migration and Urbanization
In view of the very uneven distribution of population in the country, inquiry into the degree of population pressure and out-migration in rural areas, and into urban areas in terms of size, location, and growth contributions of net migration is essential.

c. Relationship Studies
Within the sample areas, systematic, cross-disciplinary efforts will be directed toward analysis of the relationships among the factors mentioned in (a) above, as well as between the above factors of fertility, family size and structure, age at marriage, farm size and practices, contraceptive practices, transmigration, etc.

d. Institutional Effects on Fertility
Studies both within and without the sample areas will be undertaken to examine the pronatalist or antinatalist effects of various social institutions, e.g., existing legal structure (legal age at marriage, inheritance, laws, taxation, child labor laws, etc.), traditions and customs (actual age at marriage, child labor practices, etc.), extended and nuclear family situations, and the differential role perceptions of children as evidenced by families in rural and urban settings.

20. Inputs of the project are:

a. Technical Assistance
The PSC will require three foreign advisers during the project period. One should be a senior adviser to help with the overall development of the PSC and assist with the execution of research projects. The others should be more directly concerned with the research projects specified above. All advisers should be capable of directing research, providing on-the-job training to PSC staff, and conducting research seminars. Further details of the necessary qualifications are given in Section G of this annex. In addition, provision is made for short-term consultants for specific research fields.

b. Fellowships
The project makes provision for fellowships for training abroad for members of the research staff at the rate of 18 fellowship-years. This will enhance staff capability and allow the PSC to build up a core of national research expertise, reducing dependence on foreign technical assistance. If the cross disciplinary character of the PSC is to be preserved and strengthened, the fellowship must be multidisciplinary in nature. Fellows should receive training not only in specific academic fields, but also advanced training in the research methodologies applicable to that field.
c. Population Research Workshop

The PSC should convene an annual national workshop on population research with participation from all interested research institutions and universities in Indonesia as well as government departments with a direct concern (NFPCB, Central Bureau of Statistics, etc.). The objectives of the workshop would be to:

i. obtain an overview of the available research manpower involved in population research;

ii. review completed, current, and planned research pertaining to population problems;

iii. discuss and reach a consensus about the specific problems that should be given research priority within the framework of the national population policy;

iv. coordinate research activities in population studies; and

v. consider how research results can effectively be utilized for the planning and implementation of population programs.

d. Equipment

To support the development of the center and cater adequately for the research projects, the following equipment is required:

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<tr>
<th>First Year</th>
<th>U. S. $</th>
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<tr>
<td>4 Desk calculators (electric)</td>
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<tr>
<td>2 Adding machines</td>
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<td>2 Typewriters (one electric)</td>
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<td>1 Copying machine</td>
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#### e. Transport

To cope with the need to carry out and supervise field research projects throughout Java and Bali, the project provides for 5 minibuses and 1 4-wheel drive pick-up vans. The latter and two minibuses will be provided in the first year, and three minibuses in the second year.

#### f. Research Project Support

To carry out the specific research program, the regular staff of the PSC will have to be augmented by project staff. Salary support is provided for regular staff, of which it is estimated that 10 full-time supervisors, 50 full-time registrars/ enumerators, 3 part-time investigators, and 4 part-time supervisors from the Central Bureau of Statistics will be required. To develop the necessary high quality professional staff, a personnel development policy will be followed which makes use of fellowships and in-service training, and the recruitment of junior research staff on the basis of their performance as appointees to the project staff.

Provision is made for office supplies, and the cost of establishing and maintaining sample research registration areas and for performing specific studies.

#### g. Costs

The costs of support for the PSC are estimated in Section H of this annex.
F. The Demonstration Field Postpartum Program

Background

21. An infrastructure providing the means of directing and providing family planning information and services is that part of a health service concerned with maternal and child health (MCH). In their report \(^1\), Dr. Taylor and Dr. Berelson of the Population Council summarized the advantages thus: "A delivery-based family planning program deals with a population of proved fertility that is clearly identifiable at a time of high motivation (perhaps the highest), hence accessible to information and education, particularly the women of low parity, through a trusted and knowledgeable institutionalized system of care with broad health concerns, with a built-in indirect sphere of influence through word-of-mouth communication out into the community, with optimal chances of follow-up care and continuing services from the same professional personnel, with healthful consequences for both mother and child, and with opportunity for working toward a complete registration system, all at reasonable costs calculated against benefits, both medical and demographic."

22. After completing a feasibility study into what would be the minimal professional service of MCH and family planning to every pregnant woman in a given society, the Population Council has taken steps to initiate studies in depth in four or five countries. The studies will be mounted independently but with a measure of cooperative planning and evaluation. It is proposed that Indonesia, which participated in the earlier feasibility studies, should be the site of one of these demonstrations.

23. Among the reasons for a demonstration field study of the effectiveness and means of operation of such a rural postpartum program are:

a. the need to determine the extent to which a complete range of family planning services and information can be delivered effectively through the maternal and child health services, both institutional and traditional, without impairing the latter's capability;

b. the need to provide experience of the methods by which a national program should be managed;

c. the need to study special questions of practical operation such as:

   i. the extent to which traditional midwives may be used as part of the health team;

   ii. the effectiveness of methods of direct or indirect inducements, including financial payments;

iii. the types of contraceptives best suited to particular situations; and

iv. the use of child care visits to reinforce family planning acceptance.

24. During negotiations assurances will be sought from the Government that the Population Council, or an agency of similar competence as approved by the Association, will be requested to provide the services of two advisers to help in planning and carrying out such a demonstration, and such other assistance as may be required to evaluate the results of the demonstration. Preliminary discussions have been held with the Government of Indonesia, the provincial administrative and health authorities in East Java, and the Population Council. The regency of Modjokerto in East Java has been selected on the basis of its size (population of about 500,000); proximity to Surabaja, the provincial capital, for ease of administration and provision of evaluation services; and the good standard of existing health services when compared with other regencies in the province. It is proposed to bring the level of facilities and services to support the ratio of one nurse-midwife or auxiliary nurse-midwife per 10,000 population. This ratio is one which the authorities of East Java propose to use in building up the health infrastructure. There would be a control area in West Java.

The Project

25. To this end, the project provides for:

a. the construction of 4 type B MCH-FP centers at sub-districts where centers are now inadequate, and 34 type B MCH-FP centers in sub-districts to post auxiliary nurse-midwives in areas away from sub-district headquarters where there are now no permanently manned centers;

b. staff additional to the present establishment, including 8 supervisory nurse-midwives, 34 auxiliary nurse-midwives, 17 health controller-statisticians, 1 project director, 1 assistant project director, 2 research demographers, 8 trained research assistants, and 6 clerical staff;

c. transport including 3 cars, 10 motorcycles, and 70 bicycles;

d. two foreign advisers for 3 years, one of whom should be a medical adviser and the other an evaluation adviser;

e. full evaluation through KAP, health and fertility surveys, service statistics, and small operation and management studies;

f. equipment, including data processing equipment, and essential clerical equipment and supplies;

g. evaluation expenses to meet the costs of computer time, maintenance and running of vehicles, data processing, and supervision and direction; and
h. demonstration expenses to cover the costs of:

i. providing incentives to the dukuns to report pregnancies and births, dukun training and supervision;

ii. providing for the reimbursement of hospital and clinic fees to the provincial and regency authorities, to allow testing of the proposition that such costs to the individual are one of the factors inhibiting full utilization of MCH services; and

iii. providing for dietary supplements and a basic innoculation program to introduce a child care factor into the demonstration to measure its impact on the initial and continuing acceptance of family planning by mothers.

26. Costs estimates are in section H (d) of this annex.

27. The demonstration would be undertaken by the provincial health authority of East Java on the direction of the NFPCB and Ministry of Health. The project director should be directly responsible to the Director of Health Services of East Java. He should have had considerable experience in public health administration and would work in close consultation with the directoral officers of health for Modjokerto regency and Modjokerto municipality. The assistant project director would be in charge of service statistics and evaluation.

28. The senior non-Indonesian adviser will be a medical officer with experience in either MCH and public health or obstetrics and gynecology. He will be responsible for advising the project director on (a) the development of an operational plan for the demonstration, (b) the preparation and implementation of special studies, (c) relationships between the NFPCB, Ministry of Health and provincial health authorities, (d) the introduction of a specific child care component, (e) operation of the MCH infrastructure and provision of family planning services and information, and (f) the necessary liaison between health and family planning personnel and statistical and education staff. The other non-Indonesian adviser would have been trained in statistics and demography. He would be responsible for providing the assistant project director with guidance in the establishment of an effective service statistics system, the preparation and implementation of KAP, health and fertility surveys, the statistical requirements of small operational studies, and the processing, analysis and evaluation of all data collected from the demonstration project's activities.

Detailed Planning

29. The following are guidelines which will be used in the development of a detailed operational plan. The first step in preparing a detailed operational plan will be an examination of the local situation, and in particular the existing system of health services. The plan will be a logical development of what is already functioning, and as consistent as possible with existing general plans for the development of health services. The background information would include data on geography, socio-economic and demographic characteristics, pattern of diseases and mortality, health services, staff and facilities, birth control practices, and vital regis-
tration systems. The four major variants, depending upon the place and the attendant present at delivery, include:

a. Hospitalization of women for delivery

b. Home deliveries by trained midwives or assistant midwives with antepostpartum and postpartum clinic attendance for family planning instruction and service

c. Home deliveries by traditional midwives (dukuns) under some degree of professional supervision. It is probable, given the present available supply of trained personnel, the traditions of the people, and the means of transportation, that in remote rural areas dependence on the midwife is unavoidable in the foreseeable future.

d. A mixed system. For regions of a half a million or more people, a mixture of the above three types may be appropriate. If there is a medium sized provincial capital, its hospital might be responsible for the town itself and for a defined area in its neighborhood. Similarly, rural centers might provide either institutional delivery or home service by trained midwives in its immediate vicinity. Beyond this, the dukun, with supervision, compulsory reporting of pregnancies and births, and provided with a small stipend, may remain the essential worker for some time to come.

Standards of Service

30. Although the plan requires that essentially every pregnant woman in the selected area have some contact for maternity care and family planning, the level of this service may -- and undoubtedly will -- vary from place to place. Conclusions on the effectiveness of relating family planning to MCH must be related to the level of the health services achieved. The service objectives of each demonstration must be studied as to their practical feasibility and then precisely laid down. Service standards will need to be specified and include reference to:

a. Maternity Care

i. Antepartum -- number of visits; time in pregnancy of first visit; routines at each visit; educational efforts to be made.

ii. Delivery -- place of delivery; type of attendant; function to be performed by attendant.

iii. Postpartum -- timing of visit or visits; routines at each visit.

b. Family Planning

i. Educational programs during antepartum and postpartum clinic visits.

ii. Background informational services to people in general.

c. Child Health

i. First Year -- number of visits; nature of routine services; immunizations; nutritional instruction.
ii. Second Year -- similar questions, if it is decided that the second year is necessary and feasible.

iii. Question of incentives, such as provision of nutritional supplements.

Identification of the Pregnant or Recently-Delivered Woman

31. Since the aim is systematically to reach all pregnant or recently-delivered women, the identification of this "target group" is an essential part of the plan. This can be accomplished, in part and increasingly, through the encouragement of the utilization of the MCH services as offered. For some time, however, there will be a need for a system of active search for eligible women. Methods of identification may cover:

   a. Antepartum Contacts
      The antepartum contact may be made fairly complete where obstet are hospitalized. Attendance at antepartum clinics may be encouraged by various categories of village workers. The traditional midwife could be induced to bring her future patients to the clinic for antepartum examination and preliminary family planning instruction.

   b. Postpartum Contacts
      Postpartum contacts, even in the rural areas, must be made as nearly complete as possible. Some system of birth reporting will be essential; present systems are, however, incomplete and slow in producing information. A simpler, more rapid system, with an immediate practical purpose is essential and should also involve the traditional midwife. The trained midwife or other worker would then respond at once with a home visit or induce the indigenous midwife to bring the recently-delivered woman to the family planning and postpartum clinic.

Background Information for the Community

32. Although the program is based on the thesis that the months on both sides of parturition provide maximal opportunities to reach and to motivate women to adopt birth control, their decisions will be influenced by previous knowledge and a sense of endorsement of contraceptive practices by their own community. A general information program should be prepared for the community for the introduction of the system.

Administration

33. It is essential in planning the demonstration that its relationships to other health programs and to government agencies are clearly defined and fully understood.

Detailed Calculation of Facilities and Personnel

34. For each category of worker in the program, duties will be described and qualifications with respect to previous training or experience noted. Severely realistic estimates will be made of the work load an individual in each category can be expected to carry. This information, taken in relation to the required "Standards of Service" will give the exact number of each category required.
Evaluation

35. The general object of the demonstration is to determine the effectiveness of an integrated MCH-family planning service, which has been designed to reach systematically all the pregnant or recently-delivered women in the area. Since the study is really to determine the level of health service needed to produce an effective family planning program, it will be necessary to evaluate not only the family planning results, but also those reflecting maternal and child health. For each of the three objectives, family planning, maternal health and child health, means of measurement will be devised both for services rendered and results achieved.

G. Technical Assistance Requirements

One Research and Evaluation Adviser to NFPCB

a. Objective
To provide vitally needed technical expertise and coordination skills in the critical first years of program operation and until a trained national can assume these responsibilities.

b. Duration: 2 years.

c. Qualifications
Ph. D. in any of the social sciences; training and experience in applied population research; and familiarity with a wide variety of research methodologies. Personal relation skills are most important, since he will be responsible for the coordination and guidance of research activities of several research institutions not responsible to him directly.

d. Job Functions
Set research and evaluation policies and priorities in the light of overall program objectives; coordinate research activities and technical consultation to the various implementing institutions; assist in evaluating the progress of the research and evaluation aspects of the program; present to the chairman recommendations for redirection of program operations and resources based upon research findings; select and generate research proposals for funding and arrange for technical assistance to such projects as required; rationalize and further simplify present reporting and recording system; dispense training fellowships; prepare research budget; organize in-country seminars on research and population education; visit and assess potential of various Indonesian universities which could become actively involved in population research; and identify for training abroad capable individuals at the provincial level.

e. Date Needed: As soon as possible.

1/ See Section F, para 28 of this annex for the requirements for the demonstration field postpartum program.
Short-Term Consultants to NFPCB and Institute of Public Health, Surabaja

a. Objective
   To proffer short-term (3-6 months) technical assistance to specific research projects as listed in Section C of this annex.

b. Duration: Total of 30 man-months.

c. Qualifications
   Dependent upon need.

d. Job Functions
   Supply very specialized and highly specific technical assistance to the assigned institution.

e. Date Needed: As per program need.

Three Advisers to the Population Study Center of LEKNAS

a. Objective
   To provide much needed expertise while LEKNAS professorial personnel are being trained abroad.

   Expert I

b. Duration: 3 years.

c. Qualifications
   Degree in any of the social sciences. Experience and perspective are more important than degree area, and should not be narrow in either field; training and/or experience in research methodology other than survey essential; applied field research background highly desirable.

d. Job Functions
   Ensure that LEKNAS develops a truly multidisciplinary capability; assist in the formulation of research policies and priorities; assist and/or direct research projects in the field research/registration areas; provide LEKNAS staff with in-service training in alternatives to survey methodology.

e. Date Needed: As soon as possible.
Expert II

b. **Duration:** 3 years.

c. **Qualifications**
   Degree in sociology/demography; solid experience in sampling essential.

d. **Job Functions**
   Oversee and direct the establishment and maintenance of field research/registration areas; provide in-service training and direction of LEKNAS staff in establishing vital registration baselines and projections, postcensal enumeration, etc.

e. **Date Needed:** As soon as possible.

Expert III

b. **Duration:** 3 years.

c. **Qualifications**
   Degree in sociology/demography with interest and experience in the field of migration.

d. **Job Functions**
   Provide technical expertise to the planned study of population implications of transmigration for urban and rural areas.

e. **Date Needed:** As soon as possible.

One Adviser to the Institute of Demography

a. **Objective**
   To assist in the program for training national demographers.

b. **Duration:** 3 years.

c. **Qualifications**
   Degree in demography, with a complementary background in economics/sociology or statistics, with 3-5 years experience in teaching and designing population research and sample surveys as well as a knowledge of computer data analysis.

d. **Job Functions**
   Assist the Director in guiding the research work of trainee demographers, and to support the teaching staff of the Institute.

e. **Date Needed:** As soon as possible.
### H. Summary of Component Inputs

#### a. Support for the NFPCB at Central Level

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1/ One foreign adviser for 2 years. For the outline of job specification, see Section G of this annex.

2/ At 4 man-months per annum.

3/ Fellowships at U.S.$6,000 annually, totalling 20 man-years, spaced throughout the project at 2, 6, 4, 4 and 4 in successive years.

4/ Apportioned as follows: Base KAP - U.S.$80,000; 2 resurveys - U.S.$150,000; demand survey - U.S.$20,000; contraceptive survey - U.S.$20,000; five emergency surveys at U.S.$6,000 each - U.S.$30,000; and two field research studies annually at U.S.$20,000 per study -- examples of such studies include continuation rates by method, births averted, adequacy of rural/urban communications systems, etc.

5/ Equipment includes: 1 puncher/verifier 1 copying machine 4 manual calculators 3 21" typewriters 2 16" typewriters with provision for additions to the library of U.S.$6,000 over 5 years.

6/ Comprises 5 minibuses at U.S.$2,250 each.

7/ Additional staff includes: 1 social scientist at U.S.$3,000 per annum; 1 economist at U.S.$3,000 per annum; 1 demographer at U.S.$3,000 per annum; 1 programmer at U.S.$1,600 per annum; 2 health controllers/statisticians at U.S.$200 per annum; 5 clerical staff at U.S.$150 each per annum; and 5 drivers at U.S.$120 each per annum.
b. **Support for the NFPCB at Provincial Level**

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\(^1\) Includes 1 health controller/statistician, and 1 clerical assistant for each provincial NFPCB office.

\(^2\) Includes manual calculators and typewriters.

i. **Institute of Demography, Djakarta**

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\(^1\) One foreign adviser for 3 years.

\(^2\) Includes salaries, honoraria for lectures (estimated at 2 hours per day for a 320-day year at Rp 1,500 per hour), and training stipends, calculated for 22 participants at the rate of Rp 25,000 per month per participant for subsistence, and U.S.$1,800 per annum for all participants' travel.

\(^3\) Includes: 2 Electric calculating machines at U.S.$580 each
2 Manual calculators at U.S.$250 each
4 1207 Electric adding machines at U.S.$120 each
4 H 11 C Manual adding machines at U.S.$80 each
2 Filing cabinets at U.S.$250 each
2 16" Typewriters at U.S.$170 each.

