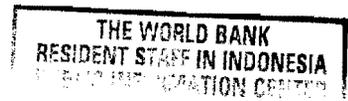


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A WORLD BANK COUNTRY STUDY



Indonesia

Family Planning Perspectives in the 1990s

The World Bank
Washington, D.C.

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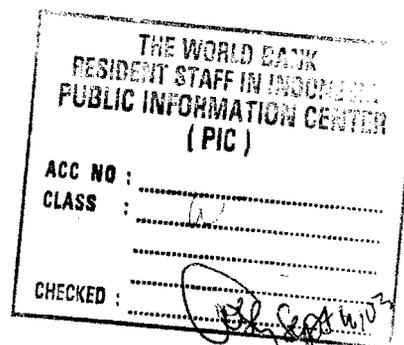
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PREFACE

This report was prepared by Nydia Maraviglia, Principal Population Specialist. The main sector mission visited Indonesia in July-August, 1988; mission members were: Susan Cochrane, Principal Population Economist and Eduard Bos, Demographer, and consultants Robert Wickham and Genevieve Kenney. Contributions to the report were provided as follows: Susan Cochrane analyzed the demand for family planning and the program financial requirements; Eduard Bos prepared the demographic analysis and the projection models; R. Wickham assessed the management and organization of the family planning program and G. Kenney reviewed and evaluated the present and potential capacity of the private sector in family planning. Parker Mauldin (Senior Population Advisor, Rockefeller Foundation/Population Council, N.Y.), who participated in an earlier Bank population sector mission to Indonesia, provided valuable review and comments on this report.

The report focuses on the managerial, organizational, manpower and financial requirements of BKKBN (the National Family Planning Coordinating Board), as Indonesia prepares to undertake major strategic changes in response to challenges for further fertility decline during the next decade. A main consideration by the Government is the utilization of the private sector for service provision and other ways of service expansion. Consequently, the report devotes special attention to analysis of program costs and to possible roles for commercial service providers, NGOs and employment-based family planning programs.

Washington, D.C.
April 25, 1990

CURRENCY EQUIVALENTS

Before November 15, 1978

US\$1.00 - Rp 415

Annual Average 1979-87

1979	US\$1.00 - Pr 623
1980	US\$1.00 - Rp 627
1981	US\$1.00 - Rp 632
1982	US\$1.00 - Rp 661
1983	US\$1.00 - Rp 909
1984	US\$1.00 - Rp 1,026 / <u>a</u>
1985	US\$1.00 - Rp 1,111
1986	US\$1.00 - Rp 1,283 / <u>b</u>
1987	US\$1.00 - Rp 1,644
1988	US\$1.00 - Rp 1,693

June 15, 1989

US\$1.00 - Rp 1,700

FISCAL YEAR

Government	-	April 1 to March 31
Bank Indonesia	-	April 1 to March 31
State Banks	-	January 1 to December 31

/a On March 30, 1983, the Rupiah was devalued from US\$1.00 - Rp 703 to US\$1.00 - Rp 970.

/b On September 12, 1986, the Rupiah was devalued from US\$1.00 - Rp 1,134 to US\$1.00 - 1,644.

DEFINITIONS

Child Mortality Rate:	The probability of dying between ages 1 and 5.
Crude Birth Rate:	Annual number of births per 1,000 persons.
Crude Death Rate:	Annual number of deaths per 1,000 persons.
Contraceptive Prevalence:	The percent of married women in reproductive age groups who are using (or whose husbands are using) any form of contraception.
Contraceptive Users:	The number of women of reproductive age who are (or whose husbands are) current users of any form of contraception.
Contraceptive Acceptors:	The number of women who become (or whose husbands become) users of a contraceptive method they have not used in the months immediately prior, for a given time period.
Dependency Ratio:	The ratio of those under 15 and over 65 to the working age population, defined as those 15 to 64 of age.
Infant Mortality Rate:	The number of deaths to infants under 1 year of age in a one-year period per 1,000 live births in that period.
Married Women of Reproductive Age:	Currently married women between the ages of 15 and 49.
Net Reproduction Rate:	The average number of daughters that would be born alive to a woman if she would conform to the age-specific fertility rates and mortality rates for a given year. An NRR of exactly 1 means that each cohort of women replaces itself with the same number of daughters.
Population Momentum Index:	A number that indicates that factor by which the population will increase after reaching replacement fertility (NRR equals 1).

Stationary Population:	A population with zero growth rate.
Total Fertility Rate:	The average number of children that would be born alive to a woman if she were to bear children at each age of the reproductive life span in accordance to the age specific fertility rates of a given year.

ABBREVIATIONS AND ACRONYMS

BCG	Bacterium Calmette-Guerin (tuberculosis immunization injection)
BAPPENAS	National Economic Planning Board
BKKBN	National Family Planning Coordinating Board
BPS	Central Bureau of Statistics
CBR	Crude Birth Rate
CDR	Crude Death Rate
DEPKES	Ministry of Health
DHS	Demographic and Health Surveys
DPT	Diphtheria, Pertussis, Tetanus injection
ELCOs	Eligible Couples
FP	Family Planning
FPIA	Family Planning International Assistance
IMR	Infant Mortality Rate
IRD	Institute for Resource Development
IUD	Intra-uterine Devise
KLH	Ministry of Population and Environment
LKMD	Village Community Development Institute
MCH	Maternal and Child Health
MIS	Management Information System
NGO	Non-Governmental Organization
NICPS	National Indonesian Contraceptive Prevalence Survey
NRR	Net Reproduction Rate
PELKESI	Indonesian Christian Association for Health
PKK	Family Welfare Movement
POGI	Indonesian Gynecological Association
REPELITA	Five-year Development Plan
SOMARC	Social Marketing Company
SUPAS	Intercensal Population Survey
SUSENAS	National Socio-Economic Survey
TFR	Total Fertility Rate
URC	University Research Corporation
VCDC	Village Contraceptive Distribution Centers
VSC	Voluntary Surgical Contraceptive (Sterilizations)
WFS	World Fertility Survey
YKB	Yayasan Kusuma Buana (private, non-profit foundation)

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MAP

SUMMARY AND CONCLUSIONS

Introduction

i. As the Government of Indonesia prepares to begin the implementation of its Fifth National Development Plan (REPELITA V), it faces new challenges in its family planning program, to attract a very substantial number of new acceptors (including a growing number of young people), improve contraceptive continuation rates, and increase the proportion of more effective methods. In the face of program expansion, GOI confronts increasingly difficult budgetary constraints, aggravated, in the case of family planning (FP) program, by worldwide decreases in international assistance for population, which could also affect availability of grant funds for Indonesia. At the same time, rapid population growth is a key factor underlying macroeconomic problems, such as unemployment among the young and many environmental issues facing Indonesia today. The family planning program, because of its demonstrated effects on helping slow the rate of population growth, is being examined carefully by the government, with a view to arrive at optimal program strategies which enable continued success.

ii. Until now, the public sector has been the predominant source of FP services and, under the coordination of BKKBN (the National Family Planning Coordinating Board), it has been able to contribute to one of the most impressive demographic transitions within the developing world. At present, the proportion of eligible couples using contraception exceeds 45 percent, the total fertility rate (TFR) has declined by 2 children to reach 3.4, and the crude birth rate (CBR) is 28 per 1,000. This is a very different situation compared to that prevailing in 1970, when the FP program was initiated. At that time contraceptive use was under 10 percent, the TFR was 5.6 and the CBR was as high as 43 per 1,000. In the last few years there has been an overall trend to later marriage and women's education has improved considerably, but the knowledge and use of modern contraceptives has undoubtedly been the main cause of fertility decline.

iii. Further declines in fertility are needed in order to accomplish set goals of continued slowing of population growth. According to the "standard" projection (implying a moderately fast fertility decline) presented in this report, at the end of REPELITA V there will be 20 million more Indonesians than in 1988. With continued progress in fertility reduction through FP, by the turn of the century the population would reach 213 million and replacement level fertility would be reached during the 2010s. Even if these projections are realized, zero population growth may not take place before the 22nd century, when the stationary population will have surpassed 300 million. However, achievement of the necessary fertility decline to realize these projections will be more difficult than in the past because it will require a more substantial expansion of contraceptive usage than any increase achieved up to now. Also, the couples which still need to be brought into the program have higher family

size preferences and are harder to reach. Among those are the urban poor, those living in outlying rural areas and those with low levels of education.

iv. This report discusses the following main issues: (a) how feasible are the demographic targets? (b) is it desirable to shift large segments of users from free to fee-for-service program? (c) to the extent that it is desirable to engage the private sector, both on efficiency and resource mobilization grounds, how can this be accomplished while preserving and strengthening public FP services? The report analyzes these questions and the choices of specific program strategies that the government will need to make to implement the policies and achieve the goals set for REPELITA V. Chapter 1 provides an overview of the population problem in the context of the economy and the environment and a description of the demographic transition, population projections, and estimates of requirements of contraceptive practice if projections are to be realized. Chapter 2 deals with the desire of women to space births or limit their family size and the implications of these demand patterns for program expansion. Chapter 3 describes the role of the private sector in FP, as well as NGOs and employment based programs and analyzes the extent of likely private sector participation. Chapter 4 presents the current organization and management of the public FP program and the changes in organization and strategy that will be needed to respond to unprecedented increases in family planning users and changing patterns of demand with greater reliance on the private sector. Chapter 5 estimates the financial requirements to fulfill the challenge of reaching the fertility reduction targets.

Fertility Trends, Contraceptive Use and Target Groups

v. The fertility transition in Indonesia did not begin until the late 1970s, but once the total fertility rate (TFR) dropped below 5 (to 4.75) it declined rapidly and consistently reaching a low 3.4 in 1988. However, a slower rate of decline is likely as fertility reaches lower levels. The number of married women of reproductive ages will increase from 30.8 million in 1988 to 35.6 million in 1994 or by about 800,000 per year. From now on, assuming no improvements in continuation rates, about 3.9 million acceptors will need to be recruited every year just to maintain the present levels of contraceptive practice (the contraceptive prevalence rate (CPR) is 45-46 percent).

vi. Population projections were prepared in order to illustrate fertility reduction efforts that will be required in the future to achieve stated goals. Trends in fertility and mortality that are considered most likely are presented as the "standard projection", which is roughly comparable to the targets set for REPELITA V. According to this projection, at the end of REPELITA V there will be 20 million more Indonesians than in 1988; the average annual rate of growth is estimated at 1.78 percent. In order to reduce TFR from 3.41 to the 1994 target of 2.88, the number of couples using contraception would need to increase substantially from 14.2 million in 1988 to 19.4 million in 1994. During the plan period, a total of 25.3 million new acceptors will need to be recruited, including those who change methods. CPR would reach 54.4

percent. Several other scenarios of contraceptive practice and population growth are presented in the report. With the standard projection, replacement level fertility would be reached in 2005. Under the scenario of slower fertility decline there would be 10.5 million more people by 2030 than would be the case if the standard projection is realized.

vii. Most of the expansion in contraceptive use, from less than 10 percent in the 1960s to over 45 percent now, took place in the last ten years. This remarkable increase resulted from a combination of economic development, improved women's education and a strong FP program.

viii. The target of 19.4 million users in Indonesia or an additional 6.1 million users at first glance appears easy because 7.1 million women will want no more children and are not contracepting and 6.5 million non-contracepting women will want to postpone the next birth. However, there are three factors that will make achievement of these targets difficult: (a) of the 13.6 million who have an unmet need for contraception, only about one third intend to use, and that may not be in the immediate future, but only after they have completed their desired family size; (b) indirect estimation indicates that of the current 13.3 million users, 5 million still want additional children and may well drop out of the program within the next five years; and (c) there will be dropouts for other reasons.

ix. A very positive feature of Indonesia's family planning program is its reliance on a wide variety of temporary methods of contraceptives. This has proven important in the rapid rise of contraceptive prevalence among young women with the highest potential who want to space their births. In 1987, contraceptive use among married women by method was as follows: 31.4 percent used pills, 30.5 IUDs, 21 injectables, 3.5 condoms, 6.9 tubectomies, 0.4 vasectomies, 0.8 Norplant and 5.5 other methods. At this stage of program development, with almost half of the married women using contraception and many reaching older age, there is an increasing demand for more permanent methods to limit family size as opposed to spacing births. However, the availability of services to meet the demand for permanent methods is insufficient. Voluntary surgical contraception (VHS) -- sterilization -- is not currently part of the FP program, although it is offered on health grounds, and it is mainly available in urban areas, thus reaching predominantly middle and upper class women. The lack of access to inexpensive sterilization in Indonesia may be mainly a problem affecting the poor, the rural and the uneducated, for whom research proves this is a preferred method.

x. The report tries to assess the likelihood of achieving targets by comparing the Indonesian program with the pace of achievement in Thailand during comparable periods. Based on the analysis of unmet needs and comparisons with Thailand, a major conclusion is that the targets set by the plan are possible to achieve in Indonesia; this will require special attention to continuation of existing users and to program activities to recruit those women who are motivated to control fertility but who are not now contracepting. High proportions of these target groups live in rural areas and have low levels of education (and presumably of income). The analysis thus suggests that it is the unmet need of the poor and rural

women, who wish to limit fertility by using permanent or highly effective methods, that needs attention.

xi. The overall conclusion is that it will be possible for Indonesia to achieve the contraceptive use targets that were set by the 1989-94 Plan. However, this task will take considerably more effort than in the past. The key findings and implications for program priorities concerning fertility, contraceptive use and target groups are:

- (a) the strong program direction exerted by BKKBN and the large increases in the use of modern contraceptives is beyond doubt a main cause of the fertility decline experienced since the mid-70s--this role should be maintained and strengthened;
- (b) significant changes in the contraceptive mix have taken place in the last decade, with a notable trend toward more long-term and effective methods; it is recommended that similar changes be encouraged in the future by making permanent and more effective methods available to low income and rural women;
- (c) although there is no evidence yet that a stall in fertility decline is imminent, other countries have experienced such stalling after an initial sharp drop in fertility similar to Indonesia's (TFR of 3.5 or 4). A possible explanation for such a stall is convergence of desired and actual family size. Although unmet need for contraception (or desire to control fertility) is still high, close attention should be paid to highly focused information, education and communication (IEC) programs in an effort to reach and motivate specific target groups defined under (e);
- (d) women with completed primary school have made comparatively more substantial gains in contraceptive practice in the last decade, as opposed to other educational groups--under the Government's plan to extend universal access to basic education through the lower secondary school cycle (a total of nine years), special measures to ensure increases in primary and lower secondary school attendance and completion by girls should be strongly supported; and
- (e) in 1994, an additional 6.1 million users will be needed to meet the set targets. The following groups will have to be reached with FP services and IEC using different strategies and program designs, giving priority to i, and iii: (i) current users, in order to reduce dropouts--13.3 million (of whom 9 million are in rural areas and 7.3 million have less than primary education); (ii) those motivated to control fertility and intending to use contraception--4.4 million (of whom 3.3 million are in rural areas and 2.5 million have less than primary); (iii) women wanting to limit or space births, but not intending to use contraception--9.3 million (of whom 7 million are in rural areas and a like number have not completed primary); and (iv) women

with no motivation to contracept--3.7 million (2.8 million rural and 2.6 with less than primary).

The Role of the Private Sector

xii. Since the inception of BKKBN in 1970, the public sector has been the predominant source of FP and it has had a remarkable success in reducing fertility. However, uncertainties in funding coupled with Indonesia's goal of raising contraceptive prevalence among increasingly larger groups of eligible women has placed greater emphasis on the role that the private sector can and should play in FP. Indonesia is re-examining its policy of subsidizing FP services for those who have the capacity and willingness to pay for contraceptives from private sources.

xiii. Because of its effects in reducing the rate of population growth and in view of the benefits that can be derived from the family planning program in the form of faster economic and social development, the Government has treated FP as a "merit good" to which everyone regardless of location or income should have access. A recent study supports the merits of this strategy by showing that government investments in FP are cost-effective because of per capita savings in education and other social services and the relatively modest outlays required for the program (about 0.5 percent of the national budget). It is evident that subsidization can be justified on efficiency and equity grounds for some groups, but until recently, the question of which groups the government should subsidize had not been directly confronted.

xiv. In the last two years BKKBN has embraced a policy of KB Mandiri (or self-reliance in FP). The implications of this concept are currently evolving and have been only partly operationalized; it involves a greater role for the private sector in FP services, with a focus in urban areas and particularly in the 11 largest cities. As a basis for analyzing the potential of this strategy and presenting recommendations, this report provides an overview and the likely evolution of the private sector role in FP in Indonesia and includes descriptions of the types of clientele, cost and quality of the services, service providers (doctors, midwives, pharmacies), policies and legal constraints, the organized sector, and NGOs.

xv. Although increasing the role of the private sector in FP is desirable in order to cater to middle and high socio-economic groups, particularly in the cities, as well as to expand the infrastructure for service delivery in general, the report concludes that private FP expansion confronts challenges and limitations that should be recognized and taken into account in future FP programming. The following are priority considerations on this issue:

- (a) A target of a 50% share for the private sector in delivery of FP services is too ambitious and a more realistic goal would be a national share of 30% private FP by 1994, which could be achieved through a 50% growth in the urban private share and a 25% growth in the rural private share;

- (b) while the pricing of "Blue Circle" products is likely to be attractive to middle and high income groups, it is not probable that they will attract people with incomes at the bottom 40 percent;
- (c) with the availability of free services in the public sector co-existing with private sector sales of contraceptives, it is not known whether clients will easily switch; it is recommended that testing of sales in combination with free services be undertaken in several locations in order to determine optimal schemes.

xvi. The implications of the KB Mandiri concept in family planning and the role and scope of the private sector are now evolving. The goal of greater involvement of private doctors, midwives and pharmacists is very appropriate in order to increase the outreach. Even an increase to 30 percent coverage of acceptors through private FP within the next five years (compared to higher expectations when the strategy was planned) would be a significant achievement. This approach is worthwhile pursuing.

xvii. Factors Influencing the Success of the "Blue Circle" Program:

In addition to supply constraints, the private sector targets may be beyond reach because the private sector prices will be too high for much of the Indonesian population. While the "Blue Circle" program is being counted on to attract the largest share of users into the private sector, the retail prices that are planned for the socially marketed products, in combination with the reported service charges of commercial providers, are not likely to attract clients with incomes in the bottom 40 percent. On the other hand, for middle and higher income groups, the price of the socially marketed contraceptives (half the commercial prices) may be attractive. The success of socially marketed contraceptives will depend on the interaction of the supply of and the demand for privately offered services. Policies to target subsidies will also be a determining element. Another factor that would influence the increase of FP clients in the private sector is the removal of restrictions to health providers' growth (e.g., laws governing full-time private practice, affordable solutions to lack of initial capital for facilities and equipment).

xviii. To the extent that an increase in the number of private providers generates a higher level of competition among them, service charges may decline. Also, to the extent consumers are attracted to the "Blue Circle" products in place of the fully subsidized services of the public sector, the demand for private services will increase. The multi-media campaign is trying to encourage households to take more financial responsibility for FP and also advertises that private services are of high quality and cheaper than previously. Because desired fertility levels in Indonesia are low, there may be a willingness on the part of many households to pay private sector prices. However, with free services still available in the public sector, it is not known whether clients will readily switch. The effects of new policies should be reviewed and monitored in order to quickly introduce corrections to the system when

effects turn out to be negative or counterproductive to the goals of the program.

xix. Further on subsidization, currently the BKKBN and donors are providing direct subsidies to commercial doctors and midwives. In addition, both NGOs and employment-based clinics have traditionally received free contraceptive supplies and sometimes equipment. While it is not clear how long these donations will continue, the concept of KB Mandiri has an equity dimension in that those who are "better-off" are expected to be "more self-sufficient" in meeting their family planning needs. On equity grounds, it would be desirable to examine ways of minimizing subsidies benefiting the middle and higher income groups.

xx. Regarding FP services for the poor, if some NGOs are expected to serve an increasing share of low income family planning users (particularly in urban areas), it will be necessary to identify NGOs which are truly prepared to undertake these tasks (currently NGOs appear to serve many middle or high income families). The possibility of cross-subsidization by charging fees in high income neighborhoods, which would allow to provide close to free services in poor neighborhoods, should be further developed and tested in various areas of the country. With free services still available in the public sector, private services will need to offer definite advantages over the public sector such as convenience, easier accessibility, etc., in order to attract clients.

xxi. Attention must also be paid to standards of clinical care and surgical procedures. The professional medical organizations could exercise the quality control role among private service providers.

xxii. Concerning the organized sector, while it is desirable to increase FP access to factory, business and plantation workers, cost-effective ways of providing services should be encouraged. Various arrangements for employers to ensure these services have been studied and results are available to BKKBN; these results should be generally available to establishments which wish to participate in the program.

Implications for Strategies and Program Priorities

xxiii. The Government has rightly recognized that the family planning program is now at a critical point. After having achieved an unprecedented success in the last ten years, FP acceptance is currently at a medium level and unless appropriate programmatic redirection and intensification are undertaken, there is a risk of program slow down, which could result in higher population growth rates than those targeted and desirable. The preceding analysis shows that many difficult challenges lie ahead which will require the careful planning and vigorous implementation of appropriate strategies for different target groups. In particular, although the role of the private sector in delivering FP services is expected to increase, demand constraints imply a continued strong role for the public sector for the foreseeable future, especially in delivering services to the urban poor and rural populations.

xxiv. There are several strategies which characterize Indonesia's FP program:^{1/} a firm commitment to meeting targets at every level, implementation through an array of public and NGO community programs, emphasis on communication/education to keep in touch with people, provision of clinical services with medical backup (with major participation by the Ministry of Health), encouraging acceptance of FP by creating a climate of community support, paying special attention to the improvement of women's social and economic status through income generating projects and emphasizing youth related programs. The newest strategy has led to the KB Mandiri program, intended to make families and communities accept increasing responsibility for decisions and actions regarding FP and family size.

xxv. A strategy for the 1990's should encompass a continued strong Government commitment to FP, maintenance of a vigorous public sector program while encouraging greater private sector participation, further emphasis on improvement of women's status and employment opportunities and review and revision of laws and regulations to favor small family preferences. Future program strategies should comprise the following main elements:

- (a) a refined and expanded IEC family planning program coupled with other measures to develop a social atmosphere in which contraception is a readily accepted alternative and the FP program eventually becomes self-sustaining. The IEC strategy needs to target mass media and interpersonal communication and messages to clearly identified and prioritized groups specified by age, sex, geographic location and cultural characteristics;
- (b) although in Indonesia the IEC program and the high level of government commitment to demographic goals have contributed to a remarkable change in attitudes towards FP and the small and prosperous family norm, additional measures to reinforce these messages have been successfully applied in other countries (e.g., South Korea, Thailand). Such measures include laws and regulations pertaining to tariffs imposed to contraceptive importation, taxes, education and other allowances, priorities in selected social benefits, increased welfare benefits for the aged, removal of legal and employment discrimination against women, and stepping up of women's job preparedness and opportunities. In these areas, it is recommended that the Government ensure prompt completion of studies on these FP related issues immediately, with a view to making appropriate decisions and action plans ready for implementation early in the next decade;

^{1/}The FP program activities may be grouped in four main areas: contraceptive information, clinical services and distribution; information, education and communication (IEC); population education in schools; and promotion of women's economic and social well being.

- (c) development of FP programs specific to different geographic areas or population groups, which should take into account the diversity of cultures, variations in receptivity to FP and availability of public health services. This should include the strengthening of partnership with suitable NGOs which are prepared to work in poor neighborhoods with limited access to public services;
- (d) while continuing to offer a wide variety of temporary methods in order to increase contraceptive use for spacing of births, the FP program should acknowledge the increasing demand among the poorest and least educated for more permanent methods by shifting the method mix and addressing issues related to increasing the availability of surgical contraception. However, these methods have substantial service charges. In addition to free services for those who cannot afford to pay, financial mechanisms will be needed, including deferred payments, to encourage adoption and facilitate affordability of those more expensive methods. Pilot projects with alternative financing schemes should be tested;
- (e) continued encouragement of the private sector for those areas and population groups where demand constraints are not a major factor, including the use of subsidies in cases where these turn out to be more cost-effective than expansion of public FP services. As an example, in one pilot project, referrals by BKKBN field workers are compensated through a salary supplement from the private providers. If this experience could be institutionalized and regulated to prevent abuses, private providers could help to defray the salaries of field workers and lead to increases in private sector clients. Private sector participation could also include the area of logistics where there are advantages in efficiency, quality and flexibility.

xxvi. FP Program's Organizational and Coordination Issues: BKKBN is widely recognized as an organization that has been highly successful in achieving its goals. It has demonstrated capacity to innovate and to coordinate an array of agencies and programs through a complex network of government, NGO, community and private institutions. BKKBN has a strong management system with highly motivated staff, a well developed system of supervision at all levels and a good system of performance monitoring. Notwithstanding these achievements, as this organization begins to implement the new plan, and in view of the further complexities which await the program, BKKBN needs to address the following organization/management issues:

- (a) Completion of the organizational and managerial review of BKKBN and of a strengthened staff training plan, in order to have in place as soon as possible, the organization and staff resources required to implement the redirected strategy. BKKBN's proposed staff increases should be carefully assessed in the light of program priorities, especially with a view to reducing office

personnel while expanding the number of field workers. BKKBN's training program should give more attention to community felt needs in the preparation of the training plan; training staff shortages and need for more trainers with specialty in education; need for strengthening training monitoring and evaluation; and a better system of placement after long-term training. In view of the new program strategies, the revisions in management sub-systems should be implemented as soon as possible, to make them relevant and responsive to future program needs. Another priority that BKKBN has determined is the development of a management cadre to handle an expanded and increasingly complex program.

- (b) The modifications and improvements of BKKBN's MIS and further strengthening of research inputs are essential, as soon as possible, in order to equip planners and managers with reliable data for fine-tuning of the FP program. Concerning research, there are a number of issues that need to be tackled including the need for clearer identification of further training for research staff, concentration of efforts in a few large projects using university and other research institutions instead of the present emphasis of small in-house projects, as well as more emphasis on operations related research and in appropriate dissemination of results. This report has pointed out a number of areas where careful research and evaluation could help to guide the future direction of the FP program.
- (c) Logistics: BKKBN secures contraceptives from in-country and foreign sources and distributes them to implementing units on a non-request basis (i.e., based on number of contraceptives dispensed--from MIS data--and stock on hand). Problems with logistics relate to insufficient supplies or insufficient funds to procure adequate supplies (e.g., low-dose pills, injectables, implants, and IUD insertion kits) and over-stocking of some contraceptives, which leads to waste and spoilage. From time to time, there are cases of uneven stocking among service points, mainly due to lack of transport within villages, but also because stocks fail to reach their destination intact. The main issues concerning logistics are: (i) the need to obtain adequate supplies of those contraceptives mentioned above, which are in high demand and whose scarcity has a negative effect on acceptors and continuation rates; (ii) improvements of the communication system, inventory control and surveillance of stocks; and (iii) the need to examine BKKBN's role as a distributor of contraceptives in the face of an increased role for the private sector in service delivery and the policy of encouraging self-sufficiency (i.e., possible private sector role in contraceptives logistics).

xxvii. Regarding coordination with other organizations, the following issues deserve attention: (i) revision of unnecessary and burdensome procedures to deal with NGOs and the commercial sectors, in

order to foster further initiatives; (ii) preparation by BKKBN, in cooperation with other community development agencies, of strategies for increasing the probability of success of large scale programs for promoting women's social and economic well being (to be successful, these programs need to have access to proper managerial, marketing and technical skills); and (iii) engagement in effective cooperative programming with DEPKES in order to determine technical and financial requirements for the expansion of FP services.

xxviii. The public health physical plant and personnel under DEPKES and local governments should continue to be an important network for delivery of family planning services for some time to come, in view of the limits to privatization, as well as the unmet contraceptive needs of large number of poor, uneducated, mainly rural women; also, strengthening of public health clinics and other community activities is important not only on family planning grounds, but also because of the still high maternal and infant mortality. The successful implementation of any necessary changes in DEPKES for better family planning will depend to a large extent on improvements in the management and clinical quality and public health services in general. It is, therefore, important that GOI and donors consider efforts to improve FP as part and parcel of programming and assistance to enhance the general effectiveness of health services. This could best be accomplished by specially designed FP/maternal and child health components or projects. Other recommendations addressed to BKKBN and DEPKES that could improve FP services in the public sector include the following:

- (a) For DEPKES: reviewing the managerial and clinical performance of the existing family planning and related maternal and child health services operating under the public health system, in order to identify strengths and weaknesses and develop, in close coordination with BKKBN, regional and local plans for improving and expanding those services; the plans should contain clear financial and technical implications;
- (b) accelerating the proposed DEPKES/BKKBN program to place midwives in villages throughout the country and define support and referral mechanisms for them;
- (c) expanding the DEPKES FP clinic hours for women who work;
- (d) intensifying BKKBN efforts to plan and program activities in slum areas jointly with a variety of community organizations, including the public health system; and
- (e) DEPKES/BKKBN review of issues related to voluntary surgical contraception including the following:
 - (i) the setting up of a management structure for the system (operated under a professional medical organization for the private sector and by DEPKES for the public services);

- (ii) the definition of which activities should be undertaken by various organizations (private, NGO, public) in order to generate VSC demand;
- (iii) the development of a policy on uniform costs for the procedure and on how these costs will be met; and
- (iv) the design of a strong medical surveillance system and the improvement of evaluation of the surgical training for VSC.

Family Planning Financial Resource Requirements

xxix. There are two major constraints in reaching the demographic targets discussed earlier. First, as already explained, the program will need to serve individuals who may be less willing to accept contraception (i.e., there may be demand constraints). Second, there are financial resource constraints and the Government is considering to what extent public funds can be supplemented by decreasing the public sector burden through encouraging private providers to give FP services for a fee and by selling contraceptives at reduced prices (compared to commercial prices) through private outlets--"Blue Circle" program. The analysis in this report has the objective of determining the degree to which it may be necessary or feasible to rely on private funds to reach demographic targets. In the private sector section, the conclusion is that the expansion of family planning services through private providers most likely will not exceed 30 percent in the next five years. The discussion on financial resources indicates that the demographic targets can be reached with the public sector continuing to have a predominant role although this will require substantial increases in resources. The required annual increases, however, are not remarkably different from those experienced by the family planning program in the last few years (13 to 16 percent).

xxx. This report presents alternative estimates using approximate commodity costs and numbers of users and acceptors based on the demographic model presented in chapter 1 and assuming, as BKKBN does, that costs will increase by 10 percent per unit per year. These estimates result in costs for contraceptives at the end of the Fifth Plan between Rs 83 and 85 billion. If the DIP budget for FP grows at the same rate as during the Fourth Plan, the total amount budgeted for FP would be 87 billion in 1994/95. This implies that almost the entire DIP budget would have to be devoted to contraceptives. Consequently, the practice of paying for contraceptive supplies from the DIP budget would be untenable, unless the budget grows more rapidly than in the recent past. In view of these prospects, the government strategy of shifting a portion of the costs into the private sector is justified, to the extent that the switch is feasible (say a 70/30 share) and does not slow the program.

xxxi. In addition to contraceptive commodities, the other costs in BKKBN's investment and recurrent budgets are IEC, contraceptive services, field coordination, training, building maintenance, building construction

and administration. Alternative estimates for these items have been prepared by the mission making various assumptions. Estimates take into account differential costs by region (costs are two to five times to do work in the Outer Islands I and II, respectively). For the program activities listed above (i.e., for items other than contraceptive commodities) the total requirement would be Rs 353 billion in 1994/95, allowing for 10 percent annual inflation. These estimates imply that in order to have a FP program that reaches evenly the population throughout Indonesia there would have to be annual increases in the budget of up to 22 percent, while in the previous plan the comparable annual budget growth did not exceed 16 percent. If international assistance falls off, the necessary increase would be commensurate to those decreases. Budgetary requirements for FP in the future could be lower than those estimated here, to the extent that private sector participation can be increased. By 1994, the public expenditures on family planning could be reduced by 11 percent through the increased participation of the private sector, if the latter reaches a 30 percent share of FP services.

xxxii. Estimates for BKKBN do not include DEPKES indirect contributions to the program in buildings and manpower. As an upper limit, it is estimated that in 1984/85 DEPKES's indirect contribution to FP was around Rs 100 billion, which is similar to BKKBN's budget for that year--Rs 109 billion. Based on the assumption that the public sector share will continue to be substantial (70/30 percent public/private), DEPKES financial resources for family planning would have to increase proportionately, to the extent that the public health system as a whole can improve its administrative and technical capacity in service delivery and absorb more funds. If sterilization doubles from the levels implied by the projections in Chapter 1 (which assume that the 1986 rate will be maintained), there will be an additional Rs 7 billion needed for investment cost and Rs 5 billion needed in recurrent costs (to be shared by the public and private sectors, since for this method the private sector will play a major role). The costs for sterilization would be offset to some degree by the reduced costs from other methods.

xxxiii. To sum up, in answer to the question of the degree to which resources will constrain expansion of the FP program, it may be said that if it is decided that future expansion must proceed in the Outer Islands with a much greater intensity than in the past, budget increases of up to 22 percent annually would be required--a higher increase than in the past plan, but not far beyond the budget increases proposed under REPELITAV. If foreign assistance falls, domestic budgets will have to expand commensurately with the fall in foreign funds. It should be noted that expenditures on public family planning do have a minimum rate of return of 12 percent from savings in public education and health budgets alone. Also, examination of the elasticity of the demand for contraceptives in relation to prices showed that there is a clear adverse trade-off between attempts to make all clients pay for FP services and the achievement of demographic goals. Therefore, while encouraging the private sector to increase their capacity to serve those FP clients who can pay for services, budgets for family planning should be protected and the public program should continue to be strengthened to ensure that services reach the large

majority of women who are poor, with little or no education and unable to afford or reach private services.

I. POPULATION SITUATION AND PROJECTIONS

A. Background on the Economy, the Environment and Rapid Population Growth

1.1 After a period of rapid economic growth during the 1970's, in the 1980's Indonesia had to adjust to the weakening of the oil market, the onset of a worldwide recession and the decline of several primary exports. This led to cuts in the budget and Rupiah devaluation; although these and other measures helped reduce the current account deficit, there have been slower growth of output and incomes, reduced levels of public and private investment and the emergence of several other unfavorable consequences, including signs of open unemployment in urban areas and increased unemployment rates among the young. Another factor that figures prominently in Indonesia's macroeconomic background is the close reliance of economic growth on the country's vast and diverse natural resources. This makes it important that these resources are utilized along sustainable patterns and levels. The trend of expansion of agricultural and other economic activities to the Outer Islands¹, expected to gather speed in the future, will pose increasing pressures in the government to try to strike a proper balance between steady economic growth and preservation of natural resources.

1.2 The rate of population growth is a factor intimately related to Indonesia's environmental problems², as well as to important constraints in economic development (e.g., pressures for high rates of employment creation, ever increasing public sector budgets for social services, unplanned urban growth and slum formation). As will be seen in this report, the government has addressed the need to curb rapid population growth through a family planning (FP) program initiated in the early 1970's, which has achieved remarkable success. The tasks that will be required from the family planning program during the next plan period are complex and challenging enough to justify present concerns on the feasibility of recruiting many million more users and financing the needed program expansion. In response to these concerns, targets have been set to shift from a current 80 percent public family planning program and a 20 percent participation from a mix of private service providers (both commercial and non-profit), to an equal share of 50 percent public and 50 percent private sector services by the end of the plan period. In order to examine the prospects for further fertility decline, the programmatic and financial requirements to achieve set targets and feasibility of the proposal of 50/50 public/private share, this report addresses the following issues:

¹The Outer (or Other) Islands I and II are all the Indonesian islands other than Java and Bali. They are listed in Chapter 4.

²Environmental issues are discussed in a Bank report entitled "Indonesia: Forest, land and Water: Issues in Sustainable Development", November, 1988.

- (a) How feasible are the Plan's demographic targets measured in terms of required acceptors and users?
- (b) Is it desirable to shift large segments of users from a free service family planning program to a fee-for-service program?
- (c) To the extent that it is necessary to engage the private sector (both on efficiency and resource mobilization grounds), how can this be done while preserving and strengthening public FP services?

1.3 The first question is addressed in this chapter, the second question is discussed in chapter 2 dealing with the demand for family planning, the third question is the focus of chapter 3 on the role of the private sector, and the last question is dealt with in chapter 5 which analyzes the financial implications of the program and the program priorities. Another major topic of the report is the organizational and managerial requirements of the public program as it moves to new strategies to tackle the expansion of services to cover unprecedented increases in the numbers of users; this is discussed in chapter 4.

1.4 There are two main arguments in favor of a government sponsored, subsidized family planning program. First, family planning may be considered a "merit good" to which certain segments of society would not have access without government action. Second, there are externalities to child bearing that can be addressed by altering incentives to have children. The simplest of these incentives is to make the costs of regulating fertility as low as possible. The "merit good" argument is not quantifiable although the mentioned externalities are somewhat more amenable to measurement. Recent work done on the Indonesian family planning program (Chao, 1985) indicates very large saving to the public from the program, resulting from lower expenditures in health and education. Adjustments to these estimates to make them fully realistic put the rate of return to the family planning program at above 12 percent.³ This estimate is very conservative because it does not include the additional externalities that would accrue to reduced environmental damage, a very important consideration in Indonesia. Therefore, on strictly economic grounds, investments in family planning are well justified. This argument, however, does not preclude a more substantial role for the private sector than at present, on grounds that peoples' preferences for public or private health providers vary with income. Also, there may be other advantages in encouraging segments of the population who can afford services for a fee, to seek such services; these include a perceived better

³The Chao report gives an annual rate of return of 40 percent, but this appears too high because, to the best of our knowledge, it is based on (a) very high estimates of births averted, since they are derived from user rates from program statistics which are known to be as much as 30 percent too high; (b) cost projections which are too low compared to those estimated in this report; and (c) only costs for BKKBN, but not for MOH. Adjustments for these three sources of overestimation gives a very conservative rate of return of 12 percent.

quality of services offered privately for a fee and the possibility of expanding the network of services faster and far beyond the limited capacity of the public sector. However, as will be argued in this report, the importance of this program for the country and the need to reach increasingly difficult target groups calls for maintaining adequate financial support, for the public sector program.

1.5 The remainder of this chapter provides an overview of recent trends in demographic indicators, an assessment of the current demographic situation and the most likely future demographic scenarios, based on alternative assumptions regarding the implementation of family planning.

B. Population, Mortality and Fertility Trends

1.6 In mid-1988 the population of Indonesia was estimated at about 174.8 million, increasing at an annual rate of growth of 2.05 percent; with this growth rate, about 3.5 million people are added each year (estimate based on the 1985 intercensal population survey--SUPAS). This makes Indonesia the fifth most populated country in the world. By the turn of the century, the population would reach 213 million. Underlying this projection are trends in fertility and mortality that assume continued progress in fertility reduction through family planning, with replacement level fertility being reached by 2005. Even if these projections are realized, zero population growth may not take place before the 22nd century, when the stationary population will have surpassed 300 million.

C. Demographic Data Sources

1.7 A vital registration system administered by the Ministry of Health existed until the late 1960s, when publication of vital rates was discontinued due to decreasing completeness. In the 1970's there were renewed efforts to establish vital registration; a Presidential Decree in 1978 required registration of births and deaths, and placed responsibility for the system with the Ministry of Interior. However, birth certificates are seldom required and people lack incentives to register births, particularly when the child dies in infancy (Chin, 1987). Therefore, vital statistics continue to be very incomplete. The Posyandu program may result in increased registration of infant deaths, but the more substantial improvements that are required to make these data valuable for demographic analysis are not anticipated in the near future.

1.8 Censuses were held in 1961, 1971, and 1980. Preparations are under way for a 1990 census. The first three censuses include questions on the survival of children ever born and born in the year preceding the census, thus allowing the estimation of infant and child mortality rates, as well as of period and cohort fertility rates. Plans for the 1990 census do not include these questions since more demographic information is now available from specialized surveys. Census data quality is generally poor and age distributions show extreme preferences for ages ending in zero and five; these deficiencies are likely to persist in the forthcoming census. Intercensal

population surveys, covering a large proportion of the population, have been held in 1976 and 1985. Results from these surveys are in many ways comparable to census data, since similar questions are asked and it is possible to estimate many of the same demographic rates; they are however, subject to most of the same data collection and validation problems.

