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EDUCATION COMMUNICATIONS DEVELOPMENT PROJECT

SOCIAL FEASIBILITY

Dr. Roy Colle

Cornell University

SOCIAL SOUNDNESS ANALYSIS

A. Method

This paper deals with the development of an educational technology center in Indonesia to strengthen and expand The GOI's capabilities in using educational media for school, out-of-school, and non-formal education.

Material for this Social Analysis was gathered from interviews, published and unpublished materials and personal observations

Interviews and discussions were held with a wide range of people in The Department of Education and Culture. These included two different ministries, three Director Generals, the head of the office of Research and Development, the chairman and staff of the Educational Technology Project (TKPK), and two IKIP rectors. During field trips outside Jakarta and outside Java, discussions were held with education officials from province-level education officials to school teachers in the interior of West Kalimantan. In addition, significant contributions were made by officials in The Departments of Information and Communication.

Published and unpublished material included USAID/Indonesia documents for other rural development projects, background material specially prepared for this project by TKPK, the published text of Repelita, and various reports and papers from the files of The Department of Education.

Opportunities to visit school systems and educational technology projects in various parts of the country provided background for interpreting the materials gathered in Jakarta.

Organizational environment

This section describes in detail both the internal organization of the proposed Center for the Development of Educational Communication Media (CDECM) and the linkages between CDECM and other GOI Departments. Although ostensibly an administrative or technical matter, this discussion is included in the Social Analysis section because of its relevance to potential "environmental" obstacles in CDECM accomplishing its mission efficiently and effectively, since : (a) the Center will be exerting many of its effects through introducing its concepts and material into educational projects by other GOI entities; (b) its principal educational delivery systems, radio and television, are controlled by other Ministries.

I. Background. The Indonesian Government has recognized among the widespread deficiencies of education in the country, the problems of equity and relevance. The second five year development plan (Repelita II) identifies, among others, the following issues:

- (a) Development of an educational system appropriate to the nation's development goals
- (b) Maintenance and improvement of quality for all types and levels of education
- (c) Development of more effective methods of presentation
- (d) Development of information systems and administrative capabilities for the realization of educational innovation.
- (e) Promotion of educational opportunities for those who have had little or no access in the past.

In addition to the philosophical-humanitarian reason for equity and relevance in education, the Government has very pragmatic concerns. Repelita II was strongly committed to raising the standard of living of Indonesians. And while agricultural work continues to employ a substantial proportion of the labor force (60% of the population is engaged in agriculture), the Government's aim to increase employment opportunities and stimulate a more equitable distribution of incomes implies a greater shift towards non-farm work such as modern and traditional manufacturing (e.g. cottage industries, home craft). Thus the Government has taken deliberate steps to expand educational opportunities into many rural areas, to provide out-of-school education in non-farm skills training, and in health, nutrition, sanitation, family planning, recreation and basic educational. Specifically these efforts have included a high priority elementary school building program concentrated in rural areas (ordered by Presidential decree), accelerated teacher training and up-grading efforts, and programs geared especially to out-of-school persons.

2. Villagers' interest in education. It is not government alone which places a strong priority on education. In a study conducted among ten sample villages in Klaten, Central Java, one of the principal reasons given for wanting electricity was for educational purposes such as lights for night schools; for adult literacy and vocational courses; power for demonstrations in vocational training; and lights for longer school and homework hours for children. (Survey undertaken by Department of Social Economics of Institut Pertanian Bogor, Agricultural Institute of Bogor).

Another village level survey conducted by LEKNAS/LIPI, "Rural Indonesia Before Television" asked people how they would spend Rp. 100,000 if that sum were given to them. The third most frequently named use was for education. Named more frequently than education were housing and business investments; named less frequently were: savings account, jewelry, TV-set, radio, building lot, car, motor bike.

The same study explored the villagers' aspirations for their children's education. How far, they were asked, would you want your children to go in school if money were not a problem? Almost 50% wanted their sons to go through senior high school or higher (35% said "universities"); the comparable figure for daughters is about 40%. Another 25% felt that the decision should be the son's or daughter's.

Two additional pieces of data provide some perspective to these figures. Fewer than 20% of the respondents themselves had comparable educational achievement. And nationwide data indicate that while approximately 80% of eligible children enter elementary school, only half of these reach the fourth grade, and 35% complete six grades. Furthermore, probably close to 40 million Indonesians (30% of the population) have little or no access to the formal education system, while there are more than 17 million children "out-of-school" (15% of 7-12 year olds, 76% of the 13-18 year olds). Finally, there are 54 million illiterates, 40% of the population over 10 years of age.

Thus, throughout Indonesia, surveys, systematic investigations and casual observation repeatedly show what has been seen in most developing nations: a high value placed by families on education. Although in some places the stress may be more on education for males than females, official Indonesian Government policy recognizes the significant contribution women can make in development, and thus the importance of paying careful attention to their role in the education process. But the strong interest in education on the part of the Government and the people suffers from the inability of the educational system to meet the challenges this interest presents.

3. New problems from old. Programs developed to meet some educational needs have precipitated new problems, without erasing all of the old ones. To meet the need to give rural people access to elementary education, the Government undertook a massive elementary school building program. Accompanying this was a "crash" program to train and recruit teachers. Now the Government faces two major problems: upgrading these and other teachers to minimal professional standards, and accommodating the great numbers of graduates of these elementary schools in the junior high schools. There will be neither enough school buildings nor teachers able to serve satisfactorily the 5 million students expected to explode from elementary schools in 1984.