\(^4\) One minibus is provided.

\(^5\) Includes laboratory rental for the first year only at U.S.$1,500.
### ii. Population Study Center of LEKNAS

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1/ See section E of this annex for details.
2/ See section G of this annex for job descriptions.

### c. Demonstration Field Postpartum Program

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</tbody>
</table>
I. Implementation

36. Responsibility for the implementation of the evaluation and research component falls on the Chairman of the NFPCB, exercising his authority through the Deputy Chairman (Research and Evaluation) of the NFPCB responsible for the bureaus of evaluation and research, and of reporting and recording. With the assistance of the foreign adviser in evaluation to the NFPCB, the Deputy Chairman would be responsible for developing a master operational plan to implement this project component within the functional and financial guidelines laid down.

37. During negotiations, assurances were obtained from the Government that it would seek assistance from the UN Population Division, or an agency of similar competence acceptable to the Association, in the implementation of those parts of the project relating to the Institute of Demography in the University of Indonesia, and the Population Studies Center in the National Institute for Economics and Social Research. The Government of Indonesia would ask the UN Population Division to provide the services of four foreign advisers, and to assist, as required, with the development of a fellowship program and provision of advice on the specifications and procurement of equipment.
PROJECT VEHICLE REQUIREMENTS

1. The vehicle requirements of the project have been considered with each specific component. Vehicles are, however, also required to strengthen the administrative capability of the MCH/family planning structure; and provision is needed for spare and freight, and an improvement in fleet management, utilization, and maintenance. To this end, this component provides for:

   a. 115 cars and 1,400 motorcycles,
   b. 2 foreign advisors for 3 years, one in fleet management and the other in fleet maintenance,
   c. training mechanics,
   d. essential workshop equipment,
   e. a fleet utilization survey, and
   f. spares and freight for all vehicles procured by the government for the project.

2. Because of the integration of delivery of MCH and family planning services, and the fact that the regency doctor is the head of the NFPCB regency organization, vehicles provided for health services are also considerably used by family planning staff. The regency doctor and his staff must make regular visits to family planning and health units, but regular and intensive supervision is not possible without reliable vehicles. Vehicles have been provided by UNICEF, but many are now obsolete or nearing the end of their economic life, the majority having been in use for 7 years. The component provides for 115 vehicles; this number takes into account the number of vehicles now used for supervision at regency levels and the number about to be declared obsolete.

3. In the past, UNICEF had provided bicycles for midwives at MCH centers to enable them to increase the number of home visits. With the addition of family planning activities, their workload has increased considerably. Home visits are considered extremely important for the success of the family planning program, and if the number is to be increased, light motorized transport must be made available. UNICEF is already providing 1,600 motorized bicycles and motor scooters for this purpose over a 3-year period. In view of the rapidly developing family planning program, however, this is not adequate. Motorized bicycles are needed for an additional 1,400 centers. Of these, 800 are required in the first year, 500 in the second year, and 100 in the third year.

4. In 1968, the Department of Health established a management organization with responsibility for the management, servicing, maintenance, and repair of the health service fleet. The organization was set up under a joint plan of operations between the Department of Health and UNICEF and includes some seven maintenance units and workshops, together with five mobile maintenance units. UNICEF provided the services of a transport consultant to assist in the setting up and the initial running of its administration,
training courses, and workshops. This organization is, however, now in need of considerable strengthening if it is to have the capacity to properly direct and maintain a fleet for health services and family planning of the size that is now developing. To this end, the project provides for two advisers for 3 years. One would be a fleet manager, responsible for training and upgrading existing management administration so that it is capable of handling its enlarged responsibilities. The second would be a maintenance organization manager with responsibility for ensuring the full technical competence of the personnel responsible for the maintenance and repairing all vehicles. A small provision is included for mechanic training and essential equipment.

5. To improve fleet management and utilization, the project provides for a major survey of current transport utilization. The utilization of vehicles is presently less than optimal, in terms of both individual vehicle use and of overall fleet deployment. To ensure the highest possible efficiency in deployment, a detailed survey of transport resources needs to be carried out. The objectives will be to establish the present utilization of transport, as well as the optimal future deployment, with reference to job requirements, and taking into account priorities and working conditions.

6. To keep the transport in optimum running condition, spare parts and batteries for all vehicles must be readily available. The estimated requirements for spare parts, etc. are 5% of the ex-factory price of the vehicle in the first year and 10% in the second year. Provision is made for all vehicles provided under the several project components.

7. As all vehicles and spare parts will be procured outside Indonesia, the project makes provision for cost of surface shipment. The current average freight cost is 12½% of the ex-factory price.

8. The cost of the items in this component are estimated at:

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1/ Includes local travel.
9. Assurances will be sought during negotiations that UNICEF will be asked to assist the Government in determining the specification and procurement of vehicles and equipment required for the project, and to provide the services of the two advisers whose functions are described below.

10. The adviser in fleet management would be responsible for advising the Fleet Transport Director on the operation of all vehicles in the fleet. His functions would include assisting with:

   a. the preparation and execution of a fleet utilization survey,

   b. the specifications and phasing of procurement of vehicles procured for project purposes;

   c. the development and expansion of the present system of fleet management with such modifications as may be indicated by the results of the fleet utilization survey,

   d. the preparation of annual budgets for the vehicles and the fleet maintenance system,

   e. the reception and prompt preparation of vehicles procured under the project,

   f. ensuring the effective use of project vehicles for the purposes for which they were procured,

   g. the establishment of work rates and standards for the fleet organization, and

   h. the establishment of satisfactory liaison between the Ministry of Health's management unit and vehicle users such as the NFPCB and the Ministry of Information.

11. The adviser in fleet maintenance would be responsible for advising the Fleet Transport Director on the maintenance and repairs of all vehicles in the fleet. His functions would include assisting with:

   a. the training of mechanics and drivers,

   b. the establishment of lists of commercial and government workshops for the repair and maintenance of vehicles,

   c. the establishment and maintenance of adequate stocks and inventories of spare parts for fleet vehicles,

   d. the selection of workshop equipment, buildings and tools for all repair facilities,

   e. the establishment and maintenance of adequate vehicle and vehicle cost control records, and

   f. the establishment of a system for the regular inspection and servicing of all fleet vehicles.
Table 1
SUMMARY OF PROJECT VEHICLE REQUIREMENTS

<table>
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<tr>
<th>Item</th>
<th>Unit</th>
<th>1972-73</th>
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<td>516,250</td>
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</table>

1/ Not provided elsewhere by specific components
HOSPITAL POSTPARTUM FAMILY PLANNING PROGRAM

Background

1. A number of psychological and logistical advantages favor the provision of advice and services on family planning in connection with maternity cases. Such a so-called postpartum program is already provided in Indonesia in 26 hospitals with financial assistance from the Population Council and in three hospitals financed by Djakarta city. Current postpartum activities in these hospitals cover around 80,000 deliveries per annum, with an average rate of acceptance of family planning services of about 30%. In the six largest hospitals, the estimated number of acceptors is nearly half of the number of delivery and abortion cases.

2. The Government of Indonesia has reported continued support for the present postpartum program as well as a gradual expansion to additional hospitals. At the same time, the Population Council considers its support as a demonstration of limited duration. The UNFPA has expressed its readiness to support the program at hospitals presently supported by the Population Council and at additional hospitals interested in providing family planning advice and services.

The Project

3. To this end, the hospital postpartum program component provides for:

   a. one technical adviser, experienced in hospital postpartum programs, for 2 years;

   b. salary support for:

      i. additional staff, or additional work required of existing staff, employed in the selected hospitals, based on 1 physician, 2 nurses, 2 midwives, 1 field worker at each hospital, and 1 clerk

      ii. a central coordinating unit comprising 1 project coordinator, 2 assistant coordinators, and 2 clerks

   c. essential hospital equipment, office equipment, clinical supplies, and informational and educational equipment and materials;

   d. support for in-service training programs in postpartum activities and basic family planning training in motivation methods;

   e. research funds to permit the maintenance of complete clinic records and their analysis, as a basis for continuing evaluation of the postpartum program; and

   f. three pick-up vans for the central coordinating units and 190 motorcycles at the rate of 2 motorcycles per hospital to enable staff to undertake the necessary follow-up work with family planning acceptors.
Implementation

4. In implementing this component of the project, assurances will be sought from the Government during negotiations that WHO, or an agency of similar competence acceptable to the Association, would provide the services of a technical adviser with experience in the development of a hospital postpartum program. The function of the adviser would be to assist the project coordinator in the planning, development and evaluation of the program. He would be responsible for:

   a. advising on the standards and methods to be adopted in the initial expansion of the program;

   b. assisting with the preparation of an operational plan within the functional and financial guidelines established by the project;

   c. advising on the specifications and equipment considered necessary for the development of the program;

   d. advising on the development of effective relationships in project implementation between the NFPCB, the Ministry of Health and other implementing units;

   e. advising on the development of training programs for staff brought into postpartum activities;

   f. in conjunction with the communications adviser and population education adviser, providing guidance on the most effective informational and educational techniques and materials for the particular needs of the postpartum program; and

   g. assisting in the review and evaluation of the program to determine the extent to which continuing expansion is appropriate.

5. The 26 hospitals supported by the Population Council include four large hospitals with an estimated number of deliveries per year of over 5,000, eleven medium-sized hospitals with around 2,000 - 5,000 deliveries per annum (see Table 1 of this annex). Most of the hospitals are located in cities in Java and Bali, but three are located in Sumatra. The project provides support for these 26 hospitals and similar support to 30 additional hospitals to be included in 1972-73, with a further addition of 30 hospitals in 1973-74. The experience gained in the current program will be fully utilized to establish guidelines for the proposed expansion and standards will be developed for future application. Only hospitals accepting such standards will be supported to participate in an expansion of the scheme.

6. The Population Council has provided for a project coordinator on a part-time basis. With the proposed expansion of the scheme, provision will be made for a full-time coordinator. He will coordinate the development of the scheme, prepare guidelines for its expansion based upon the experience gained thus far, and assist in making the selection of additional hospitals, as well as supervise their work. An assistant coordinator (physician) is required, as well as a secretary and a clerk. In the second year, an additional assistant coordinator will be provided with
supporting clerical staff. For optional coordination and supervision, the assistant coordinator could be stationed at a provincial level. At each of the collaborating hospitals, either additional staff is required or additional work has to be done by existing staff. The number of additional personnel or amount of work involved depends, to a considerable extent, upon the size of each hospital and in particular the number of cases of deliveries and abortions. Estimates have been prepared on the need for a large hospital to employ 1 physician, 2 nurses, 2 midwives, 1 field worker, and 1 clerk for the program. The hospitals presently receiving support for postpartum programs are fairly large (with an average number of deliveries of around 3,000 per annum; those to be added to the program will be somewhat smaller. A tentative list of 24 hospitals where postpartum family planning activities may be added is in Table 2 of this annex.

7. Special training courses related solely to postpartum activities will be conducted for the staff of additional hospitals included in the scheme, assuming that they have already had basic family planning training. Staff which have not yet received basic family planning training will be given training priority at one of the family planning training centers. Training will be carried out at hospitals with an efficient ongoing postpartum program. The duration of training of hospital staff will be 3 days for medical officer and 1 week for others. In addition to training new staff, allowance is made for training replacement staff and for retraining.

8. General education aids and informational materials required for family planning activities at the hospital concerned will be made available by the Ministry of Information and other agencies under the general guidance and coordination of the NFPB. Flip charts and other educational materials will be prepared and specially designed for the postpartum program.

9. The estimated costs are summarized as follows:

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### Table 1

**THE POPULATION COUNCIL INDONESIAN POSTPARTUM PROGRAM**

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<td>RST Rumkit Dam (Army), Medan</td>
<td>4,380</td>
<td>1,573</td>
<td>370</td>
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<td></td>
<td>RSUP Central, Palembang</td>
<td>3,920</td>
<td>3,714</td>
<td>499</td>
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<td></td>
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<td>3,770</td>
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<td></td>
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<td>3,940</td>
<td>1,509</td>
<td>893</td>
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<tr>
<td></td>
<td>RSUP Tegalojosi, Klaten</td>
<td>4,140</td>
<td>1,820</td>
<td>550</td>
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<td></td>
<td>Military, Semarang</td>
<td>2,450</td>
<td>1,511</td>
<td>942</td>
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<tr>
<td></td>
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<td>4,140</td>
<td>3,420</td>
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<td></td>
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<td>5,800</td>
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<td>3,900</td>
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<td>4,744</td>
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<td></td>
<td>RSU Surakarta, Solo</td>
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<td>RSUP, Denpasar</td>
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<td>3,000</td>
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<tr>
<td>NFPCB</td>
<td>Dr. Tjipto Mangunkusumo, Djakarta</td>
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<td>2,748</td>
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<td></td>
<td>Djatinegara Matraman, Djakarta</td>
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<td>Raden Saleh, Djakarta</td>
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<td><strong>27,728</strong></td>
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<tr>
<td>University of Pajajaran</td>
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<td>Dustira Military General, Tjimahi</td>
<td>1,114</td>
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<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>22,130</strong></td>
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1/ Estimates.
2/ Amount indicated for the period March 1, 1971 to February 29, 1972.
3/ Funding for the period January 1 to December 31, 1971. No individual budget was allotted for each hospital.
## Table 2

**TENTATIVE LIST OF HOSPITALS FOR INCLUSION IN THE POSTPARTUM PROGRAM, 1972-73**

| Province     | Name of Hospital       | Location   | Type of Hospital 1/
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<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>West Java</td>
<td>RSU Serang</td>
<td>Serang</td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSU Sukabumi</td>
<td>Sukabumi</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSU Garut</td>
<td>Garut</td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSU Tasikmalaja</td>
<td>Tasikmalaja</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSU Tjirebon</td>
<td>Tjirebon</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSBMI Bogor</td>
<td>Bogor</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSB Budi Kartini</td>
<td>Tasikmalaja</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Java</td>
<td>RSU Purwokerto</td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSU Purworedjo</td>
<td></td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSU Pati</td>
<td></td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSU Pekalongan</td>
<td></td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSB Brajat Minuljo</td>
<td>Solo</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSB Panti Siwi</td>
<td>Semarang</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSU Tidar</td>
<td>Magelang</td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSU Bodjonegoro</td>
<td></td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSU Madiun</td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSU Kediri</td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSU Djember</td>
<td></td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSB Panti Wanita</td>
<td>Ponorogo</td>
<td>Large</td>
</tr>
<tr>
<td>Bali</td>
<td>RSU Singaradja</td>
<td>Singaradja</td>
<td>Small</td>
</tr>
<tr>
<td></td>
<td>RSB Artiti</td>
<td>Denpasar</td>
<td>Large</td>
</tr>
<tr>
<td>Djakarta</td>
<td>RS Fatmawati</td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>RSB Budi Kemuliaan</td>
<td></td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td>RS Sumber Waras</td>
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<td>Medium</td>
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</tbody>
</table>

1/ **Type of hospitals:**

- **Small** = hospitals having 500 - 1,000 deliveries and abortions per year;
- **Medium** = hospitals having 1,000 - 2,000 deliveries and abortions per year;
- **Large** = hospitals having more than 2,000 deliveries and abortions per year.
INFORMATION AND COMMUNICATIONS

A. Objective

1. The objective is to assist the Government in the execution of the 5-year national family planning program by the development of effective communication strategies, techniques, and materials. The project will provide guidance, expertise, and material assistance on family planning communication. The project consists of two parts. The first is designed to strengthen the NFPCB's Information and Motivation Bureau, enabling it to:

   a. promote, coordinate, plan, research, experiment, pretest, and evaluate techniques and materials with a view to developing existing and innovative strategies in integrated family planning communication; and

   b. build up knowledge, experience, and training tools in this field.

The second provides for the delivery of mobile family planning information units to each of the 115 regencies in Java and Bali.

2. In promoting the development of an integrated communications approach, the NFPCB will utilize all possible channels of interpersonal, mediated and service communication, introducing family planning components into existing communication and action programs. The effectiveness of family planning information, education, and motivation programs will be enhanced by closely relating them to the social, cultural, and economic characteristics of the various communities, as well as to the overall developmental process in the country. The NFPCB will not be involved in the production and utilization activities, except for pretesting and experimentation purposes, but it will provide the implementing agencies with advisory services and prototype materials. To stimulate the widest possible interdisciplinary approach to family planning communication development, the NFPCB will work in consultation and cooperation with all departments and agencies concerned with family planning; these include the Ministry of Information, the Office of Educational Planning (BPP) of the Ministry of Education and Culture, the Health Education Division of the Ministry of Health, the Community Development Services of the Ministry of Social Affairs, and the agricultural extension services of the Ministry of Agriculture.

B. The Project

3. The project provides resources to enable the Bureau of Information and Motivation of the NFPCB to make more effective provision for:

   a. planning family planning communication strategies and techniques, and their integrated utilization through a combination of channels and campaigns;
b. the use of media to reinforce interpersonal communication in field programs with adequate research, experimentation, pre-testing, and evaluation so that their effect on target audiences improves;

c. the use of media as effective tools in training family planning service personnel and other groups;

d. assistance in training staff in family planning communications;

e. the collection, analysis, and distribution of documents and materials on family planning communications;

f. the promotion of and guidance on the production and dissemination of family planning and population information materials; and

g. technical assistance in family planning communications to all implementing units.

4. To this end, the first part of the project provides specifically for:

a. salary support for the addition of essential professional and technical posts. These posts comprise communication strategy planner, experimentation organizer, communication training planner, radio/TV production designer, film/audiovisual production designer, production placement assistant, and photo/film technician. Because of a shortage of skilled staff, it is unlikely that the posts could be filled immediately, but provision is made to enable the Government to recruit staff after suitable training. Provision is also made for the use of local consultants in developing research studies and experiments.

b. 36 man-months of non-Indonesia consultants for special studies, experiments and training.

c. 114 man-months of fellowships and study tours to increase the quantity and quality of the number of professionals working in family planning communications.

d. equipment, particularly audiovisual and office equipment, as well as reference material, tapes, films and production materials.

e. research studies and experimental productions of techniques and materials.

f. i. a basic documentation center of publications relating to family planning communications;

ii. the translation, production and distribution of important texts; and

iii. the publication and dissemination of the results of the Bureau's original research studies and experimental productions.
g. two minibuses and five cars to provide the mobility needed to develop effective research studies and experiments, particularly in rural areas.

h. basic maintenance costs for equipment and transport and the renewal of production materials.

