PART I

SITUATION ANALYSIS OF JUNIOR SECONDARY EDUCATION OF INDONESIA

CHAPTER 1   JUNIOR SECONDARY EDUCATION IN INDONESIA: OVERVIEW

1.1   Policies, Achievements and Problems

1.1.1   Policy Implications and Achievements

Over the past decades, the development of human resource is one of the major issues in order to match the changes of the economic structure with the quality of labor force in Indonesia. Since the government declaration of compulsory primary education in 1984, the progress of universal primary education has been one of the cornerstones to increase the education level of the population.   As an important policy guideline for continuing junior secondary education (JSE), the national five-year development plan, Repelita VI, was issued in 1994.

The plan set up its target as follows: (i) to expand access to high quality JSE to nine-year compulsory education: (ii) to improve the quality of education and improve linkage of teachers, curriculum, textbooks, school facilities and educational materials; (iii) to improve educational effectiveness and productivity; and (iv) to enhance community participation in educational activity.   In May 1996, a presidential decision was made to accelerate the universalization and to complete it by 2004 when the next five-year national development plan (Repelita VII) will end.

To strengthen the system of education effectively and efficiently, the government policy indicates that the function of authority should be decentralized and compulsory education should be expanded up to the junior secondary level.   Especially the decentralization process has been quickly formulated and will be finalized within two years.

To achieve these goals, several measures were enforced.   A key issue to expand the period of compulsory education successfully is how to encourage poor students to continue their studies. To solve this major problem, the government decided to extend the free education policy in JSE. For example, the government abolished junior secondary school fees and adopted a policy of free textbook distribution to both public primary and junior secondary schools.   Conversion of technical/vocational junior secondary schools to general junior secondary schools is also one of the measures to strengthen common knowledge and skills for basic education beneficiaries.

In order to increase access to JSE, an alternative cost-effective delivery system was introduced including (i) attaching open satellite schools to key junior secondary schools (**SLTP Terbuka**) in rural areas so that the students who live far from schools or work part time to help their household can continue to study; (ii) opening small junior secondary schools (**Sekolah Kecil**) in remote areas that accommodate small numbers of students by providing multi-grade or multi-subject teaching, and (iii) providing non-formal education (**Paket B**) to subsidize formal education for school dropouts.   At the same time new schools have been constructed to accept as many primary graduates as possible.   These flexible delivery programs provide educational opportunities especially to those who are not able to enroll and attend class due to social and

economic reasons.   As a result, the gross enrollment ratio in JSE increased from 56 % in 1993 to 70 % in 1997. (**Figure 1-1**)
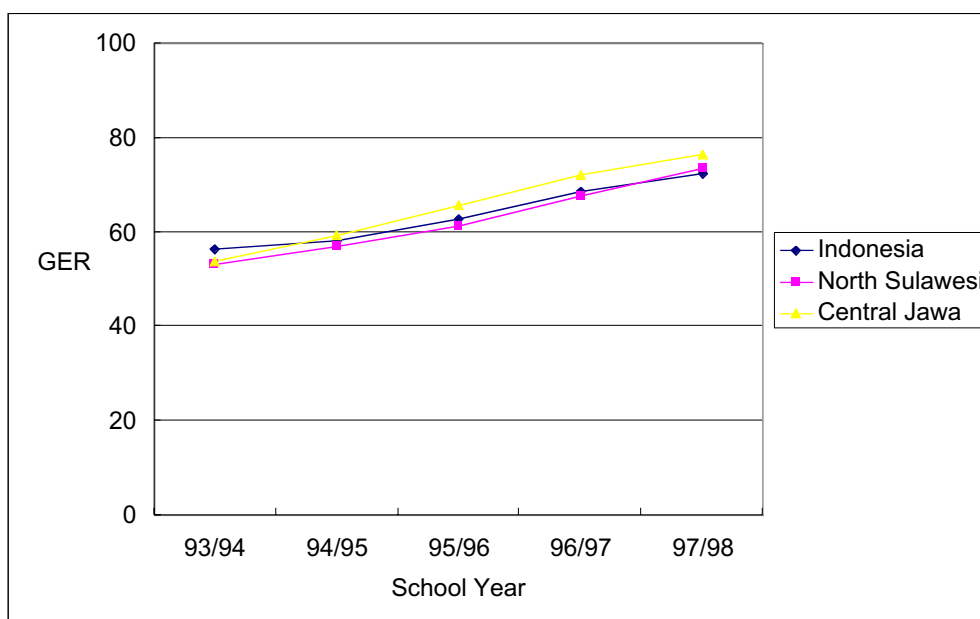
Source: Informatics Center, MONE

Figure 1-1: Trend of Gross Enrollment Ratio in JSE

In terms of quality and effectiveness of JSE, the government introduced a new curriculum (1994) that emphasizes student participation in learning, development of problem solving abilities, relevancy to work life, and coping with technological progress.   Providing scholarships to teachers who do not have a minimum education background (D3 certificate in junior secondary schools) accelerates the improvement of the quality of teaching by upgrading their professional background with further knowledge and skills.   Inspection and supervision systems were also decentralized from the provincial level to the district level so that schools and teachers could easily receive technical advice and guidance from specialists and examine problems that schools and teachers are confronting.

The institutional arrangement is the most important factor in pursuit of these goals.   Since the establishment of the educational system, two authorities, the Ministry of Education and Culture (MOEC), which was renamed to the Ministry of National Education (MONE) in 2000, and the Ministry of Religious Affairs (MORA), have provided educational services separately depending on parental needs.   Both ministries share the same recognition that it is difficult to universalize quality education for all citizens.   Due to the integration of Islamic schools (Madrasah Tsanawiyah) into the formal schooling system in 1994, MONE decided to provide services under the common core curriculum.   Another important institutional change is decentralization of the responsibilities for the provision of JSE, while ensuring equal educational opportunities for everyone that graduates from primary schools in the community. The National Development Planning Board (Badan Perencanaan Pembangunan Nasional: BAPPENAS) has already considered the implication for decentralizing responsibilities for JSE.

It is expected that MONE would prepare this transitional component to strengthen and build up capacities at the district level.

Strengthening education finance is the critical issue to attain a series of educational goals. Especially, the increase of JSE budget is inevitable due to the introduction of the free education policy. Repelita VI projects the education budget share of GDP to increase from 3.3% in 1994 to 4.5 % in 1999. To target this level, the government increased education expenditure as a percentage of total government expenditure from 10 % in 1993 to 15.3 % in 1996; however, this share is still lower than other East Asian countries. Another measure to increase educational finance is to increase the community involvement and let the community support schools under a school-based management approach.