Only a few of the issues in education have been sketched out here; many of them will be dealt with in greater depth in other parts of this paper. Perhaps the most important points to underscore thus far in this analysis are: that the Government has expressed in word and deed its concern for equity and relevance in education; and there is clearly a market hungry for educational opportunities.

4. Background of CDECM. While there is no simple solution to the

nation's education needs, some key officials, reinforced by numerous studies by international and indigenous groups, conclude that educational communication technology is part of a complex solution. The President of Indonesia, on several significant occasions (State Speeches in 1975 and 1976), has spoken particularly of the Palapa satellite. "By this system", he said, "radio and television broadcasts will reach out farther and wider, bringing information and education nationwide, covering every out of the way place in the country. "The Minister of Education has noted that educational communication technology is a "must" for Indonesia and that it is one of the Department's highest priorities in the foreseeable future.

The GOI's Department of education and Culture several years ago decided to explore various uses of educational communication technology to meet the demands it faced in both in-school and out-of-school teaching/learning contexts. It created an educational technology unit (TKPK) within its Research and Development Bureau (BP3K) to design, implement, manage and evaluate experimental and pilot projects using educational media. As GCI policy and Repelita III continue their stress on providing education to those who have had little or no access, and extending those opportunities up the educational ladder, steps have been taken in the Department of Education and Culture (DEC) to "institutionalize" TKPK, changing it from a project to a formal unit within the Department. It has been officially registered in the BAPPENAS "bluebook" as the Center for the Development of Educational Communication Media (CDECM). Its purpose is to assist the DEC in (1) expanding access of the population to educational opportunities both in-school and out-of-school (including both "non-formal" and school related education, through the appropriate utilization of Indonesian communication infrastructure; (2) improving the effectiveness of instruction in in-school and out-of-school education programs and (3) relating education more directly to Indonesian development goals.

To accomplish these objectives, the Center will carry out educational communication media activities directly related to (1) systems design and planning; (2) production, pre-testing, and diffusion of materials; (3) evaluation of projects using educational communication technology; (4) documentation and information dissemination, (5) providing technical assistance in educational media for GOI education programs in the DEC and other sectors.

5. Beneficiaries. Inasmuch as the Center would serve all the directorates in the DEC as well as Directorates in other GOI departments, the potential beneficiaries ultimately may include much of Indonesia's population. Why the beneficiary impact is likely to be that far-reaching will become clearer as the array of GOI organizations related to the Center unfolds.

The matter of beneficiaries will be discussed in specific detail in the last major section of this paper, but a note should be added

The Directorates in the DEC generally are highly receptive to the kind of program and support the Center will be able to offer them. As TKPK, the Center has already responded to requests for aid from at least three of the four Directorates: Elementary and Secondary faces the dual problem of limited teacher supply and the exploding secondary school enrollment, and is depending on the Center's educational technology capability to meet those challenges. The Center is collaborating with the Directorate of Higher Education (with support from USAID and Syracuse University) in developing courses in educational technology at several IKIPs. And the IKIPs are providing staff and facilities through which the Center can meet some of its project management and production needs. Furthermore, through Higher Education, "branch" production installations of the Center will be housed at IKIPs in Yogyakarta, Surabaya and Semarang.

The Center is working with the NFE Directorate in providing communication technology support to the community education programs. This support is expected to grow both in diversity of media and in population covered as the Center expands its capability and as the NFE Directorate accelerates (under a World Bank project) the development of its organizational infrastructure.

7. Strong support and a note of caution. It is important to make three summary observations at this point, and to note a potential problem.

(1) Evidence to date indicates a highly supportive intra-DEC environment for the Center. Not only do the DEC Directorates look to the Center for assistance, but really are willing to commit their own financial and/or physical resources to the Center in exchange for the benefits they expect to come from the association.

(2) The Center will be serving the education needs (particularly NFE) of other GOI departments, agencies and sectors, as well as those within DEC. Per Presidential Decree 32, all NFE activities are supposed to be coordinated through the DEC's Directorate of NFE. How this works can be seen in the development of "Learning Package A" prepared by the Directorate for illiterates, new literates, and primary school drops-outs--"to help them become well-informed, responsible and productive citizens". (This account leans heavily on W.P. Nabitupulu's, Non-Formal Education and Management). Through the National Technical Coordinating Committee (NTCC), various GOI departments participated in the selection and explication of topics for "Learning Package A", which included basic education, citizenship, religion, health, nutrition, agriculture, recreation, etc. The departments collaborating on the NTCC included: Health, Agriculture, Industry, Religion, Social Affairs,