**Implementation**

5. During the initial 6 months of the project, staff will be recruited and oriented, links with cooperating institutions and implementing units organized, and detailed program of operations developed on a yearly basis. Program implementation will be kept flexible in order to enable the requirements of the implementing agencies to be met as they arise. The function of the communications adviser would be to provide guidance to the Chairman of the NFPCB on the development of communications in the fields of family planning and population. He will make the fullest use of available advice in this field from the country and regional offices of UNESCO. UNESCO, or an agency of similar competence as approved by the Association, may also be called upon by the Government to help in providing short-term consultants, and assisting in the development of a fellowship program. The specific responsibilities of the communications adviser would include guidance on:

   a. the development of an overall strategy of communications in family planning and population, using both existing and innovative techniques and materials;

   b. within this strategy, the preparation of an operational plan, the broad functional and financial outlines of which are contained in the joint IBRD-UNFPA project;

   c. the development of effective relationships in project implementation between the NFPCB, Ministry of Education, Ministry of Information, another Indonesian and non-Indonesian agencies;

   d. the integration of communications techniques and materials in related project components such as family planning training, paramedical education, and population education;

   e. the most effective use by the Ministry of Information, and other implementing units at regency level, of the mobile information units provided by the project;

   f. the most expeditious and effective means of developing a staff capability in the Bureau of Information and Education by direct hire or through the establishment of an effective training program using, in part, a fellowship program; and

   g. the preparation and execution of studies and experimental productions designed to test methods of communications in relation to subject matter and potential audience.
Research

6. The first phase of the project, and a substantial part of later phases, will be devoted to research. It will include (a) the identification of sources, messages, channels, and audiences; (b) an analysis of current and innovative communication approaches, techniques, and materials; and (c) an analysis of feedback, and evaluation. Research will precede the planning of communication strategies and techniques, and the design of materials through content development, single and multimedia design, pre-testing and evaluation, redesign, and adaptation. Experimentation in the application and utilization of strategies, techniques, and materials will be carried out.

7. Programs planned, and materials designed by the NFPCB will be executed and produced either by implementing units and voluntary family planning organizations, or commercial agencies. The Ministry of Information will have a special role in the production and dissemination of programs and materials designed by, or through, the NFPCB.

8. Copies of all studies, experiments, and materials on family planning communications developed in Indonesia and abroad will be kept in a documentation center at the NFPCB, and a reference library established. Provision is made for the reproduction and printing of documents and publications, and for translations, transcriptions, and dubbings mainly into at least three Indonesian dialects used at present for printed materials and film tracks.

Training

9. The project will contribute towards training needs in the communication field through:

a. the development of communications media as tools for training family planning service personnel and specialized groups;

b. the planning of adequate communication components for introduction in family planning training programs for training staff in the use of communication media techniques; and

c. the formation of special training programs (field workshops, seminars, and laboratories) in family planning communication.

10. An early start will be made in planning a substantial communication component for the training programs of the national, provincial, and sub-training centers. This will be done keeping in mind the potential of mass media use in expanding the training of the increasingly large number of field workers to be recruited and operated in the next 10 years. Communication training programs will be constantly revised in the light of the development of communication techniques resulting from the experimental work. Personnel of all categories will be trained in the evolving techniques and applications of communication media as they are developed and satisfactorily tested.
Family Planning Information Units

11. To complement the strengthening of the capability of the NFPCB at the central level, the project provides for the delivery of mobile family planning information units to each of the 115 regencies in Java and Bali. This responds to the need at peripheral levels for communications inputs to support the face-to-face information and motivation work of family planning staff, such as paramedical personnel and field workers, and complements community-oriented family planning education programs. Mobile units are required to maximize coverage; each unit should be able to visit a sub-district at least once in every 2 months to support village-level information efforts. Each unit would come under the direction of the regency-level information office of the Ministry of Information in coordination with the local NFPCB office for day-to-day activities, and with central-level offices (including the Bureau of Information and Education of the NFPCB) for technical direction and the supply of communication materials.

12. Each unit will require one 4-wheel drive pick-up van with the following equipment:

- 1 16-mm projector and screen
- 1 Cassette tape recorder
- 1 2-Hp generator
- 1 PA system with 2 speakers
- 1 35-mm slide/film strip projector
- 1 Family planning exhibition kit (locally produced)
- 1 Manually-operated duplicator.

The equipment will be purchased separately and fitted to the vehicles as required.

13. Additional staff, comprising one audiovisual assistant and one driver for each unit, will be required. Information Ministry staff who will run the audiovisual equipment must be properly trained in its use and maintenance. Training programs should be established at the PTCs in consultation with the Bureau of Information and Education staff.

Costs

14. The costs of the first part of the project are estimated to be:

| Equipment                  | 40,000  | 35,000  | 25,000  | 15,000  | 15,000  | 130,000 |
| Advisory Services          | 8,000   | 16,000  | 16,000  | 16,000  | 16,000  | 72,000  |
| Fellowships                | 8,000   | 14,000  | 12,000  | 12,000  | 11,000  | 57,000  |
| Seminars, Workshops        |         |         |         |         |         |        |
| and In-Service Training    |         |         |         |         |         |        |
| Programs                   |         |         |         |         |         |        |
| Additional Staff           | 7,000   | 11,000  | 11,000  | 12,000  | 12,000  | 53,000  |

| Additional Staff           | 7,000   | 15,000  | 15,000  | 15,000  | 10,000  | 62,000  |
### Item 1972-73 1973-74 1974-75 1975-76 1976-77 Total

**Studies, Research and Experimental Productions**
- 15,000 20,000 20,000 25,000 20,000 100,000

**Publications and Documentation**
- 3,000 4,000 5,000 4,000 4,000 20,000

**Transport**
- 11,000 4,000 - - - 15,000

**Maintenance**
- 3,000 4,000 5,000 5,000 5,000 22,000

**TOTAL**
- 102,000 123,000 109,000 104,000 93,000 531,000

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**The costs of providing the mobile units are estimated to be:**

### Item 1972-73 1973-74 1974-75 1975-76 1976-77 Total

**Transport**
- 100,000 175,000 125,000 125,000 50,000 575,000

**Equipment**
- 100,000 175,000 125,000 125,000 50,000 575,000

**Staff**
- 8,000 21,000 31,000 40,000 45,000 145,000

**Training Costs**
- 4,000 7,000 5,000 5,000 1,000 22,000

**Maintenance and Running Costs**
- 12,000 33,000 48,000 63,000 69,000 225,000

**TOTAL**
- 224,000 411,000 334,000 358,000 215,000 1,542,000

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**Consolidated estimates for the Information and Communications are:**

### Item 1972-73 1973-74 1974-75 1975-76 1976-77 Total

**Advisory Services**
- 8,000 16,000 16,000 16,000 16,000 72,000

**Fellowships**
- 8,000 14,000 12,000 12,000 11,000 57,000

**Seminars, Workshops and Training Programs**
- 11,000 18,000 16,000 17,000 13,000 75,000

**Transport**
- 111,000 179,000 125,000 125,000 50,000 590,000

**Equipment**
- 140,000 210,000 150,000 140,000 65,000 705,000
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<td>Staff</td>
<td>15,000</td>
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<td>46,000</td>
<td>55,000</td>
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<td>Maintenance</td>
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<td>37,000</td>
<td>53,000</td>
<td>68,000</td>
<td>74,000</td>
<td>247,000</td>
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<tr>
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<td>5,000</td>
<td>4,000</td>
<td>4,000</td>
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<td>20,000</td>
<td>20,000</td>
<td>25,000</td>
<td>20,000</td>
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<td>TOTAL</td>
<td>326,000</td>
<td>534,000</td>
<td>443,000</td>
<td>462,000</td>
<td>308,000</td>
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</tr>
</tbody>
</table>
A. Background

1. The purpose of this component is to assist the Government of Indonesia in its efforts to develop and strengthen its programs and activities in the field of population education for both the in-school and out-of-school sectors of the population.

2. There is increasing recognition that due to high birth rates, reduced death rates, and increasing urbanization, the planning and implementation of economic and social developments will falter if Indonesia fails to take urgent steps to solve the problem of rapid population growth. The national family planning program, as well as efforts to increase transmigration and slow urbanization, require widespread public support. Population education is an educational program designed to develop in each learner an understanding, attitude, and behavior responsive to the effect that population growth has on the quality of life involving its social, economic, political, and cultural aspects in the family, community, national, and world environments.

3. By Decree No. 84 dated October 18, 1969, the President of the Republic of Indonesia established the Office of Educational Development (BPP) within the Ministry of Education and Culture. The office, headed by a chairman, consists of a planning secretariat and six institutes dealing respectively with curriculum development, personnel development, instructional materials development, educational facilities development, educational research and evaluation, and educational libraries development.

4. In October-November 1970, the BPP organized a national seminar to orient Indonesian teachers and educators about the various problems involved in population planning and growth, and how this basic knowledge could best be transferred in their daily work to further its dissemination nationwide.

5. World Education, Inc., a private foundation in New York with interests in the field of functional literacy and family life planning, has recently signed an agreement with the Government to provide a one-year grant of U.S.$10,000 to establish a pilot communications service center for family life education for out-of-school youth and adults. The center will be administered by the BPP.

B. The Project

6. The project aims at:

   a. developing public understanding of the necessity for an appropriate balance between population and available resources;

   b. creating widespread knowledge and understanding of the relationships between population and the quality of the physical and social environment;
c. educating people to understand the direct relationships between family size and the socio-economic well-being of the family and society; and

d. motivating people to adopt their attitudes and reproductive behavior so as to create an appropriate balance between available resources and family and social responsibilities.

It will create the conditions necessary to achieve these objectives by:

a. training a "critical mass" of highly skilled and knowledgeable population education personnel at central and provincial levels;

b. developing and producing instructional materials prototypes in population education, including teachers' guides, basic reference materials, collections of readings, instructional tapes, films, film strips, models, diagrams, and literacy materials;

c. developing research and evaluation on population education related specifically to identifying the most effective methods and media for motivating and changing the attitudes of various population groups toward family planning; and

d. disseminating population education information and materials among teachers, students, and the non-school adult population in the 15-45 years age group.

7. To this end, the project will provide for:

a. one adviser in population education for 5 years, and 70 man-months for short-term consultation in media development, teachers' training, curricula development, and materials development;

b. 480 man-months of fellowships to develop expertise in communications, the development of instructional materials, teachers' training in population education and related subjects;

c. assistance for seminars and workshops and in-service training programs;

d. equipment including audiovisual and office equipment and a reference library of essential texts relating to population education;

e. two cars to allow staff mobility;

f. production and distribution of instructional materials for both the in-school and out-of-school development of population education;

g. subcontracts with Indonesian and non-Indonesian research and teaching institutions to develop their interests and capabilities in carrying out population education and studies, and to establish research in developing a methodological framework to be used both for research and instructional methodology in population education.
8. The population education project will be administered by the Ministry of Education as a special government project. A coordinating committee for population education programs will be appointed by the NFPCB and the Ministry of Education and Culture to ensure that all plans and programs are fully coordinated, both vertically and horizontally, within the larger context of population and family planning. The chairman of this committee will be a staff member of the NFPCB.

Implementation

9. The project will be carried out by the Office of Educational Development (BPP) in its initial research, planning, and developmental phases, and by the directorates and provincial education authorities in its implementation phases. It is essential for this population education project to be fully integrated with the structure, organization, and strategy of the BPP. This will ensure that population education programs are coordinated with, and supported by, the overall national plans for educational development which include school and out-of-school education, and which will be increasingly synchronized and coordinated with the programs of public and private agencies and institutions which are not directly implemented by the Ministry of Education. Integration within the BPP will, in addition, provide the project with material resources as well as the expert assistance of government personnel involved in overall educational planning.

10. The Government will use the services of UNESCO, or an agency of similar competence as approved by the Association, to provide an adviser in population education, assistance with a fellowship program, and such other advice or help as the Government might require. The function of the adviser would be to assist the Director of the BPP in the development of population education as an essential component both of in-school and out-of-school education. His responsibilities would include guidance on:

a. the development of an operational plan within the functional and financial framework of the joint IERD-UNFPA project;

b. the development of effective relationships in project implementation between the NFPCB, Ministry of Education and other Indonesian and non-Indonesian agencies;

c. the development of effective relationships with other project components, such as family planning communications and parexmedic training;

d. the establishment of seminars, workshops and in-service training programs, designed to produce a highly trained corps of expertise in the teaching of population education for both in-school and out-of-school groups;

e. the establishment of a fellowship program to produce experts in the development of suitable media and methods for the teaching of population education;

f. the preparation of curriculum content and syllabus material, reading and reference lists, tape recordings and related instructional aids for both in-school and out-of-school education;
g. the inclusion of population education components into basic teacher education curricula, as well as those of technical, vocational and agricultural institutions; and

h. the methods required to introduce population education into approaches to out-of-school education.

The adviser should have an advanced degree in education, considerable experience of curriculum development in formal and non-formal education methods, as well as experience in the development of population education or related programs.

Development

11. A series of five seminars on population education will be held in 1972-73 in various parts of the country, utilizing some of the educators already trained (in the 1970 seminar) as instructors. Approximately 40 persons will participate in each seminar so that by mid-1973, there will be a total of 240 educators with specialized training in various aspects of population education and family planning. These persons will, in turn, prepare teaching aids, assist in curriculum revision, prepare textbook materials, and teach population education in schools as well as out-of-school settings.

12. Not all these persons will be completely qualified after a month of training, and many will be unable to work full-time in population education activities. Continuous efforts are, therefore, required to provide sufficient training to build what is considered a "critical mass" of 200 key personnel at the central and provincial levels of government who can effectively carry out a nationwide program of population education.

13. The project will be developed as follows:

   a. 1972-73

      i. Continued emphasis on training of key personnel through seminars and workshops.

      ii. Overseas training of high level personnel both in year-long programs and in special 3-month courses.

      iii. Organization and planning of a system for research, planning, and developmental activities in population education.

      iv. Preparation and production of basic reference materials, guide books, collections of readings, and reading materials in the field of population education, including ecology, demography, economics, health education, etc.

      v. Identification of research needs in the field of population education and preparation of research proposals and designs.
b. 1973-74

i. Continuation of training and upgrading of key personnel in Indonesia and abroad.

ii. Development of regional training seminars in six key priority districts where family planning programs are being emphasized.

iii. Follow-up pilot implementation projects in each of the districts so as to determine problems and prospects for large-scale program implementation.

iv. Preparation of plans and programs for population education programs in Indonesian second 5-year plan (1974-79).

c. 1974-75

i. Finalization of plans and strategies for project implementation during the second 5-year development plan.

ii. Revision of instructional materials based upon experience and research from six pilot projects at district level.

iii. Preparation for large-scale publication of instructional materials.

iv. Expansion of program implementation into the provinces, concentrating upon critical priority areas of Java and Bali.

v. Implementation of large-scale publication and distribution of instructional materials to key provinces.

vi. Expansion of teacher training programs in key areas.

vii. Implementation of research into the effects of population education program upon the nationwide family planning program.

d. 1975-76 - 1976-77

i. Continuation of program implementation.

ii. Continuation of specialized overseas training for key personnel, especially from the provinces.

iii. Completion of large-scale governmental assistance to publication and distribution of instructional materials.

iv. Expansion of use of mass media for population education, based upon result of pilot studies and pending availability of educational broadcasting network.
Costs

14. The costs of the population education component are estimated as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory Services</td>
<td>55,000</td>
<td>60,000</td>
<td>65,000</td>
<td>70,000</td>
<td>75,000</td>
<td>325,000</td>
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<tr>
<td>Fellowships</td>
<td>30,000</td>
<td>80,000</td>
<td>80,000</td>
<td>40,000</td>
<td>10,000</td>
<td>240,000</td>
</tr>
<tr>
<td>Seminars, Workshops and In-Service Training</td>
<td>22,000</td>
<td>15,000</td>
<td>8,000</td>
<td>10,000</td>
<td>5,000</td>
<td>60,000</td>
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<tr>
<td>Equipment</td>
<td>16,000</td>
<td>30,000</td>
<td>27,000</td>
<td>6,000</td>
<td>6,000</td>
<td>85,000</td>
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<tr>
<td>Production of Instruction Materials</td>
<td>5,000</td>
<td>30,000</td>
<td>25,000</td>
<td>25,000</td>
<td>15,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Subcontracts</td>
<td>45,000</td>
<td>40,000</td>
<td>30,000</td>
<td>25,000</td>
<td>23,000</td>
<td>163,000</td>
</tr>
<tr>
<td>Transport</td>
<td>4,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>177,000</td>
<td>255,000</td>
<td>235,000</td>
<td>176,000</td>
<td>134,000</td>
<td>977,000</td>
</tr>
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</table>
Table 1
SUMMARY OF PROJECT COSTS
(U.S.$ - In thousands)

<table>
<thead>
<tr>
<th>Item</th>
<th>Civil Works</th>
<th>Equipment &amp; Technical Assistance</th>
<th>Operating Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Construction</td>
<td>Professional Fees</td>
<td>Research/ Advisory Fellowships</td>
</tr>
<tr>
<td></td>
<td>Fees</td>
<td></td>
<td>Services</td>
</tr>
<tr>
<td>Paramedical Education</td>
<td>3,312.5</td>
<td>310.0</td>
<td>282.0</td>
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<tr>
<td>MCH/FP Centers</td>
<td>3,058.2</td>
<td>425.1</td>
<td>282.6</td>
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<tr>
<td>Family Planning Training</td>
<td>1,768.0</td>
<td>238.9</td>
<td>118.9</td>
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<tr>
<td>Nonmedical Field Workers</td>
<td>-</td>
<td>-</td>
<td>745.0</td>
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<tr>
<td>Evaluation and Research</td>
<td>269.2</td>
<td>6.5</td>
<td>3.8</td>
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<tr>
<td>Family Planning Centers</td>
<td>661.1</td>
<td>99.5</td>
<td>47.3</td>
</tr>
<tr>
<td>Other Transport Requirements</td>
<td>-</td>
<td>-</td>
<td>973.0</td>
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<tr>
<td>Hospital Postpartum Program</td>
<td>-</td>
<td>-</td>
<td>28.4</td>
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<tr>
<td>Information and Communications</td>
<td>-</td>
<td>-</td>
<td>589.5</td>
</tr>
<tr>
<td>Population Education</td>
<td>-</td>
<td>-</td>
<td>4.0</td>
</tr>
<tr>
<td>Advisory Team</td>
<td>-</td>
<td>-</td>
<td>6.0</td>
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<tr>
<td>Project Implementation</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>9,069.0</td>
<td>1,080.0</td>
<td>734.6</td>
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</table>

