

UNCLASSIFIED

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

PROJECT PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

INDONESIA - Higher Education Development Training

AID-DLC/P-2190

1

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

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June 23, 1976

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJEC: INDONESIA - Higher Education Development Training
Project

Attached for your review is the recommendation for authorization of a loan to the Government of the Republic of Indonesia ("Borrower") of not to exceed Five Million United States Dollars (\$5,000,000) to assist in financing the United States dollar and local currency costs of advanced training, upgrading and development of the faculties, administrations and staffs of state and selected private universities and institutions of higher learning for Indonesia.

The loan is scheduled for consideration by the Development Loan Staff Committee on Monday, June 28, 1976 at 10:00 A.M., in Room 5951 NS; please note, because of the lateness in the fiscal year, we would appreciate your bringing your vote to the meeting. If you are a voting member a poll sheet has been enclosed for your response.

Development Loan Committee
Office of Development Program Review
and Evaluation

Attachment:
Summary and Recommendations
Project Analysis
Annexes

INDONESIAN TERMS

- BAPPENAS - National Planning and Development Agency
- G. O. I. - Government of Indonesia
- Guru Besar - Senior Professor
- Pembina - A "Builder Faculty" used to strengthen and upgrade other faculties
- Repelita - Five Year Development Plan
- Sarjana - 5 - 6 year degree (MA/MS level)
- Sarjana Muda - 3 - 4 year degree (AB/BS level)

HIGHER EDUCATION DEVELOPMENT TRAINING

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PROJECT TITLE: HIGHER EDUCATION DEVELOPMENT TRAINING
 TITLE OF AGENCY OR ORGANIZATING OFFICE: [Blank]
 COUNTRY: INDONESIA
 REGION: ASIA
 ESTIMATED FY OF PROJECT COMPLETION: FY 1979
 ESTIMATED FY OF AUTHORIZATION/OBLIGATION: a. INITIAL FY 1976, b. FINAL FY 1981
 DOCUMENT CODE: 3
 OPERATION CODE: Original, Change, Add, Delete

ESTIMATED TOTAL COST (Base or adjusted, \$) 444.5

Category	FY 76		ALL YEARS		
	Cost	Value	Cost	L/C	Total
...	5000	5000	5000		5000
...	5000	5000	5000		5000
...				2000	2000
...	5000	5000	5000	2000	7000

ESTIMATED COSTS AND APPROPRIATED FUNDS (\$000)

Category	c. Priority	FY 76		FY 77		FY 78		ALL YEARS	
		Loan	Grant	Loan	Grant	Loan	Grant	Loan	Grant
EH	601	600	5000						5000
...			5000						5000
...				1500		1500			5000

12. PURPOSE OF PURPOSE(S) (to be within brackets) Check if different from PID/PRP

To enhance GOI capability in selected institutions in the Higher Education System to provide needed manpower training in specialized fields, e.g., fisheries, marine science, forestry, etc. relevant to the needs of the poor majority.

13. WERE CHANGES MADE IN BLOCKS 12, 13, 14 or 15 OF THE PID FACESHEET? IF YES, ATTACH CHANGED PID FACESHEET.

Yes No

14. AUTHORITY AND OFFICE CLEARANCE

Signature: [Signature]
 Director
 USAID/Indonesia
 Date Signed: May 18 1976
 Date Received in AID/W, or For AID/W Documents, Date of Distribution: May 27 1976

I PROJECT SUMMARY AND RECOMMENDATIONS

A. Face Sheet - Higher Education Development Training

B. Recommendations

Loan	\$5,000,000
(Terms: 40 years, 10 years grace period	
-- 2 percent during grace period	
-- 3 percent thereafter)	
	<hr/> \$5,000,000

C. Description of Project

In late 1975 a series of meetings was held by the Director General of Higher Education, the Director of Academic Affairs, the Director of Research, Chairman of Academic Consortia and Rectors of various institutions of higher learning. One of the aims of the meetings was to identify the kinds and numbers of doctoral candidates for training during the Second Five Year Plan. A consensus was reached that a minimum of five doctorate degree holders was required to form the nucleus of a critical mass of academics for any field of specialization. With any lesser number there would be little opportunity for professional interaction within an area of study, nor would there be sufficient reinforcement from within to bring it to full fruition.

The Academic Consortia identified some 80 fields of study that should be targeted at during the next five years. Upgrading staff and faculties to properly conduct course work in these 80 fields was to be concentrated in a few "centers of academic excellence," where more professional personnel and improved curricula would provide the internal leverage to raise the standards and overall quality of the specific institution and at the same time create a positive multiplier effect throughout the nation's academic community. The five doctorates in each of the 80 fields of study are intended to give the system of higher education the initial "critical mass" for future growth and improvement. The doctoral training would be augmented and bolstered through the training of upwards to 600 faculty and staff members at the master degree level.

It is the purpose of the Higher Education Development Training Loan (HEDTL) to support the larger plan by training in the U.S. for 65 doctoral candidates and 65 MA/MS candidates, plus third country training for 15 doctoral and 10 MA/MS candidates. It will assist in-country training activities by providing foreign exchange to meet the out-of-country costs for services of consultants from U.S. institutions for up to 87.5 man-months. These consultants will work directly with Indonesian faculty and staff members in conducting some 85

seminars and by providing on-the-job training for an estimated 880 university teachers and administrators.

The HEDTL is complementary to the Agricultural Education Development Loan. It is designed to provide advanced training to faculties in institutions of higher education that are not strictly agricultural, and priorities will be placed on basic sciences, technology and selected social sciences. In the selection of disciplines, of candidates, and of fields of study, in the orientation of candidates, and in their fields of specialization, emphasis will be placed to the fullest extent possible on the development of skills which will contribute directly to the solutions of development problems in manners which involve and benefit the rural and urban poor of Indonesia. The two loans, in tandem, will assist the Department of Education and Culture, Directorate General of Higher Education, reach its goal of attaining 400 faculty members with doctoral degrees by 1980. The goal will be reached through the conferring of degrees by U.S. universities and a combination of overseas training and in-country course work leading to the Indonesian "dokter." The Agricultural Education Development loan will fund 80 doctorates, and HEDTL will fund 80 doctorates and 75 masters degrees. Some of the masters candidates perhaps will be sufficiently strong to continue work leading to the doctorate also.

In addition to the 80 doctoral candidates to be funded under this loan (and the 80 to receive training under the Agricultural Education Training Loan), another 170 will be given training under GOI auspices. Other donors (bilateral, multilateral and private) will train the remaining 70. All of these numbers are, of course, exclusive of training being provided under other projects.

The Manpower Development Training Loan proposed to AID/W for FY 1977 authorization is designed to add significantly to the general manpower pool of skilled Indonesians needed by the Government and private sector to carry out activities having high development priority. It will impact on virtually every major mandate area of AID interest--food and nutrition, population and health, education and human resources development. The mechanism for the administration of the proposed FY 77 loan has not been spelled out; however, it will certainly be coordinated at a high level of the Government. Both the Cabinet Secretariat and BAPPENAS will be involved in its implementation, with the Department of Education and Culture interfacing to some extent with the selection and backstopping of persons receiving degree training.

The U.S. investment in the HEDTL will include \$4,050 million for training in the States, \$502 thousand for Third Country training and \$448 thousand for consultants, in-country training, screening, and selection and follow-up activities related to participants.

The GOI direct contribution to the project will be \$2.0 million equivalent to pay participants' salaries and to meet all in-country costs, including the provision of staff and facilities needed to implement a national development training project. In addition, during the period of the loan the GOI will provide \$15 million from its own resources for upgrading physical facilities of the higher education system.

It is expected that the numbers of qualified participants who will complete training programs will produce a "critical mass" of trained personnel in Indonesian universities who in turn, will provide sufficient indigenous leadership to enable Indonesia in the future to train personnel to solve its own development problems.

An important aspect of the project will be the application of a "development area concentration theme" whereby various universities will become specialized centers of instruction designed to train Indonesia's manpower in the effective exploitation of the country's natural resources. (See the Technical Analysis for a list of these universities.)

D. Summary Findings

There is almost universal agreement among Indonesian and foreign planners that the country's future growth is dependent on the availability of trained manpower to analyze development needs, design projects responsive to those needs, and provide the management and work skills necessary for their productive implementation. Indonesia has an abundance of natural resources and substantial flows of capital; however, the country lacks trained manpower to utilize fully those resources or to insure the productive absorption of large injections of capital.

Repelita II (GOI Second Five Year Development Plan) projects the creation of productive employment opportunities and a growing labor force in numbers that will be consistent with the attainment of national development objectives over the next five years. To attain this balance, however, the Government must undertake extensive training programs at all levels. This project attacks the manpower problem directly at the level of higher education, but the consequential benefits to the Indonesian urban and rural underprivileged can be amply demonstrated.

In addition to strengthening the faculties and staffs of the country's institutions of higher learning--with a direct payoff in more graduates trained to contribute to social and economic growth -- the project will create a number of centers of

specialized instruction to produce the trained manpower required to develop Indonesia's natural resources. These centers of specialization will be located strategically in various parts of the country where the resource environment will buttress and complement the academic curriculum. Ocean sciences will be taught in an environment potentially rich in fisheries production; forestry studies will be taught in an environment where there are heavy stands of timber; extractive sciences will be taught in those regions where there are known deposits of mineral resources, etc.

This interplay of learning and applied technology will broaden and strengthen the economies of the individual regions where specialized centers of instructions are located as well as contribute to overall national growth. In the short run, the applications of new technology to traditional practices will result in more production, increased employment opportunities, and better paid employment. In the long run, expectations are for wider and more effective utilization of the country's natural resources accompanied by increased settlement in these new development clusters.

The GOI is prepared to invest substantial amounts of its own resources in terms of both manpower and capital to support the HEDTL. Although the Directorate General of Higher Education already has the institutional base for selecting participants for training and for providing basic language and subject matter refresher courses, project plans envisage broadening that base to provide increased staff and facilities directly assigned to the business of selecting participants and preparing them for advanced studies both in-country and abroad. The improved institutional capability will also provide an ongoing evaluation of both the overall program and the performance of individual participants as well as the placement of returnees at the end of their training. In brief, before the project reaches mid-point, the GOI should have the institutional capability to manage its own national training program (including inputs from other donors).

As described in part IV of this paper, the GOI has initiated plans to provide the various support and backstopping functions now supplied by the AID/W Office of International Training (OIT). The foreign exchange costs of this portion of the project will be covered by loan funds.

There is no question of Indonesia's need for more and better trained manpower, and it is the objective of this project to contribute to meeting this need in a way which orients the trained to be particularly concerned with the problems of Indonesia's poor majority. It should be recognized, however, that training programs can yield major results over an extended period of time, and it is likely

that the Government of Indonesia will wish to build on to this initial training project in the years ahead.

As this is not a capital project, no 611E determination is required.

E. Other Donor Activity

Other donor agencies presently active in Indonesia are engaged in complementary efforts to meet the urgent needs of upgrading Indonesia's educational system at the tertiary level. They are providing funds for capital improvements and equipment, primarily to the principal regional universities. The Netherlands Foundation (NUFFIC), for example, is assisting in the building and equipping of the Physics Department at Institute Technology, Bandung (ITB); chemical and mechanical engineering laboratory at Syiah Kuala University; and veterinary medicine laboratories at Airlangga University. Colombo plan countries are providing a physics laboratory at the University of North Sumatra as well as equipment for the Medical Faculty at the University of Andalas. The University of Montpellier (France) is assisting in the development of basic electronics and mechanical laboratories at ITB. The West German Government is providing an electric conversion laboratory at ITB; the Japanese Government, equipment for Science Education at IKIP/Bandung and audiovisual education at IKIP/Jakarta. These examples are listed to illustrate the cooperative nature of the plan to provide advanced training to faculty and to upgrade or develop facilities at Indonesia's universities. Each activity complements the other, and duplication is avoided by coordination in the Directorate General of Higher Education and BAPPENAS.

F. Project Issues

No project issues have been identified.

II PROJECT BACKGROUND AND DETAILED DESCRIPTION

A. Background

The first institutions of higher education in Indonesia were established by the Dutch in the first quarter of the present century. In response to an increased demand for specialized professional manpower in the 1920's a number of colleges, including the present University of Indonesia, Jakarta, and the Institute of Technology, Bandung, were instituted. Students in these colleges were primarily Dutch and Eurasians, the instructors were Europeans, and the language of instruction was Dutch.

Indonesia's occupation by the Japanese in WW II produced two fundamental changes in higher education of lasting significance. The student body of the schools and the language of instruction became Indonesian.

The Revolutionary Period, 1945 - 1949, saw the establishment of many colleges and institutes that reflected indigenous nationalistic and religious movements. In the latter years of this era, a directed effort was made to draw together such diverse training centers into single multi-faceted universities. The Gadjah Mada University in Yogyakarta, for example, was formed initially by this evolutionary process and is considered to be the first totally Indonesian University. It is ranked as the oldest Indonesian university.

The 1950 to 1959 period produced an upsurge in student demand for higher education as well as a corresponding need for skilled manpower throughout the rapidly expanding government and private sector labor markets. However, existing educational institutions of all types were unable to meet the increased demand, and a period of rapid growth was initiated that continues into the present. Governmental educational institutions grew from two in 1949 to 53 in 1959, and private institutions grew from two in 1950 to 80 in 1959. Student enrollments also rose from some 6,000 in 1949 to 60,000 in 1959 for a tenfold increase.

The expansion of state universities was part of a deliberate policy to establish a state university and teacher training institute (IKIP) in each province to serve the needs of regional growth. Between 1960 and 1963, nineteen such institutions were founded. Attempts were made to establish basic legal codes and systems of classification to allow the state to influence the quality and growth of private institutions. The total enrollment in state and private higher

educational institutions continued to grow from approximately 60,000 in 1959 to 278,000 in 1965. This rapid physical expansion and accompanying increase in student population placed an enormous strain on academic resources which, despite some consolidation of institutions, continues into the present.

During the same period (1950-1965) AID's predecessor Agencies and other private U.S. donors began to offer assistance to Indonesia. The Government of Indonesia asked that some of the assistance be directed to higher education. The overall goal was to develop modern, integrated curriculum, faculty development, and full Indonesianization of faculties. The U.S. Government was responsive to the request and helped introduce American universities as contract agents to selected Indonesian universities.

The medical faculties of the University of Indonesia and the Airlangga University in Surabaya, through two AID funded contracts with the University of California/San Francisco (1954-1965) undertook a program of extensive institutional development along U.S. lines. The goal was to develop a modern, integrated medical curriculum that would enable Indonesia to train health sciences personnel to serve the Indonesian people. The project provided U.S. short and long-term training for 121 doctors and medical staff at the University of Indonesia and 103 at Airlangga University, as well as U.S. technical assistance and commodities.

The Institute of Technology, Bandung (ITB) and the Bogor Institute of Agriculture (IPB) also received assistance through contracts with the University of Kentucky (1957-1967). Again, the project goal was one of institution building through the provision of U.S. long and short-term training for 240 educators at ITB and 211 at IPB, supported by U.S. technical assistance and commodities.

The Ford Foundation also has made a substantial investment in the developmental application of economics in Indonesian universities, beginning in the mid 50s and continuing to this day. As with AID, the Ford Foundation found its assistance was best provided through contracts with American universities. Training has been the key factor in their projects, although curriculum reform and research activities have not been neglected.

In 1956, the University of Indonesia's Faculty of Economics (UIFE) became the first institution to receive Ford assistance through a contract with the University of California, Berkeley. The affiliation lasted until 1967. Grant assistance to the Gadjah Mada University's Faculty of

Economics (GMFE) was initiated in 1957 through a contract with the University of Wisconsin. On a reduced scale this affiliation continues to date. The UIFE is also receiving modest support from the University of Wisconsin in the development of courses in National Planning offered by the faculty to all government departments.