The recent government action toward the decentralization of administration system to the province or the district level is favorable in strengthening school-based management capability. More involvement of community to support schools will be the key to the success of the new policy. In addition, the capacity and institutional building in lower levels of government will be the foundation to attain this goal.

1.1.2 Problems in JSE Expansion

The World Bank Report (1998) indicates several problems with the expansion of JSE since 1994. The major issues can be summarized as follows: (i) inefficient government service delivery system to school level; (ii) decline of enrollment and increase of drop-out rate due to economic crisis; (iii) ineffectiveness of planning and management by schools; (iv) lack of decentralization and community involvement.

(1) Inefficient Government Service Delivery System to School Level

Even as the central government reforms and expands quality education at the junior secondary level, the lack of capacity of local authorities causes poor delivery from central to school level. For example, the central ministry reports that textbooks are distributed to students one book per student; however, some schools do not receive enough books. Another example is inequality of teacher distribution. The current teacher allocation system is based on the individual teacher's convenience such as whether he or she can commute to the school or not. The authority of realocation of teachers to balance appropriate school capacity does not exist in the local government. Teachers prefer urban schools to working at rural schools. As a result, imbalance of teacher distribution in terms of number and quality cannot be solved easily. In addition, improving the quality of teaching has not been achieved to a significant level. Teachers tend to continue practicing traditional teaching approache. As a consequence, it is difficult to evaluate how much new government education policy has diffused down to the school level. These umbiguous responsibilities of local autorities need to be rationalized and defined.

In addition, even though the integrated system between MORA schools and MONE schools has been implemented, there are still several gaps between the two kinds of schools especially in

quality.   For example, the qualification of teachers in MONE schools is higher than those in MORA and the delivery system for textbooks, school finance and curriculum in MONE schools are generally better than MORA schools.

(2) Decline of Enrollement and Increase of Drop-out due to Economic Crises

The government forecasted a large decline in enrollment from 9.69 million in 1997/98 to 8.33 million in 1998/99 and an increase in the drop-out rate from 5.1% in 1997/98 to 11.5% in 1998/99 particulally in low income housholds.   An alternative schooling system, such as SLTP Terbuka, has increased in number gradually to cope with the rural poor, but the high drop-out ratio is observed in this type of alternative schools as well.

(3) Ineffectiveness of Planning and Management of Schools

Based on the understanding that an increasing number of classrooms is absolutely necessary to reach the target of nine-year universal education, new schools have been constructed since the early 1990s to absorb new primary graduates; however, the JICA Study Team observed several cases where schools are located inappropriately.   Some schools are constructed far from the residential area and some are next to existing schools.   Private schools that are located near new public schools have experienced large decreases in enrollment.   Some of these private schools have decided to decrease the size of the school or even chosen to close.

School financing heavily depends on national resources and partents' contributions.   Income generation programs by parents or community do not exist in most schools and communities. This financial weakness increases the potential for financial crisis in schools since the government is reducing its funding and parents cannot afford to increace their school contributions.

(4) Lack of Decentralization and Community Involvement

Though the JSE system has been expanded since 1994, the lack of the decentralization of the responsibility to the school/sub-district level continues to result in lower levels of inefficiency. Although a school may face some problems, it can wait until some subsidies or advice from the government are provided rather than resolving those problems with local resources.

In addition, the new government policy indicates that one of the aims of JSE is that students acquire knowledge and skills useful to work.   The new policy empasizes the involvement of community and the business sector, and practical work in teaching and learning.   The new local content curriculum is the key to this policy, but in reality, it is not easy to have more involvement of community and parents at the school level.   The functions of the parents' association (BP3) are normally limited to determining BP3 fees and to planning the subjects of local content, which is mostly based on what can teachers teach rather than what kind of local needs exist.

1.2   Recent Legal Changes Affecting Education

The Local Government Law (Law Number 22/1999) enacted in May 1999 stipulates that

education, together with a host of other sectors, should be a responsibility of district government and this decentralized system should fully start in April 2001[1]. With respect to junior secondary education, there is a substantial shift and integration of responsibility from Kanwil to Dinas P & K. As the success in primary education shows, MOHA is now expected to take responsibility in delivery of junior secondary education by taking over MONE and MORA's provision below the provincial level. However, MONE retains responsibility for the technical and policymaking aspects.

The amendment of the Education law and other relevant regulations are now in the process simultaneously with the implementation of decentralization. This is causing confusion to the integration process of local government. Since August of 2000 there have been numerous activities in the education sector to deal with decentralization. Provincial governments have requested that kabupaten level governments present their needs at a general meeting. The same is true where kabupaten-level governments have requested kecamatan to attend meetings to present their needs and ideas. Current educational heads of the kandep (district level office of the MONE) know their jobs are in transition and some are preparing to support the education efforts of the bupati where once they reported to the provincial head of education of the national government. These individuals are relying on educational inputs from kecamatan.

The province of Central Java may serve to better understand how the transition to decentralization is being implemented. As of February 2001, 12 of the 35 kabupaten made the transition to a decentralized system. Each bupati established a SOTT or Struktur Organizasi, Tata Laksamia Tim while the district parliament established a POT or Pansus Organizasi, Tata Laksamia. These teams worked together to design the district-level and tentative organizational structures and job descriptions for all sectors including education. Local parliamentary meetings were held to approve recommendations by these groups. Approved documents were submitted to the bupati for final approval. Thus, each of the 361 kabupatens throughout Indonesia should complete this process sometime during the transition period. The results will yield structures that are different for each kabupaten. **Figure 1-2** shows a typical structure approved by the parliamentary committee and the bupati of Kabupaten Semarang.