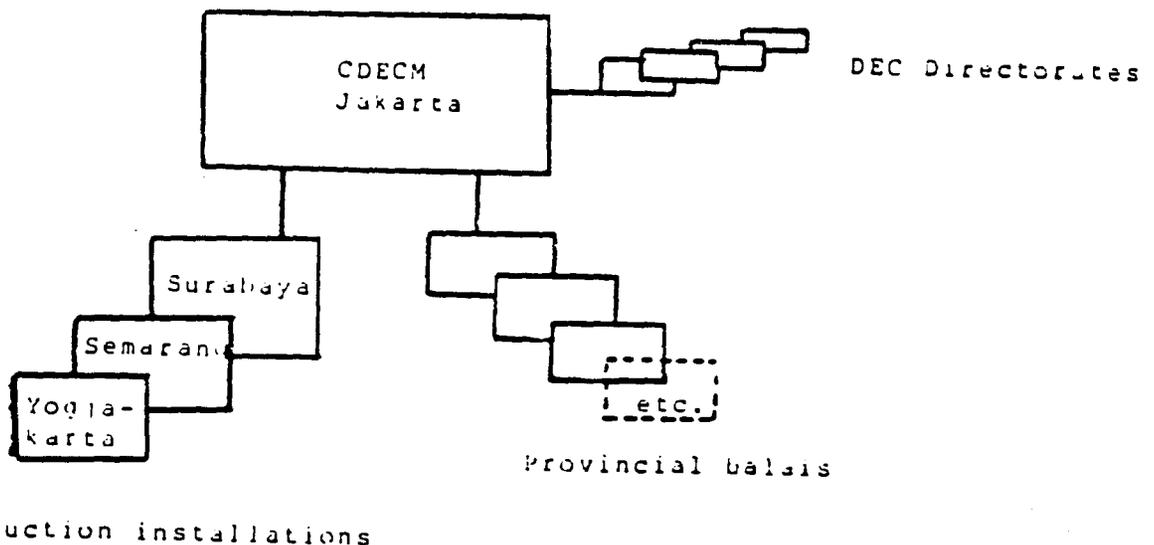
Information, Manpower, Transportation, Cooperatives, and women and youth organizations. Besides the input of these, the DEC Directorates were invited to review the project. Thus Napitupulu observes that this was not a sectoral effort, but "a joint effort of government agencies".

(3) The Government has given the Center (as TKPK) a strong tangible measure of support in providing it a budget during Repelita III (1979-84) of almost US\$ 12.5 million. This does not include additional funds which have been targeted to support CDECM's role in special programs such as the open junior high school. CDECM will get a portion of the \$ 4,5 million available for that project.

The strong positive interest and support of the Center from within and outside the DEC, while flattering to the institutional ego can mask a potential and serious danger: the over-extending of the Center staff and facilities before it has developed sufficiently. Even as a "project", TKPK has spread itself widely and thinly, with marginal supervision, quality control and evaluation. An agenda heavily packed as a result of meeting demands is likely to produce low quality output at a time and stage crucial to the Center's orderly and systematic development. Furthermore, heavy demands on the Center will compete for and displace effort and resources needed for the Center's own program. In short, the Center's mission both to respond and to initiate will be jeopardized.

8. Organizational Environment: Other GOI agencies. One aspect of the Center's activities will include training. It will likely see the need to have continuous training for its Jakarta staff as well as those other units operating within the educational communication media "system". In simplified form that system includes the major elements depicted in Figure 2 below.

Figure 2 : Agencies closely linked with CDECM



The production installations are those located at the IKIPs. Semarang will specialize in training teachers for educational television; Surabaya, production of radio programs and audio cassettes for out-of-school use; Yogyakarta, production of radio programs for in-school use. Personnel for these units will need pre-service and in service training at various intellectual and skill levels.

Balais. The balais constitute an important part of the "output" mechanism for the Center. The balais are located in the provinces and belong to the provincial government, specifically the KANWIL or provincial level education office. These units, which are now in an embryonic state, will eventually be involved in diffusion of programs and materials received from the Center (and other production operations), production of local materials and adaptation of non-local materials, training, and evaluation. They are expected to operate in each province, serving in-school and out-of-school communication support needs. The formal link between the Center and the balais is through their respective GOI departments i.e. the DEC and the Department of Home Affairs. Practically speaking, however, there is a direct working link between the balais and the Center. There is a major unit in the Center's organizational make-up specifically charged with maintaining liaison with the balais. Clearly the people who make up balai's staffs represent a major training responsibility for someone. Because of its expertise and capability in educational communication media, and because it is closely entwined with balai operations, the Center will have a keen interest in that training.

However, there are other government agencies, including a Training Center in DEC and a unit in the Department of Manpower, which are formally charged with training responsibilities. The Center will need to head off any show of rivalry in training by negotiating and drawing up some guidelines and procedures for accomplishing training goals within the Center's system. In addition, IKIPs are developing a teaching and training capacity in educational technology which should be taken into consideration in assigning training responsibilities.

9. Organizational Environment: The Telecommunications Delivery System. Figure 3 is presented to give a general picture of the key organizations involved in the educational delivery mechanisms of the Center.

Figure 2 : The CDEEM Delivery System.

