Document of

The World Bank

Report No. 16624-IND

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN AN AMOUNT OF US$42.5 MILLION

TO

THE REPUBLIC OF INDONESIA

FOR A

SAFE MOTHERHOOD PROJECT:
A PARTNERSHIP AND FAMILY APPROACH

JUNE 3, 1997

Population and Human Resources Division
Country Department III
East Asia & Pacific Region

CURRENCY EQUIVALENTS

(as of May 1997)

Currency Unit = Indonesian Rupiah (Rp)

Unit$1.00 = Rp2,348
Rp 1 million = US$426

FISCAL YEAR

Government of Indonesia: April 1 - March 31

ACADEMIC YEAR

July 1 - June 30

ABBREVIATIONS AND ACRONYMS

BDDs	Bidan di Desa or Village Midwife
BAPPENAS	National Development Planning Agency
BKKBN	National Family Planning Coordinating Board
CAS	Country Assistance Strategy
CPS	Central Project Secretariat
DG	Director General
FP	Family Planning
GOI	Government of Indonesia
ICR	Implementation Completion Report
IEC	Information, Education and Communications
MCH	Maternal and Child Health
MH	Maternal Health
MOEC	Ministry of Education and Culture
MOH	Ministry of Health
MORA	Ministry of Religious Affairs
MOSA	Ministry of Social Affairs
NGOs	Non-Government Organizations
PMU	Project Management Unit
PPM	Provincial Project Manager
PSC	Provincial Steering Committee
PTT	Contract Doctor or Midwife
RH	Reproductive Health
SC	Steering Committee
SOE	Statement of Expenditure
STDs	Sexually Transmitted Diseases
TPC	Targeted-Performance-based Contracts

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INDONESIA
SAFE MOTHERHOOD PROJECT:
A PARTNERSHIP AND FAMILY APPROACH

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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

East Asia and Pacific Regional Office
Country Department III

Project Appraisal Document

Indonesia
Safe Motherhood Project:
A Partnership and Family Approach

Date: June 3, 1997	Draft ☒ Final
Task Manager: Fadia Saadah	Country Director: Richard Calkins (Acting)
Project ID: ID-PE-36956	Sector: HNP
Lending Instrument: SIL	PTI: ☒ Yes ☐ No

Project Financing Data ☒ Loan ☐ Credit ☐ Guarantee ☐ Other [Specify]

For Loans/Credits/Others:

Amount (US$m): 42.5

Proposed Terms: ☐ Multicurrency ☒ Single currency
Grace period (years): 3 ☐ Standard ☒ Fixed ☐ LIBOR-based
Years to maturity: 15
Commitment fee: 0.75%
Service charge: 0%

Financing plan (US$m): 61.9 million

Source	Local	Foreign	Total
Government	18.7	0.7	19.4
IBRD	26.9	15.6	42.5

Borrower: Republic of Indonesia
Responsible agencies: National Family Planning Coordinating Board, Ministry of Health, Ministry of Education and Culture Ministry of Religious Affairs, Ministry of Social Affairs and Provincial Governments.

Estimated disbursements (Bank FY/US$M):

	1998	1999	2000	2001	2002
Annual	4.0	8.5	11.0	10.5	8.5
Cumulative	4.0	12.5	23.5	34.0	42.5

Expected effectiveness date: November 30, 1997 Closing date: May 31, 2003

Block 1: Project Description

1. Project development objectives (see Annex 1 for key performance indicators):
The project would assist the Government of Indonesia (GOI) to improve maternal health status in selected districts in two provinces (East and Central Java) by

⇒ Improving demand for and utilization of quality maternal health services;
⇒ Strengthening the sustainability of maternal health services at the village level;
⇒ Improving quality of family planning services; and
⇒ Preparing adolescents to lead a healthy reproductive life.

The project will achieve its objectives through a partnership approach encompassing the different public and private sector agencies and NGOs involved in maternal health activities and addressing the supply and demand-side factors currently constraining use of reproductive health services at the individual, family and community levels. This project is perceived as the first phase of a larger program to improve maternal and reproductive health in Indonesia.

2. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):
Project activities will be grouped into two provincial components (East Java component and Central Java component) that will be supported by selected central level activities identified in the central level component.

Component	Category	Cost Incl. Contingencies (US$M)	% of Total
A. Provincial components (East Java/ Central Java)			
I. Improving maternal health (MH) status, utilization and sustainability of MH services			
I. (a) Demand for MH Services. This component aims at improving knowledge, attitudes and behavior regarding maternal and reproductive health issues at the individual, family and community levels; carrying out communications campaigns to support the role of the village midwives (BDDs) as private providers; implementing community mobilization campaigns to support maternal health services; and strengthening political commitment for reproductive and maternal health issues. The project will finance formative research and studies; development of messages; media packages and informational, education and communications (IEC) materials; consultant services as well as training.	Institution building	9.4 million	15.2
I. (b) Improving supply of MH services. The objective is to improve the quality and utilization of maternal health services, especially at the village level, strengthen the referral system, improve quality of emergency care and reduce cost barriers of referral services by financing emergency obstetric care for needy patients referred by	Institution building	15.4 million	24.9

Component	Category	Cost Include. Contingencies (US$M)	% of Total
BDDs. Specific health outcomes targeted include maternal mortality, maternal complications, anemia, infections of the reproductive system, as well as tetanus and mortality in neonates. The project would finance training, medical equipment, surveys and research, instructional materials, workshops, consultant services, and provision of emergency obstetric care for the poor.			
I. (C) Strengthening sustainability of maternal health services at the village level. This component would test options to sustain BDDs as providers of health services at the village level. Specifically, alternative contracting and financing schemes for BDDs would be developed. These schemes include the establishment of different group practice models and targeted-performance-based contracts (TPC). The project would finance training costs, provision for alternative contractual arrangements for BDDs, funds for private practice development for BDDs and research.	Policy	2.1 million	3.4
II. Increasing demand for and access to high quality family planning (FP) services. The objective is to increase the technical competence, counseling and interpersonal skills of various family planning service providers. The component includes campaigns to increase awareness about side effects and complications due to contraceptive methods and development of quality assurance programs and other tools for monitoring quality of family planning services. Activities financed by the project include equipment, training and workshops, development of IEC strategy and media packages, and consultant services.	Institution building	10.3 million	16.6
II. Preparing adolescents for healthy reproductive life This component would increase the knowledge of adolescents of reproductive health (RH) issues, RH counseling needs and assist the different agencies in identifying possible models for addressing such needs. Activities financed by the project include training, development of curriculum and teaching methodologies for both formal and informal education, IEC and mass-media campaigns, and workshops.	Institution building	4.5 million	7.3

Component	Category	Cost Incl. Contingencies (US$M)	% of Total
IV. Project administration.			
Includes provision of consultant services, office equipment and supplies for project management and administration.	Project management	1.3 million	2.0
B. Central Level			
I. Technical support and training.			
Training strategies and guidelines for BDDs, development of new IEC strategies, preparation of curricula for adolescent reproductive health, and provision of technical support to the provinces/districts. Central level activities also include limited support for fellowships in areas directly related to project objectives	Institution building	9.9 million	16.0
II. Policy, research and evaluation.			
Policy related studies on midwifery training strategy, the sustainability of the village midwives program, reproductive health issues, quality of FP services and so forth. The component also includes baseline and follow-up surveys, rapid assessments and special evaluation studies, data analysis, dissemination workshops and technical assistance for implementing the monitoring and evaluation activities of the project.	Institution building/policy	7.1 million	11.5
III. Project administration			
Includes provision of consultant services, office equipment and supplies for project management and administration.	Project management	1.9 million	3.1
Total		**61.9 million**	**100.0**

3. Benefits and target population:
The target population in the project districts includes:

- women of childbearing age
- families and newborn children
- adolescents

The project would directly benefit the women of childbearing age and their families by

- reducing maternal mortality
- reducing maternal morbidity (including maternal anemia, control of reproductive tract and other infections)
- reducing unwanted pregnancies through better quality of family planning services

- reducing neonatal mortality as a result of the improved health of mothers
- improving reproductive health as a result of improved education and counseling services for adolescents

The improved health of mothers could also be expected to result in indirect benefits such as better parenting, a possible increase in family income and reduced costs to the health system.

In addition, should the pilot on terms of employment for BDDs be successful, there would also be income and other benefits to BDDs as the new scheme was implemented, making their work more attractive and sustainable. The broader population would also benefit from such an innovation as the availability of general health services at the village level would be improved.

4. Institutional and implementation arrangements:

Implementation period: The project will be implemented over about five years (FY1998-FY2002)

Executing agencies: The main executing agencies are the National Family Planning Coordinating Board (BKKBN) and the Ministry of Health (MOH). In addition, the Ministry of Education and Culture (MOEC), Ministry of Religious Affairs (MORA), Ministry of Social Affairs (MOSA) and the local government will be involved in project implementation. GOI has assigned BKKBN as the lead agency for the project.

Project coordination: BAPPENAS at the Central level and the Bappeda at the provincial and district levels

Project oversight (policy guidance, etc.): BKKBN and MOH

Accounting, financial reporting and auditing arrangements: GOI would establish separate accounts for all project expenditures, to be maintained in accordance with sound accounting practices. Accounts for the SOEs and Special Account would be maintained separately by DG Budget, MOF, for annual audit. The financial statements and consolidated financial reports would be audited annually in accordance with Bank guidelines, by independent auditors acceptable to the Bank, including a separate audit opinion on SOE expenditures. GOI will provide certified copies of the financial report on the project for each government fiscal year starting September 30, 1998. GOI will also monitor progress in project implementation and report to the Bank on a biannual basis. Within six months after the completion of disbursements, GOI would submit an implementation completion report (ICR) to the Bank. *During negotiations the Government provided assurances that the project accounts, including the Special Account and SOEs, will be audited annually by independent auditors satisfactory to the Bank and audit reports will be furnished to the Bank within six months of the end of the Government's fiscal year.*

To ensure accountability to the Government, the Bank and the general public, two technical audits of the various project components will be carried out no later than July 31, 2000 and November 30, 2002, in a manner acceptable to the Bank and the technical audit reports will be furnished to the Bank promptly thereafter. The technical audit will be carried out by an independent consultant with no association with the project. The goal of the technical audits is to provide an independent and impartial assessment of the quality and adequacy of the procedures and processes employed by the implementing agencies. *During negotiations, assurances were provided that Government will carry out two technical audits and furnish reports on them to the Bank no later than July 31, 2000 and November 30, 2002.*

Monitoring and evaluation arrangements:

⇒ Indicators. A core set of indicators will be used to monitor and evaluate the impact of the project. Specific indicators can be found in Annex 1.

⇒ Data sources for monitoring and evaluation activities are also presented in Annex 1. These include: (a) reporting and recording forms for the health and population sectors, (b) baseline and follow-up studies, and (c) special evaluation studies and rapid assessments.

⇒ Monitoring and evaluation activities will be the responsibility of the central and provincial project management units which will furnish to the Bank annual reports describing project implementation and progress based on agreed project performance indicators (see Annex 1).

⇒ Bank assessments and monitoring will be based on the results of a joint annual review of the project that will be carried out no later than October 31, in each year, project progress reports, review missions, field visits, and results of technical audits. In addition, results of other data sources and surveys will be used to validate mission findings and assessments, when possible.

⇒ In addition to the regular monitoring of project implementation, a mid-term review will be carried out by July 31, 2000 and an implementation completion review (ICR) will also be conducted at the end of the implementation period.

Block 2: Project Rationale

5. CAS objective(s) supported by the project	Document number and date of latest CAS discussion: 13988-IND dated February 27, 1995 and updated on June 4, 1996.

The CAS stresses the key themes of human resource development, promoting poverty reduction by increasing access to and quality of basic services and enhancing sustainability. This project will:

- improve health, especially for the poor. Improved maternal health will have positive impacts on women and their families and thus assist human resource development in the country. Special emphasis is placed in the project on increasing access to maternal health services by the poor.
- improve quality of services. The project emphasizes local specificity in project design, improving the skills of the BDDs, and strengthening service quality at the village level.
- enhance sustainability. Through pilot efforts, strategies to enhance program sustainability will be developed, tested and implemented through the project.

6. Main sector issues and Government strategy:

Despite Indonesia's achievements in family planning, maternal health status remains a cause of concern. Indonesian women still face high risks of dying due to childbirth, with about 390 deaths for every 100,000 livebirths, and a lifetime risk of maternal death of about 1 in 89, compared to 1 in 1000 in low mortality countries. Other reproductive health indicators such as the prevalence of anemia and reproductive tract infection rates are also a concern. Poor maternal health status is the result of underconsumption of maternal health services due to constraints on both the supply and demand sides some of which are reinforced or derived from institutional constraints.

The supply of maternal health services is limited by the availability and quality of providers. In 1992 government adopted a zero growth policy for employment of civil servants. Concurrently, GOI embarked on a program to train more than 55,000 BDDs. In order to maintain the zero growth policy while increasing the number of BDDs, GOI adopted an interim solution which involved employing BDDs on contract for periods of three years that could be extended to six after which they were expected to become private providers (PTT program). It is now clear that

many, if not most, BDDs will not be sustained as private providers, especially in villages which are poor and remote. At the same time, the first cohort of BDDs will graduate from the PTT program this year. Nevertheless, GOI has not developed a medium- or long-term solution for ensuring the sustainability of this cadre of health workers, and to establish them as key providers of maternal health services. Addressing this issue is critical for improving consumption of maternal health services if BDDs are to underpin the safe motherhood strategy.

Poor quality of maternal health services is manifested at all levels, in the public and, to a lesser extent, in the private sector. Among the key factors affecting quality are the weak technical competency and counseling skills of health providers. In addition, there is no incentive for staff to improve quality of public services - there may even be some incentives to maintain the higher quality in the private sector, in which most staff also participate, in order to retain a client base. Thus, improving quality will involve strengthened pre-service and in-service training and resolution of the possible conflict between public and private sector roles.

The demand-side constraints relating to maternal health services include lack of recognition of signs and symptoms of impending obstetric emergencies at the individual, family and community levels. This is due to a complex set of issues related to cultural norms, lack of information, price constraints, and perceptions about the health sector and its effectiveness. To date, GOI's response has been mainly focused on the supply side. BDDs were trained and deployed to most villages. However, the effectiveness of this program is limited and the utilization of BDD services remains low. Information campaigns have been sporadic and low intensity, conducted through a piece meal approach. Moreover, efforts to address price constraints for paying for the relatively expensive emergency care, especially by the poor have been, at best, minimal. This is an area where private sector and insurance markets have failed to respond to needs and where government intervention is needed, provided risks of government failures can be avoided.

Many of these sector issues are rooted in institutional arrangements. These include decentralization and local specificity of interventions, and coordination issues. Health and family planning programs remain highly centralized and most budgets and personnel allocations are centrally determined. This limits the local specificity of interventions and hinders program effectiveness. In recent years, government has decentralized some planning and budgeting responsibilities to the province and district levels. However, the implementation of such a policy is still in its early stages.

Moreover, institutional arrangements and coordination issues pose special challenges for the delivery of maternal and reproductive health services. Family planning services have been the responsibility of a strong, vertical program, while MCH activities are delivered through a series of vertical programs within MOH structure and STDs are handled by a separate Directorate-General (DG). In addition, referral services fall under hospital services under yet another DG. This vertical approach to the delivery of family planning services and the mixture of vertical and horizontal programs for addressing other reproductive health programs through MOH, indicate both the need for, and inherent difficulties associated with, coordination of maternal and reproductive health activities. It also reinforces the need for local planning and coordination -- a key feature of this project's design.

Relevant Economic and Sector work:

- *Indonesia's Health Work Force: Issues and Options (1994). World Bank Report Number 12935-IND.*
- *Indonesia: Family Planning Perspectives in the 1990's (1990). World Bank Report Number 7760-IND*
- *Population and the World Bank: Implications From Eight Country Case Studies (1992). OED.*
- *Implementation Completion Report (in progress). Indonesia: Fifth Population Project.*

7. Sector issues to be addressed by the project and strategic choices:
Based on the above analysis, the following is a brief description of the issues addressed through the project and the strategic choices made.

Issue	Strategic Choices
-Supply of MH services: Sustainability of BDDs: The BDD program, a key component of the safe motherhood strategy, is not likely to be sustainable in its present configuration. Most BDDs are likely to leave the villages, especially the remote and poor ones.	Project strategic choices include: • promote the BDDs as private providers; • develop alternative contractual arrangements whereby government subsidies are better targeted to providing public goods and services to the poor. • provide incentives for BDDs serving in very poor and/or remote areas. • increase BDD's access to credit for the development of their private practices.
Quality of MH services: As noted, quality involves - technical and counseling skills, management and linkages of the different parts of the health care system, and the overall incentive structure for health providers. Poor quality affects the effectiveness of, and demand for, health services.	The project will focus on: • improving technical and counseling skills, especially for BDDs • adapting the quality assurance approach (currently developed under the Fourth Health Project) to MH/RH issues and for emergency care at the hospital level. • developing, on a pilot basis, performance-based contracting arrangements for BDDs. • testing, on a pilot basis, options for financing referrals.
-Demand for MH services Knowledge, attitudes and practices: A key factor affecting the underconsumption of maternal health services is lack of information at the individual, family and community levels.	The project will improve knowledge about key reproductive health issues and related health seeking behaviors through: • community mobilization efforts • IEC campaigns • maintaining demand for RH services by educating adolescents.
Price constraints: a number of studies have identified concerns about prices of MH services, especially for emergency obstetric care, as a constraint for using such services. Price constraints are likely to have higher effect on utilization patterns among the poor.	The project will include provisions for emergency obstetric care for poor patients who are referred by BDDs.
-Local specificity of interventions: It is essential to identify interventions that are locally specific and that can respond to local needs and conditions.	Project interventions and annual plans are prepared and implemented by district level staff with assistance from the provincial and central levels. Exceptional cases will be managed at the province level for efficiency considerations.
Coordination issues: Coordination is critical at many levels: • between BKKBN and MOH, and other sectors • across MCH programs in MOH • across different levels of care, i.e., village level, health center, and district levels.	Coordination will take place as close as possible to the implementation level. Thus, most of the coordination would be carried out at the district level and below. The project will also support the role of the Bappeda (levels I & II) in coordinating project activities. Joint annual plans will be prepared at the district and provincial levels.

8. Project alternatives considered and reasons for rejection;

Several broad choices were considered in designing the project. These were: (a) continuing the current approach adopted by government; (b) working with MOH alone, mostly on supply side issues; (c) working with BKKBN, only on the demand side; and (d) working on both supply and demand side factors with both ministries and stressing coordination between the two.

The current approach is essentially based on provision of maternal health services under the responsibility of MOH. In the past this has involved the delivery of services through the fixed facilities such as health centers and sub centers. More recently, this approach was extended to include training and allocation of more than 55,000 BDDs with the aim of providing a BDD to each village. While this has resulted in some improvement in local knowledge of safe motherhood issues, there is still underconsumption of services. Further, the sustainability of the BDD is uncertain, largely due to the relatively low workload in any given village and the limited opportunities for supplementing their income through private practice once their contract with the government ends. In addition, this approach has not placed any emphasis on the next generation of parents, adolescents, in either supply or demand interventions. These shortcomings are acknowledged by the government and have motivated their request for the present project.