By the end of the 1950's, the innovations introduced by U.S. institutions of higher education had been adapted in varying degree by many Indonesian state universities.

In 1961, AID was requested to provide assistance to Gadjah Mada University's Faculty of Science and Engineering in a manner and degree similar to that being provided to ITB. The goal was to train faculty and graduates, from 19 in 1961 to 250 a year by 1965. The University of California, Los Angeles (UCLA) was chosen to assist in the development of both the graduate faculty of Engineering and the undergraduate faculty of basic sciences at Gadjah Mada University. The affiliation lasted until 1965, and the project's training goals were met during the contract period.

In the years 1965 to 1967, Indonesia went through a period of intense political activity. During this period, only minor modifications were made in the structure of the educational system, and donor assistance was suspended except for training.

With the establishment of political stability, the New Order Government in its first Repelita (1969-1974) decreed that Indonesia's higher educational institutions would concentrate on the nation's problems of social stabilization and economic growth. An Office of Educational Development (BP3K) was created with responsibility for improving educational administration and planning; and a system of academic organizations, consortia, was established to assist the higher institutions to implement their teaching and research responsibilities (see II, B, Detailed Description). Further Indonesia's institutions were to be geared more closely to the need for professional workers, and this, in turn, led to a requirement for greater emphasis on technology studies and the physical sciences.

In recent years (1970 to date) an effective developmental force in higher education has been the AID grant funded Indonesian Higher Agricultural Education Project which began in 1971 and continues to the present. The Midwest University Consortium for International Activities, Inc. (MUCIA) has provided U.S. agricultural educator

technical services, commodity support and short and long-term training for more than 200 Indonesian academics at the Bogor Institute of Agriculture (IPR), Gadjah Mada University (BMU) and selective provincial universities. A total of 33 masters and 16 doctoral degree holders have already returned to Indonesia under this project. Another 76 remain in training. Most of these will return with doctoral degrees.

In 1972, Presidential Decree No.34 gave the Department of Education and Culture legal authority over all education and training in Indonesia, although operational responsibility for educational administration was divided among three main organizations -- the Department itself, the Department of Manpower, Transmigration and Cooperatives and the National Institute of Administration (LAN).

At present, Indonesia's institutions of higher education are attempting to encompass the multiple aims of providing the nation with sufficient professional manpower to meet the requirements of economic growth; promoting local and regional development, including leadership; promoting cultural and social change within the society, including providing assistance to the poor majority and elevating the status of women; and promoting increased opportunities for individual students and their families. There are now 27 state universities, three institutes of technology and 10 institutes for teacher training plus private universities and institutes, all of which support these broad aims.

Since 1967, many of these institutions have received modest U.S. training support under USAID's General Participant Training Project which, through grant funding, has sponsored more than 1,600 individuals from over 25 different departments or agencies. These participants have received training in a variety of skills, and their training has served to augment the pool of trained manpower in Indonesia. Virtually everyone receiving U.S. training (99.5 percent) under donor auspices has returned to Indonesia - many to eventual leadership positions. There is no evidence that such benefits will not continue under a project in which the GOI has a greater management role.

As an illustration of the increased output of USAID training assistance, 310 degree holders have returned to Indonesia since July 1, 1969. This number includes 184 academics from the Department of Education and Culture, 130 of whom earned masters degree and 54 of whom earned doctoral degrees. At the present, 62 masters and 54 doctoral

candidates from the Department studying under this program will return to Indonesia during the next two years.

Although there has been a rapid increase in the number of state universities over a relatively short period, many have sprung up with few experienced faculty members and very little budgetary support. Yet, they have been expected to be centers of scientific and cultural development as well as supporting centers for regional and national economic and social development. Further, a significant number of faculty members, largely in the graduate schools, will reach retirement age within this decade, and there are not enough doctoral candidates being prepared to take their places. Confronted with these facts, the Government of Indonesia recognizes that it must now make a massive effort to strengthen and expand the universities' faculties if they are to reach their potential for responding to national and regional needs.

The public universities have graduated approximately 127 students per year per university over the past several years at the "Sarjana" level, from a total of 4,032 in 1965 to 5,151 in 1973 which is the latest year for which statistics are available. Indonesians frequently equate this degree (sarjana) with a full masters degree; however, U.S. educators view it as roughly equivalent to the U.S. bachelor's degree.

Obviously not all 40 universities have developed at the same pace, nor are they now at the same level of development. Five universities which have formed a Secretariat of Cooperation, (University of Indonesia - UI, Institute of Agriculture Bogor - IPB, Institute of Technology Bandung - ITB, University of Gadjah Mada and the University of Airlangga, all on Java) in 1975 received 50 percent of the total educational budget for universities, produced 60 percent of the university graduates, had an enrollment of between 35 - 40 percent of the total number of university students and possessed 50 percent of the total number of qualified lecturers.

If the Government of Indonesia and its people are to realize established development goals it is obvious that the universities must acquire qualified faculty and staff members. This loan and the Higher Agricultural Development Loan will support doctoral degree study for many of their most qualified staff members who formerly were trained at the masters degree level by USAID or other donors with grant funds. Masters degree candidates will be drawn from the most qualified

individuals holding Indonesian degrees, and some may require prerequisite course study in the U.S. before entering a regular M.A. curriculum.

B. Detailed description

It is recognized by the Directorate General of Higher Education, Department of Education and Culture, that the institutional development of the nation's forty (40) state universities and teacher training institutes (IKIPs), as well as the better private institutions, is prerequisite to Indonesia's national development. One of Indonesia's more intractable growth problems in the past, however, has been the absence of qualified teachers, particularly in the regional institutions on the Outer Islands, to teach students skills they later could apply to planning and executing development activities.

The Directorate General of Higher Education has devised a broad upgrading five year plan to solve this problem. The plan calls for the in-country, as well as out-of-country, subject matter and administrative training of some 1,000 staff members from selected faculties -- of whom 400 are to be raised to the doctoral level. This planned upgrading of academic faculty and staff is necessary if Indonesia's higher education institutions are to: (1) possess the capability and capacity to accommodate the estimated 22 percent increase in student enrollment foreseen during Repelita II (1974-1979); (2) produce well-trained graduates in the technological and physical and social science fields; and (3) enable the institutions to fulfill their government decreed roles as research and planning entities in regional (rural) and national development. The sector goal is to increase Indonesia's development capability at all levels through education and manpower development so that the benefits accrue throughout society and particularly to the poor majority.

The immediate target of the loan is the implementation of the Directorate General's twofold policy of (1) creating national specialty centers among selected institutions of higher education structured about an "area development concentration theme," and (2) installing in Indonesia's centers of learning of a "critical mass" of qualified academics to develop curricula, provide classroom instruction, and to undertake practical research in designated subject fields. The secondary target of the loan is the continued development within the Department of Education and Culture of the necessary infra-structure for implementing and managing a national program of educational up-grading.

In order to establish the academic resources needed to matriculate undergraduates and graduate level students in nationally needed, developmentally oriented, technological and social science fields, the Directorate General of Higher Education will found centers of specialization in selected regional institutions of higher education. These centers will provide university-level education, non-degree training and research services emphasizing a designated technology or physical or social science. (see Technical Analysis)

For example, an Outer Island university in a local having timber as its primary natural resource to be the national center for forestry studies. Students will be drawn from all of Indonesia to undertake both general and theme-specific studies, including local field and thesis research. Additionally, the university will provide for the upgrading of the staffs of regional and central government agencies in the practical aspects of forestry technology and orient and guide the private industrial sector in improved timber production, processing and marketing. The university's resource facilities (faculty, library, research findings, etc.) will be available to appropriate public and private organizations.

The "critical mass" concept of institution building postulates that a sufficiently large initial training investment is required to provide sufficient momentum for self-sustaining manpower development, given the vast number of academics who will require upgrading under this program, the bulk of critical mass training will of necessity be done in Indonesia. Pembina institutions, such as the Institute of Technology, Bandung, and the Gadjah Mada University, will provide established resources for in-country upgrading of faculties members of other institutions. Overseas degree training in the United States and third countries will be provided to selected staff members of both specialized institutions and the pembina institutions participating in the in-country phase of this massive upgrading project. In keeping with the emphasis on maximum relevance to needs of Indonesian development and rural poor, where feasible, degree programs financed under the loan comprise both out-of-country and in-country study and research to ensure the maximum degree of relevance to Indonesia's special environmental and social needs.

The loan will provide substantial initial financing for three major aspects of the Directorate General's plan: (1) Graduate level training in the United States of up to 65 doctoral degree candidates and 65 masters candidates

in selected academic specialities. As the effectiveness of a faculty can be enhanced by having members share similar (although not identical) academic backgrounds, close institutional ties will be established between Indonesian institutions and U.S. universities. (2) Third country training of up to 10 masters and 15 doctoral candidates who will be responsible for implementing the "area development concentration theme" in appropriate Indonesian institutions. Although the academics participating in this aspect of the project will have degree programs similar to those developed for participants sent to the United States, educational institutions in third countries will add a regional orientation to the courses and researches undertaken. Again, close institutional ties will be fostered between the foreign universities providing training and the recipient Indonesian institutions. (3) An in-Indonesia phase employing U.S. and third country academic specialists to conduct up to 87.5 man-months of workshops, seminars, and programs in such areas as educational administration, academic personnel management, curriculum development, library and laboratory establishment and operation, etc. In addition, provision will be made for: pre-training manpower surveys; candidate screening and selection; and post-matriculation follow-up.

The loan will be apportioned among the major project components in the following proportions :

1. United States graduate level training:
\$4,050,000 (80 percent)
2. Third country graduate level training:
\$ 502,000 (10 percent)
3. In-Indonesia academic contract services:
\$ 448,000 (10 percent)

In order for the Government of Indonesia to coordinate and manage the program, the Department of Education and Culture has established advisory committees to provide policy and guidance to the operational administrative and management offices, e.g. Education Bureau of Personnel and the Director of Academic Development Affairs.

In 1969, the Directorate General of Higher Education took initiatives to create academic organizations (named consortia) to assess, stimulate and improve the capacity of institutions to carry out their teaching and research functions. These consortia, (whose members are high ranking academics from a number of universities) formulate methods for improving academic programs, devise

upgrading programs to be based upon strong faculties within a system of Pembina (builder) faculties, and advise the Directorate General of Higher Education: At present these consortia are :

1. Agricultural Sciences
(Bogor Agricultural Institute - IPB, Bogor)
2. Education and Teaching Sciences
(IKIP/Bandung)
3. Medical Sciences
(University of Indonesia - UI - Jakarta)
4. Science and Technology
(Bandung Institute of Technology - ITB - Bandung)
5. Social and Cultural Sciences
(University of Indonesia - UI - Jakarta)
and its sub-consortia in Economy, Law, Letters & Philosophy,
Psychology and Social Studies & Politics

It is planned that during this year the Minister of Education and Culture will issue a decree that will revise and expand the consortia system. The new system will contain the following consortia :

1. Agriculture
2. Behavioral Science
3. Economy
4. Education
5. Inter-Fields
6. Law
7. Letters and Philosophy
8. Mathematics and Natural Sciences
9. Medical Sciences
10. Social Sciences; and
11. Technology

The role of the consortia has been and will continue to be advisory and evaluative rather than operational (the administration of particular programs is the responsibility of the Rectors). The consortia are systemwide, and academically they are multi-disciplinary. They will serve in an advisory capacity to the Project Committee within the Directorate General of Higher Education, Directorate of Academic Development Affairs, which is charged with implementing and managing the loan. The consortia's advice to the Committee will include: (1) policy recommendations to guide a

coherent training program; (2) the selection of priorities for foreign training (in terms of geographical regions, and disciplines relevant to solutions of development problems, especially those maximally benefitting rural and urban poor) to ensure the development of critical masses of complementary skills; (3) the identification of a broad range of candidates for training; (4) the development of a comprehensive and up-to-date list of foreign training programs and courses in fields relevant to Indonesia's needs, with consideration given to combining coursework overseas with research or in-service training in Indonesia.

The section of the Directorate of Academic Development Affairs identified as the Team Management Project Committee will provide liaison between the consortia and participating U.S. institutions through a U.S. training support contractor or through its own offices in the case of third country institutions. The committee will make the final selection from candidates identified by the consortia and recommended by the Rectors, equip the candidates to meet language skills requirements, and prepare for them to receive academic up-grading to remove scholastic deficiencies. The committee will also screen and process documentation on candidates, ensure the proper placement and utilization of returnees, and maintain financial and trainee records. Selected staff members of the committee will receive some training under the USAID/GPT program. As will be provided in the loan agreement, the committee's criteria for selection of training will include fields of important developmental relevance; also, to the fullest extent practicable, the skills developed will be related to professional activities which will benefit the rural and urban poor. To illustrate, expertise in intermediate technology or small-farm technology, would be preferenced in principle over computer technology. However, it is important to understand that the creation of "critical mass" faculties will require complementary academic disciplines with the individual disciplines having varying degrees of relevance to development programs and the needs of the poor majority.

A U.S. university consortium will be retained under contract to provide limited assistance and guidance in Indonesia and to schedule the requested training in the U.S. and possibly third countries. Recognizing that there is a history of association between the various faculties of Indonesian universities and various U.S. universities or consortia of U.S. universities, the GOI/Directorate General of Higher Education would like to expand these kinds of relationships. A consortium in this case would be highly desirable, with member universities recognized as having strong competency in engineering and science, social sciences, pedagogy and university administration. The consortium would be responsible for placing participants in appropriate institutions after determining the participants possess the proper qualifications, including an English language facility, to succeed.

The Government of Indonesia will finance most rupiah costs of the project. These include, but are not limited to GOI staff costs, planning studies conducted by Indonesians in country, domestic travel, academic trainee salaries during the period of study, and costs for in-Indonesia workshops, seminars and programs, excepting the honoraria, per diem in-country travel and other local costs involved in bringing U.S. and third country academic specialists to Indonesia. In the event this does not prove fully practicable, limited amounts of local costs may be charged to the loan.

Complementary to this human resources development effort, the GOI is also directing attention to the infrastructure of its universities. From the Development Budget, the Department will receive \$7.5 million over the next three years for the building of laboratories and needed classrooms. The GOI also is providing an additional \$15 million of its own resources for the Directorate General of Higher Education to purchase equipment and libraries. The routine budget for the Directorate General will be increased 30 percent each year for the next five years. These substantial increases will be invested in upgrading facilities and faculties in all of the disciplines.

III PROJECT ANALYSES

A. Technical Analysis

In the main volume of the World Bank's Basic Economic Report (April 15, 1975) it is stated:

"The problems facing the Government in trying to implement an ambitious development strategy are formidable. Many activities, involving large numbers of people over vast geographical areas, will have to be initiated or enlarged. To achieve the objectives, the administrative apparatus and procedures of the government may have to be adapted in important ways. In this context, it appears that the tendencies toward decentralization of decision making and delegation of responsibility need to be strengthened. Much attention needs to be given to the staff requirements of government agencies, and a massive training effort mounted to ensure the availability of adequate staff to carry out the various programs. To the extent that these training and staffing efforts would take time, temporary use of expatriate expertise may have to be considered if the development objectives are to be attained."

In a later section of the report, commenting on Repelita II (the second Five-Year Plan), the statement appears, "In general, the Plan adopts an employment oriented development strategy, and it estimates that the growth in employment can keep pace with the increase in the labor force." It does, however, couch this conclusion in the observation that a massive training program will be needed.