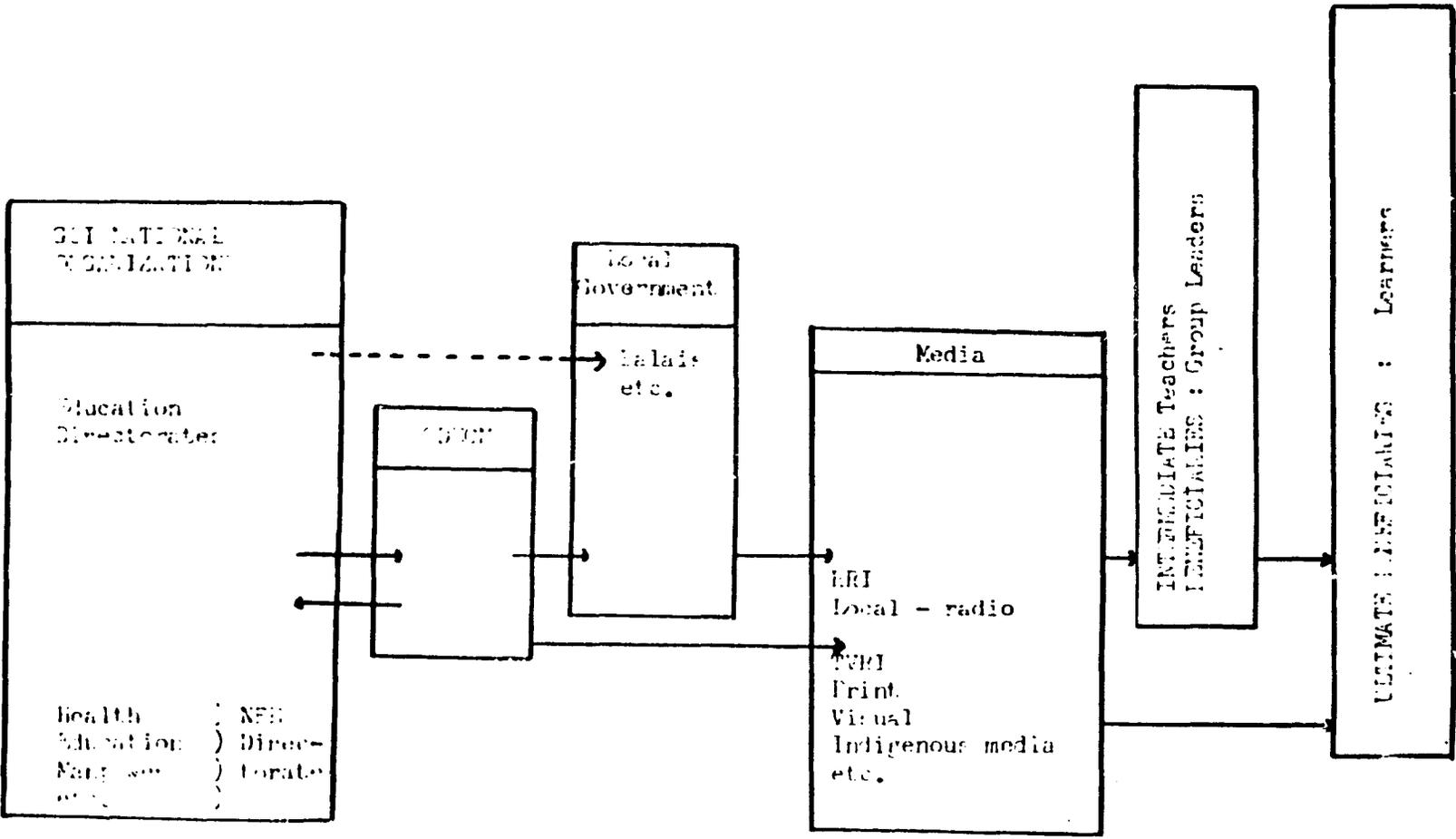


Figure 3 highlights two additional GOI departments which occupy important positions in the Center's organizational environment: The Department of Information (DI) and the Department of Communication (DC).

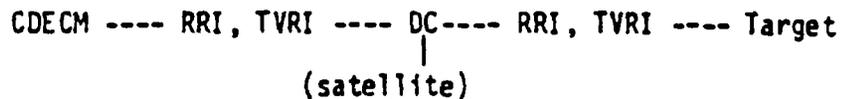
10. The Department of Information. The national radio system, RRI, and the National TV system, TVRI, both of which are part of the educational media delivery system, are part of the DI. Two documents currently in force govern DEC-DI relation. First is the Statement of Cooperation between the chairman of DEC's Research and Development Office (BP3K) and DI's Director General of Radio, TV, Film (16 February 1977). The second is a "Common Instruction" signed by the Chairman of DEC's TKPK and DI's Director of Radio (16 February 1977). The two agreements, which are parallel in content, outline each organization's responsibilities in the broadcast of educational radio programs. Essentially, DI agrees to provide production facilities, transmission time, and maintenance services, all without charge. DEC agrees to provide the completed programs, including production costs for writers and talent, and to distribute radio sets for schools and communities. Both agree to form a joint advisory council on the national and provincial levels. There is no termination date for these agreements, and where DEC has projects going, the relationship appears to be a good one.

In regard to television, TVRI appears to be ready to broadcast educational TV programs on behalf of DEC but DEC and DI are at a stand-off as to who will bear the major expense for production and who will be responsible for what is the actual producing. The Center already has been directed to produce two half-hour programs a week, which presumably it will fund from its own budget. However, as the Center pulls its own professional production facilities together, and as it build its capacity to produce programs to TVRI's technical specifications, agreements similar to those governing radio will need to be negotiated. As it now stand, DI controls all access to the most important broadcast media in the country and its relationship with DEC is crucial in the development of rural educational programs. (Some radio stations are run by local governments and by private sector organizations). Failure to resolve these issues could result in delays in getting education programming started and/or in CDECM's programs not being given suitable priority in the national programming schedule. While no one at present seems to be talking about it seriously another possible outcome is the creation of a separate ETV delivery system.

11. The Department of Communication. DC controls access to the Palapa satellite. If DEC wants satellite-distributed radio or television programming, the process follows the "map" in Figure 4.