The second alternative that was considered by the project was an intensification of the current approach and involved working with MOH, mostly on supply side interventions. Such a strategic choice would support the school of thought claiming that for safe motherhood and maternal health, the focus has to be on the supply of maternal health services, in general, and on emergency care, in particular. However, as has been demonstrated in the MotherCare I pilots in Indonesia, demand factors are critical in the Indonesian context and supply driven approaches are likely to fail in improving the consumption of safe motherhood services. In fact, the 1994 DHS results show that 70 percent of all women and 83 percent of rural women still deliver at home. Thus, unless the project reaches these women and their families, it is not likely to change their consumption patterns. Therefore, the focus on the supply side constraints only was rejected.

The other route that the project could have taken was to work with BKKBN, mainly on demand generation with the expectation that the private sector would respond to generated demand and would supply the needed services. There were several reasons for rejecting this approach. First, given the market failures in safe motherhood services, the private sector is not likely to respond to emergency cases. Second, while there may be adequate incentives for the private sector to provide some maternal health services (especially those that are not rare and expensive to maintain), it is not a viable option in isolated areas and does not ensure service availability to the poor. Third, attempts to create demand may have a negative effect on utilization if working solely with BKKBN would have no effect on the supply side market failures that were affecting consumption of maternal health services.

The reality is that further improvement in safe motherhood in Indonesia requires a coordinated approach which emphasizes both supply and demand. This will require further attention to improving supply, particularly the skills and sustainability of the BDD and a deeper understanding of the reasons for the current lack of demand. This requires building on the respective strengths of MOH and BKKBN and putting in place mechanisms which maximize coordination between them. Thus, the main alternative considered was the one adopted in the project, an approach in which the two ministries work as partners to deliver a project in which supply and demand side activities are coordinated. The supply side interventions will concentrate on piloting interventions designed to promote the sustainability of the BDD through emphasis on their role as a private practice provider of safe motherhood services as well as improved quality of services. Such pilots will involve alternative contracting schemes for BDDs whereby compensation package depends on the characteristics of the areas where they save as well as the services they provide -- i.e., performance-based contracting. The demand side interventions will

concentrate on providing more information at the village level about pregnancies and the risks of maternal morbidity and mortality and the need for intact referral plans to allow timely access to obstetric services in cases of emergency. Finally, this alternative will educate adolescents (through formal and informal education) about parenthood, their own role and the role of the health services in ensuring safe deliveries.

9. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

The Bank has financed 15 projects in health/population sector. Eleven have been completed, four are under implementation. Although most of these projects relate to this project, two projects - the Fifth Population Project (Population V), and the Third Community Health and Nutrition Project (CHN3) are directly related to this project and provided important lessons for its design.

- Population V (Loan 3298-IND; US$104 million; closed on September 1996). The project took initial steps in the maternal and reproductive health field. The main features of the project of relevance to the present project are its efforts to improve quality of family planning services and its efforts in the area of midwifery training and deployment. Following the midterm review of Population V, it was evident that a significant unfinished agenda in the area of reproductive health remained and that issues related to the effectiveness and sustainability of village midwives require further attention. The project was executed by BKKBN and MOH.

- CHN III (Loan 3550-IND); US$93.4 million; Closing Date September 1999). The project has as one of its objectives strengthening safe motherhood services in five provinces - West Java, Central Java, Irian Jaya, Maluku, and NTT. As part of the project, program development initiatives developed by different districts and provinces were implemented and have provided important lessons learned for the preparation of the present project. However, CHN III did not focus on referral services and its efforts on the demand-side have been limited. The project is executed by MOH.

As for other donors, the ADB financed Family Health and Nutrition project, launched in March 1997, includes a number of activities with potential to improve maternal health. It is being implemented through MOH and BKKBN in North Sumatra, South Kalimantan, Jambi, Bengkulu and Central Kalimantan Provinces. ADB is also planning to finance a project on Enhancing Reproductive Health. However, project preparation has not started yet. AusAID and JICA are also preparing small scale projects which will include some activities related to maternal health care. However, none of these projects is currently addressing the key sector constraints outlined above.

10. Lessons learned and reflected in the project design:

Over the past 20 years, the Bank has financed 15 projects and conducted a number of sector studies in health and population in Indonesia. This and other international experience provide some clear lessons for project design. For the present project, key lessons learned are: the need for local specificity in interventions; the need to improve BDD effectiveness and sustainability; the need to address both supply and demand factors of maternal health conditions; and the need to coordinate activities between ministries.

1. The need for local specificity.

Indonesia is a large and diverse country and it is now recognized by the government and donors that while the uniform, blanket approaches of the past have led to significant improvement in access to government services, they now must give way to programs which address the needs of the local communities. To this end the Government has introduced a number of innovations aimed at promoting decentralization through a phased approach. Although this experience is recent, it points to the need to enhance capacity for planning and management at the local levels,

increase local participation in discussions of program design and objectives; and change the role of the center towards providing support and technical assistance to the provinces/districts. Recently, BKKBN has joined other sectors in their move towards decentralization.

2. BDD effectiveness and sustainability must be improved.

BDDs were introduced as an alternative to previous approaches (including TBAs and maternity huts) to improving safe motherhood, which failed as a means to improve maternal health. Experience with the BDD program in the last five years indicates that more attention will need to be paid to improving their effectiveness and sustainability. This will require upgrading their skills through both pre-service and in-service training, strengthened supervision and support, especially to the more recent graduates, and redefinition of their role to include provision of a wider range of health services at the village level. Improved sustainability will require innovations in the terms and conditions of their employment which take account of the diverse settings in which they work and promote evolution of their role to more adequately meet the demands of the populations they serve. Currently BDDs in widely varying settings receive essentially the same levels of compensation despite wide variation in the level of additional income they can generate. As a result, BDDs are less likely to stay in remote, small or poor villages -- the areas that need them most. In addition, BDDs have very limited access to credit in order to establish the facilities needed for private practice. Addressing these conditions is essential for improving effectiveness and sustainability of the program.

3. Programs need to address both supply and demand factors.

Background studies and experience in earlier projects have indicated the need for simultaneously improving supply of, and demand for, health care. A number of programs in Indonesia have been successful in achieving this balance, e.g., the family planning program and the Vitamin A control program. This is not the case in maternal and reproductive health. The supply driven BDD program has not been successful in increasing utilization of modern health care providers. The earlier demonstration projects (e.g., the Mother Care program) illustrated the need to address the demand side factors, especially at the family level where decisions regarding health care seeking behavior for delivery care are taken. However, programs that were successful in generating demand but ignored supply of services have not been effective either.

4. Coordination of MOH and BKKBN in provision of safe motherhood activities is essential.

Although several Bank-financed projects have attempted to strengthen the coordination between BKKBN and MOH, success has been limited. Differences in both the institutional settings of the MCH/Family health units at MOH and the Family Planning program and the management styles in the two programs have affected the success of these efforts. However, coordination has been more successful at the local levels.

Project design features that reflect lessons learned are as follows:

- Project activities will achieve local specificity through the preparation of district-specific plans for safe motherhood.
- Improved effectiveness of the BDDs is addressed through more appropriate and higher quality training. In addition, the project will pilot test alternate ways of compensating and supporting the BDDs in private practice, and provision of credit for establishing private practice facilities.
- The project includes both supply and demand interventions and mechanisms for their coordination.
- Specific attention is being paid to mechanisms which will facilitate agreement on the roles of the two ministries and for coordination of activities at the local level.

11. Indications of borrower commitment and ownership:

The Indonesian government has expressed serious concerns about maternal health status in the country, and the need to reduce the maternal mortality ratio has recently received strong political support at presidential and ministerial levels (e.g., Presidential Decree Number 69/MENKES/SK/I/1993 requiring placement of a midwife in every village).

As for the commitment of the different partners to the project and its preparation process, BKKBN has demonstrated strong interest in and ownership of this project since its inception. This commitment was maintained despite initial difference of opinion about the scope of the project and the preparation process -- BKKBN wanted to move on a wider front and with less preparatory work and consultations. BKKBN also perceives the preparation and later implementation of the project as an important challenge to the institution since it represents a strategic shift from a population-driven, family planning focus to a client-oriented reproductive health approach.

As for MOH, the other main partner in the project, its involvement and commitment were relatively weak at first. However, as MOH participation in project preparation increased, its ownership and commitment to the project was significantly enhanced. Other stakeholders showed strong support for the project concept and were active in defining their role in project preparation and implementation.

12. Value added of Bank support:

The long history of the Bank's involvement in the health and population sectors, and its credibility with MOH, BKKBN and BAPPENAS made an impact on the project content and the preparation process. Highlights of the Bank's contributions include:

- *In terms of project content.*
  - ⇒ Assisting GOI in addressing policy, design and implementation issues at different administrative levels taking into account the demand and supply issues.
  - ⇒ Ability to identify issues over a wide range of disciplines including the technical content of safe motherhood and maternal health, institutional constraints, market failures, labor market issues as well as demand side determinants of maternal health.
  - ⇒ Assisting in operationalizing a strategic shift for the sector from a traditional population approach to a reproductive health one.
  - ⇒ Incorporating lessons learned from other Bank projects and the larger literature on maternal health and safe motherhood programs.

- *In terms of process.* The most important contribution of the Bank was to facilitate the project partnership approach. The Bank was also instrumental in helping GOI prepare the project in consultation with the different stakeholders and beneficiaries and by incorporating lessons learned from preparation of previous projects and mobilizing high quality technical assistance.

Block 3: Summary Project Assessments (Detailed assessments are in the project file. See Annex 8)

13. Economic Assessment (see Annex 4 for details):	☐	Cost-Benefit Analysis : NPV=US$ million; ERR= %	☐Other [Specify]
Fiscal impact (for all projects): (See Annex 4)			
14. Financial Assessment		NPV=US$ NA million; FRR= NA %	

15. Technical Assessment :
The interventions to be included in this project are based on a long experience in health care delivery and maternal health issues by the Bank and by the ministries involved. In addition, project preparation has enabled technical assessment of all aspects through inputs from local and international technical experts.

This project builds on the interventions used in previous Bank projects, particularly the Fifth Population Project and the Third Community Health and Nutrition Project, both of which included large components on safe motherhood and reproductive health. During project preparation Bank staff, together with local and international experts in maternal and reproductive health, adolescent health, IEC, nutrition and the economic aspects of reproductive health have reviewed all project components. Based on the this work the project components and the specific interventions proposed are assessed to be consistent with international best practice.

Assessments made during project preparation have confirmed that the cost estimates are reasonable and that appropriate allowances have been made for physical and price contingencies.

During project implementation supervision missions will review project implementation and ensure that the technical quality of the project is maintained.

16. Institutional Assessment:
a. Implementing agencies: A number of executing agencies control the key inputs needed for producing the desired outputs and outcomes. These include: BKKBN, MOH, Ministry of Education and Culture (MOEC), Ministry of Religious Affairs (MORA), Ministry of Social Affairs (MOSA) and Local Governments. Most of the project activities will be implemented by BKKBN and MOH.

- BKKBN the lead executing agency for the project, has been internationally recognized for its management capacity and ability to carry out community mobilization and IEC activities. Over the past two decades, BKKBN has established a strong IEC network that extended from the central to the village level. This network is supported by a strong management system at all levels. BKKBN has also been successful in working with other partners for community mobilization, especially religious and community leaders as well as selected NGOs. Recently, BKKBN has expanded its mandate to include family welfare activities. This component of BKKBN's activities witnessed significant growth during the last 3 years. The impact of this expansion on BKKBN's implementation capacity, especially of family planning and demand campaigns for reproductive health services, is not clear. Moreover, BKKBN, until recently, had little experience with reproductive health issues other than family planning.
- MOH controls a large network of public health facilitates --at the village, sub-district, district and provincial levels. These facilities are physically accessible to a large segment of the population. However, the quality of services provided through this network is relatively poor and the facilities are underutilized. On the other hand, MOH is the key agency responsible for setting health policies and strategies and, therefore, is one of the key agencies for addressing safe motherhood and reproductive health issues.
- MOEC, MORA and MOSA. MOEC and the large network of schools that it oversees are an important vehicle for reaching the youth and for providing educational materials. Utilizing MOEC machinery to deliver health education has been perceived as a cost-effective tool for providing health education. However, although the population education programs were very successful, the effectiveness of the school health program is not yet clear. An institutional risk relates to the ability of the organizations to select and train the right teachers to deliver the sensitive information on reproductive health issues. As for MORA and MOSA, they both have networks for reaching the communities, in general, and the adolescents in particular, that could assist in achieving project objectives.

- Local government. Involvement of local government is an important factor for the long term sustainability of the project. Local governments have played an important role in coordinating other multi-sectoral programs, especially through the Bappedas (levels I & II). The effectiveness of this role depends largely on the Bappeda and how effective they are in playing the coordination role.

Based on this institutional assessment, the project has adopted a partnership approach building on the strengths and weaknesses, and addressing the shortcomings of, the different agencies involved. This, however, needs to be accompanied by clear and simple mechanisms for project management and fund channeling.

b. Project management: Management arrangements are designed to take into account institutional arrangements and lessons learned from other Bank financed projects. Thus, the project will have one management unit at each level with assigned implementation and management roles that are consistent with the mandates and roles of the different implementing agencies
Project management structure. The project management structure will be as follows:

- Central Level. At the central level, project management will be as follows:
  - ⇒ a Steering Committee (SC) chaired by the Deputy for Human Resources, BAPPENAS, whose members are from Echelon I representatives from the key implementing agencies involved in the project. The main role of the SC is to provide overall policy guidance on implementation of the project. The SC should meet at least twice a year.
  - ⇒ a Project Director who will be the Deputy for Planning and Program analysis, BKKBN. The Deputy Project Director will be the Director General for Community Health, MOH. The Project Director and Deputy Director will be responsible for overall guidance for project implementation and will liase with the SC on policy related matters.
  - ⇒ Technical Committee(s) will address specific technical issues. Three such committees have been identified -- for monitoring and evaluation activities, demand generation activities and maternal health.
  - ⇒ a Project Manager with appropriate qualifications and experience will be appointed to the project. The Deputy Project Manager will be the head of the Family Health Division, MOH. The Project Manager is responsible for overall project implementation and will be assisted by a Central Project Secretariat (CPS) and a treasurer.
  - ⇒ a CPS will be established and maintained in the Planning Bureau, BKKBN, and will be responsible for ensuring implementation of the project and will be headed by a full time Executive Secretariat. The CPS will also include a Planning/Coordinating officer, a procurement officer, a financial/disbursement officer, secretary and other qualified staff. The CPS will include seconded staff from both BKKBN and MOH.

- Provincial Level. At the provincial level, project management structure will be as follows:
  - ⇒ a Provincial Steering Committee (PSC), chaired by the Governor and include members from Kanwils for key implementing agencies involved in the project. The role of the PSC is to provide overall guidance on implementation of the project. The PSC should meet at least twice a year.
  - ⇒ a Project Coordinator who will be the head of Bappeda supported by a Provincial Technical/Coordination Teams with membership from the different sectors. The Bappeda will report to the Governor and will be responsible for overall coordination. The technical coordination teams will meet at least four times a year to review overall project progress and ensure overall coordination.
  - ⇒ a Provincial Project Manager (PPM) who is qualified and experienced, will be appointed to the project. The PPM is responsible for overall project implementation and will be assisted by a Project Secretariat. The PPM will be appointed by BKKBN with a deputy from MOH.

⇒ a Provincial Project Secretariat (PPS) will be established and maintained by the Project Provinces in the provincial office of BKKBN (Kanwil) in each project province, and will be responsible for ensuring project implementation of the project and will be headed by a full time Executive Secretariat. The Secretariat will be staffed with a procurement officer, a financial/disbursement officer, secretary and other qualified staff. The Secretariat will include seconded staff from both BKKBN and MOH.

- District Level. At the district level, the structure will be simpler with the Head of District (Bupati) responsible for the overall program while Bappeda II will be responsible for project coordination. The project officer (BKKBN) will be responsible for daily administrative activities with MOH staff acting as technical advisors. A working group will be established at the district level with members from the different sectors involved in project implementation. The working group will be responsible for project reporting requirements including disbursements.

- Funds Channeling. Funds will be channeled through the sectoral development budgets (DIPs) for the respective agencies (e.g., BKKBN, MOH, MOEC). In addition, funds for the Bappeda I and Bappeda II will be channeled through INPRES Sarkes mechanisms.

As important as the management structure is the appointment of qualified staff to the structure. *During negotiations, assurances were provided that the project management units (PMUs) at the provincial and central levels would be established with staffing acceptable to the Bank and that the establishment of these units (including the appointment of key staff) would be a condition of Board Presentation. The condition was fulfilled.*

17. Social Assessment:

Work carried out during project preparation and the processes built into implementation are designed to ensure that the project is appropriate to the local context.

During project preparation, there was extensive consultation with NGOs, the central ministries staff, provincial staff and representatives of all project districts. District staff were heavily involved in formulating the details of the project activities to ensure that the overall project is responsive to local needs. In addition, during project implementation there is provision for extensive formative research to ensure that the needs and perspectives of the local populations are reflected in the IEC campaigns.

The project has an explicit emphasis on the poor and those in isolated areas through such interventions as the funding for referral services, which aims to remove a barrier to use of referral facilities for obstetric emergency cases. In addition, the proposed pilot of new conditions for BDDs will result in better targeting of government subsidies to the poor and ensure that reproductive health services are more likely to be available to the poor and/or more remote villages.

18. Environmental Assessment:	Environmental Category	☐ A	☐ B	☒ C

19. Participatory Approach[1]:	Identification/Preparation	Implementation
Beneficiaries/community groups	IS/CON	COL
Intermediary NGOs	IS/CON	COL
Academic institutions	IS/CON	CON/COL
Local government	IS/CON	COL
Other donors	IS	IS

[1] This is described in terms of: Information sharing (IS), Consultation (CON), and Collaboration (COL).

20. Sustainability:

The project tests alternative approaches to promoting the financial sustainability of the BDDs. The salaries of BDDs currently absorb about one-third of the MOH personnel budget. The project will pilot a new type of contract (TPC) for the BDD which, if successful, can significantly reduce the recurrent cost burden of the BDD immediately. In addition, by targeting most MOH payments to the BDD for services provided to the poor, the TPC should also lead to reductions in MOH recurrent health expenditures over time, as the proportion of the population who are poor continues to decline with future development. Accordingly, the TPC provides an "exit strategy" for MOH support to the BDD, who will be assisted to become self-sustaining private providers.