Given a continuing flow of resources, both indigenous and from donor nations, and recognizing the need to increase employment throughout Indonesia, it is apparent that the absorptive capacity to use those resources for wide-spread employment creating activities can be developed only through the training of an expanded level of professionals who possess planning, coordinating and implementing skills. The principal objective of this project is to strengthen and to broaden Indonesia's higher education faculties and curricula to hasten the graduation of the kind and calibre of graduates required to provide leadership in development planning and resource investment at all levels. With the graduation of specialists in administration, technology and the social sciences, it is expected that the managerial and technical talent will emerge to initiate and direct a diversity of activities which, in turn, will create fresh employment opportunities.

As the faculties and staffs of the country's principal institutions of higher learning gain strength, increasing attention can be directed to the development of new centers of academic concentration in areas of specialized study (e.g. marine science, forestry, mining, etc.). The selection of these centers is based on their proximity to environmental factors that would enhance and complement the academic program (with a secondary objective of attracting students from the already overcrowded universities of Java to less populated areas of the country). Thus, marine studies would be offered at an institution located on one of the islands where fishery resources are abundant, and students enrolled at that location would have the opportunity to observe the practical (and profitable) application of higher education to the exploitation of one of the country's potentially high-yield resources. Upon graduation, it is expected that many of these students will remain in the area to work and to give impetus to the social and economic growth of the community. Within a few years, it should be possible to measure the direct contribution of a broadened system of specialized higher education to the welfare of the rural farmer, fisherman and others of the laboring class.

The project will blend the best of U.S., third country and in-country resources to provide training responsive to some of Indonesia's most pressing manpower needs. Top echelon members of university faculties and staff will be sent abroad for graduate studies at recognized institutions, primarily in the U.S. However, when local environmental factors are of particular significance and relevance to the teaching and testing of applied research in an "Indonesian context," the training will be a joint effort involving a university-to-university relationship between Indonesian and U.S. institutions, with the former granting a graduate degree based in part on academic studies performed in the States.

By developing academic staffs nationally through the various training options, it is expected that at the end of the loan period universities in Indonesia will have 400 new doctoral graduates.

These 400, together with those currently in training and those who have recently returned, will provide approximately 150 doctoral graduates for each of the eight regions where institutions of higher learning will be upgraded. (see below).

A list of the regional center institutions and

their satellite institutions follows. (Note: those under-scored represent the Central Institutions and the ones that will receive the major financial support.)

Region I - Aceh and North Sumatra

University of North Sumatra (USU)

University of Syiah Kuala
Medan Teachers' College

The universities will specialize in the earth sciences, economics/plantation management, engineering and education administration. USU will provide the linkage between all three institutions. Through Pertamina grants, USU has already received modern laboratories and engineering equipment; however, the faculty is insufficiently trained to take advantage of these facilities. The other two institutions will have capital improvements made on campus to bring them up to the minimum standards needed to teach science and technology subjects. It is not planned to make them into research centers in the near future.

In all regions a major objective of upgrading faculties of universities will be to increase the number and quality of graduates capable of meeting the development needs of the region. Mobility of teaching staff and students will be achieved through an exchange of academics and students and through joint educational and research programs.

Region II - West Sumatra, Jambi, Riau

Andalas University

Padang Teachers' College

University of Jambi
University of Riau

These universities will specialize in the basic sciences, technology, teacher education and economics as these subjects relate to agro-business, including forest products. None of the institutions in this region has adequate laboratories or equipment to meet classroom or research requirements. Capital improvements and the purchase of equipment are projected to bring the physical plant up to

the minimum standards needed to teach science and technology subjects.

Region III - South Sumatra, Lampung, Jakarta and West Kalimantan.

University of Indonesia (UI)

University of Sriwijaya
University of Lampung
University of Tanjung Pura

Jakarta Teachers' College

Universities in this region will offer courses in the basic sciences and technology, the earth sciences, wood processing, ecology, public health and the social sciences. Except for the central "feeder" institutions, the universities are ill-equipped and lack adequate classroom space.

Region IV - West Java

Institute Technology, Bandung (ITB)

Bandung Teachers' College

University of Padjadjaran

University of Agriculture, Bogor (IPB)

The four universities in this region are both national and important regional centers of higher education. Their curricula will include courses in the earth sciences, industry technology, public health and the social sciences. All of them are currently receiving some capital improvements; however, all require upgrading of their laboratories. Plans are to up-date equipment from GOI budgets and other donors.

Region V - Central Java

Gadjah Mada University (GMU)

Diponegoro University
Yogyakarta Teachers' College
Semarang Teachers' College
Jenderal Sudirman University
11th March University

Gadjah Mada University is providing academic leadership for the region, and the five institutions will offer courses in coastal area development, rural development, health, technology, archeology and the physical and social sciences. Each institution will receive some capital improvements and a basic supply of laboratory equipment for science and technology courses. GMU has already begun the construction of additional classrooms.

Region VI - East Java, Central Kalimantan.

Airlangga University

Institute Technology, Surabaya (ITS)
Brawijaya University
Malang Teachers' College
Jember University
Surabaya Teachers' College
Palangkaraya University

The curricula of these institutions will include plantation management, rural development, earth sciences, health, education, science and technology and shipping construction.

ITS has received an ABD loan for upgrading its personnel and facilities and may not participate under the HEDTL. All sister universities to Airlangga require extensive capital improvements (scheduled for the next five years).

Region VII - East Kalimantan, South Kalimantan, North Sulawesi and South East Sulawesi.

Hasanuddin University

University of Mulawarman

University of Lambung Mangkurat
University of Sam Ratulangi
Manado Teachers' College
Ujung Pandang Teachers' College
Pattimura University
Cendrawasih University

The universities and colleges will concentrate on marine sciences, natural resources development, forest products,

education and the social sciences.

Hasanuddin University is the feeder institution for the region, although Mulawarman will receive both public and private donor assistance in strengthening and expanding its forestry research and forest industries teaching and research.

The development of marine sciences in the region will be assisted by the University of Indonesia, ITB and IPB. Funds from a grant from Jakarta and the physical facilities at Tanjung Priok will be used to develop a curriculum and areas for research in this important science.

Region VIII - Bali, East and West Nusa Tenggara

Udayana University

Mataram University

Nusa Cendana University

The primary emphasis in the universities will be on cattle breeding (with external assistance from Australian Government), arts, literature and fisheries, with IPB providing feeder assistance. Capital improvements and additional laboratories are planned over the next five years.

B. Financial Analysis

The general apportionment of U.S. funds will fall into three major categories: training in the U.S. (80 percent), in-country short-term consultants (10 percent), and third-country training (10 percent). These percentages are illustrative, and it is likely that some shifts will occur between categories as the various management and implementation costs emerge in greater detail. However, as the major objective of the project is academic training at the graduate level, it is reasonable to assume that the bulk of the loan will be devoted to meeting costs of training abroad.

In the early stages of the project most costs will be those associated with the staffing of the Directorate of Academic Affairs, selecting and testing trainees, and providing English language and other preparatory studies as required. Most of these will be local currency costs borne by the GCI. The dollar expenditures will accrue

largely in the second and third years of the project.

SUMMARY COST ESTIMATE AND FINANCIAL PLAN *
(\$ 000)

<u>Project Elements:</u>	<u>AID</u>		<u>GOI</u>		<u>Total:</u>
	<u>FX</u>	<u>LC</u>	<u>FX</u>	<u>LC</u>	
U.S. Participant Training & U.S. Contractor:					
A. U.S. Participant Training	3,766	-	-	585	4,351
B. U.S. Support Services Contractor	284	-	-	5	289
Third Country Participant Training	502	-	-	147	649
In-Country Short-Term Consultants	448	-	-	249	697
Local Support Costs	-	-	-	52	52
Commodities	-	-	-	962	962
T o t a l :	5,000	-	-	2,000	7,000
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Note: All figures have been rounded.

* The costing of Project Inputs/Outputs Table is not included because all project inputs are directed toward only two outputs, which in themselves are so interrelated as to make a cost breakout at this time unrealistic if not impossible.

Based on the host country's past performance in the selection of participants and the effective placement and utilization of returnees, and given the present state of GOI planning to establish the administrative machinery to launch its own training program and to develop the institutional capability to maintain a multi-year training program, it is reasonable to conclude that the financial plan for the project is comprehensive and sound and adequate for successful project implementation. In addition to the GOI's financial

commitment to the local currency support of this specific loan activity, the Department will apply \$7.5 million from the Development Budget for the physical construction of laboratories and classrooms and has budgeted an additional \$15 million for equipment, supplies and libraries.

C. Social Analysis

The university is to become a center of development capable of undertaking applied research and inquiry into development matters, according to current policy of the Directorate General of Higher Education. This loan will enable various universities of Indonesia to upgrade faculty and staff capabilities in "areas of development concentration" befitting their geographical settings and resource endowments as these bear on the study of various specialized academic disciplines, e.g., ocean sciences, forestry, health, engineering, environmental sciences, social sciences, humanities, educational innovation, extractive industry and modern technologies.

1. Socio-Cultural Feasibility: As the Government of Indonesia seeks to improve the general well being of the populace through projects related to employment generation, improved income distribution, regional growth, and education in the Second and Third Five Year Plans, more administrators and professionals will be needed at all levels of government -- local, regional and central. This loan will increase Indonesia's capacity for training high-level manpower with the analytical and problem-solving skills to define development goals, evaluate potentials for and constraints to growth, analyse alternatives, and to implement a broad spectrum of development projects aimed at improving the well-being of Indonesia's poor.

Training under the project will be provided in the U.S., third countries and in-country. Training in the U.S. will expose faculty members to both the rigors of a formal academic education and to the life style of a developed society; which, in turn, should increase their ability to understand and transmit the values needed for social change and development. Adoption of the "critical mass" concept will help solve the problems of sustaining curriculum innovation for returned participants. Together, the upgraded faculties, improved curricula, and the development of university research, consulting, and public services in

the special areas of concentration will provide needed support for development projects during the latter years of the Second Five Year Plan and during the Third Five Year Plan.

There is little doubt that the development of centers of educational specialization will buttress the social infrastructures in the transmigration areas on the Outer Islands and support the improvement of small and medium-sized communities in the regions where they are located.

The improvement of the faculties of the social sciences, behavioral sciences, and humanities will make available the research and knowledge needed for the successful delineation of development goals and constraints and the factors which influence popular participation -- the attitudes, customs, sanctions, and factors which impinge on the populace in the various regions. An understanding of the interplay of these factors would aid the government with the development of projects for the extension of social justice, equality and equity to the general population.

The development of faculties for the study of forestry will bolster the development of the forestry sector and generate new employment opportunities in large public enterprises on state reserves or in joint ventures on the Outer Islands. Although there is great potential for development, there has been little activity in forestry science; however, resource planning in the Directorate General of Forestry is still at an early stage of planning, and the lack of experts in forestry at the professional level (PhD and MA) has hindered the development of "sustained yield plans" for forestry and wood-related industries. With the training of a critical mass of specialists in forestry, the government would have the expertise to begin this planning.

Reforestation is also another priority area for development during the Second Five Year Plan. The extensive denuding of mountain slopes on Java has caused massive erosion and the contamination of water supplies. Before reforestation can be established, however, experts must generate public support for such activities, a lengthy and complicated process, and training of these experts in this specialized field is the first step.

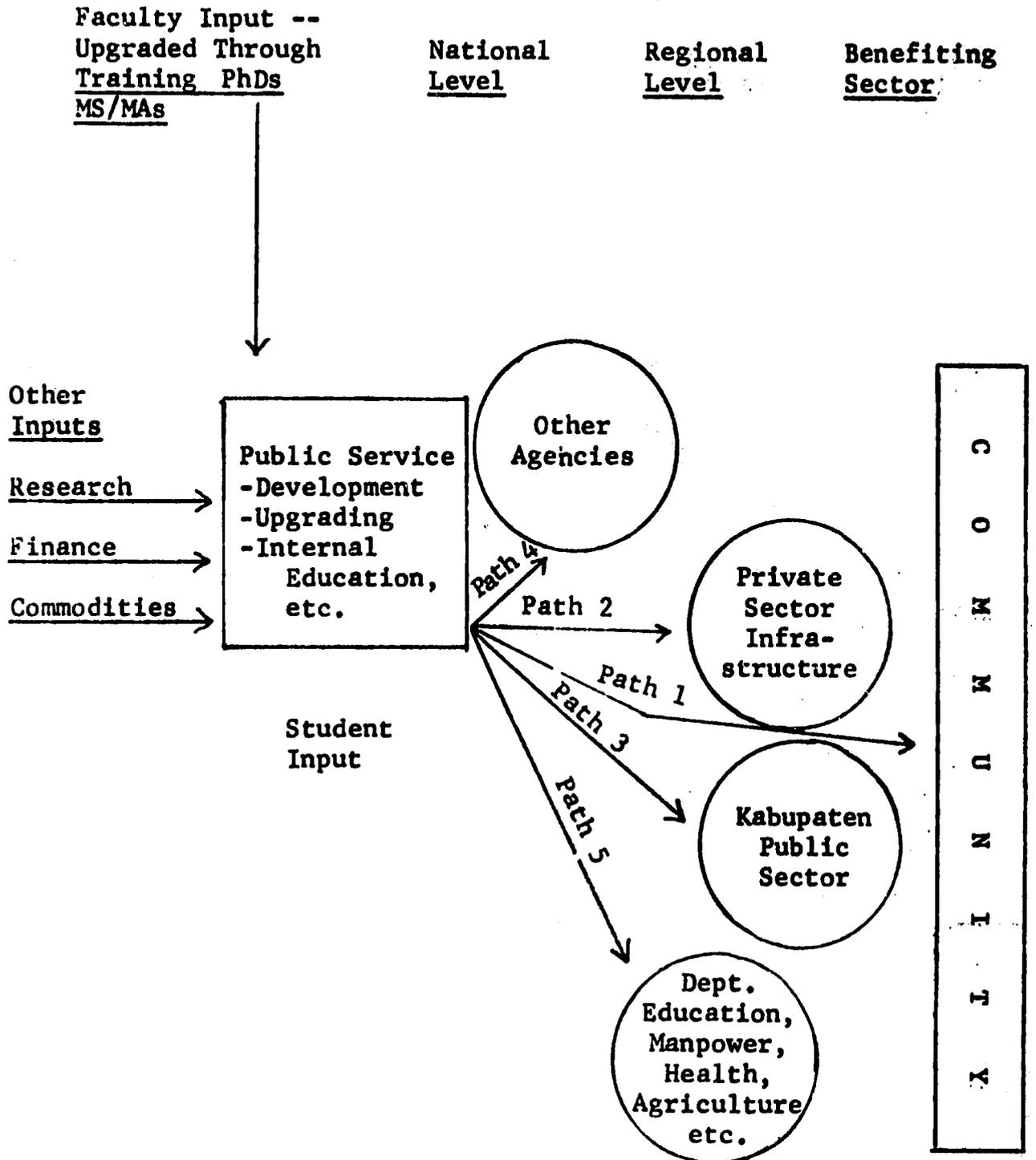
With the development studies in the ocean sciences, various projects of a high income and employment generating nature can be identified. For example, there are activities

which could be undertaken in support of the 180,000 hectares of brackish water fish farms in Indonesia, largely owned by small farmers, and to expand brackish water fish culture to about 600,000 additional hectares with good potential for development. Currently, shrimp fry in South Sulawesi and milkfish fry near Semarang are found off-coast, caught, and sold to inland small-holder fishermen. (Shrimp and milkfish farms are as small as .6 hectare. In the villages along the coast, milkfish are often caught by widows and orphans, and these serve as a source of income for them.) In the field of marine biology, the mapping of the Moluccas Straits and the Java Sea will be particularly beneficial for development of sustained yields of shrimp, tuna and other fish from fishing grounds near Ambon and Aceh.

With the upgrading of university centers for engineering studies, manpower can be trained to improve farm-to-market roads, small-scale irrigation systems, and low cost, improved quality housing. With the man/land ratio on Java reaching a critical level, the mountain areas have been overly deforested and cleared for agriculture, and the resulting erosion has contaminated water supplies and caused silting of canals and rivers. Now increased watershed management will be required to prevent further flooding and disease, and increased manpower in engineering will be needed for implementation of projects which will directly improve the health and welfare of the rural poor in these areas.