1.9 The National Family Planning Coordination Board (BKKBN) maintains a management information system (MIS) which provides monthly statistics on family planning users for different contraceptive methods. While the MIS is essential for BKKBN monitoring, planning, and logistical operations, the system is not providing reliable contraceptive prevalence data. As is generally the case with program statistics, the number of acceptors is overestimated because of under-reporting of "drop-outs" and those who use methods incorrectly. Increasing dependence on the private sector for contraceptive supplies planned for the future will likely make monitoring contraceptive prevalence through the BKKBN system even more difficult. Specialized demographic surveys have attempted to fill the gap and to provide more detailed demographic information. Given the absence of a functional vital registration system and the inaccuracy of the census counts, periodic demographic or health surveys have been, and are likely to remain of particular importance to monitor demographic trends in Indonesia. The most important of these were the 1973 Fertility-Mortality Survey, the 1976 Indonesia Fertility Survey (part of the World Fertility Survey--WFS), the 1979 National Socio-Economic Survey (SUSENAS), the 1972, 1980 and 1986 National Household Health Surveys, the East Java Population Survey (consisting of three rounds carried out in 1979-1982), 1985 Morbidity and Mortality Differentials Survey, and the 1987 National Indonesia Contraceptive Prevalence Survey (NICPS/DHS). Most of these surveys did not attempt to achieve national coverage, somewhat limiting their usefulness. They are, nevertheless, the most important sources of current knowledge about levels and trends in fertility and mortality.

1.10 In this report, frequent reference is made to NICPS data; also, tabulations from this survey have been used for the analysis of the demand for family planning, feasibility of the private sector and estimates of several demographic rates. The survey was carried out by BPS and BKKBN in cooperation with the Demographic and Health Surveys (DHS) (an international program financed by USAID). It was taken in 20 of the 27 provinces and covered 93 percent of the population. Out of 12,073 targeted eligible women, 11,884 were successfully interviewed (98 per cent response rate). The questionnaire covered fertility and family planning related topics, as well as selected background characteristics. Health related questions were not included.

D. Demographic Trends

1.11 The demographic situation of Indonesia since independence can be summarized as one of high fertility and high mortality persisting through the mid 1970s, followed by remarkably fast declines in both variables. Table 1.2 of Annex 1 below shows mid-year total population estimates, from various censuses and intercensal surveys, adjusted for undercounts and

inconsistencies. The rate of population growth has been declining since the mid-1970s and is currently around two percent. This decline is particularly impressive because it was achieved during a period of rapidly dropping mortality. Table 1.1 in Annex 1 indicates where Indonesia stands in comparison with other countries in the region. Other Asian countries that have annual growth rates hovering around 2 percent have significantly higher mortality and fertility and thus more unfavorable health and well being conditions than Indonesia.

Table 1: Population Size and Growth, 1950-1988

(Population (millions))		Growth rate (percent)	
1950	78.0	1950-60	1.90
1960	94.0	1960-70	2.24
1970	117.5	1970-80	2.34
1980	148.3	1980-85	2.10
1985	164.6	1985-88	2.01
1988	174.8		

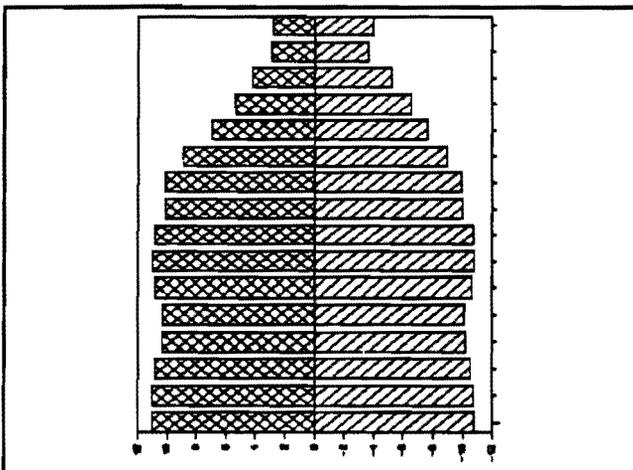
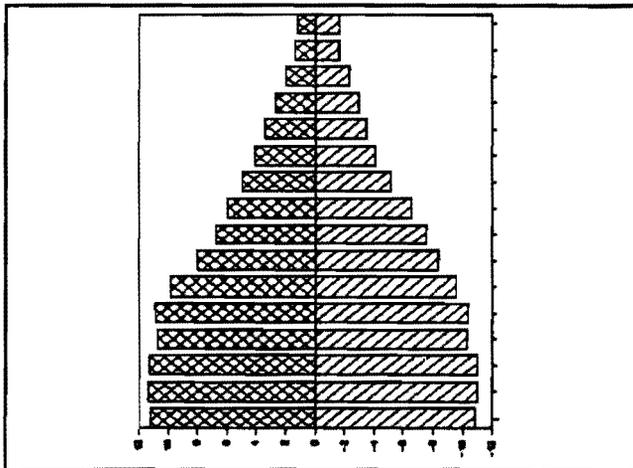
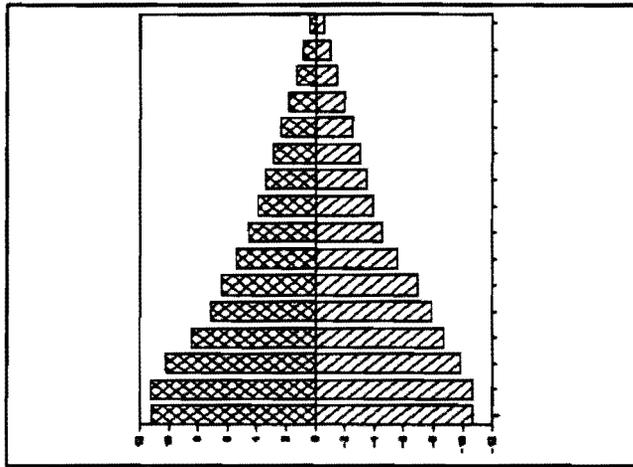
Source: World Bank demographic data files

1.12 The age structure of a population is an important indicator of the potential for future growth. The Indonesian population has a young structure with more than one-fourth under 10 years of age (Figure 1, and Annex 1, Table 1.2). The annual number of births peaked around 1980, but because mortality had been declining at the same time, the surviving cohorts born in the first half of this decade will be considerably larger than the preceding ones. Nevertheless, the effects of family planning are now becoming apparent in the declining proportion of dependents (0-15), from a high of 44.1 percent in 1971 to 37.4 percent now. At the same time, a larger proportion of women is now in childbearing age groups than at any time in the past, and this proportion is projected to increase steadily for the next 20 years as shown in the age pyramids presented in Figure 1. Continued population growth is therefore virtually inevitable for many decades to come. Even assuming a hypothetical immediate fertility decline to replacement level, the growth momentum would make the stationary population 1.68 times the current size.

E. Trends in Mortality

1.13 Infant and child mortality rates have been calculated with indirect estimation methods from censuses and demographic surveys (1974; McDonald et al., 1976; Adioetomo and Dasvarma, 1986; Committee on Population and

Figure 1. POPULATION PYRAMIDS 1985, 2000 AND 2025



Demography, 1987; Chandrasekaran, 1987). Given that various corrections have been applied to survey data, it is not surprising that various sources have come up with different estimates, although they are all in the same range. Infant mortality in the 1950s is believed to have averaged about 150, declining to 130 in the 1960s. Combined infant and child mortality (i.e. the proportion of children dying by age 5) was over 0.2 in the 1950s, declining to around 0.18 in the late 1960s. Improvements in infant mortality were only gradual in the early 1970s, so that the total decline between the 1971 and 1980 censuses averaged about 1.5 percent per year (Annex 1, Table 1.3). By 1980, Indonesia had an infant mortality rate still far above that of countries of comparable socioeconomic development. However, the decline in infant mortality was just then getting under way, and when the results of the 1985 SUPAS became available, the IMR was shown to be declining at a rate of more than 8 percent per year during the period 1979 to 1984. While a decline in the IMR was beyond doubt, such a high rate of decline was considered improbable by many analysts (United Nations, 1988). Recently, the 1987 NICPS (Central Bureau of Statistics et al., 1988) estimated the IMR for the period 1982 to 1987 at 70.2, indicating a five percent annual reduction in IMR over the past 10 years. However, because this survey excluded some of the outlying areas where mortality is believed to be higher than in other parts of Indonesia, the actual decline may have been slightly lower than the above estimate of 5 percent. In this analysis it was therefore concluded, on the basis of previous IMR estimates for the excluded areas and an assumed trend in the IMR, that an average of 70 would be achieved only in the period 1985-1990.

1.14 Increased immunization coverage is usually a contributing factor in the decline of infant and child mortality. In Indonesia, the DEPKES estimates that 65 percent of children are now being immunized for diphtheria, pertussis, and tetanus (DPT), surpassing the targets set for REPELITA IV. However, according to Chin (1987), although DPT coverage increased from 20 percent in 1979-80 to 62 percent in 1985-86, only 30 percent of all children received all three doses. BCG vaccination coverage stood at 63 percent in 1985-86, while measles vaccination reached only about 25 percent of infants. Tetanus immunization of pregnant mothers is believed to be lagging and has not reached its target of 40 percent. It is clear that given the relatively high level of infant mortality that prevails at present, sustained efforts to increase immunization coverage could still have a dramatic impact on the IMR.

1.15 Other factors that have contributed significantly to the decline in infant and child mortality include a decline in the proportion of births to mothers under 20, the lengthening of birth intervals, and decreases in higher order births. To the extent that the family planning program can be credited with reducing such high risk births, it should also be acknowledged for bringing down infant mortality. Changes in socioeconomic status, such as increased urbanization and maternal education, may have also contributed to lowering under five mortality. Economic development was rapid in Indonesia in the period 1975-1980, with annual GDP growth at 7 percent. This is reflected in the daily per capita calorie supply, which is above that required for sustenance, and in the percent of infants of low birth-weight, which was relatively low at 14 percent in the early 1980s. Table 1.4 in Annex 1 shows that substantial regional and socioeconomic differentials in infant mortality were found to persist in the 1987 NICPS.

1.16 A frequently used method for estimating adult mortality and for building life tables in the absence of vital registration is the calculation of survivorship ratios from two age distributions. In the case of Indonesia, such an attempt was made for the 1971 and 1980 Census and the 1985 SUPAS, but intractable age misreporting and/or changing census coverage precluded the use of this method (National Research Council--(US), Committee on Population and Demography, 1987). Instead, life tables have been developed on the basis of estimated infant and child mortality, used to select appropriate model life tables and life expectancies; the resulting estimates are believed to be fairly reliable. Table 1.3 in Annex 1 shows overall life expectancy in 1988 at 60.2, (58.5 for males and 62.1 for females). This is still almost five years below the mean of middle-income countries (Annex 1, Table 1.1).

F. Trends in Fertility

1.17 In Indonesia, the fertility transition did not begin until the late 1970's. However, once the total fertility rate (TFR) dropped below 5, it declined rapidly and monotonically (Table 2 below). These estimates are also based mainly on surveys, through indirect methods. As such, they are subject to sample and method specific errors. While fertility estimates from various sources differ, there appears to be broad consensus about the range. The crude birth rate (CBR) which was 43 per 1,000 births in 1950, was still high in 1970 (41 per 1,000); in 1988 it declined to 28 per 1,000.

Table 2: Trends in Fertility Indicators, 1950-1988

Year	CBR	TFR	Ave. Annual TFR change (%)	Ave. Annual number of births (thousands)
1950-54	43.0	5.49		3,501
1955-59	45.4	5.45	-0.1	4,060
1960-64	42.9	5.42	-0.1	4,202
1965-69	42.6	5.57	0.5	4,665
1970-74	41.4	5.40	-0.6	5,119
1975-79	36.4	4.75	-2.6	5,052
1980-84	33.2	4.05	-3.2	5,138
1988	28.0	3.41	-2.9	4,900

Source: World Bank demographic data files

1.18 Between 1980 and 1988, total fertility declined at about 3 percent annually (3.2 percent during 1980-84 and 2.9 percent in 1985-88). The average number of births per year appears to have peaked in the early 1980s, at 5.1

million. Recently, this number decreased to 4.9 million. Changes in the age pattern of fertility (Table 1.5 in Annex 1) show that fertility decline has taken place in all groups of the reproductive span, but proportionately more so among women 15-19 years of age. Table 1.6 in Annex 1 presents differentials in TFR by rural/urban residence, province and education, showing, as expected, that there is higher fertility among rural women, those living in the Outer Provinces and the uneducated.

1.19 Traditionally, Indonesian women have married early, although there are important regional variations. Earliest marriage patterns are found in West Java, followed by East and Central Java (with the exception of Yogyakarta), latest marriage patterns are prevalent in Bali. In the last few years there has been an overall trend to later marriage: while 30 percent of women aged 15 to 49 were found in the 1980 Census to have married before age 20, this percentage had dropped to 19 in the 1987 NICPS. This is also indicated by the trend in the median age of first marriage, which was 16.5 years for women 45-49, while that of women 20-29 was 19.6. However, socioeconomic differences in age at first marriage persist. Urban women married two years later than rural women, and those with secondary or higher education had a median age at first marriage 5.5 years older than women without education.

1.20 Nuptiality patterns are potentially among the important determinants of fertility because childbearing in Indonesia takes place almost exclusively within marriage. However, simple comparisons between marriage patterns and fertility levels in the provinces show a lack of any clear relationship, because of the combined effects of other factors, also influencing fertility decline (including increases in contraceptive practice). A later age at first marriage increases the length of generations and therefore slows the population growth rate, even if women were to have the same number of children as before during marriage. The family planning program correctly places special emphasis on reducing the frequency of early marriages, and further increases in the median age at first marriage can be expected to have additional effects in reducing the rate of population growth.

1.21 The level of marital dissolution (mostly divorce) is high in Java; about 25 percent of those who married in the period 1950-59 experienced a divorce within 10 years of marriage. Outside Java, where arranged marriages are less common, divorce rates are much lower (National Research Council--U.S., 1987.) Remarriage usually follows divorce within a short period. Fertility differentials among once-married women and women married more than once were found to be insignificant.

1.22 The use of modern contraceptive methods is beyond doubt the main determinant cause of the fertility decline experienced since the mid-1970s. The estimated trend in contraceptive prevalence (percent) and the number of users (millions) can be summarized as follows:

Table 3: CPR Users

	Percent	Millions
1960s	10	
1976	19	3.8
1979/80	30	6.5
1985	41	11.7
1988	46	14.2

Source: World Bank estimates based on recent surveys

1.23 A profile of contraceptive users can be seen in Table 1.7 of Annex 1. Moreover, the regional differences in the contraceptive prevalence rate have become smaller during this decade. All the areas outside Java-Bali (excluding those that were not part of the survey, with much lower CPRs) have contraceptive prevalence rates that are higher now than Java-Bali were just eight years ago. The 1987 NICPS showed that almost every married woman of childbearing age is now familiar with at least one method of contraception. Even among those with no formal education, 83 percent knows about contraception. Among those with at least some primary school, knowledge about contraception approaches one hundred percent. The survey also indicates that public information campaigns have difficulty reaching rural and uneducated women; 33 percent of women with a primary school or higher education level had heard or seen a message about family planning on radio or television at least once in the six months prior to the survey, whereas only 19 percent of women with less than completed primary school responded positively to this question. This indicates that other means of disseminating family planning information may become of greater value to reach the poor and those in outlying areas. According to the survey, fieldworkers visited one out of five currently married women in the six months before the survey. They obtained the highest level of approval given by women as sources of family planning information.

1.24 Contraceptives vary in their cost, use requirements, health consequences, availability and effectiveness; changes in contraceptive mix are therefore of significance for their potential effect on fertility as well as for a number of other reasons related to family planning practice. A comparison of data from the 1987 NICPS with previous surveys shows that significant changes in contraceptive mix have taken place; in part these took place as a result of new contraceptive technology, (e.g. NORPLANT). Other changes have occurred because of policy decisions to shift to more effective methods. Table 1.8 in Annex 1, indicates the changes from 1976 to 1987 in Java and Bali. A trend is notable towards more long term and more effective contraceptives: less use of contraceptive pills, condoms, and "other"

(periodic abstinence, diaphragm, foam, withdrawal), and more use of IUDs, injectables, sterilization, and NORPLANT. The average effectiveness of contraception in use, weighted by the proportion using, has increased from 87.2 to 92.2 percent due to these changes.

1.25 Variations in other proximate determinants of fertility appear to have been less important to account for the observed trend in the TFR in the past decade. The duration of breastfeeding was found to be about the same for younger as for older women. Younger women showed longer periods of sexual abstinence following a birth, thus increasing the period of insusceptibility to pregnancy. The effect of this factor on fertility is relatively minor. From the information available, the effects of abortion on fertility is insignificant.

G. Prospects for future fertility decline

1.26 Table 2 above shows that although the fastest fertility decline occurred in the early 1980s, it is continuing at a rapid pace. There is no evidence yet that a stall in fertility decline is imminent. Other countries (in particular Sri Lanka, Costa Rica, Korea, Malaysia) have experienced such stalling after an initial sharp drop in total fertility to levels between 3.5 and 4.0. However, Korea and Sri Lanka resumed their fertility decline after a number of years and are now at a near replacement level. The reasons for plateauing of FP programs are not always clear; a possible explanation is that desired family size converges with actual family size after the initial decline (Gendell, 1985). If, however, desired family size continues to drop during the fertility transition, such stalling is less likely to occur. Evidence from the recent NICPS indicates that unwanted fertility - the difference between the desired and actual number of children a woman has born - is still substantial (Annex 1, Table 1.9).

1.27 Another reason for the occurrence of stalls in fertility decline is the weakening of political support for the family planning program (Gendell, 1985). Such a situation is unlikely to arise at this time in Indonesia, as support for family planning, as well as knowledge of the demographic and economic consequences of its failure, can be found at most levels of government and society. However, a slowing in the rate of decline could occur as fertility drops to lower levels. First, the desired fertility level of some couples will not decrease any further. Second, those who desire family planning the most, as well as those for whom the services are most accessible (educated couples, urban residents, villagers in Java and Bali, people living near to family planning clinics or within reach of family planning fieldworkers) will have been covered by the program. The couples who still need to be brought into the program have higher family size preferences and are harder to reach. Among these are the urban poor, those living in outlying areas, those with low levels of education, as well as those who have difficulties using contraceptives correctly. To maintain the momentum of the fertility transition, these groups should be targeted and their use of family planning should be facilitated.

1.28 An additional difficulty will be the large number of eligible couples that will be added in coming years. The number of married women of reproductive age (MWRA) will increase from 30.8 million in 1988 to 35.6 million in 1994, or by about 800,000 per year. From now on, about 3.9 million acceptors need to be recruited every year just to maintain the present levels of contraceptive practice, when drop-outs are taken into account. The required number of users to achieve demographic targets will be addressed in Chapter 2.

1.29 Further information on the prospects for sustained fertility decline can be inferred by analyzing the information on reasons for nonuse and discontinuation of contraceptives. Table 1.10, Annex 1, indicates that health concerns and method failure are the most frequent reasons. Improved contraceptive technology and availability of a variety of methods could therefore reduce discontinuation and nonuse. NORPLANT, the recently introduced sub-dermal implant, has a very low failure rate and is not inconvenient in its use. Among current users, it has the highest approval rate: 97.5 percent has not experienced any problem with the implant, as opposed to 91.9 percent with pills, 93.7 percent with IUD, and 89.9 percent with injections. Greater availability of NORPLANT or other implants could therefore have a positive effect on contraceptive prevalence in the future. Besides improvements in the provision of contraceptives, the possibility of any major stalling in fertility decline could be minimized through several "beyond family planning" measures including improvements in female education and in female labor force participation, review and revision of pro-natalist laws and regulations and effective leadership involvement in family planning.

H. Population Projections

1.30 This section will show the results of several projection exercises. First, a projection of the population of Indonesia by age and sex for the next five year plan (1989-1994) with trends in fertility and mortality that are considered most likely will be presented as the "standard" projection. Next, the number of couples that will need to adopt family planning to achieve the "standard" projection will be shown, as well as the corresponding prevalence rates and number of acceptors. Following this, alternative projections will show the effect on population size and structure when contraceptive prevalence falls short of the required number of couples to achieve the "standard" projection, and when the required number is exceeded. The effects of changes in method mix and age at first marriage on contraceptive prevalence rates will also be addressed here. Finally, a longer term view will be taken by comparing low, medium, and high growth scenarios until 2030.

1.31 The Central Bureau of Statistics (BPS), in cooperation with BKKBN, BAPPENAS, and the Ministry of Population and the Environment (KLH), has prepared population projections based on targets to be achieved through various development efforts during Replita V. These projections are shown in Table 1.18. The World Bank population projections in this report follow as much as possible the official national projection. However, there are reasons for divergence between these projections. Where recent surveys and

analysis indicate different base line estimates, as in the case for mortality rates, the more recent numbers have been incorporated here. A second reason for preparing separate projections is the need to achieve consistency between projected trends in fertility and changes in contraceptive prevalence. The information on how this was attempted in the national projection is lacking.

"Standard" Projection

1.32 The "standard" projection applies cohort component projection methodology and assumptions regarding fertility and mortality trends which are based on the analysis of data from many countries. However, the 1994 total fertility rate (TFR) in this projection has been fixed at 2.88 to agree with the target set by KLH. The Appendix in Annex 1 discusses other assumptions in detail. Table 1.11, Annex 1, summarizes the resulting total population and vital rates under these assumptions. According to this projection, the end of REPELITA V there will be 20 million more Indonesians than in 1988. The average rate of growth during this period is projected at 1.78 percent per year.

1.33 In order to reduce the total fertility rate during REPELITA V from 3.31 to the 1994 target foreseen by KLH -- 2.88 -- the number of couples using contraception would need to increase substantially. Table 1.11 in Annex 1 shows that the net increase in the number of users would need to be 4.3 million, reaching a total of 19.4 users in 1994. The number of acceptors will be much larger than this, as many of the current users discontinue use for various reasons (method failure resulting in pregnancy, aging out of the reproductive cycle, planned discontinuation to conceive, discontinuation for other reasons). During REPELITA V, a total of 25.3 million new contraceptive acceptors will need to be recruited (this includes those who change methods). The contraceptive prevalence rate would thus reach 54.4 percent. Both the net increase in the number of users and the annual numbers of acceptors should be carefully monitored by the family planning program. While the number of acceptors gives an indication of the effort required, the net user number increase is useful for logistics and budgeting.

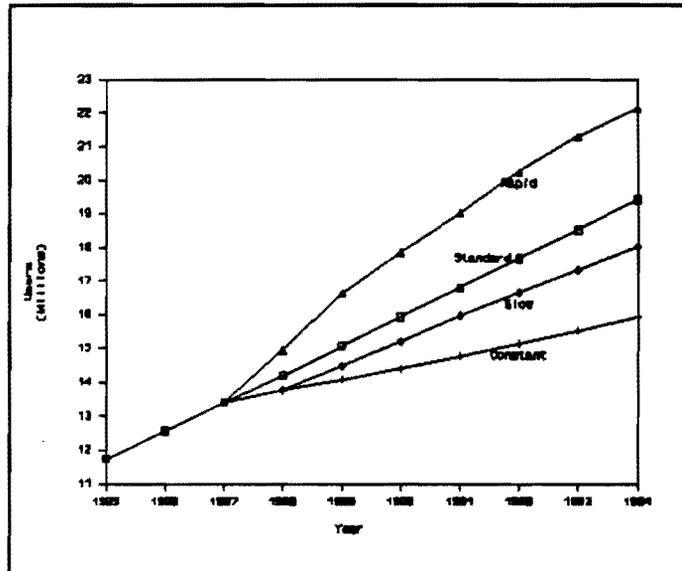
Variations on the "Standard" Projection

1.34 In order to have an idea of the effect on population size and growth rate if the number of new acceptors is lower than that required to achieve the "standard" projection, several alternative projections have been developed. Just to keep the contraceptive prevalence rate at the current level ("constant" CPR projection summarized in Annex 1, Table 1.12) a significant number of acceptors would need to be recruited due to the large increase in eligible couples. Even if 1.83 million contraceptive users were to be added during the five year period, the population in 1994 would be almost 3 million higher than under the "standard" projection, and the rate of population growth would remain around 2 percent per year. The

"constant" CPR scenario is extreme in its assumption of no further progress in extending family planning, but it helps understand the challenges confronting the family planning program.

1.35 A more moderate assumption (the "slow decline" projection) considers a still considerable increase in acceptors, although not as large as in the "standard" projection (summarized in Annex 1, Table 1.13). It assumes half the increase of the "standard" projection--i.e., a CPR of 50.6 percent in 1994. The effect on population growth would be an additional 1.6 million people and an average growth rate of 1.92 percent per year during REPELITA V. Figure 2 presents the number of users that the program should include under the different projection assumptions.

Figure 2. NUMBER OF CONTRACEPTIVE USERS UNDER THE DIFFERENT POPULATION PROJECTION SCENARIOS, 1985-1994



1.36 While the previous analyses show that a large number of acceptors needs to be recruited to achieve even small gains in contraceptive prevalence, it is not entirely inconceivable that the family planning program will continue innovating and will actually surpass the number of acceptors required to achieve the "standard" scenario. The "fast" decline projection is laid out in Annex 1, Table 1.14. It assumes that the CPR will be 10 percent greater in 1994 than under the "standard" projection. Under these assumptions, the population in 1994 would be 3.4 million smaller than under the "standard" projection. This would require 27.5 million acceptors during REPELITA V, with 22.2 million eligible couples contracepting in 1994.

1.37 Several other scenarios are also plausible. Contraceptive mix, and therefore, contraceptive efficacy, may change in ways that could reduce or increase the number of acceptors needed to achieve a certain fertility goal. A later age at first marriage would reduce the reproductive span and

could have a fertility reducing effect. Table 4 below summarizes several scenarios with alternative assumptions regarding contraceptive mix and proportion married. The question these numbers seek to answer is: "How many more (or fewer) contraceptive users are required to achieve the TFR target of 2.88 under the changed assumptions?". None of the alternative scenarios shows a substantial change in the contraceptive prevalence rate required to achieve the fertility targets of the "standard" projection. A one percent difference in the CPR in 1994 corresponds to about 365,000 couples. None of the proposed alternatives deviates by more than 1.3 percent, or 475,000 users, from the "standard". However, an increase in the number of sterilizations would have a reducing effect on the number of yearly acceptors, since the drop-out rate for sterilization is close to zero.

Table 4: Effects of Alternative Assumptions on the Contraceptive Rate Required to Achieve Fertility Targets of World Bank Standard Projection

Year	CPR Standard Projection	CPR Alt. 1	CPR Alt. 2	CPR Alt. 3	CPR Alt. 4
1989	47.7	47.1	48.0	47.5	47.0
1990	49.2	48.5	49.5	48.9	48.3
1991	50.6	49.8	51.0	50.3	49.6
1992	52.0	51.1	52.6	51.6	50.9
1993	53.3	52.3	53.9	52.8	52.0
1994	54.5	53.4	55.3	54.0	53.2

Alternative 1: median age at marriage will gradually increase by 3 years 1985-2020

Alternative 2: no change in contraceptive mix

Alternative 3: tripling of sterilization. Proportional decline of other methods, except Norplant, which will increase ten fold.

Alternative 4: all contraception 100 percent effective

Source: World Bank population projections

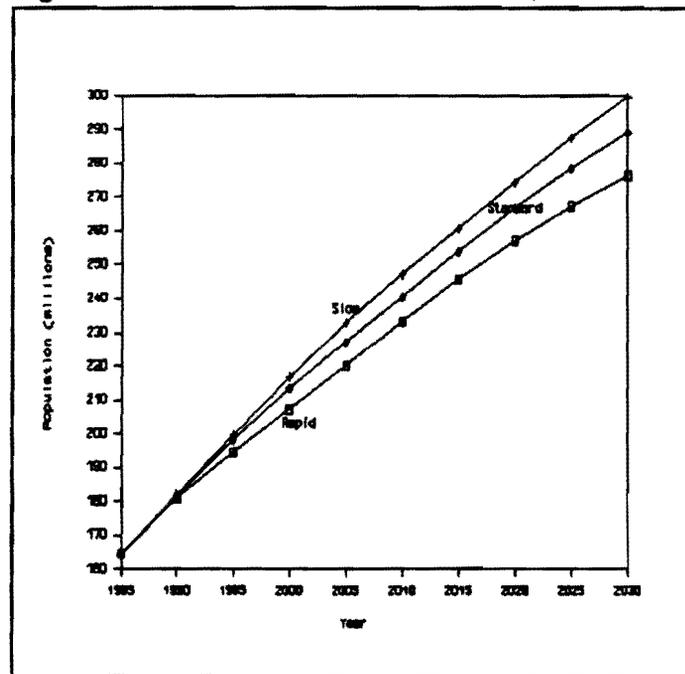
The Long-term View - Conclusions

1.38 The long-term effects on the demographic structure of Indonesia's population according to the "standard", "slow", and "fast" scenarios are shown in Tables 1.15, 1.16, and 1.17 of Annex 1 and presented graphically in Figure 3 below. After 1994, fertility decline in the "standard" projection follows a model in which replacement level fertility (i.e., a

net reproduction rate of 1) is reached in 2005. In the "slow" decline scenario, replacement fertility is reached in 2010, while in the "fast" decline scenario, it is attained in 2000. The implication of the slow decline scenario is 23 million more people by 2030 in comparison with the "fast" decline projection.

1.38 To sum up, both mortality and fertility have been falling rapidly in Indonesia for over a decade. Infant mortality is estimated around 70 per 1000 live births for 1985-90; life expectancy at birth is 60.2. Fertility has declined to a level at which a woman at the start of the childbearing years would have 3.4 children if she were to experience the present pattern of age specific fertility rates. Contraception is now being practiced by about half of all married couples. As a result of this fertility reduction, population growth has slowed to just below two percent per year. Further declines in fertility and in the population growth rate will take considerably more effort because the program will need to reach unprecedented numbers of contraceptive acceptors and motivate couples with high fertility attitudes, less likely to know about family planning and to seek services (e.g., remote areas, urban poor). The detailed programming of family planning operations will need to adopt innovative strategies and targeting for these groups. Strong public program efforts should be maintained at the same time that the public sector is encouraged to become a more significant partner in family planning.

Figure 3. POPULATION PROJECTIONS, 1985-2030



II. THE DEMAND FOR FAMILY PLANNING

2.1 This section examines the history of contraceptive use, the desire of women to limit or space their children and the implications of these patterns for the expansion of contraceptive use to reach demographic targets. The ability to reach targets in light of the expressed "need" for family planning is assessed in the concluding section of this chapter by comparing the Indonesian situation with the historical pattern of contraceptive expansion in Thailand. The analysis contained here is highly dependent on the recently completed National Indonesian Contraceptive Prevalence Survey (NICPS)¹ and the mission is grateful for the provision of an advanced version of this document.

A. History of Family Planning Expansion and Contributing Factors

2.2 Chapter I has documented the expansion of contraceptive use from less than 10 percent in the 1960's to 46 percent among currently married women in Indonesia today. Most of that increase has occurred in the last decade as usage has doubled among currently married women in Java-Bali between 1976 and 1987 (26 to 51 percent). This expansion has resulted from a combination of economic development, improved women's education and a strong program. Although it is impossible to give a precise estimate of the relative importance of these factors, rough indications can be inferred from the data available.² Education of women expanded substantially over the period 1976-87; the proportion of women with no schooling was only 8 percent among currently married women 15-19 years of age in the 1987 NICPS, compared with 47 percent among older women (45 to 49 years of age) showing a substantial increase in female schooling in recent years. Other evidence of this change is found by comparing the Java-Bali 1976 survey, which showed that 48 percent of ever married women had no schooling, with the recent survey of all Indonesia which found only 23 percent without schooling.³ Thus, educational

¹This survey is briefly discussed in chapter I in the section on Demographic Data Sources.

² The NICPS contains no data on income of individuals. Therefore the only proxy for development in the tabulation is wife's education. This is used throughout this section to identify level of development and income group.

³ Sources Table 02.3a IFS and Table 1.2 NICPS. Although these numbers are not exactly comparable, Java-Bali and Outer Island I had almost identical proportions without schooling in the recent survey. Outer Islands II had lower levels, but was numerically much smaller and thus had little effect on overall ratios.

improvements must have played an important role in contraceptive expansion and in fertility decline.

2.3 Evidence elsewhere in the report documents the expansion of the program. Although the effect of the family planning program on fertility reduction is difficult to assess precisely, by comparing usage among women in the same educational categories in 1976 and 1989, an estimate of program impact versus educational expansion can be inferred. In all educational levels with the exception of the highest, increases in contraception can be attributed in large part to the program in view of the small coverage with private services and the unlikely possibility that many of those women could pay for such services.

Table 1:

Percent of Currently Married Women Using Contraception
by Education in Java Bali

	<u>1976</u>	<u>1987</u>	<u>Percentage Increase</u>
No School	31	34.9	13
Some Primary	39	50.2	28
Primary Completed	40	56.7	43
More than Primary	57	65.9	16

Source: 1976 Survey of Fertility
1987 NICPS

B. Current Usage Patterns and Unmet Need for Contraception

2.4 The pattern of usage across regions, age and socioeconomic groups, presented in Table 2.1 of Annex 2, provide insight into the potential need for family planning that is not currently being met. The lowest levels of contraceptive practice (42 and 40 percent respectively) are found in Outer Islands I and II, compared to 51 percent in Java Bali. Usage differentials between urban and rural areas has reversed from 1976 and those in urban areas are now somewhat more likely to be users than those in rural areas (54 versus 45 percent).⁴ In Java-Bali (Table 1), women with primary school completed have made substantial gains in contraceptive practice between 1976 and 1987 (a 43 percent increase) compared with other educational groups -- women with no

⁴ There was substantial debate in earlier periods about why rural contraceptive usage rates were higher than urban. This debate has never been satisfactorily resolved. One hypothesis was that there were more pressures among rural than urban women to use contraception.

schooling increased their prevalence rate by 13 percent, those with some primary by 28 percent, and women with higher than primary education by 16 percent. The latter group already had a high CPR in 1976 (57 percent), a level at which increases become difficult for any group, since most of the motivated women are already practicing and increases must come from women who, for several reasons, are less receptive to contraception.

2.5 The use and non-use of contraception reflects the motivation to control fertility and the propensity to contracept among those who are motivated. Women can be motivated to control fertility either because they wish to have no additional children or because they wish to postpone the next birth. Not all those motivated to control fertility, however, are using or even intend to use contraception. Those women who wish to control their fertility, but who are not now using contraception, are referred to as having an unmet need for family planning. Table 2.1 in Annex 2 shows that approximately 20 percent of the married women in Indonesia have an unmet need to limit their fertility by this definition and another 20 percent have unmet need to space their births. Of those women who want to have no more children and have expressed that their need for contraception is unmet, the highest need is for women with no schooling (33 percent, compared with only 11 percent among the highest educational level). In the other two intermediate educational groups (some primary and completed primary) the unmet need is 22 and 16 percent (column 3 of Table 2.1 in Annex 2). All educational groups have a similar unmet need to space their births (around 20 percent). Women in urban and rural areas have roughly similar unmet need to limit births, but rural women have a higher unmet need for spacing than urban women. In analyzing unmet need and what it implies for program potential, it is necessary to recognize that not all women who have "implied need" intend to use contraception in the future. Only about a quarter of those who are not using a method and do not want additional children intend to use contraception, while 38 percent of those who wish to space intend to do so.⁵ This represents a serious diminution in potential acceptors and these women will be harder to reach than those who do intend to use. It is noteworthy that motivation and intention vary systematically by education: only 11 percent of those with no schooling who want no more children intend to use contraception, compared with 29 percent of those with some primary, 39 percent of those with complete primary and 49 percent of those with more than primary school. This information implies that the "demand" for family planning can be broken down according to preferences and needs of various groups and the family planning program should be designed to address these differences.

C. Comparing Unmet Need and Number of Target Users

2.6 On the basis of the information in Annex 2, Table 2.1, it is possible to estimate the numbers of potential users of various types, inflated

⁵ The higher percentage of those intending to use contraception, among spacers, does not necessarily mean that spacing intention is stronger. Many of those who wish to postpone a birth may only intend to use contraception once desired family size is achieved.

to comparable national figures.⁶ These estimates are given in Annex 2, Table 2.2. where it is shown that there are an estimated 13.3 million contraceptive users among the 93 percent of the population living in the sampled regions in 1987. In order to achieve the target total fertility rate (TFR) at the end of the next plan in 1994, there will have to be a total of 19.4 million users in Indonesia,⁷ nearly all of them living in the sampled regions, given the small number of people (7 percent) not covered by the survey and the presumed low usage among them. This implies an additional 6.1 million users, a target that at first glance appears easy to reach because an estimated 7.1 million women will want no more children and are not contracepting and 6.5 million non-contracepting women will want to postpone the next birth.⁸

2.7 There are three factors, however, that will make the achievement of the target difficult. First, of the estimated 13.6 million who have an unmet need for contraception, only 4.4 million intend to use contraception some time in the future and that may not be in the immediate future, but only after they have completed their desired family size. Second, indirect estimation indicates that of the current 13.3 million users, 5 million still want additional children and may well drop out of the program within the next five years. (Some portion of these will have their children and return to using contraception before the end of the five year period.) Third, there will be drop-outs for other reasons, as shown in Annex 2, Table 2.3. Although this number is difficult to quantify, it is known that, of those discontinuing in the last 5 years, only 35 percent dropped out to become pregnant. On the positive side, there is a group of women who will achieve their desired family size and will wish to limit fertility.

2.8 Table 2.4 in Annex 2 summarizes the information on how users come in and out of the program and on the number of acceptors needed during the period 1990-94 to achieve the target of 19.4 million users in 1994. The number of acceptors needed under various assumptions seems quite daunting (within a range of 22 and 29 million, depending on assumptions of continuation rates) when compared with the numbers of women in each category of contraceptive need. The large number of acceptors required is due to the fact

⁶ These numbers were calculated on the basis of the "demand" structure of the current women and multiplying by the number of currently married women who will be in the 93% of Indonesia covered by the survey in 1994. This implicitly assumes that the demand structure will be the same in 1994. This seems to be a legitimate assumption because the age structure of married women in child bearing age will change little between now and 1994.

⁷ The methodology to go from a target TFR to a target number of users is based on the Bongaart's model and assumptions about probable values of other proximate determinants of fertility, marriage structure, breastfeeding, etc. The contraceptive usage pattern implied in these assumption is discussed in the chapter containing the projections.

⁸ These estimates were obtained using current proportions in various need categories and estimates of the number of married women of child bearing age in 1994.

that many women drop out, then return either after a lag or immediately through method switch.⁹ Table 2.4. in Annex 2 indicates that the number of additional users needed in order to reach targets, added to the probable number of acceptors who drop out to get pregnant, will be 10.2 million, compared with 11.1 who have motivation to limit fertility.

2.9 In the next section, the implications of these estimates for program design and a further analysis of the information in Table 2.3 and 3.4 of Annex 2 will be discussed. An assessment of the number of acceptors needed over the five year period made by examining the numbers of past acceptors per year indicates that the target is reasonable under the medium continuation assumption. In 1984/84 there were 4 million new acceptors. If this pace were maintained, 20 million could be added over five years, which is close to the 21.6 million needed to reach the target.¹⁰ If, however, continuation rates fall 10 percent below what is currently observed in West Java, it would only be possible to meet the expansion from the growth in the number of women of reproductive age and the contraceptive prevalence rate would remain constant. (See projection in chapter 1).

D. Implications for Program Design

2.10 In reference to unmet need for contraception, there are four groups which should be made targets for program concern:

- (a) attention must be paid to current users to reduce drop-outs for reasons other than wishing to become pregnant (13.3 million);
- (b) efforts should be directed to serving those who are motivated to control fertility and intend to use contraception (4.4 million);
- (c) a different kind of program effort must be directed to those who want to limit or space their births but do not intend to use contraception (9.3 million): and

⁹ Estimates from NICPS show that of 1,700 women who quit using a method of contraception in the last open interval for reasons other than a desired pregnancy, 61 percent went on to resume contraception before becoming pregnant.

¹⁰ It is interesting to note that in 1985 the number of new acceptors per year in Thailand, if adjusted for differences in population size, imply 21.3 million acceptors over five years. This is almost identical to the new acceptors required to reach the target in Indonesia. (See Knodel, 1988, p. 178) In a later section, we will compare the Thai and Indonesian situations to determine how likely it is that the goals of the Indonesian program will be achieved.

- (d) finally, those who have no motivation to contracept could be considered of lower priority in targeting programs (3.7 million).

2.11 In the first three categories it is also important to distinguish between limiters and spacers. The program priorities should depend at least in part on the relative size of the various groups and their socioeconomic characteristics. Maintaining existing users is a first priority given the size of that group. Annex 2, Table 2.2 shows that 9 million of these women are in rural areas and 4 million, in urban areas. Of these current users, 7.3 million have less than completed primary education and 80 percent of these less educated users are in rural areas. The fact that the program has been so successful among the rural and the less educated is commendable. Efforts must be made, however, to maintain this achievement by addressing the reasons for dropouts among these women. Indirect estimates indicate that a larger percentage of contraceptive users in rural areas are spacers than in urban areas (40 versus 32 percent) and are thus more likely to drop out to resume childbearing. Also, in the country as a whole, more than half of the users with less than primary education are spacers rather than limiters (57 versus 43 percent). The next major reason for stopping contraception among women in the country as a whole, next to desire to become pregnant, are health concerns. According to the survey, health concerns are lowest for users of condoms (only 7 percent report discontinuation of condoms for reasons of health), followed by IUDs (27 percent); pill (30 percent) and injections (38 percent). The health concerns attached to injection increase with education. The program has protocols of service that recommend several follow-up visits after acceptance; it is essential to ensure that this recommendation is emphasized with rural and less educated clients, in order to correct negative side effects and allay health concerns. The family planning program (and particularly the public and NGO services catering to the lower educational groups and the rural population) needs to strengthen the clinic routines and the fieldworker follow up schedules in order to improve continuation among those groups. Another factor that would help continuation rates would be easier availability of low-cost or free sterilization for women who went on to limit fertility.