Contingencies

TOTAL PROJECT COSTS

32,956.3

Table 2
SUMMARY OF PROJECT COSTS BY CATEGORY

<table>
<thead>
<tr>
<th>Item</th>
<th>Rp (In thousands)</th>
<th>U.S.$ (In thousands)</th>
<th>Percentage of Foreign Exchange</th>
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<tbody>
<tr>
<td>Civil Works:</td>
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<tr>
<td>Construction</td>
<td>2,258,181</td>
<td>3,763,635</td>
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<tr>
<td>Furniture and Equipment</td>
<td>89,640</td>
<td>448,200</td>
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<tr>
<td>Professional Fees</td>
<td>274,357</td>
<td>304,859</td>
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<tr>
<td>Vehicles</td>
<td>217,626</td>
<td>1,088,171</td>
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<tr>
<td>Technical Assistance:</td>
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<tr>
<td>Advisory Services</td>
<td>227,212</td>
<td>493,850</td>
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<tr>
<td>Fellowships</td>
<td>105,285</td>
<td>300,875</td>
<td>65</td>
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<tr>
<td>Research/Survey Funds</td>
<td>680,890</td>
<td>756,545</td>
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<tr>
<td>Equipment</td>
<td>51,087</td>
<td>510,824</td>
<td>90</td>
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<tr>
<td>Operating Costs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>2,614,998</td>
<td>6,301.2</td>
<td>-</td>
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<tr>
<td>Maintenance</td>
<td>457,372</td>
<td>508,168</td>
<td>10</td>
</tr>
<tr>
<td>Contingencies</td>
<td>1,683,046</td>
<td>2,471,740</td>
<td>40</td>
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<tr>
<td>TOTAL</td>
<td>8,459,692</td>
<td>13,676,865</td>
<td>32,956.3</td>
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</table>
SUMMARY OF CIVIL WORKS COST ESTIMATES

A. CLINICS 2/

1. MCH/FP Type A: Bali-34

<table>
<thead>
<tr>
<th>Items</th>
<th>Rp</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>Site preparation</td>
<td>358,560</td>
<td>239,040</td>
</tr>
<tr>
<td>Construction</td>
<td>1,792,385</td>
<td>1,194,370</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>145,665</td>
<td>16,185</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>107,485</td>
<td>429,940</td>
</tr>
<tr>
<td>Fees for furniture and equipment 4/</td>
<td>242,080</td>
<td>2,490</td>
</tr>
<tr>
<td>Subtotal</td>
<td>2,428,580</td>
<td>1,882,025</td>
</tr>
<tr>
<td>Total for 34 clinics:</td>
<td>82,571,720</td>
<td>63,988,850</td>
</tr>
</tbody>
</table>

2. MCH/FP Type A1: Central Djakarta - 9

<table>
<thead>
<tr>
<th>Items</th>
<th>Rp</th>
<th>U.S.$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>Site preparation</td>
<td>1,638,420</td>
<td>1,092,280</td>
</tr>
<tr>
<td>Construction</td>
<td>8,201,645</td>
<td>5,467,210</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>617,935</td>
<td>68,475</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>541,990</td>
<td>2,167,545</td>
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<tr>
<td>Fees for furniture and equipment 4/</td>
<td>122,010</td>
<td>13,280</td>
</tr>
<tr>
<td>Subtotal</td>
<td>11,122,000</td>
<td>8,808,790</td>
</tr>
<tr>
<td>Total for 9 clinics:</td>
<td>100,098,000</td>
<td>79,279,110</td>
</tr>
</tbody>
</table>

3. MCH/FP Type A2: Rural Djakarta - 8

<table>
<thead>
<tr>
<th>Items</th>
<th>Rp</th>
<th>U.S.$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>Site preparation</td>
<td>1,180,260</td>
<td>786,840</td>
</tr>
<tr>
<td>Construction</td>
<td>7,082,805</td>
<td>4,718,550</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>552,780</td>
<td>61,420</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>353,995</td>
<td>1,415,980</td>
</tr>
<tr>
<td>Fees for furniture and equipment 4/</td>
<td>79,680</td>
<td>8,715</td>
</tr>
<tr>
<td>Subtotal</td>
<td>9,259,520</td>
<td>6,991,505</td>
</tr>
<tr>
<td>Total for 8 clinics:</td>
<td>73,996,160</td>
<td>55,932,040</td>
</tr>
</tbody>
</table>

4. MCH/FP Type A2: Surabaja - 11

<table>
<thead>
<tr>
<th>Items</th>
<th>Rp</th>
<th>U.S.$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>Site preparation</td>
<td>1,180,260</td>
<td>786,840</td>
</tr>
<tr>
<td>Construction</td>
<td>7,082,805</td>
<td>4,718,550</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>552,780</td>
<td>61,420</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>353,995</td>
<td>1,415,980</td>
</tr>
<tr>
<td>Fees for furniture and equipment 4/</td>
<td>79,680</td>
<td>8,715</td>
</tr>
<tr>
<td>Subtotal</td>
<td>9,259,520</td>
<td>6,991,505</td>
</tr>
<tr>
<td>Total for 11 clinics:</td>
<td>101,744,720</td>
<td>76,906,555</td>
</tr>
</tbody>
</table>

1/ These estimates have been rounded in the summary in Section V of the Report.

2/ See Annex 33 (I) for type details.

3/ Eight percent of the total construction cost (5% for repetitive work) includes supervision and printing costs and expenses. Site surveys, building permit taxes, and transportation are not included.

4/ Ten percent is included for design, selection, bidding, scheduling, supervising, and testing, etc., with 5% allowed for repetitive work.
### 5. MOH/FP Type A3: Rural East Java - 16

<table>
<thead>
<tr>
<th>Items</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>Site preparation</td>
<td>687,240</td>
<td>1,145,400</td>
</tr>
<tr>
<td>Construction</td>
<td>3,435,785</td>
<td>5,725,755</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>279,710</td>
<td>279,710</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>206,255</td>
<td>1,030,445</td>
</tr>
<tr>
<td>Fees for furniture and</td>
<td>656</td>
<td>1,104</td>
</tr>
<tr>
<td>equipment $^4/$</td>
<td>46,480</td>
<td>95,460</td>
</tr>
<tr>
<td>Subtotal</td>
<td>4,655,470</td>
<td>8,263,480</td>
</tr>
<tr>
<td>Total for 16 clinics:</td>
<td>74,487,520</td>
<td>57,728,160</td>
</tr>
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</table>

### 6. MOH/FP Type A4: Rural East Java - 15

<table>
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<th>Items</th>
<th>Rp</th>
<th>U.S.$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>Site preparation</td>
<td>622,500</td>
<td>1,037,500</td>
</tr>
<tr>
<td>Construction</td>
<td>2,863,500</td>
<td>4,772,500</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>212,775</td>
<td>269,750</td>
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<tr>
<td>Furniture and equipment</td>
<td>186,750</td>
<td>933,750</td>
</tr>
<tr>
<td>Fees for furniture and</td>
<td>41,085</td>
<td>45,650</td>
</tr>
<tr>
<td>equipment $^4/$</td>
<td>4,565</td>
<td>9,110</td>
</tr>
<tr>
<td>Subtotal</td>
<td>3,996,610</td>
<td>7,059,150</td>
</tr>
<tr>
<td>Total for 15 clinics:</td>
<td>59,349,150</td>
<td>105,887,250</td>
</tr>
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</table>

### 7. MOH/FP Type B: Rural East Java - 18

<table>
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<tr>
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<th>U.S.$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>Site preparation</td>
<td>249,000</td>
<td>415,000</td>
</tr>
<tr>
<td>Construction</td>
<td>1,515,165</td>
<td>2,525,275</td>
</tr>
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<td>Professional fees 3/</td>
<td>117,860</td>
<td>130,725</td>
</tr>
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<td>Furniture and equipment</td>
<td>75,945</td>
<td>378,480</td>
</tr>
<tr>
<td>Fees for furniture and</td>
<td>17,015</td>
<td>18,675</td>
</tr>
<tr>
<td>equipment $^4/$</td>
<td>1,660</td>
<td>18,675</td>
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<tr>
<td>Subtotal</td>
<td>1,974,985</td>
<td>3,468,155</td>
</tr>
<tr>
<td>Total for 184 clinics:</td>
<td>363,397,240</td>
<td>662,032</td>
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### B. NFPCB FACILITIES

#### 1. NFPCB Headquarters Building - Djakarta

<table>
<thead>
<tr>
<th>Items</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Site preparation and services</td>
<td>10,487,880</td>
<td>17,479,800</td>
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<tr>
<td>Construction</td>
<td>52,439,400</td>
<td>87,399,000</td>
</tr>
<tr>
<td>Professional fees 2/</td>
<td>8,781,400</td>
<td>9,757,665</td>
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<tr>
<td>Furniture and equipment</td>
<td>2,950</td>
<td>14,753,250</td>
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<tr>
<td>Fees for furniture and</td>
<td>1,328,000</td>
<td>3,200</td>
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<tr>
<td>equipment $^4/$</td>
<td>147,325</td>
<td>3,555</td>
</tr>
<tr>
<td>Total</td>
<td>75,987,330</td>
<td>132,233</td>
</tr>
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#### 2. NFPCB Provincial Offices - Surabaja

<table>
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<tr>
<th>Items</th>
<th>Rp</th>
<th>U.S.$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site preparation and services</td>
<td>3,652,415</td>
<td>6,087,635</td>
</tr>
<tr>
<td>Construction</td>
<td>13,294,940</td>
<td>22,158,510</td>
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<td>Professional Fees 2/</td>
<td>1,245,000</td>
<td>2,075,000</td>
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<tr>
<td>Furniture and equipment</td>
<td>2,639,400</td>
<td>4,399,000</td>
</tr>
<tr>
<td>Fees for furniture and</td>
<td>263,940</td>
<td>439,900</td>
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<tr>
<td>equipment $^4/$</td>
<td>175,960</td>
<td>636</td>
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3. NFPCB Provincial Offices - Semarang, Djogjakarta, Djakarta, Denpasar and Bandung

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<th>Total</th>
<th>Local</th>
<th>Foreign</th>
<th>Total</th>
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<td>Site preparation and services</td>
<td>3,652,415</td>
<td>2,435,220</td>
<td>6,087,635</td>
<td>8,801</td>
<td>5,868</td>
<td>14,669</td>
</tr>
<tr>
<td>Construction</td>
<td>13,294,910</td>
<td>8,653,570</td>
<td>22,158,480</td>
<td>8,801</td>
<td>4,240</td>
<td>13,041</td>
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<td>Professional Fees</td>
<td>622,500</td>
<td>1,037,500</td>
<td>1,660,000</td>
<td>6,360</td>
<td>4,240</td>
<td>10,600</td>
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<tr>
<td>Furniture and equipment</td>
<td>639,400</td>
<td>1,759,600</td>
<td>2,409,000</td>
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<td>4,240</td>
<td>10,600</td>
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<tr>
<td>Fees for furniture and equipment</td>
<td>82,170</td>
<td>345,780</td>
<td>427,950</td>
<td>198</td>
<td>132</td>
<td>330</td>
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<tr>
<td>Total</td>
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<td>33,819,595</td>
<td>54,131,019</td>
<td>32,593</td>
<td>61,493</td>
<td>94,086</td>
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C. AnM and NMW Schools

1. Blitar - 240 ANM Students

<table>
<thead>
<tr>
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<th>Total</th>
<th>Local</th>
<th>Foreign</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site preparation and services</td>
<td>24,236,000</td>
<td>16,156,780</td>
<td>40,392,780</td>
<td>58,400</td>
<td>38,932</td>
<td>97,332</td>
</tr>
<tr>
<td>Construction</td>
<td>108,730,415</td>
<td>72,486,805</td>
<td>181,217,220</td>
<td>174,667</td>
<td>436,668</td>
<td>611,335</td>
</tr>
<tr>
<td>Professional fees</td>
<td>18,532,240</td>
<td>20,591,055</td>
<td>49,123,295</td>
<td>4,961</td>
<td>49,617</td>
<td>54,578</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>3,379,760</td>
<td>16,897,970</td>
<td>20,277,730</td>
<td>32,574</td>
<td>40,718</td>
<td>73,292</td>
</tr>
<tr>
<td>Fees for furniture and equipment</td>
<td>608,390</td>
<td>1,689,465</td>
<td>2,297,855</td>
<td>3,664</td>
<td>407</td>
<td>4,071</td>
</tr>
<tr>
<td>Total</td>
<td>156,398,975</td>
<td>260,788,490</td>
<td>421,187,465</td>
<td>251,541</td>
<td>628,406</td>
<td>880,947</td>
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</table>

2. Surabaja - 240 NMW Students

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<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site preparation and services</td>
<td>24,236,000</td>
<td>16,156,780</td>
<td>40,392,780</td>
<td>58,400</td>
<td>38,932</td>
<td>97,332</td>
</tr>
<tr>
<td>Construction</td>
<td>108,730,415</td>
<td>72,486,805</td>
<td>181,217,220</td>
<td>174,667</td>
<td>436,668</td>
<td>611,335</td>
</tr>
<tr>
<td>Professional fees</td>
<td>18,532,240</td>
<td>20,591,055</td>
<td>49,123,295</td>
<td>4,961</td>
<td>49,617</td>
<td>54,578</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>3,379,760</td>
<td>16,897,970</td>
<td>20,277,730</td>
<td>32,574</td>
<td>40,718</td>
<td>73,292</td>
</tr>
<tr>
<td>Fees for furniture and equipment</td>
<td>608,390</td>
<td>1,689,465</td>
<td>2,297,855</td>
<td>3,664</td>
<td>407</td>
<td>4,071</td>
</tr>
<tr>
<td>Total</td>
<td>156,398,975</td>
<td>260,788,490</td>
<td>421,187,465</td>
<td>251,541</td>
<td>628,406</td>
<td>880,947</td>
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3. Malang - 240 ANM Students

<table>
<thead>
<tr>
<th>Item</th>
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<th>Total</th>
<th>Local</th>
<th>Foreign</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site preparation and services</td>
<td>24,236,000</td>
<td>16,156,780</td>
<td>40,392,780</td>
<td>58,400</td>
<td>38,932</td>
<td>97,332</td>
</tr>
<tr>
<td>Construction</td>
<td>108,730,415</td>
<td>72,486,805</td>
<td>181,217,220</td>
<td>174,667</td>
<td>436,668</td>
<td>611,335</td>
</tr>
<tr>
<td>Professional fees</td>
<td>11,582,235</td>
<td>12,869,150</td>
<td>24,451,385</td>
<td>23,010</td>
<td>31,010</td>
<td>54,020</td>
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<tr>
<td>Furniture and equipment</td>
<td>3,379,760</td>
<td>16,897,970</td>
<td>20,277,730</td>
<td>32,574</td>
<td>40,718</td>
<td>73,292</td>
</tr>
<tr>
<td>Fees for furniture and equipment</td>
<td>608,390</td>
<td>1,689,465</td>
<td>2,297,855</td>
<td>3,664</td>
<td>407</td>
<td>4,071</td>
</tr>
<tr>
<td>Total</td>
<td>148,536,800</td>
<td>252,052,740</td>
<td>398,589,540</td>
<td>219,436</td>
<td>607,356</td>
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4. Tuban - 115 ANM Students

<table>
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<tr>
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<th>Local</th>
<th>Foreign</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Site preparation and services</td>
<td>11,787,660</td>
<td>7,857,610</td>
<td>19,645,270</td>
<td>28,404</td>
<td>18,934</td>
<td>47,338</td>
</tr>
<tr>
<td>Construction</td>
<td>58,998,475</td>
<td>98,330,515</td>
<td>157,329,030</td>
<td>94,776</td>
<td>236,341</td>
<td>331,117</td>
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<tr>
<td>Professional fees</td>
<td>9,878,660</td>
<td>10,975,920</td>
<td>20,854,580</td>
<td>26,484</td>
<td>26,484</td>
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<tr>
<td>Furniture and equipment</td>
<td>437,295</td>
<td>12,186,060</td>
<td>12,623,355</td>
<td>25,034</td>
<td>29,364</td>
<td>54,398</td>
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<tr>
<td>Fees for furniture and equipment</td>
<td>1,096,845</td>
<td>2,613</td>
<td>3,710</td>
<td>293</td>
<td>2,936</td>
<td>5,666</td>
</tr>
<tr>
<td>Total</td>
<td>84,198,935</td>
<td>140,138</td>
<td>224,337</td>
<td>140,138</td>
<td>343,027</td>
<td>486,165</td>
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</table>
### Magetan - 115 ANM Students

<table>
<thead>
<tr>
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<th>Foreign</th>
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<th>U.S.$</th>
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<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Local</td>
<td>Foreign</td>
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<tr>
<td>5. Site preparation</td>
<td>11,787,245</td>
<td>7,858,025</td>
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<tr>
<td>Construction</td>
<td>58,998,475</td>
<td>39,332,040</td>
<td>98,330,515</td>
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<tr>
<td>Professional fees 2/</td>
<td>6,173,955</td>
<td>685,995</td>
<td>6,859,950</td>
<td>14,877</td>
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<tr>
<td>Furniture and equipment</td>
<td>4,377,295</td>
<td>9,748,765</td>
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<td>5,873</td>
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<td>Fees for furniture and equipment 4/</td>
<td>438,655</td>
<td>48,555</td>
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<tr>
<td>Total</td>
<td>79,835,625</td>
<td>57,673,380</td>
<td>137,509,005</td>
<td>192,375</td>
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</table>

### Denpasar - 70 ANM Students

<table>
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<tr>
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<th>Total</th>
<th>U.S.$</th>
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</thead>
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<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>6. Two additional schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at Sawber Waras and Husada similar to Magetan</td>
<td>159,571,250</td>
<td>115,346,760</td>
<td>275,018,010</td>
<td>384,750</td>
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</table>

### Two additional RSU facilities at Rangkasbitung and Kebumen similar to Denpasar

<table>
<thead>
<tr>
<th>Item</th>
<th>Rp</th>
<th>Foreign</th>
<th>Total</th>
<th>U.S.$</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>8. Two additional RSU facilities at</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rangkasbitung and Kebumen similar to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denpasar</td>
<td>113,411,200</td>
<td>78,729,650</td>
<td>192,140,850</td>
<td>273,280</td>
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</table>