---

[1] Under No. 22, the province is now defined as an autonomous entity, naming the governor as the senior government official. Districts (kabupaten) are also identified as autonomous structures with the senior executive being the bupati or the walikota in the case of urban districts (kotamadya). For more details, see Cohen (2001) *The Regulatory Structure Supporting Basic Education in Indonesia: Analysis Covering 1989 to Present*. REDIP Working Paper VIII.
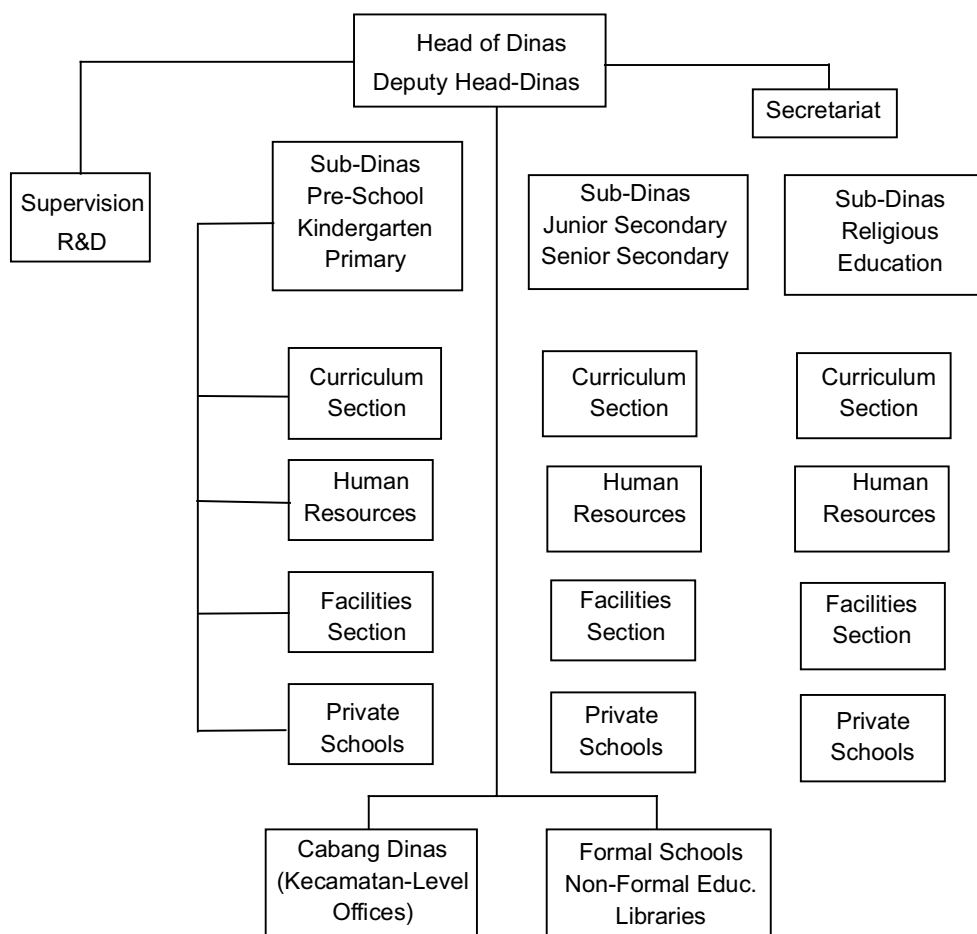
Figure 1-2: Organizational Structure in Kabupaten Semarang

The structure for the education portion of Semarang shows three sub-dinas units reporting directly to the head of the dinas for education. The first deals with pre-school, kindergarten and primary education; the second deals with junior and senior secondary education; and the third deals with religious schools. Individual schools report through the UPTD office to the head of dinas. Also, kecamatan-level offices report through Cabang Dinas to the head of dinas. A separate unit dealing with supervisory and R&D functions also reports to the head of dinas. It is significant to note that the reality of the situation reflects reassignments of Kanwil, Kandep and Kancam staff of MONE to different parts of the new Dinas office for education. These staff are now employees of the district or kabupaten government. For example, the former head of the Kandep in Semarang kabupaten now serves as the deputy head of dinas. Further, where MORA and junior/senior secondary education were separated from primary education under the former system, these activities are now merged under one management structure. This should lead to more efficiency in the management of education as well as a significant reduction of MONE staff. Even with the transition completed in these 12 districts, many questions remain unanswered. Such issues as payment of salaries to former MONE staff, integration of the budgeting and financing process, and procurement need to be worked out.

For now, the current education laws, rules and regulations remain the guiding principals for education, and it remains to be seen if they will serve this new structure effectively. Any new

district-level executive decisions about education must conform to the current regulations. The national government is planning to issue a new education law that is now being defined by a new committee appointed by the Minister of National Education. It may take a year or more to finalize it so that until then any change in educational management must continue to conform to present law including numbers 22 and 25 of 1999. It is difficult to predict how the new laws will change the structure and process of education. In the meantime, districts may continue to plan for the transfer of educational staff and assets; develop an educational financing system, consolidate and strengthen existing structures such as the Dinas while creating new structures to improve management and transparency.

1.3   Aid Coordination Mechanism

A handful of projects have been planned/implemented with the assistance of donors to prevent the current crisis, strengthen the JSE in the context of nine-year basic education, and strengthen the capabilities of local government in accordance with the decentralization.   Mainly, the World Bank, the Asian Development Bank (ADB) and Japan have been supporting Indonesia in these areas.   Under this circumstance, the emphasis is placed on how the projects or programs can coordinate or avoid duplication in order to use limited funds effectively.

MONE is the responsible agency for planning, coordination, arranging regulations and policy guidelines in the education sector.   Although the Directorate of General Secondary Education (Direktorat Pendidikan Menengah Umum: Dikmenum) is mainly responsible in junior secondary education, the Directorate of Private Education is also responsible for the secondary education sector through private junior secondary schools as well as MORA.   Therefore, the close coordination among concerned offices is very much needed to cover all institutions in the sector.

Aid coordination in the education sector is initiated by the specific agency, BAPPENAS in the central level and Regional Development Planning Board (Badan Perencanaan Pembangunan Daerah: BAPPEDA) in the provincial level.   The strong ownership of implementing programs is substantiated with the authorities of financing decision, project monitoring and evaluation. However, aid coordination within donor agencies is carried out only through frequent informal contacts or occasional workshops and seminars.   As a consequence, donors are basically assisting regions by regions in order to avoid overlapping of the target areas.   This parallel assistance makes it difficult to maintain linkages among projects.

Recently, major donor agencies tended to provide assistance in the field of JSE upon the government nine-year universal education policy.   However, program management and monitoring function heavily depend on each donor.   No management function as well as aid coordination exists in the Ministry.   Establishing the systems of aid coordination, management, monitoring and evaluation systems will be an important factor in effective use of aid resources and in avoiding duplication of activities.

CHAPTER 2   JUNIOR SECONDARY EDUCATION IN CENTRAL JAVA AND NORTH SULAWESI

2.1   Overview of Junior Secondary Education in Central Java and North Sulawesi

2.1.1   Enrollment

In this study, Central Java and North Sulawesi are selected as the pilot site provinces.   **Table 2-1** shows how those two provinces are compared with the other provinces in Indonesia in terms of gross enrollment rate and net enrollment rate.