2.12 The second programmatic priority in terms of the size of groups should be the estimated 9.3 million who will be generally favorably inclined to limit their fertility, but do not intend to do so. Seven million of those are in rural areas and a like number have less than complete primary school. Ninety-five percent of the less educated are in rural areas. Getting acceptors from this group will require focused information, education and communication (IEC) activities. Indonesia's IEC program has had as an objective to instil the small family norm and it has been highly successful in this respect; desired family size has fallen from 4.2 in 1975 to 3.2 today. Through this program, all those couples that were predisposed to control their fertility found reinforcement and information. However, as the program moves to a phase in which it will need to address much more forcefully the question of a huge unmet need, the IEC program will have to develop targeted approaches to motivate acceptors from the above mentioned groups.

2.13 Tabulations on reasons for not using contraception indicate that religion is only listed by 9 percent of the women, while other unspecified reasons are given by 15 percent. However, cost or lack of access are given by 21 percent of the women as reasons for not using contraception. If the women who want to get pregnant are not included, one finds that almost 30 percent of those not using refer to access or costs as the reason for non-use. Health concerns, which are frequently mentioned by those who discontinue a method, are given as reasons for non-use by only 2 percent of the non-users. This implies that health concerns are mainly involved in method switching, not in non-use. Existing tabulations indicate that currently as many as 2.8 million users might be added by increased access and elimination of concerns about cost.¹¹

2.14 The third priority taking into account the numbers involved is the group of women who are motivated to control fertility and intend to use a method. Of the 4.4 million in this category, 3.3 million will be in rural areas and 2.5 million will not have completed primary school. Ninety-five percent of those less educated are in rural areas. Serving this group is of high priority and it is necessary to examine the reasons why they are not now using contraception. The fourth priority group in size and in probable pay-off are those who have no expressed interest or motivation in controlling their fertility. These women will be primarily rural (2.8 million) and with no schooling or with less than primary education (2.6 million). Further analysis of these women using data from NICPS would clearly be useful for detailed program design. From current knowledge it can be safely assumed that they will be harder to reach than women in the other groups mentioned, because they constitute the "hard core" of reluctance to practice family planning. This group is small (compared to the others) because the message of the "small, healthy, prosperous family" has succeeded in making relatively few women want to have additional births in the near future. To sum up, it is clear that there is a major job to be done in maintaining existing contraceptive users, attracting those motivated but reluctant to use, supplying those motivated and intending to practice contraception and trying to bring into the program women who have yet to learn about and accept family planning. As discussed below, there may also be a need to change the proportional mix between limiters and spacers.

E. Implications for Cost Recovery

2.15 The discussion above provides some insight into the socio-economic characteristics of various potential users. The elasticity of use of contraceptives with respect to user fees, whether publicly or privately

¹¹ Although the program is nominally free except for sterilization, NICPS data indicate that 36 percent of those contracepting reported paying for services or commodities. Conveying the KB Mandiri message urging self-reliance while at the same time letting those in need know that they can receive free contraceptives will be challenging; it will require developing IEC programs that convey appropriate messages to the different groups, without creating confusion.

imposed, however, can not be estimated with existing data or new tabulations from the survey, because no objective questions on access were asked. Some studies have attempted to correlate usage patterns by different geographical subdivisions with service availability in that subdistrict. Unfortunately those studies use flawed service statistics as the dependent variable. Thus, there exists no data set which includes reliable estimates of both usage and supply. It is an important research priority to develop such a data set. When a new round of NICPS is designed, it should have a service module to enable estimation of the effect of service access on usage and the elasticity of usage with respect to price.

2.16 In view of the unavailability of specific data on elasticity for Indonesia, one must refer to the existing literature from other countries. These other countries also suffer from a lack of data on price variations, so inferences about elasticity with respect to imposing fees are generally made from data on elasticity with respect to distance to service. That literature has mixed results. To the extent that there is a consensus, it is that where distances are substantial, increased proximity will increase usage. By implication, raising the costs of services in such environments would reduce usage. The most relevant study that should be considered is that recently done on Thailand (1984 data). While some earlier studies found that usage was sensitive to access, a more recent study found that there was a fairly low elasticity.¹² It was observed that if pill prices were increased by \$0.075 in rural areas and by \$0.10 in urban areas, usage would drop by 53,000 women.¹³ Of these, 47,000 would shift to another method if the prices of other contraceptives did not change (Ashakul, 1988).

2.17 There are several points that should be considered in interpreting these results for Indonesia: (a) the price increase contemplated was small in the Thai situation compared to larger increases in Indonesia, of about U.S.\$ 0.50 per cycle, and thus more women would drop out, even if the elasticities were the same in the two countries; and (b) as will be discussed below, the elasticity would be higher in Indonesia because the demand to limit fertility is less than in Thailand and the service network is less dense. Assuming that the elasticity is the same between the two countries, a cost of 1,300 rupiah per packet of pills for all users would reduce pill users by an estimated

¹²Price elasticities were all negative and less than one, but there was substantial difference in the elasticities between urban and rural areas and across method within urban and rural areas. The elasticity was greatest (0.64) for the condom in rural areas and least (0.00) for female sterilization in urban areas. Generally, elasticities were more negative in rural areas for supply methods.

¹³The pill elasticity was very low for the public pill which had a very low price (-0.016 and -0.032 in rural and urban areas). The private pill which was more expensive showed price elasticities of -0.31 and -0.20 in rural and urban areas.

735,000.¹⁴ It cannot be assumed that most of them would shift to other methods, because sterilization (which is widely used in Thailand) is not widely available and not free in Indonesia, and a fee for services program might impose fees for IUDs and injections as well. Thus, there is a clear adverse trade-off between attempts to achieve cost recovery and the achievement of demographic goals.¹⁵

F. Prospects for Achieving Targets

2.18 Since Indonesia aspires to replicate the success of Thailand both in population and development, comparisons with the pace of achievements in the Thai program are a good way of assessing the probability that Indonesia has of achieving targets within the projected time horizons.¹⁶ Before proceeding with the comparison, however, several major differences between the two countries should be acknowledged: Thailand has substantially higher income per capita and life expectancy than Indonesia, and a more concentrated rural population which, although proportionately larger, is easier to reach. It is therefore not entirely unexpected that Thailand has proceeded further and at a greater speed in its demographic transition (although this is not intended to detract from Thailand's outstanding efforts and achievements in fertility decline). Table 2.5 in Annex 2 shows a comparison of the two countries since the early 1950s. Thailand began with higher fertility, but after the family planning program was introduced in the early 1970s, Thai fertility fell below Indonesia's. The latest Thai survey data implies that the TFR has dropped to 2.4 in the 1982-87 period and as low as 2.2 in 1986 (Knodel et al., 1988). The achievements of the Indonesian program have been steady and impressive, but the initially pronounced fertility decline experienced in Thailand in the early years of their program was unparalleled. On the other hand, Indonesia's family planning initiation although slower, managed to keep a steady and progressive pace. This was done in spite of problems of lower income and greater geographic dispersion and in a predominantly Moslem environment, in which greater opposition to family planning could be expected.

2.19 Consequently, the relevant comparisons between these two countries will be those that can be made at similar stages. Indonesia hopes to achieve a CPR in the next plan period slightly below what Thailand had achieved in

¹⁴ This is not what is being currently planned in the Blue Circle campaign, but some discussion of user fees in the public sector is underway. The "blue Circle" campaign would make private sector pills cheaper than those currently being sold in commercial outlets.

¹⁵ The strongest factor affecting contraceptive use in the Thai study was the desire for additional children. The authors concluded that in that context reducing desired family size would have the greatest impact on increasing usage.

¹⁶ The targeted contraceptive prevalence rate for Indonesia in 1994 is 53 percent. In 1981 Thailand had achieved a rate of 57 percent.

1981. In this section, comparisons will be made between the situation in Thailand in 1975 (when usage was slightly below what it is now in Indonesia) and in 1981, when Thailand had achieved a rate slightly above the proposed Indonesian 1994 target. Table 2 summarizes the basis of comparison. In 1975, 57 percent of the women in Thailand wanted no more children, compared with between 45 and 51 percent currently in Indonesia (depending on whether women who were unsure about wanting another child are included.)¹⁷ On the other hand, usage among those women who want no more children is higher today in Indonesia than it was in Thailand in 1975. (58 versus 40 percent). Thus, in Thailand 34 percent of the women at that time wanted no more children but were not contracepting, compared with 19 to 21 percent in Indonesia today. These figures indicate that in the mid-1970s in Thailand there was a somewhat greater motivation by women to limit fertility and substantially larger unmet need than exists in Indonesia today.

Table 2: Comparison of Demand for Unmet Demand for and Use of Contraception in Indonesia and Thailand

	<u>Thailand</u>	<u>Indonesia</u>
	<u>1975</u>	<u>1987</u>
1. Percent Who Want No More Children	57	45-51
2. Percent Using of Those in #1	40	58
3. Contraceptive Prevalence Rate	19-34	45
4. Unmet Need to Limit (%)	34	21
Unmet Need to Space (%)	?	20
Total	?	41
	<u>1981</u>	<u>1993</u>
1. Proportion Who Want No More Children	6	?
2. Contraceptive Prevalence Rate	58	56 (projected)
3. Unmet Need to Limit (%)	15	?
Unmet Need to Space (%)	25	?
Total	40	?

¹⁷ This corresponds to a desired total fertility of 3.7 children in Thailand in 1975, compared with 3.2 today in Indonesia.

2.20 In terms of current usage, Indonesia is now 7 points above what Thailand was in 1975 and it plans to achieve usage about 2 points below what Thailand achieved in 1981. Therefore, in order to attain target levels of contraceptive use, Indonesia needs to tap about the same proportion of those women who want to limit fertility, as Thailand did in fact tap in the mid-'70s.¹⁸ It may be more difficult to recruit these women, however, because a larger percentage of users has already been tapped in Indonesia than was true in Thailand (58 versus 40 percent).

2.21 As indicated earlier, "demand" for family planning depends on the desire for spacing births, as well as for limiting fertility, and on motivation to use contraceptives. The 1975 Thai fertility survey contained no questions on spacing, nor tabulations on intention among those motivated. Therefore, in order to make comparisons on both sources of unmet need, one must look to later surveys. The 1981 Thai CPS survey showed that 66 percent of the women wanted no more children, compared with 45-51 percent in Indonesia today -- a 15-21 point difference. This suggests that while motivation -- as measured by combining limitation and spacing demand -- may be adequate in Indonesia in terms of potential users, as discussed in Section C, users may be more likely to be spacers in Indonesia and consequently more likely to discontinue use, or less likely to adopt contraception in the near future (until desired family sizes are reached), than was true in Thailand when contraceptive levels similar to Indonesia's 1994 goal were achieved.¹⁹ Demand for limiting as opposed to spacing may need to be increased in Indonesia²⁰. However, as mentioned before, even within the given demand structure, there are gaps in family planning services (need for better follow up of current users, lack of services for poor and rural women, lack of accessible, low or no cost sterilization).

2.22 Comparing unmet need between the two countries, one finds that Indonesia's current level of 41 percent is close to Thailand's 40 percent in 1981. One finds, however, that in 1981, 77 per cent of those who want no more children were using contraception in Thailand, compared with about 58 per cent in Indonesia. This leads to the conclusion that Thailand had a larger proportion of women who wanted to cease childbearing in 1975 and was very

¹⁸ If all Thailand's additional users came from limiters, then it tapped 59% of the unmet need. This is in fact consistent with 1981 figures on unmet demand for limiting in 1981. Indonesia will have to tap 58% of this demand to achieve targets.

¹⁹ The Thai surveys do not provide tabulations that allow direct or even indirect measures of the percentage of users who are spacers and the percentage who are limiters. This must be inferred from difference in motivation to limit fertility at the national level.

²⁰ A recent study in Thailand showed that the most effective way of increasing contraceptive users was to reduce the desire for additional children as opposed to changing the price of contraceptive methods. (Ashakul, 1988, p.19)

successful in meeting the needs of these women by 1981. Therefore, Thailand went from a position in 1975 of being less effective than Indonesia today in reaching women who wanted no more children, to being more effective in 1981. During this period, sterilization increased from 8 per cent to 22 per cent of couples.

2.23 As indicated in Annex 2, Table 2.2, the vast majority of those with unmet needs in Indonesia (71 percent) have less than completed primary school. Among these women, there are more who wish to limit than space births, and this preference is more marked among those with no schooling. This suggests that:

- (a) the least educated particularly need to be tapped to realize existing demand for family planning; and
- (b) among them, the need is greatest for permanent or long-lasting methods of contraception.

2.24 These findings are not surprising when one compares the two programs and draws on the experience of other countries. Indonesia has made remarkable progress in reducing fertility with very little reliance on sterilization (only 2 percent of married women of reproductive age). In this way, the program has been able to avoid substantial religious and general public opposition. On the other hand, reliance on female sterilization was 24 percent in Thailand in 1981 (male sterilization was 6 percent versus 0.4 percent in Indonesia). Studies from other countries have found that sterilization is particularly popular among poorer, less educated women. Thus, the lack of access to low cost sterilization in Indonesia may be a problem mainly affecting the poor, the rural, and the uneducated. While the religious leaders may be opposed to sterilization in Indonesia, a significant number of women do prefer this method (29 percent of women who specified what method they thought was best for limiting fertility stated female sterilization).

2.25 The major characteristics of the Thai program that have been credited with success have been:

- (a) the shift to free pills in all government outlets and free IUD insertions and sterilizations at rural outlets starting in 1976;
- (b) the use of paramedics to dispense methods provided only by physicians elsewhere;
- (c) primary reliance on the public sector (79 percent in 1984²¹); and
- (d) introduction of innovative methods: the mini-lap, injectable and implants (Knodel et al, 1987).

²¹ The private sector has a larger role in the urban than rural sector, but even in urban areas it represents only 37%.

2.26 Indonesia cannot follow Thailand in all respects. It may be impossible to introduce sterilization as a program method, but it would be important to make services widely available on health grounds, and also to reduce the costs of sterilizations provided through DEPKES, NGOs and private practitioners from their current levels of 10,000 to 20,000 rupiah in public facilities and 20,000 to 100,000 rupiah in private clinics; it would also be necessary to increase access to such services in rural areas. These steps would begin to fill the gap of contraceptive services for poor, rural women. However, it should be kept in mind that a program along these lines would have major implications for the budget of DEPKES (and BKKBN if recurrent costs were paid through BKKBN). It might also entail transfer of financial resources to NGOs and private service providers, if a public/private mix for offering these services is adopted. (See chapter 3 on the private sector.)

2.27 In addition to expanding access to sterilization, other strategies may be used to expand access to contraception among the less educated in rural areas. Dispensation of pills now requires a medical examination and a prescription for the first doses; subsequent replenishment can be obtained in pharmacies, clinics or distribution points by showing evidence of the initial clinic visit or prescription. In view of the scarcity of physicians in rural areas, use of pills could be facilitated by allowing paramedics to dispense pills, on the basis of a reasonable list of contraindications. The IUD is already being inserted largely by midwives and this increases access.

2.28 Indonesia is open to the development of new technologies. It is now using injectables rather extensively. Even more innovative has been the Government's willingness to engage in the field trials for implants, which has prepared the ground to use this method extensively once financing is available. Currently Indonesia is using over half of the world production of Norplant (manufactured only in Finland in limited amounts because the technology does not yet allow a high degree of automation). Although significant, the number of contraceptors using this method is still proportionately small -- less than 1 percent of users. Other forms of implants are being developed and produced in Netherlands and are being tested by the Indonesia family planning program. The contraceptive effect of implants lasts about 5 years; consequently, it is a contraceptive of great potential for the program, although it is still expensive (around U.S. \$17 per dose plus the cost of insertion device and clinic cost).

2.29 The free provision of pills throughout the country, and free IUDs and sterilization in rural areas is particularly important for guiding Indonesia's policy at this point in time. The Thai example reinforces the discussion above on the extent to which access and costs limit contraceptive use currently in Indonesia, the socio-economic structure of those in need of contraception laid out in Annex 2, Table 2.3 and the discussion of elasticity of demand above. The rate of return to family planning expenditures mentioned in the introduction further justifies the investment in free family planning services. This does not preclude encouragement of the private sector to serve specific groups of women which can afford and are willing to pay for those services. But there is no doubt that the public program should be preserved, expanded and strengthened, including wide availability of effective methods,

convenient clinic hours and good follow-up of clients. Issues for expanding the public family planning program are presented in Chapter 4. Further discussion of the potential capacity of the private sector to expand is covered in Chapter 3. Financial implications of continuing with a strong public FP program and likely contributions from the private sector are discussed Chapter 5.

G. Conclusions

2.30 Based on analysis of unmet need for family planning and comparisons with Thailand, a major conclusion of this section is that it is possible to achieve the target user rates that were set by the plan. In order to do this, special attention will need to be paid to continuation of existing users and to program activities to recruit those women who are motivated to use but are not now practicing contraception. A large proportion of these women report that they are constrained by lack of financial or physical access. The analysis suggests that it is the unmet need of the poor and rural women who wish to limit fertility that needs attention. For a large number of these women, permanent methods of contraception are a desirable choice, both on health grounds and as an effective and safe way to ensure contraception; however, these methods are the most expensive and least accessible in Indonesia.

2.31 A second conclusion of the analysis is the massive unmet need for contraceptive services among the least educated and rural. The remarkable success in reaching these groups in the past should not be ignored in determining the future direction of the program. As is indicated in the chapter on the private sector, although there is considerable scope to offer family planning services for a fee to large, better-off population groups, the proportion of the total program load which could be realistically transferred to the private sector in the next five years without compromising fulfillment of the targets and equity may not exceed 30 percent. This chapter has indicated that, if anything, access to free contraception (in particular free sterilization) needs to be expanded, the method mix optimized and the quality of the services improved. Another conclusion is that the IEC program should be fine tuned to reach the mentioned target groups with appropriate messages and information.

III. THE ROLE OF THE PRIVATE SECTOR IN FAMILY PLANNING SERVICE PROVISION

A. Introduction

3.1 In recent years the government of Indonesia has faced increasingly difficult budgetary constraints; in addition, donor support for population programs has not kept pace with demand. Uncertainties in funding, coupled with Indonesia's goal of increasing contraceptive prevalence in view of rapid increases in the number of couples in childbearing years, have placed greater emphasis on the role that the private sector can and should play in family planning (FP). As resources become scarce, Indonesia is re-examining its policy of subsidizing family planning services for those who have the capacity and willingness to pay for contraceptives from private sources and it is attempting to attract that group to private sources of supply. Another factor that has led the Government to focus on expanding private sector participation is the importance of increasing FP accessibility and diversifying the choices for obtaining contraceptives.

3.2 The public sector has been the predominant source of family planning services in Indonesia since the inception of BKKBN (the National Family Planning Coordinating Board) and it has largely been responsible for one of the most impressive transitions within the developing world, from very low levels, to middle range rates of contraceptive prevalence in a short span of time. All family planning services in the public sector are offered free of charge in principle¹ (except for sterilizations). The private sector share of family planning users is low relative to other countries (Lewis and Kenney, 1988) and relative to the private sector share of clients in the Indonesian health sector (Meesock, 1984). In an attempt to increase private sector participation, in the last two years BKKBN has been working on several special programs. In 1988 there were discussions on how to decrease the share of contraceptors using public sector sources from an estimated 80 percent in 1988 to 50 percent in 1994 and 20 percent in the year 2,000, although these targets were ultimately left out of the Fifth Plan. Although potentially desirable, these targets confront challenges and limitations which need to be spelled out and studied, for realistic program planning. However, it is still important to determine the actual capacity of the private sector in family planning for budgeting and planning in the public program.

3.3 This chapter will attempt to provide information on the current role played by the private sector in Indonesia, the types of clientele it has, the cost and quality of its services, and its potential for growth in the coming years. As will become evident, there are several areas where data are lacking, so that many findings are preliminary. After a brief discussion of BKKBN's private sector program, the family planning services offered by private midwives, doctors, and pharmacies will be discussed, followed by discussions of employment-based programs and the role of NGOs,

¹See Chapter 2 for evidence that public sector clients may actually be making payments for services obtained from public outlets.

closing with a section on extent of feasible involvement of the private sector in family planning.

B. Rationale for Government Subsidization of Family Planning

3.4 As mentioned in the introduction of this report, three major rationales are given for the provision of subsidized family planning services. First, government intervention is justified when society deems that family planning services constitute a "merit good" to which some segments of the population would not have access in the absence of government action. Second, government intervention can be called for when failures or distortions in related markets result in insufficient information or services. Third, externalities in the private decisions individuals make with respect to fertility and contraception can call for government intervention. The Indonesian government has treated family planning services as a "merit good" to which everyone, regardless of location or income should have access. Failures in other markets (restrictions on private practice, advertising of commercial contraceptive products, etc.) have raised the costs of private services and reduced the incentives of private providers to offer family planning services. (The Government is now addressing these obstacles with a view to facilitating private practice.) Moreover, a recent cost-benefit study (Chao et al., 1985) has shown that government investments in family planning services are cost-effective because of per capita savings in education and other social services and the relatively modest outlays required for the family planning program. It is clear that subsidization of family planning services can be justified on efficiency and equity grounds for some groups in Indonesia. However, until recently the question of which groups should the government subsidize and how this should be done, had not been directly confronted. With a fixed budget, the subsidization of services to higher income households could be deemed inequitable when the public program is failing to meet the needs of the poor.

3.5 Further, even if the government decides to subsidize services for individuals in a certain income group or other narrowly defined groups, it is not clear that the government is the optimal provider of services from an efficiency or quality point of view. In general, the private sector is perceived (unfortunately, little hard evidence exists to prove or disprove these perceptions) as serving a higher socio-economic stratum and providing higher quality, more convenient services, in a more efficient manner, relative to the public sector. Following Lewis and Kenney (1988), the private sector is subdivided into commercial and NGO (non-governmental organization) sub-components because it is recognized that commercial providers face very different incentives and are likely to have different quality and cost levels than NGOs.

C. BKKBN's KB Mandiri² Strategy and Private Sector Program

3.6 Two years ago, BKKBN embraced a policy of KB Mandiri which translated roughly means "self reliance" in family planning. KB Mandiri calls for a change in attitudes that leads people to internalize the concept of self-reliance in the use of contraceptive and the overall family norm. The implications of this concept are currently evolving and have been only partly operationalized. One dimension is to expand use of private providers by stimulating the supply of and demand for private services. While implementation nationwide is taking place with many locational variations, most of the related activities have their major focus in urban areas, particularly in the 11 largest cities. According to the 1987 National Indonesian Contraceptive Prevalence Survey (NICPS), the role of the private sector is largest in urban areas, where there is a great proportion of private providers (SOMARC Assessment, 1987; data shown in tables 3.1, 3.2 and 3.3). BKKBN's multi-faceted private sector program includes the following major dimensions:

- (a) training programs, supplies and equipment for doctors and midwives to enhance their capability of providing high-quality clinical family planning methods in their private practices;
- (b) a multi-media "Blue Circle" campaign aimed at making family planning acceptors aware that private doctors and midwives offer family planning services in private practice and to encourage those who can pay private sector prices to refrain from using free public services; the "Blue Circle" sign will signal the availability of family planning services from private practitioners;
- (c) introduction of socially marketed pills, IUDs and injectables under the "Blue Circle" logo at prices that are approximately one half the current commercial prices and a separate later launching of "Blue Circle" condoms, implants and spermicides;
- (d) management consulting and technical assistance aimed at increasing the management, fund-raising, and organizational capacities of NGOs and improving disbursement and oversight mechanisms at BKKBN; and

²The concept of KB Mandiri is linked to the long-standing Javanese tradition of Gotong-Royong--the individual's responsibility to act for the social good. The lack of analogous strong traditions outside Java or Bali, may make it more difficult to implement KB Mandiri in those areas. This commitment to contribute to the community according to one's abilities and to support those in the community in need is a foundation for KB Mandiri. A few communities have collected fees for family planning services in the past, even before the official policy of KB Mandiri (Mitchell, 1989). The primary use of these fees has been to fund transportation and treatment costs for women who suffered from the side effects of contraceptives but could not afford to bear these costs themselves.

- (e) support to family planning programs in the "organized" sector (plantations, industries, business).

3.7 Because much of this new program has only recently begun implementation, it is perhaps premature to evaluate results; but it should be possible to make a preliminary assessment of the likely impact of these policies, in order to allow the system to evolve along criteria which may have the best chance of success. The following sections attempt to provide an overview of the private sector's role in family planning service provision in Indonesia and how that role is likely to change in the future, given the evolving programs and incentives being designed.

D. The Commercial Market for Contraceptive Services

3.8 This section relies on information obtained in interviews with commercial providers, published reports and documents, NICPS and CPS data from Indonesia and, when drawing comparisons with other countries, on the work of Lewis and Kenney (1988). The discussion focuses on the composition of the commercial sector, the characteristics, utilization, fees, and supply sources of providers; and the location, method choice, and socio-economic status of its clients. The commercial sector comprises doctors and private midwives in private practice, pharmacies (and other retail outlets dispensing contraceptives), for-profit private clinics and hospitals, and clinics and hospitals run by private employers.

Size and Composition of the Commercial Sector in Family Planning

3.9 An estimated 12.5 percent of Indonesian women obtained their contraceptives at pharmacies or through private doctors or midwives.³ This is equivalent to 1.7 million family planning acceptors using commercial sources, of which an estimated 1.3 million obtain services from private doctors and midwives and 400,000 from pharmacies (1987). Among 11 countries with contraceptive prevalence rates between 40 and 65 percent, the commercial market in Indonesia, after Sri Lanka, has the second lowest share of users. Although the relationship between income and commercial FP share among these 11 countries is not entirely clear, it is interesting to note that both Indonesia and Sri Lanka have the lowest per capita incomes in the group. The average commercial share of these countries is 33 percent, with Mexico enjoying the highest private sector participation (about 77 percent). However, in other countries with well established family planning programs, such as Tunisia and Thailand, the private sector contribution is still low (about 20 percent). Reliance on the commercial sector for family planning in Indonesia varies by geographical region and by urban and rural residence. Of the 1.7 million women using commercial sources, 1.02 million live in urban areas. About 25 percent of the urban

³The discussion in this sub-section is based in part on data from Lewis and Kenney (1988), London (1985), and NICPS (1987). The estimates presented here were prepared by the Bank mission. It is necessary to note, however, that the various sources of data used have different breakdowns and representativeness.

contraceptors obtain contraceptives from the commercial sector, compared with 4.8 percent in rural areas (a considerably higher difference than in most countries where the share is approximately double in urban than in rural areas). The national commercial share is thus significantly influenced by the proportion of the population that is urban.

3.10 In addition to the importance of location, Lewis and Kenney (1988) found that women with higher socio-economic levels relied more heavily on commercial sources relative to those with lower socio-economic levels. Since the NICPS did not contain income data, the education level of the wife will be used as an indicator of socio-economic status, following the analysis in chapter 2.

3.11 Table 1 shows that the proportion of women relying on commercial sources increases with education, controlling for location. Among the contraceptors with at least a secondary education, 42 percent relied on commercial sources compared to 4.1 percent with no education. For women of the same education level, living in urban areas is associated with higher reliance on commercial sources, except for women with at least a secondary education, who appear to rely on commercial sources to the same extent, regardless of location.

Table 1: Proportion of Contraceptors relying on Private Doctors, Midwives, and Pharmacists for Different Education Groups by Location

Education	Overall	Urban	Rural
Secondary or Higher Completed Primary	.42	.42	.41
Some Primary	.25	.33	.16
No Schooling	.09	.20	.06
	.04	.11	.03

Source: 1987 NICPS

It should be noted that some of these categories have very small sample sizes. There were only 66 urban contraceptors who had completed secondary school and only 22 rural contraceptors with no schooling, compared to 653 rural contraceptors with no schooling. Of the contraceptors who had completed primary school, 531 were in urban areas and 422 were in rural areas. Of those who had some primary education, 732 were in urban areas and 2,260 were in rural areas.

3.12 Table 2 shows that reliance on commercial providers by type of provider varies with education level. For women in the top two education groups, the most important commercial provider is the doctor, followed by the pharmacy. For women in the two lowest education groups, the most important commercial provider is the midwife. In fact, only 24 percent of the clients of private midwives are in the two highest education groups compared to almost 60 percent of the family planning clients of private doctors.

Table 2: Reliance on Commercial Sources by Education and Location**a. Estimated Reliance on Pharmacies by Education and Location**

	No Schooling	Some Primary	Completed Primary	Completed Secondary
Urban	.02	.04	.10	.15
Rural	.00	.004	.02	.14

b. Estimated Reliance on Private Doctors by Education and Location

Urban	.01	.09	.17	.24
Rural	.002	.02	.08	.26

c. Estimated Reliance on Private Midwives by Education and Location

Urban	.09	.07	.05	.03
Rural	.03	.04	.05	.01

Source: 1987 NICPS

3.13 The main conclusions are that women with higher education levels were much more likely to rely on commercial sources than lower educated women. Midwives appear to be mainly serving women with low socio-economic levels. Notwithstanding the strong relationship between commercial use and high socioeconomic status, it appears that only half of the commercial users are in the two highest education groups. This emerges because there are so many more women in the two lowest education groups than in the two highest groups, so that even though low-education women rely on private sources in low proportions, they account for the same share of commercial use as do the more educated groups who rely on commercial sources in higher proportions.

3.14 It is therefore important to examine the characteristics of the FP commercial sector in the main urban centers. Relevant data are available from a 1983 survey of five large cities--Jakarta, Medan, Semarang, Surabaya and Ujung-Pandang (Table 3.4 in Annex 3 provides a breakdown for each of the five cities). Contracepting women in Jakarta and Medan relied more on commercial and NGO sources of FP (30 percent) than in the other three cities (between 26 and 21 percent). In all these cities, with the exception of Surabaya, more private FP clients relied on private clinics and practitioners than pharmacies. In Surabaya (and in East Java in general), historically, pharmacies have played a large role in providing family planning; there, pharmacies took care of 56 percent of the private FP users, compared with 23 to 19 percent in the other cities. These data are from 1983 and the present situation may be different and changing rapidly, but they show that urban dwellers rely on the commercial sector to

a significant extent; that there are large variations in use of private FP services among cities; and that the utilization of pharmacies as a source for contraceptives has even larger variations among cities than the rate of commercial FP share in general. These findings imply very different relationships between the FP program and the various components of the commercial sector, which should be studied further to determine underlying factors; this knowledge would allow program managers to take appropriate action in order to make better use of those groups of private providers in specific locations, which are not yet fully involved in family planning delivery.

3.15 The predominant method offered through the commercial sector is the injectable (41 percent of private clients use this method), followed by IUD (25 percent), condoms (17 percent); and pills (15 percent); tubectomies are around 5 percent. Table 3.5 in Annex 3 presents data from the 1987 NICPS on the proportion obtaining a method from either a pharmacy, a private doctor, or a private midwife, by method and by location. The commercial sector serves 58 percent of all condom acceptors, 24 percent of injectable acceptors, and 10 percent of IUD acceptors. In addition, the commercial share for female sterilizations, pills, and implants are 5.8, 4.9 and 2.2 percent respectively. Particularly striking is the very small role that commercial providers play in meeting the needs of pill users.

3.16 As in other countries with strong family planning prevalence rates, in Indonesia the commercial sector plays a greater role in provision of re-supply methods than in clinical methods. The private midwife serves proportionately more pill clients than private doctors and pharmacies (but less than pharmacies in urban areas), both doctors and midwives serve equal numbers of private patients using injectables. In clinical methods, doctors, as expected, do most of the tubectomies; they also provide more IUDs than midwives, although this situation could change if private midwives are provided with proper equipment for IUD insertion, are trained and can easily resort to medical back-up in cases of complications (both in Indonesia's public sector and in other countries, midwives can perform very efficiently IUD insertions).

Private Midwives and Doctors

3.17 It is commonly agreed that very few health service providers in Indonesia have full time private practices and that most are employed full time by the public sector and conduct their private practice part time in the afternoon and evening. The income earned from part time private practice has been said to exceed what is earned from full time employment in the public sector. Graduates of Indonesian medical schools, both public and private, must obtain employment in the public sector or in certain private employments deemed to be in "the national interest." According to a recent Bank health financing study (1988), only 5.9 percent of Indonesia's doctors are employed solely in the private sector. While this figure may be lower than the actual number because it is based on the Ministry of Health (DEPKES) records regarding the issuance or renewal of private practice licenses (there may be omissions by some practitioners in obtaining private practice licenses from local health departments) it does suggest how dominant the public sector is as an employer of physicians.

3.18 Evidence from another study, (Survey Research, Indonesia --SRI, 1987; SRI is a private Indonesian research and surveying firm) suggests that exclusive private practice among doctors does not exceed 10 percent and among midwives is estimated at 20-25 percent. Doctors and midwives working in the public sector must obtain permission from their District Office Department of Health to conduct a (part-time) private practice after normal working hours. For doctors who wish to work strictly in private practice, government service is required for differing amounts of time depending on the proposed location of the private practice. With the intention of discouraging private practice in areas where doctors are relatively abundant, the requirement is 15 years of service in the public sector for Jakarta, 9 years for provincial cities and 6 years for district cities. Similar regulations constrain midwives from setting up exclusive private practice, but they are less restrictive.

3.19 The 1987 SRI study of 120 midwives and doctors practicing privately in Jakarta and three other major urban areas gives information about private and public practice among family planning providers. The sample was drawn among practitioners who had seen at least one family planning patient in private practice during the week prior to the survey. Of the sampled midwives, 30 percent were solely in private practice, 63 percent worked in the public sector (33 percent at government hospitals and 30 percent at public clinics), and 11 percent worked at a private hospital (with some overlaps). Of the responding doctors, only 10 percent were working exclusively as private practitioners, 57 percent worked in the public sector (40 percent at government hospitals and 17 percent worked at public clinics) and 22 percent worked at a private hospital. The greater frequency of exclusive private practice among midwives relative to doctors could be due to fewer restrictions on private practice for midwives or the fact that there may be a large cohort of midwives retired from public service and in private practice.

3.20 The 1987 SRI survey⁴ provides useful information on the nature of the family planning services offered by selected practitioners. Of the responding doctors and midwives, 90 percent offered both injectables and pills and about two thirds inserted IUDs and sold condoms. Sterilizations were performed by fewer than 10 percent of the doctors. These private providers referred patients to other practitioners (either public or private) very infrequently (in less than 10 percent of the cases) for methods that they themselves did not offer (e.g. IUD or sterilization). Of those who said they would like to provide other methods, one third (the majority being midwives) mentioned implants, one fifth, IUDs and 13 percent sterilizations. Lack of facilities and training were the main reasons given for not providing IUD insertions or implants. BKKBN training and provision of IUD kits to private service providers may help remove some of these constraints.

⁴SOMARC, Assessment of SRI Study - Parts I and II, 1987. This study was conducted with USAID funding. Details on sample findings are included in Annex 3, table 3.1.

3.21 More than 80 percent of the respondents regularly stocked injectables and pills and close to half stocked IUDs and condoms. Among those who kept supplies of pills, IUDs and condoms, 65 percent obtained free products from BKKBN--the remainder purchased from pharmacies. About 42 percent of the doctors gave oral contraceptives free to their clients. This implies that significant numbers of commercial sector clients may not be paying for commodities. A different picture emerges for injectables, which appear to be less available to private providers from free sources than pills or IUDs (48 percent purchased injectables). This may be because of the small supply of injectables available in the public program in relation to the relatively large demand for that type of contraceptive, which, in combination with the relatively large role that the commercial sector plays in serving injectable users (shown in the 1987 NICPS), lends support to the argument that widespread availability of free services may have dampened growth of private services in the past.

3.22 Doctors charge about twice as much as midwives for consultations (details on charges given in Annex 3, Table 3.6). Even within this small sample composed of a fairly homogeneous group of FP providers, prices of supplies and services vary considerably. In a typical week, the proportion of clients seeking FP services ranged from 30 percent for midwives and gynecologists, to 25 percent for all providers; 18 percent of doctors' visits were for FP. The figures from this survey were used to estimate the number of acceptors obtaining services from the private sector (methodology is explained in Annex 3). On this basis, an estimated 800,000 acceptors were served by private doctors and 1,100,000 by private midwives in 1984. These estimates apply only to the eleven largest urban areas and appear to significantly overstate the number of acceptors seen by private practitioners, since the NICPS estimates imply that private practitioners saw a total of 700,000 acceptors in all urban areas in 1987.

3.23 The number of private practitioners offering family planning may rise because of current efforts to encourage more doctors and midwives to offer FP in private practice. Also, it is difficult to anticipate what will happen to the supply costs to providers and fees charged to clients once the moderately priced "Blue Circle" contraceptives are introduced and the free supplies cease. It is also unknown how the multi-media campaign will affect demand for private services. Thus far (mid-1988), the intense mass media campaign to introduce the "Blue Circle" program has created awareness in varying degrees from city to city (highest in Jakarta, low in Surabaya and modest in Ujung-Pandang and Medan).

Family Planning Training Programs for Private Midwives and Doctors

3.24 BKKBN has attempted to expand the family planning service capability of private providers by working with IBI, IDI, and POGI (the Indonesian professional associations for midwives, doctors, and OB-GYN specialists, respectively). Through these organizations, BKKBN (with financial assistance from USAID) has provided training, educational materials and equipment to member practitioners with private practices who wish to offer more family planning services. In 1987, FP training was offered to doctors and midwives in 11 large cities to certify them as qualified to provide family planning services in private practice. A

subset of these providers was also issued IUD kits. It is not clear whether certification requires having the "proper equipment" (i.e., head lamp, gynecological table, etc.) for doing IUD insertions or merely an accepted number of cases or hours of practice. An evaluation of a training program for midwives revealed that only a small group of those trained provides FP services in their private practices. An attempt should be made to ascertain which applicants for FP training and for equipment are most likely to apply these resources and training in their private practices.

Quality of Service in Public Versus Commercial Sector

3.25 The fact that most of the FP providers in private practice are also public sector employees suggests that public and commercial providers may have similar qualifications. It is possible, though, that there is a self-selection into private practice, but this has not been studied. It is argued that private providers have hours that are more convenient, involve less waiting time, and give more time to clients than public sector providers. On the other hand, lack of proper equipment may have hindered some private practitioners from giving high quality medical care when providing family planning services.⁵ At the present time, no organization is overseeing or regulating the quality of private clinical FP services.

3.26 Further, some of the providers with part-time private practices are employed full-time in administrative capacities, so that they may actually have a more difficult time keeping their skills honed and up-to-date than public sector doctors. Additionally, if there is a correlation between frequent IUD insertions and safety, private providers with small practices could conceivably have worse safety records than their public sector counterparts. Another potential limitation of private providers offering only one or two contraceptive methods is the lack of incentives to refer clients who want a service not offered by them. In some cases, there might be more emphasis by private practitioners on resupply methods than is desirable. On the other hand, there are also potential quality disadvantages with public sector providers. According to Somarc (1987), 90 percent of the pills purchased by BKKBN in 1986 were of a high-dose which suggest that a large majority of women using public FP services will be taking high-dose pills (a less desirable alternative on health grounds). This, to the extent it happens, is driven by supply and procurement considerations, intended to keep down costs. These apparent negative factors affecting the quality of FP services, both in the public and private sector, need to be sorted out in order to adopt programmatic and policy measures which encourage improvements.

Commercial Sources of Contraceptives: Pharmacies and Retail Outlets

3.27 Up to the present time, the 1,665 pharmacies --APOTIKS-- (of which 869 are in urban areas) have not played a large role in providing contraceptive services in Indonesia. As discussed in an earlier section, an estimated .7 percent of rural and 4.5 percent of urban contraceptors

⁵One-handed IUD insertions have been done by individual providers who lack head lamps or proper gynecological tables.

obtained their contraceptives (almost exclusively pills and condoms) from pharmacies (NICPS, 1987). Data from 1983 suggest that there may be significant variations across cities in reliance on pharmacies.

3.28 To date the only socially marketed contraceptive in Indonesia has been the Dualima condom. The Dualima mass media campaign publicized a moderately priced condom (currently 130 rupiah per condom compared to average commercial prices that are 2 to 3 times higher) available at a full range of retail outlets in seven of the major urban areas. After operating for two years, the Dualima condom had attained a market share of 30 percent and it is expected that by the fourth year, sales may produce sufficient revenue to meet operating costs. It does not appear that the existence of the Dualima condom has raised the share of contraceptors using condoms, but it is not clear how the non-subsidized commercial market for condoms has been affected by the introduction of this product.