### PROVINCIAL TRAINING CENTERS

#### 1. Jakarta

<table>
<thead>
<tr>
<th>Item</th>
<th>Rp</th>
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<th>Total</th>
<th>U.S.$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Local</td>
<td>Foreign</td>
</tr>
<tr>
<td>1. Djakarta</td>
<td>6,199,270</td>
<td>4,132,570</td>
<td>10,331,840</td>
<td>14,938</td>
</tr>
<tr>
<td>Site preparation</td>
<td>30,997,180</td>
<td>20,661,510</td>
<td>51,658,690</td>
<td>74,692</td>
</tr>
<tr>
<td>Construction</td>
<td>5,019,840</td>
<td>557,345</td>
<td>5,577,185</td>
<td>12,096</td>
</tr>
<tr>
<td>Professional fees 2/</td>
<td>1,779,105</td>
<td>6,783,175</td>
<td>8,562,280</td>
<td>4,287</td>
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<tr>
<td>Furniture and equipment</td>
<td>770,655</td>
<td>85,490</td>
<td>856,145</td>
<td>1,857</td>
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<tr>
<td>Fees for furniture and equipment 4/</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44,766,050</td>
<td>32,223,090</td>
<td>76,989,140</td>
<td>107,870</td>
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</table>
### 2. Surabaja

<table>
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<tr>
<th>Items</th>
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<th>Rp Total</th>
<th>U.S.$ Local</th>
<th>U.S.$ Foreign</th>
<th>U.S.$ Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site preparation</td>
<td>6,199,270</td>
<td>4,132,570</td>
<td>10,331,840</td>
<td>14,938</td>
<td>9,958</td>
<td>24,893</td>
</tr>
<tr>
<td>Construction</td>
<td>30,997,180</td>
<td>20,664,510</td>
<td>51,661,690</td>
<td>74,692</td>
<td>49,794</td>
<td>124,486</td>
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<td>Professional fees 3/</td>
<td>3,137,400</td>
<td>348,185</td>
<td>3,485,585</td>
<td>7,560</td>
<td>839</td>
<td>8,399</td>
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<tr>
<td>Furniture and equipment</td>
<td>8,419,705</td>
<td>8,562,280</td>
<td>17,002,020</td>
<td>16,505</td>
<td>20,632</td>
<td></td>
</tr>
<tr>
<td>Fees for furniture and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>equipment 4/</td>
<td>308,345</td>
<td>34,030</td>
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<td>825</td>
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<td>74,381,770</td>
<td>102,060</td>
<td>77,178</td>
<td>179,238</td>
</tr>
</tbody>
</table>

### 3. Four additional PTCs

at Semarang, West Java, Djogjakarta, and Denpasar

169,419,600 128,115,680 297,535,080 408,240 308,712 716,952

### E. SUBTRAINING CENTERS

#### 1. Djember

<table>
<thead>
<tr>
<th>Items</th>
<th>Rp Local</th>
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<th>Rp Total</th>
<th>U.S.$ Local</th>
<th>U.S.$ Foreign</th>
<th>U.S.$ Total</th>
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</thead>
<tbody>
<tr>
<td>Site preparation</td>
<td>3,617,555</td>
<td>2,411,565</td>
<td>6,029,120</td>
<td>8,717</td>
<td>5,811</td>
<td>14,528</td>
</tr>
<tr>
<td>Construction</td>
<td>16,088,190</td>
<td>12,058,240</td>
<td>30,146,430</td>
<td>43,586</td>
<td>29,056</td>
<td>72,642</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>2,929,070</td>
<td>325,360</td>
<td>3,254,430</td>
<td>7,058</td>
<td>784</td>
<td>7,842</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>955,745</td>
<td>3,821,735</td>
<td>4,777,480</td>
<td>2,303</td>
<td>9,209</td>
<td>11,512</td>
</tr>
<tr>
<td>Fees for furniture and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>equipment 4/</td>
<td>429,940</td>
<td>47,725</td>
<td>477,665</td>
<td>1,036</td>
<td>115</td>
<td>1,151</td>
</tr>
<tr>
<td>Total</td>
<td>26,020,500</td>
<td>18,664,625</td>
<td>44,685,125</td>
<td>62,700</td>
<td>44,975</td>
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#### 2. Malang

<table>
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<th>Rp Total</th>
<th>U.S.$ Local</th>
<th>U.S.$ Foreign</th>
<th>U.S.$ Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site preparation</td>
<td>3,617,555</td>
<td>2,411,565</td>
<td>6,029,120</td>
<td>8,717</td>
<td>5,811</td>
<td>14,528</td>
</tr>
<tr>
<td>Construction</td>
<td>18,088,190</td>
<td>12,058,240</td>
<td>30,146,430</td>
<td>43,586</td>
<td>29,056</td>
<td>72,642</td>
</tr>
<tr>
<td>Professional fees 3/</td>
<td>1,830,565</td>
<td>203,350</td>
<td>2,033,915</td>
<td>4,411</td>
<td>490</td>
<td>4,901</td>
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<tr>
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<td>3,821,735</td>
<td>4,777,480</td>
<td>2,303</td>
<td>9,209</td>
<td>11,512</td>
</tr>
<tr>
<td>Fees for furniture and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>equipment 4/</td>
<td>171,810</td>
<td>19,020</td>
<td>190,830</td>
<td>414</td>
<td>46</td>
<td>460</td>
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<td>24,663,865</td>
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<td>43,177,845</td>
<td>59,431</td>
<td>44,612</td>
<td>104,043</td>
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</tbody>
</table>

#### 3. Eight additional STCs

at Madiun, Blitar, Temanggung, Banjumas, Sukabumi, Bogor, Tjirebong and Ambawawa

197,310,920 148,111,840 345,422,760 475,448 356,896 832,344
SCHEDULE OF ACCOMMODATION

I. PROVINCIAL TRAINING CENTERS

a. Location:
   - Djakarta West Java
   - Surabaja Denpasar
   - Semarang Djogjakarta

b. For:
   - 25 Male and 25 Female students, a supervisor and staff.

   c. Space:
      - Hostel Accommodation 500
      - Common (Library, multi-purpose hall, kitchen, storage) 350
      - Administration 25
      - Teaching and Conference 385
      - Staff Accommodation 236
      - TOTAL 1,496

II. SUBTRAINING CENTERS

a. Location:
   - Djember Bangumas
   - Malang Sukabumi Bogor
   - Blitar Bandung
   - Temanggung

b. For:
   - 10 Male and 20 Female students, a supervisor and staff.

   c. Space:
      - Hostel Accommodation 100
      - Common (Library, multi-purpose hall, kitchen, storage) 190
      - Administration 15
      - Teaching and Conference 240
      - Staff Accommodation 192
      - TOTAL 737

III. ANM SCHOOLS1/

a. Location:
   - Tuban Sumber Waras
   - Magetan Husada (Djakarta)

b. For:
   - 115 Female students, a supervisor and staff of 10.

   c. Space:
      - Hostel Accommodation (Double bunks, sick bay, toilets, common room) 828

1/ Each school to graduate 50 students annually.
III. ANM SCHOOLS (Cont'd.)

<table>
<thead>
<tr>
<th>Description</th>
<th>M²</th>
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</thead>
<tbody>
<tr>
<td>Common (Library, multi-purpose hall, kitchen, storage)</td>
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</tr>
<tr>
<td>Administration</td>
<td>57.5</td>
</tr>
<tr>
<td>Teaching and Conference</td>
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</tr>
<tr>
<td>Staff Accommodation</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>3,917.5</td>
</tr>
</tbody>
</table>

IV. ANM SCHOOLS¹/

a. **Location:** Blitar and Malang

b. **For:** 240 Female students, a supervisor and staff of 20.

c. **Space:**

<table>
<thead>
<tr>
<th>Description</th>
<th>M²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostel Accommodation (Double bunks, sick bay, toilets, common room)</td>
<td>1,680</td>
</tr>
<tr>
<td>Common (Library, multi-purpose room, kitchen, storage)</td>
<td>624</td>
</tr>
<tr>
<td>Administration</td>
<td>120</td>
</tr>
<tr>
<td>Teaching and Conference</td>
<td>2,928</td>
</tr>
<tr>
<td>Staff Accommodation</td>
<td>940</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>6,292</td>
</tr>
</tbody>
</table>

V. ANM SCHOOLS²/

a. **Location:** Denpasar, Rangkasbitung, and Kebumen

b. **For:** 70 Female students, a supervisor and staff of 6.

c. **Space:**

<table>
<thead>
<tr>
<th>Description</th>
<th>M²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostel Accommodation (Double bunks, sick bay, toilets, common room)</td>
<td>539</td>
</tr>
<tr>
<td>Common (Library, multi-purpose room, kitchen, storage)</td>
<td>420</td>
</tr>
<tr>
<td>Administration</td>
<td>60</td>
</tr>
<tr>
<td>Teaching and Conference</td>
<td>854</td>
</tr>
<tr>
<td>Staff Accommodation</td>
<td>324</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,197</td>
</tr>
</tbody>
</table>

¹/ Each school to graduate 100 students annually.
²/ Each school to graduate 30 students annually.
VI. NURSE-MIDWIFE SCHOOL

<table>
<thead>
<tr>
<th>Location</th>
<th>For</th>
<th>Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surabaja</td>
<td>240 Female students</td>
<td>Hostel Accommodation (Double bunks, sick bay, toilets, common room) 1,680</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Common (Library, multi-purpose room, kitchen, storage) 624</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Administration 120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teaching and Conference 2,928</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL 5,352</td>
</tr>
</tbody>
</table>

VII. NPPCB PROVINCIAL OFFICES

<table>
<thead>
<tr>
<th>Location</th>
<th>For</th>
<th>Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surabaja and Djogjakarta</td>
<td>40 Personnel</td>
<td>Administration and Meeting Room 155</td>
</tr>
<tr>
<td></td>
<td></td>
<td>General Office 90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conference 32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Six Bureaus 216</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Store and Warehouse 150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Circulation, Toilets 218</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL 861</td>
</tr>
</tbody>
</table>

VIII. NPPCB HEADQUARTERS

<table>
<thead>
<tr>
<th>Location</th>
<th>For</th>
<th>Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Djakarta</td>
<td></td>
<td>Administration 75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>General Office 360</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Six Bureaus 675</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Common: Library 60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lecture 120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reception 60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Committee 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Canteen 240</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Circulation, Toilets 288</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Store and Warehouses 300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL 2,208</td>
</tr>
</tbody>
</table>

1/ To graduate 50 students annually.
### IX. MCH/FP CLINICS

<table>
<thead>
<tr>
<th>Type</th>
<th>Type A Clinic (District) - 34 Bali</th>
</tr>
</thead>
<tbody>
<tr>
<td>For</td>
<td>1 Doctor, 1 supervisory midwife, 1 nurse-midwife, and 1 ANM.</td>
</tr>
<tr>
<td>Space</td>
<td>Doctor's Office (1) Consulting Room (1) Examination Rooms (2) Storage, Kitchen Circulation, Toilets Waiting Area (Verandah)</td>
</tr>
<tr>
<td>Total Built Area</td>
<td>127 M²</td>
</tr>
</tbody>
</table>

### X. MCH/FP CLINICS

<table>
<thead>
<tr>
<th>Type</th>
<th>Type A.1 Clinic - Type A + 20 Maternity Bed Ward - 9 Central Djakarta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>4/4 Bed Rooms 2/2 Bed Rooms Nursing Labor and Delivery Rooms SS Store Kitchen, Laundry Toilets Circulation and Storage</td>
</tr>
<tr>
<td>Total Built Area</td>
<td>127 M² + 390</td>
</tr>
</tbody>
</table>

### XI. MCH/FP CLINICS

<table>
<thead>
<tr>
<th>Type</th>
<th>Type A.2 Clinic - Type A + 10 Maternity Bed Ward - 8 Rural Djakarta, 11 Surabaja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>2/4 Bed Rooms 2/1 Bed Rooms Labor and Delivery Rooms SS Store Kitchen, Laundry Toilets Circulation and Storage</td>
</tr>
<tr>
<td>Total Built Area</td>
<td>127 M² + 251</td>
</tr>
</tbody>
</table>

### XII. MCH/FP CLINICS

<table>
<thead>
<tr>
<th>Type</th>
<th>Type A.3 Clinic - Type A + Accommodation for field staff and dormitory for 4 ANM trainees. - 16 Rural East Java</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>4-Bed Dormitory 2/3-Person Offices Toilets, Storage, Circulation</td>
</tr>
<tr>
<td>Total Built Area</td>
<td>127 M² + 100</td>
</tr>
</tbody>
</table>

**Note:** The total built area calculations are rounded to the nearest whole number.
XIII. MCH/FP CLINICS

a. **Type**: Type A Clinic - Type A + Accommodation for field staff.
   - 15 Rural East Java

b. **Space**:
   - 2/3-Person Offices
   - Toilets, Storage,
   - Circulation

Total Built Area
- 127 M²
- + 100 M²
- 227 M²

XIX. MCH/FP CLINICS

a. **Type**: Type B Clinic (Sub-District) - 199 Rural East Java
   - 38 Demonstration Field Postpartum Program.

b. **Space**:
   - Combined Consulting and Examination Room
   - Office
   - Waiting Area (Verandah)
   - Storage, Toilets,
   - Circulation
   - Bed Sitting Room

Total Built Area
- 95 M²
PROJECT IMPLEMENTATION UNIT

1. This annex describes the structure and functions of the Project Implementation Unit (PIU) which will be attached to the NFPCB.

2. The unit will be directed by the Deputy Chairman (Program Management) of the NFPCB. He will be assisted by a Project Implementation Committee (PIC) comprising representatives of the NFPCB and the Ministries of Health, Information, Finance and Interior, as well as representatives of the international agencies and private foreign foundations involved in the implementation of the project. Its functions will be to provide inter-ministry coordination, to resolve implementation problems proving intractable by the construction and technical assistance coordinators, and to provide effective liaison with non-Indonesian agencies assisting in project implementation.

3. In addition to providing administrative, accounting, and clerical services, the PIU will comprise two technical sections responsible respectively for the implementation of the civil works and program (nonconstruction) components of the project (the structure of the PIU is shown diagrammatically in Appendix A).

   a. The civil works section will be in the charge of a Construction Coordinator, who will be provided with the technical personnel and facilities necessary to ensure its efficient functioning. The functions of this section are detailed in Appendix B, and the Construction Coordinator would be responsible, inter alia, for the technical aspects of the civil works component of the project and for liaison with the agencies concerned in its execution. The latter would include the Hospital Design Workshop of the School of Architecture of the Institute of Technology, Bandung, led by the Deputy Head of the School, who would be referred to as the Appointed Architect. The Appointed Architect, whose functions are shown in Appendix C, would be responsible, inter alia, for proper environmental and constructional standards, as well as general supervision of the implementation and the execution of the project's construction component. Such components would be packaged for tendering according to recommendations agreed upon between the Construction Coordinator and the Appointed Architect. The detailed supervision of the construction sub-components would be the responsibility of the Ministry of Works and its provincial directorates.

   b. The program section of the PIU will be headed by a Program Input Coordinator, who will be responsible for the coordination of procurement arrangements for the program inputs of the project, including transport and equipment, and materials not connected with civil works. His functions are shown in Appendix D. He would also be responsible for the coordination of technical assistance arrangements, the administration of fellowships and study tours, both inside and outside Indonesia, in cooperation with the appropriate agency responsible for technical direction, and for the disbursements of the nonconstruction components of the project.
c. The two sections would have a joint staff comprising an accountant, procurement officer, three surveyors, three draftsmen, five clerical staff, and drivers.

4. A team of management consultants will be retained to advise and support the Director of the PIU on all matters concerning the management and realization of the project. An outline of the functions the consultants would be expected to perform is in Appendix E of this annex.

5. Provision is made under this component for the following costs:

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Technical Assistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fellowships</td>
<td>12,000</td>
<td>12,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>24,000</td>
</tr>
<tr>
<td>Management Consultants</td>
<td>150,000</td>
<td>125,000</td>
<td>100,000</td>
<td>63,000</td>
<td>-</td>
<td>438,000</td>
</tr>
<tr>
<td>Operating Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>8,000</td>
<td>8,000</td>
<td>8,000</td>
<td>8,000</td>
<td>9,000</td>
<td>41,000</td>
</tr>
<tr>
<td>Maintenance</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Equipment</td>
<td>8,000</td>
<td>2,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>183,000</td>
<td>152,000</td>
<td>113,000</td>
<td>76,000</td>
<td>14,000</td>
<td>538,000</td>
</tr>
</tbody>
</table>

1/ Provision for the consulting firm is made under the head of professional fees in the civil works estimates.

2/ Includes provision for 1 Deputy Chairman (Program Management), 2 executive assistants, construction coordinator, program input coordinator, accountant, procurement officer, 3 surveyors, 3 draftsmen, and 5 clerical staff.
CIVIL WORKS SECTION OF THE PIU

1. The Civil Works Section of the Project Implementation Unit will be in the charge of the Construction Coordinator, and will be provided with the technical personnel and facilities necessary to insure the efficient functioning of the section.

2. The Construction Coordinator will work under the general direction of the PIU Director, and will maintain close cooperation with the relevant units of the Government (Health, Family Planning, Works, Town Planning). With their assistance, the Construction Coordinator will act as technical and planning coordinator to the PIU, and make arrangements for briefing the Appointed Architect and ensuring that the project is carried out in accordance with that brief. The Construction Coordinator will assist the Appointed Architect in obtaining whatever background data are required and in producing user requirements schedules, outline and final schemes and estimates.

3. The Civil Works Section will be responsible for the following matters:

   Administrative

   a. preparation of a comprehensive implementation chart showing the planned timetable of coordinated activities and responsibilities, on the basis of which all aspects of the civil works will be carried out, and which will be prepared as the first step in implementing the project; and the planned timetable shall not be put into effect without the Bank being first given reasonable opportunity to comment on it;

   b. jointly with the Appointed Architect, for all matters concerning the establishment of standards, user requirements, equipment lists, space schedules and the preparation of schematic and final designs for construction components and their cost estimates;

   c. agreeing with the Appointed Architect and the appropriate agencies of the Borrower for the production of tender documents; contract documents and supervision of the execution of the works;

   d. arrangements for the review and approval by appropriate authorities of architectural and engineering reports, plans, specifications, and other submitted material.