2. Spread Effects -- The Diffusion of Innovation: The Links between the University and the Community -- stronger linkages between the university and the community will need to be developed in the future through specialized manpower training and applied research, as well as through service and academic programs. The following schematic diagram illustrates possible ties between the university and the community.

Extension Linkages between Universities to Other Agencies and Community



Path 1 runs directly to the community. Several activities which should be developed through this Path are:

- a. The KKN or Student Service Program
- b. Pola Ilmiah Pokok ("PIP") or Scientific Pattern Program
- c. Informal Education through IKIPs, such as:
 - (1) University open door policy
 - (2) Education via satellite
 - (3) Education radio, press, and other media use

The Kuliah Kerja Nyata (KKN) or Student Service Program and the Scientific Pattern Program are promising new programs. The "KKN" is a scheme for involving students in full-time service programs in the rural community as an integral part of their academic study. Fourth year university students identify, prepare, and evaluate community development projects which are of highest priority to the community under the supervision of professors and live in the village for six months in order to assist the people in implementing the project. Currently, thirteen universities participate in the KKN program.

Paths 2 and 3 function at the regional level and are directed at collaboration with local agencies, including local government cooperatives, local extension offices of the various departments, and private or public enterprises. These activities may include :

- a. Community development projects
- b. Regional development planning
- c. Technical or specialist assistance
- d. Technical training
- e. Research information and recommendation

Paths 4 and 5 represent linkages to the national level: The activities may be carried out at the national level through the Department of Education and Culture in collaboration with the Department of Health, Interior Affairs, Manpower, Agriculture, and Industry, and other national level agencies. These activities may include:

- a. Assistance to affiliated universities, especially of the "pembina" or feeder faculties to the "non-pembina" faculties, especially in regional universities.
- b. Assistance to transmigration projects, especially in planning of regional needs.
- c. Provision of technical services.

- d. Specialist support to the extension services.
- e. Preparation of nonformal education materials and various materials.

3. Social Consequences and Benefit Incidence: Social Benefits -- The social benefits of an increased Indonesian capacity to design projects and train manpower and to deal with the poor majority has been explained above under Section 1 of the Social Analysis. With the development of specialized university environments on the Outer Islands, another social benefit which is expected to accrue, will be the reduction in numbers of students concentrated on Java by a gradual shift of a portion of the student population to the Outer Island universities. It is recognized, though, that the development of attractive student environments on the Outer Islands will require massive inputs for staff and plant development. The GOI is planning to use the AID loan for staff development; and expects to obtain other donor assistance for physical infrastructure development.

Private Benefits -- The training of 80 PhDs and 75 Masters degree candidates from the academic cadre in Indonesia's institutions of higher education as well as the administrative and research resources of the upgraded faculties will result in better qualified graduates equipped to perform better professionally which will result in an improvement in their employment and income potential and social mobility. The private returns for the individual graduate are quite high in terms of income and security. Tables 1 and 2 illustrate this.

According to the national assessment of higher education in 1971, it was estimated that more than half of the secondary graduates who applied for admission to institutions of higher education could not be admitted for lack of space. The number of high school graduates, it was estimated, would increase at about 9 percent per annum in the next ten years and rise in numbers from 127,000 in 1970 to 310,000 in 1980. The planned expansion of faculties, combined with faculty upgrading and the expansion of institutions, will do much to ease this constraint.

With respect to the role of women in higher education training, Indonesia has a progressive point of view, with men and women occupying equally responsible positions in university faculties. There is a much higher percentage of women in Indonesian faculties than in those of American universities. Under this project it is assumed that the distribution of candidates according to sex will

reflect the current educational mix, and there will be roughly twice as many men as women participants. According to a sample taken in 1971, there is roughly an even division in the population mix of men and women aged ten years and older. Among the members of this group who had attained a university education 0.1 percent were female and 0.2 percent were male.

TABLE 1

**LOWER QUANTILES, MEDIANS, AND UPPER QUANTILES OF
WEEKLY WAGES AND SALARIES, BY EDUCATIONAL ATTAINMENT,
JAKARTA 1968/69**

(in Rps. 1,000)

<u>Educational Attainment</u>	<u>Lower Quartile</u>	<u>Median</u>	<u>Upper Quartile</u>
No Schooling	0.5	1.0	3.3
Incomplete Primary Education	0.4	0.7	1.7
Complete Primary Education	0.5	1.2	3.0
Lower Secondary Education			
G e n e r a l	0.7	1.8	3.9
O t h e r	0.7	1.9	4.0
Upper Secondary Education			
G e n e r a l	1.0	2.7	5.1
C t h e r	1.0	2.7	5.4
<u>Academy/Sarjana Muda</u>	2.3	7.8	9.4
University	5.0	8.0	12.3
<u>A v e r a g e</u> =====	0.5 ----	1.0 ----	2.9 ----

Source: From IBRD Education Section Survey Report, 1974

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TABLE 2

UNEMPLOYMENT RATES IN THE CITIES OF JAKARTA, SURABAYA, AND
BANDUNG, BY LEVEL OF EDUCATION AND SEX, 1972

(in Percent)

<u>Level of Education</u>	<u>Males</u>			<u>Females</u>		
	<u>Jakarta</u>	<u>Surabaya</u>	<u>Bandung</u>	<u>Jakarta</u>	<u>Surabaya</u>	<u>Bandung</u>
No Schooling	7.9	2.9	8.4	4.4	3.0	3.0
Primary Education	6.1	3.7	5.5	7.3	5.7	7.7
Lower Secondary Education	27.3	17.0	23.9	38.7	34.7	46.3
Upper Secondary Education	14.9	17.3	19.6	21.0	27.6	30.6
Higher Education	11.9	8.2	12.8	12.0	9.9	16.9
<hr/>						
Lower and Upper Secondary Education						
General	20.5	16.7	27.1	31.9	35.5	26.4
Vocational/Technical	25.5	18.1	21.7	28.6	22.5	16.7
<hr/>						
<u>Averages</u>	<u>11.2</u>	<u>7.6</u>	<u>11.6</u>	<u>31.9</u>	<u>35.5</u>	<u>26.4</u>
=====	=====	=====	=====	=====	=====	=====

Source: Urban Unemployment Survey 1972, Jakarta, 1973.

From IBRD report, Education Section Survey Report, 1974.

D. Economic Analysis

Approach -- Economic analysis of the educational sector is hindered by the inability to measure adequately the social and consumptive benefits of education. For this reason, cost-benefit analysis cannot be used. An analysis of the manpower requirements of Indonesia serves as a good approach for the economic analysis of this loan, however, because (1) the availability of adequately trained manpower has been identified as a necessary condition to the successful implementation of the Second Five-Year Plan, (2) the principal benefit of higher education is thought to be increased skills and productive abilities, rather than social or consumptive benefits which accrue to primary and secondary education, and (3) the expectation of enhanced employment opportunities is an important factor in determining private demand for education.

1. Analysis of Manpower Requirements

This loan will contribute to the development of

3

the Indonesian economy and growth of employment opportunities by meeting Indonesia's high level manpower requirements, which have been growing lately as a result of the acceleration of development projects and the increased need for managers and professionals at the local levels of government. The few manpower surveys existing in the manufacturing sector also show a projected need for professionals and managers, particularly on the Outer Islands.

Although the system of higher education in Indonesia can be shown to be of sufficient size to meet current manpower needs, according to the IBRD Education Sector Survey Report of 1974, there is an imbalance of graduates in the various fields. The lack of regard for manpower requirements has resulted in surpluses of graduates in certain academic fields.

Another major contribution of the loan will be the reduction of education wastage in terms of high dropout rates. With increased administrative efficiency within the university faculties, the completion rate should increase and the relative costs of education should be reduced.

2. Indonesia's Manpower Needs

Indonesia's ranks of professional manpower are deficient in planners, economists, engineers, administrators, and technicians, and a "truly massive effort is called for in the upgrading of staffing requirements to build a dynamic, widely dispersed program needed to implement the strategy of Repelita II (IBRD's Basic Economic Report, April 1975) Presently, many of those in government employment are now overworked and underqualified for the functions which they are asked to perform. One of the most formidable tasks confronting government as it tries to implement its Repelita apparatus to cope with a rapidly increasing magnitude and diversity of tasks. Decision making is still highly centralized in the nation's capital, and procedures for budgeting and transfer of funds are outmoded and cumbersome. The gradual decentralization of decision making to the provincial level, such as public works programs, BIMAS, and transmigration, will place increasing responsibility on the provincial and local authorities to plan, design and implement local development projects.

The contribution of the regional universities, especially among the Outer Islands, to the training of government staff at the central and local levels will require a high degree of horizontal coordination between the Department of Education and Culture and other government agencies. The Department of Education and Culture has already begun to plan jointly with the Departments of Industry, Manpower, Agriculture, Interior Affairs, and Health preparation of specialized cur-

ricula to be taught under the "areas of development concentration" concept. The purpose of the loan is to upgrade the faculties to teach those curricula, and once that purpose is achieved sarjana (masters degree programs) and sarjana muda (bachelor degree programs) students can be made available for training and graduation to provide the skilled manpower needed for national growth.

Although current access to and availability of manpower requirements surveys is limited, there is some evidence in the manufacturing sector which supports the assumption that professional and managerial staff are in high demand, especially on the Outer Islands. As stated in the national assessment of education undertaken in 1971:

(a) A study of 49 factories in Bandung (1971) showed the need for specialists skills :

<u>Level</u>	<u>Nos. Needed</u>
Sarjana (MA graduate)	140
Academy (with sarjana muda level of degrees probably)	52
Sarjana Muda	43

(b) In a joint report of the ILO and the Department of Manpower, Transmigration and Cooperatives, "Employment and Training Patterns, Problems and Requirements in the Manufacturing Sector in Indonesia," March 1975, a survey in 1973 of 200 large scale and medium scale establishments was made. Rates of increase in employment were projected for 1973-1978 by occupational groups and regions, employing the assumptions of March 1979 employment and expected industrial employment/output elasticity as stated in the Second Five-Year Plan. The assumption is an overall growth of manufacturing employment of 6.5 percent during 1974-1979, and a labor force shift from agriculture to manufacturing reducing the employment in agriculture from 69 percent in 1970 to 65 percent in 1981. Additional assumptions were made on increased labor force demand. For establishment in the Outer Islands, the projected employment increase for new needs for 1973-1978 is highest for the professional group:

<u>Occupational Grouping</u>	<u>Outer Islands Rate of Employment Increase of "New Needs" 1973-78</u>
Professional Group	116.7%
Technical Workers	31.2%
Supervisors	16.4%
Clerical Workers	15.4%
Sales Workers	8.5%
Managerial Workers	8.0%

On Java, as well, the new needs for professional workers will be growing faster than these in the other categories :

<u>Occupational Grouping</u>	<u>Rate of Increase of Java "New Needs" 1973-1978</u>
Professional Workers	20.4%
Supervisors	12.0%
Sales Workers	13.1%
Skilled Production Workers	12.3%

(It should be kept in mind, however, that professional and managerial workers make up a small percentage of the absolute total manpower requirements projected for 1973-1978 -- on the Outer Islands, each group makes up 1.5 percent of the total manpower requirements, and on Java, 1.1 percent and 1.7 percent respectively.)

The conclusion of the IBRD in their analysis of manpower requirements for Indonesia in the IBRD Education Sector Survey Report of 1974 was that the country's higher education system should be sufficient to meet their manpower needs even under a maximum GDP growth assumption of 11 percent between 1971 and 1981. There might be problems in the quality of education, however, especially in terms of retaining student enrollments within the faculties once accepted and in defining the proper quantitative balance between the various fields of study. (Annex B explains the manpower analysis used by the World Bank to reach these conclusions.)

The scarcity of manpower to respond adequately to the redirection and acceleration of development efforts at the local level is often the result of a quantitative imbalance between the various fields of study and reaffirms the vital importance of proper selection of fields of concentration by region and university for the application of the concept of "areas of development concentration" to such academic specializations as ocean studies, forestry, extractive industry, sciences, social sciences, humanities, educational innovation and technology.

3. Reduction in Costs for Higher Education

According to the national assessment of higher education, perhaps the single constraint most inhibiting to the successful implementation of programs within the Department of Education is that of inadequate administrative capacity, rather than inadequate local financial resources. Inefficiencies in university administration, such as poor admission criteria

and the lack of guidance to students in the selection of disciplines for study, have contributed to low completion rates among university students, according to a survey of staff and students made in 1971. The average completion rates for the sarjana degree range from 13 percent among private registered universities to 40 percent among the leading public universities. The upgrading of university staff and increased administrative efficiency should lead to higher completion rates which, in turn, would result in a lower unit cost per graduate and a reduced cost to society for higher education. The 1971 assessment recommended that Indonesian university faculty and staff members receiving overseas training should more directly concentrate on specific studies of curriculum and the practical organization of academic course work.

E. Indonesian Women and Education

One of the inequities which this project will help alleviate is that of the education of women. An indication of the increasing awareness on the part of Indonesians of the importance of providing greater access to education, (particularly in the rural areas) is the INPRES program which is increasing the number of primary and lower secondary education schools by 6,000 per annum. These schools are being located mainly in rural areas but wherever, they will create significantly more access to education for females and more employment. BP3K planners estimate that over 30,000 more primary and secondary school teachers will be needed each year. The great majority of these new teachers will be women which will promptly elevate thousands of women to positions of leadership in the villages in rural areas. Teachers are frequently the best educated persons in the village and this condition added to traditional Asian respect for teachers will provide many opportunities for leadership roles for women.

As more women in the rural areas receive primary and secondary education, additional access to higher education will be needed which this project will provide. Furthermore, improved higher education including in-service training for teachers will enhance the leadership capability for thousands of women in teaching and in other fields as well.

Thus, it is recognized that HEDTL is complementary to other projects and is an essential part of a comprehensive effort to improve access to opportunities, particularly at the leadership level, in eight regions of Indonesia. Further, it is assumed that increased higher education opportunities will continue to reflect the unusually fine opportunities for women faculty members in the Indonesian higher education system. Currently, one third of the population benefitting from higher education are women and the percentage of women on faculties exceeds that found on the faculties of U.S. institutions. (See pages 29 and 30 this document.)

IV IMPLEMENTATION PLANNING

A. An Overview

The implementation plan is designed for maximum utilization of loan funds for training Indonesian faculty and staff members of institutions of higher learning. The implementation plan will be similar to that formulated for the Agriculture Education for Development project which has proven to be effective under MUCIA auspices.

The key feature of the implementation plan is the Joint Annual Review, to be held in June of each year. The Review will bring together the three parties bearing primary responsibility for the project: the Government of Indonesia, USAID, and the project contractor. At the Annual Review, the rate of accomplishment will be reported, progress will be evaluated, constraints will be identified, and targets for the coming year will be established. Thus the Annual Review will become the annual updating of the implementation plan.

The annual work plan is a document that will be drawn up each year in which the work plan for the coming year is fully delineated. It will focus attention on the logical framework relating goal, which will provide the terms of reference for activities to be undertaken during the coming year. Under this project the work plan will focus almost exclusively on an analysis of the participant training program and defining targets to be met during the year ahead.

The significance of the annual work plan is that it is a program statement that can be translated into budget terms and thereby provide the basis for resource allocations by all participant parties during the next year. Likewise, it becomes the yardstick against which operations are monitored and performance evaluated.