3.29 While BKKBN and ISFI (the Indonesian professional association for pharmacists) have held training sessions for member pharmacists in several Indonesian cities in the last few years, relatively more emphasis has been placed on training doctors and midwives. The training for pharmacists has emphasized the side effects of contraceptives so that they can help clients recognize and treat them. ISFI members have expressed a strong interest in obtaining point of purchase materials on side effects and on family planning services more generally. In East Java, where pharmacists play a large role in family planning (probably because the ties between ISFI and BKKBN are strongest in this region) they provide family planning information and are involved in motivation and referral of clients. It is not clear how often pharmacists get involved in those facets of family planning service provision in other areas of Indonesia.

3.30 Condoms can be purchased at both apotiks and TOKO OBATS (small medicine shops).⁶ Historically, pills were only to be sold to women with prescriptions, at apotiks employing a registered pharmacist. In 1987, the pill was moved to the G2 list, which entitled licensed apotiks to dispense pills to a woman who could produce proof of past purchase or who could demonstrate that she had seen a doctor. It is not clear how rigorously either one of these restrictions was enforced. Reportedly oral contraceptives have been sold at wholesale markets and TOKO OBATS. To the extent that the prescription requirement was observed in the past, a January 1989 DEPKEs Decree (described in next section) regarding pharmacy sales of Blue Circle pills should reduce costs to users of oral contraceptives previously paying the provider a consultation fee, the pill supply costs, and subsequent fees for the required check-ups at three-month intervals. While it is too early to know the ramifications of the new DEPKEs/BKKBN agreement, additional FP training of pharmacists and retailers at toko obats may be required (sales of oral contraceptives at toko obats is still illegal, but BKKBN is exploring this option with the DEPKEs). Currently contraceptives account for only a small share of revenue at pharmacies (Somarc, 1987). The ultimate impact will depend on how successful the "Blue Circle" program is at attracting users from the public sector and on where pill users choose to go for resupply.

⁶For policy and legal regulations, see next section.

Policy and Legal Constraints Limiting Commercial Services

3.31 BKKBN and DEPKES recently came to an agreement that should remove some of the constraints that various laws have exerted over the growth of private sector FP services. The agreement said, in effect, that in the interest of attaining KB Mandiri, "nothing should interfere with the distribution of contraceptive supplies." A January 1989 DEPKES Decree permitted doctors and midwives (under the supervision of doctors) to stock and dispense Blue Circle oral contraceptives. No change was made regarding the sales of oral contraceptives at other retail outlets, besides licensed APOTIKS. In the past, there have been several legal constraints that may have inhibited private practice. Legally, neither doctors nor midwives have been allowed to stock, dispense or sell medicines that are on the Ministry of Health's G List of prescribable drugs. The only previous exception had been doctors located far from pharmacies. This had limited distributors to selling oral contraceptives legally only to apotiks. IUDs, not on the G List, were classified differently and were not governed by this rule. In April of 1988, the DEPKES issued a Decree that permitted doctors and midwives (under the supervision of doctors) to dispense injectables. However, these legal restrictions may not have deterred many private practitioners from stocking oral contraceptives. The SRI study of private providers (SOMARC, 1987) found that a significant proportion of doctors and midwives sampled in four cities in 1987 had stocks of oral contraceptives. However, this study was conducted after the Jalur Swasta program of free legal supplies to providers had been initiated so that very little can be inferred about how often the prohibition on stocking had previously been observed by private doctors and midwives and whether it affected their willingness to provide family planning services.

Commercial Contraceptive Commodity Levels and Prices⁷

3.32 Many arguments have been proposed to explain why the commercial market for contraceptives has remained small in Indonesia. In preparation for the social marketing of contraceptives many of these issues have been laid out (SOMARC 1987). The main reasons given for the current pattern are: the success of the public program; the preponderance of free supplies leaking or officially flowing from the public sector; the constraints imposed by laws governing the selling, stocking, prescribing and dispensing of oral contraceptives; and other disincentives on private investments in the commercial market, including value added taxes that apply at two stages in the distribution chain and prohibition of consumer advertising of ethical pharmaceutical products. Other factors may include low income levels and the fact that the large majority of the Indonesian population is rural.

3.33 According to industry records summarized in SOMARC (1987, Part II), 1.35 million pill cycles, 200,000 vials of injectables, and 24,000 IUDs

⁷Implications of prices and the cost of contraceptives for the public sector are discussed in Chapter 5.

were sold in the commercial market in 1986. This translates into commercial sales for around 200,000 contraceptors (assuming that IUDs are inserted for an average of 3 years) which constitutes roughly only 2 percent of 12.6 million users estimated for 1986 (mission estimates, 1988). These figures serve to re-emphasize the large role that free contraceptive products from the public sector play in meeting the contraceptive needs of Indonesians, even in the private sector. The implication is that even if 20 percent were obtaining FP from private sources in 1986, significantly fewer were paying commercial prices for commodities.

3.34 Retail prices for a cycle of commercial oral contraceptives and a vial of injectables are in the 2,500 to 3,500 rupiah range. This represents an annual commodity cost of 39,000 rupiahs for pills and 12,000 rupiahs for injectables. These retail prices are high compared to those in other South East Asian countries (SOMARC, 1987) because of extraordinarily high mark-ups by manufacturers, distributors and retailers, as well as value-added taxes. While manufacturing firms sell oral contraceptives to BKKBN at between 250 to 350 rupiah per cycle (much of the oral contraceptive production takes place in Indonesia, which reduces costs), the same products sell for roughly ten times more on the commercial market. It is clear that manufacturers can sell products in bulk at discounted prices to BKKBN; still, the mark-ups made by distributors, wholesalers and retailers amount to almost double the price charged by the manufacturer at the first stage in the distribution chain.

3.35 The socially marketed products under the "Blue Circle" logo launched by the end of 1988 are expected to have retail prices that are about one half their current commercial prices. These retail prices are sufficient to cover production, packaging and distribution and include a payment to the marketing firm to defray some of the market research and advertising expenses. The Blue Circle pill (Schering's Microgynon) has a retail price of 7,500 rupiah, and for the "Blue Circle" injectable (UpJohn's Depo Provera) and the "Blue Circle" IUD (Kimia Farma's Copper T), the retail prices will be 1,870 rupiah and 7,500 rupiah respectively. Some have argued that these prices are still too high to capture a large share of users from the public sector, but in the absence of information on the price (and income) elasticity of demand, it is not clear a priori what the impact of these or lower prices would be on share of users in the commercial sector or on revenue to manufacturers. From the point of view of the commercial firms, the key to the success of the social marketing effort will hinge on the extent to which the free contraceptive supplies continue to find their way to private providers.

Subsidization of Private Midwives and Doctors

3.36 Since most of the providers who have private practices are also employed by the public sector, many have access to the free contraceptives supplied by the national family planning program. In some health clinics, doctors and midwives have even been allowed to take supplies because of difficulties experienced by the public program in meeting contraceptive targets (SRI, 1987).

3.37 In early 1987, BKKBN formalized the free supply of contraceptives to private providers through the Jalur Swasta program, which involved the donation of contraceptive supplies to private providers. The delivery of contraceptives to providers was done either through the professional associations or directly by BKKBN or public health clinic. The subsidization was aimed at creating incentives for private practitioners to supply family planning services thereby shifting some of the public sector users over to the private sector. The Jalur Swasta program is not expected to continue once the "Blue Circle" social marketing program is implemented.

3.38 Private FP providers have also been subsidized in other ways. Many conduct their private practice after working hours, at a public or NGO clinic--not usually at the same clinic where they are employed full time. However, the proportion of professionals who use public facilities in this way is not known. By making use of the clinic's equipment and supplies, private providers avoid investments. Reportedly, it can be very difficult to obtain loans to purchase medical equipment to set up private practice. Additional subsidies to private providers have been in the form of IEC materials, equipment (gynecological beds, head lamps, IUD kits, etc.), and training courses on family planning service provision offered free of charge by BKKBN.

Constraints and Problems on Growth of Private FP Practice

3.39 In this section, constraints to private growth are presented and analyzed in an effort to identify areas that need attention in program planning and to help focus the future expansion of private efforts on realistic targets. It is evident that BKKBN's goal of a larger involvement of the private sector in FP is very appropriate given the current small private participation and the untapped capacity of substantial numbers of family planning acceptors to pay for services. On the other hand, only by recognizing the existing constraints, will it be possible to fully tap that potential and realize the extent of the need for a continued large public program.

3.40 Among the constraints to private sector family planning practice, factors frequently mentioned are: a lack of capital to start up private practice; restrictions of full-time private practice; lack of proper equipment; and BKKBN reporting requirements which can be burdensome. Private practice licencing requirements, which in urban areas are complicated and imply long waiting periods, is another constraint. Also, providers in private practice have complained that family planning field workers will not refer prospective clients to their practices. This reluctance may be linked to past emphasis on family planning field workers achieving high contraceptive prevalence through the public sector. A USAID supported project in Bandung by the University Research Corporation is experimenting with using field workers to refer potential users to private sector providers. In return, the field worker would be given a share of the revenues generated by the referred clients. Fieldworkers in some areas of Indonesia are supplied with addresses and services of private providers and are encouraged to send appropriate acceptors to the private sector. It will be useful to study the impact of these projects on the use of private

providers and to examine how generalizable the arrangements are to other parts of Indonesia.

3.41 Two major concerns have been raised about rapid growth in the number of contraceptors obtaining services from the commercial sector; the absence of a system of quality control in the provision of clinical methods and implications of shifting subsidies from clients to private providers. PKMI, the Indonesian Association for Secure Contraception, with funding from USAID and other sources, has been upgrading facilities and providing medical training for the purpose of raising the quality (and quantity) of public and private sterilization services provided in Indonesia. A supervision system for quality assurance is being set up to monitor the number of sterilizations performed and the morbidity and mortality statistics of different facilities and providers. It has been suggested that a more comprehensive monitoring system, built on the quality assurance system developed for sterilizations, be established to maintain high standards in the provision of other clinical methods like the IUD and implant. However, the logistical problems associated with a broader monitoring of clinical family planning services will be far greater than those associated with monitoring sterilization alone. In 1987, sterilizations were performed in 2,500 facilities, while there are many times that number of doctors and midwives who provide private clinical FP services. Nevertheless, it will become increasingly important for an Indonesian organization to take responsibility for monitoring the standards and practices of commercial providers if more and more users obtain clinical services from them.

3.42 The second potential problem has to do with the equity implications of conferring subsidies onto private providers. Although the Government program proposes to cease subsidization of contraceptive supplies to commercial providers once the "Blue Circle" social marketing products are launched and this should reduce one important form of subsidization--i.e., commodities--the donation of free equipment and office space, financial support for the social marketing media campaign, and other forms of subsidization will continue, to the direct benefit of providers. Unless these private providers pass along their savings, government subsidies may not be reduced but merely shifted from commodities to infrastructure. In addition, this may represent a redistribution of resources toward relatively better off members of the community, at least to some extent. The degree of pressure (social and otherwise) exerted on users of public services to shift toward private providers and the competition among private providers for family planning users will affect how much of the subsidy gets passed along to private sector clients. This issue should be followed closely once the campaign is underway.

E. Family Planning Services in the Organized Sector

3.43 An estimated 13 million persons are employed in the industrial sector (UNFPA, 1988) including about 5 million married persons of

reproductive age.⁸ Assuming that the contraceptive prevalence rate among this group is 50 percent and that 35 percent obtain services from the public sector, an estimated 1.6 million of these organized sector couples resort to private FP services, and of these, 500,000 go to work-based clinics. These estimates imply that in 1987 no more than 3.7 percent of family planning acceptors were getting services for employment-based clinics (details on FP in the organized sector and basis for estimates are given in Annex 3). While the Ministry of Manpower requires that all Indonesian plantations and factories with more than 75 employees have a health clinic on site, family planning services need not be provided and the service hours and availability of a doctor vary from clinic to clinic. In the 1970s, the ILO, together with the Ministry of Manpower, supported educational FP activities. More recently, FPIA, USAID's Enterprise Project, and the UNFPA have been supporting projects designed to increase family planning services to workers in the organized sector. None of the employment-based programs for which data are available involve an employee fee for family planning services. Many employment-based clinics receive contraceptives from BKKBN. BKKBN has also given training to medical and paramedical staff in IUD insertion and sterilization techniques.

3.44 In 1984, a joint decree was issued by the Ministry of Manpower, BKKBN, APINDO, the employer's organization, and SPSI--the major workers' organization--stating their commitment to "enhance the implementation of the family planning program amongst workers in the organized sector." Since the 1984 decree, efforts to increase availability of family planning services to workers in the organized sector have accelerated. In 1986, with major funding from the UNFPA, the Ministry of Manpower together with BKKBN undertook a five year project which is probably the largest single family planning project in the organized sector to date. It involves training of motivators and medical personnel, development of IEC materials, and support for on-site clinical family planning services at 1,200 "industrial establishments" in DKI Jakarta, Central, West and East Java and North Sumatra. These firms employ, on average, 1,000 employees, so that the project covers about 1.2 million employees.

3.45 While FP employment-based programs may be based on a good principle of employer concern to provide a social service to employees, the way these services are provided is increasingly being addressed in Indonesia through special studies and pilot projects, in order to ensure cost-effectiveness. A private hospital in Jakarta, Atma Jaya, has offered three types of family planning and health packages to firms in its catchment area that either supplement employment-based clinics or substitute for them. Cost-benefit calculations for factories demonstrate that total projected savings from foregone births would exceed total expenditures for FP services after the program has been operating for four years. It is difficult to generalize about employment-based FP clinics because of the diversity of arrangements and the lack of baseline data. However, on the basis of reported observations it is reasonable to recommend that BKKBN and donors should consider the quality and cost-benefits of the full range of possible arrangements before making investments in these types of services. Also,

⁸Based on a 1984 Ministry of Manpower study, about 40 percent of the employees were married.

the implications of the government or donors subsidizing family planning services to this group of Indonesians who have higher incomes relative to the average, is difficult to justify in the light of resource constraints.

F. The NGO Sector⁹

3.46 NGOs have a long history of active involvement in family planning in Indonesia. They were actually involved in providing family planning services before the Indonesian government formulated a public population program and have pioneered many initiatives. In the sixties, when the Indonesian government had taken a pronatalist stance with respect to fertility and was not providing family planning services through the public health system, NGOs were one of the few sources of such services. However, as in many family planning programs in other countries, the role of NGOs changed after the public program took off. At present, all the family planning NGOs in Indonesia work in conjunction with BKKBN as implementing units. Furthermore, almost all receive funding and free supplies from BKKBN and international donors. Representatives of two of the largest NGOs estimate that fees for family planning services cover only 25 percent of operating costs. Estimates of the NGO share of family planning acceptors for Indonesia range from close to 1 percent (Bair, 1987) to 10 percent (USAID "Population and Health Strategic Plan"). Information by the Jakarta-based NGOs suggests that they account for far less than 5 percent of family planning acceptors. None of the NGOs interviewed by the mission is anticipating a rapid growth in service capability in the coming years. (A detailed description of the major FP NGOs in Indonesia is presented in Annex 3; also tables 3.7 and 3.8 show data on NGOs).

3.47 Unfortunately, there is no comprehensive baseline data on the location, family planning services, costs, fees, and revenue sources of Indonesian NGOs. None of the household surveys done in Indonesia contains a separate break-out for family planning clients obtaining services from NGO clinics. Most of the information used for this analysis is derived from interviews with NGO representatives and from published reports (including Morgan, 1987, Lubis, 1986, Ministry of Population and Environment, 1985 and Widyastuti, 1987). While NGOs within Indonesia are involved in other aspects of family planning (research, management training etc.), the NGOs that provide family planning services will be the focus of this section. Professional associations such as IDI, IBI, and ISFI that work with BKKBN, which are commonly referred to as NGOs, are not directly involved in service provision, but they coordinate training activities, set medical practice standards, licensing requirements and renewal policies. Their role was discussed in two prior sections--KB Mandiri and commercial sector constraints.

⁹In the Indonesian context, NGOs prefer to be referred to as Lembaga Pengembangan Swadaya Masyarakat (LPSM) which roughly means Community Self-Reliance Development. While acknowledging this fact, in this report, the term NGO will be used for international uniformity and because it has a broader connotation.

3.48 Reasons given by clients for choosing NGO clinics are often linked to the perceived high quality of service, trust in services from a clinic with a religious affiliation, and the strong efforts made to meet individual client needs. While there seems to be a perception that Indonesian NGOs are serving the poor, at least for one NGO, the little information that is available on their clientele suggests that the average education level of their clients may actually be higher than that of clients served in the public sector. The family planning fees charged by NGOs appear to be lower than those charged by private practitioners. Most of the NGOs seem to charge fees to clients, even if they are only nominal fees to low income clients, but there appears to be a great deal of diversity in the fees charged.

Constraints on NGO Growth and Policy Considerations

3.49 This discussion on large Indonesian family planning NGOs serves to emphasize the need for a broader, comprehensive study of the costs, revenues sources and service levels of NGO clinics and hospitals throughout Indonesia. One particularly noticeable gap is in baseline data for the family planning services offered through the Islamic health systems (although a planned study of one of the Islamic health networks may remedy this.) While there is no national estimate of the number of family planning acceptors receiving family planning services from NGOs, given that the two largest NGOs together account for less than 1 percent of acceptors, it is unlikely that NGOs serve any more than 3 or 4 percent of contraceptors altogether. The evidence on the role played by FP NGOs in other countries is quite mixed (Lewis and Kenney, 1988). Of the 11 countries with contraceptive prevalence rates in the 40 to 65 percent range, the NGO share of contraceptive users varied from less than 1 percent in Thailand and 3 percent in Sri Lanka, to 46-48 percent in Liberia and Zimbabwe.

3.50 The single largest constraint on the rapid expansion of NGOs in Indonesia appears to be their dependence on significant amounts of funding from external sources to meet operating costs, let alone to cover new investments in equipment and buildings. Also, in spite of lower fees than private practitioners, NGOs may not be competitive when sharing a catchment area with the latter. Key issues facing family planning NGOs are how viable they are in the face of declining financial support, how much they can grow in a short period of time, and how their role should be defined vis-a-vis BKKBN and the public family planning program.

3.51 Complaints about the burdensome reimbursement and payment systems abound for NGOs receiving funding through government ministries (Morgan, 1987). A current USAID project involves streamlining these procedures for grants issued through BKKBN. Some have advocated that NGOs be directly funded by donors to avoid bureaucratic delays and to ensure that the earmarked funds reach the intended recipient intact. Other projects are geared toward increasing the planning and financial management capacity of NGOs. According to Morgan (1987), the family planning NGOs require "assistance in management, fiscal operations, goal setting, grant seeking, and social marketing."

3.52 Further, none of the NGOs interviewed seem to know how different fee structures would affect utilization levels or revenues. In addition to seeking additional outside funding support, Indonesian NGOs should examine alternate fee structures and consider fee increases for certain methods combined with means testing. Cross-subsidization of sterilizations is already going on in some NGO hospitals (PKMI, 1988) where higher income patients are reportedly being charged more than the unit cost, while charges for lower income patients are lower. At another NGO hospital studied, for every five sterilizations performed for full paying patients, one sterilization is performed free of charge. This type of strategy, or a modified version of it, could help NGOs maximize overall service provision while serving the poor, in view of budget constraints.

3.53 NGOs feel that they could expand service levels, given current facilities, if they could use their own fieldworkers to recruit users and if BKKBN fieldworkers would refer clients to them. Most expressed the hope that they would continue to receive free contraceptive supplies from BKKBN. The NGOs seem to consistently pass along savings from donated supplies in the form of lower fees to clients. The need for subsidized contraceptives seems to vary, depending on clientele and sources of funding. When devising policies geared at stimulating expansion of NGO services, the strategies should depend on the target group for services. Construction of YKB-like self-supporting clinics aimed at middle and lower middle income clients in other cities, in addition to Jakarta, would require investment and start-up funds. But if clinic location is selected carefully, keeping in mind the income levels of the catchment population and the competing sources of supply, funding could be phased out after a few years of operation.

3.54 Meeting the family planning needs of the poor is one of BKKBN's priority areas. However, before assigning that role to NGOs, attention has to be given to the socio-economic status of NGO clients, NGO fee structures and extent of means testing, and funding sources. If NGOs are expected to expand services to the poor, they will need a higher level of ongoing financial support. Further, if BKKBN is considering using NGOs to expand services through a reimbursement mechanism (Morgan recommended that the reimbursement system used by the state of California be adapted for use in Indonesia), studies on the quality and cost-effectiveness of service provision through alternative providers (NGO, commercial and public) should be studied in depth.

G. Conclusions on Private Sector FP Role

3.55 As discussed above, uncertainties in funding coupled with Indonesia's goal of rising contraceptive prevalence among increasingly larger groups of eligible women has placed greater emphasis on the role that the private sector can and should play in family planning. In the last two years, there were discussions in Indonesia on the possibility of decreasing the share of contraceptors using public sector sources from an estimated 80 percent at present, to 50 percent in 1994 and 20 percent in the year 2000, although no targets have been included in the Fifth Plan. While potentially desirable, these targets confront challenges and limitations that are discussed below.

The KB Mandiri Strategy

3.56 In the last two years BKKBN has embraced a policy of KB Mandiri (or self-reliance) in family planning. The implications of this concept are currently evolving and have been only partly operationalized; the private sector focus is in urban areas and particularly in the 11 largest cities. This program has the following components: training programs, supplies and equipment for doctors and midwives; a multi-media "Blue Circle" campaign aimed at making acceptors aware of private services; introduction of socially marketed pills under the "Blue Circle" logo at half the commercial price and a separate later launching of "Blue Circle" condoms, implants and spermicides; management consulting and technical assistance for NGOs; and support to the "organized sector" (plantations, factories, business). The goal of a greater involvement of private doctors, midwives, clinics hospitals and pharmacists in family planning seems very appropriate given the current small private share of users, the growing size of the urban population, and the untapped capacity and willingness of a large part of acceptors to pay for the services. However, this and other analyses concluded that the prospects are poor for high private sector growth outside of urban areas. Reasons given are unaffordability by a substantial number of villagers, few private doctors and midwives, and concentration of private, NGO and employment based health facilities in urban areas. Given the difficulties in achieving high growth of the private sector in rural areas, even with extraordinary increases in urban contraceptors in the private sector, a target of 50 percent for 1994 would be beyond reach.

3.57 At present, a 20 percent share by these providers should be viewed as a high-limit estimate. Assuming that the private share is three times higher in urban areas, the implied proportions of acceptors served by the private sector in urban areas is 40 percent and in rural, 12 percent. In order to test the feasibility of the targets, projections of possible private sector growth to 1994 were made taking into account that the proportion of Indonesians living in urban areas is expected to increase from 25 percent in 1988, to 32 percent in 1994. Even with that rapid rate of urbanization and assuming a doubling of the private sector share in urban areas, the overall nationwide family planning private sector share in 1994 could be 36 percent. Another projection assuming a 50 percent increase of private share in rural areas combined with a doubling in urban areas, would increase the overall private share proportion to 41 percent. Even these lower targets would entail a huge growth in private sector activity (a doubling for urban areas implies that, in 1994, 80 percent of the family planning services in urban areas of Indonesia would be offered by the private sector for a fee). To attain 50 percent private sector participation in 1994, the urban private sector share would have to reach almost 100 percent and in rural areas, it would have to double. As mentioned, the 50 percent target for private share in family planning in 1994 is beyond reach because there are limits to the expansion of the pool of private providers, NGOs are not prepared to extend their service capacity to any substantial degree, and the employment based services are likely to mainly draw users away from other private sources. A national share of 30 percent constitutes a more realistic expectation for 1994 (it is also in line with commercial sales levels projected by contraceptive manufacturers). It would be achieved through a 50 percent growth in the urban private share and a 25 percent growth in the rural private share.

Factors Influencing the Success of the "Blue Circle" Program

3.58 Concerning private sector growth, "Blue Circle" program is being counted on to attract the largest share of users into the private sector. However, the retail prices that are planned for the socially marketed products, in combination with the reported service charges of commercial providers, are not likely to attract clients with low incomes (an estimated 40 percent of the population in urban areas belongs to this income group). On the other hand, for middle and higher income groups, the price of the socially marketed contraceptives (half the commercial prices) may be attractive. The success of socially marketed contraceptives will depend on the interaction of the supply of and the demand for privately offered services. Another factor that will influence the increase of family planning clients in the private sector is the removal of restrictions to health providers' growth (e.g., laws governing full-time private practice, lack of initial capital for facilities and equipment). To the extent that an increase in the number of private providers generates a higher level of competition among them, service charges may decline. Also, the extent to which consumers are attracted to the "Blue Circle" products in place of the fully subsidized services of the public sector, the demand for private services will increase. The multi-media campaign is trying to encourage households to take more financial responsibility at the same time that it advertises private services as being of higher quality and cheaper than previously. Because desired fertility levels in Indonesia are low, there may be a willingness on the part of many households to pay private sector prices. However, with free services still available in the public sector, it is not known whether clients will easily switch. It is recommended that testing of various forms of subsidies in combination with free services for those who cannot afford to pay, continue to be carried out in selected locations, in order to determine optimal schemes.

Financing of Clinical Methods, Quality of Care and Efficiency

3.59 BKKBN has established two goals which may be in mutual competition: to increase the private sector share for family planning and to seek greater reliance on more effective contraceptive methods. The most effective methods -- IUD, implants and sterilization -- have substantial service charges when provided by private practitioners. Financing mechanisms may be needed, including deferred payments, to facilitate affordability. Pilot projects with alternative financing schemes would provide valuable information on whether deferred payment leads to substitution of more effective methods and how the schemes could be operationalized.

3.60 With the commercial sector assuming greater importance in the provision of family planning services, attention must be paid to the standards of clinical care and the service protocols followed by commercial providers. The health professional organizations could exercise a quality control role among private providers. Also, some private providers have raised the need for some form of limitation on liability.

The Organized Sector

3.61 While it is desirable to increase the access of factory, business and plantation workers to family planning, several issues remain to be addressed. Industrial workers have similar contraceptive prevalence levels to the national average, implying that their access to family planning services is not very different from that of the population at large. The efficiency of some employment-based clinics have been called into question due to the low number of clients. Alternatives for improving this situation include: use of those clinics to provide services to employees of other firms as well or to the public living in surrounding areas (fees or other direct compensation should be considered in both cases); and, in the case of very inefficient clinics, other options for providing family planning services to employees should be examined (such as reimbursing employees who obtain services from NGO or private providers).

NGOs' Roles, Program Needs of the Poor and Subsidization of Client Subgroups

3.62 One program area requiring further attention and study is the family planning service provision to low-income households (including those in urban areas) which need almost full subsidization. At present, BKKBN contemplates both NGOs and the public health sector serving the low income segments of the population, since the commercial sector and employment-based programs by virtue of their fees are unlikely to serve those low-income groups. Public clinics present a problem for the poor household where both spouses work, because of the short and early clinic hours. Also, family planning fieldworkers are few in low income neighborhoods of urban areas.

3.63 If some NGOs are expected to serve an increasing share of low income FP users they could cross-subsidize them from clinics in higher income neighborhoods which could function at a profit. However, for these operations to increase to any significant degree NGOs would need institutional development assistance leading to innovative and efficient operation. Additional financial assistance for these purposes would be needed from BKKBN and donors. Other NGOs may prefer to continue working in family planning exclusively on a full cost recovery basis, by serving middle income groups which can afford to pay fees for services. BKKBN would need to explore actively with the NGO community the kinds of roles that NGOs are prepared to play in family planning and the resources needed (both financial and technical). This approach would also require changes and strengthening within BKKBN in order to initiate, monitor and support NGO activities.

Subsidization Issues

3.64 Currently, BKKBN and donors are providing direct subsidies to commercial doctors and midwives. In addition, both NGO and employment-based clinics have traditionally received free contraceptive supplies.

While it is not clear how long these subsidies will continue, the concept of KB Mandiri seems to have an equity dimension, in that those who are better-off are expected to be "more self sufficient" in meeting their family planning needs. On equity grounds, it would be desirable to examine ways of shifting subsidies benefiting middle and higher income groups, to lower income groups (particularly those living in urban slums and transmigrants).

Savings to BKKBN from Private Sector Growth

3.65 The savings that are most often predicted are in contraceptive commodities. However, even with a high growth rate in the private sector, the extent to which BKKBN contraceptives continue to find their way to private providers (either through donations or leakages) will reduce those expected savings. The high stocks of contraceptives, especially IUD's, currently held by BKKBN, suggest that significant overflows may occur as they have in the past.

3.66 One often mentioned deterrent to private sector growth that has ramifications for BKKBN expenditures is the reluctance of BKKBN fieldworkers to refer acceptors to private providers. In one pilot project, such referrals are compensated through a salary supplement from private providers. If this experience could be generalized and institutionalized, private providers could help to defray the salaries of fieldworkers, and BKKBN could experience savings in total salary expenditures.

3.67 While this chapter has focused on the use of the private sector for services, there are other areas in which BKKBN could explore possibilities of private sector participation. One such area is logistics on the basis of relative efficiency, quality and flexibility of public versus private involvement.

IV. THE FAMILY PLANNING PROGRAM: ORGANIZATION AND PERFORMANCE

A. Introduction

4.1 This chapter presents a description of Indonesia's family planning program, particularly focussing on its organizational and managerial characteristics and on the process which will be required to make changes in response to the need to step up private and public FP program efforts. The review does not touch on programmatic aspects of information, education and communication (IEC), a well developed area of Indonesia's family planning program which has been the object of recent comprehensive technical reviews, (Population Communications Services (1986)) nor does it address clinical/medical aspects of family planning services, which should be looked into separately for effective assessment. In connection with project supervision and preparation for possible financing, specific reviews on these two technical subjects will be undertaken by the Bank shortly. This section describes the organizations participating in the program with the National Family Planning Coordinating Board (BKKBN); the Ministry of Health (DEPKES), the main institution delivering family planning services, is highlighted among the implementing agencies. This chapter also gives an overview of program activities, reviews BKKBN's management system starting with planning and coordination functions, presenting supervision, monitoring and research structures and practices, manpower planning, logistics and manpower development. The section on conclusions presents a series of recommendations in the light of expected changes in program strategy and contraceptive practice goals.

4.2 Prior to 1967, with a pro-natalist policy on the part of Government, family planning information and services were provided principally by the Indonesian Planned Parenthood Association (IPPA). Because of the prevailing political climate, family planning services were available only selectively and resupply was unreliable. In 1967, the IPPA Congress recommended to Government the establishment of a national family planning program. In that same year, President Soeharto signed the World Leaders Declaration on Population, in effect pledging his political commitment to the concept of a national family planning program. In response, a Government commission was formed in 1968 to consider the possibility of elevating IPPA's family planning activities into a national program which would have government support. The result was the establishment in October, 1968 of the National Institute for Family Planning (LKBN), a semi-governmental agency charged with making family planning information and services more widely available by utilizing government service delivery channels, especially the hospital and clinic network (BKKBN, Jan. 1986). Although as a semi-governmental institute LKBN lacked the power to coordinate adequately a national family planning program, it could set national goals. These goals were: institutionalize the small, happy, and prosperous family norm in Indonesia and achieve a 50 percent reduction of the 1971 crude birth rate by 1990, i.e., a reduction from 44-46 to 22-23 births per thousand.

4.3 The social welfare goal meant that the program was viewed as more than just contraceptive service delivery and should therefore be integrated into the programs of other government departments (e.g., Health, Agriculture, Information, Education) and into community activities of non-governmental organizations. The result was the formation of BKKBN in 1970 as a non-departmental or non-ministerial body reporting directly to the President and responsible for coordinating implementation of family planning activities. The DEPKES was made responsible for delivery of family planning as part of their regular health services.

B. Past Program Efforts

4.4 During BKKBN's first phase, 1970 to 1973, coinciding roughly with the Government's first five year plan (1969-73), a clinic based family planning program was initiated as part of DEPKES's maternal and child health (MCH) program in the six provinces of Java and Bali, where population densities were high and infrastructure was more developed. During this period, 2,200 clinics were built and 6,800 field workers were recruited. BKKBN had its first reorganization when in 1972 its planning and management capabilities were strengthened by the addition of three bureaus: Planning, Supervision, and Field Program Management. During the second plan period, 1974-79, the program was extended to 10 additional provinces in other islands (called Other Islands I) and village contraceptive distribution centers were established in Java and Bali.¹ There was also a second reorganization of BKKBN designed to decentralize and integrate the program with other development activities. Governors and mayors became responsible for local coordination and the active participation of village leaders, heads of households and acceptors was organized. In the third plan period, 1979-84, the remaining provinces were added to the program (called Other Islands II) and BKKBN family planning coordinators were added to the program's administrative structure at the regency or district level.² There was also an increase in the number of organizational units at both headquarters and field levels. The fourth Plan Period, 1984-89, saw an expansion of BKKBN's program activities within provinces and increased activity in newly settled and transmigration areas. In 1984, BKKBN and DEPKES reached agreement to launch a program of integrated health and family planning services at the village level (called POSYANDUS). In 1986, BKKBN's strategy vis-a-vis contraceptive practice began to shift from strong government involvement to promotion of individual responsibility and encouragement of greater participation by the private sector.

¹Other Islands I include the provinces of Aceh, North Sumatra, South Sumatra, West Sumatra, Lampung, West Kalimantan, South Kalimantan, South Sulawesi, North Sulawesi, and West Nusa Tenggara.

²Other Islands II include the provinces of Riau, Jami, Maluku, Bengkulu, East Kalimantan, Central Kalimantan, Central Sulawesi, Southeast Sulawesi, East Nusa Tenggara, East Timor, and Irian Jaya.

C. Program Objectives, Guidelines and Strategy

4.5 The Indonesian family planning program has three broad objectives: (a) to expand contraceptive coverage in accordance with Government targets; (b) to promote continued use of contraception; and (c) to institutionalize family planning and the small family norm concepts by shifting responsibility for decisions about practicing family planning to the individual, the family and the community.

4.6 The family planning program follows five guidelines (Panca Karya). Women under 30 years of age should have a maximum of two children and their first delivery should occur after age twenty. Women over 30 and those with three or more children should have no more children; they should get the most effective method of fertility control available. Teenagers should be encouraged to postpone marriage and their first pregnancy by being presented with activities that provide alternatives to marriage. In areas with high coverage of contraceptive use, programs should be introduced to improve the economic well being of the community, including income generating activities. Lastly, family planning motivation should be strengthened by improving old age security for couples.

4.7 Nine important elements of program strategy can be identified in the Indonesian family planning program: (a) integration of an array of government, non-government, private and community agencies under principles concurrent with point b.; (b) a strong policy of decentralizing responsibility and authority; (c) commitment at every level of the program to meeting targets; (d) provision of FP services combined with medical back-up; (e) BKKBN cooperation with DEPKES in health services broader than FP (e.g., posyandus) in order to improve FP outreach; (f) development of a climate of community support for FP, through the cooperation of community and religious leaders; (g) support for activities which raise women's social and economic status; (h) emphasis on reaching the rapidly increasing number of youths; and (i) encouragement of KB Mandiri (or "self-reliance"), the newest element of the strategy which involves the private sector.

D. Participating Organizations in Family Planning

4.8 The Ministry of Population and Environment (KLH) was established in 1983 and it is responsible for population policy formulation and coordination in population policy related matters, as a complement to BKKBN's role as coordinating and policy formulating agency for family planning. Population policy is a broader concept than family planning and includes all demographic variables -- not only fertility -- and analysis and regulation of all factors affecting fertility and population growth -- not only contraception. KLH's specific objectives include institutional development of research capacity in the field of demography in Indonesian universities. KLH has been made responsible for providing coordination for population study centers which are being established in universities. This organization is also supposed to give assistance to NGOs to improve their capabilities to undertake population related activities. In practice, the population section of KLH is a small

office supported by consultants and it has limited capacity to fulfill these functions. In fact, population policy in Indonesia evolves directly from the Presidential level; ministries and other government institutions adopt and implement those policies in the context of their respective development efforts. Thus, population and family planning are generally fairly well integrated in a diversity of national programs and activities. However, without frequent reinforcement of the commitment by the highest levels of Government and proper monitoring (in family planning) by BKKBN it would not have been possible to maintain the present level of program performance.

4.9 According to Presidential Decree Number 64 of 1983, BKKBN's current organization and functions are set forth as a non-departmental government institution directly responsible to the President, with functions which include formulating general policy for the national family planning program and coordinating and supervising its planning and implementation. Activities, however, are generally carried out by "implementing units" comprising relevant government departments, agencies and community organizations. BKKBN's coordinating function is facilitated by its strong reporting position and authorized access of the Chairman to ministers, as well as by the firm follow-up of agreements with various agencies on program implementation.³ While the provincial and regency offices have organizations quite similar to that of central level, BKKBN has no organization infrastructure at the subdistrict level. However, BKKBN does have a family planning field worker supervisor based at the health center (PUSKESMAS), who oversees four to six family planning field workers, each in turn covering from 3 to 8 villages.

E. Implementing Units

4.10 Implementing units for the national family planning program fall into three main categories: governmental, non-governmental, and private units. In this chapter, only the government implementing units are described, highlighting particularly BKKBN and the DEPKES; chapter 3 discusses the role of the private sector.

4.11 BKKBN: In addition to its planning, coordinating and monitoring roles, BKKBN has important implementation functions which are carried out principally by family planning field workers and their supervisors. The functions include: supervising the provision of contraceptive information and services at the village level; motivating for family planning; providing advice and assistance on social and economic family welfare activities; delivering contraceptive stocks to participating agencies and service points; and, in selected transmigration areas, giving family planning, nutrition, and basic health services in collaboration with the Ministry of Health.

4.12 Ministry of Health: The Ministry of Health is the main implementing agency for clinic family planning services. Ministry responsibilities include: policy formulation, planning, coordination and supervision of health

³Annex 2 includes organizational charts for BKKBN central, provincial and regency (or district) levels.

services; provision of contraceptive information and services, as well as medical back-up for complications; and fertility related health interventions. As part of its overall functions, the Ministry takes leadership in drafting five-year and annual health plans which include delivery of health services through the clinical facilities of both the Health Ministry and the Ministry of Home Affairs. It is also responsible for coordinating and supervising health services which are provided through hospitals, health centers, sub-centers, mobile clinics and other outreach programs of the Home Affairs Ministry. Another important DEPKES function consists of planning and supervising community and preventive health services. According to Ministry surveys, one half of all outpatient treatment in the country in 1986 was provided through health centers; in 1987, two thirds of child weighing and over one half of DPT and polio immunization was provided through village based integrated services (POSYANDUS). Regarding family planning, of a total of 8,073 clinic service points in 1986, 6,537 were under the jurisdiction of the Ministry of Health (the remainder belonged to the Armed Forces, other government agencies, and private organizations). Yet, in the face of this large and growing demand for health care, preventive services and family planning, the Ministry has been confronting critical problems in the areas of manpower, finances, equipment, supplies and transport.⁴ Thus in 1985, eleven provinces had more than one fourth of their health centers operating without doctors and many sub-centers had no full time staff which meant that they were open only when staff from health centers could visit them. The rapid expansion of POSYANDUS has added to the work of the health centers and sub-centers in that staff and supplies are spread more thinly as the system attempts to serve the posyandus according to prescribed schedules. Expanded demand for services from the health centers and sub-centers calls for substantial increases in equipment, supplies, transport, etc. Scarcity of funds for the health sector in general has meant, however, that the admittedly inadequate amounts available for such activities have been substantially reduced rather than increased. In addition, funds for communicable disease control have been cut so severely in recent years that continuation of some programs on even a minimal basis is threatened (e.g., malaria) although others (e.g., immunization and oral rehydration therapy) are in significantly less danger because external funding has been made available.

4.13 The Ministry of Health plays an important role in family planning, which will need to continue and become even stronger in the future, in addition to the planned enlarged functions of the private sector. It is therefore important for the sake of better family planning, as well as for the benefit of other health programs, to address and resolve DEPKES shortcomings. In this report, however, only matters of coordination between BKKBN and DEPKES are discussed, leaving the more complex task of analyzing the DEPKES system to separate Bank supported exercises already mentioned.

⁴These and other issues related to constraints in the public health sector have been addressed in great detail in two recent Bank reports: "Staff Appraisal Report: Third Health Project", Report No. 7542-IND, January, 1989 and "Indonesia: Issues in Health Planning and Budgeting", Report No. 7291-IND, August 26, 1988.