4. It will ensure continuity in the project by the following:

   a. arranging for the assembly of all information relating to site and site conditions of the project institutions;

   b. maintaining liaison with the Ministry of Health, as well as the other user agencies involved in the project, representatives of the ultimate building users and obtaining background data with regard to detail environmental requirements;
c. reviewing architectural drawings in detail to ensure that space provisions and specifications have been interpreted so as to minimize changes and alterations both during final design phase and construction, and to ensure the satisfactory interpretation of user requirements into proposals;

d. liaising between the Appointed Architect and the user agency in all matters of adaptation and implementation of materials and detailing which may require the production of rapid alternative detail designs;

e. preparing tendering and bidding procedures, and obtaining and checking the lists of equipment and furniture for the project buildings, advise on packaging and grouping of bid components;

f. advising on and observing the adjudication procedure performed by the Appointed Architect and making final recommendations on the award of contracts to the Deputy Chairman (Program Management) of NFPCB;

g. taking all steps required to ensure that furniture and equipment are designed and installed according to specifications, as well as insuring timely procurement for use according to schedule;

h. processing and expediting all the Appointed Architect's certificates for payment of contractors submitted from the local firms, and forwarding to the accountant of the project unit when advised for payment, and to observe and implement the Association's procurement procedure;

i. evaluating progress, receiving the Appointed Architect's weekly progress reports and submitting a monthly progress report to the PIU Director (Deputy Chairman (Program Management) of the NFPCB).
A. Schematic and Master Planning

1. Preliminary investigation and the preparation of studies of the project with recommendations and economic and financial justification for the physical requirements, to enable the NFPCB to agree with the appointed Architect on the general outline and form in which the civil works component of the project is to proceed, ensuring that it is feasible functionally, technically, and financially; including in particular:

2. Taking the instructions of the NFPCB regarding: 1/
   a. Types of unit and functions.
   b. Numbers of staff and users (male/female).
   c. Target performance data of each facility.
   d. Methods, sizes of units and kinds of spaces and volumes required.
   e. Preliminary lists of furniture and equipment required.
   f. Requirements for users' living and recreational facilities and policies to be followed.
   g. Requirements for staff and students' housing and policy to be followed.
   h. Supervision, administration, and organization.
   i. Policy for future expansion.
   j. Cost limits.
   k. Location of the sites, dates for legal possession and any limitations or special provisions of the FPCB's legal title.

3. Consulting with and advising the NFPCB and the Construction Coordinator, investigating the Board's requirements and preparing analyses, schedules and other data to enable the Board to agree on general planning policy for the project, including: 2/

1/ The data which the NFPCB undertakes to furnish as instructions to the Architect and the times by which it shall be made available shall be stated in their Agreement.

2/ The times at which the NFPCB and the Construction Coordinator undertake to be available for consultations and the time by which the general planning policy shall be decided shall be stated in the Agreement with the Architect.
a. Outlines of each facility when fully expanded with the main phases of proposed development and target dates.

b. General policy as to: quality versus quantity; capital costs versus maintenance costs; compactness versus spread; fixity versus flexibility; designed life of buildings.

c. Other major issues affecting the over-all planning of the project.

4. Consulting with the Construction Coordinator and advising the NFPCB, investigating the Board's requirements and preparing analyses, schedules and other data to enable the Board to agree, inter alia: 1/

   a. Economic room-loading and fixed medical equipment loading analyses based on the functions, sizes of units, methods, spaces and volumes required.
   
   b. Economic space standards.
   
   c. Schedules of areas of accommodation to be provided and their proposed uses.

5. Visiting all sites and investigating local conditions as they affect the project, including:

   a. Local building traditions.
   
   b. Available standard designs, criteria, etc.
   
   c. Estimating and cost data.
   
   d. Building contracts and procedures for selecting contractors.
   
   e. Materials, goods and equipment available locally and procurement procedures.
   
   f. Local contractors and labor.
   
   g. Town planning, building or other pertinent legislation, regulations codes of practice, etc.
   
   h. Reporting to the Construction Coordinator and the NFPCB on the above.

6. Briefing the relevant section of the Ministry of Works to obtain the site surveys, including: 2/

1/ The times at which the NFPCB and the Construction Coordinator undertake to be available and the times by which data shall be submitted to the NFPCB for approval shall be stated in the Agreement with the Appointed Architect.

2/ The surveys and investigations which the Ministry of Works shall prepare and the times by which they shall be completed shall be stated in the Agreement with the Architect.
a. Topographic survey with site boundaries, existing buildings, utility services, appropriate contours and principal surface vegetation.

b. Climatic survey with available data on rainfall, winds, temperature, humidity, weather conditions and seismic forces.

c. Preliminary assessment of the sub-soil characteristics.

d. Receiving and scrutinizing the surveys and reporting to the Construction Coordinator and the NFPCB.

7. Investigating sound and proved technical codes of practice applicable to the project and to local conditions and establishing basic design criteria as they effect:

   a. Daylight, sunlight and ventilation and orientation.
   b. Weather protection.
   c. Sound insulation.
   d. Precautions against fire.
   e. Structural loading.
   f. Acoustics.
   g. Engineering and utility services.
   h. Heating and thermal insulation.
   i. Durability and maintenance of both fabric and equipment.
   j. Precautions against vermin and dirt.
   k. Precautions to withstand natural hazards (earthquakes, hurricanes, etc.).

8. Planning the overall site layouts of each project building and preparing a comparative analysis of the merits and costs of alternatives investigated, to enable the NFPCB and its Construction Coordinator to approve a plan which offers the maximum value while fulfilling the following prime conditions:

   a. Units or departments shall be grouped whenever practicable to share common facilities, allow for accreted growth and encourage the maximum communication among the constituent parts of the institution.

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1/ The time by which the Appointed Architect undertakes to submit the recommended overall site layout plan with a comparative analysis of the alternatives investigated for the NFPCB's approval, shall be stated in the Agreement.
b. The grouped buildings shall be sited to take full advantage of the local climate and topography and, by prudent landscaping, improve the ambience and micro-climate of the site.

9. Consulting with the NFPCB and the Construction Coordinator about the implementation of the project and advising and agreeing on:

a. The breakdown of the project into the most practical and economical "bid packages" for procurement. 1/

b. The phasing of the "bid packages" in order of priority.

c. Documents required to be prepared and procedures to be followed for procuring construction (labor, materials and plant), medical equipment (fixed and loose), books and furniture "bid packages"; including advance ordering as necessary. 2/

d. Procedures to be followed for cost estimating and cost control.

e. Staff required to implement procurement procedures and to provide constant on-site supervision of the project.

10. Preparing and agreeing with the NFPCB on an operational plan and timetable for the most efficient way to design, prepare procurement documents, implement procurement procedures, construct and supervise the project.

11. Preparing a Master Plan Report in a suitable form for submitting to the NFPCB and the Association for approval, including:

a. Introduction: The functions and purposes of the proposed facilities and summary of the steps leading to the preparation of the Master Plan.

b. Planning Policy: Statement of general over-all planning policies with a summary of the factors considered and justification for decisions reached.

c. Standards: Summary of proposed economic space standards and other basic design criteria related to safety, comfort, health, engineering and utility services, local climate, topography and social habits.

1/ By "bid package" is meant all the drawings and/or documents needed to procure competitively a group of units of construction, or items of equipment or furniture, at one time and by means of a single contract.

2/ Any special conditions for procurement shall be stated in the Agreement.

3/ The form and content of the Master Plan Report and drawings which the appointed Architect undertakes to prepare and the number of copies to be furnished to the NFPCB and any other agency of the Government of Indonesia by the time specified, shall be stated in the Agreement.
d. Room-loading: Economic room-loading and fixed medical equipment-loading analyses with conclusions and recommendations.

e. Schedules of Accommodation: Schedules of net and gross areas of accommodation required and their proposed uses.

f. Planning Analysis: Summary of the steps leading to the selection of the overall site layout plans including references to surveys, NFPCB's instructions, decisions and approvals, critical planning factors, comparative analysis of the costs and merits of the principal alternatives investigated and justification for the plan chosen.

g. Specification Notes: Summary of available local resources of labor and materials with preliminary appraisal of appropriate specifications which offer the most economic balance between availability, capital costs, maintenance and running costs, with justifications for the selections made.

h. Site Development Services: Schedule of site development services sufficient for estimating purposes with the basic design criteria, methods used for computing the requirements and justification for the proposals.

i. Medical Equipment: Provisional lists of medical equipment and estimated costs.

j. Furniture: Provisional lists of loose furniture required and estimated cost.

k. Capital Cost: Consisting of estimated
   
   i. Site development services and external site works generally;

   ii. Buildings and internal services;

   iii. Medical equipment - groups 1 and 2;

   iv. Furniture;

   v. Contingencies;

   vi. Professional services;

   vii. Foreign exchange component of items (i) and (vi) above.

l. Recurrent Cost: Consisting of the estimated running and maintenance costs of the buildings, services, equipment and site.

m. Unit Costs: Consisting of the unit costs used for estimating.
n. Implementation:
   i. Proposed "bid packages" and procurement procedures;
   ii. Operation plan and timetable for the preparation of Sketch Schemes, Final Designs, preparation of "bid packages", procurement, construction and supervision of the project;
   iii. Quarterly forecast expenditures during the design and construction of the project.

o. Drawings:
   i. Location maps showing position of the site in relation to the user catchment area, population densities, existing transport facilities and available utility services;
   ii. Explanatory diagrams or drawings to illustrate the "Planning Analysis" section of the report;
   iii. Site layout plans showing contours, existing buildings, orientation, latitude, altitude, prevailing winds; also showing proposals for siting new buildings, site development services, roads, car parking, recreation areas, landscaping, site perimeter security and external site works generally;
   iv. Site topographic contour survey to same scale as site layout plan;
   v. Perspective or photographs of models when considered to be necessary to convey the overall layout.

p. Annexes:
   i. Site climatic survey including sun-path diagram, comfort zone analysis charts and weather characteristics;
   ii. Assessment of the general nature of the subsurface conditions (subject to more detailed investigation);
   iii. Further data as required to supplement the text of the report.

B. Sketch Scheme

12. The preparation of preliminary calculations, drawings, estimates, outline specifications, schedules and other architectural and engineering documents necessary with economic and financial justification for the design to enable the proposals in the Master Plan for the construction of the works to be submitted for the NFPCB and the Association to approve the basic design, costs and program; including as may be necessary in the particular case:
13. Revisions (if any) to the Master Plan.

14. Making arrangements for the Ministry of Works to prepare surveys, including: 1/
   a. Sub-soil investigation to determine the nature of the sub-soil, safe earth-bearing pressures and water characteristics of the site.
   b. Surveys of existing buildings with plans, sections, elevations and report on their structural condition, and general state of weather protection and maintenance.
   c. Other special investigations required.

15. Consulting with and advising the NFPCB and the Construction Coordinator, investigating the NFPCB’s requirements and preparing analyses, schedules and other data to enable the Board to decide, inter alia: 2/
   a. Space priorities in terms of need and completion dates.
   b. Requirements for individual internal spaces:
      i. Finishes
      ii. Engineering and utility services
      iii. Fittings
      iv. Equipment (building, medical, educational)
      v. Furniture
      vi. Acoustics
      vii. Sound insulation
   c. Circulation requirements
   d. Internal and external security and its supervision and control.

16. Consulting with and advising the NFPCB and its representatives, investigating the NFPCB’s requirements and preparing analyses, schedules and other data to enable the Board to agree, inter alia: 3/

1/ The surveys and investigations which the Ministry will prepare and the times by which they shall be completed shall be stated in the Agreement.

2/ The times at which the NFPCB undertakes to be available for consultations and the times by which decisions shall be made shall be stated in the Agreement.

3/ The times at which the NFPCB undertakes to be available and the times by which data shall be submitted to the Board for approval shall be stated in the Agreement.
a. Principles of orientation to be followed.
b. Thermal insulation, sun-screening, ventilation, etc.
c. Means of escape and precautions against fire.
d. Building materials and techniques.
e. Internal and external engineering and utility services.
f. Roads and car parking.
g. Site works, recreating areas and landscaping.
h. Other special features of the buildings.

17. Designing the buildings and other features and preparing comparative analyses of the merits and costs of alternatives investigated, to enable the NFPCB to approve designs which offer the maximum value while fulfilling the following prime conditions:

a. The basic design criteria and requirements shall take full advantage of local climatic and sub-soil conditions to define the minimum essentials required to permit sound practices to be followed while at all times safeguarding the occupants from possible ill effects on health, safety or general well-being.

b. The materials and building techniques shall make the best use of resources to meet the design criteria and requirements in a manner which offers the most economic balance between capital costs, maintenance and operating costs.

18. Preparing a Sketch Scheme Report in a suitable form for submitting to the NFPCB for approval, including:

a. Introduction: References to the Master Plan and to the "bid packages" to which the sketch scheme refers.

b. Site Development Services: Summary of the developments in the design of the site development services since the Master Plan was approved, with justifications.

c. Design Analysis: Summary of the steps leading to the choice of designs described in the Sketch Scheme, including references to surveys, Client's decisions and approvals, critical design factors, comparative analyses of the principal alternative solutions investigated and justification for the solution finally chosen.

1/ The form and content of the Sketch Scheme Report which the Architect undertakes to prepare and the number of copies to be furnished to the NFPCB shall be stated in the Agreement.
d. Schedules of Accommodation: Detailed schedules of gross and net areas of accommodation provided and their proposed uses, including all the requirements for each individual internal space, also recreation areas and vehicle parking.

e. Outline Specification: Outline specification of the proposed basic designs with final appraisal and justification for selections made. (This outline specification shall not be subject to modification after the Sketch Scheme has been finally approved, except for reasons of technical necessity.)

f. Provisional Schedules: Schedules of provisional design details, finishes, building and medical equipment, furniture, etc., mainly for estimating purposes, which may still be subject to modification in the final design.

g. Costs: Schedules of approximate quantities, basic rates, assumptions made and estimated margins of error.

h. Capital Costs: Estimates based on approximate quantities taken from the Sketch Scheme Report, to include:

i. Site development services and external site works generally;

ii. Buildings and internal services;

iii. Medical equipment - groups 1 and 2;

iv. Furniture;

v. Contingencies;

vi. Professional services;

vii. Foreign exchange component of items (i) to (vi) above.

i. Recurrent Cost: Consisting of the estimated annual running and maintenance costs of the buildings, services, equipment and site.

j. Unit Costs: Consisting of the estimated net and gross cost per user place and per unit of area or bed for each basic type of accommodation provided.

k. Program:

i. Operational plan and timetable for the final design, preparation of contracts, procurement, construction and supervision of this part of the project;

ii. Quarterly forecast expenditures during the design and construction of this part of the project.
1. Drawings:
   i. Up-to-date Master Plan site layout plans;
   ii. Explanatory diagrams or drawings to illustrate the "Design Analysis" section of the report;
   iii. Design drawings (plans, sections and elevations) for each building comprising this part of the project;
   iv. Perspectives or photographs of models when considered to be necessary to convey the design.

m. Annexes:
   i. Report on the sub-soil investigation;
   ii. Survey reports and drawings on existing buildings;
   iii. References to other special investigations or data required to supplement the text of the report.

C. Final Design

19. The preparation of calculations, drawings, estimates, draft specifications, draft schedules and other architectural and engineering documents necessary to enable the NFPCB to approve the final design and estimates of costs, which, once approved, shall not be changed except for reasons of technical necessity, including as may be necessary in the particular case:

20. Preparing architectural and engineering drawings, documents and estimates, and consulting with the Construction Coordinator, the NFPCB, and the Association to reach decisions and obtain approvals for:
   a. All design details not hitherto decided and agreed;
   b. Final schedules of fixed equipment and furniture;
   c. Final estimates of costs;
   d. Final breakdown into "bid packages" in order of priority with a timetable for their preparation, procurement, and implementation.

1/ The scale and type of design drawings shall be stated in the Agreement.
21. Preparing a Final Design Addendum to the Sketch Scheme Report in a suitable form for submitting to the NFPCB for approval, including:

   a. Final Schedules: To replace the Provisional Schedules;
   b. Final Specifications: Changes (if any) to the outline specifications;
   c. Final Costs: Revised estimates of capital costs and recurrent costs;
   d. Final Program:
      i. Revised operational plan and timetable for the preparation, procurement and implementation of the "bid packages";
      ii. Revised quarterly forecast expenditures.

D. Contract Preparation

22. The preparation of drawings and other documents will be part of the duties of the Appointed Architect, possibly supplemented by local firms, chosen and recommended to the NFPCB by the Construction Coordinator. In either case, the duties to be performed are to be by agreement, and consist of the following:

23. Preparing architectural and engineering calculations, working drawings, specifications, schedules, bills of quantities, conditions of tender, forms of contract and other necessary documents to describe the Works, medical equipment groups 1 and 2, and furniture adequately for "bid packages" to be tendered or otherwise ordered.

24. Pricing one set of bills of quantities for comparison with tender prices and advising the NFPCB as to any material changes in the design, specifications, schedules or estimates, from those approved in the Final Design.

25. Assisting the NFPCB to obtain all final statutory approvals.

26. Advising the NFPCB together with the Construction Coordinator as to the desirability for pre-qualification of bidders; agreeing on procedures to be followed; preparing pre-qualification documents for the NFPCB to approve; undertaking pre-qualification procedures on the Board’s behalf and in conjunction with the Construction Coordinator; analyzing the pre-qualification data submitted by potential bidders and recommending lists of selected contractors for approval.

27. Undertaking or initiating procurement of the Board’s behalf, for those "bid packages" which need to be ordered in advance, and those for which sub-contractors or suppliers should be nominated ahead of main contracts - subject to placing acceptance orders, provided always that no order or nomination is made without the NFPCB's authorization in writing.

1/ The form and content of the Final Design Addendum to the Sketch Scheme Report which the Architect undertakes to prepare and the number of copies to be furnished to the Client, shall be stated in the Agreement.
E. Tender

28. Conducting approved tendering procedures for selecting contractors and advising the NFPCB and the Construction Coordinator on placing contracts, including as may be necessary in the particular case:

29. Pre-selecting and inviting selected contractors to tender.

30. Analyzing and adjudicating the tenders received and advising the Board as to tenders, contractors, prices and estimates for the carrying out of the Works, provided that no tender shall be accepted or order placed by the Architect except on behalf of the NFPCB and with its authority in writing.

31. Preparing the contract documents for signature.

F. Contract Mobilization

32. The provision of the necessary additional information and instructions to enable the Contractor, the Ministry of Works, the Construction Coordinator and all others concerned to make proper preparations before starting work on the site, including as may be necessary in the particular case:

33. Supplying the Contractor with information and instructions, including:
   a. Sufficient copies of drawings, specifications, schedules, bills of quantities and other architectural and engineering documents to enable him properly to fulfill his obligations under the conditions of contract.
   b. Full information about: Advance orders placed, sub-contractors and suppliers nominated, and the supply and installation of fixed medical equipment and furniture.
   c. Instructions for placing acceptance orders.

34. Advising the Contractor as to the preparation of a construction schedule based on the Critical Path Method (CPM), taking into account the work of all sub-contractors and the promised or anticipated delivery dates for materials, plant, fixed medical equipment and furniture.