Another major component of the project (i.e., funds to finance the cost of referral services) substitutes demand-side financing for supply-side financing of emergency obstetric services. Because government subsidies for this financing scheme are limited to the poor, the recurrent cost burden of this major project activity will also decline over time, as the proportion of the population requiring such assistance diminishes. The use of demand-side financing of obstetric emergency services is also consistent with the trend toward self-financing hospitals (unit swadana), which is a potentially important aspect of the health sector's overall sustainability.

Although some of the project's interventions are designed to promote overall health sector sustainability, other interventions (e.g., training) will clearly impose additional recurrent cost burdens on MOH budgets as they are expanded to cover the entire country. These additional costs are necessary in order to improve the quality of maternal health and family planning services in the public sector. A study by Rochjati et al. (1996) in Indonesia estimates that it would cost approximately $0.30 per capita (701 Rupiah) to reduce the maternal mortality ratio from 425 to 225 per 100,000 live births. Although such an expenditure would be equal to 6.6 percent of total government health expenditures in 1994/95, it would be expected to be phased in over a period of five years or more. During this time, government health expenditures are projected to grow at a rate of 6-10 percent. Accordingly, the total cost of a safe motherhood program could be covered by the annual growth in the MOH budget for only one year. Given the recent strong commitment of the government to safe motherhood, such a recurrent cost burden should not be a problem.

In addition to the financial sustainability of the project, several of the project design features that focus on changing demand and involve community participation are likely to enhance the sustainability of the proposed interventions.

21. Critical Risks (see fourth column of Annex 1):

Project outputs to development objectives

Risk	Risk Rating	Risk Minimization Measure
1-The content of MH/RH services is not appropriate.	Low	Overall content is consistent with the lessons learned in other countries and information available from Indonesia
2-Supply and demand interventions are not synchronized.	Substantial	-Consensus on message content early in the project -Review of annual implementation plans and time tables by Bank review missions -Establish coordination team at the local level
3-The Pilot projects are not completed and/or extended	Moderate	Adequate evaluation and continuing policy dialogue
4-Providing information to adolescents does not lead to change in their RH behavior as adults.	Moderate	Risk minimization is beyond the time frame of this project.

Project components to outputs

Risk	Risk Rating	Risk Minimization Measure
MH services		
1-The project will not improve the MH/RH skills of health staff.	Low	-Ensure that a needs assessment is carried out before the training and that training content is based on this assessment; -Adopt competency-based training approach
2-The financing for emergency obstetric cases will not be implemented well and/or reach the poor.	Moderate	-Provide adequate technical assistance to ensure design details -Carry out study to assess the adequacy of the targeting approach adopted by the project -Adequate project supervision
3-IEC will not increase knowledge/ change behavior.	Low	BKKBN has a good track record in this area
4-Iron tablets will not be consumed.	Moderate	Adequate IEC to inform women of the benefits and possible side effects
Sustainability of MH services		
There is not capacity to implement the pilot	Moderate	-Provide adequate technical assistance to ensure design details -Adequate project supervision
Improved quality of FP services		
1-Increase in quality does not eventuate	Low	Adopt competency-based training approach
2-Other factors may be more important determinants of utilization and quality of MH care	Low	Experience with BKKBN to date indicates that quality is the important determinant. Access is already high.
3-Excessive drive for results may lead to excess social pressure on women and their families and reduce the impact of quality improvement measures	Moderate	Develop quality assurance groups and monitoring indicators based on quality of care that are not target driven.
Adolescent reproductive health		
1-The increase in knowledge does not occur	Moderate	-Review/develop appropriate curriculum -Adopt a variety of approaches -Adequate evaluation
2-Other factors are more important determinants of reproductive behavior	Moderate	- Risk minimization is beyond the time frame of this project
Overall project risk rating	Risk Rating Moderate	-Ensure a mechanism for coordination between ministries at central and provincial levels is in place -Ensure strong implementation structure at the provincial levels -Strong and frequent supervision, especially in the first two years

22. Possible Controversial Aspects:

1-The TPC pilot represents a major departure for MOH from previous policy. Even though there is general support and agreement about the value of the pilot, its implementation may face resistance from health providers. It is important that the pilot is discussed with those involved at all stages and that arrangements are made for modifications in the scheme to ensure continued participation.

2-An excessive drive for results with respect to demand generation may lead to excess social pressures on women and their families to adopt strategies promoted by the project. Ensuring the right message content for IEC at the onset of the project and informal monitoring during implementation will minimize this risk.

Block 4: Main Loan Conditions

23. Board Conditions

Establishment of the central project management unit and the provincial project management units with terms of reference, and respective secretariats staffing and resources acceptable to the Bank. The condition was fulfilled.

24. Other

Management aspects

The Borrower shall establish and, thereafter, maintain until completion of the project:

(a) a Central Project Management Unit, in accordance with the terms of reference, staffing and resources acceptable to the Bank;

(b) a Central Project Secretariat, in accordance with the terms of reference, staffing and resources acceptable to the Bank;

(c) a Provincial Project Management Unit in each of the Project Provinces, in accordance with the terms of reference, staffing and resources acceptable to the Bank; and

(d) a Provincial Project Secretariat in each of the Project Provinces, in accordance with the terms of reference, staffing and resources acceptable to the Bank.

Technical Audits

The Borrower shall, no later than December 31, 1999, and June 30, 2002 prepare and furnish to the Bank for comments, the terms of reference for carrying out the technical audits of project implementation; no later than July 31, 2000, and November 30, 2002, cause such audits to be carried out, in accordance with terms of reference acceptable to the Bank; and promptly thereafter, furnish to the Bank for comments a copy of such technical audits.

Monitoring, review, and reporting

1- The Borrower shall:

(a) maintain policies and procedures adequate to enable it to monitor and evaluate on an ongoing basis, in accordance with the Project performance indicators, the carrying out of the project and the achievement of the objectives thereof;

(b) no later than September 15, in each year, until the completion of the project, furnish to the Bank, a report in such detail as the Bank shall reasonably request integrating: (i) the results of the monitoring and evaluation activities performed pursuant to subparagraph (a) above on the progress achieved in the carrying out of the project during the period preceding the date of the said report and setting out the measures recommended to ensure the efficient carrying out of the project and

the achievement of the objectives thereof during the period following such date; and (ii) a description of Project activities proposed for the next fiscal year;

(c) review with the Bank, by October 31, in each year, until the completion of the project, or such later date as the Bank shall request, the report referred to in subparagraph (b) above and carry out annual Project implementation review;

(d) at the third annual review, carry out a comprehensive mid-term assessment of project implementation; and

(e) promptly thereafter, take all measures required to ensure the efficient completion and recommendations of the reviews carried out pursuant to subparagraphs (c) and (d) above, and the Bank views on the matter.

2- Studies will be carried out in accordance with terms of reference and timing acceptable to the Bank; results of the studies will be furnished to the Bank no later than four months after each study is completed; and that promptly after the completion of the study GOI will prepare relevant action plans, taking into account the comments of the Bank on the recommendations of the studies.

3- Training and fellowships will be carried out in accordance with programs and implementation timetables acceptable to the Bank.

4-In carrying out the BDD pilots of the Project, the Borrower shall:

(a) no later than March 1, 1998, furnish to the Bank for comment the draft model for TPC contracts; promptly thereafter revise such model taking into account the Bank's comments; and, thereafter, enter into TPC contracts with BDDs on terms and conditions acceptable to the Bank; and

(b) prepare, under terms of reference satisfactory to the Bank, and furnish to the Bank, on or about June 30, 1999, a report integrating the results of the monitoring and evaluation activities of the Project during the period preceding the date of the said report and setting out measures to ensure the efficient carrying out of such Part of the Project and the achievement of the objectives thereof during the period following such date.

5-In carrying out the interventions on emergency obstetric services, the Borrower shall:

(a) no later than March 1, 1998, furnish to the Bank for review and comments, the MOH guidelines relating to the provision of emergency obstetric services in the Project Provinces; and, promptly thereafter, revise and implement the guidelines taking into account the Bank's comments; and

(b) prepare, under terms of reference satisfactory to the Bank, and furnish to the Bank, on or about June 30, 1999, a report integrating the results of the monitoring and evaluation activities of the Project during the period preceding the date of the said report and setting out the measures recommended to ensure the efficient carrying out of such Part of the Project and the achievement of the objectives thereof during the period following such date.

6-In carrying out the IEC activities of the Project, the Borrower shall:

(a) no later than March 1, 1998, establish and, thereafter maintain until completion of the Project, a central technical committee and provincial technical committees in the Project Provinces, to review and assess the contents of IEC activities of the Project;

(b) not later than June 30, 1998, cause a technical review to be carried out, under terms of reference acceptable to the Bank, of the IEC message development and of the implementation plan for the IEC activities under the Project; and, promptly thereafter, furnish the results of the review to the Bank for comments; and

(c) not later than December 31, 1998, cause a technical review to be carried out, under terms of reference acceptable to the Bank, of the IEC strategy and its implementation; and promptly thereafter, furnish the results of the review to the Bank for comments.

Block 5: Compliance with Bank Policies

☒ This project complies with all applicable Bank policies.
☐ [The following exceptions to Bank policies are recommended for approval: The project complies with all other applicable Bank policies.]

Task Manager: Fadia Saadah

Country Director: Richard A. Calkins (Acting)

Annex 1
Safe Motherhood: A Partnership and Family Approach

Project Design Summary

Narrative Summary	Key Performance Indicators	Monitoring and Supervision	Critical Assumptions and Risks
CAS Objective Enhancing human resource development through investment projects and advice aimed at improving the quality of health services and strengthening capacity.			(CAS Objective to Bank Mission) There are no "disconnects" between CAS objectives and Bank mission.
Project Development Objectives To improve maternal health (MH) status and reduce maternal mortality and morbidity through:			(Development Objectives to CAS Objective) Assumptions: Increased consumption of MH/ RH services will improve maternal health status Risks:
(1) Improving utilization of quality MH services	% increase in deliveries assisted by BDDs, and by trained health providers *mid-term: at least 20% increase* *final project: at least 50 % increase*	Special surveys; HIS reporting forms	1-the content of MH/RH services is not appropriate. 2-supply and demand interventions are not synchronized. 3-the pilot projects are not extended. 4-providing information to adolescents does not lead to change in their RH behavior.
	At least 60% of cases with obstetric complications referred to health facilities providing emergency obstetric care.	Hospital records	
(2) Strengthening the sustainability of MH services at the village level.	Completion and evaluation of BDD pilot projects, especially TPC contracts	Reporting forms	
(3) Improving demand for and access to family planning (FP) services	% increase in a "quality index" of FP services *mid-term: at least 20% increase* *final project: at least 50% increase*	Special surveys, FPMIS	

(4) Preparing adolescents to lead a healthy reproductive life	% increase of knowledge about RH issues among adolescents *mid-term: at least 10% increase* *final project: at least 30% increase*	Special surveys	
Project Outputs MH services (See Number (1) above)			(Outputs to Development Objectives) Assumptions: 1-low quality is a critical determinant of low utilization of services.
Increased technical skills of village midwives (BDDs) for providing MH services	% BDDs with basic competencies for delivering MH services	Special surveys, training evaluation forms	2-price is an important determinant of failure to utilize the referral system.
Increased technical skills of health center (HC) and hospital staff for providing MH services	% of HC hospital staff with basic competencies for delivering MH services	Special surveys, training evaluation forms	3-increased knowledge about signs of obstetric emergency will lead to increased utilization of the referral system.
Increased utilization of referral services for obstetric and neonatal (ON) emergencies	% of cases with ON complications who are referred to emergency services in a timely manner	HIS, Population enumeration data, and maternal/ prenatal audits	4-iron is the limiting nutrient in maternal anemia.
Improved quality and management of emergency ON care at HC and hospitals	Improved management of EOC	Hospital and HC records, maternal and prenatal audits	Risks: 1-the project will not improve the MH/RH skills of health staff.
Reduce cost barriers to the referral system	% of pre-welfare (poor) cases with ON complications who are referred to emergency services covered by the project	HIS, Population enumeration data, maternal/prenatal audits	2-the financing of emergency obstetric services will not eventuate. 3-the IEC will not increase knowledge. 4-the iron tablets will not be consumed.
Increased knowledge about danger signs during pregnancy and other MH conditions	% increase in knowledge about danger signs and other MH conditions	Special surveys	

Increased coverage of iron supplementation among adolescents, non-pregnant and pregnant women	% of adolescents and women of reproductive ages receiving iron supplementation	Special surveys	
Assessment of magnitude of STDs in project provinces and options for service delivery for STD management and treatment	Carry out STD surveys and operations research	Special surveys	
Sustainability of MH services(see number (2) above)			Assumption: there is the capacity to implement and evaluate the pilot
Implement pilot projects for alternative financing of BDDs as private providers	# of pilot projects implemented	Project management records	Risks There is no capacity to implement the pilot
Improved quality of FP services (see number (3) above)			Assumptions: low quality of family planning services is a critical determinant of side effects from contraceptives and drop-out rates.
Increased technical skills of FP providers (doctors, midwives, BDDs)	% of providers with "adequate" skills for providing FP services	Special surveys, training evaluation forms	
Improved counseling skills of FP providers, field workers, and cadres	% of providers with adequate "counseling skills	Special surveys, training evaluation forms	Risks: 1-Increase in quality does not eventuate
Implementing a monitoring system for monitoring of FP services	# of service delivery points that monitor quality of services	Project management records	2-Other factors may be more important determinants of utilization 3-Excessive drive for results may limit the effect on quality improvement measures
Improved awareness of side effects and complications of FP services	% FP users with knowledge about side effects and complications of the method they are using	Special surveys	
Adolescent reproductive health (ARH) (See number (4) above)			Assumption: 1-knowledge is an important factor determining healthy reproductive behavior in adolescents
Assessment of service needs for ARH	Completion of the assessment	Special surveys	

Development and institutionalization of ARH programs Increased counseling services for adolescents Evaluating alternatives for providing RH services and education	# and coverage of programs developed # of service delivery points that provide counseling Completion of evaluation of alternative approach for addressing ARH needs	Project management records Project management records Project management records, technical audits	2-improved knowledge during adolescence will lead to healthy reproductive behavior during both adolescence and adult life. Risks: 1-the increase in knowledge does not occur 2-other factors are more important determinants of reproductive behavior.
Project Components [See Annex 2 for a detailed description.] **Provincial Components** I. Improving maternal health status, utilization and sustainability of MH services *I.A.. Demand for MH services* Develop/implement IEC messages for MH conditions at the individual, household and community levels Develop/implement IEC program for supporting BDD program Prepare household and community plans for management of emergency ON cases Develop/implement IEC campaigns for community mobilization to provide and organize referral services *I.B. Supply of MH services* Training of BDDs Training of HC staff Training of hospital/blood bank staff	 # of target audiences reached # of villages reached % of HH and community plans prepared # of communities reached # of BDDs trained # of HC staff trained # of hospital staff trained	 Reporting system Reporting system Population enumeration; Information system Reporting system Reporting system Reporting system Reporting system	(Components to Outputs) Assumptions: 1-the provinces have the capacity to design and implement the components 2-the central units have the capacity to provide the technical support, policy and research, and monitoring and evaluation 3-adequate coordination between the ministries will occur Risks: 1-the provinces do not have the capacity to design and implement the components 2-the central units do not have the capacity to provide the technical support, policy and research, and monitoring and evaluation 3-adequate coordination between the ministries will not eventuate

Develop/implement Standard Operating Procedures (SOPs) for emergency ON care	SOPs developed and staff trained to use them	Reporting system	
Procurement of medical equipment	% of equipment procured	Reporting system	
Provide funds for emergency obstetric services at the provincial levels	Availability of funds at the provincial level; utilization of the funds	Reporting system	
Revise guidelines for health providers for anemia control among adolescents and non-pregnant women	Complete new guidelines; disseminate to staff	Reporting system	
I.C. Strengthening of BDDs			
Prepare contracting arrangements for the different pilots for BDD sustainability	# of contracts prepared for BDDs (by type)	Reporting system	
II. Improve quality of family planning services			
Train FP providers to improve their technical skills	# of FP providers trained on technical skills	Reporting system	
Train FP providers on counseling	# of FP providers trained on counseling	Reporting system	
Develop quality assurance system	Monitoring system developed	Reporting system	
Develop/implement IEC to increase demand for quality FP services	# of target groups reached	Reporting system	
III. Prepare adolescents to lead a healthy reproductive life			
Carry out ARH needs assessment	Complete the assessment	Reporting system	
Conduct parent education	# of parents reached	Reporting system	
Incorporate ARH into family life education (FLE) program in school health	ARH incorporated in the school health curriculum	Reporting system	
Incorporate FLE program into out-of-school program	ARH incorporated in the out-of-school program	Reporting system	
Provide support to NGOs and community institutions to provide education and counseling for adolescents	# of community groups and NGOs provided with support for ARH	Reporting system	

Central Component			
I. Technical support and training			
Develop in-service training strategy for BDDs	Strategy developed	Reporting system	
Develop IEC strategy for generating demand for MH services (including promoting BDDs as private providers)	IEC strategy completed	Reporting system	
Develop monitoring tools for improving quality of FP services	Monitoring tool developed	Reporting system	
Development of curriculum for ARH	Curriculum for ARH developed	Reporting system	
Training and manpower development in MH and RH	# of staff trained	Reporting system	
Provide TA to the provinces	# of requests for TA from provinces; response rate of the center	Reporting system	
II. Policy and research			
Policy studies regarding BDD sustainability	# of studies completed	Reporting system	
Study on other RH issues	Completed assessment of cervical cancer needs	Reporting system	
Review of pre-service training needs for BDDs	Complete the review	Reporting system	
Other related studies and dissemination efforts			
III. Monitoring and evaluation			
Baseline and follow-up surveys	# of completed surveys within 3 months of planned dates	Reporting system	
Analysis of secondary data	% of indicators that are adequately analyzed	Reporting system	
Rapid assessments			
Project Management			
Supervision; monitoring	# of supervision visit	Reporting system	
Technical audits	% of outputs reviewed	Reporting system	
Coordination	# of coordination meetings	Reporting system	

Annex 2
Safe Motherhood Project: A Partnership and Family Approach

Detailed Project Description

INTRODUCTION

Indonesia's maternal mortality remains a cause of concern. One in 89 women of reproductive age die of maternal causes. The high maternal mortality ratio (MMR) -- estimated at 390 per 100,000 livebirths -- is indicative of a larger burden of disease due to reproduction. Women also suffer from non life-threatening but debilitating reproduction-related morbidities, including anemia, infections, and other obstetric complications. Addressing the burden of reproductive health problems benefits the large segment of women in their reproductive ages and beyond, as well as the health and welfare status of other family members.

The high MMR and poor maternal health status are indicative of under-consumption of maternal health services. There are several explanations for the sub-optimal consumption of maternal health and safe motherhood services -

Demand side:

- cultural norms and traditional values limit demand
- prices of services limit demand by certain population groups, especially the poor

Supply side:

- SM services may not available (BDD may not stay in village, may not be available at certain times, emergency services may not be available etc.)
- Quality of services and their effectiveness may not be adequate.