4.14 The Ministry of Home Affairs oversees Indonesia's 27 provincial governments which in turn have jurisdiction over the 300 regency governments. The latter supervise 3,539 subdistrict governments, which in turn have authority over some 67,000 villages and 240,000 sub-villages. Since 1974 the chief government official at each of these levels, from governor to village head, has been accountable for progress in family planning, as well as for other development programs. This is an important organizational feature which has contributed in large measure to the success of the family planning program. Other government organizations contributing to the program are: the Ministry of Information, which cooperates with BKKBN in mass media programs (radio, T.V.) regarding diffusion of the advantages of family planning and the small family norm, the Ministry of Transmigration, responsible for resettlement programs in some 20 provinces, which in collaboration with BKKBN and DEPKES ensures family planning and other social services in newly settled areas, the Ministry of Education and Culture, which has added population education to the curricula of primary and secondary schools and in non-formal programs, the Ministry of Religious Affairs, which supports the national family planning program by encouraging religious leaders to add legitimacy to this concept; and the Ministry of Manpower, which encourages industrial and commercial enterprises to provide their employees with easy access to family planning services and education. In addition, the Armed Forces have developed an extensive educational and service program for its members and families.

F. Program Activities

4.15 The Indonesian family planning program has three major types of program activities, each of which is carried out by a set of implementing units: (a) contraceptive information and services with medical backup and distribution points; (b) motivation for family planning and the small family norm (IEC); and (c) promotion of women's economic and social well being. An implementing unit may engage in one or more types of program activity.

4.16 Contraceptive information and services, the core program activity, are provided through a number of delivery mechanisms. At the base of the system, there are 63,000 village and more than 190,000 sub-village contraceptive posts (VCDC) which are organized and supervised by family planning field workers and operated by village family planning volunteers who resupply oral pills, distribute condoms, and provide information about contraceptives as well as supply simple medicines against side effects and health complications. These volunteers are frequently members of PKK⁵ who are trained and guided by BKKBN field workers. Complementing the VCDC in distribution of contraceptives is the POSYANDU, which according to schedule is held once a month, and it is organized by the village head with assistance from LKMD and PKK and technical support from the Ministry of Health and BKKBN. The POSYANDU in theory offers five services: (a) family planning (information and motivation, contraceptive supply, registration and reporting, counselling,

⁵PKK is a voluntary, nationwide movement devoted to development of family welfare in rural and urban communities; it is described in Annex 3, together with other NGO activities.

and, where appropriate, referral); (b) mother and child health; (c) nutrition; (d) immunization, and (e) oral rehydration therapy. The target population is infants, under fives, pregnant and nursing mothers, and married women in the fertile age group. As of 1988, about 200,000 POSYANDUS had been established. While the concept of an integrated, community-based service has been very well received at both national and local levels, the program faces several problems, the most important of which is lack of staff and other support from the health centers. Given the limited staff and transport at the health centers, it has not been possible to provide the full scheduled assistance to all monthly sessions.

4.17 Health Facilities: Health centers or clinics (PUSKESMAS) and sub-centers are under the jurisdiction of health departments of regency and subdistrict governments. These clinics serve as referral facilities for VCDCs and POSYANDUS in the case of medical complications of contraception. In addition, staff at these facilities offer contraceptive information and services for oral pills, IUDs, condoms and injectables at fixed times -- usually three mornings a week. As of 1987, there were 5,484 health centers, 12,424 health sub-centers and 1,456 general hospitals (of which about half come under DEPKES). In order to expand the reach of contraceptive services, staff of the PUSKESMAS participate in mobile family planning clinics called safaris which offer services and handle complaints of side effects and medical complications. Regarding voluntary surgical contraception (VSC) -- sterilization -- each province has a central hospital and several regency hospitals providing tubectomy and in most cases vasectomy as well. As of 1984, 1,886 hospitals and health centers were performing VSC (with health centers offering mainly vasectomy). Government facilities account for most VSC procedures.

Motivation for Family Planning and the Small Family Norm

4.18 A second set of program activities of the national family planning program is individual and community motivation toward the practice of family planning and acceptance of the small family norm. Motivation is carried out by the field staff, other government officials at local, regency, and provincial levels including the village head, and his wife (who is often the head of the VCDC), the professional midwife from the health clinic, informal leaders, members of contraceptive acceptors' groups, and volunteers. Two categories of government employees who have made a significant difference in program performance are the family planning field worker and the midwife from the local health clinic. FP Field workers' main motivational activities are visiting contraceptive acceptors, recruiting new acceptors, persuading community leaders to support the program, and coordinating program activities. During her visits to villages, the professional midwife typically promotes family planning, assists in child birth, and performs other health related functions (Warwick, 1986). Certain activities have been designed to promote a climate of community support for family planning and to make it a less sensitive topic; these include the support to FP by religious leaders, the formation of contraceptive acceptors' groups in villages, training and motivation of traditional birth attendants, organization of frequent public discussions on family planning, and linking provision of family planning

services with health services, nutrition programs and other less sensitive activities.

4.19 An important target group for the program are youths.⁶ Population education is increasingly integrated into the primary and secondary school curriculum. In-school and out-of-school youth are also reached through an extensive network of youth organizations including the National Youth Committee (KNPI), the Village Youth Organization (Karang Taruna), the Boy Scouts and Girl Scouts. Messages to young people emphasize the advantages of delayed marriage and small families and the importance of acquiring education and skills in preparation for productive work. Village youth are also asked to support the FP program by assisting the FP field worker and FP volunteers in such activities as mapping the village to identify current acceptors and preparing the annual roster of eligible couples (ELCOs). Youth learn about FP through discussion groups, family planning games, contests, etc. The FP topic of is also a component of marriage counselling (typically given by a local religious leader) which is frequently required in rural areas prior to obtaining a marriage license.

Promotion of Women's Economic and Social Well Being

4.20 A fourth component of the national family planning program are activities designed to raise the economic and social condition of women, particularly in the rural areas. These activities include: low interest loan funds which are made available to members of contraceptive acceptors' groups (frequently on a rotating or lottery basis) for the purpose of starting a family business; assistance in organizing agricultural cooperatives; provision of hybrid coconut seedlings to acceptors (a profitable product); training for village based manufacture of craft items which can be sold for extra income; scholarships for children of couples who have long practiced family planning; and a village based under-five nursery school program for women with only one child. BKKBN provides financial and technical assistance and training for these activities, in cooperation with other relevant government departments.

G. Conclusions on Organization and Management of the Family Planning Program

4.21 Annex 4 contains a description of participating agencies in the family planning program and of BKKBN organization at central, provincial and local levels, as well as the management systems and procedures applied to plan, program, coordinate and monitor the program. This section presents the main issues in organization and management in the light of new strategies and makes recommendations on needed changes.

4.22 BKKBN Achievements: BKKBN is widely recognized as an organization which has been very successful in achieving its goals. Its strengths include a central staff which provides strong policy and planning guidance to provincial and lower levels, with an effective supervision and monitoring

⁶Groups of young people who are organized and trained to assist the family planning effort are known as village cadres (kader).

system. Through the last decade, a participatory planning process which encourages innovation, commitment to goals and response to varying local conditions has evolved and it is now operating reasonably well. The organization has a demonstrated capacity to coordinate implementation of an array of information, motivation, contraceptive services and community development activities through a complex network of government, NGO, community and private institutions. Another important feature, essential to the success of any program, has been the availability of a stable and motivated staff, a result in part of a substantial staff development effort, supportive supervision and appropriate incentives. Furthermore, there has been all along a large capacity for innovation through pilot projects, research, surveys and studies to learn about new ways and to discard ineffective programs. This has been extended to management and organization, where there has been a willingness to undertake periodic reviews and to introduce changes. Notwithstanding BKKBN achievements, as this organization begins implementation of the general strategies set for the next plan, it needs to elaborate specific approaches and programs and also needs to determine the requirements (organizational, managerial and financial) of those new program designs. The sections below present specific conclusions and recommendations keeping in mind the challenges of the new program orientation.

4.23 Cooperation with the Ministry of Health: Public health facilities, currently serving about 60 percent of the family planning clients in the program, are important sources of FP services and advice, as well as of other health care. In view of the limits to privatization, these facilities need to continue serving low income people and those living in areas not reached by other special FP programs (e.g. NGOs) or by private providers. Strengthening public health service clinics and posyandus is important in light of Government family planning goals and taking into account current high maternal and infant mortality rates and Government plans to reduce them.

4.24 PUSKESMAS frequently lack adequate staff, supplies, equipment and transport, particularly given that they are responsible for technical and other support of posyandus. It would, therefore, be possible to integrate family planning more fully into health care dispensed at these facilities, if their overall management and clinical routines could be improved. The following are recommendations addressed to DEPKES and BKKBN that could improve FP services in the public sector:

- (a) for DEPKES: reviewing the managerial and clinical performance of the existing family planning and related maternal and child health services operating under the public health system, in order to identify strengths and weaknesses and develop, in close coordination with BKKBN, regional and local plans for improving and expanding those services; the plans should contain clear financial and technical implications;
- (b) accelerating the proposed DEPKES/BKKBN program to place midwives in villages throughout the country and define support and referral mechanisms for them;
- (c) expanding the DEPKES FP clinic hours for women who work;

- (d) intensifying BKKBN efforts to plan and program activities in slum areas jointly with a variety of community organizations, including the public health system; and
- (e) DEPKES/BKKBN review of issues related to voluntary surgical contraception including the following:
 - (i) the setting up of a management structure for the system (operated under a professional medical organization for the private sector and by DEPKES for the public services);
 - (ii) the definition of which activities should be undertaken by various organizations (private, NGO, public) in order to generate VSC demand;
 - (iii) the development of a policy on uniform costs for the procedure and on how these costs will be met; and
 - (iv) the design of a strong medical surveillance system and the improvement of evaluation of the surgical training for VSC.

4.25 Promoting Economic and Social Well Being: While BKKBN has many pilot and larger scale projects to promote women's economic and social well being, frequently in cooperation with such organizations as the Peoples Bank of Indonesia, they are present in fewer than 10 percent of Indonesia's communities. In addition, it is apparent that both BKKBN staff and community volunteers who are active in these programs do not always have the needed skills (planning, managerial, technical, marketing, etc.) to make these ventures -- particularly those focused on income generation -- successful. Three major issues can be identified therefore in connection with this component of the national family planning program. First, what is to be the policy regarding provision of economic and social development opportunities in all areas where the national family planning program is active? Second, what strategies can be developed in collaboration with other development agencies which would increase the likelihood that required resources would be available for these activities? Third, how can BKKBN, in collaboration with other development agencies and community organizations, ensure that the necessary managerial, marketing and technical skills are available?

4.26 Coordination: While BKKBN has clearly demonstrated its effectiveness as a coordinating agency, there are several areas where coordination could be improved. Within BKKBN, there should be better coordination of work which is under way in several BKKBN units. Thus, the work on development of management subsystems should be closely linked with work on development of the MIS. Manpower plans should reflect more clearly new program strategies such as increased reliance on the private sector. Decisions on research priorities should take account of issues which emerge from work on new strategies. Finally, BKKBN's Center for Education and Training should strengthen its coordination with BKKBN's bureaus, divisions

and provincial training centers and with other institutions with which it collaborates.

4.27 Regarding coordination between BKKBN and other organizations, the following issues warrant attention: (a) the need to develop coordinating mechanisms in relation to private sector and NGO activities which enable BKKBN to exercise appropriate authority yet do not result in unnecessarily burdensome procedures which discourage or impede private sector or NGO initiatives; (b) how BKKBN and the Ministry of Health can engage in collaborative planning - together with departments of health of provincial and regency governments where appropriate; and (c) how BKKBN, other government agencies, community institutions and NGOs can work together to identify critical problems - e.g., lack of trained staff, inadequate resources.

4.28 Supervision and Monitoring: While BKKBN has a well tested system of supervision and monitoring for the existing family planning program, revised systems are now required in view of the program expansion in the recent past and the expected changes to include new concepts such as KB Mandiri and social marketing. As noted earlier, BKKBN has already begun work on a supervision system for KB Mandiri. Increased size and complexity of the family planning program, together with advances in computer technology, call for an immediate review and revision of the MIS. BKKBN has developed a master plan for increased computerization of the MIS which identifies a number of resource requirements, including equipment and manpower. In view of the new orientation of the program, this master plan needs considerable revisions. Given the substantial resource requirements of an effective MIS the technical complexity of such a system and the need to devise a system which provides relevant, clear and accurate information, BKKBN is advised to seek technical assistance from an organization with substantial and proved technical and practical experience in this field. It is also recommended that the service statistics system continue to be complemented by periodic surveys on contraceptive prevalence and other demand and supply oriented surveys.

4.29 Research: An assessment of BKKBN's research activity in early 1988 recommended that the quality of research should be improved by consolidating research activities and reducing the number of research projects on diverse topics; clarifying objectives and staffing requirements for the three research centers; strengthening research project management; and developing improved coordination among BKKBN staff involved in research, including those at provincial level. The mission agrees with these recommendations. In addition, it is recommended that BKKBN continue its efforts to make research more responsive to the needs of planners and programmers. This can be done by increased participation of planners and managers in identifying research topics and by ensuring that results are presented promptly in operationally useful written reports which are given wide dissemination. It is also recommended that in establishing the research agenda for the early years of REPELITA V, priority be given to activities designed to reach the urban poor, the KB Mandiri effort, innovative activities of NGOs, and an evaluation of selected projects designed to promote economic and social well being of family planning acceptors.

4.30 Manpower Planning and Development: BKKBN's draft presentation for REPELITA V proposes an increase in office staff of 3,388 from 1988/89 to 1993/94 (from 18,438 persons to 21,826) and an increase in field workers of 4117 (from 20,445 to 24,562) for the same period. BKKBN is undertaking job analysis and job classification, which should be used as a basis to determine the number and profile of staffing required over the next five to ten years. BKKBN needs to review its plans for job analysis and job classification to ensure that the exercise will: (a) address the issue of excess office staff in some BKKBN units and provincial offices; (b) be closely integrated with the proposed organizational analysis; and (c) ensure that all three activities are linked to the on-going management subsystem and systems work, including the MIS (see Management Development section).

Three themes should underlie BKKBN's manpower planning effort: (a) use office (clerical and technical) staff as efficiently as possible, by, inter alia, resorting to advanced office technology, in order to limit overall growth; (b) continue to develop the capabilities of BKKBN staff, particularly concerning new office technology; and (c) increase the number of field workers in situations where higher ratios are likely to result in improved program performance (e.g., possibly urban areas with high concentrations of the very poor).

4.31 BKKBN has begun a project called "cadre development" to form potential leaders and top managers for the national family planning program. The plan is that those selected will be given job assignments and education and training opportunities to prepare them for leadership positions. The program is designed to be open to staff from headquarters, provincial, regency and subdistrict levels. This is an important project which warrants further careful planning and consideration. Issues which should be addressed in the process include: (a) the importance of having the program be - and be perceived as - objective and impartial; (b) the need to ensure that staff at regency and subdistrict levels have an equal opportunity to compete in the program; and (c) a detailed budget.

4.32 Training for Other Countries: In addition to managing an extensive training program for Indonesia's national family planning program, BKKBN has for some years offered special training, workshops and study tours for persons from other developing countries. While these activities have been organized on an ad hoc basis in the past, BKKBN has recently made a decision to establish a formal program for training foreigners. This decision is a positive one from several points of view. A regularized training program and schedule will enable BKKBN to select persons as trainers who have particularly relevant knowledge and experience. At the same time, it would help the ongoing process of analyzing and documenting lessons learned in the Indonesian program. However, these activities should not distract the BKKBN staff from the complex and important tasks required by the domestic program.

4.33 Midwives are a key factor in the delivery of contraceptive information and services in both the public and private sectors. Basic training of midwives was discontinued several years ago in favor of a midwifery specialization following basic public health nurse training. Recently the Ministry of Health jointly with BKKBN and the Ministry of

Education and Culture have decided to intensify the production of this category of nurse-midwife; the goal is to have 18,500 such professionals by the end of the plan period. The objective is to employ them (under the health services) to become village midwives, who will offer prenatal and post-natal care, family planning and deliveries; they will also be made responsible for supervising and training traditional midwives. They will be allowed to have private practice and eventually become full-fledged private service providers. It is not certain that the new training system will be able to produce a sufficient number of persons to meet the current and future needs of the MCH and family planning programs. It is, however, a step in the right direction requiring careful planning and implementation.

4.34 Logistics: BKKBN should review its contraceptive logistics system with a view to improving particularly inventory controls, storage arrangements, and evaluation and surveillance. BKKBN should also continue to address the issue of obtaining adequate supplies of those contraceptives which are frequently in short supply (mainly injectables and IUD kits), given the adverse effect of these shortages on acceptors and on continuation rates. It would need to review existing arrangements for supply of contraceptives to NGOs with a view to developing an improved system; and continue working on plans for supply of contraceptives at reduced prices through commercial channels.

Program Strategy for the 1990's

4.35 The previous sections have shown that as BKKBN prepares for tasks outlined in REPELITA V, there are a number of organizational and management issues which warrant attention, many of which BKKBN has already begun to address. The present government strategy of finding ways to encourage self-reliance and expanding the role of the private sector has advantages, as long as it does not detract from reaching the women most in need of family planning (i.e., those with low income, no education, or those living in remote areas). Other strategies which characterize Indonesia's FP program should continue to prevail. These include: a firm commitment to reaching targets at every level, integration with an array of public and NGO community programs, keeping in touch with the people, provision of clinical FP services with medical backup, continuing efforts to improve women's status through income generating programs, and emphasis on youth programs. Refinements of the FP strategy for the 1990's should comprise the following elements:

- (a) a focussed and expanded IEC family planning program coupled with other measures to develop a social atmosphere in which contraception is a readily accepted alternative and the FP program eventually becomes self-sustaining. The IEC strategy needs to target mass media and interpersonal communication and messages to clearly identified and prioritized groups specified by age, sex, geographic location and cultural characteristics;
- (b) although in Indonesia the IEC program and the high level of government commitment to demographic goals have contributed to

a remarkable change in attitudes towards FP and the small and prosperous family norm, additional measures to reinforce these messages have been successfully applied in other countries (e.g., South Korea, Thailand). Such measures include laws and regulations pertaining to tariffs imposed to contraceptive importation, taxes, education and other allowances, priorities in selected social benefits, increased welfare benefits for the aged, removal of legal and employment discrimination against women, and stepping up of women's job preparedness and opportunities. In these areas, it is recommended that the Government ensure prompt completion of studies on these FP related issues immediately, with a view to making appropriate decisions and action plans ready for implementation early in the next decade;

- (c) development of FP services specific to different geographic areas or population groups, which should take into account the diversity of cultures, variations in receptivity to FP and availability of public health services. This should include the strengthening of partnership with suitable NGOs which are prepared to work in poor neighborhoods with limited access to public services;
- (d) while continuing to offer a wide variety of temporary methods in order to increase contraceptive use for spacing of births, the FP program should acknowledge the increasing demand among the poorest and least educated for more permanent methods by shifting the method mix and addressing issues related to increasing the availability of surgical contraception. However, these methods have substantial service charges. In addition to free services for those who cannot afford to pay, financial mechanisms will be needed, including deferred payments, to encourage adoption and facilitate affordability of those more expensive methods. Pilot projects with alternative financing schemes should be tested;
- (e) continued encouragement of the private sector for those areas and population groups where demand constraints are not a major factor, including the use of subsidies in cases where these turn out to be more cost effective than expansion of public FP services. As an example, in one pilot project, referrals by BKKBN field workers are compensated through a salary supplement from the private providers. If this experience could be institutionalized and regulated to prevent abuses, private providers could help to defray the salaries of field workers and lead to increases in private sector clients. Private sector participation could also include the area of logistics where there are advantages in efficiency, quality and flexibility.

V. FAMILY PLANNING FINANCIAL RESOURCE REQUIREMENTS

A. Introduction

5.1 There are two major constraints to reaching the demographic targets set forth in Chapter 1. First, as discussed in chapter 3, the program will increasingly need to serve individuals who may be less willing to use contraception than those currently using (i.e., there may be demand constraints). Second, there are financial resource constraints in response to which the Government is considering to what extent public funds can be supplemented by encouraging private providers to offer family planning (FP) services for a fee, as well as by selling contraceptives at reduced prices (compared to commercial prices) through private outlets -- the "Blue Circle" program. However, as discussed in chapter 2, in the section dealing with elasticity of demand of contraceptives, charging for FP services may affect the individual's desire to use family planning. This chapter will examine the resources that have been devoted to family planning in the past and future requirements, as means of gaining insights into the degree to which it may be necessary to rely on the use of private funds to reach demographic targets.

B. History of Expenditures on Family Planning in Indonesia

5.2 In Indonesia family planning services are mainly delivered through the Ministry of Health (DEPKES) (approximately 60 percent) with supplementary resources provided through the National Coordinating Family Planning Board (BKKBN). Local governments, the Armed Forces, non-governmental organizations (NGOs) and the private sector provide the remainder of the services. Community workers (mainly from the Family Welfare Movement (PKK) a nationwide community development organization described in Annex 3) provide their own time and in some cases their homes for family planning services. Unfortunately, there is neither explicit data from DEPKES on the resources devoted to family planning, nor a record of community inputs. We shall therefore first focus on the expenditures on family planning as reflected in the budget of BKKBN, the contribution of the private sector, and then expand the analysis to the extent possible to the resources devoted by DEPKES.

5.3 There are three sources of funds devoted directly to family planning through BKKBN in Indonesia: the government funds in the development budget (DIP), government funds in the recurrent budget (DIK) and foreign aid (BLN)¹

¹Fast disbursing foreign assistance and local cost financing by international donors do not show up in the BLN, but in the DIP.

which is, for the most part, channeled through the development budget.² Provincial governments also make small contributions to family planning and health. The evidence of family planning funding comes primarily from review of the experience of the various development plans which contain only DIP and BLN allocations. Table 5.1 in Annex 5 summarizes these expenditures through BKKBN for the first four development plans. In addition, DIK expenditures are given for the years in which data are available.

5.4 In spite of the limited data, several observations can be derived from the information presented in Table 5.1 of Annex 5. First, the family planning program began with a small domestic investment component (11 percent in 1969-70) but, by the end of the first plan, foreign contributions were only about half of domestic DIP. This trend continued through the second and third plans, but in the fourth plan foreign assistance, as percent of total investment for the program, increased to 45 percent for the five-year period. Foreign contributions for each of the plans, from First to Fourth were 59, 48, 29 and 45 percent respectively.

5.5 The uneven flow of foreign assistance during the last two plans may have been influenced by delays in construction of BKKBN buildings financed under Bank loans. Construction (and consequently disbursements) for the third project were delayed and bunched into the last year of the project (FY 1984/85) which was also the first year of the latest plan. Another portion of the increase in the share of foreign assistance is believed to have been caused by a large infusion of USAID funds that were not absorbable in other countries and consequently shifted to Indonesia for financing new initiatives in the private sector. The second assertion is that while the nominal DIP and DIK budgets have been increasing monotonically, the DIP expenditures in real terms decreased between FYs 1983/82 and 1987/88. It is important to note that the reduction in expenditures, in real terms, between REPELITA III and IV was only 8 percent for BKKBN, compared with a decline of 32 percent in the overall DIP budget. This represents a substantial commitment to the population program, at the highest level. Data on allocations in FYs 1988/89 and 1989/90 indicate that the trend has been reversed with very large increases in DIK and DIP. A third implication of these estimates is that costs of the public program per user (based on projections of users presented in Chapter 1) have risen from Rp 8,100 in 1985 to Rp 11,300 in 1987 and Rp 14,000 (or US \$ 8.30) in 1988.³ These costs are incomplete since they should also include the costs of resources devoted to the program by DEPKES, which will be discussed later

²In the past there have been problems because the local counterpart funds have not always been available to implement programs for which foreign aid is provided. However, this has been less true for population than for other sectors because of the high priority given to family planning.

³The actual costs per user are marginally higher since some users receive their contraceptives from the private sector. Assuming that the 20% from the private sector get an average BKKBN subsidy of 50%, the average cost per user would be 10% higher.

in this chapter. (For comparison, the international costs per user for most developing countries are estimated at US \$25-30⁴).

C. Analysis of Expenditures and Cost Projections

Expenditures by category

5.6 The division between the DIK and the DIP budgets presented above is not the traditional division between recurrent and investment costs because in Indonesia development expenditures are allocated to tasks that are normally considered recurrent and, in some cases, the recurrent budget is allocated to tasks normally defined as development. Table 5.2. in Annex 5 summarizes total expenditures by category for REPELITA IV (FY 1984-89). The majority of the DIK and DIP budgets are allocated to the category of facilities (57 percent in the latest plan period). According to BKKBN classification, this category includes construction and maintenance of buildings as well as the procurement of contraceptive supplies. It is the growth of this latter category which seems to have caused a great deal of concern about the future cost of the program. Contraceptive expenditures (table 5.4, Annex 5) are estimated to have increased from 15 billion rupiah in FY 1984/85 to 27 billion in FY 1988/89, representing a fairly constant share of total expenditures for the item "facilities", but an increasing share of DIP funds going to contraceptive procurement (29 to 41 percent of DIP funds over the period FY 1984/85 and FY 1988/89). The rising contraceptive costs were felt to be more marked because they are part of the DIP budget, which prior to FY 1988/89 had been decreasing in real terms and had experienced a 20 percent dip in FY 1987/88. The concern over contraceptive costs was evident in the December 12, 1988 Indonesia Times article announcing contraceptive costs of Rp 76.6 billion for FY 1989/90.⁵

5.7 Table 5.3 in Annex 5 gives the breakdown of DIP, DIK and BLN by category of expenditure for the Fourth Plan (no such breakdown is available for other plan periods). During the Fourth Plan period, the proportion of expenditures in each category over the total budget remained fairly constant, with the exception of training, which experienced a decline until the middle of the period, followed by a resurgence in FY 1987/88. As already explained, the share coming from foreign sources was irregular during this period and reached a high 58 percent by FY 1988/89. The large influx of foreign assistance during the last plan period was channeled into IEC, contraceptive

⁴See D. Gillespie et al, "Financing the Delivery of Contraceptives: The Challenge of the Next Twenty Years," The Demographic and Programmatic Consequences of Contraceptive Innovations, Committee on Population, National Academy of Sciences, Washington, D.C., October 6-7, 1988.

⁵The origin of this estimate is unknown at this time and needs clarification from BKKBN. It could be an estimate based on service statistics on users, which produce overestimates vis-a-vis actual users (For example, in 1987, NICPS implies 13.4 million users while service statistics report 16.8 million); the newspaper quotation is too high compared to the mission's estimate of Rs. 40.4 to 41.5 billion for the same year.

services, field coordination and administration. Budgets for contraceptive services (presumably including BKKBN's contribution to DEPKES for these services) increased by 89 percent between the FYs 1987/88 and 1988/89; administrative costs rose by 85 percent and field coordination by 60 percent.

5.8 These large increases in the investment budget for family planning (i.e., investments in program infrastructure) would be justified if they yield pay-offs in terms of increased contraceptive practice in the next few years. It will only be possible to fully assess the impact of these investments later on. However, it is relevant to relate the costs of the program in the last five years with the activities that took place. There were indeed large increases in the IEC program, which included the launching of large mass media and group campaigns to introduce the private sector initiative, production of many TV films containing family planning messages to instil the small family norm and procurement of audio-visual equipment to enable field workers undertake promotional family planning activities at the community level. Also, supervision of field activities was strengthened and construction of the last batch of buildings for program administration and training was completed. During this period, there was also a large expansion in service delivery, including start-up of services in transmigration areas and introduction of a new and expensive contraceptive (NORPLANT). The contraceptive prevalence rate showed a 24 percent increase, from 38 percent in 1985 to 47 percent in 1987.

Cost Projections

5.9 In order to shed some light on the discrepancies in the cost of contraceptives as presented in the DIP budget (and to put the figure quoted by the newspaper article in proper perspective) estimates of the commodity costs of contraceptive supplies were made. The year 1987/88 was taken as a basis for projections; other data used were approximate unit commodity costs to BKKBN, obtained from various sources, and the number of users and acceptors estimated on the basis of NICPS data and presented in chapter I. Table 5.4 in Annex 5 summarizes these cost estimates for recent years and presents cost projections to 1995, comparing them with BKKBN budget estimates. The cost of injections is estimated by SOMARC to be Rs. 980 per vial and 4 injections are needed per year; a cycle of pills costs between Rs. 250 and 365 and 13 cycles are needed per year; materials used in each IUD insertion cost about Rs. 500; condoms average 7,500 per year, as estimated in the Lawrence International report; and implants cost the government US\$ 17 per unit.

5.10 Alternative projections were made, assuming that for the "high" projection discontinuation rates were 10 percent higher than those for West Java, while for the medium projection the West Java discontinuation rates were applied. Assuming, as BKKBN does, that costs will increase by 10 percent per unit per year, the total costs of contraceptive supplies at the end of the Fifth Plan would be between Rp 83 and 85 billion. For earlier years, estimates are higher than the actual budget of BKKBN for contraceptives, probably reflecting the fact that these are actual budget outlays that (correctly) exclude the cost of contraceptives donated by foreign donors (for

instance, in FY 1987/88 the BKKBN budget had 18.7 billion rupiah, compared to an estimated total cost of Rs. 32.9 billion).⁶

5.11 If the DIP budget continues growing at the same rate as it has over the first four years of the fourth plan and all contraceptive costs were to come from GOI budget, almost the entire DIP budget would have to be devoted to contraceptive supplies. Consequently, the practice of paying for contraceptive supplies from the DIP budget alone would be untenable, unless that budget grows much more rapidly than in the recent past. In view of these prospects of rapidly expanding costs of contraceptive commodities, the government strategy of shifting some costs onto the private sector is justifiable. However, given what was shown in Chapter III, in the section concerning the elasticity of FP demand in relation to prices of contraceptives, it would be detrimental to demographic goals and equity to try to introduce fee-for-services across all groups.

5.12 In addition to contraceptive commodities, the other costs that must be covered by the BKKBN's DIP, DIK and BLN budgets are IEC, contraceptive services, field coordination, training, building maintenance, building construction, and administration. Although the rises in these costs are difficult to predict with accuracy, all categories except building construction and perhaps training will increase at least proportionately with expanded service provision in the public sector⁷. The budget for IEC may have to increase at a substantially faster rate, as more difficult to reach couples need to be recruited. BKKBN contribution to contraceptive services would be mainly for the recruitment of acceptors (rather than on continuing users). The increases in the costs of field coordination will also have to be proportionate to the rate of new acceptors. Thus IEC, contraceptive services, and field coordination costs will differ depending on the assumptions made about the expected number of acceptors per year and thus, on discontinuation rates. Therefore, for the purposes of this analysis, alternative estimates have been prepared (Annex 5, Table 5.5). Other costs are assumed to increase as follows:

- (a) administration and maintenance costs would increase at a rate dependent on the proposed expansion in personnel over the plan period, with a 10 percent price increase⁸;

⁶The newspaper figure of 76,600 million rupiah for contraceptives in 1989-90 remains unexplained; the Bank estimate for that year is 40,432 million rupiah.

⁷The feasibility of private family planning is discussed in Chapter 4. Although it is reasonable to expect considerable growth in private family planning services, the implications for the family planning budget are discussed in a later section of this paper.

⁸The base year is 1984/85, for which there were actual expenditures and personnel data.

- (b) building maintenance (estimated as DIP facilities less contraceptives) would grow at the same annual rate as administration;
- (c) new building expenditures, which are estimated to be the non-contraceptive portion of the item "facilities" in DIP, plus the foreign contribution to the item "facilities" in the BLN budget, are expected to decline in the future since the fourth World Bank loan has completed major construction of BKKBN facilities. However additional equipment purchases may be necessary, including supplementation of gynecological equipment in health centers.

5.13 The total costs for other than contraceptive commodities differ rather modestly depending on continuation rates. Overall, the estimated costs projected are below actual allocations for FY 1988/89 (total BKKBN budget for FY 1988/89 was Rs. 198.5 billion). Only in FY 1991/92 do projected needs exceed the FY 1988/89 budget (the projected budget for 1991/92 is in the range of Rs. 189-208 billion). As it is shown in Table 5.1 of Annex 5, the BKKBN FY 1988/89 budget had very large increase of 37 percent over the previous year, although the FY 1989/90 budget had a modest 4.6 increase. The mission's calculations indicate that the announced allocation for FY 1989/90 will be sufficient; on this basis, increments in expenditures similar to those in the recent past (16 percent) would be sufficient over the next several years to operate the public family planning program, under the assumption of high continuation rates. It should be noted that the latest Plan (REPELITA V) calls for an 8 percent increase in real terms, which would be adequate given the fact that the required 16 percent increase allows for a 10 percent inflation rate.

5.14 If the private sector were to assume a 30 percent share of the program by 1994, the GOI budget for family planning would be lower. Currently about 20 percent of users are covered by the private sector. A rough estimate has been made by the mission that half of the private sector costs for family planning is now being covered by subsidies from the public sector and that the latter would continue to support one third of the private sector cost through free supplies, training, advertising, etc. Therefore, the private sector would change from a current situation where they account for 10 percent of the family planning costs, to one where they would be bearing 21 percent of the program cost. This eleven percent increase in the share of the private sector could therefore be deducted from the public costs, with the result that for 1994/95, the public costs of the program could be reduced about 10 percent from the projections shown in Table 5.1, to a range of Rs. 290 and 260 billion. This would require a growth of between 10 and 13 percent in the public family planning budget (instead of 13 to 16 percent).

5.15 In order to compare future costs with those in the current period, one can examine the implied costs per user. Costs per acceptor for 1994/95 are projected to be between Rs. 15,000 and 17,000. These unit costs are very modest by international standards, especially considering likely price increases in the next few years and represents (over the mentioned period) a reduction in the real price per user, of between 25 and 49 percent. There are

two considerations that must be kept in mind, however. First, the regional distribution of new users affects costs as shown in a recent USAID sponsored study which indicates that costs per "active user" was twice as high in Outer Islands I than in Java-Bali and over five times higher in Outer Island II (Baird et al, 1987).⁹ Second, any expenditures incurred by DEPKES in the delivery of family planning, which are additional to contributions already being made by BKKBN in the form of supplemental compensation for medical personnel and supplies, should be taken into consideration.

5.16 Estimates were made of the cost of the program, assuming that it would be fully implemented in the Outer Islands; the assumptions made for these estimates are as follows: (a) Since regional family planning targets are not available, it was assumed that users will be proportional to regional population size at the end of the plan; on that basis, as upper limits, about 29 percent of the users would be in Outer Islands I and 15 percent in II, compared with 23 and 3 percent currently; (b) data for FY 1988/89 indicate about 75 percent of expenditures in the Outer Islands went out from the center and the remainder was contributed locally.¹⁰; (c) the mentioned USAID program cost ratios for Outer Islands were applied. It was thus estimated that the total costs for the national FP program in 1994, including the Outer Islands, would be Rs. 693 billion, allowing for 10 percent annual inflation, if costs per user remain constant in Java-Bali. If one assumes large reductions in capital expenditures¹¹, then the costs would be Rs. 353 billion, if the current continuation rate is assumed to persist. These last estimates imply that if the program were to be fully implemented in the Outer Islands, the financial requirements would be about one-fifth higher than the upper limit of the estimates made in Table 5.5 assuming uniform unit costs throughout the country. With intensification of the FP program in the Outer Islands, annual budgetary increases for family planning would be about 20 per cent, using 1987 as a basis and if substantial decreases in capital expenditures and high continuation rates are assumed. This "best case" scenario is above the 8 percent real growth assumed for the Fifth Plan, for all sectors combined. If the "best scenario" is not met, particularly if more capital investments are required, the resources needed for the family planning program would substantially exceed planned expansion. It should also be noted that estimates of future requirements made in this report include not only the DIP, but also DIK and BLN. Appropriate expansion of those budgets should also be vigorously pursued, in addition to DIP increases. As mentioned, the extent of participation of the private sector in the program will somewhat relieve these requirements, but the bulk of the budgetary burden will be with GOI.

⁹Reexamination of these calculations adjusting for over-reporting needs to be done, but the ratio of costs would remain the same if the degree of over-reporting is constant across areas.

¹⁰Contraceptive supplies are centrally budgeted, but distributed to the regions.

¹¹See assumption about the growth in capital expenditures in the section on cost projections.

D. Other Resources

5.17 The above analysis of BKKBN costs implies that with the projected growth in the number of users and acceptors, there would be substantial increases in costs, even assuming minimal construction costs and high continuation rates. These estimates of financial requirements for family planning, however, are not complete since they do not include DEPKES contribution to the program in infrastructure and manpower, with the exception of BKKBN contributions to DEPKES through equipment, materials and honoraria of 8 percent of salaries for doctors (it is assumed that these contributions is included in the DIK budget of BKKBN). Chernichovsky¹² estimated that 69 percent of the infrastructure (regency level) costs and 38 percent of the manpower costs required per acceptor come from DEPKES. Under assumptions of cost-sharing from the Chernichovsky report, the implied indirect costs to DEPKES of the family planning program might have been as high as Rp. 100 billion in FY 1984/85 -- very similar to BKKBN's costs of Rp. 109 in that year. The community also makes contributions. Estimation of these costs would be useful to assess the actual total costs per acceptor.

5.18 Placing these costs in context is difficult because they are calculated on a different basis than actual budgets. Nonetheless some rough comparisons can be made:

- (a) The costs per user when DEPKES indirect costs are included would have been about \$10.50 in FY 1984/85 compared to \$25-30 per user calculated by funding agencies;
- (b) The World Bank Report "Indonesia: Issues in Health Planning and Budgeting" (1988) estimates the entire health budget to be Rp. 515 billion in FY 1984/85 (Rp. 621 in FY 1985/86). The latter figure was 2.56 percent of the total government budget. BKKBN budget for FY 1984/85 was 0.33 percent of the national budget and 17 percent of the combined BKKBN plus DEPKES budgets. Adding the indirect costs of DEPKES going to family planning, about a third of the combined DEPKES/BKKBN budget went to family planning;
- (c) The BKKBN family planning budget and foreign assistance to the program together represented a cost of \$0.66 per capita. Adding the indirect DEPKES contribution to the FP program the cost raises to about \$1.25 per capita.

¹²The capital costs estimated by Chernichovsky are the implied costs of depreciation of capital and equipment plus consumable and thus differ from the BKKBN budgets which have capital construction included. This is less of a problem for the future when the large construction projects are completed and only maintenance is included. Thus the Chernichovsky costs are relatively lower than BKKBN capital costs now and will be higher later.

5.19 If all the above assumptions hold, DEPKES's indirect FP costs can be predicted to increase proportionally with those of BKKBN.

5.20 There is one eventuality which may raise DEPKES and BKKBN costs even more: an increase in sterilizations. In 1986, about 85,000 women received sterilizations in Indonesia. This number is quite consistent with the projected sterilizations in Chapter I. Estimates were prepared and presented in Table 5.7 of Annex 5, assuming a doubling in the number of female sterilizations between 1986 and 1994, compared to the numbers presented in the mentioned projections; in such circumstances, the percentage of women having sterilizations would increase from 2.6 percent to 8.8 percent of all women of reproductive age. For 1994, the investment costs (at 1994 prices) to carry out these increased services would have to be Rs. 7.2 billion more than if sterilizations remained constant at the 1986 level. Recurrent costs would be Rs. 5.4 million ¹³. Not shown in the table is the fact that there would be some savings in costs because women who chose sterilization would have used other methods. For example, the if an average woman accepting sterilization is 35 years old and if instead of undergoing the operation would have used the pill or injection for the next 10 years, the choice of sterilization would result in savings of Rs. 39,000 at current prices (the annualized investment cost of the operation -- the saving would be Rs. 31,000 in recurrent cost).

E. Conclusions on Financial Requirements

5.21 The key question is the degree to which resources will constrain the expansion of the program. The above analysis indicates that in order to achieve contraceptive prevalence goals for 1994 and assuming a uniform level of effort in the program in different regions of the country, the future annual increase in the budget of BKKBN would need to be similar to historic increases (13 to 16 percent); if the private sector is able to reach a 30 percent share of the clients, this would alleviate the GOI burden of the total budget for FP by about 10 percent. Under another alternative, assuming that future FP expansion must proceed in the expensive Outer Islands to a much greater extent than in the past, a budget increase for BKKBN of 22 percent a year is needed (this assumption implies that the cost in Outer Islands I is twice as high as in Java-Bali, and in Outer Islands II, over five times higher). If foreign assistance is decreased, an additional budget expansion commensurate with that decrease will be necessary. Concerning DEPKES, estimates of costs which may be attributed to family planning (in addition to direct contributions from BKKBN) were about 100 billion Rupiah in FY 1984/85 (or one fifth of the total health budget). DEPKES FP costs can be predicted to increase proportionately with those of BKKBN.

5.22 Even in the Outer Islands II where FP unit costs are estimated to be five times higher than in Java-Bali, and where only about 10 percent of

¹³The report on "The Assessment of Reimbursement Mechanisms and Cost Analysis of Voluntary Surgical Sterilization" estimates that the annualized investment cost per sterilization was Rs. 39,000 in 1988 and the recurrent costs were 31,000. The majority of the investment costs were for equipment.