35. Holding formal mobilization meetings jointly with the Ministry of Works' representatives and the Construction Coordinator and distributing the Minutes within 48 hours of the termination of the meeting - with the Contractor and all those concerned in the performance of the contract, including all sub-contractors and major suppliers, to ensure that:
   a. The conditions of contract are understood and appreciated.
   b. The obligations of each towards the successful implementation of the construction schedule are feasible, understood and agreed.
   c. Adequate instructions and information have been received, including access to site, way-leaves and basic setting out data and references.
36. Authorizing site work to start when the NFPCB has stated in writing that work may proceed and the Architect considers that contract mobilization is sufficiently advanced.

G. Construction

37. The provision of constant on-site supervision during construction to ensure that the architectural and engineering works are executed strictly in accordance with the conditions of contract will be undertaken by the Ministry of Works through its Regional Directorates in close liaison with the Architect and the Construction Coordinator.

38. The Ministry of Works' delegated inspectors will ensure that Contractors have all the information needed for the proper execution of the Works, including:
   a. Preparing and supplying further copies of the Appointed Architect's drawings, specifications, schedules and other details.
   b. Issuing written site instructions, which will be submitted to the Architect for confirmation.
   c. Issuing variation orders on behalf of the Client for minor alterations as may be necessary or expedient. Substantial changes of an emergency nature will be referred to the Appointed Architect for joint action.
   d. Examining and approving Contractors' details.

39. The delegated site inspectors will provide constant on-site supervision to ensure that the conditions of the contract are strictly adhered to, including:
   a. Preparing weekly site reports on the day-to-day state of the Works, including progress of the Works, labor, materials, plant, the weather, hours lost, drawings and other information received, and visitors to the site.
   b. Holding formal site meetings at least once per month and distributing the Minutes within 1/8 hours of the termination of the meeting.
   c. Advising the Architect and the Construction Coordinator on the progress and quality of the Works and if the authorized expenditure is likely to be exceeded or the contract time likely to be varied.
   d. Inspecting and testing during manufacture such materials, machinery and plant as are usually inspected and tested by architects and consulting engineers.
   e. Supervising all architectural and engineering tests on site.
f. Checking Contractor's Day Work Sheets when such work has been authorized.

g. Inspecting and measuring work done, materials and plant on site, and preparing interim valuations for accounting and certificate purposes.

h. Taking prompt action to enforce the conditions of contracts and adherence to the agreed construction schedule.

i. At the time of certifying practical completion, preparing a schedule of all contract items still to be finished, inspected and approved, before final completion can be certified.

40. The delegated site inspectors will assist the Architect in the exercise of his discretionary powers vested in him by virtue of the contract, including:

a. Advising both the Architect and the Contractor as to the interpretation of the contract in relation to specific issues when in doubt.

b. Assisting the Architect in adjudicating disputes.

c. Assessing claims and advising the Architect.

d. Assessing the quality of workmanship.

e. Assessing whether materials and building methods conform to specifications.

f. Authorizing Day Work when considered to be essential.

g. Issuing certificates authorizing payment to Contractors, for authorizing by the Architect and honoring by the NFPCB.

h. Certifying the practical completion of all architectural and engineering work and enabling the Architect to officially hand over the Works, or portions of the Works, for the NFPCB to occupy.

H. Completion

41. The Ministry of Works, through its Regional Directorates, will ensure the continued provision of on-site supervision during the defects liability period, to ensure that defects in material and workmanship are put right after the buildings have settled down, and that details of design are adjusted when the occupants have settled in, including as may be necessary in the particular case:
42. Deciding technical issues and ensuring that contractors have all the information needed for the proper execution of the Works, including:
   
   a. Preparing a list and estimates of costs of minor design changes needed as a result of the experience of the occupants settling in during the defects liability period, to enable the NFPCB to approve and authorize a variation order for the work. 1/

43. Providing site supervision to ensure that the conditions of contract are strictly adhered to, including:
   
   a. Preparing site reports in accordance with G (39)(a) for the days that Contractors are actively engaged in performing contract architectural and engineering work on the site.
   
   b. Holding formal site meetings in accordance with G (39)(b) as frequently as the Architect considers to be necessary over and above a minimum of 2 meetings.
   
   c. To (h) in accordance with G (39)(c) to (h).

44. Assisting the Architect in the exercise of the discretionary powers invested in him by the contract, including:
   
   a. To (g) in accordance with G (40)(a) to (g).
   
   h. Preparing a list of all defects of execution in architectural and engineering materials to be corrected and adjusted after the defects liability period according to the conditions of contract.
   
   i. Recommending the issuance of the final completion certificate of all architectural and engineering work in the contract, to the Architect.
   
   j. Preparing and agreeing on the final account for certification by the Architect.

45. Preparing and providing the Architect with a complete set of as-built drawings to enable a schedule of routine maintenance to be prepared for instructing the NFPCB's staff in the proper care and maintenance of the completed Works.

1/ The probability that such minor design changes will prove to be necessary should be taken into account when estimating the contingency sum in the contract.
FUNCTIONS OF THE PROGRAM INPUT COORDINATOR

1. The Program Input Coordinator will be responsible to the Deputy Chairman (Program Management) of the NFPCB for the coordination of the implementation of all non-construction components of the project, in close collaboration with the relevant units of the Government (such as the Ministry of Health, Ministry of Information, Ministry of the Interior), and foreign agencies responsible for technical support as appropriate. His functions will include:

   a. coordination of the procurement of all non-construction materials and equipment, and procurement when not assigned to an agency;

   b. preparation of a comprehensive planned timetable of activities and responsibilities for implementing the non-construction components of the project, which will not be put into effect before the Association has been given reasonable opportunity to comment on it;

   c. preparation, with the assistance of the appropriate agencies, of the lists of materials, books, equipment and transport included in the non-construction components of the project, together with the specifications and the estimates of unit and total prices of each item;

   d. when appropriate, preparation of the bidding procedures, checking and finalizing lists of materials and equipment, and packaging and grouping bid components;

   e. advising the Deputy Chairman (Program Management) of the NFPCB on the prequalifications of contractors and recommending to him the form of the packaging of components and execution of contracts;

   f. advising the Deputy Chairman (Program Management) on the adjudication and award of contracts;

   g. expediting, checking, and processing all contractors' bills of payment submitted;

   h. supervising the accounts of the non-construction components of the project;

   i. preparation of withdrawal applications;

   j. in cooperation with the appropriate agency, making preparations for fellowships, study tours, and local arrangements for advisors and short-term consultants;

   k. maintaining close liaison with the appropriate units of Government in the development of training facilities provided by the project; and

   l. preparation of monthly reports to the Director of the PIU (Deputy Chairman (Program Management) of the NFPCB).
FUNCTIONS OF
PROJECT IMPLEMENTATION UNIT CONSULTANTS

1. The Contract with the Consulting Firm to provide advisory services to the Project Implementation Unit should include:

a. The terms and conditions of employment. The terms of reference should include a draft plan of operations, with time schedules and set-out remuneration and reimbursable expenses. As far as practicable, fees and expenses should be firm figures.

b. The Consultants would prepare a Procedures Guide reflecting the participation of the various central and regional government bodies, as well as other organizations in the overall project, outlining the project and its implementation, together with guidelines on financial control.

c. The Consultants would prepare a Design Guide in collaboration with the Institute of Technology at Bandung, with additional recommendations based on experience gained and new conditions foreseen. Where practicable, the Design Guide may be modified to give specific requirements and should give special regard to developing economies during the production of the project components.

d. Standard architectural engineering plans and specifications and standard bills of quantities should be prepared for all buildings in the project by the Appointed Architect, with the guidance and collaboration of the Consultants. The PIU will incorporate these standard documents in the design and supervision of the project's civil works.

e. The Consultants will advise on the examination, adjudication, and provision of comments and recommendations to the Government and the Association on draft contracts between the Government and firms of contractors and suppliers, and research institutions and organizations, as well as any executive architects or engineers whose services may be retained. Each contract should incorporate a plan of operation, time schedule, estimates of fees, and reimbursable expenses.

f. The Consultants' responsibilities would include: visiting and recommending approval of the project sites in liaison with the Appointed Architect and a representative of the government town planner; recommending any adjustments or modification to the schedule of accommodation due to local circumstances; assisting with furniture and equipment lists and estimates; establishing detailed cost plans for each project building; advising on the size of bid packages; and reviewing documents for bidding and contract.
g. The Consultants would assist in regular progress reporting to the Director of the PIU and the Association, and in the preparation and up-dating of PERT or CPM charts, and withdrawal certificates. They would also assist the Appointed Architect in the overall supervision of the project.

h. The Consultant would assist in the establishment of a project accounting system which would have the approval of the Association.
OUTLINE OF AGREEMENTS ON ASSISTANCE WITH IMPLEMENTATION BY OTHER AGENCIES

1. The role of other agencies is based on the premise that the project will be implemented by the Government of Indonesia with the assistance of the other institutions. The Association will have the responsibility for clearing the necessary arrangements and supervising project implementation.

2. During negotiations, the Government has given assurances that appropriate and effective arrangements satisfactory to the Association will be made with WHO, UNESCO, UNICEF, other United Nations bodies, the Population Council, or other sources of expertise acceptable to the Association for assistance in carrying out, respectively, the hospital postpartum program, the information and education activities, the vehicle and transportation components, the assistance to the Institutes of Demography and of Economic and Social Research, and the demonstration field postpartum program. In certain cases, these agencies are already assisting with the implementation of activities related to the family planning program, such as paramedical education and family planning communications. In such cases, the Government would extend the current involvement of these agencies in those activities.

3. More particularly, specific assistance would be required from:

   a. WHO to assist in the implementation of the hospital postpartum program. The Government may ask WHO to provide the services of one adviser for 2 years for the functions outlined in Annex 28 and such other support, in the specification of medical equipment, for example, as the Government may require.

   b. The UN Population Division, through the UN Office of Technical Cooperation, to assist in the implementation of those parts of the evaluation and research components of the project relating to the Institute of Demography in the University of Indonesia, and the Population Studies Center in the National Institute for Economic and Social Research. The Government may ask the UN to provide the services of four advisers for the functions outlined in section G of Annex 26, and to assist, as required, with the development of a fellowship program and adviser on the specifications and procurement of equipment.

   c. UNICEF to assist with the procurement of vehicles. The Government may ask UNICEF to provide the services of two advisers for 3 years for the functions outlined in Annex 27, and to assist with the specification and procurement of vehicles and equipment.
d. The Population Council to assist in the implementation of the demonstration field postpartum program. The Government may ask the Council to provide the services of two advisers for 3 years for the functions outlined in section F of Annex 26, and to provide for the analysis and evaluation of data and information derived from the demonstration.

e. UNESCO to assist in the implementation of the information and communications, and population education components of the project. The Government may ask UNESCO to assist the communications adviser of the Government of Indonesia in helping with the provision of short-term consultants, and the development of a fellowship program. It may also ask UNESCO to provide the services of one adviser for the functions outlined in Annex 30, as well as short-term consultants, assistance with developing a fellowship program, and with resource personnel and material, as required, for the seminar and training program.
### ANNEX 36

**SCHEDULE OF IMPLEMENTATION FOR CIVIL WORKS**

<table>
<thead>
<tr>
<th></th>
<th>Rp Thousands</th>
<th>UK$ Thousands</th>
<th>Pre-Credit Effectiveness</th>
<th>Credit Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Clinics</td>
<td>1,713,535</td>
<td>4,129</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>NFPCB Offices</td>
<td>329,925</td>
<td>795</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>Training Schools</td>
<td>1,586,960</td>
<td>3,824</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>PTCS</td>
<td>449,030</td>
<td>1,082</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>STCS</td>
<td>433,260</td>
<td>1,044</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>4,512,710</td>
<td>10,874</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Second Year**    |              |               | 1 | 2 |
| Clinics            |              |               |   |   |
| NFPCB Offices      |              |               |   |   |
| Training Schools   |              |               |   |   |
| PTCS               |              |               |   |   |
| STCS               |              |               |   |   |

| **Third Year**     | 1 | 2 | **Fourth Year** | 1 | 2 | **Fifth Year** | 1 | 2 |
| Clinics            | + | (+) |               |   |   |              | + | (+) |
| NFPCB Offices      | XXXXX | XXXXX | XXXXX | XXXXX | + | (+) |
| Training Schools   | XXXXX | XXXXX |   | (+) |
| PTCS               | + | (+) |               |   |   |              |   |   |
| STCS               | + | (+) |               |   |   |              |   |   |

**Legend:**

- **:** - Selection and appointment of architects and consultants
- **s** - Selection and appointment of specialist consultant
- **:** - Survey of sites, timetables, master plans
- **:** - Design (final)
- **:** - Tender
- **:** - Preparation of production information and bid packages
- **XXX** - Construction
- **XXX** - Installation
- + - End defects liability period for construction
- (+) - End defects liability period for furniture and equipment
## ESTIMATED DISBURSEMENT SCHEDULE

<table>
<thead>
<tr>
<th>IBRD Fiscal Year</th>
<th>Cumulative Disbursement At End of Quarter (U.S.$ - (In thousands))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LDA</td>
</tr>
<tr>
<td><strong>1972-73</strong></td>
<td></td>
</tr>
<tr>
<td>March 31, 1973</td>
<td>350</td>
</tr>
<tr>
<td>June 30, 1973</td>
<td>780</td>
</tr>
<tr>
<td><strong>1973-74</strong></td>
<td></td>
</tr>
<tr>
<td>September 30, 1973</td>
<td>1,440</td>
</tr>
<tr>
<td>December 31, 1973</td>
<td>2,180</td>
</tr>
<tr>
<td>March 31, 1974</td>
<td>3,220</td>
</tr>
<tr>
<td>June 30, 1974</td>
<td>4,250</td>
</tr>
<tr>
<td><strong>1974-75</strong></td>
<td></td>
</tr>
<tr>
<td>September 30, 1974</td>
<td>5,990</td>
</tr>
<tr>
<td>December 31, 1974</td>
<td>7,720</td>
</tr>
<tr>
<td>March 31, 1975</td>
<td>8,400</td>
</tr>
<tr>
<td>June 30, 1975</td>
<td>9,200</td>
</tr>
<tr>
<td><strong>1975-76</strong></td>
<td></td>
</tr>
<tr>
<td>September 30, 1975</td>
<td>10,010</td>
</tr>
<tr>
<td>December 31, 1975</td>
<td>10,820</td>
</tr>
<tr>
<td>March 31, 1976</td>
<td>11,160</td>
</tr>
<tr>
<td>June 30, 1976</td>
<td>11,520</td>
</tr>
<tr>
<td><strong>1976-77</strong></td>
<td></td>
</tr>
<tr>
<td>September 30, 1976</td>
<td>11,890</td>
</tr>
<tr>
<td>December 31, 1976</td>
<td>12,255</td>
</tr>
<tr>
<td>March 31, 1977</td>
<td>12,380</td>
</tr>
<tr>
<td>June 30, 1977</td>
<td>12,505</td>
</tr>
<tr>
<td><strong>1977-78</strong></td>
<td></td>
</tr>
<tr>
<td>September 30, 1977</td>
<td>12,645</td>
</tr>
<tr>
<td>December 31, 1977</td>
<td>12,785</td>
</tr>
<tr>
<td>March 31, 1978</td>
<td>12,935</td>
</tr>
<tr>
<td>June 30, 1978</td>
<td>13,185</td>
</tr>
</tbody>
</table>
1. The project's demographic impact is estimated by initially assuming a reasonable desired decline in fertility levels and then seeing what this implies in terms of numbers of acceptors and the resulting number of prevented births. Overestimates of the number of new acceptors, of their continuation rates, or of the number of births averted will of course exaggerate the estimated decline in fertility. However, once realistic and consistent values have been put on these parameters - based primarily on experience in other countries - it is possible to estimate the resulting crude birth rate and, by making assumptions about death rates and migration, to estimate the population growth rate. The overall results should not be taken as predictions of what will happen but as reasonable targets of what can happen with good project performance. In addition, the identification of specific values used for the different parameters will provide bases for comparison as future information is generated by the program's evaluation and research activities.

2. No attempt has been made to analyze in quantitative terms the relative contribution of different project components. Techniques of factorial analysis have not yet been applied to population programs in a way that provides an objective basis for allocating funds and energies among different program components. Thus while there has been an effort to "optimize" the composition of project elements the analysis of results is based on treating all inputs as an integrated package which collectively produce the project's results.

Target Decline in Fertility

3. About 182,000 new family planning acceptors were reported in FY1970, which exceeded the target set for that year. For FY1971, the number of acceptors is again expected to exceed this year's targets. But despite such encouraging returns, it seems unlikely that, with current family planning inputs as planned, it will be possible to achieve the target of 2.5 million acceptors set for FY1975 by the Government, the reasons being a) the inability of the present information and education system to reach 85% of the total population which is living in rural areas, b) inadequate physical facilities covering, on average, 18,000 women in reproductive ages per clinic, and c) a weak postpartum motivation program because of the low proportion of institutional deliveries and lack of trained staff. Until now, the impact of new acceptors on fertility has been negligible. Without the project inputs and the consequent improvement in program performance, it is estimated that the gross reproduction rate would decline from 3.2 at present to 2.6 in 1995-2000. With program improvements resulting from the project it is estimated that the GRR could be brought down to 1.7 by 1995-2000. This would represent over twice as large a decline in fertility over the next 28 years with the project inputs than without them. The gross reproduction rates over the period in the two cases are given below:
<table>
<thead>
<tr>
<th>Year</th>
<th>Without Project Inputs</th>
<th>With Project Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965-70</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>1970-75</td>
<td>3.2</td>
<td>3.1</td>
</tr>
<tr>
<td>1975-80</td>
<td>3.1</td>
<td>2.9</td>
</tr>
<tr>
<td>1980-85</td>
<td>3.0</td>
<td>2.6</td>
</tr>
<tr>
<td>1985-90</td>
<td>2.9</td>
<td>2.3</td>
</tr>
<tr>
<td>1990-95</td>
<td>2.8</td>
<td>1.9</td>
</tr>
<tr>
<td>1995-2000</td>
<td>2.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Difference: 65/70-95/00</td>
<td>0.6</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Required Number of Acceptors

4. The project's demographic impact will depend on two main effects, an increase in the number of acceptors and an improvement in the continuation rates of pill and IUD users. Achievement of the desired impact will also depend on the accuracy of the estimated number of births that are averted per woman-year of protection.

5. The assumed decline in fertility is checked against the possible number of new acceptors that the program would be capable of recruiting with, and without, the project inputs. The required number of acceptors is derived from the births that are to be averted to achieve the desired reduction in fertility. Births to be averted are taken to be the difference of the number of births with constant fertility and the number resulting from the assumed reduction in fertility. For constant fertility, the number of births is calculated from United Nations projections with constant fertility. New projections have been made for the assumed declines in fertility with, and without, the project inputs.