The proposed provincial project addresses these constraints. The main features of the project concept are:

- a demand driven approach that takes into account the social, cultural and economic determinants of safe motherhood as well as service delivery and supply factors. This approach will focus at the individual, family and community levels.

- a partnership approach among the different public, private and NGO agencies with an interest in safe motherhood. The exact format of a partnership and the relative contribution of the different partners will be determined at the district and province levels, depending on the local needs and conditions.

- addressing supply-side constraints to service delivery and sustainability of maternal health services. Special emphasis is given to the sustainability of the village midwives, the linchpin of safe motherhood services at the village level.

- maintaining demand and preparing the cohort which will enter the reproductive ages by addressing reproductive health needs of the adolescents.

- finally, addressing the diversity in local needs and conditions by adopting district and province specific interventions. Such an approach can determine the right mix of interventions needed as well as the key stakeholders and partners who may be involved in implementation in a specific location, Thus, project activities will be grouped into two main components, provincial and central.

PROJECT OBJECTIVES

The project would assist the Government of Indonesia (GOI) to improve maternal health status, reduce mortality and morbidity, through a partnership and family approach, in selected districts in two provinces (East and Central Java) through

- Improving quality and utilization of maternal health services;
- Strengthening the sustainability of maternal health services at the village level;
- Improving quality of family planning services; and
- Preparing adolescents to lead a healthy reproductive life.

PROJECT COMPONENTS

Project activities will be grouped into two components: Provincial (to be carried out in East Java, Central Java) and Central components. The provincial components will be managed and implemented by the province and district level teams. Below is a brief description of the objectives and main activities for the different components.

Provincial components -- (total base costs = East Java US$ 18.3 million; Central Java US$ 17.8 million)

The provincial components will include three sub-components, responding to the main project objectives:

Sub-component 1: Improving maternal health (MH) status, utilization and sustainability of MH services (total base costs: US$ 11.2 million for East Java; US$ 11.4 million for Central Java) to include efforts to:

- increase demand for MH services.
- improve the supply of MH services; and
- strengthen sustainability of MH services at the village level.

I. (a) Increasing demand for MH services. This part of the project aims at improving the knowledge, attitudes and behavior regarding maternal health at the individual, family and community levels. In order to achieve these objectives, the project will establish an IEC technical and coordination committees at the central and provincial levels to review and assess the content of the IEC messages and ensure coordination between supply and demand-side interventions. These committees will have members from BKKBN, MOH, professional groups and so forth. Key activities included in this sub-component include:

- carrying out formative research
- identification of IEC messages
- carry out communications campaigns to support project interventions including:
  - ⇒ increased knowledge of families and communities of danger signs
  - ⇒ mobilization of the community to support MH services, especially emergency care and transport
  - ⇒ the role of BDDs as private providers; and
  - ⇒ strengthened political commitment for reproductive and maternal health issues.

The project would finance studies for the review and development of key messages, consultancies for development of communications strategy, media packages and materials, and training.

I. (b) Improving supply of MH services. The objective is to improve supply of maternal health services, especially at the village level through: improving quality of MH services at the village level, strengthening the referral system, improving quality of emergency care (including blood supply) and reducing cost barriers to referral services to the

poor. Specific health outcomes targeted include maternal mortality, maternal complications, anemia, infections, as well as tetanus and mortality in neonates. Key activities supported by this sub-component include:

- In-service training of village midwives (BDDs)
- In-service training of health center and hospital staff
- Developing/implementing Standard Operating Procedures (SOPs) for emergency obstetric and neonatal (ON) care
- Procurement of medical equipment
- Revising and implementing guidelines for health providers for anemia control among adolescents and non-pregnant women.
- Carrying out STD/RTI surveillance and operations research on the delivery of needed services through primary health care services.

In support of these activities, the project would finance training, medical equipment, surveys and research, instructional materials, workshops, consultant services.

In addition, the project will develop and test options for financing of referral services by reimbursing hospitals and other health care facilities providing emergency obstetric care for providing such services to needy patients referred by BDDs. This would remove an important financial obstacle to access by the poor to emergency obstetric care and will contribute to establishing BDDs as successful private providers by legitimizing their role in access to financial protection for their clients. The funds will reimburse health centers, clinics and public as well as private hospitals. Funds will cover cost of drugs and medical supplies provided to the patients, and the standard rates applicable to level III type accommodation at public hospitals. The funds will not reimburse the cost of emergency transport to the hospital, this will be each village's responsibility. In order minimize misuse of these funds, MOH has prepared draft guidelines for provincial and district level staff. The guidelines include a clear definition of the type of condition to be covered, the target group, prices, eligible providers and marketing strategy. As for defining the poor and needy patients, the project will use the existing classification provided by the family enumeration data. Moreover, a targeting study, that will be carried out in the first year of the project, will provide further criteria to identify the eligible target group for emergency obstetric services financed by the project.

(c) Strengthening sustainability of maternal health services at the village level. The objective of this part of the project is to identify options to (a) sustain the village midwives (BDDs) as providers of health services at the village level; and (b) assist them to be become private providers by developing alternative contracting and financing schemes for BDDs. This will be supplemented by strengthening the technical skills of BDDs (see part (b) above), increasing demand for BDD services (see part (a) above) and increasing their access to credit to develop their private practice. A brief description of these activities follows.

Pilot Models of promoting BDD sustainability.

I. Group Midwifery Practice Models: The project will encourage the formation of group practices (i.e., practices in which more than one midwife works), building on the established private practices of senior midwives. Most of these group practices will be established at the subdistrict level. Several alternative models will be piloted under the project, these include:

- Model 1: Model Clinics for On-the-Job Training: the project will assist senior midwives to develop enlarged practices where BDD can work for a month or two each year to acquire additional on-the-job training.
- Model 2: Group Practices with BDD Employees: the senior midwife will employ BDDs to deliver services to one or more villages.

- Model 3: Franchised Clinics: this model will combine one doctor, one or more midwives, and one or more nurses in a practice which provides comprehensive primary health care, including maternity care. The franchised clinics would give the BDD an opportunity to obtain training in a broader range of services such as those they routinely provide in their villages. Once established, the franchised clinics would be in a position to provide training to BDD (similar to Model 1 above) or to contract with MOH directly to provide BDD services to unserved villages (similar to Model 2).

II. Targeted Performance-based Contracts This pilot attempts to identify alternative contracting schemes for BDDs that can help establish them as private providers. The project recognizes that some villages are too poor to sustain a purely private BDD and even in those villages that can support a private BDD mechanisms for ensuring continuing access to her services on the part of the poor are needed. The existing BDD contract pays a uniform salary to all BDD in a given area to provide a rather loosely defined set of services to all village residents, regardless of the size or socioeconomic characteristics of the villages. In addition to receiving their fixed salary, the BDD currently charge their clients fees for providing a variety of services. The additional income they receive is a function of many factors, including their own efforts and success in developing a client base; but it is clearly also related to the villagers' ability to pay and to the size of the village. As a result, the total income earned by BDD varies significantly from village to village even within a given district. In their efforts to supplement their government salaries in their private practices it is likely that some BDD fail to provide basic MCH and family planning services to the poor, who are less able to pay for services.

The alternative contract mechanism would compensate the BDD *as private providers* for delivering a clearly-defined package of services to the poor as well as a more limited set of "public good" services to the entire village (i.e., essential public health services, such as health education and counseling, for which charging an individual fee is impractical). This new contract, which is called a Targeted Performance-based Contract, or TPC, is expected to have the following advantages over the existing contract: it is designed to be more equitable for the BDD, is designed to be more equitable for the villagers, would be performance-based and therefore encourage greater efficiency, and MOH will be able to save money.

In addition, the project will support BDDs' efforts to become private providers by providing limited financial support to help midwives establish private practice in the pilot areas. Studies to monitor and evaluate these pilots will also be carried out.

Sub-component 2. Improving quality of family planning services (total base costs: US$ 4.7 million for East Java; US$ 3.9 million for Central Java) to include the following activities:

- improving counseling and interpersonal communications skills;
- improving technical competence of service providers (doctors, midwives, and BDDs) for providing family planning services;
- strengthening family planning referral system;
- strengthening the quality of family planning service delivery through the provision of essential equipment/supplies;
- developing and implementing client-oriented IEC programs to increase demand for quality services;
- developing and implementing quality assurance programs for family planning services;

It also includes campaigns to increase awareness about side effects and complications due to family planning and developing tools for monitoring quality of family planning services. Activities financed by the project include training and workshops, development of IEC strategy and media packages, and consulting services.

Sub-component 3. Preparing adolescents to lead healthy reproductive lives (total base cost US$ 1.9 million for East Java; US$ 1.9 million for Central Java) to include the following activities:

- Assessing need for education and counselling services for adolescents. This includes: in-depth needs assessment; strengthening adolescents counselling and services (especially through NGOs); pilot efforts for testing alternative models for delivering adolescent counselling and services.
- Increasing knowledge of key reproductive health issues among adolescents. This involves:
  - ⇒ strengthening commitment among partner organizations at the central/provincial/district levels to implement program
  - ⇒ conducting the parent education programs on adolescents reproductive health
  - ⇒ institutionalising adolescent reproductive health education through the educational system. This involves:
    - ➢ incorporation of family life education (FLE) into school health (Core Program) in junior and senior high schools
    - ➢ incorporating FLE in out-of-school program and in religious schools
  - ⇒ implementing adolescent reproductive health education through community institutions, e.g., through youth clubs, women's organisations and NGOs
  - ⇒ providing information, education and communications campaigns on adolescent reproductive health issues through mass media

In addition, the project will direct special attention to testing the different alternatives and models for addressing adolescent reproductive health needs. These activities are included under the sub-component on Monitoring and Evaluation under the central level activities.

Central Level Component (total base cost = US$ 15.6 million)

The central level activities are of three main types: technical support and training, policy and research, and monitoring and evaluation. The identification of these activities was based on an assessment of support needed for the provincial and district level activities.

I-Technical Support and training In order to implement the different programs and interventions, the provinces need technical assistance to carry out a number of functions. These include: development of training strategies and guidelines for BDDs, development of new IEC strategies, developing curricula for adolescent reproductive health, and providing technical support to the provinces/districts. The central level units of the different executing agencies need to provide the provinces with the needed assistance. Where the required support is not available from the central units, technical assistance will be recruited to carry out the specific functions. In addition the central level activities include limited support for local and overseas fellowships in areas directly related to project objectives

II-Policy, research, and evaluation This sub-component includes policy related studies like midwifery training strategy; studies on the sustainability of village midwives program; assessment of reproductive health needs and programs, carrying out of baseline and follow-up surveys, rapid assessments and special evaluation studies, data analysis, dissemination workshops and technical assistance for implementing the monitoring and evaluation activities of the project.

Annex 3
Safe Motherhood Project: A Partnership and Family Approach

Estimated Project Costs
By Project Component

Project Component	Local	Foreign	Total
		US $ '000	
A. East Java component			
A. I. Improving MH status, utilization and sustainability of MH services	8,129	3,073	11,202
I.a. Increasing demand for MH services	4,635	1,730	6,365
I.b. Improving supply of MH services	743	191	934
I.c .Strengthening MH services at village level	2,751	1,152	3,903
A. II. Improving quality of family planning services	3,406	1,293	4,699
A. III. Preparing adolescents to lead a healthy reproductive life	1,486	399	1,885
A. IV. Project administration	441	109	550
Subtotal East Java	**13,462**	**4,874**	**18,336**
B. Central Java component			
B. I. Improving MH status, utilization and sustainability of MH services	8,300	3,115	11,415
I.a. Increasing demand for MH services	4,776	1,755	6,531
I.b. Improving supply of MH services	743	191	934
I.c Strengthening MH services at village level	2,781	1,169	3,950
B. II. Improving quality of family planning services	2,781	1,138	3,919
B. III. Preparing adolescents to lead a healthy reproductive life	1,480	403	1,883
B. IV. Project administration	441	109	550
Subtotal Central Java	**13,002**	**4,765**	**17,767**
C. Central Level			
C. I.. Technical support/training	4,952	3,289	8,241
C. II. Policy, research and evaluation	4,231	1,576	5,807
C. III. Project administration	1,260	328	1,588
Subtotal Central level	**10,443**	**5,193**	**15,636**
Total Baseline Cost	**36,907**	**14,832**	**51,739**
Physical Contingencies	1,845	742	2,587
Price Contingencies	6,838	766	7,604
Total Project Cost	**45,590**	**16,340**	**61,930**

Annex 3
Safe Motherhood Project: A Partnership and Family Approach

Estimated Project Costs
By Expenditure Category

	Local	Foreign	Total
	----------US $ '000----------		
Expenditure Categories			
Investment Costs			
Equipment	1,226	1,838	3,064
Vehicles	58	10	68
IEC & Instructional Materials	8,039	3,445	11,484
Technical assistance	1,870	1,835	3,705
Training and Workshops	11,640	2,054	13,694
Fellowships			
Local	623	110	733
Overseas	-	1,959	1,959
Evaluation and research	4,128	1,769	5,897
Demographic health survey (DHS)	1,190	210	1,400
Financial support for BDDs	331	58	389
BDD pilots	1,872	331	2,203
Civil works/furniture	286	50	336
Project administration	992	175	1167
Subtotal investment cost	**32,255**	**13,844**	**46,099**
Recurrent Costs			
Emergency obstetric services	3,997	706	4,703
Monitoring and supervision	655	282	937
Subtotal recurrent cost	**4,652**	**988**	**5,640**
Total Base Costs	**36,907**	**14,832**	**51,739**
Physical Contingencies	1,845	742	2,587
Price Contingencies	6,838	766	7,604
Total Project Costs	**45,590**	**16,340**	**61,930**

Annex 4
Safe Motherhood Project: A Partnership and Family Approach

Economic Analysis

1. The economic analysis presented in this annex covers following topics: (i) linkage to the CAS; (ii) benefits; (iii) rationale for public sector investment in safe motherhood/maternal health services; (iv) constraints facing a government response to safe motherhood/maternal health issues; (v) analysis of alternatives; (vi) cost-effectiveness analysis; (vii) fiscal impact and sustainability; (viii) impact on the health system; (ix) institutional assessment; (x) poverty assessment; and (xi) performance indicators.

I. Linkage to CAS

2. The project is consistent with the Bank's Country Assistance Strategy (CAS) (13988-IND dated February 27, 1995 and updated on June 4, 1996). The CAS stresses the key themes of human resource development, improving quality of services, and promoting poverty reduction by increasing access to basic services and enhancing sustainability. This project will:

- improve health services, especially for the poor. Improved maternal health will have a positive impact on the overall health of women and their families and thus have a significant impact on human resource development in the country. Special emphasis is placed in the project design on increasing access to and use of maternal health services by the poor.
- improve quality of services. The project emphasizes local specificity in project design, improving the skills of the relevant providers, especially BDDs, and strengthening the quality of maternal health services at the village level.
- enhance sustainability. Through a series of well designed pilot efforts, strategies to enhance sustainability of maternal health services will be developed, tested and implemented through the project.

II. Benefits

3. The Burden of Disease (BOD) due to maternal and reproductive causes is considerable, especially in women of reproductive age. The estimated BOD for these causes in women 15-44 years in the "Other Asia and Islands" region (of which Indonesia is the most populous member) is shown in Table 1. Approximately one-third of the total disease burden of women in this age group (measured in Disability Adjusted Life Years or DALYs) is due to maternal and reproductive causes. Of the burden due to reproductive and maternal causes, two-thirds are due to disability and one-third to death. Whilst these data are indicative of the situation in the region as a whole, the higher maternal mortality in Indonesia compared to the rest of the region suggests that burden due to maternal and reproductive causes may also be higher.

4. This high burden of disease due to maternal and reproductive causes underpins the entry point of this project, which is that the consumption of safe motherhood and reproductive health services in Indonesia are less than socially optimal. It also provide a gross estimate of the potential for benefits to be derived from a project which aims to improve maternal and reproductive health. Many of these benefits are private

Table 1. Burden of Disease due to Selected Maternal and Reproductive Health Conditions Other Asia and Islands Region - Females 15-44 Years

Condition	DALYS due to Disability	DALYS due to Death	TOTAL DALYS	% Due to Disability
I. STDs	1,241	10	1,251	99%
II. Maternal Conditions	2,378	1,855	4,233	56%
III. Tetanus	0	19	19	0%
IV. Anemia	7,34	72	806	91%
V. Cervical Cancer	29	1,29	158	18%
VI. Breast Cancer	20	1,34	154	13%
VII. Uterus/Ovary	9	82	91	10%
Total	4,411	2,301	6,712	*66%*
All Causes	**12,570**	**10,096**	**22,666**	

Murray & Lopez, WHO, 1994

Table 2. Illustrative estimation of rate of returns based on selected interventions over a 30 years period - Indonesia

Assumptions	Maternal deaths averted	Anemia		Rate of return
		Coverage	*Prob. of retaining non-anemic status*	
Model 1	40%	50%	25%	*15%*
Model 2	*65%*	50%	25%	*17%*
Model 3	*20%*	50%	25%	*14%*
Model 4	40%	*60%*	25%	*17%*
Model 5	40%	*70%*	25%	*19%*
Model 6	40%	50%	*15%*	*11%*
Model 7	40%	50%	*35%*	*19%*

These figures were calculated based on the following assumptions:
-The project will be implemented for five years;
-The project will cover 10 districts in the first 2 years of the project with a total population size of 7 million
-The CBR is about 20 per 1000 population through out the project implementation period;
-Maternal mortality rate is about 390 per 100,000 live births
-Interventions to reduce maternal mortality can achieve up to 67% decrease in maternal deaths (results from the Matlab);
-Children born to mothers who suffer a maternal deaths have a 70% chance of dying in the first 2 years of life;
-Prevalence of anemia among WRAG is 65% & efficacy of anemia control program is about 80%;
-The wage rate is the average rural wage rate for females;
-About 80% of total project cost was considered in the calculations (that is likely to be an overestimate) and they are spread according to the project disbursement estimates over the five years of implementation;
-Controlling anemia is likely to result in a 1% increase in productivity (a likely underestimate).
-Probability of survival over a 30 year period for the age group 25-34 years is 0.875 and from birth to age 30 is 0.862 (based on the life table estimates).

and accrue to the women themselves. In addition, improved maternal and reproductive health has considerable externalities through benefits to their families of the women concerned, and to their immediate communities. There are also broader public benefits from decreased maternal mortality and improved reproductive health.

5. There are direct private benefits to the individual woman as a result of improved health (averted mortality and morbidity) which, apart form improved well-being, may also result in improved income in cash and in kind. A reduction in anemia, for which the prevalence rates among women of childbearing age in Indonesia is high (65 percent), improves productivity. Similar gains can be expected from control of other highly prevalent reproduction-related infections.

6. In addition, it is primarily mothers who care for, nourish and teach young children at home. They are often responsible for the care of other members of the family as well. Most women of childbearing age also help support the family through production of subsistence or cash crops or other remunerative work, such as in service occupations and small scale industry. The loss of a mother, or a decrease in her caring ability through morbidity, mean a loss of income and care for the whole family.