1. Selection Process.

The selection of participants will be initiated by the institutions themselves. Persons who are both language-qualified and qualified in academic subject fields will be screened for selection. The minimum TOEFL score of 500 accepted by the U.S. universities will be used, except when candidates are sent for study to third countries. Special training will be arranged at the Balai Bahasa or at the Lembaga Indonesia Amerika to improve participants' language proficiency. TOEFL tests will be arranged through

USAID/Jakarta. ~~Some~~ TOEFL-qualified candidates may be selected to attend basic courses in their area of studies if they are from universities which are perhaps weak or deficient in certain academic areas. This training will be given at Pembina (builders) universities.

All candidates must be approved by the Directorate General of Higher Education. Their academic programs and degree objectives will be specified in an agreement signed among all parties which will provide the basis for the participant placements. The contractor will use his best efforts to place participants in institutions of their first choice. Other things equal, the contractor will prefer placement in the contractor's universities; however, training will not be restricted to specific universities, and project objectives will be the ultimate selection criterion.

Participant training will take place both outside Indonesia and in country, or through a combination of in-country training and training abroad, with circumstances determining whether training costs will be met by GOI funds, other donors, or proceeds of this loan. The number of new participants in any given year will be subject to review and approval at the occasion of the Joint Annual Review.

2. Technical Services

Technical back-stopping services will be supplied from U.S. university sources. It is anticipated that the resident representative for the Agricultural Education for Development Project (MUCIA contract) will also provide technical back-stopping services for this project. He will function as an academic advisor in one or more doctoral programs in Indonesia and will supervise general participant operations and specific project supporting activities at the Directorate General of Higher Education in Jakarta.

B. Implementation Schedule

- | | |
|------------------------|--|
| 1. June 30, 1976 | - Loan authorization |
| 2. July 15, 1976 | - Draft loan agreement preparations begin |
| 3. August 15, 1976 | - Loan agreement review by GOI. |
| 4. August 31, 1976 | - Loan Agreement negotiations begin |
| 5. September 30, 1976 | - Loan signed. |
| 6. November 30, 1976 | - Conditions Precedent to disbursement met. |
| 7. December 31, 1976 | - Contract for support services signed. |
| 8. January 31, 1977 | - Letter of commitment issued. |
| 9. February 28, 1977 | - Letter of credit opened. |
| 10. January 1, 1981 | - Terminal date for requesting disbursement. |
| 11. September 30, 1981 | - Final disbursement date. |

C. Evaluation Plan

1. AID will fund various types of evaluations of this project. These will include annual evaluations covering the entire project and based on the logframe and PERT analysis, tentatively scheduled for May 1977, May 1978 and May 1979, with a Retrospective Joint Evaluation scheduled for November/December 1981. A detailed schedule of evaluations follows :

(a) June 1977: The Regular Annual Evaluation Review will focus on an evaluation of the institutional capability of the GOI to monitor and implement all aspects of the project, including the selection process, the work of the U.S. support service contractor, arrangements with U.S. universities, placement of returnees, etc.

(b) August 1977: A special Evaluation Review will be made of revisions of Areas of Concentration and project objectives according to findings of University and Faculty Surveys and Community Manpower Surveys.

(c) May 1978: Regular Annual Evaluation Review.

(d) May 1979 and 1980: Regular Annual Evaluation Review of all critical points, including Output Targets A, B & C. Special emphasis will be placed on the placement of returned trainees within the university and the series of follow-up workshops projected to insure continued innovation and growth.

(e) November/ December 1981: Retrospective Joint Evaluation - a comprehensive evaluation will be made in cooperation with the GOI.

D. Monitoring

For the GOI, the agency with direct responsibility for monitoring, is the Directorate General of Higher Education. In addition to routine reports from the universities, the principal instrument for monitoring is the Joint Annual Review and Annual Meeting of the Rectors. At that time reports will be received on the operations under way and the extent to which targets are being reached with respect to utilization of participant training. The Annual Review will establish work plans for each coming year and recommend budget levels to the Directorate General. As indicated earlier, monitoring described above is a joint undertaking and project representative from the university contractor will participate fully.

The university contractor will also report to

USAID the outcome of deliberations of the Joint Annual Review .

E. Conditions, Covenants and Negotiating Status

1. Conditions Precedent to Initial Disbursement

(a) An opinion of the Minister of Justice of the Borrower that the loan agreement has been duly authorized and/or constitutes a valid and legally binding obligation of the Borrower in accordance with all of its terms.

(b) A statement of the names of the person who will act as representatives of the Borrower together with evidence of their authority and specimen signatures of each.

(c) Written assurance that the estimated annual expenditures for each year during which the Project is being conducted (other than the United States dollar costs to be financed under the loan) will be made available to permit the work of the Project to proceed on a timely basis; a budgetary allocation for the Project for the Indonesian fiscal year 1976-1977; and an approved payment authorization for payment of Indonesian currency in the amount required for the first three months of Project operations.

(d) Of the 80 fields of study identified by the Academic Consortia for priority attention during the period 1976-80, Borrower shall select a limited number of fields, e.g. 10, on which loan resources will be concentrated. Such selection shall conform to objective criteria previously agreed to by Borrower and AID that assure that the educational programs assisted with loan resources will result in professional skills and activities most directly related to programs and problem-solving processes in the mandated areas and those which address the needs of the rural and urban poor in Indonesia. For each of these selected fields of study, Borrower shall also identify a few academic centers, e.g. 1 to 5, whose upgrading will be assisted on a priority basis by loan resources.

(e) For each of the selected academic centers, Borrower shall submit a five-year development plan which broadly describes (1) the current status of instructional, research and service programs; (2) program objectives and desired level of excellence by the end of the project; (3) assessment of current staff and physical resources and requirements to achieve program objectives; and (4) estimates of financial requirements and availability of budgetary resources, including proceeds from the loan needed to achieve program objectives. A key consideration in this plan is evidence of a professional environment, supporting staff and facilities, and conditions of employment and remuneration that will enable loan-financed participants to be effective in their institutional setting. Borrower shall also submit a more detailed work plan which fully delineates activities to be undertaken during the first year of the project.

2. Conditions Precedent to Commencement of Training

Prior to the commencement of training of Indonesians in the United States, third-country or in-country for which payment will be sought by the Borrower under the loan, the Borrower shall:

(a) Contract with a United States firm or organization acceptable to AID to provide the consulting services as described in the project description Part II B above.

(b) The Borrower shall submit to A.I.D., promptly upon preparation, in form and substance satisfactory to A.I.D., criteria to be utilized for selecting candidates for training under the loan.

3. Borrower Covenants

(a) The Borrower shall ensure that all financial and technical support required to effectively operate and maintain all aspects of the training program to be funded under the loan.

(b) The Borrower shall ensure that each participant, upon satisfactory completion of training, will be guaranteed a position in an appropriate university or other institution of higher learning.

(c) The Borrower and USAID shall make an annual evaluation of the project.

ANNEXES

1. THE ANALYSIS OF MANPOWER REQUIREMENTS
AS PRESENTED IN
THE IBRD EDUCATION SECTOR REPORT
MARCH 1974

Following is the analysis of manpower requirements as developed in the "IBRD Education Sector Survey Report of 1974, Appendix B: Manpower and Education." It is presented here to clarify the procedure undertaken to reach the conclusion presented in the "Economic Analysis" of this loan paper, section III.D., that the current size of the higher education system in Indonesia is adequate to meet projected needs to 1981, but that the quality of education and the distribution of students between faculties may present problems.

"Manpower requirements" are defined as the number of persons with given characteristics, e.g., education, skills, etc., needed to produce a specific measurable output. They are usually calculated in the following manner: "estimation of GDP and total employment--estimation of sectoral employment--occupational composition of sectoral employment--educational profiles of occupation--education and training needs." The IBRD report shortens this sequence by first directly estimating broad education/skill requirements for the whole economy defined in terms of broad occupational groupings and deriving the education/training needs from these global figures, through an assumption of the growth of GDP and the growth of the educational profile.

The broad occupational groupings are professionals, technicians, and skilled workers, and the residual total employment outside agriculture. The IBRD makes three alternative assumptions concerning the annual growth of GDP for 1971-1981--7 percent, 9 percent and 11 percent, corresponding to three alternative development strategies. The assumption of GDP growth rate of 9 percent for 1971-1981 most closely resembles the revised GNP estimate for 1975-1980 of 9.5 percent estimated by the IBRD in the April 1975 report of "Indonesia: Development Prospects and Needs Basic Economic Report."

Seven percent would correspond to a more equity and employment oriented strategy, which would stress improvement of the conditions in rural Java. "Subsidy schemes would focus on the employment side and try to reach as large a number of people as possible. Development outside agriculture would tend to favor small-scale units and concentrate on those branches that have the greatest potential for absorbing labor, thus possibly foregoing faster economic growth elsewhere."

The assumption of 11 percent growth rate stresses a concentration of resources in areas and sectors which promise substantial growth, development of transmigration, and extension of cultivation on the Outer Islands.

"Agriculture on Java would move more rapidly than in the first case towards greater capital intensity, leading to large numbers of redundant labor, Relief schemes would aim at developing infrastructure of a type and in places where it would contribute most to economic development, which would tend to be in the more prosperous rather than the depressed rural areas. Non-agricultural development would result on the average in larger units of production becoming increasingly capital-intensive while the present trend of industrial location towards urban areas (with the obvious important exception of mining) would continue."

"The intermediate pattern would obviously aim at striking a balance between the two previously discussed, although investment decisions may more often than not be governed by output growth rather than employment considerations."

ALTERNATIVE PATTERNS OF AGRICULTURAL AND NON-AGRICULTURAL GROWTH, 1971 - 1981
(in Rps. Billion at 1971 Market Prices)

	Base Year 1971	Assumed Annual GDP Growth Rate of					
		Annual Growth Rates (%)	7 percent	9 percent	11 percent	Annual Growth Rates (%)	1981
Agriculture	1,654.6	4.0	2,449.2	4.5	2,569.5	5.0	2,695
Non-Agricultural Sectors	<u>2,139.7</u>	8.9	<u>5,014.7</u>	11.6	<u>5,413.0</u>	14.2	<u>8,078</u>
Total GDP	3,794.3	7.0	6,463.9	9.0	8,982.5	11.0	10,773

Given these three growth rates, the IBRD report then assumes employment growth rates as follows: for 7 percent GDP growth rates there is a 2.7 percent annual growth rate of employment, for 9 percent growth rate of employment and for an 11 percent GDP growth rate, a 3.0 percent growth rate of employment. This means incremental employment/output ratios of 0.39 percent, 0.32 percent and 0.27 percent respectively (as compared to 0.25 for the period 1965-72 and 0.50 for the decade 1961-71). "In agriculture, employment growth is expected to decrease as output growth increases, from 1.50 percent to 1.25 percent to 1.00 percent annually for patterns 7, 9, 11, respectively. For the non-agricultural sector, employment is assumed to increase...by 4.5 percent, 5.2 percent and 5.7 percent, implying incremental employment/output ratios of 0.50, 0.45, and 0.40."

**ALTERNATIVE PATTERNS OF EMPLOYMENT GROWTH
IN AGRICULTURE AND NON-AGRICULTURAL SECTORS
1971-1981**

(in Million Persons)

	Base Year Empl. <u>1971</u>	Assumed Annual GDP Growth Rate of					
		<u>7 percent</u>		<u>9 percent</u>		<u>11 percent</u>	
		Annual Emplmt. Growth %	Empl. <u>1981</u>	Annual Emplmt. Growth %	Empl. <u>1981</u>	Annual Emplmt. Growth %	Empl. <u>1981</u>
Agriculture	24.8	1.5	28.8	1.3	28.1	1.0	17.4
Non-Agriculture Sectors	<u>14.4</u>	<u>4.5</u>	<u>22.4</u>	<u>5.2</u>	<u>23.9</u>	<u>5.7</u>	<u>25.1</u>
Total Economy	39.2	2.7	51.2	2.9	52.0	3.0	52.5

"Future unemployment levels are subject to much greater uncertainties. This is partly due to divergent definitions which cause even estimates of present unemployment to vary by a factor of two to three. The most crucial link in the chain of assumptions leading to unemployment projections, however, is the expected labor force participation rate. With an estimated population of age 10 and over of 106.0 million in 1981, a seemingly minor shift in the participation rate, say, by one percentage point, means a difference of one million people. In the case of Indonesia, neither the

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irregular development of the decade 1961-71 nor the example of other countries seem to be reliable indicators of future developments. If labor force participation rates remained unchanged, the 1981 labor force would number 52.9 million persons, resulting in nominal unemployment figures of 1.7 million, 0.9 million and 0.4 million, respectively under the 7 percent, 9 percent and 11 percent growth assumptions as compared to 0.9 million in 1971.

"The 1971 stocks of persons in the four broad occupational categories have been estimated from the census tabulations of the occupational and the educational structure of the labor force, with additional information provided by a number of other sources, notably data from several regional Manpower Resource Offices. The estimated stocks are about 180,000 for professionals, 540,000 for technicians and 1,450,000 for skilled workers.

"Between 1971 and 1981, the proportion of professionals in total employment is assumed to stay at its present level of about 0.6 percent, with the 7 percent GDP growth pattern and rise to 0.7 percent and 0.75 percent, respectively, under the 9 percent and 11 percent pattern. The professionals/ technicians ratio is left unchanged at 1:3 for all three growth alternatives. The proportion of level C workers to the total volume of non-agricultural employment is assumed to rise from 10 percent to 12 percent under the 7 percent and 9 percent GDP growth patterns, and to 12.5 percent with the assumption of an annual GDP growth rate of 11 percent. This set of assumptions appears justified in view of the more complex production processes implied by steeper GDP growth paths; it is also consistent with the experience of other countries. This set of hypotheses would result in the following alternative education/skill patterns in 1981.

**PROJECTED EMPLOYMENT IN MAJOR SKILL CATEGORIES
IN 1981, UNDER ALTERNATIVE GDP GROWTH ASSUMPTIONS
(in 1,000, Rounded)**

	<u>Assumed Annual GDP Growth of</u>		
	<u>7 Percent</u>	<u>9 Percent</u>	<u>11 Percent</u>
Level A (Professionals)	310	360	390
Level B (Technicians)	930	1,080	1,170
Level C (Skilled Workers)	1,700	2,900	3,100

"The average annual requirements (in 1,000) for the period 1971-81 would thus amount to 13.0, 18.0, and 21.0 for professional personnel, to 39.0, 54.0, and 63.0 for technicians, and to 125.0, 145.0, and 165.0 for skilled workers. Allowance has also to be made for the gradual depletion of the initial stocks due to invalidity, retirement, or death. The annual attrition is assumed to be 1.2 percent for level A personnel keeping in mind that the great majority of the present stock has started their working life only recently, 2.0 percent for level B (where the stock is probably a mixture of young entrants into the group and of older people who have qualified for this level through an extended work experience rather than formal education), and 3.3 percent for level C (where the extent of the on-the-job qualification and hence average age is probably even higher). The assumptions would result in annual replacement needs (in 1,000) of 2.0, 10.0, and 40.0 respectively, bringing the average annual manpower needs to the following totals:

**PROJECTED AVERAGE ANNUAL MANPOWER NEEDS
BETWEEN 1971 and 1981, BY MAJOR SKILL
CATEGORIES
(in 1,000, Rounded)**

	Average Annual GDP Growth of		
	<u>7 Percent</u>	<u>9 Percent</u>	<u>11 Percent</u>
Level A (Professionals)	15.0	20.0	23.0
Level B (Technicians)	49.0	64.0	73.0
Level C (Skilled Workers)	165.0	185.0	205.0

"The translation of these manpower needs into education and training requirements is burdened with many uncertainties, given the scarcity of information on the relevant characteristics of Indonesia's workforce, particularly on educational attainment, skills, and work experience. Two broad assumptions seem to be safe: (i) vertical substitution between neighboring skill categories is already widely applied; and (ii) the possibilities of continuing with it will decrease the faster the rate

of GDP growth, in view of the required change to more complex technologies. With these two reservations in mind, the following specific assumptions, which are available, have been made: (1) "Under the assumption of a 7 percent GDP growth rate," the proportion of the addition of workers to be given formal institutional training is...50, 50, and 25 percent, respectively, for professionals, technicians, and skilled workers; (ii) increases in all these proportions of 5 and 10 percentage points, respectively, are considered necessary in order to achieve the two higher GDP growth rates (i.e., 9 and 11 percent annually). This would mean percentages of 55, 45, and 30, respectively, for skill levels A, B, and C in the case of "A 9 percent GDP growth rate, and of 60, 50, and 35 in the case of an 11 percent GDP growth rate."