Table 2-1: Enrollment Rate by Province

	Province	Gross Enrollment Ratio (1997/98)		Province	Net Enrollment Ratio (1996/97)
1	DI Yogyakarta	114.90%	1	DI Yogyakarta	83%
2	DKI Jakarta	101.75%	2	DKI Jakarta	78%
3	Bali	88.45%	3	Bali	65%
4	West Sumatra	83.24%	4	North Sumatra	64%
5	North Sumatra	82.94%	5	West Sumatra	64%
6	East Kalimantan	77.64%	6	East Java	57%
7	Maluku	77.01%	7	Riau	55%
8	East Java	76.76%	8	Lampung	55%
9	**Central Java**	**76.41%**	**9**	**Central Java**	**54%**
10	**North Sulawesi**	**73.63%**	10	Aceh	54%
11	Bengkulu	73.31%	11	East Kalimantan	54%
12	Lampung	71.70%	12	Maluku	54%
13	Riau	71.27%	13	Bengkulu	52%
14	Aceh	70.74%	**14**	**North Sulawesi**	**52%**
15	Southeast Sulawesi	69.11%	15	South Sulawesi	49%
16	Jambi	67.78%	16	Jambi	48%
17	South Kalimantan	67.31%	17	South Kalimantan	48%
18	South Sulawesi	65.38%	18	Southeast Sulawesi	48%
19	Central Kalimantan	63.54%	19	West Java	45%
20	West Java	62.85%	20	South Sumatra	45%
21	South Sumatra	62.59%	21	Central Kalimantan	44%
22	West Nusa Tenggara (NTB)	59.86%	22	West Nusa Tenggara (NTB)	44%
23	Central Sulawesi	58.62%	23	Central Sulawesi	42%
24	West Kalimantan	57.75%	24	West Kalimantan	40%
25	East Nusa Tenggara (NTT)	56.56%	25	Irian Jaya	40%
26	Irian Jaya	55.82%	26	East Nusa Tenggara (NTT)	39%
27	East Timor	45.38%	27	East Timor	31%
	National	72.26%		National	53%

Source: Center for Informatics, MOEC (1998)

Both Central Java and North Sulawesi rank somewhat above the average.   The gross enrollment rate and net enrollment rate of Central Java and North Sulawesi in 1998/99 is shown in **Table 2-2**.   If the students of Packet B are not included, the net enrollment rate is less than 70% for Central Java and less than 60% for North Sulawesi.

Table 2-2: Enrollment Rate in Central Java and North Sulawesi (1998/99)

	Central Java		North Sulawesi	
	Gross Enrollment Rate (%)	Net Enrollment Rate (%)	Gross Enrollment Rate (%)	Net Enrollment Rate (%)
Including Paket B	83.84	78.22	85.46	56.64
Excluding Paket B	67.65	63.02	80.35	53.91

Source: MOEC (1998) *Laporan Wajib Belajar 9 Tahun 1997/1998*,
MOEC (1998) *Statistik SLTP, SMU Dan SMK Propinsi Jawa Tengah Tahun 1998/1999*

In Central Java, 73.9% of the students are enrolled in MONE junior secondary schools, 19.4% are enrolled in MORA schools, and 6.7% are enrolled in the Paket B program. In North Sulawesi, 88.4% of the students are enrolled in MONE schools, 5.7% are enrolled in MORA schools, and 6.0% are enrolled in the Paket B program. Therefore, in Central Java, MORA schools play a substantial role in providing JSE, while they play a smaller role in North Sulawesi. In both provinces, Paket B also plays an important role in keeping children in school who have difficulties commuting regular schools. The degree of the diffusion of the Paket B program, however, is not the same in all the districts. For example, Central Java districts with a low enrollment rate are: Tegal, Grobogan, Rembang, Batang, Brebes, and Wonosobo. Tegal, Grobogan, Batang, Brebes are still the lowest four districts even if Paket B enrollments are counted. However, in Wonosobo district, 4,500 students are enrolled in the Paket B program, which increases the enrollment rate of this district by 10%.

These districts are located in rural areas, and it is estimated that the educational aspiration of the parents and the community in the area is lower. On the other hand, districts located in urban areas show higher net enrollment rates such as 97.9% for Kotamadya Salatiga and 91.4% for Kotamadya Surakarta. In these districts educational aspiration is high and there are more quality schools that attract students even from other neighboring districts who seek better educational opportunities.

Another characteristic of the enrollment in these two provinces is that there are both under age and over age students enrolled. Particularly in North Sulawesi, the students are younger than 13 account for 15.3%, which is the highest in the nation (**Table 2-3**). For year one students, 39.5% are under the age of 13.

Table 2-3: Students by Age

	Province	under age 13 (%)	13-15 (%)	over age 15 (%)
1	DKI Jakarta	16.6	74.8	8.6
2	West Java	13.1	78.5	8.4
3	**Central Java**	**12.4**	**77.2**	**10.4**
4	DI Yogyakarta	13.8	75.0	11.2
5	East Java	11.4	77.8	10.8
6	Aceh	11.8	76.8	11.4
7	North Sumatra	9.8	77.3	12.9
8	West Sumatra	7.9	80.0	12.2
9	Riau	9.0	78.7	12.3
10	Jambi	12.6	76.5	10.9
11	South Sumatra	10.4	75.3	14.4
26	Bengkulu	10.0	75.9	14.2
12	Lampung	9.6	77.7	12.7
13	West Kalimantan	7.7	73.2	19.1
14	Central Kalimantan	9.6	76.1	14.3
15	South Kalimantan	9.7	78.0	12.3
16	East Kalimantan	13.1	73.6	13.3
17	**North Sulawesi**	**15.3**	**74.6**	**10.0**
18	Central Sulawesi	11.1	76.2	12.7
19	South Sulawesi	10.5	75.1	14.4
20	Sourtheast Sulawesi	10.6	73.7	15.6
21	Maluku	10.4	71.4	18.3
22	Bali	14.0	78.4	7.6
23	West Nusa Tenggara (NTB)	13.1	76.1	10.8
24	East Nusa Tenggara (NTT)	7.2	67.2	25.6
25	Irian Jaya	9.0	64.0	27.0
27	East Timor	7.1	57.7	35.2
		11.8	76.6	11.6

Source: Center of Informatics, MOEC (1998).   Statistik Persekolahan SLTP 1996/97

2.1.2   Continuation Rate and Dropout Rate

In North Sulawesi, the continuation rate from primary to junior secondary schools is close to 95%, ranking 6th of all 27 provinces, but the dropout rate is higher, which is close to 5 %.   On the other hand, the continuation rate is lower but the dropout rate is also lower in Central Java as shown in **Table 2-4** and **Figure 2-1**.   This shows that in North Sulawesi, educational aspiration may be high or the access to schools may be more secured for the new entrants, but that some schools are failing to keep the students enrolled.   In the case of Central Java, it is assumed that there is a problem in accepting students in schools due to the lower educational aspiration of the parents or financial difficulties.