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Figure 4: Satellite for broadcasting



At present, no one is certain as to how payment would be borne if the Center wanted to use the satellite for such a transmission. There is considerable pressure to use the satellite for educational purposes but the organization mechanism has not yet been devised. The satellite system is run by Perumtel in the DC and one transponder is being used for television while another transponder has been promised for use in education, that is a rather empty gesture at this time since the existing television infrastructure can handle only one channel at a time. Thus with TVRI having controlling access to the only complete TV transmission and broadcast system in the country, it is clear that any substantial TV program production activity by the Center would have to be transmitted during hours that TVRI was not using the satellite (its present satellite transmission schedule runs from about 5 - 11 p.m.), or would have to be accommodated within the existing TVRI program schedule. It also appears that there would be relatively little additional cost to TVRI for greater use of its TV "dedicated" transponder, so that carrying Center programs during non-TVRI broadcast time presents potentially a rational and efficient use of an existing resource.

The relationships among DEC, DI and DC is a problem that the Center will have to resolve within the timeframe of the USAID project for another reason. As additional low-cost technology becomes available for transmission directly from satellites to communities, the relationships among these GOI bodies may become a little more complex. For example Figure 5 depicts alternative or supplementary delivery systems using the satellite.

Figure 5: Alternative satellite uses for education

- (a) CDECM ---- satellite ---- community antennas
- (b) CDECM ---- satellite ---- provincial KANWILs
(e.g. for recording, or hard copy distribution)

This diagrams suggest an important question: who will operate the facilities on the receiving end? will TVRI be in the system?

These are not idle schemes. They constitute real opportunities in the near future and may hinge on technical decisions being made now. It would be possible, for example, for

future Perumtel/DC ground stations to have built into their apparatus without significant increases in costs for equipment the capability of handling AM broadcast-quality signals. (That capability was omitted from the specifications which governed construction of the already established ground stations). These seems, at this point, to be no loud and powerful voice ready to take leadership in resolving these issues which involve the three Departments.

In sections to follow, attention will be given to lower-level organizational aspects of the CDECM project.

C. Spread effect.

This section discusses what aspects of the Project are expected to involve "spread" within the country. The main points include the institutionalization of communication technology in the educational system and the diffusion of materials by the CDECM.

1. Institutionalization. First is the spread of "techniques" for the use of educational communication technology. An integral unit of the Centre has a professional staff with the responsibility for planning systems and developing strategy for educational programs which might use educational technology. At least one key member of this unit will be trained to the PhD level for this type of work. Spreading will take place as this unit works with other DEC directorates and KANWILS in introducing or expanding the use of educational communication media in their programs. For example, this CDECM Planning Unit is expected to help the Directorate of Elementary and Secondary Education develop a system for use of media in teaching junior high school students outside the traditional school building. Once the Center has developed and evaluated the system in pilot areas, the Directorate as an implementing unit in the DEC will take the system and apply it throughout the country.

Another mechanism built into the Centre for achieving spread is a Documentation and Publications unit. It too will have staff especially trained by the project who will be concerned with "packaging" the knowledge generated, collected and organized by the Center in a form which can be used by operational agencies such as the directorates in DEC, Health, Agriculture, Manpower, etc.

The point at which spread may break down in Indonesia is in the gap between the GOI department and the implementing unit at the province or other local government level. In education one of the most critical jumps is between the DEC directorate and the KANWIL. For example, the Directorate of NFE introduced the "Kejar" program which was built on "gotong royong", the Indonesian version of a mutual assistance social system. In "Kejar", the scheme was for educated people

to help others learn; however, the program was launched at one national level and got stalled further down. Officials at the lower levels of government were not resisting introduction of the program; they were simply "waiting for instructions from above". The program started to move when special training courses were held at the district (Kabupaten) and municipality levels. Thus, to promote spread of educational communications methods, a unit has been created in the Center whose primary responsibility will be liaison with the provincial level balais. These balais are educational media units referred to earlier which serve as extensions of the Center in the field-where the primary beneficiaries are. Eleven of these balais have already been created and these first ones are found in provinces which have unusually difficult communication problems or in provinces where there are heavy concentrations of population.

Balais currently exist in the West, Central and East Kalimantan, Southeast and Central Sulawesi, East and West Nusa Tenggara, Irian Jaya, Maluku; Central Java, and the DIY (Yogyakarta). While these have been used up to this point primarily to diffuse teacher training materials developed in Surabaya and Yogyakarta, the Center (through its rupiah budget) expects to enlarge their functions as a field implementation component of the educational media system. Substantial support for the development of the balais comes from at least two DEC directorates: Elementary and Secondary, and NFE & Youth . Each have major programs (both being partly financed by World Bank loans) which depend on balais. As those programs (teacher training and non-formal education) move out of the "project" stage and spread throughout the country, new balais will be added until there is at least one in every province. In working with balais, the liaison ("Control") unit in the Centre will have responsibility for diffusion both of technique (e.g. in applying communication technology to educational problems) and of materials produced within the Centre's production operation.

2. Diffusion of materials. This, then, introduces the second aspect of "spread" -- that of materials themselves. Besides the organizations at the national level described earlier as having important roles in dissemination, KANWILs at the lower level of government is critical in this process. The KANWIL is a key element in the picture because it "owns" the balai. And while there is no explicit assurance that all the nation's KANWILs will be supportive of the educational media program and the Centre, personal contact and observation of KANWILs activities up to this point indicate that, once oriented, the KANWILs see that, with the desperate problems in educating people in their provinces, educational technology provides some hope.

On a very practical level, the Department of Home Affairs is playing a significant role in diffusing materials. The Department in the past has distributed radio sets to rural communities so that they can receive educational programs. It has announced that

it will in the future also distribute television receivers, particularly to communities of 60,000 or more. In addition, TKPK, as part of its rupiahs budget, has also distributed radio sets and will continue to do so. Thus far there is no evidence of a priority policy for this distribution.