7. For example, studies in other countries have shown that the survival prospects of children of women who die are greatly decreased. Thus, in Bangladesh the probability of a child dying within 2 years after their mother's death depended on the age of the child at the time their mother died. For neonates the probability of dying within 2 years was 0.7, for those between 1-12 months it was 0.3 and for those 1-4 years old at the time the probability of dying the next 2 years was approximately 0.05. There are no similar data of Indonesia but the probability of dying and the trend with age are likely to be similar. Conversely, the survival prospects of children of healthier mothers are increased in both direct and indirect ways. Better nourished and healthier mothers are less likely to have low birthweight babies. The offspring of mothers who are not anemic are less likely to be anemic. Control of malaria during pregnancy increases birthweight. Protecting the mother against tetanus also confers protection on the unborn infant. Overall, improved maternal survival and reduced morbidity improves child health as well.

8. There are similar benefits to be gained from raising the quality of family planning services. Improved quality of family planing services will reduce the level of morbidity from the various contraceptive methods themselves as well as reducing the likelihood of unwanted pregnancies and the associated risk of maternal mortality. Improved child spacing results in healthier mothers and children.

9. Educating and counseling of adolescents in reproductive health issues can be expected to reduce the level of morbidity and mortality resulting from reproduction in the adolescent period and in later life as well. Adolescents who become pregnant have much higher levels of maternal mortality and morbidity than women in their 20s. They are frequently ill-prepared for parenting with the result that their children also have a higher risk of morbidity and mortality. Teenage pregnancy is often a cause for leaving school and/or for seeking unsafe abortion. Young people usually account for a high proportion of STD infections, including HIV. Thus, specific benefits to be realized from education and counseling of adolescents in reproductive health include a delay in the age at first birth; reduction in maternal morbidity and mortality; increased probability of school continuation; improved parenting ability; a decreased need for, and negative consequences of; unsafe abortion; and reduced incidence of STDs and HIV.

10. In addition, this project will pilot schemes for improving the attractiveness and sustainability of employment as a BDD. More sustainable long term incomes will have considerable private benefits for the BDDs included in the scheme and for the health of the village populations they serve.

11. The public benefits from this project are also considerable. They derive from reduced costs of medical and custodial care, the decreased costs to society of care of the children of mothers who have died, and increased retention of girls in school. Finally, a substantial share of the project's costs involve investments in developing training materials and systems which will be applied to other areas of the country at much lower cost. Should the

pilot scheme for improving the sustainablity of the BDD be successful it will result in reduced cost to the public purse for this category of health worker.

12. Thus, overall, there are considerable public and private benefits to be expected from this project. In principle, translation of these effects into benefits to which can be assigned monetary values would allow comparison with the costs of the intervention. Unfortunately, the lack of field trials that quantify the various benefits limits the application of cost-benefit analysis. However, some illustrative calculations for Indonesia (using estimates indicators from the project areas) based on the effect of reduced maternal and neonatal mortality and control of anemia have been made. Under assumptions that two-fifths of the maternal deaths, and 70 percent of the neonatal deaths associated with them, will be averted and modest assumptions about the success of the anemia control efforts, the IRR is 17 percent. Because the number of maternal and neonatal deaths involved is small and the prevalence of anemia in women of childbearing age high (65 percent), this estimate is insensitive to assumptions about the effect on deaths and sensitive to assumption about the coverage, efficacy and long-term effect on anemia. Under a range of assumptions about these effects (see Table 2) the IRR varies between 12 percent and 20 percent.

13. However, as indicated above, the overall benefits from this project reach far beyond the reduction in maternal mortality and anemia control. They include a range of other private and public benefits and significant externalities. Overall, it is clear that the benefits of this project would considerably exceed the cost.

III. Why should the public sector invest in safe motherhood/maternal health services?

14. The main reasons why Government should consider investing in this project relate to overcoming market failures and poverty alleviation.

15. The first type of market failure relates to the uncertainty and incomplete information regarding maternal health issues[2]. The private market is not providing and is not likely to provide the needed information. The main reason for the failure to provide information relates mainly to the nature of maternal deaths that, despite the high rates in Indonesia, remains a rare event. An example is helpful to illustrate the problem. In a typical Javanese district, a village of average size (3,000 inhabitants) would experience, on average, a maternal death once every five years. Thus, it is not possible for the average family or community to develop a formative track record based on which they can make informed decisions. In addition, the etiology of maternal health conditions leading to a maternal health complex and does not lend itself to a simple cause/effect relationship. Added to these two factors is the relatively recent experience of many rural areas in Indonesia with tertiary health care -- it is only in the last two decades that hospital care has become accessible to the majority of the rural population. As a result of the complexity, limited number of deaths observed in any particular community, and the recent (and not always positive) experience with the tertiary health care, normative patters of behavior that can lead to optimal choices by the consumers have not emerged and traditional norms still prevail. Finally, it is important to note that overcoming this constraint requires an understanding of the social, cultural and economic factors as well as the health situation. Otherwise, the isolation of pregnancy and delivery care from the modern health system will persist.

16. The second type of market failure relates to the private sector. The private providers who perceive maternal deaths and obstetric emergencies as rare events "fail" to invest in the skills and/or equipment needed for the delivery

[2] Providing more information and educaitng familie and communitites about mtrernal and reproductive health issues is likely to change their consumption patters. In fact, data on patterns of utilization of safe motherhood services from the 1993 IFLS and 1994 IDHS show that educated women exhibit very different patterns of utilization from those of uneducated women. For example, data from the 1993 IFLS indicate that 85 percent of women without any education had their births attended by a traditional birth attendant, compared to only 18 percent of women who had completed middle school (Serrato and Melnick, 1995). These marked differentials are in contrast to the situation in family planning where, for example, data from the 1994 DHS indicate that 83 percent of women without any schooling know at least one modern method and where to obtain it (Central Bureau of Statistics, 1995).

of emergency care. So, the perception that maternal obstetric emergencies are not sufficiently remunerative is a disincentive for the private sector to provide such service except in large settings where the case load might justify the investment. These are likely to be in urban areas and less likely to be available in remote areas or to the poor.

17. A third type of market failure that affects maternal health services relates to failure of the rural insurance systems. Recent studies in Indonesia point to the high cost of emergency care at the hospital as a major constraint to utilization of these services by women when an emergency occurs[3]. When families are faced with such emergency cases, the decision to refer women to emergency care is often delayed or not taken due to the high cost, as well as perceived low quality, of care. As a result, valuable time is wasted while such a decision is being made and, in many cases, even if the woman is referred to the hospital, it may be too late. This price constraint affects all but the richest families, but is most likely to impinge on poor women for whom the Rp 350,000 average cost of a delivery at the district hospital represents a significant amount of household income. Thus, there is need to provide access to alternative insurance mechanisms.

18. Poverty alleviation itself is another important consideration bearing on possible government intervention. Even if the above market failure did not exist, governments may wish to ensure that such services are provided to the poor - such a decision has been taken in Indonesia. In the current system, there are few incentives for staff to provide services to the poor. Poor women are at a higher risk of suffering from a maternal death and are less likely to be able pay for the high costs of hospital care in cases of medical emergencies. Further, maternal death, a tragedy in itself, is likely to have more pronounced welfare effects on poor families.

19. Despite the above rationale, market failure per se is not necessarily a sufficient reason for either government intervention or ignoring economic analysis. Market failure and welfare loss occur and together may create a clear gap that should be addressed. However, the constraints facing government need to be examined as well, along with alternatives for addressing different constraints in a way that maximizes the success of the investment. The next section examines issues related to government constraints.

IV. What are the constraints facing a government response to safe motherhood/maternal health issues?

20. The Government of Indonesia has recognized the problem of poor maternal health and high maternal mortality and has used several initiatives to address these issues. However, these measures have met with only limited success, and experience points to a number of key lessons regarding government involvement in further efforts.

21. Previous safe motherhood initiatives in the 1980s included training of traditional birth attendants and establishment of maternity huts, neither of which achieved the desired results. More recently, GOI embarked on a large new initiative -- the village midwife program -- to place a midwife in each village. This program was the GOI's response to some recognized failures in the system, including lack of access to maternal health services at the village level and the high cost of tertiary care.

22. However, the effectiveness of the midwives who have been placed in the villages has also been limited. Demand for their services at deliveries at the village level is low and little effort has been made to increase it. BDDs are not well trained and their credibility as health providers was frequently questioned. In addition, the financial sustainability of this new cadre of health workers is not clear - BDDs have been placed on 3 year

[3] According to one recent survey of 236 village midwives in 18 districts of Central Java 54 percent of obstetric cases referred to a Hospital refused to go, with 81 percent of them citing insufficient money as the reason for their refusal (Satoto et al, "Final report: Research on the Implementation of the Role of Village Midwives in MCH services in Central Java," Diponegoro University, Semarang, 1995.

government contracts (with possible extension to 6) in the expectation that they would become private practitioners when their contracts finished but many villages are too small and/or too poor to sustain a midwife in private practice. Many remote villages are unattractive to the midwives who are likely to leave once their contract finishes. Further, the current system did not provide the incentives for midwives to provide public goods (such as immunizations), or to provide service to the poor. None of these challenges were addressed by the current system or its contractual arrangements with BDDs.

23. At present, GOI has trained more the 55,000 BDDs and by the end of 1997 all should be posted in villages. The first cohort is about to graduate from their PTT contract. However, while, for the reasons outlined above, there are serious doubts about the sustainability of the program in its current format, and no alternatives to ensure the delivery of safe motherhood services have been explored and tested.

24. In addition, there have been only limited attempts to address the low demand for maternal health services or to reduce the financial constraints facing families, especially the poor when seeking emergency obstetric care. The larger supply-driven approach to the maternal health problem and the weakness of the MOH in addressing demand side constraints have contributed to these limited effects.

25. It is also important to address some of the institutional constraints to the government response. MOH controls the large network of public facilitates, trains and deploys midwives and sets related health policies. However, delivery of public services is inefficient and quality is low. Further, although MOH has community participation and health education units, their success in generating demand for health services or providing information to the public has been very limited. At the same time, MOH has been slow to exploit use of the private sector to deliver services. On the other hand, BKKBN has been a very successful agency at community mobilization and demand generation for family planning services.

26. In conclusion, the experience to date with safe motherhood initiatives and with other health sector programs points to a number of issues that affect the Government's effectiveness in responding to maternal health needs and the market failures outlined in the pervious section. These include:

- inadequate capacity of government to deploy and supervise a large field staff of public providers, including the BDDs;
- an incentive structure for government staff which fails to promote improved quality;
- MOH's inability thus far to explore, evaluate and complement alternatives to the current contracting scheme for BDD;
- a lack of insurance scheme or similar protective schemes for rare and catastrophic events for the vast majority of the rural population;
- priority by BKKBN, in its drive for results, that favors quantity over quality.

27. In light of this assessment of government constraints and experience to date in Indonesia, discussion now turns to exploration of the alternatives for delivery of safe motherhood services considered by the project and the rationale for choices made during project preparation.

V. Analysis of alternatives

28. During project identification and preparation, the GOI and Bank preparation teams evaluated a number of different opportunities to address the underconsumption of maternal health and safe motherhood services.

29. Strategic Directions. The main strategic choices considered in designing the project were: (a) continuing the current approach adopted by government; (b) emphasizing supply side interventions, with MOH; (c) focusing

mostly on demand side interventions, with BKKBN; and (d) working on both supply and demand side interventions with both ministries and stressing coordination between the two.

30. The current approach is essentially based on the supply of maternal health services which is the responsibility of MOH. This involves the provision of services through hospitals, health centers (and sub centers) and, the recently deployed BDDs. The current outputs and outcomes of this approach are not satisfactory -- a high proportion of deliveries are still not supervised by trained health personnel and maternal mortality remains significantly higher than in other similar countries in the region. What are the likely implications of continuing with the current approach in the short- to medium- term? First, with no clarity about their future, limited demand for their services and limited clinical skills, a significant proportion of the BDDs are likely to leave the village at the end of their contract. Moreover, the BDDs placed in remote and poor villages are more likely to leave than those in less remote and larger villages. Moreover, even if all BDDs stay in the villages, if the demand side issues are not addressed, the effectiveness of supply-side support are likely to be minimal. Finally, none of the current activities is addressing the financial constraints that the poor face for obstetric emergency care. Thus, this approach is likely to be a costly but not very effective option for the government to adopt.

31. The second alternative that was considered by the project was to assist only MOH, mostly on supply side interventions. Such a strategic choice would support the school of thought claiming that for safe motherhood and maternal health, the focus has to be on the supply of maternal health services, in general, and on emergency care, in particular. This would also be an extension and intensification of the current approach. However, as has been demonstrated in the MotherCare I pilots in Indonesia, demand factors are critical in the Indonesia context and supply driven approaches are likely to fail in improving the consumption for safe motherhood services. In fact, the 1994 DHS results show that 70 percent of all women and 83 percent of rural women still deliver at home. Thus, unless the project reaches these women and their families, it is not likely to change their consumption patterns. Therefore, the focus on the supply side constraints alone was rejected as a strategic alternative for the project.

32. The other route that the project could have taken was to support BKKBN, mainly on demand generation with the expectation that the private sector will respond to the demand-side activities and provide the needed services. There were several reasons for rejecting this approach. First, given the market failure outlined above (Section III), the private market was not likely to respond to emergency needs. Second, while there may be adequate incentives for the private sector to provide some maternal health services (especially those that are not rare and expensive to maintain), however, this is not a viable option in isolated areas and does not ensure service availability to the poor. Third, if a minimum set of services is not in place, attempts to create demand may have a negative effect on utilization. In addition, working solely with BKKBN would have no effect on the supply side market failures that were affecting consumption of maternal health services.

33. The reality is further improvement in safe motherhood in Indonesia requires a coordinated approach which responds to both supply and demand factors. This will require further attention to improving supply, particularly the skills and sustainability of the BDD and a stronger focus on the reasons for the current lack of demand. Given the current institutions, this can only be done through both MOH and BKKBN, building on their respective strengths and putting in place mechanisms which maximize coordination between them. Thus, the main alternative considered was the one adopted in the project - an approach which provides the basis for a partnership between the two ministries to deliver a project in which supply and demand are coordinated. The supply side interventions will concentrate on piloting measures designed to promote the sustainability of BDDs through emphasis on their role as a private practice provider of safe motherhood services as well as improved quality of services. The demand side interventions will concentrate on providing more information at the village level about the risks of maternal morbidity and mortality and the importance of referral plans to allow timely access to obstetric services in cases of emergency. Finally, this alternative will also place emphasis on adolescents in order to educate them about parenthood, their own role and the role of the health services in ensuring safe deliveries.

34. These four approaches are compared below on various critical variables.

Variable	Current approach	Demand/ BKKBN	Supply/ MOH	Project/ Partnership
Village level MH services (BDDs)				
clinical skills	no change	no change	improved	improved
sustainability	no change	no change	no change	improved
private practice	no change	slight increase	no change	increased
Access to referrals	no change	no change	improved	improved
Targeted to the poor	No	No	No	Yes
Demand generation	minimal, uncoordinated	minimal, uncoordinated	minimal, uncoordinated	increased, coordinated
Price constraints to Obstetric emergency care	not included	not included	not included	included
Adolescent reproductive health	not included	partially included	not included	included
Consumption of maternal health services	inadequate	small increase	small increase	increased
Maternal morbidity	no change	small improvement	small improvement	significant improvement
Maternal mortality	no change	no change	small improvement	significant improvement
Fiscal impact	increased	increased	increased	slight increase
sustainability	Low	Low	Low	Medium
Coordination efforts	minimal	minimal	minimal	increased
Overall risk rating	Low	Low	Low	Moderate

VI. Cost Effectiveness Analysis

35. Cost effectiveness analysis, ideally, would be applied to the different alternatives considered for each of the project components and would form a part of the information on which a choice of intervention was made. However, there have been few cost effectiveness analyses of safe motherhood interventions and their individual components. That is largely due to the difficulty in measuring the impact of interventions on a relatively rare event such as maternal mortality. Moreover, many of the individual interventions have only recently been adopted on a wide scale. Thus, there has not been adequate time for long term evaluation of their effectiveness, e.g., adolescents' reproductive health programs. In addition, many of the innovations and activities involved are new, tailored to the Indonesian situation and will be initially implemented on a pilot basis, e.g., TPC contracts for midwives. Therefore, the traditional cost-effectiveness analysis cannot be carried out for this project. In fact, the project is expected to add to the international lessons learned about maternal health and safe motherhood interventions.

36. Against this background, and given the measurement problems associated with mortality and the lack of data to estimate outcome measures ranging across interventions, e.g., DALYs for the project areas, the analysis will focus on pregnancy as the outcome variable. The proportion of adequately supervised deliveries is used as the outcome measure. This measure is highly correlated with the expected project benefits, is relatively easy to measure and can be easily interpreted by staff at the different levels. Table 3 presents a summary of four scenarios (corresponding to the project alternatives noted above) for a hypothetical population of 1 million people, with health indicators similar to those of Indonesia. Cost data were derived from a recent study on costing of safe motherhood activities in East Java. The incremental cost of the project activities was estimated to be 70 percent of the provincial level interventions for the different categories of the project (assuming that 30 percent were start-up costs). The table shows that the project approach is likely to increase the total effectiveness of the services (as measured by percent increase in supervised deliveries) at a lower unit cost than all other alternatives. It also shows that choosing a demand-side only approach would have increased both the coverage and unit cost as compared with the current model. Similarly, the supply side only option would also increase coverage and unit cost. It should be noted that in

all options, the use of the referral services was kept low. If the supply side model placed more emphasis on the use of referral services, that is likely to increase the cost significantly.

VII. Fiscal Impact and Sustainability

37. A major component of the project is designed to test alternative approaches to promoting the financial sustainability of BDDs. The salaries of the BDD currently absorb about one-third of the MOH personnel budget. The project will pilot a new type of contract Targeted Performance-based Contracts (TPC) for the BDD which, if successful, can significantly reduce the recurrent cost burden of the BDD immediately. TPCs are expected to save the MOH a substantial amount of money over time. With the TPC the BDD are paid to provide a limited range of "public good" services (e.g., health education) to the entire village together with a supplementary package of basic health services to the poor. The annual cost of a TPC is estimated to be approximately 67 percent of a regular BDD salary. At a monthly salary of 250,000 Rupiah (the salary paid to most BDD in the two project provinces), the estimated annual savings would be $430 per BDD.[4]

38. It should be noted that some of the benefits provided to BDDs in the pilot are not expected to be provided to other BDDs in an expanded TPC program. The purpose of these substantial benefits is to maintain the morale of BDD in the pilot compared to those not in the pilot, who will be receiving ordinary contract extensions. However, limited additional investment by the government would be required even in an expanded program to retain the BDD in the villages and to establish them as successful private providers. The total government investment cost of converting one BDDs into a private provider is estimated to be $1,351. Based on the estimated annual savings to the government from the TPC, it would take 3.1 years for the government to recoup these investments (assuming an average monthly BDD salary of 250,000 Rupiah). Over a 10-year period, this would correspond to an internal rate of return of 45 percent.