Table 2-4: Continuation Rate and Dropout Rate by Province

	Province	Continuation Rate from Primary Schools (1996/97)		Province	Drop-out Ratio (1995/96)
1	DKI Jakarta	117.75%	1	East Java	0.81%
2	Irian Jaya	102.72%	2	West Java	0.90%
3	East Timor	99.82%	3	DKI Jakarta	1.48%
4	DI Yogyakarta	97.82%	4	South Sumatra	1.55%
5	Bali	97.77%	5	South Sulawesi	1.71%
6	**North Sulawesi**	**94.94%**	6	West Sumatra	1.93%
7	East Kalimantan	92.16%	7	DI Yogyakarta	1.98%
8	Aceh	92.06%	8	Lampung	2.24%
9	Maluku	90.68%	9	**Central Java**	**2.53%**
10	Bengkulu	88.33%	10	Bali	2.75%
11	Southeast Sulawesi	83.55%	11	Aceh	3.12%
12	East Nusa Tenggara (NTT)	80.80%	12	East Nusa Tenggara (NTT)	3.41%
13	North Sumatra	80.45%	13	Southeast Sulawesi	4.26%
14	South Sulawesi	79.29%	14	West Nusa Tenggara (NTB)	4.60%
15	Central Kalimantan	79.17%	15	Maluku	4.72%
16	Jambi	78.36%	16	**North Sulawesi**	**4.91%**
17	East Java	77.93%	17	North Sumatra	4.96%
18	West Sumatra	77.04%	18	East Kalimantan	5.52%
19	Lampung	73.65%	19	East Timor	5.58%
20	South Sumatra	73.08%	20	South Kalimantan	5.70%
21	**Central Java**	**71.68%**	21	West Kalimantan	5.85%
22	Riau	71.21%	22	Riau	7.36%
23	Central Sulawesi	70.38%	23	Central Kalimantan	7.48%
24	West Kalimantan	70.07%	24	Bengkulu	7.98%
25	South Kalimantan	66.67%	25	Irian Jaya	8.25%
26	West Java	63.89%	26	Central Sulawesi	8.44%
27	West Nusa Tenggara (NTB)	63.64%	27	Jambi	8.46%
	National	76.56%		National	2.38%

Source: Center for Informatics, MOEC (1998)
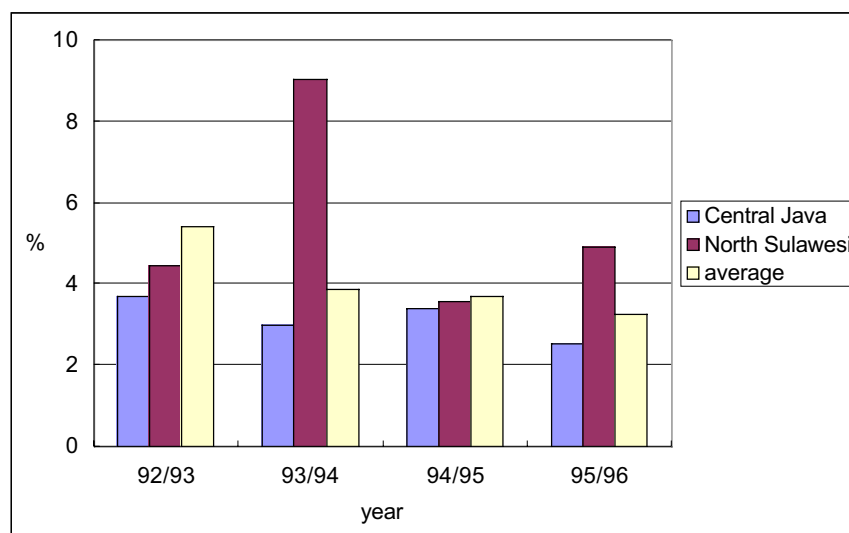
Source: Center of Informatics, MOEC (1998).   *Statistik Persekolahan SLTP 1996/97*

Figure 2-1: Trend of Dropout rate

2.1.3   Size of Schools and Educational Facilities

There is a wide range in school enrollments and classroom size depending on provinces.   The average number of students per school is 208 for North Sulawesi, while schools have twice as

many students in Central Java (**Table 2-5**).   North Sulawesi and Central Java are situated in the opposite end of the range.

Table 2-5: Size of Schools / Classrooms by Province

|	Province	Number of Students per School (1996/97)			Number of Students per Classroom (1996/97)
1	Central Kalimantan	200	1	**North Sulawesi**	**31**
2	**North Sulawesi**	**208**	2	South Kalimantan	35
3	Central Sulawesi	217	3	East Timor	35
4	West Kalimantan	234	4	Southeast Sulawesi	36
5	Maluku	239	5	Maluku	36
6	East Timor	244	6	Central Sulawesi	36
7	South Kalimantan	250	7	Bengkulu	37
8	East Nusa Tenggara (NTT)	254	8	Jambi	37
9	Irian Jaya	260	9	DI Aceh	37
10	Jambi	271	10	DI Yogyakarta	38
11	Bengkulu	302	11	Central Kalimantan	38
12	DI Aceh	303	12	South Sulawesi	38
13	East Kalimantan	303	13	West Sumatra	38
14	Lampung	304	14	East Kalimantan	38
15	South Sulawesi	311	15	South Sumatra	39
16	Southeast Sulawesi	312	16	West Kalimantan	39
17	North Sumatra	320	17	East Nusa Tenggara (NTT)	39
18	South Sumatra	321	18	Lampung	39
19	DI Yogyakarta	337	19	Irian Jaya	39
20	Riau	354	20	Bali	40
21	Bali	379	21	West Nusa Tenggara (NTB)	40
22	East Java	402	22	North Sumatra	40
23	West Nusa Tenggara (NTB)	423	23	Riau	41
24	DKI Jakarta	437	24	East Java	42
25	**Central Java**	**445**	25	West Java	42
26	West Sumatra	459	**26**	**Central Java**	**43**
27	West Java	533	27	DKI Jakarta	44
	National	369		National	40

Source: Center for Informatics, MOEC (1998)

In general, the average classroom size of North Sulawesi is preferred.   However, the fact that the dropout rate is higher shows that there are some problems associated with the inefficiency of the small-scale schools, such as the imbalance of the teacher allocation or lack of educational facilities.   Central Java, on the other hand, is a densely populated province, and schools are generally large and crowded.   The data of lower continuation rate from primary to secondary schools and lower dropout rate in this province may indicate that more problems exist in the acceptance of the students such as the lack of school facilities rather than in the education offered at the school.