Teachers themselves constitute an important force which can make or break the spread of an educational communication media system. Experience from many parts of the world have shown how teachers, for example, can influence their students' attitudes toward learning through "new" media. The evidence in Indonesia --- where modest evaluations have taken place --- reveals no widespread resistance to the use of radio in teacher training, or education. Furthermore, new teachers training at some of the IKIPs will be introduced to educational technology in their formative professional years and this can be expected to have a positive influence. Instrumental in this program are two AID-sponsored activities: the Syracuse University/TKPK educational communication curriculum development project at several IKIPs, and media-related training also at selected IKIPs. In addition, graduate training of TKPK and IKIP personnel in educational technology at Syracuse will support this preparation of new teachers in the understanding and use of educational media.

Both aspects of the Project's "spread", i.e. the institutionalization of educational communication techniques in the educational system, and the dissemination of materials and technology to the beneficiaries are likely to be accelerated during the life of the project by the existence of innovative educational projects funded through loans from the World Bank. These projects are covered in more detail in the following section on beneficiaries.

3. Manpower Development and One Spread Effect. There is no practical way to predict long term spread. The landscape is littered with pilot projects which failed to get beyond the pilot stage. However, there are also success stories such as the Korean Educational Development Institute, which linked educational systems planning and educational technology with a strong emphasis on institutional and staff development. The CDECM project has similar characteristics, and so gives reason for optimism. In addition to the Syracuse University training project in educational technology, the Project itself includes a significant manpower development component. Further, included in the Project is a set of research and development tasks for the center specifically designed to (1) build a real-world pragmatically-oriented foundation of experience from which it can launch or spread more comprehensive programs, and (2) tie the staff development training aspect (e.g. Masters of PhD projects) directly into the areas of responsibility of the Centre.

Finally it should be noted when examining "spread affect" that this project is not introducing an altogether new concept into Indonesian

education. The Indonesians, using their own resources, have started using educational technology. As mentioned earlier in this analysis, there is strong policy and budget support from high in the GOI and though the rate of spread is problematic, the inevitability is not.

D. Beneficiaries

This sector deals especially with the issue of who benefits from the Project. Obviously, there are numerous people and organizations which benefit in some way --- from the Government official whose status is enhanced, to the man who increases his profit because he dubs more cassette tapes. While many of these beneficiaries are important, this paper concentrates on the characteristics of the population to be served by the CDECM. (There appear to be no significant groups or agencies who will be disadvantaged as a result of the Project).

It was suggested at the start of this social analysis that the beneficiaries of this project will encompass a large percentage of the country. While this is true, it is possible to discuss beneficiaries in more specific terms, if one looks at some of the key programs to which the centre will give priority. In most cases, the Center, as TKPK, is already working on these projects either in the planning, pilot testing or experimentation stage.

In the following paragraphs, these are discussed in some detail in order to provide a clear pictures of how the Center relates to particular beneficiaries.

1. Teacher Training Project (P3D) It was indicated earlier that the GOI had started a major teacher training effort to upgrade the teaching capabilities of teachers in the rural areas. Using a loan from the World Bank in 1973, the DEC launched a nationwide program to upgrade elementary school teachers. However, after two years experience, it became clear that the strategy of using mobile units to give refresher courses was not doing the job satisfactorily. (P.Surono, Mass Media Communication for the Development of Primary Education). Particularly ill-served were the remote islands outside Java where transportation is poorest, and where a substantial (but indeterminate percentage) of the population is "deprived". A Ministerial Decree (#0237/P/1975) directed TKPK to reinforce and support P3D. In January 1977, TKPK began its support in eleven provinces by broadcasting P3D radio programs, supplemented with print materials. To insure reception and foster utilization of the broadcasts, radio sets and cassette recorders were sent to provincial taskforces within the KANWILs.

The agenda for TKPK, and thus for the Centre, gives greatest priority to those areas that have been educationally deprived in the past, the outer islands. The schedule for extending this media support project beyond the first 11 provinces is as follows:

- 1979 : the first eleven - West, Central, East Kalimantan;
Central and Southeast Sulawesi; Maluku; Irian Jaya;
West S.E. Island; East S.E. Island; Central Java;
and District of Yogyakarta.
- 1980 : Add - North, South Sulawesi; South Kalimantan; Bali.
- 1981 : Add - Aceh, North, South, West Sumatera, Jambi Riau;
Bengkulu; Lampung.
- 1982 : Add - West, East Java; Jakarta District; East Timor.

This ordering of provinces is significant because it is a rather widely held -- but not always acknowledged -- sentiment that the Javanese get the best treatment in GOI programs. In this case, they are at the low end of the list. There is a very practical, as well as political reason for this turnabout: the needs are greater at the top of the list.

TKPK's current outlook is that a number of problems complicate its ability to give the kind of support needed. Heading the list are insufficient skilled manpower and a related problem, a "utilization mechanism" in the provinces. The TKPK staff members are concerned about their ability to produce the "courseware" to fill the needs, given their present staff strength.

In this project, the basic beneficiaries are the elementary level students in those areas which have been plagued by substandard teaching. Their location coincides substantially but not exclusively with the areas where great Inpres building activity has taken place. Following is an accounting of the number of Inpres schools and teachers in those first 11 provinces. (This should not be interpreted to mean that only Inpres teachers are being upgraded but that this is where a large pool of the poorly prepared teachers needing upgrading came from.)