Indonesia's population lives, the benefits of family planning would probably outweigh the costs. The benefits in these islands would not be through slowing population growth (since the total numbers are so small) but they would derive from improving maternal and child health conditions and family welfare.

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Table 1.1: DEMOGRAPHIC INDICATORS FOR SELECTED COUNTRIES, 1986

Country	Population growth rate, 1980-86	Total fertility rate	Life expectancy at birth	Infant mortality rate
Indonesia	2.1	3.6	59	74
Malaysia	2.7	3.5	69	27
Burma	2.0	4.4	59	64
Philippines	2.5	4.6	63	46
India	2.2	4.4	57	86
Sri Lanka	1.5	2.9	70	29
Bangladesh	2.6	5.6	50	121
Mean, middle income countries	2.3	3.0	64	41

Source: World Development Report, 1988, and World Bank demographic data files.

Table 1.2: POPULATION BY AGE, 1961, 1971, 1980, 1988

	1961		1971		1980		1988	
	Number (000's)	Percent	Number (000's)	Percent	Number (000's)	Percent	Number (000's)	Percent
0-4	17,042	17.7	19,161	16.2	21,297	14.4	22,137	12.7
5-9	15,323	15.9	18,872	15.9	21,338	14.5	21,939	12.6
10-14	8,179	8.5	14,228	12.0	17,707	12.0	21,297	12.2
15-19	7,708	8.0	11,391	9.6	15,360	10.4	18,834	10.8
20-24	7,791	8.1	7,961	6.7	13,066	8.9	16,018	9.2
25-29	8,673	9.0	9,042	7.6	11,400	7.7	14,234	8.1
30-34	7,203	7.5	7,894	6.7	8,208	5.6	12,322	7.1
35-39	6,254	6.5	8,080	6.8	8,593	5.8	10,034	5.7
40-44	4,830	5.0	6,029	5.1	7,457	5.1	8,436	4.8
45-49	3,672	3.8	4,647	3.9	6,181	4.2	7,391	4.2
50-54	3,370	3.5	3,835	3.2	5,437	3.7	6,341	3.6
55-59	1,665	1.7	2,135	1.8	3,407	2.3	5,238	3.0
60-64	2,083	2.2	2,223	1.9	3,245	2.2	4,113	2.4
65-59	805	0.8	1,121	1.0	1,722	1.2	3,022	1.7
70-74	819	0.9	1,061	0.9	1,538	1.0	2,045	1.2
75+	784	0.8	770	0.7	1,533	1.0	1,441	0.8
Total	96,201		118,450		147,489		174,842	

Source: Committee on Population & Demography (1987) for 1961-1980; World Bank projection for 1988.

Table 1.3: TRENDS IN MORTALITY INDICATORS, 1950-1988

Year	CDR	IMR	Life expectancy
1950-54	26.1	160	37.5
1955-59	24.3	145	40.0
1960-64	21.5	133	42.6
1965-69	19.3	124	45.1
1970-74	17.3	114	49.1
1975-79	14.1	105	52.7
1980-84	10.8	95	56.0
1988	9.1	69	60.2

Source: World Bank demographic data files.

Table 1.4: DIFFERENTIALS IN INFANT AND CHILDHOOD MORTALITY BY DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS OF MOTHER, 1987

Characteristic	IMR (1q0)	Under 5 mortality rate (5q0)
Residence		
Urban	50.9	77.9
Rural	84.1	123.6
Province		
Jakarta	52.9	78.4
West Java	94.7	141.1
Central Java	47.9	81.6
Yogyakarta	37.6	56.0
East Java	71.4	97.0
Bali	65.6	80.8
Mother's education		
None	98.8	142.4
Some primary	82.5	127.0
Primary completed	60.1	84.8
Secondary or more	33.9	42.8
Mother's age at birth		
Less than 20	99.2	132.3
20-29	68.1	104.0
30-39	74.2	112.8
40-49	71.1	120.4
Birth order		
1	78.1	102.0
2-3	70.3	107.7
4-6	70.5	106.9
7	94.0	149.0
Interval since previous birth		
Less than 2 years	109.1	154.2
2-3 years	62.1	105.0
4 years or more	50.6	74.9

Source: IRD/Westinghouse.

Table 1.5: TRENDS IN AGE-SPECIFIC FERTILITY RATES

Age-specific Fertility Rates (per 1,000 women per year)

	Age Group						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
<u>Source:</u>							
1971 census, 1967-70	155	286	273	211	124	55	17
1976 SUPAS, 1971-75	117	254	251	200	123	62	18
1987 NICPS, 1983-87	75	189	174	130	75	32	na
1988 estimate	74	184	170	125	74	36	19

Sources: 1971 census and 1976 SUPAS: Committee on Population and Demography, 1987; 1987 NICPS: IRD/Westinghouse; 1988 estimate: Bank projection based on 1987 NICPS.

Table 1.6: FERTILITY DIFFERENTIALS BY SOCIOECONOMIC STATUS, NICPS, 1983-87

Characteristic	Total Fertility Rate
Residence	
Urban	2.9
Rural	3.7
Province/Region	
Jakarta	2.8
West Java	3.6
Central Java	3.2
Yogyakarta	2.3
East Java	2.7
Bali	2.6
Outer Java-Bali I <u>/a</u>	3.8
Outer Java-Bali II <u>/b</u>	4.4
Education	
None	3.8
Some primary	3.8
Primary completed	3.5
Secondary or more	2.5

Source: IRD/Westinghouse.

/a Outer Islands I includes the following provinces: Aceh, North Sumatra, West Sumatra, South Sumatra, Lampung, West Kalimantan, South Kalimantan, South Sulawesi, North Sulawesi, West Nusatenggara.

/b Outer Islands II includes the following provinces: Rian, Jambi, Bengkulu, Central Kalimantan, East Kalimantan, Central Sulawesi, Southeast Sulawesi, East Nusatenggara, Timor Timur, Maluku and Irian Jaya.

Table 1.7: CONTRACEPTIVE PREVALENCE RATES OF WOMEN IN VARIOUS AGE, RESIDENTIAL, EDUCATION AND PARITY GROUPS

Characteristic	CPR
Age	
15-19	25.5
20-24	47.2
25-29	54.0
30-34	58.7
35-39	55.9
40-44	42.7
45-49	24.4
Residence	
Urban	54.3
Rural	45.9
Province/Region	
Jakarta	54.0
West Java	45.8
Central Java	53.5
Yogyakarta	68.1
East Java	49.8
Bali	68.5
Outer Java-Bali I	41.7
Outer Java-Bali II	39.6
Education	
None	32.8
Some primary	46.8
Primary completed	54.0
Secondary or more	64.1
Number of living children	
None	7.7
One	42.9
Two	56.8
Three	60.4
Four or more	50.2
Total	47.7

Source: IRD/Westinghouse.

Table 1.8: CONTRACEPTIVE USE BY CURRENTLY MARRIED WOMEN IN JAVA-BALI 1976
INDONESIA FERTILITY SURVEY AND 1987 NICPS

Method	Effectiveness	1976 IFS	1987 NICPS
Pill	0.90	56.7	31.4
IUD	0.95	21.3	30.5
Injectables	0.98	0.8	21.0
Condom	0.70	6.8	3.5
Female sterilization	1.00	1.1	6.9
Male sterilization	1.00	0.0	0.4
Norplant	0.98	-	0.8
Other	0.70	13.3	5.5

Source: 1976 IFS and 1987 NICPS: IRD/Westinghouse, 1988;
Effectiveness data: World Bank estimates.

Table 1.9: PERCENT DISTRIBUTION OF IDEAL NUMBER OF CHILDREN ACCORDING TO
NUMBER OF LIVING CHILDREN; EVER-MARRIED WOMEN

Ideal Number	None	Number of living children						Total
		1	2	3	4	5	6+	
None	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	5.2	4.7	0.7	1.1	0.8	0.6	0.4	1.9
2	54.2	51.5	39.4	17.0	17.8	16.1	12.4	31.1
3	17.7	22.3	27.5	38.4	14.1	15.2	14.2	23.1
4	9.9	11.1	16.4	22.8	37.7	15.2	20.1	18.9
5	1.3	3.8	5.1	6.1	8.8	21.1	8.2	6.6
6 or more	1.6	1.1	2.2	3.3	6.7	11.1	17.3	5.4
Non-numeric response	10.1	6.5	8.7	11.2	14.1	20.7	27.4	13.0
Mean Ideal Number	2.5	2.6	2.9	3.3	3.7	4.0	4.4	3.2

Source: IRD/Westinghouse, 1988.

Table 1.10: PERCENT OF WOMEN WHO HAVE DISCONTINUED A METHOD IN THE LAST FIVE YEARS, BY METHOD AND REASON FOR DISCONTINUATION

Reason	Pill	IUD	Injection	Condom	Abstinence
Method failed	6.3	18.5	4.4	14.2	31.0
Husband disapproves	1.3	0.5	1.4	7.1	4.4
Health concerns	28.4	26.0	37.2	5.1	3.4
Access/Availability	1.6	0.6	4.2	1.7	0.0
Cost too much	0.1	0.0	6.7	0.0	0.0
Inconvenient	3.7	2.1	3.4	16.2	8.9

Source: IRD/Westinghouse, 1988.

Table 1.11: INDONESIA: WORLD BANK STANDARD PROJECTION

	Year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Population (millions)	164.6	168.0	171.4	174.8	178.2	181.6	185.0	188.3	191.6	194.8
CBR	30.0	29.3	28.7	28.1	27.5	26.9	26.3	25.7	25.1	24.5
CDR	9.4	9.2	9.1	9.0	8.8	8.7	8.5	8.4	8.3	8.1
TFR	3.72	3.61	3.50	3.41	3.31	3.22	3.13	3.04	2.96	2.88
IMR	75.0	72.6	70.0	68.1	66.0	63.9	61.9	59.9	58.1	56.3
Dependency ratio	0.732	0.720	0.708	0.696	0.685	0.674	0.661	0.648	0.635	0.622
Women 15-49 (thousands)	41,061	42,114	43,197	44,310	45,456	46,634	47,767	48,931	50,127	51,357
CPR (percent)	41.00	42.80	44.60	46.07	47.70	49.16	50.59	52.00	53.26	54.41
Number using (thousands)	11,742	12,559	13,408	14,193	15,058	15,906	16,763	17,652	18,521	19,421
Annual increase in users (thousands)	817	849	785	865	848	857	889	869	900	934
Annual number of acceptors (millions)										
medium discontinuation	3.2	3.4	3.5	3.7	3.8	4.0	4.1	4.3	4.5	4.7
high discontinuation	4.2	4.4	4.6	4.8	5.0	5.3	5.5	5.8	6.0	6.2

Source: World Bank.

Table 1.12: CONSTANT CONTRACEPTIVE PREVALENCE RATE SCENARIO

	Year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Population (millions)	164.6	168.0	171.4	175.0	178.6	182.1	185.9	189.8	193.7	197.8
CBR	30.0	29.3	28.7	28.8	28.9	29.0	29.1	29.2	29.3	29.4
CDR	9.4	9.2	9.1	9.0	8.9	8.8	8.7	8.6	8.5	8.4
TFR	3.72	3.61	3.50	3.50	3.51	3.51	3.52	3.52	3.53	3.53
IMR	75.0	72.6	70.0	68.1	66.0	63.9	61.9	59.9	58.1	56.3
Dependency ratio	0.732	0.720	0.708	0.696	0.688	0.678	0.671	0.663	0.655	0.648
Women 15-49 (thousands)	41,061	42,114	43,197	44,310	45,456	46,634	47,767	48,931	50,127	51,357
CPR (percent)	41.0	42.8	43.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6
Number using (thousands)	11,742	12,559	13,408	13,750	14,071	14,393	14,753	15,124	15,507	15,901
Annual increase in users (thousands)	817	849	342	321	322	360	371	383	394	405
Annual number of acceptors (millions)										
medium discontinuation	3.2	3.4	3.3	3.2	3.0	3.0	3.1	3.1	3.2	3.3
high discontinuation	4.2	4.4	4.3	4.3	4.1	4.1	4.2	4.3	4.4	4.5

Source: World Bank.

Table 1.13: SLOW DECLINE SCENARIO

	Year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Population (millions)	164.6	168.0	171.4	174.8	178.4	182.1	185.6	189.1	192.7	196.4
CBR	30.0	29.3	28.7	28.3	28.0	27.7	27.4	27.2	26.9	26.6
CDR	9.4	9.2	9.1	9.0	8.8	8.7	8.6	8.5	8.5	8.3
TFR	3.72	3.61	3.50	3.45	3.39	3.34	3.29	3.23	3.18	3.14
IMR	75.0	72.6	70.0	68.1	66.0	63.9	61.9	59.9	58.1	56.3
Dependency ratio	0.732	0.720	0.708	0.697	0.685	0.674	0.663	0.652	0.641	0.631
Women 15-49 (thousands)	41,061	42,114	43,197	44,310	45,456	46,634	47,767	48,931	50,127	51,357
CPR (percent)	41.0	42.8	44.6	45.5	46.4	47.3	48.1	49.0	49.8	50.6
Number using (thousands)	11,742	12,559	13,400	13,787	14,474	15,196	15,954	16,630	17,410	18,013
Annual increase in users (thousands)	817	849	855	887	722	758	676	680	703	706
Annual number of acceptors (millions)										
medium discontinuation	3.2	3.4	3.3	3.3	3.4	3.5	3.6	3.8	3.8	3.9
high discontinuation	4.2	4.4	4.3	4.3	4.5	4.7	4.9	5.0	5.2	5.3

Source: World Bank.

Table 1.14: FAST DECLINE SCENARIO

	Year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Population (millions)	164.6	168.0	171.4	174.4	177.6	180.2	183.7	186.6	189.3	191.4
CBR	30.0	29.3	28.7	27.4	26.2	25.1	24.0	23.9	22.7	22.6
CDR	9.4	9.2	9.0	8.9	8.7	8.6	8.4	8.3	8.2	8.1
TFR	3.72	3.61	3.50	3.41	3.20	3.08	2.92	2.78	2.64	2.54
IMR	75.0	72.6	70.0	68.1	66.0	63.9	61.9	59.9	58.1	56.3
Dependency ratio	0.732	0.720	0.708	0.694	0.679	0.665	0.648	0.631	0.614	0.597
Women 15-49 (thousands)	41,061	42,114	43,197	44,310	45,458	46,634	47,767	48,931	50,127	51,357
CPR (percent)	41.0	42.8	44.6	46.1	49.4	51.4	53.9	56.0	58.2	59.8
Number using (thousands)	11,742	12,559	13,400	14,932	16,612	17,844	19,020	20,242	21,291	22,159
Annual increase in users (thousands)	817	849	1,800	1,680	1,232	1,176	1,222	1,049	868	776
Annual number of acceptors (millions) medium										
discontinuation high	3.2	3.4	3.5	3.8	4.1	4.2	4.5	4.7	4.9	5.1
discontinuation low	4.2	4.4	4.6	4.9	5.3	5.5	5.9	6.2	6.4	6.6

Source: World Bank.

Table 1.15

World Bank Standard Projection

Age Group	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030
Total M+F	164,630	181,601	197,979	213,324	227,038	240,423	253,790	266,661	278,485	288,919
Males										
0-4	11,212	11,619	11,561	11,240	10,580	10,623	10,951	11,088	11,020	10,870
5-9	11,267	10,938	11,393	11,385	11,096	10,472	10,532	10,869	11,016	10,957
10-14	10,234	11,173	10,861	11,326	11,326	11,047	10,432	10,496	10,835	10,985
15-19	8,429	10,132	11,077	10,782	11,251	11,262	10,990	10,383	10,451	10,793
20-24	7,148	8,304	10,002	10,955	10,673	11,153	11,172	10,911	10,314	10,387
25-29	6,410	7,019	8,175	9,869	10,822	10,562	11,048	11,076	10,825	10,240
30-34	5,472	6,283	6,900	8,057	9,740	10,701	10,455	10,946	10,984	10,742
35-39	4,603	5,344	6,157	6,782	7,932	9,609	10,570	10,339	10,835	10,882
40-44	3,997	4,466	5,206	6,019	6,643	7,788	9,450	10,410	10,194	10,695
45-49	3,455	3,838	4,308	5,042	5,842	6,466	7,596	9,233	10,186	9,989
50-54	2,892	3,264	3,644	4,110	4,823	5,607	6,220	7,323	8,918	9,857
55-59	2,346	2,663	3,024	3,395	3,840	4,524	5,275	6,868	6,926	8,455
60-64	1,822	2,077	2,376	2,715	3,059	3,478	4,113	4,813	5,372	6,358
65-69	1,330	1,521	1,749	2,017	2,315	2,626	3,000	3,564	4,187	4,692
70-74	873	1,013	1,171	1,361	1,578	1,826	2,083	2,395	2,860	3,377
75+	445	761	1,004	1,232	1,472	1,746	2,058	2,399	2,795	3,329
Total	81,934	90,416	98,610	106,287	112,992	119,491	125,944	132,110	137,719	142,609
Females										
0-4	10,686	11,237	11,168	10,846	10,274	10,318	10,634	10,765	10,694	10,541
5-9	10,668	10,454	11,049	11,026	10,758	10,218	10,276	10,600	10,738	10,674
10-14	9,872	10,585	10,389	10,995	10,990	10,732	10,199	10,261	10,588	10,728
15-19	8,712	9,784	10,509	10,329	10,950	10,957	10,707	10,180	10,245	10,574
20-24	7,873	8,803	9,683	10,420	10,266	10,901	10,919	10,677	10,156	10,225
25-29	6,934	7,752	8,492	9,580	10,338	10,206	10,851	10,878	10,644	10,130
30-34	5,569	6,810	7,635	8,386	9,490	10,264	10,148	10,800	10,835	10,609
35-39	4,509	5,453	6,690	7,521	8,289	9,405	10,188	10,084	10,743	10,786
40-44	3,958	4,397	5,336	6,565	7,409	8,189	9,308	10,098	10,007	10,671
45-49	3,506	3,835	4,276	5,206	6,430	7,280	8,064	9,182	9,976	9,899
50-54	3,015	3,361	3691	4,131	5,051	6,264	7,110	7,894	9,006	9,802
55-59	2,490	2,841	3,182	3,510	3,950	4,855	6,041	6,879	7,658	8,757
60-64	1,935	2,280	2,617	2,949	3,278	3,714	4,586	5,732	6,551	7,318
65-69	1,434	1,688	2,006	2,321	2,642	2,963	3,379	4,199	5,276	6,060
70-74	1,004	1,156	1,375	1,651	1,934	2,228	2,522	2,901	3,631	4,594
75+	531	950	1,271	1,600	1,992	2,436	2,914	3,424	4,018	4,943
Total	82,695	91,185	99,369	107,037	114,041	120,932	127,846	134,551	140,766	146,310
Birth Rate	28.7	25.7	22.8	19.9	18.7	18.1	17.3	16.4	15.5	
Death Rate	9.1	8.4	7.9	7.4	7.2	7.3	7.4	7.7	8.1	
Rate of Nat. Inc	1.96	1.73	1.49	1.25	1.15	1.08	.99	.87	.74	
Net Migration Rate	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Growth Rate	1.96	1.73	1.49	1.25	1.15	1.08	.99	.87	.74	
Total Fertility	3.500	3.037	2.636	2.287	2.161	2.139	2.124	2.110	2.101	
NRR	1.474	1.314	1.166	1.039	1.000	1.000	1.000	1.000	1.000	
e(0) - Both Sexes	60.16	62.41	64.47	66.37	68.22	69.40	70.42	71.33	72.11	
IMR - Both Sexes	70.0	59.9	51.1	43.4	36.0	31.5	28.0	24.8	22.3	
Dep. Ratio	73.2	67.4	61.0	56.5	51.3	47.3	45.2	45.2	45.9	46.5

Table 1.16

Indonesia Slow Decline Scenario

Age Group	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030
Total M+F	164,630	182,124	199,683	216,769	232,656	246,954	260,715	274,416	287,505	299,363
Males										
0-4	11,212	11,884	12,167	12,136	11,698	10,099	11,165	11,525	11,682	11,816
5-9	11,267	10,938	11,653	11,982	11,980	11,580	11,004	11,082	11,450	11,815
10-14	10,234	11,173	10,861	11,585	11,920	11,927	11,535	10,966	11,047	11,418
15-19	8,429	10,132	11,077	10,782	11,508	11,852	11,868	11,481	10,919	11,004
20-24	7,148	8,304	10,002	10,955	10,673	11,408	11,758	11,780	11,405	10,852
25-29	6,410	7,019	8,175	9,869	10,822	10,582	11,300	11,657	11,688	11,323
30-34	5,472	6,283	6,900	8,057	9,740	10,701	10,455	11,198	11,559	11,598
35-39	4,603	5,344	6,157	6,782	7,932	9,809	10,570	10,339	11,083	11,452
40-44	3,997	4,466	5,206	6,019	6,643	7,788	9,450	10,410	10,194	10,940
45-49	3,455	3,838	4,308	5,042	5,842	6,466	7,598	9,233	10,186	9,989
50-54	2,892	3,264	3,644	4,110	4,823	5,607	6,220	7,323	8,918	9,857
55-59	2,346	2,663	3,024	3,395	3,840	4,524	5,275	6,868	6,926	8,455
60-64	1,822	2,077	2,376	2,715	3,059	3,478	4,113	4,813	5,372	6,358
65-69	1,330	1,521	1,749	2,017	2,315	2,626	3,000	3,564	4,187	4,692
70-74	873	1,013	1,117	1,361	1,678	1,826	2,083	2,395	2,860	3,377
75+	445	761	1,004	1,232	1,472	1,746	2,058	2,399	2,795	3,329
Total	81,934	90,681	99,476	108,039	115,846	122,800	129,447	136,029	142,272	147,875
Females										
0-4	10,686	11,494	11,753	11,710	11,360	10,780	10,842	11,189	11,336	11,264
5-9	10,668	10,464	11,301	11,604	11,615	11,299	10,736	10,808	11,162	11,314
10-14	9,872	10,585	10,369	11,246	11,566	11,588	11,278	10,720	10,795	11,151
15-19	8,712	9,784	10,509	10,329	11,200	11,531	11,561	11,256	10,704	10,782
20-24	7,873	8,603	9,683	10,420	10,266	11,150	11,491	11,528	11,230	10,684
25-29	6,934	7,752	8,492	9,580	10,338	10,206	11,099	11,448	11,492	11,201
30-34	5,569	6,810	7,635	8,386	9,490	10,264	10,148	11,046	11,403	11,454
35-39	4,509	5,453	6,690	7,521	8,289	9,405	10,188	10,084	10,988	11,351
40-44	3,958	4,397	5,336	6,565	7,409	8,189	9,308	10,098	10,007	10,915
45-49	3,506	3,835	4,276	5,206	6,430	7,280	8,064	9,182	9,976	9,899
50-54	3,015	3,361	3,691	4,131	5,051	6,264	7,110	7,894	9,006	9,802
55-59	2,490	2,841	3,182	3,510	3,950	4,855	6,041	6,879	7,658	8,757
60-64	1,985	2,280	2,617	2,949	3,278	3,714	4,586	5,732	6,551	7,318
65-69	1,434	1,688	2,006	2,321	2,642	2,963	3,379	4,199	5,276	6,060
70-74	1,004	1,156	1,375	1,651	1,934	2,228	2,522	2,901	3,631	4,594
75+	531	950	1,271	1,600	1,992	2,436	2,914	3,424	4,018	4,943
Total	82,695	91,442	100,207	108,730	116,811	124,154	131,267	138,387	145,233	151,488
Birth Rate	29.3	26.9	24.3	21.6	19.0	18.0	17.5	16.8	16.0	16.0
Death Rate	9.1	8.5	7.9	7.4	7.1	7.1	7.3	7.5	7.9	7.9
Rate of Nat. Inc.	2.02	1.84	1.64	1.42	1.19	1.09	1.02	.93	.81	.81
Net Migration Rate	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Growth Rate	2.02	1.84	1.64	1.41	1.19	1.08	1.02	.93	.81	.81
Total Fertility	3.580	3.205	2.846	2.527	2.243	2.139	2.124	2.110	2.101	2.101
NRR	1.507	1.386	1.259	1.148	1.038	1.000	1.000	1.000	1.000	1.000
e(0) - Both Sexes	60.16	62.41	64.47	66.37	68.22	69.40	70.42	71.33	72.11	72.11
IMR - Both Sexes	70.0	59.9	51.1	43.4	36.0	31.5	28.0	24.8	22.3	22.3
Dep. Ratio	73.2	67.8	62.4	59.0	54.5	49.8	46.3	45.0	45.7	46.8

Table 1.17

Indonesia Fast Decline Scenario

Age Group	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030
Total M+F	164,630	180,744	194,318	207,066	219,997	233,171	245,737	257,138	267,269	276,294
Males										
0-4	11,212	11,220	10,090	9,896	10,163	10,497	10,526	10,320	10,136	10,126
5-9	11,267	10,938	11,002	9,937	9,768	10,060	10,407	10,448	10,253	10,078
10-14	10,234	11,173	10,861	10,938	9,885	9,726	10,021	10,371	10,415	10,224
15-19	8,429	10,132	11,077	10,782	10,866	9,829	9,676	9,974	10,327	10,374
20-24	7,148	8,304	10,002	10,955	10,673	10,770	9,751	9,606	9,908	10,264
25-29	6,410	7,019	8,175	9,869	10,822	10,562	10,669	9,667	9,530	9,837
30-34	5,472	6,283	6,900	8,057	9,740	10,701	10,455	10,571	9,586	9,457
35-39	4,603	5,344	6,157	6,782	7,932	9,609	10,570	10,339	10,464	9,498
40-44	3,997	4,466	5,206	6,019	6,843	7,788	9,450	10,410	10,194	10,329
45-49	3,455	3,838	4,308	5,042	5,842	6,466	7,596	9,233	10,186	9,989
50-54	2,892	3,264	3,644	4,110	4,823	5,607	6,220	7,323	8,918	9,857
55-59	2,346	2,663	3,024	3,395	3,840	4,524	5,275	5,868	6,926	8,455
60-64	1,822	2,077	2,378	2,715	3,059	3,478	4,113	4,813	5,372	6,358
65-69	1,330	1,521	1,749	2,017	2,315	2,826	3,000	3,564	4,187	4,692
70-74	873	1,013	1,171	1,361	1,578	1,826	2,083	2,395	2,860	3,377
75+	445	761	1,004	1,232	1,472	1,746	2,058	2,399	2,795	3,329
Total	8,1934	90,017	96,748	103,106	109,421	115,815	121,869	127,298	132,057	136,243
Females										
0-4	10,686	10,852	9,747	9,548	9,869	10,195	10,222	10,019	9,836	9,820
5-9	10,668	10,454	10,670	9,624	9,471	9,816	10,154	10,189	9,994	9,817
10-14	9,872	10,585	10,389	10,618	9,592	9,449	9,797	10,139	10,177	9,985
15-19	8,712	9,784	10,509	10,329	10,574	9,563	9,427	9,779	10,123	10,165
20-24	7,873	8,603	9,683	10,420	10,266	10,527	9,530	9,400	9,756	10,104
25-29	6,934	7,752	8,492	9,580	10,338	10,206	10,479	9,494	9,371	9,731
30-34	5,569	6,810	7,835	8,386	9,490	10,264	10,148	10,429	9,456	9,340
35-39	4,509	5,453	6,690	7,521	8,289	9,405	10,188	10,084	10,374	9,414
40-44	3,958	4,397	5,336	6,565	7,409	8,189	9,308	10,098	10,007	10,305
45-49	3,506	3,835	4,276	5,206	6,430	7,280	8,064	9,182	9,976	9,899
50-54	3,015	3,361	3,691	4,131	5,051	6,264	7,110	7,894	9,008	9,802
55-59	2,490	2,841	3,182	3,510	3,950	4,855	6,041	6,879	7,656	8,757
60-64	1,935	2,280	2,617	2,949	3,278	3,714	4,586	5,732	6,551	7,318
65-69	1,434	1,688	2,006	2,321	2,642	2,963	3,379	4,199	5,276	6,060
70-74	1,004	1,156	1,375	1,651	1,934	2,228	2,522	2,901	3,631	4,594
75+	531	950	1,271	1,600	1,992	2,436	2,914	3,424	4,018	4,943
Total	82,695	90,800	97,570	103,960	110,576	117,356	123,869	129,840	135,211	140,051
Birth Rate	27.8	22.7	20.6	19.7	19.0	18.0	18.0	16.7	15.7	15.0
Death Rate	9.0	8.3	7.9	7.6	7.4	7.4	7.4	7.6	7.9	8.4
Rate of Nat. Inc.	1.88	1.44	1.27	1.21	1.16	1.05	1.05	.91	.77	.66
Net Migration Rate	0.	.0	.0	.0	.0	.0	.0	.0	.0	.0
Growth Rate	1.88	1.44	1.27	1.21	1.16	1.05	1.05	.91	.77	.66
Total Fertility	3.370	2.650	2.320	2.200	2.161	2.139	2.124	2.110	2.101	2.101
NRR	1.423	1.147	1.027	1.000	1.000	1.000	1.000	1.000	1.000	1.000
e(0) - Both sexes	60.16	62.41	64.47	66.37	68.22	69.40	70.42	71.33	72.11	72.11
IMR - Both Sexes	70.0	59.9	51.1	43.4	36.0	31.5	28.0	24.8	22.3.	22.3.
Dep. Ratio	73.26	66.6	58.0	51.9	47.3	46.1	45.7	45.5	45.5	46.0

Table 1.18: CENTRAL BUREAU OF STATISTICS: POPULATION PROJECTIONS 1985-1995

Age Group	Year										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
0-4	21,895,490	22,469,124	22,833,881	23,047,890	23,169,282	23,266,190	23,269,858	23,171,533	23,029,346	22,871,428	22,785,910
5-9	21,932,430	21,466,108	21,279,897	21,286,340	21,393,978	21,517,350	21,714,432	22,044,198	22,418,182	22,747,932	22,944,990
10-14	20,104,331	20,857,700	21,309,684	21,553,856	21,683,791	21,793,060	21,819,282	21,700,075	21,529,012	21,399,666	21,405,610
15-19	17,138,261	17,727,848	18,327,002	18,912,605	19,461,539	19,950,688	20,395,457	20,811,266	21,174,993	21,463,520	21,653,730
20-24	15,037,619	15,218,422	15,548,008	15,978,122	16,460,505	16,946,900	17,469,480	18,060,415	18,671,448	19,254,322	19,760,781
25-29	13,342,302	13,635,401	13,919,920	14,208,865	14,507,247	14,832,073	15,174,005	15,525,703	15,898,176	16,302,433	16,749,482
30-34	11,040,150	11,571,479	12,022,587	12,417,856	12,780,872	13,136,418	13,468,172	13,780,010	14,036,117	14,320,676	14,637,872
35-39	9,110,963	9,365,838	9,689,001	10,067,454	10,448,198	10,838,235	11,242,897	11,677,517	12,119,095	12,544,635	12,931,137
40-44	7,953,187	8,054,255	8,209,622	8,409,252	8,643,108	8,901,147	9,190,066	9,516,556	9,870,577	10,242,094	10,621,067
45-49	6,960,215	7,129,000	7,275,129	7,411,722	7,551,900	7,708,783	7,873,624	8,037,675	8,214,058	8,415,893	8,656,900
50-54	5,908,562	6,070,249	6,235,686	6,388,743	6,512,832	6,659,655	6,806,126	6,949,158	7,093,381	7,243,425	7,403,921
55-59	4,835,100	4,970,468	5,109,642	5,251,518	5,394,990	5,538,954	5,684,146	5,831,304	5,979,321	6,127,094	6,273,518
60-64	3,755,489	3,880,058	4,005,649	4,132,970	4,261,727	4,391,629	4,522,870	4,655,646	4,789,664	4,924,632	5,060,257
65-69	2,763,924	2,846,576	2,937,516	3,034,905	3,136,904	3,241,673	3,350,438	3,464,425	3,581,795	3,700,709	3,819,326
70-74	1,876,576	1,933,350	1,993,932	2,059,141	2,125,796	2,196,715	2,271,018	2,348,828	2,429,961	2,514,237	2,601,474
75+	975,999	1,151,639	1,312,383	1,461,796	1,603,443	1,740,890	1,871,759	1,993,675	2,110,201	2,224,904	2,341,348
Total	164,629,618	168,347,515	172,009,540	175,588,836	179,136,110	182,650,358	186,123,631	189,547,980	192,935,328	196,297,601	199,646,723



Appendix 1

Assumptions in World Bank Standard Projection:

1. The base year is 1985. The age distribution estimated by BPS, derived from the 1985 SUPAS was adopted (BPS, 1988).

2. The Total Fertility Rate in 1985 was 3.72, in 1986 3.61, in 1987 3.5. It will decline to 2.88 in 1994. These estimates are based on the NICPS, adjusted for incomplete coverage and consistency with World Bank series. The 1994 TFR figure is obtained from a preliminary plan made by the Ministry of Population for Repelita V. Following 1994, fertility is projected to decline according to a reverse geometric curve, reaching a level of 2.21, when the Net Reproduction Rate is equal to 1 in 2005. The TFR series looks as follows:

1985	3.72	1990	3.22	1995	2.80	20000	2.43
1986	3.61	1991	3.13	1996	2.72	20001	2.36
1987	3.50	1992	3.04	1997	2.64	20002	2.29
1988	3.41	1993	2.96	1998	2.57	20003	2.26
1989	3.31	1994	2.88	1999	2.50	20004	2.24

3. Age specific fertility rates are taken from the 1987 NICPS and scaled to agree with the above TFRs. The age pattern of fertility will change in future periods according to a simple empirically based model used in all World Bank population projections (Vu and Zacharias, 1988). The age specific fertility rates for 1985, 1994, and 2005 are as follows:

	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1985	83.7	196.1	180.3	137.0	83.8	41.4	21.7
1994	58.2	163.3	151.7	104.7	57.3	26.0	14.7
2005	37.9	137.1	128.8	79.0	36.3	13.8	9.1

4. The Infant Mortality Rate is based on the NICPS, adjusted for incomplete coverage and consistency with World Bank series. Coale-Demeny model life tables were selected on the basis of the IMR. Changes in mortality follow a simple model used in all World Bank population projections (Vu and Zacharias, 1988). Life table survivorship ratios, $l(x)$, for males and females in 1985-90 and 2005-2010 are as follows:

	1(1)	1(5)	1(10)	1(20)	1(30)	1(40)	1(50)	1(60)	1(70)	1(80)
Males, 85-90	.923	.900	.887	.869	.838	.799	.736	.623	.429	.178
Fem., 85-90	.937	.912	.903	.887	.860	.824	.774	.686	.519	.250
Males, 05-10	.955	.945	.940	.929	.910	.885	.838	.736	.538	.246
Fem., 05-10	.973	.967	.964	.958	.947	.930	.898	.829	.674	.368

5. The proportion of married women in 1985 was derived from BKKBN data and the NICPS. BKKBN Technical Report # 52A (12/87) was used to project changes in the proportion married over time. The proportion by age is as follows for 1985, 1994, and 2005:

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	All ages
1985	.22	.72	.86	.89	.88	.85	.80	.698
1995	.19	.71	.85	.89	.88	.84	.78	.694
2005	.15	.70	.84	.88	.87	.82	.76	.699

6. Method used effectiveness was taken from the TARGET model, except for Norplant and condoms, which were estimated separately. There is no change in effectiveness over time for any particular method, but overall effectiveness changes because of changes in method mix. Differential effectiveness by age was obtained from a simple model in the TARGET program. Effectiveness by method is as follows:

Male Sterilization	1.00
Female Sterilization	1.00
Injectables	.98
Norplant	.98
IUD	.95
Pills	.90
Condoms	.70
Other	.70

7. The Contraceptive Prevalence Rate in 1985 was obtained from World Bank Report No. 6188-IND. It was projected using the TARGET model, resulting in a CPR of 44.6 in 1987, which was judged accurate in view of the NICPS CPR of 47.7 for 93 percent of the country.

8. Method mix by age was obtained from the NICPs and scaled to the CPR in 1985. Changes in method mix were projected using this base and rate of changes in method mix projected by the Ministry of Population for Repelita V. No changes in method mix are assumed after 1995.

9. Discontinuation rates are estimates based on preliminary data from BKKBN for the province of West Java. These rates may be lower than the national average. Therefore, two scenarios are defined for the calculation of new acceptors: one taking the West Java discontinuation rates from BKKBN ("medium"), the other assuming that the national continuation rates are 10 percent lower than that indicated by the West Java data ("high"). This gives the following annual discontinuation rates by method for the period 1985-1994:

	Medium	High
Male Sterilization	.01	.01
Female Sterilization	.01	.01
Injectables	.24	.32
IUD	.08	.17
Norplant	.05	.14
Pills	.23	.31
Condoms	.28	.35
Other	.30	.37

10. The duration of postpartum infecundability was taken from the NICPS as 9.4 months and assumed to be declining gradually to 6 months in 2020.

11. The number of new users (acceptors) that needs to be recruited to reach a given fertility target is calculated as the annual increase in number of users (growth in prevalence), plus the number of intentional drop-outs under age 50, plus the number of unintentional drop-outs (failures), plus the number of women who reach age 50.

12. Induced abortion was assumed to be insignificant.

13. International migration was assumed to be negligible.

14. For the slow decline scenario, it is assumed that the increase in the CPR between 1989 and 1994 is half that of the increase in the World Bank Standard scenario, and the year that the NRR equals one is delayed until 2010. Other fertility parameters are adjusted to these constraints. Other proximate determinants of fertility are left unchanged; thus, variation with the Standard scenario is entirely due to contraceptive usage. Mortality is likewise unchanged. For the fast decline scenario, the CPR increases by ten percent more during 1989 and 1994 and the replacement fertility year is moved forward to 2000. There are no other changes with the standard scenario.

Table 2.1: PROPORTIONS OF WOMEN IN VARIOUS CONTRACEPTION CATEGORIES, 1987 (000'S)

	Number of Currently Married (000s)	Users	In need		In need and intends to use		Total
			Wants no more	Wants to postpone	Wants no more	Wants to postpone	
Area							
Urban	2,977	54.3	21.1	14.3	5.3	5.9	11.2
Rural	7,930	45.3	21.5	21.8	5.8	8.1	13.9
Region							
Java Bali	(7,285)	(50.9)	(22.1)	(16.8)	5.1	6.3	11.4
Jakarta	543	54.0	21.4	14.0	5.1	4.5	9.6
West Java	2,208	45.8	24.7	17.8	5.2	7.3	12.4
Central Java	1,934	53.5	20.6	18.2	5.4	6.7	12.1
Yogyakarta	207	68.1	11.0	7.3	4.6	3.8	8.4
East Java	2,182	49.8	22.7	16.9	4.8	5.6	10.4
Bali	191	68.5	14.4	7.9	6.7	4.7	11.4
Outer Islands I	(3,191)	(41.7)	(19.9)	(25.3)	6.4	9.2	15.6
Outer Islands II	(451)	(39.6)	(21.8)	(28.8)	8.9	15.6	24.5
Education							
No School	2,406	32.8	33.1	19.1	3.8	4.3	8.1
Some Primary	4,426	46.8	21.7	20.6	6.4	7.7	14.1
Complete Primary	2,605	54.0	16.1	20.6	6.2	9.4	15.7
Above Primary	1,407	64.1	11.1	17.1	5.4	8.7	14.1
Total	10,907	47.7	21.4	19.8	5.7	7.5	13.12

Source: Tables 4.1 and 7.5, NICPS.

Table 2.2: NUMBER OF CURRENTLY MARRIED WOMEN IN VARIOUS CONTRACEPTION CATEGORIES (000'S)

	1987	1994						
	Number of Users	Number in Need		Number in Need and Intends to Use			Number Who	
		Wants no more	Wants to postpone	Wants to more	Wants no postpone	Total	Need but do Not Intend	Perceive No Need
Area								
Urban	4,099	1,896	1,280	474	527	1,001	2,174	912
Rural	9,246	5,200	5,272	1,403	1,960	3,363	7,110	2,756
Education								
No School	2,023	2,417	1,396	277	314	591	3,224	1,096
Some Primary	5,310	2,917	2,769	860	1,036	1,896	3,791	1,466
Complete Primary	3,806	1,274	1,622	490	744	1,235	1,661	744
Some Secondary	2,312	475	731	231	372	603	602	329
Totals*	13,336	7,090	6,560	1,889	2,485	4,374	9,276	3,678

*May not add due rounding

Source: Assuming 93% of 30,063,900 married women of reproductive age are covered by the sample and using proportions of sample in various groups and proportion of groups in various user categories from Tables 4.1 and 7.5 NICPS.