39. In addition, by targeting most MOH payments to the BDD for services provided to the poor, the TPC should also lead to reductions in MOH's recurrent expenditures over time, as the proportion of the population who are poor continues to decline with future development. Accordingly, the TPC provides an "exit strategy" for MOH's support to the BDD, who will be assisted to become (eventually) self-sustaining private providers.

40. Another major component of the project (i.e., the financing of referral services) substitutes demand-side financing for supply-side financing of emergency obstetric services. Because government subsidies for this social financing scheme are limited to the poor, the recurrent cost burden of this major project activity will also decline over time, as the proportion of the population requiring such assistance diminishes. The use of demand-side financing of obstetric emergency services is also consistent with the trend toward self-financing hospitals (unit swadana), which is a potentially important aspect of the health sector's overall sustainability.

41. The financing of referral services is expected to cost less than $0.50 per capita[5] (including administrative costs). If expanded to cover the entire rural population, it would cost an estimated $64 million per year (assuming that the rural population constitute 64 percent of the total), a substantial outlay. However, not all of the cost of expanding the program has to be borne by the government. The cost of providing coverage to the non-poor could be borne by private contributions at the village level, along with perhaps half the cost of providing coverage to the poor. If the poor constitute approximately half the population, this implies that the cost would only be about $16 million, or 1.3 percent of the 1997/98 health budget.

[4] The amount of potential savings depends directly on the actual level of BDD salaries. For example, at an average monthly salary of 450,000 Rupiah (i.e., the amount paid to BDD who work in remote villages), the estimated annual savings would be $775.

[5] This is likely to be an overestamte. However, for the purposeof this analysis, it is best to take a more conservative estiamte.

Table 3. Illustrative effects of different alternatives on the management of pregnancies in a hypothetical population of 1 million, with comparable indicators to Indonesia

Indicator	As usual	Demand -side efforts	Supply side-efforts	Project approach (S & D)
Population	1000000	1000000	1000000	1000000
Pregnant women	26667	26667	26667	26667
Maternal mortality ratio	0.0039	0.0039	0.0039	0.0039
Maternal deaths	78	78	78	78
Maternal complications	1248	1248	1248	1248
Neonatal deaths	390	390	390	390
Referral needs	2667	2667	2667	2667
Attendance at delivery				
Home - no health provider	72%	60%	60%	30%
Home - MW	18%	30%	28%	58%
Polindes	2%	2%	2%	2%
Hospital	5%	5%	7%	7%
HC/clinic	3%	3%	3%	3%
Total	100%	100%	100%	100%
# of "supervised" deliveries	7467	10667	10667	18667
% increase in "supervised" deliveries	ref.	43%	43%	150%
Estimated cost (Rupiah)	498666667	546666667	586666667	706666667
Costs per intervention	0	369669120	236020960	494789344
Total cost	498666667	916335787	822687627	1201456011
Cost per Supervised pregnancy (Rp)	66786	85906	77127	64364
Cost per Supervised pregnancy (US$)	28.4	36.6	32.8	27.4

Assumptions:

a/ Attendance at delivery data is based on the 1994 DHS results for rural Indonesia
b/ MMR and NM are based on the 1994 DHS results
c/ Referral needs are estimated at 10% of total pregnancies
d/ Estimated costs were base don the results of the study by Rochjati et.al. (1996).
e/ The average unit costs are: Home (TBA) = Rp 10,000; home with MW = Rp 25,000; Polindes = Rp 40,000; Health center/clinic = Rp 40,000; hospital = Rp 100,000
f/ The costs include:
direct costs (including technical guidance, counseling, house visits, referrals, care; medical care);
indirect costs (training, supervision, meeting, administration, consultation),
capital and recurrent costs (drugs, nursing, OM, medical supplies, stationary, public utilities, permanent depreciation, fuel)
g/ Additional incremental cost =70% of the total cost for the respective project components

42. Although some of the project's interventions are designed to promote overall health sector sustainability, other interventions (e.g., training) will clearly impose additional recurrent cost burdens on MOH and BKKBN's budgets as they are expanded to cover the entire country. These additional costs are necessary in order to improve the quality of maternal health and family planning services in the public sector. It is estimated that it would cost approximately $0.30 per capita (701 Rupiah) to reduce the maternal mortality ratio from 425 to 225 per 100,000 live births.[6] Although such an expenditure would be equal to 6.6 percent of total government health expenditures in 1994/95, it would be expected to be phased in over a period of five years or more. During this time, government health expenditures are projected to grow at a rate of 6-10 percent. Accordingly, the total cost of a safe motherhood program could be covered by the annual growth in the MOH budget for only one year. Given the recent strong commitment of the government to safe motherhood, such a recurrent cost burden should not be a problem.

VIII. Impact on the Health System

43. The project is likely to affect both public and private sector providers of safe motherhood and family planning services. Public sector providers/facilities include BDDs, health centers and sub-centers (puskesmas, pustu) and district hospitals. Private sector providers include traditional birth attendants (dukun bayi), private doctors, midwives, and nurses, and private hospitals. Most private doctors, nurses, and midwives divide their time between public sector work in the morning and early afternoon and private practices in the late afternoon and evening. This dual identity of public and private providers complicates an analysis of the impact of the project on the health system.

The project interventions most likely to affect public and private providers include:

- supply-side interventions designed to improve the quality of public sector services;
- interventions designed to transform the village midwives into sustainable private sector providers; and
- establishment of province-level financing scheme for emergency obstetric care.

44. Supply-side interventions include training and, in some cases, equipping public sector providers to improve the quality of their services. In a typical setting, one would expect such interventions to increase the demand for public sector services at the expense of private sector services. However, in the case of training, the dual identity of public and private providers means that the quality of private services would be expected to increase to the same extent, so that both public and private providers would benefit to the same extent (probably at the expense of traditional birth attendants and private hospitals). In the case of other supply-side interventions (e.g., purchases of equipment for health centers, increased availability of medicines and supplies), one would expect increases in demand to benefit public facilities only (in the absence of providers transferring such items to their private practices).

45. Interventions designed to transform the village midwives into sustainable private sector providers could be expected to effect a number of other providers, both public and private. This is particularly true if, in the absence of such interventions, midwives would no longer be posted at the village level. Undoubtedly, the health provider most affected by the presence of a village midwife is the traditional birth attendant (TBA), with whom she most directly competes. Although BDD have in many cases developed cooperative working relationships with the TBA, which

[6] This is a conservatively high estimate of the recurrent cost burden to MOH that is based on the results of the Rochjati et. al. (1996) results. It is likely that with the introduction of the TPC and social financing interventions discussed above, a significant share of the projected costs would be covered by private household expenditures. For example, if the TPC is able to reduce the MOH expenditure per BDD by an average of 33 percent, this would save approximately $.10 per capita in the MOH budget; and the savings would increase over time as the proportion of the poor continued to decline. The social financing scheme would have the potential or mobilizing additional private resources.

include training and supervision, the income earned by the TBA could be adversely affected by the presence of the BDD. The presence of the BDD also adversely affects competing village-level suppliers of family planning. Other public and private providers of safe motherhood and family planning services are also probably adversely affected by the presence of the BDD (e.g., puskesmas, pustu, private doctors, midwives, and nurses); but the effect on providers outside the village is unlikely to be large. The BDD probably increase the demand for both public and private hospital services, through increased referrals. It is also important to note that their curative care activities also probably adversely affect the demand for competing public and private providers (i.e., puskesmas, pustu, private doctors and nurses, pharmacies).[7]

46. Province-level funds to finance referrals can be expected to significantly increase utilization and revenues of both public and private hospitals (assuming both types of hospitals are eligible for reimbursement by the fund). They are also likely to have a positive effect on the demand for the services of modern providers (i.e., relative to traditional birth attendants), if referrals are necessary in order to obtain reimbursement from the fund.

47. In summary, due to the dual nature of public and private providers in Indonesia, the project is unlikely to benefit the public sector significantly at the expense of the private sector. However, the demand for the services of traditional birth attendants is likely to be adversely affected by all three categories of intervention.

IX. Institutional Assessment

48. Different agencies will be responsible for the inputs needed to produce intended project outputs and outcomes. These include: BKKBN, MOH, MOEC and local government. The following is a brief assessment of the main executing agencies.

- BKKBN has been internationally recognized for its management capacity and ability to carry out community mobilization and IEC activities. Over the past two decades, BKKBN has established a strong IEC network that extended from the central to the village level. This network is supported by strong management system at all levels. BKKBN has also been successful in working with other partners for community mobilization, especially religious and community leaders as well as selected NGOs. Recently, BKKBN has expanded its mandate to include family welfare activities. The family welfare component of BKKBN's activities has witnessed significant growth during the last 3 years. The nature of the impact of this expansion on BKKBN's implementation capacity, especially of family planning and demand campaigns for reproductive health services, is not clear but is a risk that should be considered in this project. Moreover, BKKBN, until recently, had little experience with reproductive health issues other than family planning. Thus their capacity for providing the needed technical guidance for the program is limited.
- MOH controls a large network of public health facilities --at the village, sub-district, district and provincial levels. These facilities are physically accessible to a large segment of the population. However, services provided through this network suffer from poor quality and inefficiencies in resource allocations. This is partly the result of the difficulties facing health providers in the field to deliver vertically driven programs in a manner that fits local needs and conditions with a little flexibility in resource allocations and inadequate data for monitoring of program performance.
- MOEC and the large network of schools that it oversees are an important vehicle for reaching the youth and for providing educational materials. Utilizing MOEC machinery to delivery health education has been perceived as a cost-effective tool for providing health education. However, although the population education programs were very successful, the effectiveness of the school health program is not yet clear. An institutional risk relates to

[7] In the case of pharmacies, however, the effect of the BDD is unlikely to be significant, since they often purchase drugs and contraceptives directly from private pharmacies for use in their practices.

the ability of the organizations to select and train teachers to deliver the sensitive information of reproductive health issues.

- Local government. Local government involvement is an important factor for the log term sustainability of the project. The local government has played an important role in terms of coordinating other multi-sectoral programs, especially through the Bappeda (levels I & II). The effectiveness of this role depends largely on the Bappeda and how effective they are in playing the coordination role.

49. Based on the institutional assessment, the project has adopted a partnership approach in order to build on the strengthen and weakness of the different agencies to address the different downfalls of the different agencies. This, however, needs to be accompanied by very clear (and as simple as possible) mechanisms for project management and fund channeling.

XI. Poverty Assessment

50. Low consumption of reproductive health services is most marked amongst the lower income groups. Poor women make less use of midwives at delivery and their access to referral services during obstetric emergencies is limited by cost. In a similar manner, adolescents from poor rural families also have less access to reproductive health information.

51. The project has an explicit emphasis on the poor and those in isolated areas through such interventions as the BDDs and the referral fund, which aims to remove a barrier to use of referral facilities for obstetric emergency cases. In addition, the proposed pilot of new conditions for BDDs will result in better targeting of government subsidies to the poor and ensure that reproductive health services are more likely to be available to the poor and/or more remote villages.

52. Overall, the project is expected to have a strong positive effect on utilization of reproductive health services and maternal health status amongst the poor.

XII. Performance Indicators

53. Key performance indicators, together with the sources of information and target levels, for the project development objectives, outputs, and each component are described in Annex 1.

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Appendix 1

Analysis of Unit Costs for Reducing Maternal Mortality

In general, the data base on unit costs for reducing maternal mortality is relatively limited. Only a handful of studies report on cost per death averted for different interventions and countries. Although the data is limited, it is useful to compare unit costs in Indonesia to those reported in other studies and countries.

The Matlab study. The only carefully designed study of the impact of safe motherhood interventions in a developing country similar to the BDD program was conducted as part of the Matlab experiment in Bangladesh, in which trained midwives were posted in villages and referred clients to a central maternity clinic whose services were improved as part of the intervention[8] That study found that the intervention was associated with a 68 percent decrease in maternal mortality in the intervention area compared to the "control" area (Faveau, et.al. 1991). The cost per maternal and neonatal death in the Matlab study was estimated to be $2,158 (Attanayake et. al., 1991).

Simulation studies. Other available cost effectiveness studies (e.g., Walsh, et. al., 1993; Tinker and Koblinsky, 1993) involve simulation studies in which hypothetical costs of safe motherhood interventions are compared to hypothetical impacts in terms of reduced maternal and perinatal mortality. The first of these two studies simulates the effects of a safe motherhood program in different settings. In the model closest to the Indonesian situation, the cost per maternal and perinatal death averted was estimated to range from $1,975 to $3,967.[9] In the second study (Tinker and Koblinsky), the estimated cost per maternal and prenatal death averted ranging from $995 to $3,142. The estimates of cost per averted maternal death (i.e., not including perinatal deaths averted range from $6,966 to $21,994, depending on the types of interventions and the setting into which they were introduced.

Simulation studies - Indonesia. In Indonesia, a study by Rochjati et al. (1996) on costing of safe motherhood interventions included a cost analysis of a model of prevention of maternal deaths from obstetric complications utilized a simulation model to estimate the additional cost required to reduce the maternal mortality ratio from 425 to 225 per 100,000 pregnancies. The study estimates that an additional 28,040 Rupiah (US$ 8.8) per pregnancy would be required in additional medicines and supplies to implement an ideal package of emergency obstetric interventions at each level of facility. This corresponds to an estimated cost per maternal death prevented of 14,020,000 Rupiah ($6,096).

Implications for the project. The above studies clearly indicate that cost data from Indonesia are within the expected ranges. They also show that the approach that village midwives approach is likely to be cost effective. Moreover, given that the project interventions are likely to introduce efficiency gains to the health care delivery system and that the costs needed for maternal mortality reduction will not be totally born by the government, it is likely that the project approach will yield estimates that are lower than those reported by Roshjati et.al. for Indonesia.

[8] Another experimental study, conducted in The Gambia (Fox-Rushby and Foord, 1996), obtained estimates ranging from $459 to $2,134 per death averted. However, the observed declines in maternal and neonatal deaths were not statistically significant in this study.

[9] the study estimates that a program with costs of $0.48 per capita would reduce maternal mortality by 25-50 percent, the incidence of low-birth-weight babies would decrease from 8 percent to 7-7.5 percent, and perinatal mortality would decrease by from 12.5-25 percent.

Annex 5

Safe Motherhood Project: A Partnership and Family Approach

Financial Summary

Years Ending June 30
(US$ Million, 1997 Base Year)

	Implementation Period				
	1998	1999	2000	2001	2002
Project Costs					
Investment Costs	5.0	10.8	14.7	13.3	10.8
Recurrent Costs	1.0	1.7	1.3	1.6	1.7
Total	6.0	12.5	16.0	14.9	12.5
Financing Sources (% of total project costs)					
IBRD/IDA	4.0	8.5	11.0	10.5	8.5
Government	2.0	4.0	5.0	4.4	4.0
Total	6.0	12.5	16.0	14.9	12.5

Annex 6
Safe Motherhood Project: A Partnership and Family Approach

Procurement and Disbursement Arrangements

Procurement

The Loan proceeds will be used to finance procurement of goods and services. Procurement under the project will follow World Bank guidelines on procurement of goods and services -- *Guidelines: Procurement under IBRD Loans and IDA Credits, dated January 1995 and revised in January and August 1996 (Procurement Guidelines), and Guidelines: Selection and Employment of Consultants by World Bank Borrowers (Consultant Guidelines).* The World Bank Standard Bidding Documents for Goods will be used for ICB and the standard bid evaluation form will be used for its evaluation. All consultant contracts would use the Bank's standard forms of contracts for consultants.

Procurement methods (Table A)

- **Equipment** totaling US$ 3.4 million equivalent including contingencies. Contract packages of US$ 200,000 or more will be awarded through International Competitive Bidding (ICB) procedures. Qualifying domestic manufacturers will receive a margin of preference in bid evaluation of 15 percent on the import duty, whichever is less; contract packages costing less than US$ 200,000, in an aggregate not exceeding US$ 1.03 million, may be procured through National Competitive Bidding (NCB) acceptable to the Bank; contracts costing less than US$ 50,000, up to an aggregate not exceeding US$ 0.8 million, may be procured through national shopping procedures acceptable to the Bank.

- **IEC and instructional materials** totaling US$ 13.7 million equivalent including contingencies. Contract packages of US$ 200,000 or more will be awarded through International Competitive Bidding (ICB) procedures. Qualifying domestic manufacturers will receive a margin of preference in bid evaluation of 15 percent on the import duty, whichever is less. In addition, and given the local language requirements or relatively small sizes of contracts, contract packages costing less than US$ 200,000, in an aggregate not exceeding US$ 7.6 million, may be procured through National Competitive Bidding (NCB) acceptable to the Bank; and contracts costing less than US$ 50,000, up to an aggregate not exceeding US$ 2.8 million, may be procured through national shopping procedures, with at least three offers from qualified suppliers, or direct contracting procedures acceptable to the Bank.

- **Overseas and in-country fellowships, local training and workshops** totaling US$ 19.6 million equivalent including contingencies. Placement of candidates in foreign institutions would be made on the basis of relevance and quality of programs offered, cost, and prior experience, according to government procedures acceptable to the Bank. Training contracts would be awarded to local providers in accordance with government administrative procedures acceptable to the Bank.

- **Evaluation studies, research and technical assistance** totaling US$ 11.1 million equivalent including contingencies, will be selected and contracted in accordance with the Consultant Guidelines. Quality-cost-based-selection (QBCS) will be used for the procurement of consultant services except for the following activities:

    - Quality-based selection (QBS) totaling US$ 389 thousand equivalent including contingencies will be used for policy studies under the BDD pilot components (component I.C) given that this assignment has a high downstream impact.

- Selection based on qualifications of consultant (QC) totaling US$ 6.4 million equivalent including contingencies will be used for assignment that don not exceed US$100,000 equivalent each and where the need for preparing and evaluating competitive proposals is not justified.
- Selection based on Fixed budget totaling of US$ 120 thousand equivalent including contingencies will be used for operational research assignments at the district level that are simple and can be precisely defined.
- Sole Source selection totaling US$ 250 thousand equivalent including contingencies will be used for the procurement of the baseline and final surveys that will designed as follow-up to the Demographic and Health Surveys in year 1 and year 4 of the project. The justification for the soles source selection of the survey is that only one firm (that will carry out the original surveys) has experience and special worth for the assignment.
- Individual consultant selection totaling US$ 450 thousands including contingencies will be used for the procurement of consultants for the central and provincial project secretariats and management units where the experience and qualification of the individual are the paramount requirement.

- **Project administration** totaling US$ 1.5 million equivalent, including contingencies, will include expenditures directly related to project management such as travel, consumable materials, honoraria, meetings, office supplies and operational costs, excluding salaries. The expenditures would follow government procedures acceptable to the Bank.