6. Given the target number of births to be averted, acceptors of family planning are estimated by calculating the women years of protection required for averting a particular number of births. Given the current general fertility rate of about 220, about 4.5 women years of protection are assumed to avert one birth (1000 / 220). The number of acceptors needed depends on both the continuation rates of various contraceptive devices and on the contraceptive mix. For Indonesia, there has been no reliable nation-wide survey of continuation rates. Continuation rates for the IUD and the pill have, therefore, been taken from other countries in the region. They are similar to those which underlie the estimates of acceptors made in the 1970 UN-WHO-IBRD Report on the Indonesian program. The continuation rates are expected to improve over a period of time -- after 1985 by 50% because of an expected improvement in overall program performance. The continuation rates assumed initially are as follows:

<table>
<thead>
<tr>
<th>Contraceptive</th>
<th>I U D</th>
<th>Pill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entering in first year</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Remaining at beginning of the second year</td>
<td>65</td>
<td>45</td>
</tr>
<tr>
<td>Beginning of the third year</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Beginning of the fourth year</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Beginning of the fifth year</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
7. The proportion of acceptors of contraceptive pills increased from less than 5% in 1967 to 50% in 1971. It is assumed that the acceptors of contraceptive pills will increase to 90% of all new acceptors in 2000. These assumptions are based on the supposition that there will be no major break-through in birth control technology by that date.

8. On the basis of the continuation rate assumptions, the number of women years of protection obtained for a cohort of 100 females during the 5 years was calculated. Applying these coefficients on the women years of protection, the number of acceptors required was estimated. They are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>With Project Inputs</th>
<th>Without Project Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Percentage</td>
</tr>
<tr>
<td></td>
<td>15-44 Years in of Females</td>
<td>15-44 Years in of Females</td>
</tr>
<tr>
<td>(In millions)</td>
<td>(In millions)</td>
<td>(In millions)</td>
</tr>
<tr>
<td>1975</td>
<td>1.6</td>
<td>18.9</td>
</tr>
<tr>
<td>1980</td>
<td>5.1</td>
<td>24.7</td>
</tr>
<tr>
<td>1985</td>
<td>8.4</td>
<td>25.1</td>
</tr>
<tr>
<td>1990</td>
<td>9.1</td>
<td>29.5</td>
</tr>
<tr>
<td>1995</td>
<td>13.4</td>
<td>34.1</td>
</tr>
<tr>
<td>2000</td>
<td>20.1</td>
<td>38.8</td>
</tr>
</tbody>
</table>

9. Since the Government program is now confined to Java and Bali - two-thirds of the population - the number of acceptors needed to reach the targeted decline in national fertility has been calculated from the eligible females in that area alone. Without the project the number of acceptors is expected to increase from less than 1% at present to more than 2% of women in the reproductive age groups in 1975. To achieve the desired reduction of fertility, the number of acceptors would have to increase to about 8% in 1975. By 2000, the number of acceptors would have to cover about 52% of the females in the reproductive age groups to achieve the targeted GRR of 1.7, if the program remains confined to Java and Bali. It is considered possible that such targets can be reached.

Population Size, Rate of Growth, and Birth Rate

10. Projections of population have been made for Indonesia as a whole on the basis of estimated declines in fertility with and without the project. In both cases, mortality assumptions are the same as an increase in the expectation of life at birth from 48 years at present to 62.9 years in 2000. Totals of projected population are given in the following table, while the age and sex distributions are given at the end.
### Program Improvement

<table>
<thead>
<tr>
<th>Year</th>
<th>Without Project Inputs (In millions)</th>
<th>With Project Inputs (In millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>141</td>
<td>140</td>
</tr>
<tr>
<td>1980</td>
<td>164</td>
<td>162</td>
</tr>
<tr>
<td>1985</td>
<td>192</td>
<td>183</td>
</tr>
<tr>
<td>1990</td>
<td>224</td>
<td>209</td>
</tr>
<tr>
<td>1995</td>
<td>262</td>
<td>234</td>
</tr>
<tr>
<td>2000</td>
<td>306</td>
<td>258</td>
</tr>
</tbody>
</table>

11. If the ambitious targets for 2000 are met the population would be smaller by 48 million, or 39% of the 1971 population, with the project than without it. In addition to the reduction in absolute size of the population, the rate of growth of population would be lower. The vital rates and rate of growth of population with and without the project are given in the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Without Project Inputs</th>
<th>With Project Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Crude Birth Rate</td>
<td>Natural Expectation</td>
</tr>
<tr>
<td></td>
<td>Rate</td>
<td>Rate at Birth</td>
</tr>
<tr>
<td>1970-75</td>
<td>47.5</td>
<td>30.0</td>
</tr>
<tr>
<td>1975-80</td>
<td>45.5</td>
<td>30.8</td>
</tr>
<tr>
<td>1980-85</td>
<td>43.2</td>
<td>30.7</td>
</tr>
<tr>
<td>1985-90</td>
<td>41.7</td>
<td>30.9</td>
</tr>
<tr>
<td>1990-95</td>
<td>40.2</td>
<td>31.1</td>
</tr>
<tr>
<td>1990-2000</td>
<td>38.7</td>
<td>31.0</td>
</tr>
</tbody>
</table>

12. The birth rate would be 27.4 in 2000 with the project inputs, and about 39 without them. The rate of growth of population would remain at 3% per annum, or decline slightly to 2.7% in 2000 without the project inputs. With project inputs the population growth rate would fall nearly 50%.
<table>
<thead>
<tr>
<th>Ages</th>
<th>Males</th>
<th>Females</th>
<th>Males</th>
<th>Females</th>
<th>Males</th>
<th>Females</th>
<th>Males</th>
<th>Females</th>
<th>Males</th>
<th>Females</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>13,415</td>
<td>12,861</td>
<td>15,359</td>
<td>14,689</td>
<td>17,446</td>
<td>16,645</td>
<td>20,110</td>
<td>19,117</td>
<td>23,113</td>
<td>21,934</td>
<td>26,406</td>
<td>25,655</td>
</tr>
<tr>
<td>5-9</td>
<td>10,716</td>
<td>10,411</td>
<td>12,805</td>
<td>12,255</td>
<td>14,791</td>
<td>14,121</td>
<td>16,922</td>
<td>16,143</td>
<td>19,659</td>
<td>18,682</td>
<td>22,742</td>
<td>21,573</td>
</tr>
<tr>
<td>10-14</td>
<td>8,614</td>
<td>8,214</td>
<td>10,553</td>
<td>10,236</td>
<td>12,641</td>
<td>12,087</td>
<td>14,635</td>
<td>13,963</td>
<td>16,779</td>
<td>16,002</td>
<td>19,529</td>
<td>18,559</td>
</tr>
<tr>
<td>15-19</td>
<td>7,277</td>
<td>7,176</td>
<td>8,280</td>
<td>8,070</td>
<td>10,408</td>
<td>10,089</td>
<td>12,496</td>
<td>11,943</td>
<td>14,496</td>
<td>13,832</td>
<td>16,651</td>
<td>15,885</td>
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<td>6,121</td>
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<td>7,008</td>
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<td>7,911</td>
<td>10,232</td>
<td>9,924</td>
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<td>11,787</td>
<td>14,330</td>
<td>13,689</td>
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<td>5,188</td>
<td>5,184</td>
<td>5,987</td>
<td>5,948</td>
<td>6,936</td>
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<td>7,753</td>
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<td>9,764</td>
<td>12,151</td>
<td>11,635</td>
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<td>4,366</td>
<td>5,023</td>
<td>5,018</td>
<td>5,825</td>
<td>5,785</td>
<td>6,778</td>
<td>6,684</td>
<td>7,800</td>
<td>7,609</td>
<td>9,908</td>
<td>9,618</td>
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<td>4,180</td>
<td>4,209</td>
<td>4,866</td>
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<td>5,634</td>
<td>6,629</td>
<td>6,539</td>
<td>7,661</td>
<td>7,474</td>
</tr>
<tr>
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<td>3,452</td>
<td>3,517</td>
<td>4,015</td>
<td>4,060</td>
<td>4,700</td>
<td>4,715</td>
<td>5,510</td>
<td>5,489</td>
<td>6,475</td>
<td>6,398</td>
</tr>
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<td>2,547</td>
<td>2,815</td>
<td>2,925</td>
<td>3,277</td>
<td>3,371</td>
<td>3,837</td>
<td>3,912</td>
<td>4,521</td>
<td>4,564</td>
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<td>5,338</td>
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<td>2,398</td>
<td>2,624</td>
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<td>3,631</td>
<td>3,745</td>
<td>4,307</td>
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<td>55-59</td>
<td>1,677</td>
<td>1,653</td>
<td>1,730</td>
<td>1,913</td>
<td>2,036</td>
<td>2,225</td>
<td>2,401</td>
<td>2,587</td>
<td>2,840</td>
<td>3,019</td>
<td>3,377</td>
<td>3,545</td>
</tr>
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<td>1,271</td>
<td>1,470</td>
<td>1,504</td>
<td>1,717</td>
<td>1,789</td>
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<td>2,131</td>
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<td>869</td>
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<td>1,250</td>
<td>1,263</td>
<td>1,476</td>
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</tr>
<tr>
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<td>596</td>
<td>535</td>
<td>703</td>
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<td>830</td>
<td>780</td>
<td>988</td>
<td>949</td>
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<td>1,159</td>
<td>1,424</td>
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<td>241</td>
<td>282</td>
<td>397</td>
<td>361</td>
<td>477</td>
<td>418</td>
<td>573</td>
<td>516</td>
<td>694</td>
<td>640</td>
<td>847</td>
</tr>
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<td>80+</td>
<td>73</td>
<td>116</td>
<td>58</td>
<td>87</td>
<td>100</td>
<td>146</td>
<td>122</td>
<td>177</td>
<td>152</td>
<td>215</td>
<td>190</td>
<td>264</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70-747</td>
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<td>82,552</td>
<td>42,476</td>
<td>96,602</td>
<td>95,183</td>
<td>113,156</td>
<td>110,810</td>
<td>132,600</td>
<td>129,173</td>
<td>155,201</td>
<td>150,523</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2

**Age and Sex Structure of Population (With Project Input)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
</tr>
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<td>12,488</td>
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<td>13,605</td>
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<td>14,402</td>
</tr>
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<td>10,716</td>
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<td>12,434</td>
<td>11,900</td>
<td>13,700</td>
<td>13,079</td>
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<td>8,414</td>
<td>8,214</td>
<td>10,553</td>
<td>10,238</td>
<td>12,275</td>
<td>11,736</td>
</tr>
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<td>8,280</td>
<td>8,070</td>
<td>10,408</td>
<td>10,089</td>
</tr>
<tr>
<td>20-24</td>
<td>6,162</td>
<td>6,121</td>
<td>7,109</td>
<td>7,008</td>
<td>8,114</td>
<td>7,911</td>
</tr>
<tr>
<td>25-29</td>
<td>5,198</td>
<td>5,184</td>
<td>5,987</td>
<td>5,948</td>
<td>6,936</td>
<td>6,840</td>
</tr>
<tr>
<td>30-34</td>
<td>4,341</td>
<td>4,366</td>
<td>5,023</td>
<td>5,018</td>
<td>5,825</td>
<td>5,785</td>
</tr>
<tr>
<td>35-39</td>
<td>3,617</td>
<td>3,665</td>
<td>4,180</td>
<td>4,209</td>
<td>4,864</td>
<td>4,863</td>
</tr>
<tr>
<td>40-44</td>
<td>2,987</td>
<td>3,067</td>
<td>3,452</td>
<td>3,517</td>
<td>4,015</td>
<td>4,060</td>
</tr>
<tr>
<td>45-49</td>
<td>2,427</td>
<td>2,547</td>
<td>2,815</td>
<td>2,925</td>
<td>3,277</td>
<td>3,371</td>
</tr>
<tr>
<td>50-54</td>
<td>1,924</td>
<td>2,076</td>
<td>2,245</td>
<td>2,398</td>
<td>2,624</td>
<td>2,769</td>
</tr>
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<td>55-59</td>
<td>1,477</td>
<td>1,653</td>
<td>1,730</td>
<td>1,913</td>
<td>2,036</td>
<td>2,225</td>
</tr>
<tr>
<td>60-64</td>
<td>1,079</td>
<td>1,268</td>
<td>1,271</td>
<td>1,470</td>
<td>1,504</td>
<td>1,717</td>
</tr>
<tr>
<td>65-69</td>
<td>734</td>
<td>916</td>
<td>869</td>
<td>1,065</td>
<td>1,037</td>
<td>1,250</td>
</tr>
<tr>
<td>70-74</td>
<td>451</td>
<td>596</td>
<td>535</td>
<td>703</td>
<td>644</td>
<td>830</td>
</tr>
<tr>
<td>75-79</td>
<td>166</td>
<td>261</td>
<td>282</td>
<td>397</td>
<td>341</td>
<td>477</td>
</tr>
<tr>
<td>80+</td>
<td>73</td>
<td>116</td>
<td>58</td>
<td>87</td>
<td>100</td>
<td>146</td>
</tr>
</tbody>
</table>

|    | 70,059 | 70,103 | 81,048 | 80,471 | 92,794 | 91,548 | 105,570 | 103,585 | 118,161 | 115,446 | 130,711 | 127,271 |
ECONOMIC IMPACT OF THE PROJECT

1. The paucity of data on national accounts and the absence of a perspective plan or projected economic parameters do not allow measurement of the economic impact of the reduction in population growth resulting from the project inputs. This annex attempts, therefore, to show at a broad and simple level the economic consequences of reduced population size in terms of per capita income, investment requirements, and employment. The effect of a unit decline in the rate of growth of population on demand for food, savings, and foreign resource gap is also demonstrated.

Per Capita Income and Investment

2. The possible increase in gross domestic product (GDP) up to 1980 has been projected in the Bank's report on "Investment and Growth Perspectives in the 1970's" for Indonesia. The estimated increase itself, however, implies the effect of an assumed slower population growth. These estimates have, however, been used to calculate per capita income with and without project inputs. The additional GDP required to obtain the consequent increase in per capita income in the absence of decline in population increase with project inputs gives the idea of required investment. Assuming an incremental capital output ratio of 3:1, the additional investment needed to generate the additional GDP is also estimated. The results are given in the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>WOPI (In millions)</th>
<th>WPI (In millions)</th>
<th>WOPI (U.S.$)</th>
<th>WPI (U.S.$)</th>
<th>GDP in Population (U.S.$)</th>
<th>GDP Per Capita (U.S.$)</th>
<th>Capital Output Ratio</th>
<th>GDP Stock (In millions)</th>
<th>Capital Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>121</td>
<td>121</td>
<td>72</td>
<td>72</td>
<td>8,746</td>
<td>12,359</td>
<td>3</td>
<td>1,344 4,032</td>
<td>5.0</td>
</tr>
<tr>
<td>1975</td>
<td>141</td>
<td>140</td>
<td>88</td>
<td>88</td>
<td>18,378</td>
<td>112</td>
<td>5</td>
<td>978 3,344</td>
<td>15.0</td>
</tr>
<tr>
<td>1980</td>
<td>164</td>
<td>161</td>
<td>112</td>
<td>114</td>
<td>26,997</td>
<td>140</td>
<td>5</td>
<td>1,344 4,032</td>
<td>5.0</td>
</tr>
<tr>
<td>1985</td>
<td>192</td>
<td>184</td>
<td>140</td>
<td>147</td>
<td>5.0</td>
<td>1,344 4,032</td>
<td>5</td>
<td>5.0</td>
<td></td>
</tr>
</tbody>
</table>

WOPI = Without project inputs.
WPI = With project inputs.
GDP = Gross domestic product.

1/ Projections of GDP up to 1980 are taken from the Bank's report on "Investment and Growth Perspectives in the 1970's" for Indonesia. From 1980 to 1985, a growth rate of 8% per annum in GDP is assumed. The growth rate in GDP assumed in the above mentioned report was 7.9% per annum for 1975-80.
3. As a result of the reduction in population attributable to the project, per capita income is estimated to increase by 1.8% in 1980 and by 5.0% in 1985. The project benefits (measured in terms of savings in resources required to increase GDP to achieve a comparable growth in per capita income without the project) are extremely large. For example, it is estimated that additional savings and investment equal to about 5% of 1980 GDP would be required to give everyone the 2% of additional income made possible by keeping population 3 million smaller than it would otherwise be. Project costs are insignificant in comparison with the savings in resources required to support the "births averted" population.

Labor Force

4. Fertility reduction will affect the size of the labor force only after 15 years. It is estimated that the labor force would be smaller by 1.8 million in 1995 and 4.7 million in 2000 with reduced fertility. The figures are given in the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population 15-59 years</th>
<th>Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WOPI</td>
<td>WPI</td>
</tr>
<tr>
<td>1975</td>
<td>71.2</td>
<td>71.2</td>
</tr>
<tr>
<td>1980</td>
<td>81.8</td>
<td>81.8</td>
</tr>
<tr>
<td>1985</td>
<td>96.0</td>
<td>96.0</td>
</tr>
<tr>
<td>1990</td>
<td>113.5</td>
<td>112.8</td>
</tr>
<tr>
<td>1995</td>
<td>134.1</td>
<td>131.4</td>
</tr>
<tr>
<td>2000</td>
<td>158.2</td>
<td>151.0</td>
</tr>
</tbody>
</table>

5. Indonesia is at present a country with serious unemployment and underemployment. Overcoming these problems from the demand side alone, through the generation of very high growth levels over a period of several decades, does not seem a realistic expectation. Therefore any slowing in the growth of the labor force will contribute to a reduction in the country's chronic unemployment; however, the extent of such a reduction cannot be predicted with confidence beyond stating that it would be significant.

Food Consumption, Savings, and Resource Gap

6. As an aid to planning by both the Government of Indonesia and aid donors, long-range macro-economic projections of the possible growth of the Indonesian economy have been made by the East Asia and Pacific Department of the Bank. The effects of alternative assumptions regarding exports, agricultural growth, the increase in population, tax rates, and private capital inflows are used.
7. Differences in population growth rates have their main effects in the model through the demand for food. With a given rate of income growth and an income elasticity for food well below unity, a higher population growth rate implies a lower growth of per capita income and larger increase in the demand for food. If the supply of food, and especially of food grains, is not elastic from domestic sources, the only recourse is additional imports from abroad which create a burden on the balance of payments.

8. Given certain assumptions on per capita food consumption and the growth of both population and domestic food supply, the model shows that by 1980 Indonesia could be saving as much as $30 million in foreign exchange if the population growth rate dropped a full percentage point during the decade. However, it is likely that domestic food supplies will increase to a point where actual import savings will in fact be substantially less.