	<u>Population</u>	<u>INPRES Teachers</u>	<u>INPRES Schools</u>
West Kalimantan		1.157	441
Central Kalimantan		1.108	200
East Kalimantan		744	109
Central Sulawesi		690	144
South Sulawesi		734	120
Maluku		763	60
Irian Jaya		825	172
West S.E. Islands		2.342	435
East S.E. Island		1.327	194
Central Java		13.296	2.837
Yogyakarta		1.763	234
		<hr/>	
Total		24.749	

Altogether, the project is serving approximately 30,000 of about 150,000 teachers who need to be served.

Students of the teachers in these priority provinces will be among the early beneficiaries of the Centre, and the teachers themselves will be beneficiaries. Assuming a rate of 1 : 40 (Repelita II), it can be anticipated that about 120,000 students are beneficiaries in this program, a large proportion of which by implication are from low income, rural families. In the case of students, we can anticipate better education, including an opportunity to move higher into the educational system. Repelita II stresses that "teachers, having followed the upgrading courses, will also be able to assist their pupils in developing skills by using simple instruments in line with the condition and capability of the local community. This effort will be of direct benefit to the earliest possible development of the creative and innovative power of the younger generation." While the prediction of this outcome must be tempered with "if's", one realistic scenario might go like this. Students who now "temporarily" drop out of school to help with harvests will be able to reenter and catch-up because teachers will be able to better handle deviations from the standard school teaching pattern.

Unfortunately we do not really know what the differences are between an "up-graded" teacher and a "not up-graded" teacher because no evaluation data (exception the management system) are yet available on the P3D program. They are expected in 1979. However, it seems reasonable to conclude that teachers would benefit because their skills would be sharpened and they will become better professionals. However, at the present time there appear to be no material benefits (such as pay incentives) related to this upgrading.

At another level, it seems likely that better teachers will result in better learning; which in turn will create more opportunities for training and jobs beyond primary school. This might well result in helping meet the skilled manpower needs that Indonesia will have in the near future. For example, World Bank data provided by GOI indicate that the average annual education/training requirements in intermediate skills areas may not be able to be filled without a significant strengthening of the relevant segments of the education system (World Bank, Education Sector Survey).

There continue to be impediments to realizing this sequence of better teachers - better students - better education and job opportunities. And one of these will only partially be solved by educational technology. They include the cost of going to school which forces many young people out of school, and the actual expansion of the economy in such a way that it provides employment opportunities to young people.

The building of Inpres schools will continue. Repelita III has

set a goal of all school age children being admitted to school by the end of the Plan. For this purpose, approximately 499,000 new elementary teachers will be needed. During this time, only 225,000 are expected to be trained in teacher training schools. TKPK (thus the Centre) will become integrally involved in organizing and supporting alternative mediated systems for meeting the training deficit for 274,000 elementary teachers.

A final note on the "phasing" of the Centre project and P3D. It is obvious that by the time the Centre has significant momentum, the teacher training program is supposed to have moved on into the additional sets of provinces. However, focusing on the first 11 provinces for this Analysis acknowledges two realities: the first is that the job in these provinces will continue well into the development stage of the Centre, and second, it seems unlikely that much progress will be made in expanding to other areas without a fortified and transformed TKPK -- i.e., without the Centre.

2. The Non-Formal Education Program. An estimated 60% of the population of Indonesia lives under conditions of severe poverty. A substantial number of these include 17 million youths aged 7 - 18 not attending school and 23 million illiterate adults. The GOI in Repelita II makes it clear that high priority must be given to providing these persons productive skills and an opportunity to improve their standards of living.

PENMAS is the agency within the Directorate for NFE and Sports which is primarily concerned with community education. Repelita II designated out-of-school youths and young adults (aged 10 - 24) with little or no formal education as the prime PENMAS target population. Following are figures indicating the composition of this group. It includes:

- * Most of the 3.4 million of the out-of-school youth 7 - 12
- * All of the 14.0 million youths aged 13 - 18 not attending school.
- * Part of the 23.0 million adult illiterates over 18 years old.

PENMAS' target population is characteristically rural, low-income. It has also been particularly concerned with reaching women. Two workshops were held in 1975 for the educated, organized women of Indonesia. Napitupulu notes that "Giving them the challenges of rural development, especially their roles in non-formal education ... they are now very impatient in getting learning materials so they can start organizing and managing learning groups to help them in the Kejar programme of illiteracy eradication ... If the educated women of Indonesia do not act quickly, who will? It is our policy that women must be given more responsibility in education, especially in non-formal education and, they most probably can do it better. (Non-formal Education Strategies and Management). The women in the PENMAS target population are less likely to have formal education than men (50% vs. 70%) and they are more likely to be illiterate (70% compared with a national figure of 40%).

The Directorate for NFE and Sports has initiated a program to strengthen

The operations of Penmas, and has secured a World Bank loan for this purpose. Included are components for improving management, supervision and staff development of the PENMAS system, and preparation of pamphlets and supporting non-formal instructional materials, as well as equipment and supplies for facilities on the national level and for operations down through 1900 field workers in seven provinces. Included is "a basic learning fund" in 148 districts to support programs initiated and developed with village participation.

PENMAS' principal NFE strategy is to organize villagers into learning groups and serve as a "broker" between these learning groups and various development - related sub-district (kecamatan) and district (Kabupaten) offices.