2.1.4   Students' Achievement

One of the indicators to measure student achievement is the NEM score, which is based on the average score of the examinations in five major subjects.   In North Sulawesi the negative co-relation between the average NEM score and net enrollment rate can be observed.   **Figure 2-2** plotted the NEM and net enrollment rate (NER) data of all the sub-districts in District Minahasa. Although the degree of co-relation is not high (T-value is –2.89), it shows that as net enrollment increases, NEM score tends to be lower.   This means that when net enrollment is low, only

motivated students go to schools, which seems to raise the NEM score.   When NER is closer to 100%, which includes students who do not like to study, the NEM score decreases.
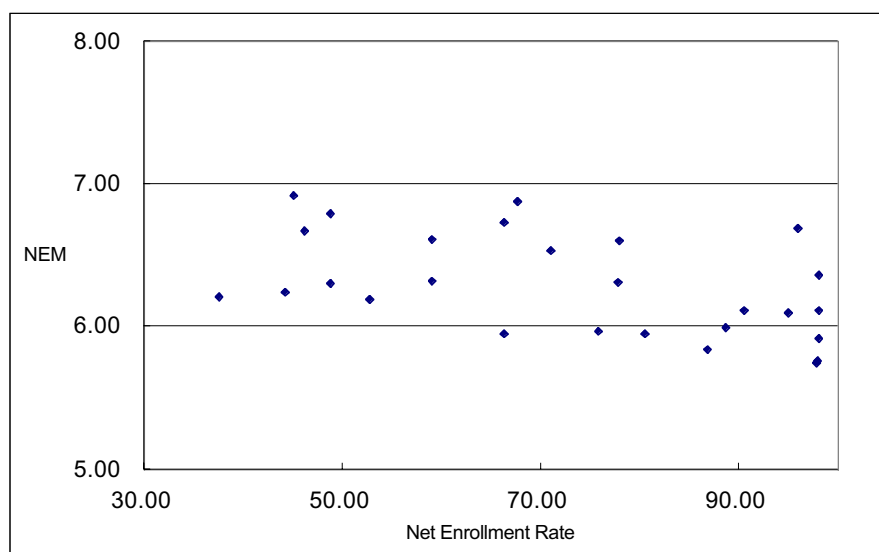
Figure 2-2: NEM and NER data of District Minahasa

In this case, the emphasis should be placed more on quality improvement for the sub-districts that have achieved high enrollment rates. For the sub-districts with low NER, measures to keep the quality high while increasing enrollment have to be taken, such as improving teaching methods and supplying enough textbooks and learning materials. In the case of Central Java clear co-relation was not observed between these two indicators in the aggregated figures. This indicates that there is a variety among districts and many other factors affect these two indicators.

2.2 The Economic Crisis and Emergency Measures

2.2.1 Background

The economic crisis that started in 1997 has had large impacts both on the quantity and quality development of junior secondary education in Indonesia, though there were a wide variety of impacts depending on the groups and regions. The collapse of the currency has caused the decline of the share of education expenditure in the Gross Domestic Products (GDP), which meant the reduction of the real educational expenditure per student. The reduction of educational expenditure directly affects the schools' spending for improving the school environment such as facility maintenance and basic school supplies. This currency problem also had an impact on real household income, making it difficult to maintain household education expenditures to keep up with the price increase of uniforms, stationery and transportation. In the crisis-affected rural area, people tend to migrate to the urban areas to obtain cash income. Significant effects are also observed in urban areas, especially in Jakarta, in the form of an increase in street children, whose population tripled during the crisis.

According to the survey conducted by MONE and the World Bank,[1] the overall enrollment at the junior secondary level fell by 1.6% in 1998/99 (**Table 2-6**). This is a sharp drop compared to the percentage change in the enrollment of 5.7% in 94/95, 2.8% in 95/96 and –0.7% in 96/97, while primary schools show consistent percentage changes during these years. Particularly a larger decline in junior secondary school enrollment is observed in urban areas.

Table 2-6: Percentage Change in Enrollment (%)

	Primary Schools				Junior Secondary Schools			
	Rural	Urban	Jakarta	Total	Rural	Urban	Jakarta	Total
1994 to 1995	-1.2	-1.0	-1.6	-1.2	7.8	0.6	-0.8	5.7
1995 to 1996	-1.5	-2.3	-2.6	-1.7	5.2	-3.1	-4.5	2.8
1996 to 1997	-0.6	-2.1	-2.2	-0.9	1.3	-6.2	-5.1	-0.7
1997 to 1998	-1.7	-1.1	-0.1	-1.6	0.0	-6.3	-8.6	-1.6

Source: Office of Research and Development, MOEC, (1999) *The Impact of Indonesia's Economic Crisis on Education: Findings from a Survey of Schools,* p.5

Another finding from the survey is that at both primary and junior secondary levels, there is a substantially larger decline in enrollment among private schools than public schools (**Table 2-7**). At the junior secondary level, there is even a slight increase in public school enrollments (1.9%), but the decrease in private schools is large (-8.3%). This shows that students switch from private schools to public schools. After the enactment of nine-year compulsory education, public schools are encouraged to improve their capacity by organizing SLTP Terbuka and offering double-shift classes as well as by constructing new public schools. The intake of students to private schools is gradually declining, since private schools generally are not the first

---

[1] The survey was conducted in five provinces: North Sumatra, Jakarta, Central Java, South Sulawesi, and Maluku in October 1998. For more details, please see Office of Research and Development, MOEC, (1999). *The Impact of Indonesia's Economic Crisis on Education: Findings from a Survey of Schools.*

choice of the students partly because the school fee is higher than that of public schools.

Table 2-7: Percentage Change in Enrollment from 1997 to 1998 (%)

	Primary Schools				Junior Secondary Schools			
	Rural	Urban	Jakarta	Total	Rural	Urban	Jakarta	Total
All Schools	-1.7	-1.1	-0.1	-1.6	0.0	-6.3	-8.6	-1.6
Public Schools	-1.4	0.1	0.6	-1.1	2.8	-2.0	-1.9	1.9
Private Schools	-4.0	-4.3	-2.0	-4.1	-7.3	-10.0	-16.0	-8.3

Source: Office of Research and Development, MOEC (1999). *The Impact of Indonesia's Economic Crisis on Education: Findings from a Survey of Schools,* p.8

Dropout rates, on the other hand, shows only slight changes as shown in **Table 2-8**. Dropout rates for all grades for the year 1997/98, when the economic crisis hit the population for the first time, increased from the previous year. Since this survey was performed before March 1999, the number of dropouts for 1998/99 was fairly small. Dropout rates in private schools are generally higher than those of public schools. Another finding from this data is that dropouts in Grade 3 are far less than those in Grade 1 and Grade 2, which coincides with the survey results of the JICA Study Team. This probably indicates that students who are in Grade 3 try hard to graduate from junior secondary schools and manages to proceed to higher education institutions, while students who do not intend to go to high schools drop out before Grade 3.