- **BDD pilots** totaling US$ 2.7 million equivalent will be procured following government administrative procedures acceptable to the Bank.

- **Recurrent costs** for operational support and financing of emergency obstetric services totaling about US$ 4.9 million equivalent, including contingencies. These expenditures will follow standard government procedures acceptable to the Bank. In addition, eligibility criteria for the emergency obstetric services as specified in MOH guidelines acceptable to the Bank will be followed for such activities.

Prior review thresholds (Table B)

- The Bank will carry out prior review for all contracts valued at or over USD200,000 equivalent, including bidding documents and bid evaluation reports for each category of expenditure. About 30 percents of goods (i.e., all ICB packages) purchased through the project will be subject to prior review. In order to compensate for the relatively low level of prior review, one in four (25%) of contracts valued less than USD200,000 will be subject to post-review. Further, as part of the annual implementation reviews, the adequacy of the procurement management and implementation will be reviewed. In addition, given the importance of the IEC procurement, a technical review of the implementation of such activities will be carried out no later than December 31, 1998. Finally, procurement planning, management and implementation will be reviewed at the mid-term review of the project that should be carried out no later than July 31, 2000.

- All individual consultant contracts valued at or over US$ 50,000 equivalent and contracts for consulting firms valued at or over US$ 100,000 would be subject to prior review by the Bank. All other consultant contracts would be subject to random post review. However, these exemptions to Bank prior review shall not apply to: (a) terms of reference for such assignments; (b) single source selection of consulting firms; and (c) assignments of a critical nature, as reasonably determined by the Bank.

- Fellowships, local training and workshops would be subject to random post review by the Bank. Beginning in 1998, the plans for each year would be furnished to the Bank for review and approval.

Disbursement

The proposed loan of US$ 42.5 million would be disbursed over a period of five years. The project's closing date is May 31, 2003. Disbursements would be made in accordance with the categories outlined in Table C.

Disbursements would be against statements of expenditures for: (i) goods and IEC and instructional materials under contracts costing less than US$ 200,000 equivalent each, (ii) fellowships, training and workshops; (iii) services and TPC contracts; (iv) emergency obstetrical services; (v) project administration; (vi) in-house studies not requiring the procurement of external consultants' services and costing less than US$100,000 equivalent each; and (vii) contracts for the employment of consulting firms valued at less than US$100,000 equivalent each, and contracts for the employment of individuals valued at less than $50,000 equivalent each. All other disbursements from the loan would be against full documentation.

To facilitate disbursements, a Special Account in an amount of US$ 2.7 million would be established at Bank Indonesia or in a state commercial bank. This Special Account would be held in the name of the Director General of Budget, Ministry of Finance, following established procedures. The Special Account would be used for all eligible foreign and local expenditures. Replenishment to the Special Account would be made on the monthly basis or when 20 percent of the initial deposit has been used, whichever occurs first.

Annex 6
Safe Motherhood Project: A Partnership and Family Approach
Procurement and Disbursement Arrangements

Table A: Project Costs by Procurement Arrangements
(in US$000's equivalent)

Expenditure Category	Procurement Method				Total Cost (including contingencies)
	ICB	NCB	Other a/	NBF	
1. Goods					
Equipment	1,546	1,031	832	-	3,409
	(1,082)	(722)	(601)		(2,405)
IEC & instructional materials	3,346	7,551	2,789	-	13,686
	(2,359)	(5,323)	(1,898)		(9,580)
Furniture/Civil works/vehicles	-	-	-	374	374
Vehicles b/				74	74
2. Services					
Training &Workshops, local fellowships	-	-	17,532	-	17,532
			(10,519)		(10,519)
Overseas Fellowships	-	-	2,132	-	2,132
			(2,132)		(2,132)
Evaluation and Research			6,944	-	6,944
			(6,944)		(6,944)
BDD Pilots		-	2,662	-	2,662
			(2,662)		(2,662)
Project administration	-	-	1,466	-	1,466
			(1,026)		(1,026)
Technical assistance		-	4,259	-	4,259
			(3,514)		(3,514)
Emergency obstetric services		-	5,939	-	5,939
			(3,742)		(3,742)
Operational support	-	-	-	1,152	1,152
Financial support for BDDs	-	-	-	470	470
Demographic health survey (DHS)	-	-	-	1,831	1,831
Total	4,892	8,582	44,556	3,454	61,930
	(3,441)	(6,045)	(33,038)	-	(42,524)

Notes:
ICB = International Competitive Bidding
NCB = National Competitive Bidding
NBF = Not Bank Financed
a/ This category includes consultant services, research and evaluation procured following Consultant Guidelines; training and fellowships, national shopping, direct contracting, administrative and operational costs and costs for emergency obstetric care that will follow GOI's administrative procedures acceptable to the Bank, lump- sum.
b/ The schedule for the procurement of vehicles was agreed upon during negotiations.
Figures in parenthesis are the amounts to be financed by the Bank loan/IDA credit
Numbers may not add up due to rounding errors

Annex 6
Safe Motherhood Project: A Partnership and Family Approach
Procurement and Disbursement Arrangements

Table B: Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value (Threshold)	Procurement Method	Contracts Subject to Prior Review
1. Goods			
Equipment	$200,000	♦ICB for contracts costing $200,000 or more ♦NCB for contracts costing $50,000 or more ♦Other for contracts below $50,000	All contracts costing $200,000 or more
IEC & instructional materials	$200,000	♦ICB for contracts costing $200,000 or more ♦NCB for contracts costing $50,000 or more ♦Other for contracts below $50,000	All contracts costing $200,000 or more
2. Services			
Training/workshops/ fellowships	N.A.	Other	Annual training plans for each year will be submitted as part of annual report for review and discussion with the Bank
Technical assistance, evaluation and research	$50,000 for individual consultants and $100,000 for firms	Other	All individual consultants contracts costing $50,000 or more and for consulting firms $100,000 or more. All TORs and single-sourced selection of consultants.
Project administration	N.A.	Other	Follow Government procedures acceptable to the Bank
Emergency obstetric services	N.A.	Other	Follow Government procedures and MOH Guidelines acceptable to the Bank.
BDD pilots	N.A.	Other	Follow Government procedures acceptable to the Bank.

Annex 6
Safe Motherhood Project: A Partnership and Family Approach
Procurement and Disbursement Arrangements

Table C: Allocation of Loan Proceeds

Expenditure Category	Amount in US$million	Financing Percentage
(1) Equipment (excluding vehicles)	2.3	100% of foreign expenditures, 100% of local expenditures (ex-factory costs), and 65% of local expenditures for other items procured locally.
(2) IEC & instructional materials	9.2	70%
(3) Local training, workshops and local fellowships	9.9	60%
(4) Studies and overseas fellowships	8.6	100%
(5) BDD pilots[10]	2.6	100%
(6) Project administration	1.0	70%
(7) Emergency obstetric service	3.4	100% incurred in FY 1997/1998 FY 1998/99 and FY 1999/2000; 25% incurred after FY 1999/2000
(8) Consultant services	3.5	80%
(9) Unallocated	2.0	
Total	**42.5**	

[10] Refered to in the Schduel 1 of the Loan Agreement as services under Targeted Performance-Based Contracts including consultants' services and training under the under Parts A.1(c)(i),(ii), and (iv) of the Project -- i.e., the BDD pilots.

Annex 6
Safe Motherhood Project: A Partnership and Family Approach
Procurement and Disbursement Arrangements

Table D: Procurement Plan
Contracting and Review Responsibilities

Category	Total Value (USDM)	Estimate Contract Quantity	Contracts DIP Allocation	Procurement method	Review method	Bank review by	Documents required for Disbursement
Equipment:	3.4 (2.3)						
>USD200,000		5	Central/Province	ICB	Prior	TM/RSI	Full Doc.
<USD200,000		4	Central/province	NCB	Random Post	RSI/SPN	SOE
<USD50,000		10	Province/district	Shopping	Random Post	RSI/SPN	SOE
IEC & Instr. Materials:	13.1						
>USD200,000	(9.2)	10	Central/Province	ICB	Prior	TM/RSI	Full Doc
<USD200,000		15	Central/province	NCB	Random Post	RSI/SPN	SOE
<USD50,000		84	Province/district	Shopping/ Direct contracting	Random post	RSI/SPN	SOE
In-country fellowships, Training / workshops	16.7 (9.9)	NA	Central/province/ district	Others	Annual Review	SPN/TM	SOE
Overseas Fellowship	2.0 (2.0)	NA	Central/Provincial	Others	Annual Review	SPN/TM	SOE
Research/evaluation/ consultants.:	10.7 (10.1)		Central				
- Quality - and Cost Based-Selection (QCBS)		8	Central/Province	QCBS			
- Quality -Based Select. (QBS)		4	Central/Province	QBS			
- Consultants' Qualification (CQ)		68	Central/Province/ district.	CQ			
- Fixed Cost (FC)		5	Central	FC			
- Single Source (SS)		2	Central/Province	SS			
--In-house		NA		Others			
* contract valued :					Prior	TM	Full Doc
• > USD 100,000 for firm					Prior	TM	Full Doc
• > USD 50,000 for indiv.							
BDD Pilots:	2.6 (2.6)	NA	Central/Province	Others	Random Post	TM/RSI	SOE
Project Administration	1.4 (1.0)	NA	Central/province district	Others	Random Post	TM/RSI	SOE
Emergency obstetrical services	5.7 (3.4)	NA	Central/Province	Others	Random Post	TM/RSI	SOE

Note. The Project Management Unit will prepare annual procurement plans for each year that will be incorporated in the annual implementation plan for the project. A preliminary procurement plan for the first year of project activities was submitted at negotiations. This plan will be finalized by August 18, 1997. The first year plan will be included in the project implementation volume and will be updated annually.

Annex 7
Safe Motherhood Project: A Partnership and Family Approach

Project Processing Budget and Schedule

A. Project Budget (US$ 000)	Planned (At PCD stage)	Actual a/
	74 (revised during preparation 220)	213.1

B. Project Schedule	Planned (At final PCD stage)	Actual a/
Time taken to prepare the project (months)		
First Bank mission (identification)	10/23/95	10/23/95
First Decision Meeting	09/21/95	10/02/95
Approval of Project concept	--/--/--	12/14/95
Final Decision Meeting	05/01/96	04/03/97
Appraisal mission departure	06/01/96	04/21/97
Negotiations	08/20/96	05/19/97
Planned Date of Effectiveness	12/1996	11/30/1997

Prepared by: GOI preparation team

Preparation assistance: Trust Fund # 029455 (managed by GOI)

Bank staff who worked on the project included: Fadia Saadah (TM), Peter Heywood (alternate), Karin Nordlander and Teresa Genta Fons (LEGEA), B. Champion (LOAAS), Samuel Lieberman (Division Chief).

a/ As of April 30, 1997.

Annex 8
Safe Motherhood Project: A Partnership and Family Approach
Documents in the Project File

A. Project Implementation Plan

1. Safe Motherhood Project: Partnership and Family Approach. Report prepared by Government of Indonesia, January 20, 1997.
2. District model of programs' activities for Safe Motherhood Project. Report submitted to the National Family Planning Coordination Board by CHN-RL. Faculty of Medicine, Gadja Mada University, Yogyakarta.
3. BDD Development - Assessment and Project Proposal. MOH, Indonesia, February 1997.
4. Sayan Ibu Emergency Services and Bidan Di Desa Sustainability: Activities, Summary budget tables, Proposed covenants, and implementation schedule. May 1997.
5. Safe Motherhood Project: Family Planning Component. May 1997
6. Safe Motherhood Project: Demand side of the maternal health component, May 1997.
7. Safe Motherhood Project: Adolescent reproductive health component. May 1997.
8. Safe Motherhood Project: a review of adolescent reproductive health curriculum. May 1997
9. Safe motherhood Project. Strengthening the supply of maternal health services. May 1997

B. Bank Staff/Consultant Assessments

1. Options for expanding private sector reproductive health services in Indonesia. Consultant report by James Knowles, Ph.D., Apt Associates Inc., November 26, 1996.
2. Midwifery training issues. Consultant report by Susan Murray, February 1997.
3. Adolescents' reproductive health in Indonesia. Issues and overview of project proposals by Judith Senderowitz, February 1997.
4. Identification, preparation, pre-appraisal and appraisal aide memoires and back-to-office reports.

Annex 9

Status of Bank Group Operations in Indonesia
IBRD Loans and IDA Credits in the Operations Portfolio

Project ID	Loan or Credit No.	Fiscal Year	Borrower	Purpose	Original amount in US$ millions IBRD	IDA	ancellations	Undisbursed	Difference between expected and actual disbursements[a]
Number of Closed Loans: 151:/Credits: 48									
Active Loans									
ID-PE-3873	L31580	1990	GOI	Second Secondary Education	154.20			19.45	19.45
ID-PE-3960	L32090	1990	GOI	Gas Utilization	86.00			35.03	35.03
ID-PE-3868	L32190	1990	GOI	Second Jabotabek Urban Developmen	190.00			24.96	24.64
ID-PE-3977	L32460	1991	GOI	Third Jabotabek Urban Development	61.00			17.70	17.27
ID-PE-3959	L32820	1991	GOI	Fertilizer Restructuring	221.70		0.24	10.30	9.84
ID-PE-3981	L33020	1991	GOI	Provincial Irrigated Agriculture Dev.	125.00		21.50	18.10	39.60
ID-PE-3943	L33040	1991	GOI	East Java/Bali Urban Development	180.30			22.08	22.08
ID-PE-3912	L33050	1991	GOI	Yogyakarta Upland Area Developmen	15.50		1.30	0.92	2.23
ID-PE-3922	L33400	1991	GOI	Sulawesi-Irian Jaya Urban Developme	100.00			4.10	3.16
ID-PE-3975	L33490	1991	GOI	Power Transmission	275.00		103.40	11.27	114.67
ID-PE-3928	L34020	1992	GOI	Agricultural Financing	106.10			44.93	43.63
ID-PE-3966	L34310	1992	GOI	Third Non-Formal Education	69.50			7.89	2.19
ID-PE-3940	L34480	1992	GOI	Primary Education Quality Improvem	37.00			17.64	12.64
ID-PE-4012	L34540	1992	GOI	BAPEDAL Development	12.00			0.94	0.44
ID-PE-3860	L34640	1992	GOI	Treecrops Smallholder	87.60			35.13	16.03
ID-PE-3997	L34820	1992	GOI	Fourth Telecommunications	375.00			187.12	57.12
ID-PE-3949	L34900	1992	GOI	Third Kabupaten Roads	215.00			2.35	2.35
ID-PE-3969	L34960	1992	GOI	Primary School Teacher Development	36.60			12.48	9.93
ID-PE-3916	L35010	1992	GOI	Suralaya Thermal Power	423.60		100.00	115.14	61.54
ID-PE-3970	L35260	1993	GOI	Financial Sector Development	307.00		39.81	41.69	81.50
ID-PE-3914	L35500	1993	GOI	Third Community Health & Nutrition	93.50			40.56	5.56
ID-PE-4006	L35790	1993	GOI	E. Indonesia Kabupaten Roads	155.00			26.63	17.64
ID-PE-4009	L35860	1993	GOI	Integrated Pest Management	32.00			19.58	12.08
ID-PE-3999	L35880	1993	GOI	Groundwater Development	54.00		18.94	15.42	5.76
ID-PE-4018	L35890	1993	GOI	Flores Earthquake Reconstruction	42.10			4.55	4.55
ID-PE-4007	L36020	1993	GOI	Cirata Hydroelectric Phase II	104.00			72.42	57.42
ID-PE-3990	L36290	1993	GOI	Water Supply & Sanitation for Low In	80.00			52.96	27.96
ID-PE-3985	L36580	1994	GOI	National Watershed Mgmt and Conser	56.50			46.40	8.10
ID-PE-3945	L37120	1994	GOI	Second Highway Sector Investment	350.00			231.80	106.80
ID-PE-3952	L37210	1994	GOI	Skills Development	27.70			21.10	19.75
ID-PE-3998	L37260	1994	GOI	Surabaya Urban Development	175.00			138.72	56.52
ID-PE-4020	L37320	1994	GOI	Fifth Kabupaten Roads	101.50			42.11	-1.14
ID-PE-4010	L37420	1994	GOI	Dam Safety	55.00			43.13	13.53
ID-PE-3890	L37490	1994	GOI	Semarang-Surakarta Urban Developm	174.00			130.84	38.75
ID-PE-4017	L37540	1994	GOI	University Research for Graduation St	58.90			43.92	9.52
ID-PE-3937	L37550	1994	GOI	Integrated Swamps	65.00			48.26	8.11
ID-PE-3910	L37610	1994	GOI	Sumatera & Kalimantan Power	260.50			238.25	68.75
ID-PE-3954	L37620	1994	GOI	Java Irrigation Improvements and Wtr	165.70			121.11	25.11
ID-PE-3984	L37920	1995	GOI	Land Administration	80.00			67.10	11.07
ID-PE-4019	L38010	1995	GOI	Second Accountancy Development	25.00			20.89	11.99
ID-PE-3988	L38250	1995	GOI	Second Professional Resource Develo	69.00			47.72	2.71
ID-PE-3979	L38450	1995	GOI	Second Rural Electrification	398.00			334.87	113.91
ID-PE-3951	L38540	1995	GOI	Kalimantan Urban Development	136.00			102.76	33.26
ID-PE-3972	L38860/6	1995	GOI	Second Agriculture Research Manage	63.00			58.68	-2.32
ID-PE-3968	L38870/6	1995	GOI	Book & Reading Development	132.50			128.36	-2.14

Project ID	Loan or Credit No.	Fiscal Year	Borrower	Purpose	Original amount in US$ millions			Undisbursed	Difference between expected and actual disbursements[a]
					IBRD	IDA	ancellations		
ID-PE-34891	L38880/6	1995	GOI	Village Infrastructure	72.50			9.81	-37.29
ID-PE-4001	L39046	1995	GOI	Telecommunications Sector Moderniz	325.00			324.15	54.15
ID-PE-3965	L39050/6	1995	GOI	Fourth Health	88.00			85.25	-1.75
ID-PE-39754	L39136	1995	GOI	Second Technical Assistance for Infra	28.00			27.00	6.50
ID-PE-3978	L39720	1996	GOI	Industrial Technology Development	47.00			45.89	16.95
ID-PE-4021	L39780	1996	GOI	Second Power Transmission and Distr	373.00			373.00	34.70
ID-PE-4003	L39790	1996	GOI	Second Teacher Training	60.40			58.29	10.84
ID-PE-39643	L39810	1996	GOI	STD/AIDS	24.80			24.30	5.75
ID-PE-4008	L39840	1996	GOI	Nusa Tenggara Agriculture Developm	27.00			25.78	2.08
ID-PE-4011	L40070	1996	GOI	Sulawesi Agriculture Area Developme	26.80			25.58	0.82
ID-PE-4014	L40080	1996	GOI	Kerinci Seblat ICDP	19.10			18.20	1.00
ID-PE-39312	L40170	1996	GOI	Second E. Java Urban Development	142.70			139.70	22.90
ID-PE-41896	L40300	1996	GOI	Human Resource Capacity Building	20.00			19.41	0.92
ID-PE-37097	L40420	1996	GOI	E. Java Junior Secondary Education	99.00			96.50	1.00
ID-PE-4004	L40430	1996	GOI	Higher Education Support	65.00			62.50	1.49
ID-PE-4016	L40540	1996	GOI	Strategic Urban Roads	86.90			83.40	2.50
ID-PE-3987	L40620	1997	GOI	C. Indonesia Secondary Education	104.00			101.50	0.50
ID-PE-41894	L40950	1997	GOI	Sumatra Secondary Education	98.00			95.00	-3.00
ID-PE-40521	L41000	1997	GOI	Second Village Infrastructure	140.10			140.10	3.00
ID-PE-36053	L41050	1997	GOI	Second Sulawesi Urban Development	155.00			155.00	5.00
ID-PE-4026	L41060	1997	GOI	Railway Efficiency	105.00			105.00	
ID-PE-42540	L41250	1997	GOI	Iodine Deficiency Control	28.50			28.50	
ID-PE-35544	L41320	1997	GOI	Solar Homes Systems	20.00			20.00	
TOTAL					8,160.40	0.00	285.20	4,791.21	1,353.79

	Active Loans	Closed Loans	Total
Total disbursed (IBRD and IDA)	3,083.99	14,748.47	17,832.46
Of which repaid	46.28	6,986.41	7,032.69
Total now held by IBRD and IDA	7,828.92	7,789.58	15,618.50
Amount sold	0.00	88.08	88.08
Of which repaid	0.00	88.08	88.08
Total undisbursed	4,791.21	27.53	4,818.74

a. Intended disbursements to date minus actual disbursements to date as projected at appraisal.