The kinds of training engaged in by PENMAS reflects the nature of its target audience. PENMAS training is design to provide its learners with practical skills and knowledge to supplement incomes, improve family health, foster awareness of available government services, and create receptivity to development programs. Thus its key areas of learning include :

- (1) Vocational training, including cottage and home industry skills; "para-agriculture" skills, such as home gardening; and basic home and community improvement skills.
- (2) Family life education, including health, hygiene, nutrition, childcare and family planning.
- (3) Community education, including leadership training, courses on local government etc.
- (4) Basic education. (World Bank Appraisal Report on Non-Formal Education)

PENMAS has a target for 1982 of having the following engaged in learning group activities :

	<u>Groups</u>	<u>Participants</u>
Central Java and Joqyakarta	12,500	245,000
West Java	7,000	145,000
South Sulawesi	700	15,000
North Sumatra	3,500	70,000
East Java	3,500	75,000
Jakarta	11,500	230,000
Total	38,700	780,000

TKPK has been asked to give support to PENMAS activities in the past. This has included direct assistance in development of radio broadcasts which serve as an "input" to learning groups (thus, they are also "listening" or "radio forum" groups). TKPK has assisted PENMAS by production and broadcast of programs on an experimental basis in eleven kabupatens.

In personal interviews, the Directorate General for NFE and Sports, and the Director of PENMAS have expressed the need for continued support from the Center, as PENMAS strengthens its own capabilities in community education. Although its plan includes the development of provincial centers which would develop and produce learning materials, PENMAS feels that the CDECM is important in supporting these regionalized programs with centrally generated and tested prototype materials, and with the materials, production, and communication expertise which will not be part of the PENMAS organization. For example, the Center will produce prototype materials for PENMAS balais (branches at the provincial level) in various media formats. These are to be based on descriptions and needs specifications identified by PENMAS. The Center will design, develop, and pre-test these prototype materials which will then be provided to regional producers for tailoring to meet local situations. The formats may include video presentations, radio or cassette programs, films, slide sets, etc.

Thus, the PENMAS community education program is another of the priority programs with which the Center will work as soon as it is operational. The beneficiaries in these programs are clearly consistent with AID interests in serving low income populations. Although the program ultimately will be strengthened throughout the country, the initial thrust (and the part with which the Center would be immediately involved) will be in Central Java, Yogyakarta, East Java, North Sumatra and South Sulawesi. These provinces include 85% of the population whose daily caloric intake is below a "minimum adequate level." These areas are also faced with the necessity of developing non-farm skills training. Also, 75% of the Indonesian population is concentrated in these areas.

A GOI study in 1976 gave some indication as to the kind of benefits that accrue from PENMAS type of learning group activities in rural areas. These include increased employment and income, improved knowledge and practice related to nutrition and hygiene, and increased effectiveness of government services and programs. Rural participants, for example, have been able to supplement incomes after acquiring off-farm skills such as tailoring, mat weaving etc. One long range benefit which might easily produce a spiral effect was the increased rate of primary school attendance through raising parents' awareness of the importance of education.

The NFE program for low income people in Indonesia obviously has high GOI priority. With its support from the World Bank loan, the PENMAS organization and fieldlevel infrastructure can provide the direct personal contact with beneficiaries; the Center's role is to provide communication expertise and media support.

3. Open Secondary School System. One of the outcomes of the emphasis on expanding primary school access more widely was the substantially increased demand for entry into secondary schools. And it is the lower income youths and those remote from the regular junior highs (SMPs) for whom this program of the Directorate of Primary and Secondary Education is intended. The "Open Secondary" system (SMP Terbuka) is to have a standard equivalent to the SMP but the learning program is to be done mostly through modular printed materials, radio broadcasting, and simple audio visual materials (e.g. science kits). Students will be mostly studying by themselves, either individually or in small groups. Supervision will be by parents, village elders, priests, primary school teachers, or other community leaders.

The Center is responsible for managing pilot projects in five provinces. Preliminary investigation and planning has already begun. The Center will also be responsible for designing the strategy for the full scale national implementation, including the original master production of courseware, development of evaluation criteria and instruments, and training of "field managers."

Beneficiaries in the pilot stages will include approximately 2700 students, largely characterized by having been socio-economically and geographically disadvantaged children.

Secondary beneficiaries will be the 162,000 children expected to be in open secondary by the time of nationwide adoption, approximately 1981 - 82. By the end of Renelita III, the open secondary system is expected to have an enrollment of as many as 424,000, or 9% of the total secondary school enrollment.

4. Non-Formal Education Television Programs. The DEC has directed the Center to begin producing and telecasting (through TVRI) two half hour programs each week. It is difficult to even speculate on the number and character of beneficiaries related to this effort. Data from the 2,248 respondents in the LEKNAS rural Indonesia benchmark study noted that less than 2% of the villagers had television sets. At this time, it is possible to make two general observations (1) the TVRI signal is within reach of 90% of the Indonesian population, and (2) the saturation of sets is low (about 500,000) but is growing steadily. This latter situation results in part from the GOI's Department of Home Affairs program of providing television sets to

government schools and teachers colleges, and in some cases to communities.

5. Other Programs. It is quite certain that the responsibilities and demands on the Center will grow as its visibility and capabilities grow. Even at this writing, it seems inevitable that a major applied nutrition program with a major nutrition education and communication component aimed at villagers will lean on the Center for assistance. However, the programs already outlined demonstrate that a great major of the work of the Center will be devoted to the GOI's concern of extending educational opportunities to those who have missed these opportunities in the past, a collectivity whose distinguishing mark is its poverty and its rural origins.