Table 2.3: PERCENT DISTRIBUTION OF WOMEN WHO HAVE DISCONTINUED CONTRACEPTION IN THE LAST FIVE YEARS BY MAIN REASON FOR LAST DISCONTINUATION, NICPS, 1987

Reason for Discontinuation	No School	Some Primary	Primary Completed	Beyond Primary	Total
To become pregnant	33	35	33	50	34.7
Method failed	9	10	11	9	10.0
Husband disapproves	2	2	2	1	2.1
Health concerns	21	29	27	22	27.2
Access/availability	2	2	1	1	1.9
Cost too much	3	2	1	0	1.8
Inconvenient	3	4	6	8	4.3
Fatalistic	3	1	2	1	1.7
Other	21	13	15	8	14.6

Table 2.4: NUMBER OF WOMEN IN VARIOUS CATEGORIES AND ACCEPTORS NEEDED OVER THE NEXT FIVE YEARS BASED ON ALTERNATIVE PROGRAM ACHIEVEMENTS AND ASSUMPTIONS ABOUT CONTINUATION (MILLIONS)

Projection Assumption	Users 1994	Users 1987	Potential Demand (non-users) 1994		Intend to Use	1990-1994 Needed Acceptors /a	
			Spacers	Limiters		Medium Discontinuation	High Discontinuation
Target	19.4	13.3	7.0	6.6	4.4	21.6	28.8
Constant CPR	15.9	13.3	7.0	6.6	4.4	15.7	21.5
Below target /b	18.0	13.3	7.0	6.6	4.4	18.6	25.1
Above target /c	22.2	13.3	7.0	6.6	4.4	23.4	30.6

Sources: Table 5.3 and World Bank Population Projections.

/a Includes those dropping out from one method and taking up another.

/b Half of target achieved.

/c 10% above target CPR.

**Table 2.5: COMPARISONS OF TRENDS IN FERTILITY AND CONTRACEPTIVE USE
IN INDONESIA AND THAILAND**

	Indonesia			Thailand		
	CBR	TFR	CPR	CBR	TFR	CPR
1950-54	43.0	5.49		46.6	6.6	
1955-59	45.4	5.49		44.3	6.5	
1960-64	42.9	5.42		44.3	6.4	
1965-69	42.6	5.57] 10	40.0	6.3	19 (1969/70)
1970-74	41.4	5.40	19 (1976)	35.6	4.9	38 (1975)
1975-79	36.4	4.75	30 (1979/80)		4.3	58 (1981)
1980-84	33.2	4.05	41 (1985)	28.0	3.8	65 (1984)
1988	28.0	3.41	45		3.0	66-68 (1987)

Sources: CBR, TFR Bank estimates; CPR various surveys.

ORGANIZED AND NGO FAMILY PLANNING SECTORSA. Family Planning Services in the Organized Sector

1. An estimated 13 million persons are employed in the industrial sector (UNFPA, 1988) including about 5 million married persons of reproductive age.^{1/} While the Ministry of Manpower requires that all Indonesian plantations and factories with more than 75 employees have a health clinic on site, family planning services need not be provided and the service hours and availability of a doctor vary from clinic to clinic. Companies receive no tax benefits from providing FP services to their employees. In the 1970s, the ILO, together with the Ministry of Manpower, held workshops and seminars throughout Indonesia to provide family planning IEC materials and training of motivators selected among industrial employees and employers. More recently, FPIA, USAID's Enterprise Project, and the UNFPA have been supporting projects designed to increase family planning services to workers in the organized sector. None of the employment-based programs for which data are available involve an employee fee for family planning services. Many employment-based clinics receive contraceptives from BKKBN. BKKBN has also given training to medical and paramedical staff in IUD insertion and sterilization techniques.

2. In 1984, a joint decree was issued by the Ministry of Manpower, BKKBN, APINDO, the employer's organization, and SPSI--the major workers' organization--stating their commitment to "enhance the implementation of the family planning program amongst workers in the organized sector." Since the 1984 decree, efforts to increase availability of family planning services to workers in the organized sector have accelerated. In 1986, with major funding from the UNFPA, the Ministry of Manpower together with BKKBN undertook a five year project which is probably the largest single family planning project in the organized sector to date. It involves training of motivators and medical personnel, development of IEC materials, and support for on-site clinical family planning services at 1,200 "industrial establishments" in DKI Jakarta, Central, West and East Java and North Sumatra. These firms employ, on average, 1,000 employees, so that the project covers about 1.2 million employees.

3. Other attempts to increase access to services in the organized sector have involved working with the SPSI Union, an Indonesian workers' association with 3 million employees in 17 provinces. FPIA, in conjunction with SPSI, provided expanded family planning services to textile and cigarette workers in Bandung and Kudus. In Bandung, family planning programs were set up in 130 textile factories; 285 cadres (volunteers) were trained to provide IEC and family planning services, and "rayon" and satellite clinic services were expanded to include family planning. BKKBN was involved in the training of medical personnel and motivators and in supplying the clinics and cadres with contraceptives and IEC materials. A similar program has been set up in Kudus

^{1/} Based on a 1984 Ministry of Manpower study, about 40 percent of the employees were married.

with the cigarette and tobacco union and in Semarang and Solo with the SPSI branch of Central Java (FPIA, 1986).

4. Contraceptive prevalence among industrial workers estimated in 1985 and 1987 (Ministry of Manpower and UNFPA respectively) was lower than the national average in 1984 (32 percent) and higher in 1987 (50-60) percent. Neither one of these studies was nationally representative of the industrial sector and the marked increase might reflect biases in the different samples used. However, such an increase is plausible. Both studies do suggest that employees in this sector rely on re-supply methods (condoms, pills, injectables) at higher rates than other contraceptors in the country. Overall, there was a consistently higher reliance on the pill--accounting for one half of the contraceptors sampled, and a higher reliance on condoms and lower reliance on the IUD, as compared to national averages. A survey of female employees at a private factory in Jakarta done by Atma Jaya University in 1988 also found a much heavier reliance on re-supply methods than family planning users in Jakarta or the country as a whole (in this factory, pills and injectables accounted for 74 percent of contraceptives and IUDs for only 12 percent). Supply considerations could be influencing method mix in employment-based programs; furthermore these programs are likely to depend on management's commitment to providing high quality services (either on-site or off-site) and on the socio-economic level and characteristics of the employees and their spouses.

Sources of Contraceptives and Size of Acceptors Groups Served by Employment-based Clinics

5. Evidence on the source of contraceptives relied upon by employees of the organized sector comes from the 1987 UNFPA study and from the Atma Jaya study of female employees at a factory in Jakarta. Both point to a reliance on public sources of approximately 35 percent. Of the contraceptors in the Atma Jaya study, 35 percent obtained services from government facilities, 28 percent from the factory clinic, 17 percent from Atma Jaya Hospital, and 20 percent, from other sources. In the UNFPA study, from 20 to 50 percent of the acceptors used public health clinics (no breakdown was given for the remainder).

6. If we assume that the contraceptive prevalence rate of 50 percent among the estimated 5 million eligible couples represented in the organized sector, and if 35 percent obtains services from the public sector, an estimated 1.5 million couples obtain contraceptives from the private sector (commercial, NGO, or employment-based clinics). If the source distribution in the Atma Jaya sample is generalized, it would suggest that roughly 500,000 eligible couples are obtaining services from employment-based clinics. However, some proportion of those 500,000 eligible couples are obtaining family planning services from employment-based clinics operated by the public sector or by parastatals; consequently, this may be an upper bound on the number of contraceptors obtaining services at employment-based clinics in the private sector. For 1987, this would imply that at most 3.7 percent of family planning acceptors are getting family planning services from employment-based clinics.

Alternative FP Delivery Mechanisms for the Organized Sector

7. While employment-based programs may be serving a significant number of family planning acceptors, increasing attention is being given, both by employers and family planning program personnel, to the way in which these services are provided. A private hospital in Jakarta, Atma Jaya, has offered three different types of family planning and health packages to firms in its catchment area that either supplement employment-based clinics or substitute for them. The 97 firms in the catchment area have a total of 16,000 employees. The three types of arrangement proposed are: for factories with clinics on site, the hospital would provide back-up clinical support; for factories with no clinic on site, the hospital would provide part-time clinic services through the use of a mobile clinic; or for other factories, Atma Jaya would provide family planning services directly at the hospital.

8. A cost-benefit calculation was made for one of the factories in the catchment area demonstrating that, ex ante, total projected savings from foregone births would exceed total projected expenditures for the family planning program after the program has been operating four years (Atma Jaya University, 1988). The estimates are made using a TIPPS cost/benefit model developed as part of TIPPS, a USAID supported project; it takes into account the contraceptive practices and fertility desires of married employees, the maternity and other child-related benefits offered by the employer and the likely costs of providing family planning services to determine what the net monetary savings would be from expanding the provision of family planning services to employees. At this point in time, decisions regarding Atma Jaya's proposals are pending at firms in Jakarta.

9. It is difficult to generalize about employment-based family planning programs in Indonesia because of the diversity of arrangements that prevail and the lack of baseline data. Although many of these FP projects in the workplace have been viewed as a success because of declines in resignations, pregnancies and births, there are industrial site clinics that are operating well under capacity, resulting in a high cost per new acceptor. Moreover, since BKKBN has been providing contraceptives and family planning training free of charge to many firms, these costs may not even include contraceptive or training expenses. Firms, donors and BKKBN should consider the quality and cost-benefits of the full range of possible arrangements (including those described above) before making investments and decisions regarding employment-based programs. Also, the implications of the government or donors subsidizing family planning services to this group of Indonesians who have higher incomes relative to the average Indonesian should be examined in the light of resource constraints.

B. Major Family Planning NGOs

10. PKK, the Family Welfare Movement, will be discussed first, followed by the oldest family planning NGO in Indonesia--PKBI (the IPPF affiliate in Indonesia), PELKESI (the Indonesian Christian Association for Health), Yayasan Kusuma Buana (YKB), a private, nonprofit foundation and Muhammadiyah, a Muslim Social Welfare Organization, will be then discussed to highlight the possibilities of self-supporting clinics and the potential importance of the Islamic health clinics.

11. Family Welfare Movement (PKK): PKK is a voluntary, nation-wide movement devoted to development of family welfare in rural and urban communities. Since mothers hold a central role in the family, PKK programs are mainly focused on them. PKK programs include: mutual self help, nutrition, housing and home economics, education and handicrafts, and health (including family planning). PKK has been an important force in recruiting new family planning acceptors, particularly in remote areas where other community organizations are rudimentary. PKK activities are usually well integrated with government sponsored development activities because PKK forms one section of LKMD, the Village Community Development Institute, which is responsible for encouraging community participation in development activities. PKK has boards at all levels of government: national, provincial, regency, subdistrict, and village (urban wards in cities). Chairpersons of PKK boards are appointed on a "functional" basis in that they are the wives of the principal government functionary at each level. Thus, the Chairperson of the national board is the wife of the Minister of Home Affairs and the Chairman of a PKK village board is the wife of the village headman. Resources for PKK activities come from several sources. PKK projects frequently have a self help element which generates resources from within the community. In addition, PKK in collaboration with other development entities such as LKMD seeks funds from sectoral departments and agencies. Finally, the Government of Indonesia makes a small annual grant to the PKK organization in each village of the country. The decision as to how the grant will be used rests with the PKK village unit.

12. PKBI was founded in 1957 to offer family planning services at a time when the government policy was pronatalist. Since 1970, when BKKBN was created, it changed its role to complement the government program, undertaking promotional and pioneering income generating activities, while limiting family planning services to urban areas through 17 comprehensive and 70 small, mostly urban clinics in 21 (out of 27) provinces; its share of FP users is around 0.2 percent. Although it charges all clients a fee commensurate to income, it does not appear to serve a significant portion of the poor; most clients at a comprehensive clinic in Bandung have a high school education. Even so, its cost recovery ratio is 25 to 30 per cent. PKBI has a strong network of volunteers; BKKBN relies on this NGO for providing services in certain areas of the country where government services are weak (e.g., Lampung, Sumatra and some transmigration areas). Some PKBI clinics receive contraceptives free from BKKBN and some purchase them from manufacturers.

13. PELKESI has 100 hospitals and clinics throughout Indonesia on at least 8 islands, mostly in urban areas. It appears to be serving the largest number of family planning acceptors among the Indonesian NGOs. In 1987, these facilities served 28,000 new acceptors and 106,352 revisits by continuing users, representing about 0.5 percent of all contraceptors in the national program and a somewhat higher share of new acceptors. Charges for family planning services vary among clinics and are set on a sliding scale, according to income. Cost recovery is estimated at 25 percent. Fees generated from other services and funds raised subsidize the provision of family planning services. Compared to the overall mix of the national program, the contraceptive mix is more skewed to injectables and sterilizations (PELKESI performed 20 percent of all sterilizations done in 1987 in the country).

14. YKB was established in 1980 to provide semi-commercial family planning services in urban areas, where, at the time, contraceptive prevalence appeared to be lower than in rural areas. In 1981, UNFPA started to finance two clinics in Jakarta, geared to provision of more convenient, flexible hours (including week-ends) and better quality services for a fee, than available from the public sector; these services were aimed at lower middle and middle income families. Although one clinic closed, the other reached a cost recovery level of 70 percent in 1983, leading USAID to fund additional clinics. In 1986, there were 8 such clinics, offering all contraceptives except sterilizations. The overall cost recovery ratio was 50 percent, with wide variations in cost recovery ratios among clinics. The University Research Corporation (URC), through an operations research project funded by USAID, conducted a study (URC, 1988) to determine whether and how the other clinics could become self-supporting. The study found that the least cost-effective clinics were competing with more doctors and midwives in private practice and with more public health facilities, than the most self-sufficient clinic; other negative factors were clinic appearance and lack of physicians. Also, the least successful clinics were not reaching the potential acceptors with information about the services offered and the government field workers were reluctant to refer clients to a private clinic. The changes suggested after this study included closing three clinics and relocation of the others to more strategic places within the catchment area; changes in staffing, clinic hours and types of services offered. By March 1988, one of the clinics went from 40 percent cost recovery to self-sufficiency. Currently, fees are reported covering, on average, 65 to 75 percent of operating costs.

15. The largest Islamic NGO doing FP is Muhammadiyah, with many clinics throughout Indonesia (no overall information on numbers of location). Morgan (1987) estimates that about half of all contraceptives used by these clinics are donated by the public program and the rest are purchased by the clients at the clinic's pharmacy. The organization's staff indicated that they are serving middle and low income groups. Operating costs are reportedly covered by fees, but capital and other investment costs are covered by outside funds; cross-subsidization of FP services from other health services offered may be taking place. Also, there may be compensations among clinics (i.e., clinics in poor neighborhoods may have low cost recovery, but may be supported by earnings from other clinics located in middle class areas). Clinics also receive contributions from Mosques.

Table 3.1: SOURCE OF PROVIDER SUPPLY

	Pill			Condom			IUD			Nordplants			Injectables		
	Total	Mid-wives	Doc-tors	Total	Mid-wives	Doc-tors	Total	Mid-wives	Doc-tors	Total	Mid-wives	Doc-tors	Total	Mid-wives	Doc-tors
Free from detailmen	11	8	15	8	6	13	10	8	14	-	-	-	8	6	9
Buy from detailmen	13	15	11	5	8	-	19	15	27	-	-	-	26	24	29
Buy from Apotik/ Toko Obat	31	43	27	19	22	13	31	35	23	-	-	-	48	50	45
Buy from wholesaler	3	2	4	1	-	4	4	2	9	-	-	-	4	2	7
Puskesmas/Pos KB	45	57	30	44	57	17	51	60	32	-	-	-	21	24	16
From IDI/IBI	3	3	2	1	2	-	-	-	-	100	-	100	5	3	7
Yayasan Kusuma Buana	7	11	2	8	10	4	14	21	-	-	-	-	7	11	1
BKKBN	7	11	2	8	10	4	14	21	-	-	-	-	7	11	1
PBF	2	-	4	1	-	4	-	-	-	-	-	-	1	11	2
PLKB	6	7	6	5	4	8	6	6	5	-	-	-	3	5	2
Others	1	2	-	-	-	-	1	2	-	-	-	-	1	2	-

Source: Somarc Assessment, Parst II, September 1987.

Table 3.2: NUMBER AND PROPORTION OF IDA AND IBI MEMBERS PROVIDING FAMILY PLANNING SERVICES IN PRIVATE PRACTICE BY CITY

City	IDI		IBI	
	Number	Percent	Number	Percent
Medan	300	.54	300	.67
Malang	200	.69	130	.59
Palembang	353	.83	281	.92
Jakarta	2,501	.49	840	.58
Bandung	600	.50	137	.41
Pontianak	56	.70	58	.51
Surakarta	148	.67	143	.51
Semerang	200	.25	116	.41
Surabaya	206	.37	157	.28
Ujung Padang	210	.56	120	.38

Source: Brinch, 1988.

Table 3.3: PERCENT DISTRIBUTION OF EVER-MARRIED WOMEN CURRENTLY USING CONTRACEPTION BY SOURCE FOR ALL WOMEN AND FOR RURAL AND URBAN SEPARATELY

Source of Service	Rural	Urban	Combined
<u>Commercial Sector</u>			
Dispensary/Drugstore	0.7	6.5	2.5
Private Doctor	2.6	12.5	5.6
Private Midwife	<u>3.5</u>	<u>6.3</u>	<u>4.4</u>
Subtotal	6.8	25.3	12.5
<u>Public/Community Sector</u>			
FP Fieldworker	7.0	2.0	5.5
FP Outlet/Group/Ext. Worker	16.6	5.4	13.2
Mobile Clinic	1.0	0.2	0.7
Safari/Campaign	0.6	0.3	0.5
Posyandu	4.8	2.6	4.2
<u>Predominantly Public Sector</u>			
FP Clinic/PHC/Hospital	53.8	60.3	55.8
<u>Other</u>	9.3	3.7	7.6

Source: 1987 NICPS

Table 3.4: SOURCES OF CONTRACEPTION FOR MWRA USING A MODERN METHOD BY CITY

City	Government	Private Clinical	Pharmacy	Home/Comm.
Jakarta	0.70	0.23	0.07	0.01
Medan	0.69	0.18	0.12	0.02
Semerang	0.75	0.14	0.06	0.06
Surabaya	0.74	0.11	0.14	0.01
Ujung Pandang	0.79	0.16	0.04	0.01

Source: London (1985) from the 1983 CPS 5 City Study.

Table 3.5: THE PERCENT DISTRIBUTION OF EVER-MARRIED WOMEN CURRENTLY USING CONTRACEPTIVES BY COMMERCIAL SOURCES FOR METHOD, ACCORDING TO SPECIFIC METHOD AND BY LOCATION

Source	Pill	IUD	Inject	Cond	Tubect	Vesect	Impl	Total
Dispensary/Pharm.	1.6	0.0	0.0	53.7	0.0	0.0	0.0	2.5
Private Doctor	1.0	7.1	11.9	1.0	5.6	0.0	2.2	5.6
Private Midwife	<u>2.3</u>	<u>2.9</u>	<u>11.6</u>	<u>3.7</u>	<u>0.2</u>	<u>0.0</u>	<u>0.0</u>	<u>4.4</u>
Total	4.9	10.0	23.5	57.4	5.8	0.0	2.2	12.4
<u>Urban</u>								
Dispensary/Pharm.	6.7	0.0	0.0	57.3	0.0	0.0	0.0	6.5
Private Doctor	2.8	19.6	19.8	1.4	9.9	0.0	9.5	12.5
Private Midwife	<u>4.0</u>	<u>4.4</u>	<u>14.5</u>	<u>3.6</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>	<u>6.3</u>
Total	13.5	24.0	34.3	62.3	10.3	0.0	9.5	25.3
<u>Rural</u>								
Dispensary/Pharm.	0.2	0.0	0.0	44.7	0.0	0.0	0.0	0.7
Private Doctor	0.5	2.5	7.7	0.0	1.1	0.0	0.0	2.6
Private Midwife	<u>1.9</u>	<u>2.3</u>	<u>10.0</u>	<u>3.8</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>3.5</u>
Total	2.6	4.8	17.7	48.5	1.1	0.0	0.0	6.8

Source: 1987 NICPS

Table 3.6: RANGE OF FEES CHARGED BY PRIVATE PROVIDERS FOR A CONSULTATION THAT INCLUDES THE SUPPLY COST

	Private Midwives	Private Doctors
IUD	4,600 - 10,000	15,300 - 30,000
Pill (with one cycle)	860 - 2,700	2,200 - 5,250
Injectable (one dose)	2,630 - 2,890	4,950 - 5,250
Tubectomy	n.a.	60,000 - 90,000
Vasectomy	n.a.	65,000 - 110,000

Source: 1987 SRI.

Note: The mean fees are based on the last purchase price reported by the provider and are calculated over respondents who stocked the product. Fees are averaged over providers and the range reflects variability in mean levels across brands. The sample is dominated by providers in Jakarta.

Table 3.7: CHARGES, COST RECOVERY, AND NEW ACCEPTOR LEVELS BY NGO

	Charges	Cost Recovery in Family Planning	Number of New Users Per Year
PKBI	5,000 for insertion 3,000 for revisit under PKBI charges: 35,000 for Tubectomy 25,000 for Vasectomy	23-30 percent	11,000 - 13,000
Pelkesi	1,000 - 2,000 for insertion 2,500 for injectable	25 percent	28,000
YKB	1,500 - 4,500 for insertion-midwife 2,000 for injectable	70 percent	2,400 - 3,600
Muhammadiyah	8,000 for IUD-midwife 20,000 for IUD-M.D. 7,500 for injectable	100 percent	240 - 480

See notes following Table 9.

Table 3.8: MOST COMMON METHOD, CLIENTELE, AND REVENUE SOURCES BY NGO

	Most Common Method	Who is Served	Revenue Sources
PKBI	Male Sterilization	Majority with at least secondary	IPPF, International donors
Pelkesi	Female sterilization	?	FPIA, International donors
YKB	?	Target C/D Income Group	International donors, BKKBN
Muhammadiyah	IUD at Jakarta clinic-- likely to be pill/ injectable outside Jakarta	?	Mosque

Notes for Tables 3.7 and 3.8

1. Charges for insertion and revisits, most common method and who is served for PKBI are based on information given at an Integrated Clinic in Bandung while cost recovery estimates, revenue sources, number of new users are for all PKBI clinics.
2. Charges at Pelkesi clinics are based on information from a Pelkesi clinic in Jakarta while cost recovery estimates, numbers of new users, and most common method are for all Pelkesi clinics.
3. Information on Muhammadiyah clinics are based only on data provided at a Muhammadiyah clinic in Jakarta.
4. Most Common Method is for new acceptors.

ANNEX 4FAMILY PLANNING ORGANIZATION AND MANAGEMENTA. Other Organizations Related to the Family Planning Program
(In addition to those described in the main text)

1. Ministry of Home Affairs: Provincial and Local Governments: The Ministry of Home Affairs at national level oversees Indonesia's 27 provincial government which in turn have jurisdiction over the 300 regency governments. The latter supervise 3,539 subdistrict governments which in turn have authority over some 67,000 villages and 240,000 sub-villages. Since 1974, the chief government official at each of these levels, from governor to village head, has been accountable for progress in family planning as well as other development programs. At both the provincial and regency levels, there are departments of health of the Ministry of Home Affairs which are responsible to the Governor and Regent respectively. These departments are operationally responsible for the delivery of all health and family planning services in their areas. The Ministry of Health provincial and regency level offices supervise and coordinate health and family planning activities at these levels but they have no operational authority, except in the case of epidemics and natural disasters. The director of the Ministry of Health office and the director of the Ministry of Home Affairs health department at the provincial level is the same person. This is true also at the regency level. The staff of the two units, however, are separate at the provincial level and in the larger regencies. The provincial and regency departments of health receive their budgets from the provincial "routine" and "development" budgets while the Ministry of Health offices at these levels receive their budgets from the Ministry of Health central office, with which they are organizationally linked. As noted earlier, the BKKBN provincial offices are operationally responsible to the Governor and organizationally linked. As noted earlier, the BKKBN provincial offices are operationally responsible to BKKBN headquarters, which provides policy direction and most of the budget. The BKKBN provincial offices coordinate family planning activities but have no operational authority. Essentially the same situation exists at the regency level.

2. Ministry of Information: This Ministry cooperates with BKKBN in making available media such as Radio Republic Indonesia for transmission of information regarding the advantages of family planning and the small family norm. The Ministry of BKKBN also have an agreement for production and presentation of radio and television dramas which incorporate family planning themes.

3. Ministry of Transmigration: This Ministry is responsible for resettlement programs which are underway in some twenty provinces. In addition to providing social infrastructure inputs to all resettlement units (UPTs) during the initial five years of resettlement, this Ministry has a cooperative arrangement with the BKKBN and the Ministry of Health to strengthen health, family planning and nutrition services in selected geographic areas.

4. Ministry of Education and Culture: This Ministry has added population education to the curriculum at all levels of the educational system and it has established population education cells in all provincial and district education offices. Population education has also been incorporated into the non-formal education sector, including out-of-school youth. This activity is managed by BKKBN in collaboration with the Directorate of Non-Formal Education and Sports of the Ministry of Education and Culture.

5. Ministry of Religious Affairs: This Ministry supports the national family planning program by encouraging religious leaders at national and community levels to be supportive of and add legitimacy to the practice of family planning and the small family norm. Thus, some local religious leaders have developed centers for family planning information and contraceptive services associated with Islamic teaching centers; other include family planning in lectures and Koran reading sessions. The Ministry also cooperates with BKKBN in programs of orientation and training for religious leaders on the acceptability of family planning for persons of the Muslim religion.

6. Ministry of Manpower: The Ministry of Manpower cooperates with BKKBN by encouraging industrial enterprises to establish family planning services in their facilities and promote family planning among their employees.

7. Armed Forces: The Armed Forces have developed an extensive program of IEC and contraceptive services for members of the Forces and their families. The Forces provide both facilities and personnel for this purpose.

8. Village Community Development Institute (LKMD): LKMD is a vehicle for promoting community participation in planning and implementation of development activities. LKMD is administratively under the Directorate of Rural Development in the Ministry of Home Affairs and has Boards and "promoting teams" at all levels of Government. The principal administrator at each level, for example, the Minister, the Governor, the village head, heads the Board at that level. An LKMD "promoting team" at each level is responsible for guiding various development projects. LKMD's scope of work includes: religion; public security; education; development (including cooperatives); youth; family welfare; and health, population and family planning. LKMD has a system for classifying villages according to their degree of development and it ranks each village's development progress annually. Indicators for evaluating development include: "ideology and politics," level of village income, village community participation, level of education, and village community health. Community health indicators include contraceptive practice, infant mortality rate and nutritional status of under fives. In addition to promoting mutual self help for development activities, LKMD encourages support from sectoral development budgets and it provides limited financial support direct to villages. The amount of support is related to a village's ranking and its development progress.

B. Management of the National Family Planning Program

9. The planning process for the family planning program starts with the development of population projections and targets. The preparation of population projections has been described in Chapter 1. Concerning the

development of five year (REPELITA) and annual plans for the national family planning program, BKKBN plays the leadership role. Five year plans are prepared by BKKBN after consultation with provincial staff and staff of implementing units. BKKBN initiates the annual planning cycle in April of each year with a national conference to evaluate progress of the national family planning program and to launch "implementation planning". At this conference, which is attended by key staff from BKKBN and implementing units of each of the provinces, targets and goals are discussed, together with indications of likely available resources. Following the conference, planning guidelines are sent to the provinces. BKKBN provincial staff in collaboration with the provincial government and other implementing units at that level, as well as regency level counterparts prepare initial draft plans. Following analysis and comments by the central level, there are revisions. BAPPENAS and Finance undertake a review around December. The provinces go over plans again in January. BAPPENAS and Finance give final approval of plans and budgets by the end of March. The usual result of this interactive, decentralized process is commitment to achievement of plans by all levels and all implementing units.

10. Coordination: The 1983 Presidential Decree on BKKBN gives this agency responsibility for formulating family planning policy and coordinating planning and implementation. Because government policy calls for integrating the family planning program with other development activities and having the program carried out by a network of government and non-government "implementing units," BKKBN's coordinating role assumes major importance. In practice, BKKBN negotiates with various implementing units as to what family planning program activities they will carry out and what resources will be available in those agencies budgets (from BKKBN and from other sources) for the purpose. Implementation is the sole responsibility of the participating units, but BKKBN is in a position to exert influence regarding performance, by setting targets and goals, and monitoring progress in achieving them. In spite of these forceful mechanisms to excerpt coordination, BKKBN faces constraints in determining which family planning related activities will be implemented by various units. For example, the extent of contraceptive services and fertility related health interventions provided by the DEPKES and local governments are to a considerable extent shaped and/or limited by the facilities, staff, regulations, technical procedures, and resources of DEPKES and local governments. Furthermore, responsibility for the quality of the medical services involved in providing family planning is correctly placed with DEPKES, although there are financial and technical constraints within DEPKES to exerting quality control of clinical services. Similarly, while BKKBN can encourage and assist NGOs and the private sector to become more active in providing contraceptive information and services and undertaking motivational activities, it obviously cannot require those sectors to undertake activities which the latter consider to be beyond their mandate, their capability or their interest.

11. BKKBN also faces constraints in relation to activities designed to promote women's economic and social well being, many of which fall within the domain of other development agencies - for example, agriculture, transmigration, etc. Further, some community organizations such as PKK acknowledge their own limited technical expertise. This has meant that BKKBN's role in supporting activities designed to improve economic and social well being, especially in village settings, has necessarily been a partial one.

BKKBN's unit for integration recognizes this situation and is currently exploring how BKKBN's own role can be more clearly defined and what its relationships with other agencies should be.

12. KLH. As described earlier, this Ministry has functions related to development of population policy, but a limited technical capacity. The complementarity with BKKBN's coordinating role for family planning was clearly determined from the onset of KLH in 1983 and there is essentially no ambiguity in the respective roles. Donor agencies (including the Bank) have tried to strengthen KLH technical capacity by providing funds for technical assistance, but this approach has not succeeded because the institution lacks a critical mass of national professional expertise to absorb that assistance. Recently, a more structured assistance has been put in operation under a Bank project, under which an overseas university has been contracted to provide management of a fellowship program, and to coordinate and provide technical assistance in preparation of policy papers and in development of population study centers in Indonesian universities. While this approach may help carry out KLH functions in the population sector, the problem of lack of institutional critical mass remains unresolved. Indonesia does, however, have population policies broader than family planning (e.g., women's education, population redistribution, fertility related health and mortality improvements) expressed in the development plans and in international documents and implemented as necessary by various government agencies. This process is directly led by the President and KLN's Minister. Relatively small but well designed changes in functions and staffing in KLH's population section, to make better use of technical assistance, could help improve the problem of lack of a clear process of population policy development. However, given that the main element of the population policy is family planning and this area is being handled with a degree of sophistication seldom observed in other countries, the above mentioned deficiencies may be considered as not critical to the resolution of population related issues in Indonesia.

13. BKKBN has a well developed system for supervision of the national family planning program, achieved through "built in" supervision by managers at all levels as part of their managerial responsibilities and by a Deputy for Supervision, with direct line to the BKKBN Chairman. The office of the Deputy includes Inspectors for program, personnel, finance and material. At both provincial and regency levels BKKBN has a similar supervision structure. The supervision system is based on specified policies and operational strategies for the program, detailed plans of action (including targets), job descriptions, and administrative and technical procedures and guidelines. Delegation of supervisory authority is practiced throughout the management hierarchy and supervision is a continuous process, at the same time ensuring consistency among different lines of command. Rewards of various types are offered for outstanding performance. BKKBN is accountable to the Government for appropriate use of resources for the national family planning program and for the achievement of the program's objectives. This requires a supervisory system which is designed to reach all administrative levels of the program and which

functions not only for BKKBN, but for implementing units and the community as well.^{1/} Since BKKBN and implementing units at each level are operationally responsible to the chief government official at that level (governor, regent, etc.), supervision of the national family planning program is exercised by BKKBN through that structure. While the supervision system is working well, BKKBN continues to make efforts to improve it, by undertaking regular reviews and revision of existing procedures and manuals and through staff training geared to strengthen supervisory skills. BKKBN is also beginning to design supervisory systems which will fit the managerial requirements of new program strategies such as K.B. Mandiri and social marketing.

14. The national family planning program relies for monitoring on a management information system (MIS) developed at program inception, in the early 1970's. Its design, which was appropriate for a small, clinic based program, is currently in need of modification. Because the program is integrated with other development programs and is decentralized, information is collected by and subsequently used by various components and levels of BKKBN as well as a number of government and non-government departments and agencies at both central and local levels. BKKBN devotes substantial financial, human and other resources to its MIS. The four headquarters units identified above budgeted a total of Rs. 600 million for the fiscal year 1987-88. The budget for the relevant provincial units totaled Rs 65 million and for the regency units Rs \$34 million. In all, this equalled approximately US\$4.2 million. BKKBN is well aware that it faces a number of challenges as it adapts its MIS to changing program and technological circumstances. Among the issues it is facing are quality of data, timeliness, skill requirements for BKKBN and other program manpower who are expected to use the MIS, need for additional staff, equipment and budget to operate an expanding and more complex MIS, and technical assistance requirements for modifying the MIS to serve new program strategies.

15. BKKBN's Program Development Division, its current structure for research, was established by Presidential Decree Number 64 of 1983. The Division is headed by a Deputy and comprises three Centers: Center for National Family Planning Studies; Center for Biomedical and Human Reproduction Studies; and the Center for the Development of National Family Planning Policy. (The last named Center is expected to use research findings of the first two Centers for the development of policy recommendations.) The overall objective of the Division is to contribute to the development of a comprehensive and integrated national family planning program policy through research on programs and through coordinating and undertaking biomedical and human reproduction research. Research activities can be generated within the Division or they can be proposed by the BKKBN Chairman, by funding agencies, or by individuals or research institutes. To help review research proposals, BKKBN has established three standing committees: (a) an Advisory Committee to identify general areas needing research; (b) a Steering Committee to determine research priorities; and (c) a Technical Committee to assess the quality of proposals, including their methodology. An extensive review of BKKBN's research activity carried out in early 1988 found while substantial progress has been made particularly in

^{1/} The Supervision and Control System of the Indonesian National Family Planning Program, BKKBN, 1988.

training related to research, research management, and research output, there are a number of areas where improvement is needed. These include: clarification of the objectives, workload and staffing requirements of the three Centers; preparation of detailed training plans to develop further staff skills; strengthening research management and institutional development; reducing the number of small scale in-house research projects in favor of a limited number of larger size projects conducted by qualified external researchers; and encouraging improved coordination among BKKBN staff involved in research, including those at provincial level.

C. Manpower Planning and Development

16. The structure and staffing of the BKKBN organization are set forth in substantial detail in Presidential Decree Number 64 of 1983. In accordance with that decree, BKKBN had an estimated total staff of 38,800 in 1988, of whom 20,445 were field workers. The BKKBN headquarters employed a total of 1,036 persons. BKKBN's staff is characterized by substantial stability and high morale, notwithstanding that Government civil service salaries are low by most standards, and in most government agencies employees frequently hold two or three jobs to make ends meet. BKKBN has met this challenge through a variety of actions including: extra compensation for specific work related activities (participation in workshops, research projects, etc.); an extensive program of education and training for staff which, inter alia, qualifies them for promotion; an organized system for performance evaluation and promotion; recognition and rewards for superior performance; and delegation of authority and responsibility to a degree which is unusual for a government bureaucracy.

17. BKKBN has a well developed structure to support its personnel management and manpower planning and development activities. Reporting directly to the BKKBN Chairman is a Deputy for Program Personnel Development who supervises a Bureau of Personnel and Program Workers Management and two centers--the Center for Education and Training for Civil Servants and the Center for Education and Training for Program Personnel. The first mentioned center provides the training required before a BKKBN employee can become a civil servant, and public administration training required of managerial personnel before they can advance to the next managerial echelon. This center also manages the program of long term in-country training whereby BKKBN staff, and a limited number of staff from implementing units, are given opportunities to study at Indonesian universities (which qualifies BKKBN staff for advancement). The Center for Education and Training for Program Personnel is responsible for all program related training in support of the national family planning program. This Center implements BKKBN's training policy and establishes procedures for planning, implementing, supervision and evaluating training for some 250 types of personnel trained in 200 training categories at 37 training centers spread throughout 27 provinces. In addition, the Center is responsible for all long and short term overseas training as well as short term in-country training for foreigners.

18. In addition to the personnel management structure under the Deputy for Program Personnel Development, the office of the Supervision Deputy includes an Inspectorate for Personnel which exercises general supervision over: personnel recruitment, program workers, granting of rewards to workers, training

and education, retirement. A comprehensive assessment of BKKBN's education and training programs carried out in 1986 in cooperation with USAID-Jakarta found that "BKKBN has the largest and most comprehensive training system in support of a national family planning program in the world. More than 250 types of personnel, in 200 training categories, are offered training annually at BKKBN's 37 training centers spread throughout the 27 provinces of Indonesia. In spite of Indonesia's geographic size and cultural diversity, BKKBN's Center for Education and Training has successfully handled the problem of magnitude and diversity through its training management system. Staffing patterns, planning and budgeting cycles, training program preparation, implementation and evaluation are all uniform and systematized. General curricular guidelines have been established for routine training categories.^{2/} At the same time, a number of areas were identified which require attention. These include:

- (a) a tendency to make decisions about training from the top down which has led in most provinces to a gap between community felt needs and the approved plan;
- (b) better coordination with BKKBN bureaus and divisions, with provincial centers, with implementing agencies and with the private sector;
- (c) staff shortages in the training infrastructure;
- (d) few training staff with an appropriate level of training in the field of education;
- (e) shortcomings in the recruitment and selection system for training;
- (f) need for better evaluation of training; and
- (g) need for better placement of staff after long term training.

D. Logistics

19. BKKBN secures contraceptives from in-country and foreign sources and distributes them to implementing units on a non-request basis, i.e., on the basis of reports on numbers of contraceptives dispensed and stock on hand. The program maintains contraceptive supplies on a 1-1-3-3-3-3 basis, that is, one month's supply in the hands of the acceptor, one month's supply at the village level (VCDC), 3 month's supply in the family planning clinic to cover the total number of acceptors in its area of responsibility, and 3 months each at district, provincial, and central levels. Problems facing the logistics system relate principally to insufficient supply (or insufficient funds to secure adequate supplies) of low dose pills, and particularly injections and implants. One result of this supply problem is that without an assured contraceptive supply, women are required to change contraceptive dose, contraceptive type, or not practice contraception. Another problem which arises occasionally is

^{2/} Comprehensive Assessment of BKKBN Education and Training Program, BKKBN/USAID, 1986

overstocking in one place and understocking in another. The usual cause for this is shortage of transportation, especially at the village level. Also, reportedly there are leakages of contraceptives; about 10 percent is reportedly lost between the central warehouse and regional warehouses and another 10 percent, between the regional warehouses and the clinics (these figures appeared in a SOMARC assessment).

20. Private doctors and midwives and private clinics are not a formal part of the national family planning program but many receive contraceptives from BKKBN; however, the new commitment to KB Mandiri (a program based on private sector and public self-reliance, described in detail in Chapter 3) is expected to result in substantial growth of contraceptive services which are provided by the private sector. Supply of contraceptives for this new effort is expected to come through regular commercial channels. Several pilot contraceptive social marketing programs are underway in Indonesia currently. In some cases, contraceptives are supplied by BKKBN, which also distributes contraceptives to a number of NGO's. The role of BKKBN as distributors of contraceptives will necessarily require modifications; while logistics requirements for BKKBN will continue for the public part of the program--which will remain substantive-- additional or alternative channels of distribution need to be explored.