"The annual education and training requirements resulting from these assumptions are as follows:

Table 21: PROJECTED AVERAGE ANNUAL EDUCATION/TRAINING NEEDS BETWEEN 1971 and 1981, BY SKILL LEVEL (in 1,000 Rounded)

<u>Skill Level</u>	<u>Education/Training Required</u>	<u>Assumed Average Annual GDP Growth Rate</u>		
		<u>7 Percent</u>	<u>9 Percent</u>	<u>11 Percent</u>
A (Professionals)	University	8	11	14
B (Technicians)	Post-Secondary	20	29	37
C (Skilled Workers)	Vocational	41	56	72

With a comparison of these alternative projected education and training requirements with the present capacity of Indonesia's education and training system, the IBRD concludes that for professionals:

"The size of the country's higher education system should be sufficient to meet the needs even under the maximum GDP growth assumption. Problems might arise with regard to the quality of part of the higher education institutions, their ability to retain students (which in turn is related to the quality of the preceding education cycles, in particular, the upper secondary schools), and the proper quantitative balance between the various fields of study."

This is the conclusion presented in the economic analysis of the Project Paper.

2. I. U.S. PARTICIPANT TRAINING AND U.S. SUPPORT SERVICES CONTRACTOR COSTS

A. U. S. Participant Training

Subsistence (\$300 x 12)	\$	3,600	
Tuition and Fees		3,525	
Book Allowance		300	
Professional Society Dues		100	
Research Support		1,000	
Special Programming and Travel		300	
	\$	8,825	per year

One-time Costs:			
Roundtrip airfare to U.S.	\$	2,200	
Thesis		300	
	\$	2,500	

Cost for Completed MA/MS			
\$8,825 x 2 years average	\$	17,650	
One-time costs		2,500	
	\$	20,150	

Cost for Completed PhD			
\$8,825 x 4 years average	\$	35,300	
One-time Costs		2,500	
	\$	37,800	

End of Project Status			
65 MA/MS or equivalent		\$1,309,750	
65 PhD or equivalent		2,457,000	
		\$3,766,750	

B. U.S. Support Services Contractor

Training Advisor	\$	18,000	
Secretary		9,000	
	\$	27,000	
Fringe Benefits (20 percent)		5,400	
Overhead (69 percent)		18,630	
	\$	51,030	
Office supplies, travel, postage, etc.		5,810	
	\$	56,840	per year

U.S. Participant Training		\$3,766,750	
U.S. Support Services Contractor			
5 years (5 x \$56,840)	\$	284,200	
		\$4,050,950	

II. THIRD COUNTRY PARTICIPANT TRAINING COSTS

Subsistence (\$200 x 12)	\$ 2,400
Tuition and Fees	2,950
Book Allowance	150
Research Support	300
Special Programming and Travel	200
	<u>\$ 6,000 per year</u>
 One-time Costs	
Round trip Airfare	\$ 700
Thesis	200
	<u>\$ 900</u>
 Costs for Completed MA/MS	
\$6,000 x 2 years average	\$ 12,000
One-time Costs	900
	<u>\$ 12,900</u>
 Costs for Completed PhD	
\$6,000 x 4 years average	\$ 24,000
One-time Costs	900
	<u>\$ 24,900</u>
 End-of-Project Status	
10 MA/MS or equivalent	\$129,000
15 PhD or equivalent	373,500
	<u>\$502,500</u>

III. SHORT-TERM ADVISORS TO SUPPORT IN-COUNTRY DOCTORATE PROGRAM

Monthly Salary (assume annual salary of \$30,000) \$2,500 x 3,5 months	\$ 8,750
Fringe Benefits \$500 x 3,5 months @ 20 percent	1,750
Indirect Cost \$925 x 3,5 months @ 37 percent	3,237
Overseas Differential \$625 x 3 months @ 25 percent	1,875
International Travel	2,200
Predeparture Expenses	150
	<u>\$ 17,962</u>
Short-term Advisors 25 for 87,5 man-months, 25 x \$17,962	\$449,050

3. DETAILED IMPLEMENTATION PLAN

A.I.D. ACTIONS

1. June 30, 1976 - Loan authorization
2. July 1976 - Draft Loan Agreement
3. August/September 1976 - Loan Agreement negotiations
4. June 1976 to October 1976 - U.S. support services contractor to backstop participants sought and selected
5. September 1976 - Loan signed
6. November 1976 - Conditions Precedent to Disbursement met
7. December 1976 - Contract signed with U.S. support services contractor and U.S. training institutions chosen
8. January 1976 - Letter of Commitment issued
9. January/February 1977 - Support services contractor reps and academics from U.S. institutions visit Indonesia to survey institutions, develop training plan, establish logistics
10. February 1977 - Letter of Credit opened
11. January 1977 to March 1977 - Directorate of Academic Affairs, Consortia, Indonesian institutions key administrations undertake any necessary U.S./TCT programs to implement loan
12. February 1977 to May 1977 - Academic trainees depart for U.S. or TCT training of from two to five years. First to depart PhD candidates due to long matriculation necessary

- | | |
|---------------------------------------|--|
| 13. June 1977 to
February 1980 | - In-Indonesia workshops and seminars, programs and follow-up implementation programs held |
| 14. November 1978 to
November 1981 | - U.S. and TCT participants return to Indonesia |
| 15. November 1981 | - Final disbursements |
| 16. November 1981 to
December 1981 | - Loan Evaluation |

GOI ACTIONS

- | | |
|---------------------------------|--|
| 1. May 19, 1976 | - GOI letter requesting loan received |
| 2. August 1976 | - Review Loan Agreement |
| 3. June 1976 to
August 1976 | - Any necessary Directorate of Academic Affairs, Consortia, Indonesian institution staffing up and administrative reorganization made in order to implement loan |
| 4. August/September 1976 | - Loan Agreement negotiations |
| 5. September 1976 | - Loan signed |
| 6. June 1976 to
October 1976 | - GOI participates in identification of U.S. support services contractor |
| 7. November 1976 | - Conditions Precedent to Disbursement met |
| 8. December 1976 | - Contract for support services signed. Selection and initial contracts are made with U.S. and TCT training institutions |

9. January/February 1977
 - GOI and U.S. support services contractor, U.S. and TCT institutions establish procedures for administering participants during contractor and U.S. academics visit to Indonesia
 - First participants, PhD candidates if feasible, are made ready for training
10. January 1977 to March 1977
 - Key Indonesian administrators requiring upgrading visit U.S. and TCT for short programs or administrative visits
11. February 1977 to May 1979
 - Participants are selected, processed for U.S. and TCT degree training (if feasible, first will depart in February 1977; otherwise, initial departures will be in May 1977)
12. June 1977 to February 1980
 - In-Indonesia workshops and seminars, programs and follow-up implementation programs arranged for, supported and held
13. September 1981
 - Terminal date for requesting Disbursement
14. November 1978 to November 1981
 - U.S. and TCT participants return to Indonesia and are placed in home institutions
 - Follow-up programs are run to develop high utilization and transfer of skills (this effort will continue without loan support following completion of the loan.)
15. November/December 1981
 - GOI participates in loan evaluation

GOI PROJECT PLAN

1. **Project Title** : BASIC SCIENCES AND ENGINEERING SCIENCES DEVELOPMENT FOR TEN SELECTED INSTITUTIONS OF HIGHER LEARNING
2. **Location** : (1) Bandung Institute of Technology (ITB)
(2) Bogor Institute of Agriculture (IPB)
(3) University of Indonesia (UI), Jakarta
(4) University of Gajah Mada (UGM), Yogyakarta
(5) University of Airlangga (UNAIR), Surabaya
(6) University of Diponegoro (UNDIP), Semarang
(7) University Hasanuddin (UNHAS), Ujung Pandang
(8) University of North Sumatera (USU), Medan
(9) University of Andalas (UNNAD), Padang
(10) University of Sam Ratulangi (UNSRAT), Manado
3. **Project Sponsor** : The Consortium of Science and Technology, Directorate General of Higher Education, Jakarta
4. **Objectives** : Upgrading and expansion of laboratories in higher learning institutions with a view to improving the quality and quantity of scientists and and engineers
5. **Scope of Works** : 5.1. Immediate Objectives:
5.1.1. Upgrading and expansion of the laboratories of ten institutions of higher learning (mentioned in point 2) to meet the necessary requirement for modern higher education in the fields of basic sciences and engineering sciences

5.1.2. Recruitment of qualified teaching staff by providing them with well-equipped laboratories and workshops

5.2. Longterm Objectives:

5.2.1. Improving the quality and increasing the quantity of scientists and engineers needed for implementing national development programs

6. Implementation Time : Three (3) years
7. Project Cost : Total Cost US \$ 18,600,000
Local Cost US \$ 3,600,000
Foreign Exchange Cost US \$ 15,000,000
8. Amount proposed for Commitment : \$ 15,000,000
9. Related to Technical Assistance : to be related to proposed Higher Education for Development Loan
10. Stage of Project Preparation : A complete equipment list is being prepared, taking into account a coherent network planning/coordinated implementation of the project as a package
11. List of Equipment/ Materials for the Project :

<u>Field</u>	<u>Laboratory</u>	<u>Institutions</u>
1. Chemistry	Organic Inorganic Physical Analytical Bio	All ten , apparatus variable
2. Physics	Basic	All, idem.
3. Biology	Applied Zoophysio- logy Ecology Morphogenetic Genetic Phytopatology Physiology Anatomy Microbiology	All, idem.

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<u>Field</u>	<u>Laboratory</u>	<u>Institutions</u>
4. Civil Engineering	Hydraulics Structural Mechanics Soil Mechanics Building Materials Sanitary Surveying Engineering	ITB, UGM, UI, UNDIP, USU, UNSRAT, UNHAS Apparatus variable
5. Electrical	Electronics El. components Telecommunication Radio Telephony Elec. Machinery Instrumentation	ITB, UGM, USU Apparatus variable
6. Chemical Engr.	Unit operations processing	ITB, UGM, USU, UNDIP
7. Mechanical Engr.	Thermodynamics (Comb. Eng. Refrig, Steam) Fluid Mech. (pump/turbine) Metallurgy Mats. testing Metallography Mechanics dynamics, kinematics, vibration Workshop Metal processing, cutting, turning, etc. Welding	ITB, UGM, USU, UNDIP, UI, UNHAS
8. Maintenance Workshop	Metal processing Instruments Glassblowing	All institutions

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12. Brief Explanation

: The implementation of the Second Five-Year Development Plan (REPELITA II) calls for a large number of well-qualified scientists, especially in the field of Basic Sciences, such as Biology, Mathematics, Chemistry, and Physics as well as in the field of Engineering Sciences such as Civil, Mechanical, Chemical, and Electrical Engineering.

However, the universities will not be able to supply sufficient numbers of these highly advanced skilled manpower without a massive effort of academic staff development together with a large expansion of laboratory facilities.

It goes without saying that in the education of scientists and engineers, courses based on laboratory work will insure quality graduates, especially if sufficient time is devoted to experimentation through which the future graduates will develop their analytical capabilities and their skills in utilizing sophisticated instruments.

Higher Education Development Training

Logical Framework Matrix

I. A. <u>Program or Sector Goal</u>	B. <u>Measures of Goal Achievement</u>	C. <u>Means of Verification</u>	D. <u>Assumption</u>
1. To increase Indonesia's development capability at all levels by addressing the nation's manpower requirements and making possible the effective utilization of the human resources in order to accelerate social and economic growth and development.	1. A professionally competent staff within the Indonesian University system to properly conduct course work in 80 selected fields of study relevant to Indonesia's developmental manpower requirements. 2. An increase in the numbers of PhD's and MA/MS's teaching at Indonesia's 40 universities.	1. University catalogues 2. Reports of the Directorate General of Higher Education	1. Manpower is available for the planned training, in sufficient number qualifications, and capabilities
2. Contribute to the GOI Repelita II goal of training 1000 academics for Indonesia's 40 universities.			

- II. A. Project Purpose B. End of Project Status C. Means of Verification D. Assumptions
1. To enhance GOI capability in selected institutions in the Higher Education System to provide needed manpower training in specialized fields, e.g., fisheries, marine science, forestry, etc. relevant to the needs of the poor majority.
 1. Institutional capabilities to accommodate a projected 10-12% increase in output of the total student body by the end of Repelita II.
 2. In each of the eight regions faculties of selected institutions will be producing students in appropriate numbers and with professional competence in development oriented fields.
 3. Faculties performing an important role in research, planning and problem solving for regional and national programs
 4. A capability within the Ministry of Education and Culture to implement and manage a national program of educational up-grading.
1. University catalogues.
 2. Reports of the Directorate General of Higher Education.
 3. Consultants reports.
1. Each area of concentration will receive appropriate attention for overall development, and the numbers of potential trainees and their capabilities allow for the achievement of the targets
 2. A minimum of five doctorate degree holders is required to form the nucleus of a critical mass of academics for any field of specialization.
 3. Indonesia's universities, institutions, and Department of Education facilities adequately develop the institutional capability to conduct, maintain and utilize the training program plan.

III. A. Outputs

1. Regional institutions will have established a core staff in regional and national development related fields.
2. Within each of these institutions, a critical mass of trained faculty and staff cadre will have been developed, effective in teaching and applied research.
3. Improved curriculum, educational administration and library/laboratory operations in selected institutions of the eight regions.

B. Magnitude of Outputs

1. Training investment provided 65 doctoral degree and 65 masters by U.S. training and 15 doctorates and 10 masters by Third World including Indonesian institutions.
2. Training provided for the 8 regional centers of higher learning.
3. 880 university teachers and administrators trained in 85 seminars.
4. Effective operations in administration, curriculum revision and library/laboratory in 8 regional centers.

C. Means of Verification

1. Follow-up reports on participant trainees.
2. Reports of the Directorate General of Higher Education
3. Consultants' reports

D. Assumptions

1. Students selected for training complete their studies, return to Indonesia, and are assigned in significant roles for national development.
2. Sufficient funds and capabilities provided to the chosen Pembinas (primary study centers) to create and maintain the "multiplier effect" in national institutional upgrading.

IV.A.
Inputs:

USAID-Loan:
\$5,000,000 for

Graduate Training
in U.S./Combina-
tion
(\$4,050,000)

Graduate Training
in Third Countries
(\$ 502,000)

Short-term Advisers
to support in-
Country doctorate
program
(\$ 448,000)

GOI:
\$2,000,000

Program development
and planning.

Salaries and support
costs for
participants,
trainees and
committees.

Domestic travel and
workshops.

B.
Implementation Target
(Type and Quantity)

Five Year Implementation
Plan:

65 doctorates and 65 MA/MS
by U.S. Training/
Combination.

15 doctorates and 10 MA/MS
by Third Country
Training.

Training--
(new Start)
85 in 1977
70 in 1978

Total man-months Short-term
Advisors: 87.5

GOI: Rupiah equivalent
dollar inputs by GOI
budget for salaries
of staff and
trainees:

\$1.5 million 1976
\$4.5 million 1977
\$.5 million 1978
\$.6 million 1979
\$.3 million 1980

C.
Department of
Education and
Culture
Reports.

USAID Reports
and Records.