Table 2-8: Number of Dropout Students and Dropout Rate in North Sulawesi

	Grade 1		Grade 2		Grade 3	
	Public	Private	Public	Private	Public	Private
96/97	117 (5.4%)	57 (6.7%)	70 (3.7%)	52 (5.8%)	12 (0.6%)	13 (1.7%)
97/98	159 (7.9%)	63 (7.4%)	135 (6.9%)	34 (4.5%)	44 (2.4%)	20 (2.5%)
98/99	34 (1.7%)	54 (6.2%)	32 (1.8%)	26 (3.3%)	16 (0.9%)	26 (3.7%)

Note: 16 public schools and 24 private schools were surveyed.
Source: MOEC

According to the MONE survey in 1998, there are also regional variations at the junior secondary level. Jakarta and urban Central Java saw large enrollment declines (8.6% and 5.7%, respectively), while in some parts of the country there was an increase in enrollment due to the increase of cash crop exports.

According to the interviews conducted during the fact-finding survey by the JICA Study Team, the economic crisis affected both school and family's purchasing power, and the level of community participation in terms of financial support has decreased as well. Generally schools depend on parents' contribution (BP3 fee, entrance fee, and other donations) to pay for part-time teachers and other administration costs. Due to the economic crisis, however, the

number of students who have difficulties in paying BP3 fees has increased. In order to keep the students enrolled, schools sometimes waive the school fees for poor students, which has made it more difficult for schools to maintain minimum teaching/learning materials or to keep a good school environment.

Besides the changes in the enrollment and financial situation, the decrease in the motivation of students and teachers was observed in some schools, which would eventually affect the quality of education. According to the teachers in those schools, students are likely to be spiritless and absenteeism increases. Teachers also mentioned that they had a hard time in making enough money to cope with the increasing prices of essential commodities, which negatively affects their attitude at schools.

2.2.2   Outline of the Scholarship and Block Grant Programs

(1) Objectives

In order to cope with the impact of the economic crisis on education, particularly to assure the universal nine-year compulsory basic education, the government developed a program of scholarships for students and School Block Grants (Dana Bantuan Operasional: DBO) for public and private primary, junior secondary, and senior secondary schools. These programs intended to support the poorest families and the poorest schools along with a nation-wide "Stay in School" media campaign, which started on July 1997. The Scholarship program aims to assist students (Rp. 240,000 annually per student) from poor families so that they can finance their schooling. The DBO aims to assist schools so that they can maintain the educational services to the community even though the prices of school necessities have increased.

(2) Target of the Programs

From July 1998, all provinces will get a quota adjusted by the number of students or schools and poverty index prepared by National Family Planning Coordinating Board (Badan Koordinasi Keluarga Berencana Nasional: BKKBN). It was targeted that 17% of students would be provided with scholarship and 60% of schools would be provided with DBO.

The recipients of the scholarship are selected from poor families based on the poverty index. The selected students were those who dropped out of school since the previous year and/or are at risk to dropout due to financial difficulties. Students of SLTP Terbuka were not included because those schools were basically free.

DBO can be used according to a school's needs. Examples of suggested usage of this fund are; buying materials for learning support, buying consumable goods, small maintenance projects, and subsidizing students' exam fee and entrance fee. However, it should not be used for teachers' incentives, new building development, and purchasing electronic equipment. Schools that receive DBO are those that receive students from poor families[2], and charge

---

[2] DBO recipient schools are those that consist of minimally 50% of students coming from the poorest family on the poverty index.

monthly school fee less than Rp75,000 per student for SLTP.

(3) Implementation Mechanism

The allocation of scholarship and DBO is processed as described in the **Figure 2-3** and **Figure 2-4**. Committees were set up at each level, such as provincial, district, sub-district, and school levels.
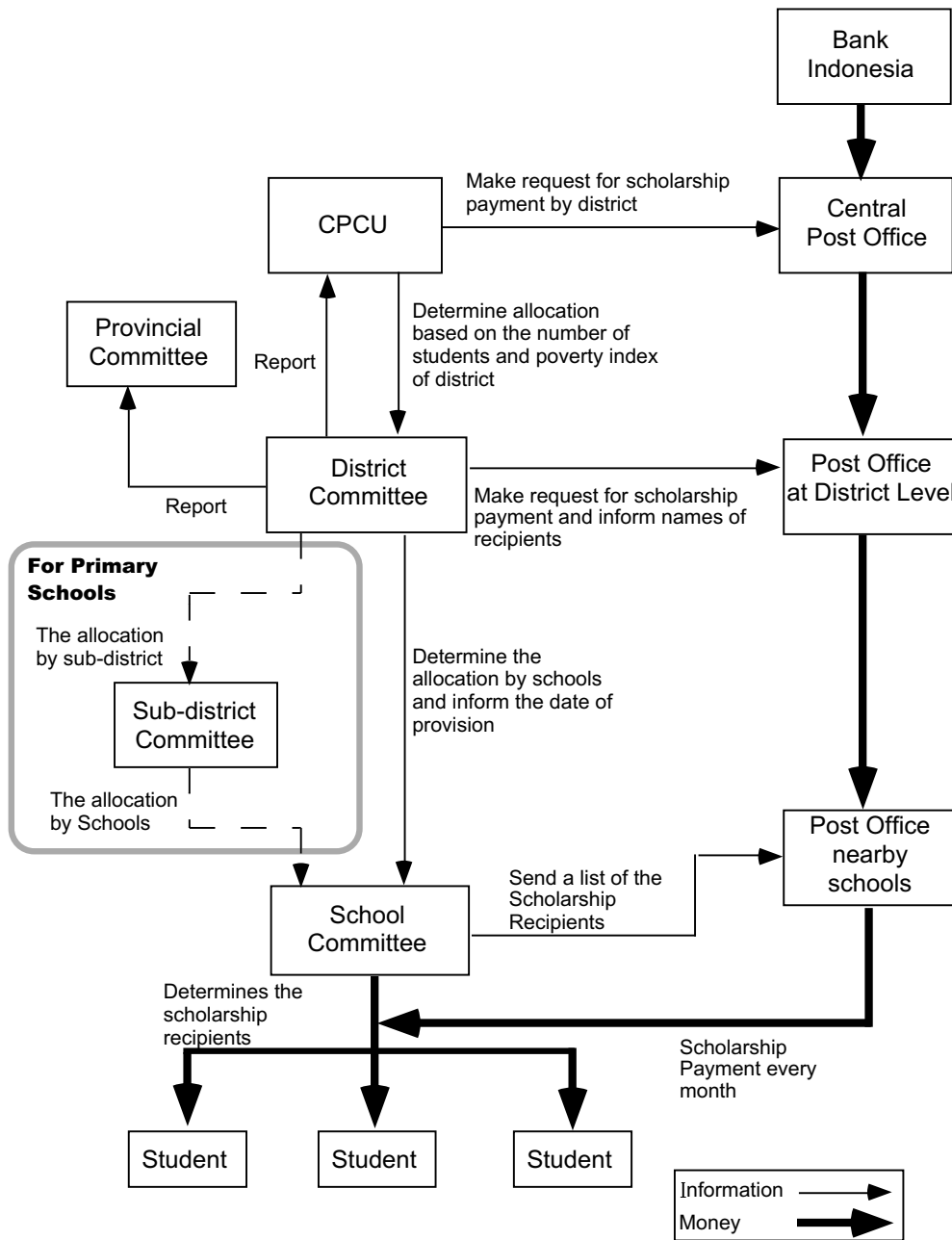
CPCU: Central Program Coordination Unit