E. Management Development

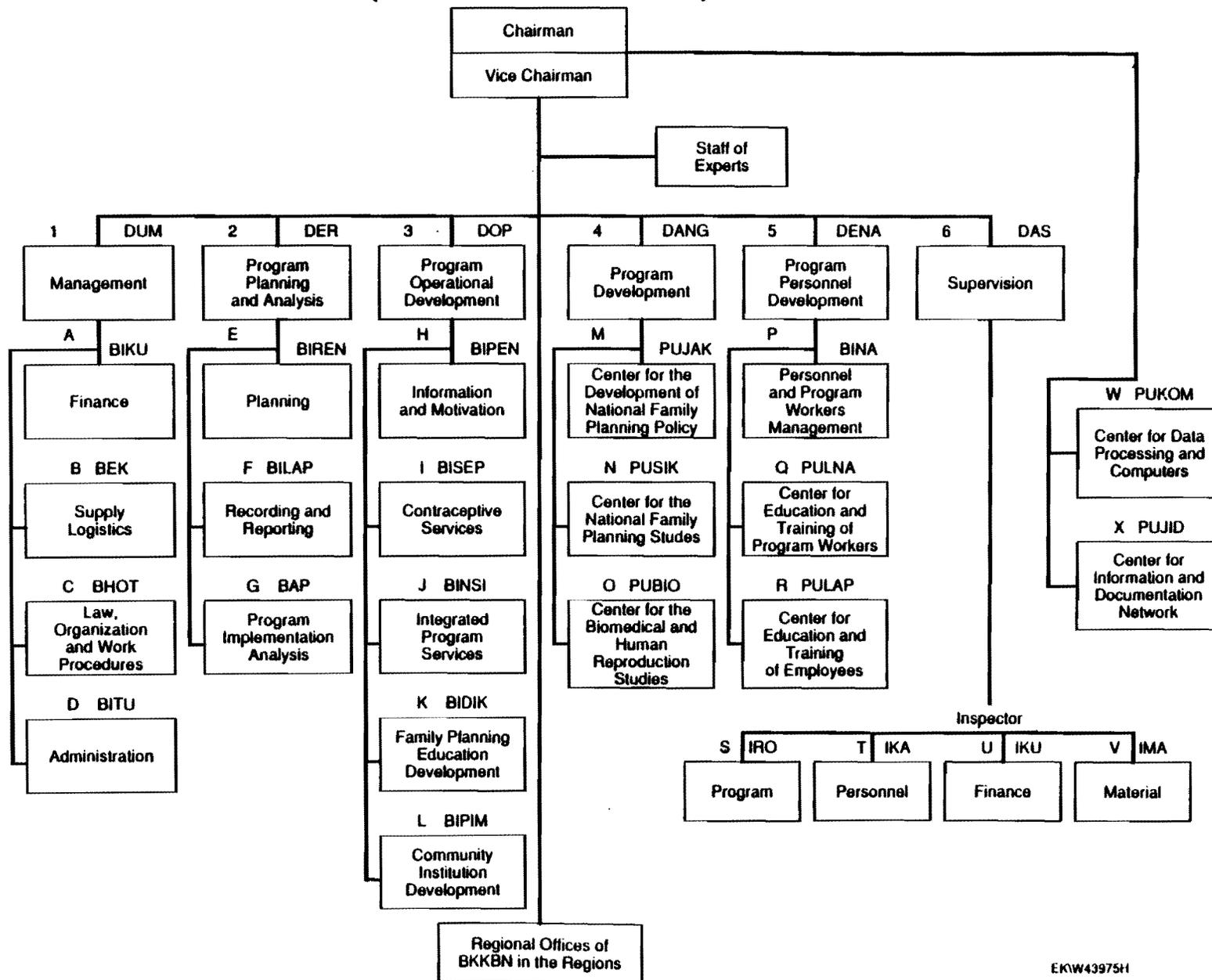
21. In order to meet the organizational and managerial requirements of an expanding and changing national family planning program, BKKBN has carried out a variety of management development activities. These include: review and revision of management systems to accommodate changes in program design; systematic identification of management problems and development of proposals to overcome them; using staff from areas where the program has achieved good results in family planning, nutrition, etc., as consultants to improve program results in area targeted for improvement; strengthening management skills of BKKBN staff; developing the management training capability of BKKBN by involving BKKBN trainers in management development activities and using the results of management development work to improve management training curricula. One result of this work is an impressive array of reports and manuals of procedures describing the organization and functioning of the program and the duties of staff at various levels. However, much more would need to be done in management development to prepare BKKBN to interact with the private sector; new skills will be needed for program oversight, grant making, contracting and disbursements.

22. Management development activities are principally the responsibility of BKKBN's Deputy for Management, with guidance from BKKBN's Senior Management Committee which is composed of the BKKBN Chairman, Vice Chairman, and the six Deputies. In addition, other units of BKKBN are expected to contribute to management development work. For example, the research and studies of the Center for National Family Planning Studies and the Center for Development of National Family Planning Policy should help to identify issues and problems which require the attention of management.

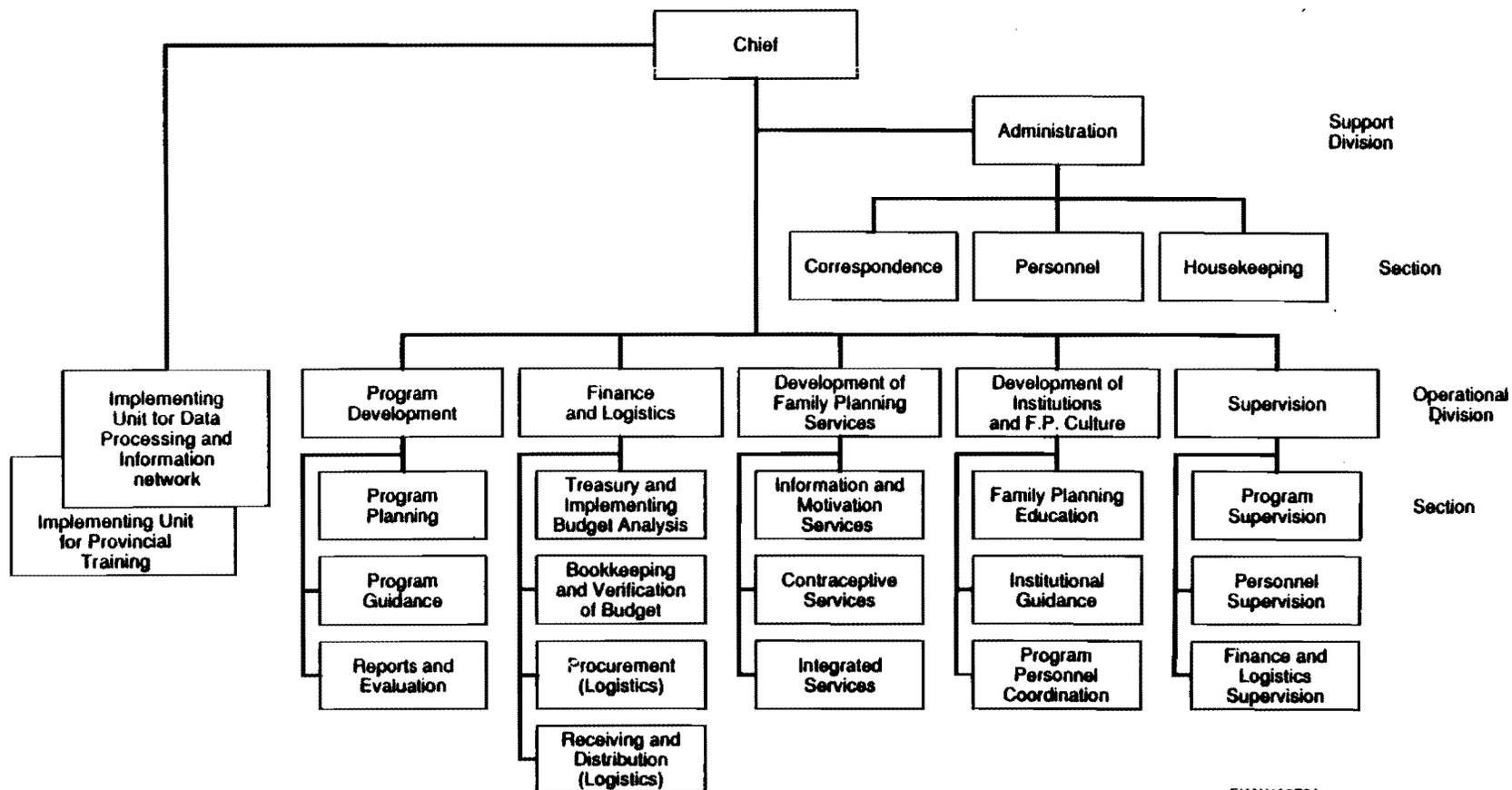
23. Management development issues currently considered to be of priority by BKKBN leadership include the completion of ongoing work of reviewing existing

"management subsystem" (e.g., planning, finance, logistics) and developing revised subsystems together with procedures, manuals, etc. with a view to developing a "total management system" for the program. There is also interest in introducing modifications into the MIS to accommodate changes in program structure (for example, increased reliance on the private sector, social marketing of contraceptives, etc.) and to take advantage in computer technology. BKKBN recognizes that in view of program changes, they will need to undertake new job analyses and job classifications. Another priority is the development of a management cadre in BKKBN to handle an expanding and increasingly complex program. Finally, the intention is to make research more useful to, and used in, the processes of planning, operational program design, and management.

**FIGURE C1
BKKBN ORGANIZATION STRUCTURE
PRESIDENTIAL DECREE NO 64, 1983
(Includes Unit Abbreviations)**

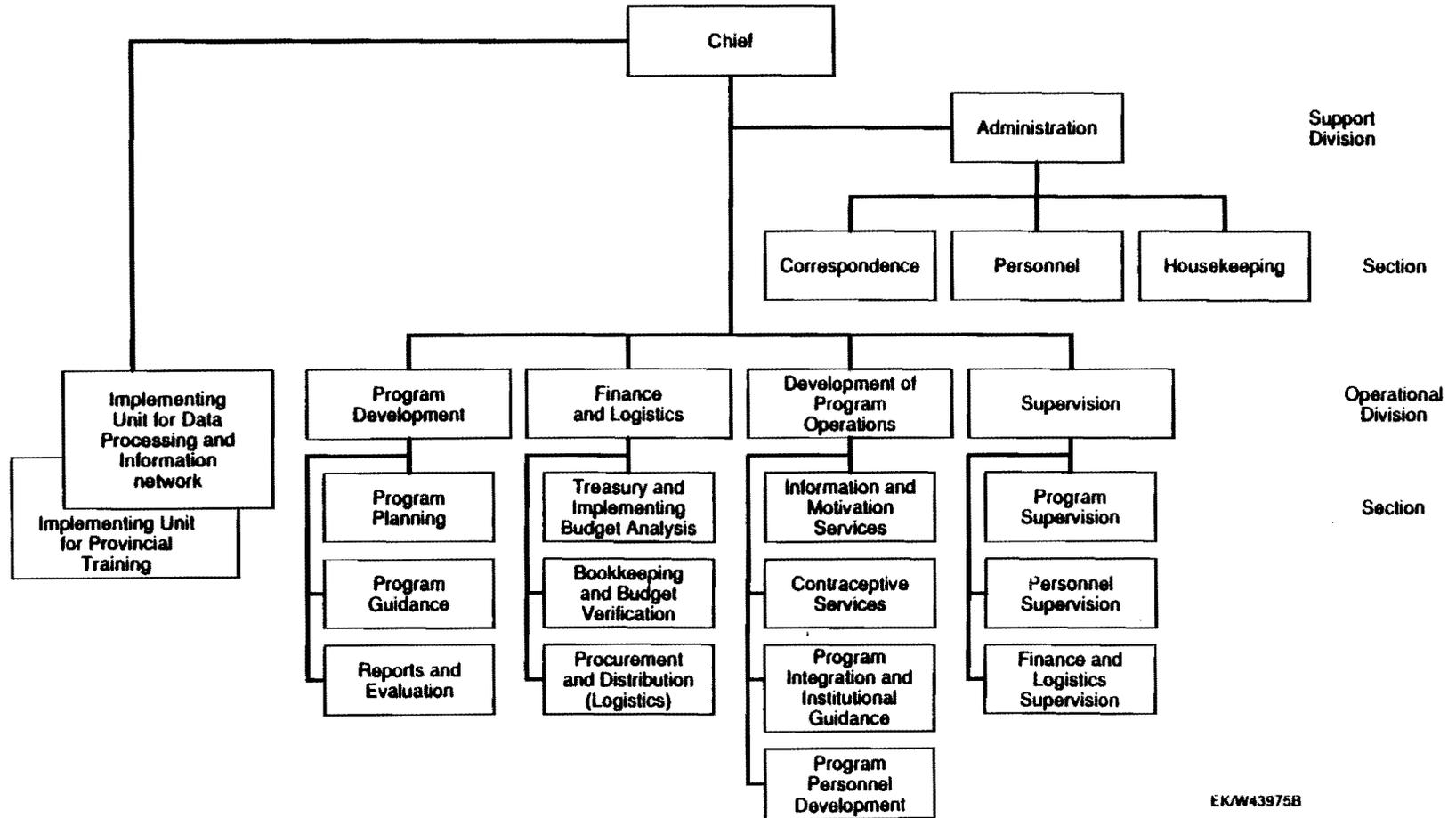


**BKKBN PROVINCE TYPE A
DKI JAKARTA NORTH SUMATRA
SOUTH SULAWESI**



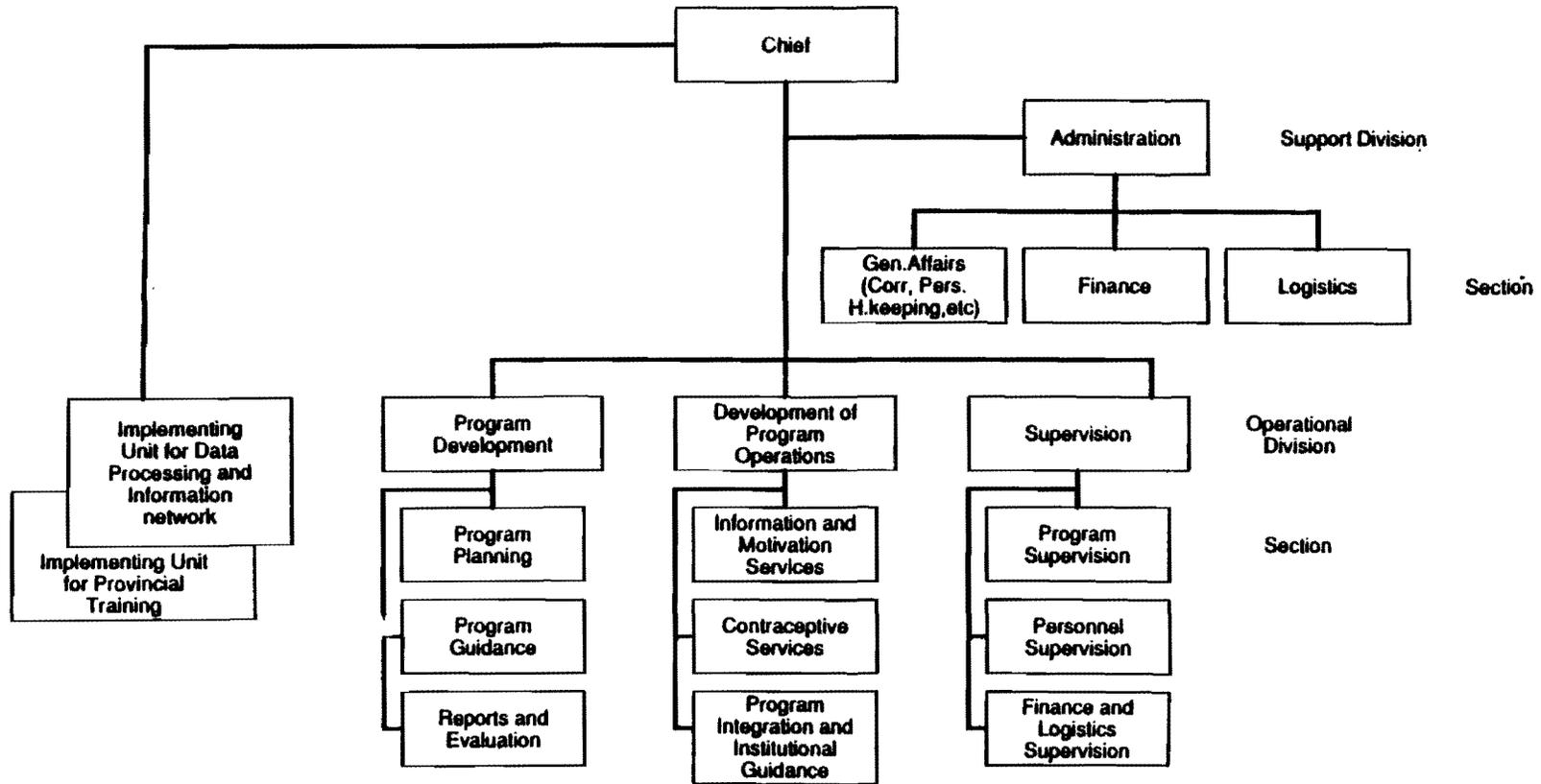
EKW43975A

**BKKBN PROVINCE TYPE B D.I. YOGYAKARTA
BALI D.I. ACEH WEST SUMATRA LAMPUNG
WEST KALIMANTAN SOUTH KALIMANTAN NORTH SULAWESI
WEST NUSA TENGGARA EAST NUSA TENGGARA**



EKW43975B

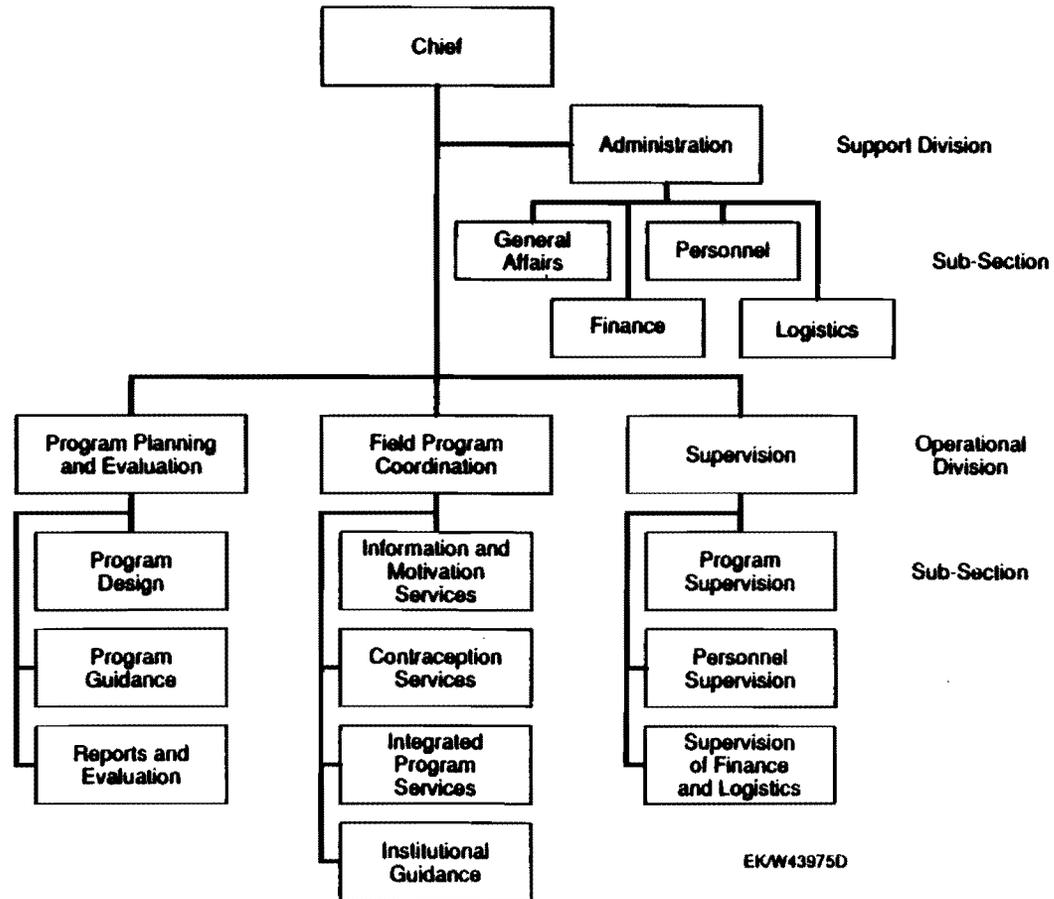
**BKKBN PROVINCE TYPE C
 RIAU JAMBI BENGKULU CENTRAL KALIMANTAN
 EAST KALIMANTAN SOUTH EAST SULAWES CENTRAL
 SULAWESI MALUKU IRIAN JAYA EAST TIMOR**



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 PUBLIC INFORMATION CENTER

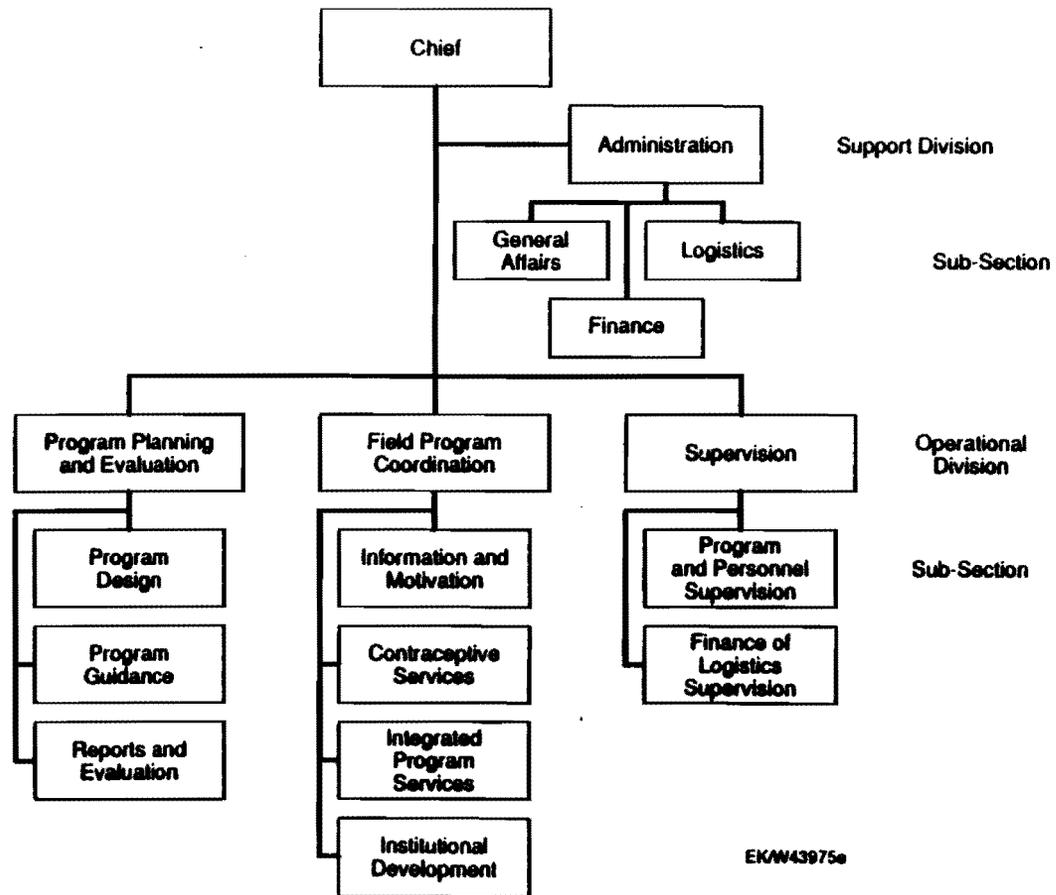
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**ORGANIZATION OF BKKBN AT RURAL REGENCIES
(KABUPATEN) AND URBAN EQUIVALENTS
(KOTA MADYA). TYPE A**

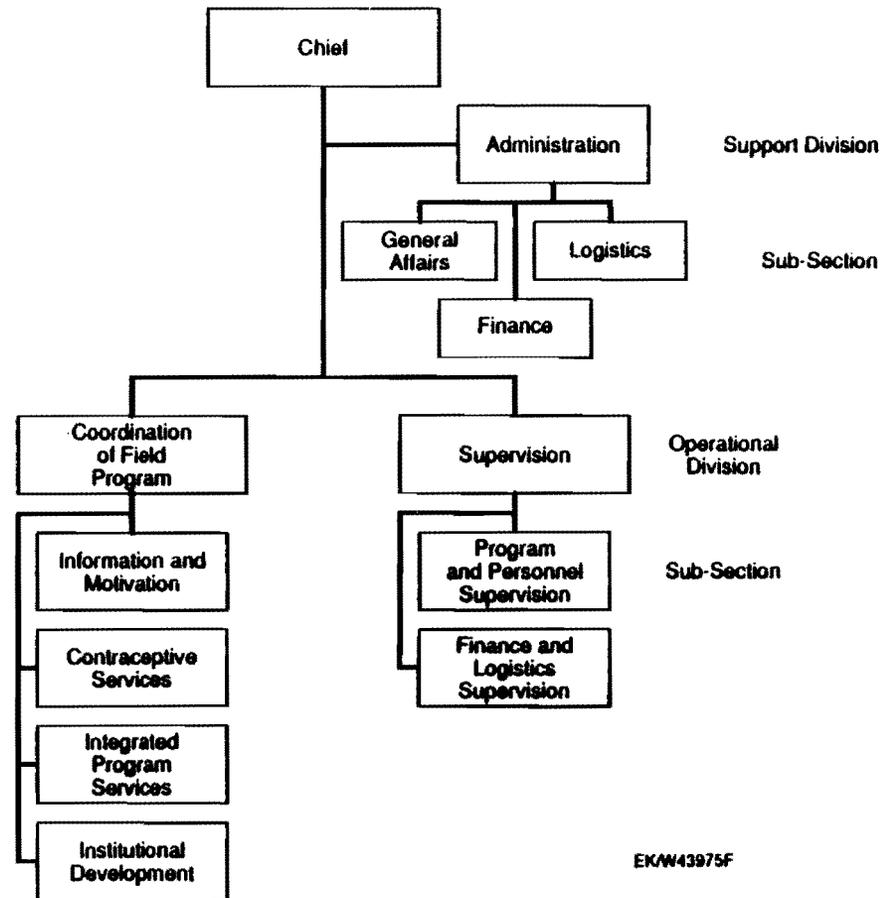


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**ORGANIZATION OF BKKBN AT RURAL REGENCIES
(KABUPATEN) AND URBAN EQUIVALENTS
(KOTA MADYA). TYPE B**

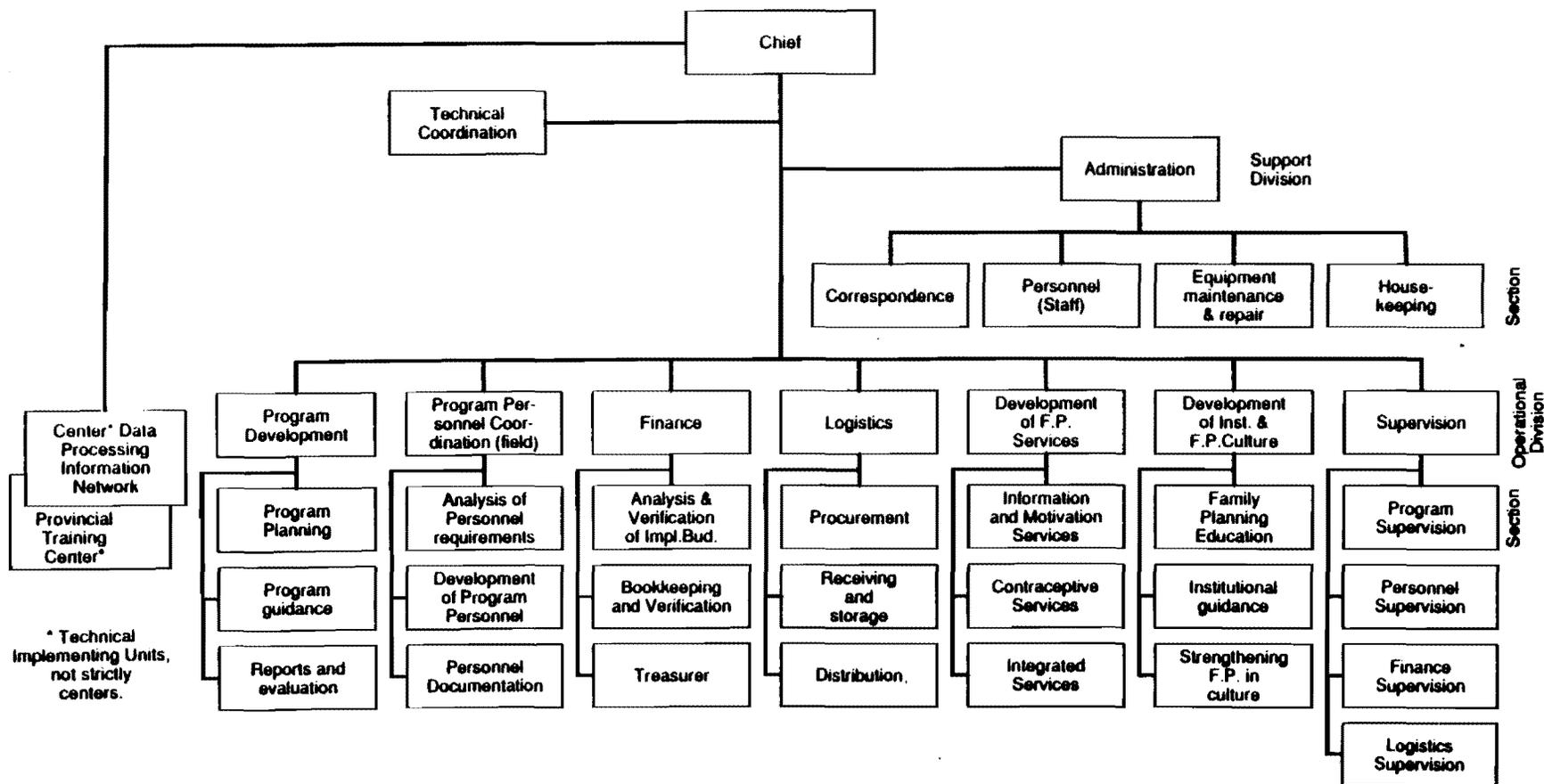


**ORGANIZATION OF BKKBN AT RURAL REGENCIES
(KABUPATEN) AND URBAN EQUIVALENT TYPE C**



EKA43975F

BKKBN PROVINCE TYPE: SPERIAL EAST, CENTRAL AND WEST JAVA PROVINCES



* Technical Implementing Units, not strictly centers.

EKW43975G

Table 5.1: BBKN BUDGET ALLOCATIONS FOR THE FOUR PLAN PERIODS
(MILLION OF RUPIAHS)

Year	Budget for Family Through BKKBN					Real (1983 = 100)			BKKBN	Foreign as a
	DIK ¹	DIP ²	BLN ³	Total 2+3	Total 1+2+3	DIK	DIP	Foreign	% of Nat'l	% of Total DIP + Foreign
Repelita I										
1969/70		120	847	967						89
1970/71		500	932	1,432						65
1971/72		1,500	1,575	3,075						51
1972/73		2,350	4,165	6,515						64
1973/74		2,500	2,445	4,945						49
Repelita II										
1974/75		3,802	5,474	9,276						59
1975/76		5,576	5,066	10,642						48
1976/77		6,646	7,110	13,756						52
1977/78		8,600	9,911	18,511						54
1978/79		11,000	5,429	16,429						33
Repelita III										
1979/80	1,585	18,125	13,045	31,170	32,755	2,837	32,443	23,350	0.18	42
1980/81	5,027	35,231	13,625	48,856	53,883	6,887	48,266	18,666	0.22	28
1981/82	6,738	44,393	15,625	60,018	66,756	8,220	54,159	19,063	0.23	26
1982/83	9,773	48,360	16,732	65,092	74,865	11,146	55,130	19,074	0.31	26
1983/84	11,531	48,007	19,845	67,852	79,373	11,521	48,007	19,845	0.32	29
Repelita IV										
1984/85	16,500	52,390	40,680	93,070	109,570	14,685	46,627	36,205	0.34	44
1985/86	23,448	55,350	16,395	71,745	95,193	19,462	45,941	13,608	0.33	23
1986/87	33,805	55,702	20,755	76,457	110,262	27,382	45,119	16,812	0.36	27
1987/88	34,868	48,500	61,417	109,917	144,785	25,802	35,890	45,449		56
1988/89	41,598	65,962	90,945	156,907	198,505	28,433	45,068	62,163		58
1989/90	48,400	99,500	59,800	159,300	207,700	30,986	63,700	38,284	NA	NA

1 = Routine Budget; 2 = Development Budget 3 = Foreign Grants and Loans

Source: 1, 2 and 3 from BKKBN documents. Real levels calculated using deflators implied from page 16 of Prescott. 1989/90 figures from "Indonesian Times", December 14, 1988.

**Table 5.2: BKKBN BUDGET BY YEAR AND ACTIVITY (DIK AND DIP COMBINED)
(MILLIONS OF RUPIAH)**

	1984/85	1985/86	1986/87	1987/88	1988/1989	Total	Z
IEC /1	3,482	2,570	3,499	10,576	8,621	28,748	4
Contraceptive Services /2	5,538	8,435	6,899	8,644	16,355	45,871	7
Field Coordination /3	12,497	14,538	15,063	18,004	28,778	88,880	13
Training /4	7,990	6,449	2,611	11,580	7,703	36,333	5
Facilities /5	52,456	49,681	65,894	87,725	109,135	374,891	57
Administration 6	<u>17,606</u>	<u>13,520</u>	<u>16,295</u>	<u>15,057</u>	<u>27,913</u>	<u>90,391</u>	<u>14</u>
Total	109,569	95,193	110,261	151,586	198,505	665,114	100

/1 Print or electronic media, group meetings and orientation.

/2 Clinic operations; handling complications side effects and referral.

/3 Program integration, TKBK, operational PPKBD.

/4 Population education and family planning.

/5 Facilities, handling costs, building, maintenance, and procurement of contraceptives.

/6 Office administration, guidance, development.

Source: BKKBN documents.

TABLE 5.3: BKKBN BUDGETS BY YEAR AND ACTIVITY AREA (000.-)

Activity Area	1984/1985				1985/1986				1986/1987			
	DIK	DIP	Foreign	Total	DIK	DIP	Foreign	Total	DIK	DIP	Foreign	Total
I E C	-	2,600,371	881,691	3,482,062	-	2,180,975	389,304	2,570,279	-	2,248,652	1,250,338	3,498,990
Contraceptive Services	-	4,748,111	790,126	5,538,237	-	5,023,725	3,411,171	8,434,896	-	4,774,437	2,124,478	6,898,915
Field Coordination	-	11,114,539	1,382,141	12,496,680	-	11,074,974	3,522,663	14,597,637	-	10,517,244	4,546,164	15,063,408
Training	-	2,768,515	5,221,804	7,990,319	-	2,349,803	4,099,430	6,449,233	-	1,854,315	756,264	2,610,579
Facilities	14,979,128	16,946,631	30,530,379	62,456,138	20,807,639	25,445,032	3,428,268	49,680,939	30,120,729	26,274,196	9,499,509	65,894,434
Administration	1,520,612	14,211,833	1,873,478	17,605,923	2,640,071	9,335,600	1,544,038	13,519,709	3,683,981	10,032,706	2,578,163	16,294,850
Total	16,499,740	52,390,000	40,679,619	109,569,359	23,447,710	55,350,109	16,394,874	95,192,693	33,804,710	55,701,550	20,754,916	110,261,176

Activity Area	1987/1988				1988/1989			
	DIK	DIP	Foreign	Total	DIK	DIP	Foreign	Total
I E C	-	1,711,695	8,864,054	10,575,749	-	2,066,607	6,554,734	8,621,341
Contraceptive Services	-	4,579,226	4,065,193	8,644,419	-	5,420,432	10,934,085	16,354,517
Field Coordination	-	10,961,086	7,042,584	18,003,670	-	12,766,858	16,011,881	28,777,739
Training	-	2,864,202	8,716,201	11,580,403	-	1,541,523	6,161,636	7,703,159
Facilities	31,575,796	26,339,355	29,809,000	87,724,976	37,515,968	28,093,040	43,526,163	109,135,171
Administration	3,292,540	8,844,436	2,919,604	15,056,580	4,082,009	16,074,263	7,756,876	27,913,148
Total	34,868,336	55,300,000	61,416,636	151,585,797	41,597,977	65,961,723	90,945,375	198,505,075

Notes:

- I E C:** Print or electronic media, group meetings and orientation.
- Contraceptive Services:** Clinic operations; handling complications, side effects and referrals.
- Field Coordination:** TBK, operational PPKBD, program integration.
- Training:** Population education and family planning.
- Facilities:** Facilities, handling cost, building, maintenance, population education and procurement of contraceptives.
- Administration:** Office administration, guidance and development.

Source: BKKBN documents.

Table 5.4: ESTIMATED COST OF CONTRACEPTIVES
(MILLIONS OF RUPIAH)

	Users			Acceptors				Total		Total BKKBN Cost Estimates
	Inj	Pill	Condom	IUD		Implants		High	Medium	
				High	Medium	High	Medium			
1984/85	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,134
1985/86	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,615
1986/87	(10,099)	(16,162)	(3,292)	(461)	(304)	(1,606)	(1,239)	(31,620)	(31,096)	16,042
1987/88	(11,105)	(16,743)	(3,488)	(489)	(245)	(1,835)	(1,392)	(33,660)	(32,973)	18,723
1988/89	(12,098)	(17,187)	(3,704)	(519)	(337)	(2,122)	(1,558)	(35,630)	(34,884)	27,402
1989/90	14,393	19,429	4,076	610	394	2,953	2,140	41,461	40,432	76,600*
1990/91	17,333	21,844	4,737	708	428	3,298	2,325	47,920	46,667	
1991/92	20,632	24,476	5,501	820	546	4,046	2,823	55,475	53,978	
1992/93	24,522	27,386	6,380	961	703	4,896	3,353	64,145	62,344	
1993/94	29,020	30,450	7,368	1,113	896	6,051	4,066	74,002	71,800	
1994/95	34,303	33,820	8,504	1,329	1,177	7,519	5,060	85,475	82,864	

Source: For IUD and implants, one uses acceptors each year from projections.

For pills, injections and condoms, one uses users each year from projections.

Cost estimates for 1988 with assumed 10% growth rate in costs per year.

(1988 prices)

* Indonesian Times, December 14, 1988.

Table 5.5: ACTUAL BUDGET CATEGORIES 1984/85-1988/89 AND PROJECTED BUDGET CATEGORIES 1989/90 - 1994/95 (IN MILLION OF RUPIAH)

	IEC /a	Contraceptive Services and Field Coordination /b	Administration and Maintenance /c	Construction Equipment /d	Training /e	Contraceptives /f	Total				
1984/85	3,482	18,035	32,585	32,343	7,990	15,134	109,569				
1985/86	2,570	22,973	34,328	13,258	6,449	15,615	95,193				
1986/87	3,499	21,962	46,416	19,731	2,611	16,042	110,261				
1987/88	10,576	26,648	46,633	37,426	11,580	18,723	151,566				
1988/89	8,621	45,133	65,429	44,217	7,703	27,402	198,505				
	<u>High</u>	<u>Medium</u>	<u>High</u>	<u>Medium</u>		<u>High</u>	<u>Medium</u>	<u>High</u>	<u>Medium</u>		
1989/90	11,230	8,535	33,880	25,749	47,927	30,000	8,473	41,461	40,432	172,971	161,116
1990/91	14,289	10,784	41,303	31,172	56,461	20,000	9,321	47,920	46,667	189,294	174,405
1991/92	17,848	13,305	49,291	36,744	65,024	10,000	10,253	55,475	53,978	207,891	189,304
1992/93	22,516	16,693	59,775	44,316	73,475	11,000	11,278	64,145	62,344	242,189	219,106
1993/94	27,948	20,961	71,112	53,334	82,107	12,000	12,406	74,002	71,800	279,575	252,608
1994/95	34,658	26,273	84,506	64,061	93,602	13,000	13,647	85,475	82,864	324,888	293,447

/a Assuming real costs per acceptor grow at 10% a year and inflation is 10%. High costs reflect high discontinuation rates.

Medium costs assume medium discontinuation rates for pill and injection.

/b Assuming real costs grow proportional to acceptors and 10% inflation.

/c Growth at rate of proposed personnel increase and 10% a year increase per employee.

/d Major construction completed in 1990. Equipment only thereafter at about \$5.6 m per year.

/e Growth at rate of inflation.

/f See Table 4.3.

Table 5.6: PROGRAM COST BY SOURCE OF FUNDING
(IN RUPIAH/MONTH PER ELIGIBLE COUPLE)

	Tang.	Kulon Progo	Bantul	Banjar	Barito Kuala	Tapin	Mean	Distribution
BKKBN	85%	54%	70%	62%	72%	54%	293.2	64.20%
DEPKES	12%	35%	23%	33%	24%	36%	130.7	28.61%
Community	3%	11%	7%	6%	4%	10%	32.9	7.19%
Total	100%	100%	100%	100%	100%	100%	456.7	100.00%
	(267)	(463)	(405)	(454)	(523)	(628)		

**Table 5.7: COST IMPLICATIONS OF DOUBLING NUMBER OF ACCEPTORS
OF FEMALE STERILIZATION**

	Number of Acceptors (000's)	Incremental Capital Cost /a (Millions)	Incremental Capital Cost /b	Incremental Recurrent Cost	Incremental Recurrent Cost
1986	152.4	2,676	2,676	2,007	2,007
1987	153.6	2,724	2,724	2,043	2,043
1988	157.6	2,884	2,884	2,163	2,163
1989	164.6	3,480	3,164	2,610	2,373
1990	167.0	3,945	3,260	2,959	2,445
1991	172.6	4,637	3,484	3,478	2,613
1992	176.4	5,323	3,636	3,992	2,727
1993	180.2	6,101	3,788	4,576	2,841
1994	187.2	7,207	4,038	5,405	3,029

/a Assuming 10% annual price increase from 1988.

/b Constant 1988 prices.

Source: Mission estimates based on "Assessment of Reimbursement Mechanism and Cost Analysis of Voluntary Surgical Sterilization", October 5, 1988.

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