Contractor/
Consultant
Reports.

Department of
Finance
Records, Reports
and Statistics.

BAPPENAS and BP3K
Records.

Universities and
Institutions
Records,
Graduation Lists,
Staffing
Patterns,
Records.

Directorate
General of Higher
Education.

D.
Assumptions for providing
inputs:

GOI contributions are met.

Training candidates and
positions are available, and
placement is achieved.

GOI capacity for selection,
placement, backstopping and
follow-up is sufficient.

Consultants are contracted on
a timely basis for assistance
in the training program and
the in-country program.

STATUTORY CHECKLIST

I. FULFILLMENT OF STATUTORY OBJECTIVES

A. Needs Which the Loan is Addressing

1. FAA Section 103. Discuss the extent to which the loan will alleviate starvation, hunger, and malnutrition and will provide basic services to poor people enhancing their capacity for self-help.

2. FAA Section 104. Discuss the extent to which the loan will increase the opportunities and motivation for family planning; will reduce the rate of population growth; will prevent and combat disease; and will help provide health services for the great majority of the population.

3. FAA Section 105. Discuss the extent to which the loan will reduce illiteracy, extend basic education, and increase manpower training in skills related to development.

4. FAA Section 106. Discuss the extent to which the loan will help solve economic and social development problems in fields such as transportation, power, industry, urban development, and export development.

5. FAA Section 107. Discuss the extent to which the loan will support the general economy of the recipient country; or will support development programs conducted by private or international organizations.

1-5: The purpose of this loan is to provide funds for upgrading and expanding the faculties and staff key Indonesian Centers of higher learning. This will be accomplished through academic training in U.S., in-country and third-country institutions. Returnees from the training program will provide leadership and instruction in Indonesia's universities where they will impart the knowledge, skills and technology to students who one day will contribute to the nation's economic and social growth.

The government's national education policy explicitly looks to the country's universities as "centers for development". Education is viewed as a tool to bring about change and to either directly or indirectly benefit all of the people. Studies in the social and physical sciences, the arts and public and business administration are seen as having a distinct relevancy to programs in health, food production, family planning and manpower training in general, and, consequently, being of considerable benefit in solving problems of hunger, disease, illiteracy, and other obstacles to social and economic development set forth in FAA Sections 103-107.

Use of Loan Funds

1. FAA Section 110. What assurances have been made or will be made that the recipient country will provide at least 25% of the costs of the entire program, project or activity with respect to which such assistance is to be furnished under Sections 103-107 of the FAA.

The GOI will give its assurances by signing a loan agreement with such a provision therein.

2. FAA Section 111. Discuss the extent to which the loan will strengthen the participation of the urban and rural poor in their country's development, and will assist in the development of cooperatives which will enable and encourage greater numbers of poor people to help themselves toward a better life.

The loan will increase the caliber and number of trained manpower whose contribution to national growth will be felt at all levels of society. The teaching and application of practical research and new technology will create employment opportunities, raise the standard of living which, in turn, will enable the rural and urban poor to benefit from the nation's resources and thus provide an incentive to participate in the further development of the economy. It is perhaps not possible to show a direct cause and effect between this loan and the development of cooperatives, although certainly it would in no way retard their growth.

3. FAA Section 660. Will arrangements preclude use of funds for police training or other law enforcement assistance?

Yes.

4. FAA Section 113. Describe the extent to which the programs, projects or activities to be financed under the loan give particular attention to the integration of women into the national economy of the recipient country.

Women make up of some 30 percent of the student population of Indonesia's centers of higher learning. There is also a much higher percentage of women teaching in Indonesian faculties than in those of American universities. Both groups would benefit directly from the upgrading of the country's universities and be better prepared to take an active role in public and private sector affairs.

5. FAA Section 114. Will any part of the loan be used to pay for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?

No.

II. COUNTRY PERFORMANCE

A. Progress Towards Country Goals

1. FAA §§ 201(b)(5), 201(b)(7), 201(b)(8), 208. Discuss the extent to which the country is:

(a) Making appropriate efforts to increase food production and improve means for food storage and distribution.

Indonesia is giving priority attention to projects which aim at increasing food production, particularly rice. There are currently 100-110 donor-supported technical and capital assistance projects in support of food production. The majority of the above projects are directly concerned with increasing food production, and improved food storage, distribution and marketing.

(b) Creating a favorable climate for foreign and domestic private enterprise and investment.

The GOI enacted a comprehensive law with built-in incentives for encouraging foreign capital investment and has concluded an Investment Guaranty Agreement with the U.S. Under the foreign investment law tax credits of up to 5 years may be obtained for new investment in plant and facilities, subject to negotiation.

(c) Increasing the people's role in the development process.

Although the government owns a majority of the large enterprises in the country, it is actively encouraging private domestic investment. Officials of State Enterprises are receiving more freedom in management, and some State Enterprises are being converted to semi-private corporations. National elections were carried out in July 1971, and Parliament has a part in the budgetary process inasmuch as the annual budget must be authorized by Parliament and expenditures reported in the "Annual Report of Budgetary Accounts."

(d) Allocating expenditures to development rather than to unnecessary military purposes or to intervention in the affairs of other free countries.

With the end of confrontation with Malaysia in 1966, the Suharto administration reversed the foreign intervention policy of the Sukarno regime. Military expenditures have been sharply reduced as the government has concentrated the nation's domestic resources - and foreign aid receipts - on achieving economic stability and pursuing an ambitious development program.

(e) Willing to contribute funds to the project or program.

The GOI will contribute up to \$2.0 million (equivalent) in local currency to meet a major part of the local expenditure requirements of the Project.

(f) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements; and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.

Major economic reforms have been instituted with IMF/IBRD assistance including incentives to growth of individual initiative and private enterprise. Effective December 9, 1970, the GOI established one uniform exchange rate for all types of foreign exchange. On August 9, 1971, to reduce the trade gap, the Rupiah was devalued by about 10% to Rp. 415/US \$1. Further devaluations in December 1971 and early 1973 were pegged to devaluations of the dollar; the Rupiah has remained stable since then. The rate of inflation was reduced from 636.8 percent per annum in CY 1966 to about 10% in CY 1971. Inflation was about 26% in 1972, largely due to rice price increases; and continued at a level of about 30% during 1973 and 1974, although due principally to general price increases, not just rice alone. GOI revenues from the oil sector have grown rapidly since 1967 - equalling Rp. 48 billion in 1969/70, Rp. 345 billion in 1973/74, and a projected Rp. 1.5 trillion in 1975/76 (2/3 of projected government revenues). Non-oil revenues have grown with the economy during the same period.

(g) Responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

Approximately 12 percent of the development budget is devoted to the social field, which includes education, health, family planning, housing, manpower, social welfare, drinking water supply, culture and religion. The cooperating government has encourage self-help projects, such as Food for Work and other irrigation and road building projects carried out through its Department of Manpower. A substantial low cost housing program will be implemented in the Second Five Year Plan which began in April 1974.

B. Relations with the United States

1. FAA § 620(c). If assistance is to a government, is the government indebted to any U.S. citizen for goods or services furnished or ordered where:
(a) such citizen has exhausted available legal remedies, including arbitration, or
(b) the debt is not denied or contested by the government, or, (c) the indebtedness arises under such government's or a predecessor's unconditional guarantee?

We are not aware of any cases that make Indonesia ineligible under this Section.

2. FAA § 620(d). If the loan is intended for construction or operation of any productive enterprise that will compete with U.S. enterprise, has the country agreed that it will establish appropriate procedures to prevent export to the U.S. of more than 20% of its enterprise's annual production during the life of the loan?

Not applicable.

3. FAA § 620(e)(1). If assistance is to a government, has the country's government, or any agency or subdivision thereof, (a) nationalized or expropriated property owned by U.S. citizens or by any business entity not less than 50% beneficially owned by U.S. citizens, (b) taken steps to repudiate or nullify existing contracts or agreements with such citizens or entity, or (c) imposed or enforced discriminatory taxes or other exactions, or operation conditions? If so, and more than six months has elapsed since such occurrence, identify the document indicating that the government, or appropriate agency or subdivision thereof, has taken appropriate steps to discharge its obligations under international law toward such citizen or entity? If less than six months has elapsed, what steps if any has it taken to discharge its obligations?

The majority of business and property owned by U.S. citizens which was nationalized during the Sukarno regime (principally in 1964 and early 1965) has been returned to U.S. owners or mutually acceptable settlement negotiated. The Government of Indonesia in a Presidential Decree dated December 14, 1966 indicated its willingness to return nationalized assets.

4. FAA § 620(1). Has the country permitted, or failed to take adequate measures to prevent the damage or destruction by mob action of U.S. property, and failed to take appropriate measures to prevent a recurrence and to provide adequate compensation for such damage or destruction?

The country has not so permitted nor has it failed to take adequate measures.

5. FAA § 620(1). Has the government instituted an investment guaranty program under FAA § 234 (a)(1) for the specific risks of inconvertibility and expropriation or confiscation?

Yes.

6. FAA § 620(o). Fisherman's Protective Act of 1954, as amended, Section 5. Has the country seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters? If, as a result of a seizure, the USG has made reimbursement under the provision of the Fisherman's Protective Act and such amount has not been paid in full by the seizing country, identify the documentation which describes how the withholding of assistance under the FAA has been or will be accomplished.

No. Remainder of question therefore not applicable.

7. FAA § 620(a). Has the country been in default, during a period in excess of six months, in payment to the U.S. on any FAA loan?

No; however, repayment of one FAA loan has been re-scheduled by bilateral agreement dated March 1971 in accordance with terms of the Paris Agreed Minutes of April 1970.

8. FAA § 620(t). Have diplomatic relations between the country and the U.S. been severed? If so, have they been renewed?

No. Remainder of question therefore not applicable.

C. Relations with Other Nations and the U.N.

1. FAA § 620 (i). Has the country been officially represented at any international conference when that representation included planning activities involving insurrection, or subversion directed against the U.S. or countries receiving U.S. assistance?

We have no information as to any such representational activity.

2. FAA § 620(a), 620 (n). Has the country sold, furnished or permitted ships or aircraft under its registry to carry to Cuba or North Vietnam items of economic, military or other assistance?

We have no information of any such action by Indonesia.

3. FAA § 620(u); App. § 107. What is the status of the country's U.N. dues, assessments, or other obligations? Does the loan agreement bar any use of funds to pay U.N. assessments, dues, or arrearages?

Indonesia is not delinquent with respect to U.N. obligations. The loan agreement limits the use of loan proceeds to procurement of goods and services from A.I.D. Geographic Code 941 (Selected Free World) countries plus Indonesia.

D. Military Situation

1. FAA § 620(i). Has the country engaged in or prepared for aggressive military efforts directed against the U. S. or other countries receiving U.S. assistance?

No.

2. FAA § 620(s). (1) What is (a) the percentage of the country's budget devoted to military purposes; (b) the amount of the country's foreign exchange resources used to acquire military equipment, and (c) has the country spent money for sophisticated weapon systems purchased since the statutory limitations became effective? (2) Is the country diverting U.S. development assistance or PL-480 sales to military expenditures? (3) Is the country directing its own resources to unnecessary military expenditures? (Findings on these questions are to be made for each country at least once each fiscal year and, in addition, as often as may be required by a material change in relevant information.)

(1)(a) The Department of Defense portion of the Operating and Development State Budget has ranged from a high of 33% in CY 1967 to a low of 22% in the FY 1973/74 budget. Defense and national security expenditures equal 4.8% of the 1974/75 development budget. (b) We have no knowledge of any significant expenditures of foreign exchange for the military. Less than 10% of the military budget is allocated for foreign exchange purchases. Moreover, the Department of Defense budget includes substantial amounts for construction of roads, bridges and other civil works projects. (c) No, the Government is placing primary emphasis on economic development and not diverting its own resources for unnecessary military expenditures.
(2) No.
(3) No.

III. CONDITIONS OF THE LOAN

A. General Soundness

Interest and Repayment

1. FAA §§ 201(d), 201(b)(2). Is the rate of interest excessive or unreasonable for the borrower? Are there reasonable prospects for repayment? What is the grace period interest rate? Is the rate of interest higher than the country's applicable legal rate of interest?

Although Indonesia's debt burden was heavy in the past, and has grown rapidly in the past year, there has been equally rapid growth in real Government revenues. With the high current level of foreign exchange export earnings, it is considered that future debt payments will be easily manageable if the magnitude and nature of future borrowings are carefully controlled by the GOI. The various donors agree Indonesia has a debt burden for which the prospects of repayment are reasonable. Country terms of a 40-year loan, 10-year grace period, 2% interest during the grace period, 3% thereafter, pertain. The rate of interest is not higher than the country's applicable legal rate of interest.

Financing

1. FAA § 201(b)(1). To what extent can financing on reasonable terms be obtained from other freeworld sources, including private sources within the U.S.?

Loan assistance to Indonesia is provided within the framework of the Inter-Governmental Group on Indonesia (IGGI), advised by the IBRD and the IMF. This loan has been selected by AID as part of the U.S. Government contribution to the IGGI consortium and as such is supported by the IBRD resident mission. The Exim Bank has expressed no interest in financing any portion of this Project.

Economic and Technical Soundness

1. FAA §§ 201(b)(2), 201(e).
The activity's economic and technical soundness to undertake loan; does the loan application, together with information and assurances, indicate that funds will be used in an economically and technically sound manner?

Yes. See the Technical Analysis and Socio-economic Analysis sections of the Project Paper.

2. FAA § 611 (a)(1). Have engineering, financial, and other plans necessary to carry out assistance, and a reasonably firm estimate of the cost of assistance to the U.S., been completed?

Necessary planning and a reasonably firm cost estimate for the Project have been completed (see the Technical and Financial Analysis Sections of the Project Paper).

3. FAA § 611(b): App. § 101. If the loan or grant is for a water or related land-resource construction project or program, do plans include a cost-benefit computation? Does the project or program meet the relevant U.S. construction standards and criteria used in determining feasibility?

Not applicable.

4. FAA § 611(e). If this is a Capital Assistance Project with U.S. financing in excess of \$1 million, has the principal AID officer in the country certified as to the country's capability effectively to maintain and utilize the project?

Not applicable.

B. Relation to Achievement of Country
and Regional Goals

Country Goals

1. FAA §§ 207, 281(a). Describe this loan's relation to:

(a) Institutions needed for a democratic society and to assure maximum participation on the part of the people in the task of economic development.

Through the strengthening of faculty and staffs in a number of centers of higher learning in various regions of the country where students will gain the skills and knowledge requisite for the orderly participation in political and economic development.

(b) Enabling the country to meet its food needs, both from its own resources and through development, with U.S. help, or infrastructure to support increased agricultural productivity.

Only indirectly applicable in terms of upgrading faculties concerned with teaching courses in agriculture science and technology.

(c) Meeting increasing need for trained manpower.

The medium to long-range payoff of this project will be an improved capability to produce significantly better trained and increased numbers of skilled manpower at the university level.

(d) Developing programs to meet public health needs.

Applicable only in the manner that (b) above applies to food production.

(e) Assisting other important economic, political, and social development activities, including; industrial development; growth of free labor unions; cooperatives and voluntary agencies; improvement of transportation and communication systems; capabilities for planning and public administration; urban development and modernization of existing laws.

2. FAA s 201(b)(4). Describe the activity's consistency with and relationship to other development activities, and its contribution to realizable long-range objectives.

The role of a university embraces the very broadest spectrum of ideas, values, principals and standards of human behavior. It's impact is felt in every quarter of society, in every economic, social and political pursuit. For a full discussion of this subject see the "Social Analysis" in Section III C of this Project Paper.

As stated in Section IA of the Statutory Checklist, the GOI sees the nation's universities as "centers for development," and the objective of this project to upgrade and to expand university faculties and staffs is logically consistent with other national development activities.