Note:
Disbursement data are updated at the end of the first week of the month.

Indonesia - Statement of IFC Investments
Committed and Disbursed Portfolio

As of 3/31/97
(In US Dollar Millions)

		Committed				Disbursed			
		IFC				IFC			
FY Approval	*Company*	*Loan*	*Equity*	*Quasi*	*Partic*	*Loan*	*Equity*	*Quasi*	*Partic*
1971	Unitex	0.00	0.35	0.00	0.00	0.00	0.35	0.00	0.00
1980/87	Semen Andalas	9.25	10.02	0.00	9.98	9.25	10.02	0.00	9.98
1982/84/93	Saseka Finance	0.00	0.38	0.00	0.00	0.00	0.38	0.00	0.00
1986	PT Bali	0.22	0.00	0.00	0.00	0.22	0.00	0.00	0.00
1988	Manulife	0.00	0.32	0.00	0.00	0.00	0.32	0.00	0.00
1989	PT Agro Muko	3.36	2.20	0.00	3.64	3.36	2.20	0.00	3.64
1989/91/94	PT Astra	0.00	12.16	0.00	0.00	0.00	12.16	0.00	0.00
1990/91/93/95	PT Indo-Rama	37.48	8.72	0.00	61.68	37.48	8.72	0.00	61.68
1991	LYON-MLF-Ibis	2.12	0.00	0.00	2.12	2.12	0.00	0.00	2.12
1991	PT Argo Pantes	15.00	13.00	0.00	22.71	15.00	13.00	0.00	22.71
1991	PT Indaci	0.40	0.00	1.83	0.00	0.40	0.00	1.44	0.00
1991	PT RIMBA	7.35	0.60	0.00	4.17	7.35	0.60	0.00	4.17
1991	SEAVI Indonesia	0.00	1.50	0.00	0.00	0.00	1.50	0.00	0.00
1992/95	PT Bakrie Kasei	50.13	3.00	9.63	77.38	50.13	3.00	9.63	77.38
1992/94/96	PT KIA Keramik	25.83	9.15	0.00	85.91	17.34	4.05	0.00	58.40
1992/94	PT Mitracorp	0.00	19.99	0.00	0.00	0.00	19.99	0.00	0.00
1992	PT Swadharma	23.33	0.00	0.00	39.83	23.33	0.00	0.00	39.83
1992/95	PT Viscose	32.13	0.00	0.00	46.43	32.13	0.00	0.00	46.43
1993/96	PT BBL Dharmala	15.45	0.00	0.00	35.73	15.45	0.00	0.00	35.73
1993	PT Nusantara	4.00	0.00	0.00	12.00	3.58	0.00	0.00	11.67
1993	PT Samudera	1.91	5.00	0.00	5.84	1.91	5.00	0.00	5.84
1994	KDLC Bali	15.00	1.14	0.00	0.00	15.00	1.14	0.00	0.00
1994	Prudential Asia	0.00	6.75	0.00	0.00	0.00	4.19	0.00	0.00
1994	PAMA (Indonesia)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1994	PT PAMA	0.00	0.71	0.00	0.00	0.00	0.71	0.00	0.00
1994	PT Saripuri	7.56	0.00	0.00	20.00	7.56	0.00	0.00	20.00
1995	PT Bakrie Pet	11.08	2.00	0.00	0.00	11.08	2.00	0.00	0.00
1995	PT Bakrie Pipe	18.57	0.00	9.50	0.00	18.57	0.00	9.50	0.00
1995	PT Bunas Finance	8.55	0.00	0.00	4.50	8.55	0.00	0.00	4.50
1995	PT Citimas Captl	0.00	1.31	0.00	0.00	0.00	1.31	0.00	0.00
1995	PT Hotel Santika	9.00	0.00	5.00	0.00	4.50	0.00	5.00	0.00
1995	PT KIA Serpih	15.00	6.35	0.00	55.00	15.00	6.24	0.00	55.00
1995	PT Panin Finance	6.00	1.93	0.00	8.00	6.00	1.93	0.00	8.00
1996	PT Dharmala	20.00	0.00	0.00	15.00	20.00	0.00	0.00	5.00
1996	PT Gleneagles	8.30	0.00	3.60	10.30	8.30	0.00	3.60	10.30
1996	PT Pramindo Ikat	25.00	8.18	25.00	300.00	0.00	0.00	0.00	0.00
1997	PT Astra Graphia	0.00	2.53	0.00	0.00	0.00	2.53	0.00	0.00
1997	PT Kalimantan	20.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Portfolio:	392.02	132.29	54.56	820.22	333.61	101.34	29.17	482.38

Approvals Pending Commitment			
Loan	*Equity*	*Quasi*	*Partic*

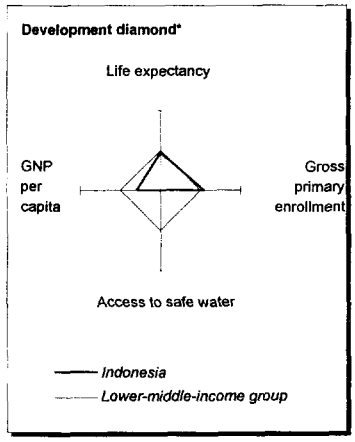
1995	PT INDO-RAMA RI	0.00	2.50	0.00	0.00
1996	PANIN FINANCE II	6.00	0.00	0.00	4.00
1996	PANIN II - BLINC	0.00	0.00	0.00	4.00
1996	PT ASIANAGRO	40.00	0.00	0.00	40.00
1997	PT BANK NISP	5.00	0.00	0.00	0.00
	Total Pending Commit	51.00	2.50	0.00	48.00

Annex 10

Indonesia at a glance

2/20/97

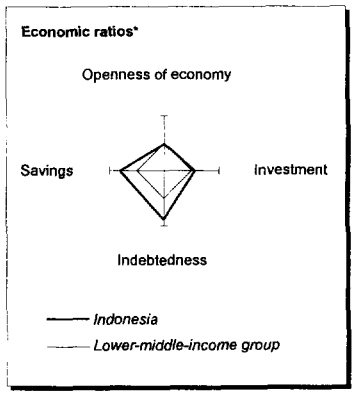
POVERTY and SOCIAL	Indonesia	East Asia	Lower-middle-income
Population mid-1995 *(millions)*	193.3	1,706	1,153
GNP per capita 1995 *(US$)*	980	800	1,670
GNP 1995 *(billions US$)*	190.1	1,365	1,926
Average annual growth, 1990-95			
Population *(%)*	1.6	1.3	1.4
Labor force *(%)*	2.5	1.4	1.7
Most recent estimate *(latest year available since 1989)*			
Poverty: headcount index *(% of population)*	17	..	..
Urban population *(% of total population)*	34	31	56
Life expectancy at birth *(years)*	64	68	67
Infant mortality *(per 1,000 live births)*	51	40	41
Child malnutrition *(% of children under 5)*	39	23	22
Access to safe water *(% of population)*	63	77	..
Illiteracy *(% of population age 15+)*	16	17	..
Gross primary enrollment *(% of school-age population)*	114	117	104
Male	116	120	105
Female	112	116	101



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

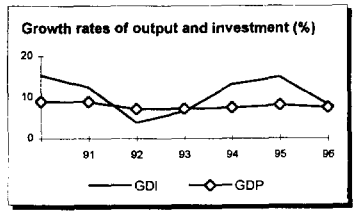
	1975	1985	1995	1996
GDP *(billions US$)*	32.1	87.2	201.2	232.8
Gross domestic investment/GDP	23.7	26.1	31.5	31.6
Exports of goods and non-factor services/GDP	23.2	22.2	26.0	25.8
Gross domestic savings/GDP	25.9	27.8	32.3	32.3
Gross national savings/GDP	23.4	22.8	28.2	28.2
Current account balance/GDP	-3.4	-2.2	-2.6	-3.3
Interest payments/GDP	1.0	2.3	2.5	2.2
Total debt/GDP	35.8	42.1	53.6	44.2
Total debt service/exports	15.1	28.8	29.9	30.0
Present value of debt/GDP	..	..	51.3	..
Present value of debt/exports	..	..	187.7	..

	1975-85	1986-96	1995	1996	1997-05
(average annual growth)					
GDP	7.0	7.9	8.2	7.6	6.6
GNP per capita	4.3	6.2	5.8	6.0	..
Exports of goods and nfs	-1.0	9.3	8.0	9.6	7.6

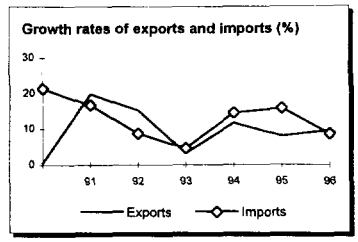


STRUCTURE of the ECONOMY

	1975	1985	1995	1996
(% of GDP)				
Agriculture	30.2	23.2	16.9	15.5
Industry	33.5	35.9	40.9	39.9
Manufacturing	9.8	16.0	23.9	23.3
Services	36.3	40.9	42.2	44.6
Private consumption	65.1	60.4	59.6	60.7
General government consumption	9.0	11.8	8.1	7.0
Imports of goods and non-factor services	21.0	20.5	25.2	25.2



	1975-85	1986-96	1995	1996
(average annual growth)				
Agriculture	4.2	3.4	4.0	3.0
Industry	7.0	9.9	10.3	9.4
Manufacturing	14.5	11.2	11.1	9.9
Services	9.0	8.1	7.9	7.6
Private consumption	9.8	6.9	8.7	7.3
General government consumption	10.5	4.8	3.4	3.5
Gross domestic investment	12.1	10.7	15.0	8.3
Imports of goods and non-factor services	8.8	9.4	15.8	8.7
Gross national product	6.5	7.9	7.4	7.5



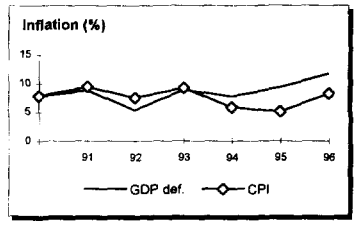
Note: 1996 data are preliminary estimates. Figures in italics are for years other than those specified.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

Indonesia

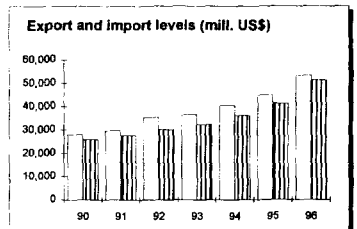
PRICES and GOVERNMENT FINANCE

	1975	1985	1995	1996
Domestic prices				
(% change)				
Consumer prices	19.1	4.7	5.1	8.3
Implicit GDP deflator	11.2	4.3	9.4	11.8
Government finance				
(% of GDP)				
Current revenue	..	19.2	15.5	15.0
Current budget balance	..	6.0	6.4	6.4
Overall surplus/deficit	..	-3.2	-0.2	0.7



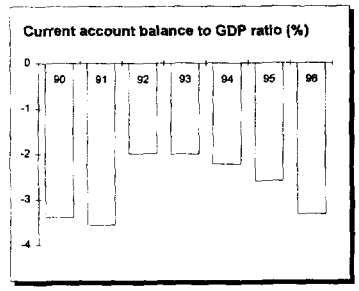
TRADE

	1975	1985	1995	1996
(millions US$)				
Total exports (fob)	..	18,823	44,792	53,286
Fuel	..	12,804	8,638	11,771
Rubber	..	714	1,554	2,589
Manufactures	..	2,287	23,487	32,964
Total imports (cif)	..	14,056	41,286	51,347
Food	..	812	868	997
Fuel and energy	..	2,870	3,841	4,333
Capital goods	..	5,394	16,712	21,114
Export price index *(1987=100)*	..	121	137	..
Import price index *(1987=100)*	..	85	127	..
Terms of trade *(1987=100)*	..	143	108	..



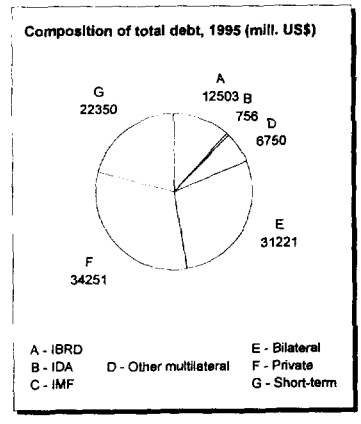
BALANCE of PAYMENTS

	1975	1985	1995	1996
(millions US$)				
Exports of goods and non-factor services	6,981	19,371	51,812	59,474
Imports of goods and non-factor services	6,775	17,840	50,086	57,967
Resource balance	207	1,531	1,726	1,506
Net factor income	-1,342	-3,542	-7,457	-8,935
Net current transfers	27	88	487	-337
Current account balance, before official transfers	-1,108	-1,923	-5,244	-7,766
Financing items (net)	257	962	6,621	12,733
Changes in net reserves	851	961	-1,377	-4,968
Memo:				
Reserves including gold *(mill. US$)*	592	13,184	26,139	27,519
Conversion rate *(local/US$)*	415.0	1,110.6	2,248.6	2,337.5



EXTERNAL DEBT and RESOURCE FLOWS

	1975	1985	1994	1995
(millions US$)				
Total debt outstanding and disbursed	11,498	36,715	96,543	107,831
IBRD	57	3,590	12,008	12,503
IDA	318	844	776	756
Total debt service	1,060	5,823	14,272	16,419
IBRD	2	384	2,156	1,875
IDA	2	12	26	26
Composition of net resource flows				
Official grants	69	136	218	249
Official creditors	515	980	1,615	1,101
Private creditors	1,749	154	1,967	2,428
Foreign direct investment	476	310	2,109	4,500
Portfolio equity	0	0	3,672	4,873
World Bank program				
Commitments	311	1,068	1,538	1,312
Disbursements	164	777	1,184	1,044
Principal repayments	0	133	1,259	975
Net flows	164	644	-76	69
Interest payments	3	262	922	926
Net transfers	160	382	-998	-857



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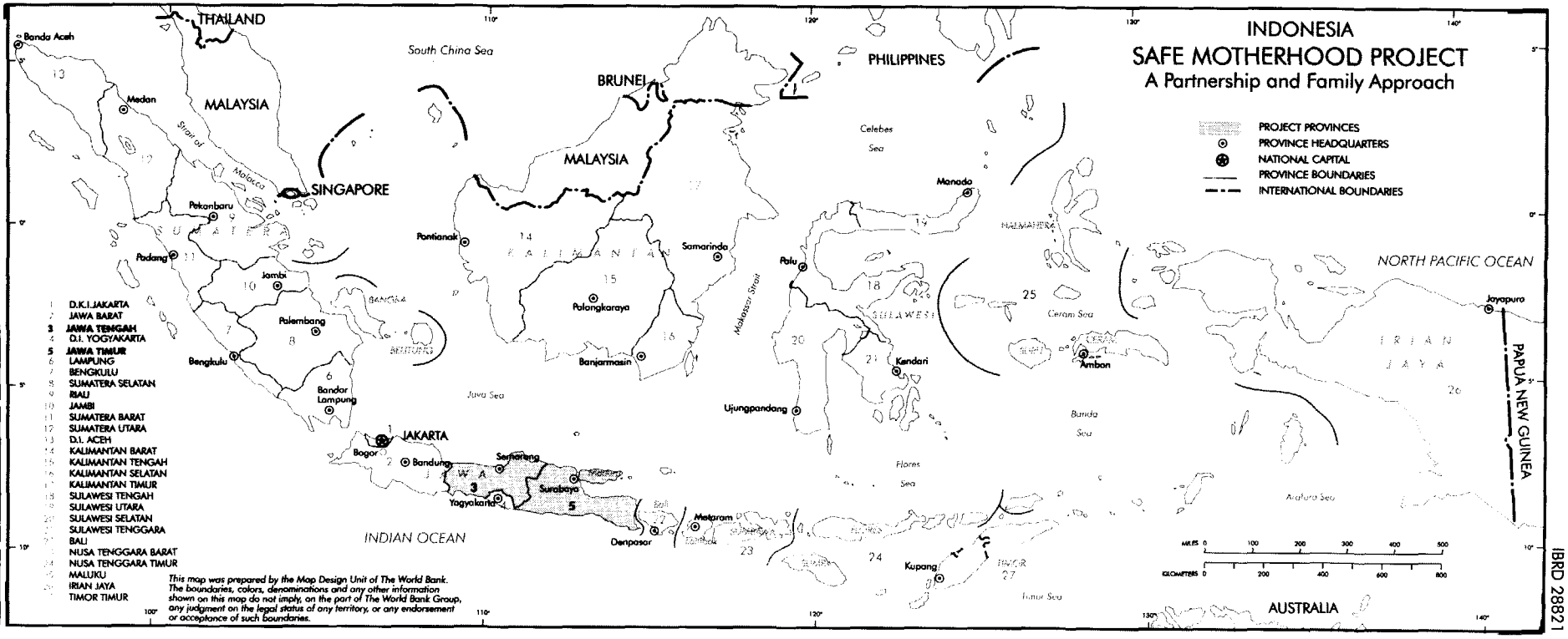
Note: Government finance and trade fiscal year (April to March). 1996 trade data are projections and are not comparable with historical data.



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IMAGING

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