3. FAA § 201(b)(9). How will the activity to be financed contribute to the achievement of self-sustaining growth?

Improvements to the country's education system is a key condition to self-sustaining growth.

4. FAA § 201(f). If this is a project loan, describe how such will promote the country's economic development, taking into account the country's human and material resource requirements and the relationship between ultimate objectives of the project and overall economic development.

Successful completion of the project will promote economic development by strengthening the national capability to produce a key ingredient to overall growth -- trained manpower.

5. FAA § 201(b)(3). In what way does the activity give reasonable promise of contributing to development of economic resources, or to increase of productive capabilities?

The project will strengthen the institutional structure necessary to provide a continuing source of manpower to plan, design, manage and implement the public and private sector activities of the nation.

6. FAA § 281(b). How does the program under which assistance is provided recognize the particular needs, desires, and capacities of the country's people; utilize the country's intellectual resources to encourage institutional development; and support civic education and training in skills required for effective participation in political processes?

The upgrading and expanding of Indonesia's centers of higher learning will provide increased opportunities for the country's people to satisfy their intellectual appetites, to improve their understanding and awareness of their social and political environment and to take a more active and productive role in improving that environment.

7. FAA § 601(a). How will this loan encourage the country's efforts to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions?

Although the project likely will have an effect in all of these areas it is not designed to impinge on any particular one.

8. FAA § 202(a). Indicate the amount of money under the loan which is: going directly to private enterprise; going to intermediate credit institutions or other borrowers for use by private enterprise; being used to finance imports from private sources; or otherwise being used to finance procurements from private sources.

Nearly all of the money to be expended will go to pay the costs of education abroad or in-country. At this time it is not possible to project the amounts that will accrue to private universities or to state-owned institutions. A small percentage of the expenditures will go to pay travel costs on both public and private carriers.

9. FAA § 611(a)(2). What legislative action is required within the recipient country? What is the basis for a reasonable anticipation that such action will be completed in time to permit orderly accomplishment of purposes of loan?

None.

Regional Goals

1. FAA § 619. If this loan is assisting a newly independent country, to what extent do the circumstances permit such assistance to be furnished through multilateral organizations or plans?

Not applicable.

2. FAA § 209. If this loan is directed at a problem or an opportunity that is regional in nature, how does assistance under this loan encourage a regional development program? What multilateral assistance is presently being furnished to the country?

For a discussion of regional implications see the third and fourth paragraphs under Section D, "Summary Findings", of this paper. Multilateral assistance is provided to the GOI by a consortium of donor countries (IGGI) under an IBRD umbrella.

C. Relation to U.S. Economy

Employment, Balance of Payments,
Private Enterprises.

1. FAA § § 201(b)(6); 102. Fifth.
What are the possible effects of this loan on U.S. economy, with special reference to areas of substantial labor surplus? Describe the extent to which assistance is constituted of U.S. commodities and services, furnished in a manner consistent with improving the U.S. balance of payments position.

The only effect of the loan on the U.S. economy will be to provide dollar funds to U.S. universities for training and consultancy services, to a U.S. contractor to manage the Stateside housekeeping operations and to purchase tickets on U.S. carriers for travel within the States. No commodities will be purchased.

2. FAA § § 612(b), 636(n). What steps have been taken to assure that, to the maximum extent possible, foreign currencies contributed by the country are utilized to meet the cost of contractual and other services, and that U.S. foreign-owned currencies are utilized in lieu of dollars?

Services requiring foreign exchange financing will be procured from AID Geographic Code 941 countries plus Indonesia. U.S. owned local currency is not available in Indonesia.

3. FAA § 601(d); App. § 108.
If this loan is for a capital project, to what extent has the Agency encouraged utilization of engineering and professional services of U.S. firms and their affiliates? If the loan is to be used to finance direct costs for construction, will any of the contractors be persons other than qualified nationals of the country or qualified citizens of the U.S.? If so, has the required waiver been obtained?

Not applicable.

4. FAA § 608(a). Provide information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.

Not applicable.

5. FAA § 602. What efforts have been made to assist U.S. small business to participate equitably in the furnishing of commodities and services financed by this loan?

Not applicable.

6. FAA § 621. If the loan provides technical assistance, how is private enterprise on a contract basis utilized? If the facilities of other Federal agencies will be utilized, in what ways are they competitive with private enterprise (if so, explain); and how can they be made available without undue interference with domestic programs?

Because this is an academic training program loan all contract technical assistance will be provided by U.S. universities except that required to backstop the program in the U.S. In the latter instance it is anticipated that the GOI will contract with a U.S. organization with experience in administering international training program.

7. FAA § 611(c). If this loan involves a contract for construction that obligates in excess of \$100,000, will it be on a competitive basis? If not, are there factors which make it impracticable?

Not applicable.

8. FAA § 601(b). Describe the efforts made in connection with this loan to encourage and facilitate participation of private enterprise in achieving the purposes of the Act.

Not applicable.

Procurement

1. FAA § 604(a). Will commodity procurement be restricted to U.S. except as otherwise determined by the President?

Not applicable.

2. FAA § 604(b). Will any part of this loan be used for bulk commodity procurement at adjusted prices higher than the market price prevailing in the U.S. at time of purchase?

Not applicable.

3. FAA § 604(e). Will any part of this loan be used for procurement of any agricultural commodity or product thereof outside the U.S. when the domestic price of such commodity is less than parity?

Not applicable.

4. FAA § 604(f). Will the agency receive the necessary pre-payment certifications from suppliers under a commodity import program agreement as to description and condition of commodities, and on the basis of such determine eligibility and suitability for financing?

Not applicable.

D. Other Requirements

1. FAA § 201(b). Is the country among those countries in which development loan funds may be used to make loans in this fiscal year?

Yes.

2. App. § 105. Does the loan agreement provide, with respect to capital projects, for U.S. approval of contract terms and firms?

Not applicable

3. FAA § 620(k). If the loan is for construction of a production enterprise, with respect to which the aggregate value of assistance to be furnished will exceed \$100 million what preparation has been made to obtain the express approval of the Congress?

Not applicable.

4. FAA § 620(b), 620(f). Has the President determined that the country is not dominated or controlled by the International Communist movement? If the Country is a Communist Country (Including, but not limited to, the countries listed in FAA § 620 (f)) and the loan is intended for economic assistance, have the findings required by FAA § 620(f) been made and reported to the Congress?

Yes, the required determination has been made. Remainder of question is, therefore, not applicable.

5. FAA § 620(h). What steps have been taken to insure that the loan will not be used in a manner which, contrary to the best interest of the United States, promotes or assists the foreign aid projects of the Communist-bloc countries?

The loan agreement will cover this requirement.

6. App. § 109. Will any funds be used to finance procurement of iron and steel product for use in Vietnam other than as contemplated by § 109? No.
7. FAA § 636(1). Will any part of this loan be used in financing non-U.S. manufactured automobiles? If so, has the required waiver been obtained? No.
8. FAA § 620(a)(1) and (2). Will any assistance be furnished or funds made available to the government of Cuba? No.
9. FAA § 620(g). Will any part of this loan be used to compensate owners for expropriated or nationalized property? If any assistance has been used for such purpose in the past, has appropriate reimbursement been made to the U.S. for sums diverted? No. No assistance has been used for such purposes in the past.
10. FAA § 201(f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise? Not applicable to this type of training project.
11. App. § 103. Will any funds under the loan be used to pay pensions, etc., for persons who are serving or who have served in the recipient country's armed forces? No.

12. MMA § 901.b. Does the loan agreement provide, for compliance with U.S. shipping requirements, that at least 50% of the gross tonnage of all commodities financed with funds made available under this loan (computed separately by geographic area for dry bulk carriers dry cargo liners, and tankers) be transported on privately owned U.S.-flag commercial vessels to the extent such vessels are available at fair and reasonable rates for U.S. flag vessels. Does the loan agreement also provide for compliance with U.S. shipping requirements, that at least 50% of the gross freight revenues of goods shipped under this loan must be earned by privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates for U.S. vessels?

Not applicable.

13. FAA § 481. Has the President determined that the recipient country has failed to take adequate steps to prevent narcotic drugs produced or procured in, or transported through such country from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents or from entering the United States unlawfully?

No.

14. App. § 110. Is the loan being used to transfer funds to world lending institutions under FAA §§ 209(d) and 251(h)?

No.

15. App. § 501. Are any of these funds being used for publicity of propaganda within the United States? No.
16. FAA § 612(d) and Section 40 of PL 93-189 (FAA of 1973). Does the United States own excess foreign currency and, if so, what arrangements have been made for its release in compliance with Section 40 (FAA of 1973)? U.S. owned excess local currency is not available in Indonesia.
17. FAA § 604(d). Will provision be made for placing marine insurance in the U.S. if the recipient country discriminates against any marine insurance company authorized to do business in the U.S.? Not applicable.
18. FAA § 659. Is there a military base located in the recipient country which base was constructed or is being maintained or operated with funds furnished by the U.S., and in which U.S. personnel carry out military operations? If so, has a determination been made that the government of such recipient country has, consistent with security, authorized access, on a regular basis to bonafide news media correspondents of the U.S. to such military base? No. Remainder of question therefore not applicable.
19. Sections 30 and 31 of PL 93-189 (FAA of 1973). Will any part of the loan be used to finance directly or indirectly military or paramilitary operations by the U.S. or by foreign forces in or over Laos, North Vietnam, South Vietnam or Thailand? No.

20. App. § 111. Will any part of this loan be used to provide assistance to North Vietnam? No.
21. FAA Section 640(c). Will a grant be made to the recipient country to pay all or part of such shipping differential as is determined by the Secretary of Commerce to exist between U.S. and foreign flag vessel charter or freight rates? No.
22. App. § 112. Will any of the funds appropriated or local currencies generated as a result of AID assistance be used for support of police or prison construction and administration in South Vietnam or for support of police training of South Vietnamese? No.
23. App. § 113. Have the House and Senate Committees on Appropriations been notified fifteen days in advance of the availability of funds for the purposes of this project? Appropriate steps are being taken to satisfy this requirement.
24. App. § 504. Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to South East Asia for use by non-U.S. nationals? No.
25. FAA § 901. Has the country denied its citizens the right or opportunity to emigrate? No.



USA

OFFICIAL FILE

REPUBLIC OF INDONESIA
NATIONAL DEVELOPMENT PLANNING AGENCY
JAKARTA, INDONESIA

No.: /380/D.I/V/1976

Mr. Thomas C. Niblock
Director,
US-AID Mission to Indonesia,
c/o American Embassy,
Jakarta.-

Dear Mr. Niblock,

USAID ROUTING		
TO	ACT.	INIT.
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USA		

Jakarta, May 19, 1976.-

ACTION COPY
DATE DUE 6-4.
ACTION TAKEN
DATE
BY:
RETURN TO C & R

Subject : Higher Education Development Training -

The Government of Indonesia requests from the Government of the United States of America a loan up to five million US dollars (US\$ 5,000,000.-) for the purpose of and subject to the provisions hereinafter stated.

This loan is needed to meet the partial cost of a project in academic manpower development under which the faculties of key Indonesian centers of higher education will be upgraded and expanded through training at U.S., in-country and third country institutions. The executing agency will be the GOI's Directorate General of Higher Education which, in collaboration with U.S. consultants and universities, will plan and implement the training activities under the loan.

The project will be an integral part of an overall graduate and advanced study program developed by the Government of Indonesia with the goal of producing a substantial number of doctorates or equivalent and large increases in the numbers of MA/MS degree holders over the next three to five years. It will consist of a two pronged effort to upgrade institutions and to provide faculty and is directed to the development of centers of academic concentration in areas of specialized study. The selection of the centers is based on the potential available within the area and the capability of institutions of higher education to support national development aims.

The loan requested will specifically support this program by providing training in the U.S. for 65 PhD candidates and 65 MA/MS candidates, plus third country training for 15 PhDs and 10 MA/MS candidates. It will also assist in-country training activities by providing the services of 25 short-term consultants from U.S. institutions for up to 87.5 man-months. The loan is especially designed to provide assistance to faculties in institutions of higher education with high priorities given to sciences, technology and selected social sciences.

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**REPUBLIC OF INDONESIA
NATIONAL DEVELOPMENT PLANNING AGENCY
JAKARTA, INDONESIA**

The GOI contribution to the project will include, but is not limited to, GOI staff costs, planning studies conducted by Indonesians in country, domestic travel, academic trainee salaries during the period of study and costs for in-Indonesia workshops, seminars and programs, excepting the honoraria, per diem, in-country travel and other local costs involved in bringing U.S. and third country academic specialists to Indonesia.

Other sources of financing for the above project are not available at this moment to the GOI nor anticipated in the near future. Funds currently available from other donor countries or from other agencies have been allocated to other priority projects within the framework of Repelita II.

It is hoped that the above information will be adequate for your consideration of this loan application.



Sincerely yours,

Safet Affit
Safet Affit
Deputy Chairman

- Co. : 1. Cabinet Secretariat;
2. Director General for Monetary Affairs,
Department of Finance;
3. Director General for Foreign Economic Relations,
Department of Foreign Affairs;
4. Secretary General, Department of Education and
Culture.-
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LOAN AUTHORIZATION

Provided under: Section 105: Education and Human Resources Development
(Indonesia: Higher Education Development Training)

Pursuant to the authority vested in me as Assistant Administrator, Bureau for Asia, Agency for International Development ("A.I.D."), by the Foreign Assistance Act of 1961, as amended, (the "Act") and the delegations of authority issued thereunder, I hereby authorize the establishment of a Loan pursuant to Part I, Chapter 1, Section 105 and Chapter 2, Title I, the Development Loan Fund, of said Act, to the Government of the Republic of Indonesia ("Borrower") of not to exceed Five Million United States Dollars (\$5,000,000) to assist in financing the United States dollar and local currency costs of advanced training, upgrading and development of the faculties, administrations and staffs of state and selected private universities and institutions of higher learning for Indonesia, the Loan to be subject to the following terms and conditions:

1. Terms of Repayment and Interest Rate

Borrower shall repay the Loan to A.I.D. in United States dollars within forty (40) years from the date of the first disbursement under the Loan, including a grace period of not to exceed ten (10) years. Borrower shall pay to A.I.D. in United States dollars interest at the rate of two percent (2%) per annum during the grace period and three percent (3%) per annum thereafter on the outstanding disbursed balance of the Loan and on any due and unpaid interest accrued thereon.

2. Other Terms and Conditions

a. Except as A.I.D. may otherwise agree in writing:

(1) Goods and services financed under the Loan shall have their source and origin in countries included in A.I.D. Geographic Code 941 and Indonesia;

(2) Appropriate provision shall be made to the effect that, as conditions precedent to the use of loan funds:

(A) Within fields of study identified by

Borrower for priority attention, Borrower shall select a limited number, acceptable to A.I.D., on which loan resources will be concentrated.

Such selection shall conform to criteria designed to assure that the educational programs assisted with loan resources will result in professional skills and activities most directly related to programs and problem-solving processes which address the needs of the rural and urban poor in Indonesia. For each of these selected fields of study, Borrower shall also identify a limited number, acceptable to A.I.D., of academic centers whose further upgrading will be assisted on a priority basis by loan resources.

(B) For each of the selected academic centers, Borrower shall submit a multi-year development plan which describes (1) the current status of instructional, research and service programs; (2) program objectives and desired level of excellence by the end of the project; and (3) assessment of current staff, physical, and financial resources and requirements to achieve program objectives. These development plans will include consideration of the professional environment, supporting staff and facilities, and conditions of employment and remuneration to enable loan-financed participants to be fully effective in their institutional setting. In addition, Borrower shall submit a more detailed work plan which fully delineates activities to be undertaken during the first year of the project.

b. The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Assistant Administrator
Bureau for Asia

Date