Figure 2-3: Implementation Mechanism of Scholarship Program
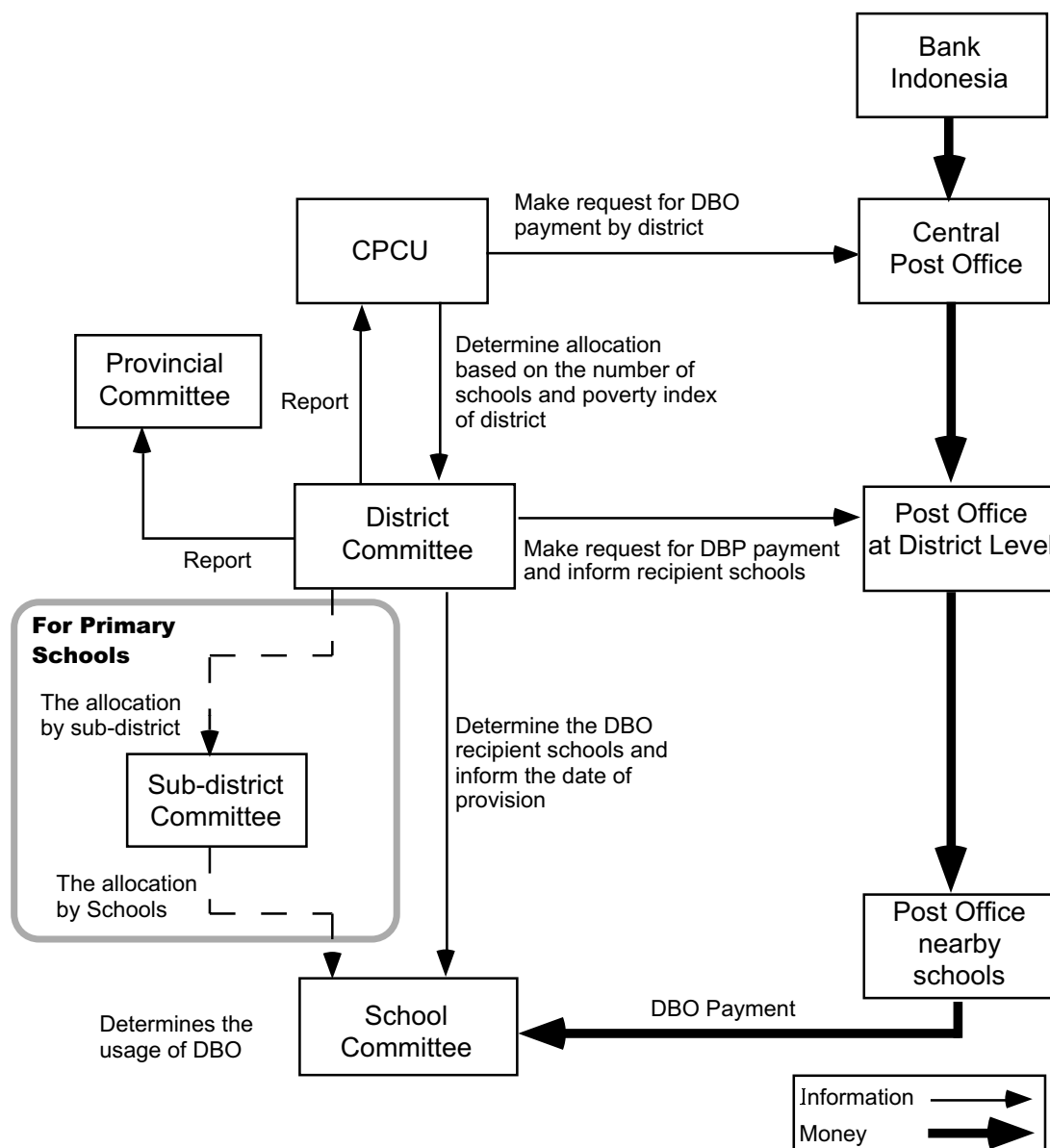
Figure 2-4: Implementation Mechanism of DBO Program

The main roles of **Provincial Committees** were to conduct socialization workshops and to monitor the program. A provincial committee runs the training for district committees. The training is intended to share information about the management and guidelines of distributing the scholarships and DBO. In the training, a provincial committee mandates district committees to screen the schools and students to be candidates of school grants and scholarship recipients.

District Committees consist of the staff of BAPPEDA, the staff of District Office of MONE (Kantor Departemen Pendidikan Nasional: Kandep Diknas), the staff of the district government office of MORA (Kantor Departemen Agama: Kandepag), and the representatives of the community. In the case of Central Java, the various institutions are appointed by BAPPEDA

as community representatives such as Women Organizations, Indonesia Teachers' Association, and BP3s.   For junior secondary level, district committees are in charge of determining how many students for each school should receive the scholarship and which school should receive DBO, and monitoring the implementation and usage of the scholarship and DBO.   The district committees also run the training for principals and sub-district committees that are responsible for the selection of recipients at primary schools.

School Committees often consist of principals, BP3, Student Association (Organisasi Siswa Intra Sekolah: OSIS) and the representatives of the village office, but the members vary depending on the schools.   The school committees determine who will be the recipients of the scholarships based on criteria such as low economic status, living far from the school, having more than three brothers and sisters of school age, having no parents, and having the potential to drop out.

2.2.3   Performance Review

(1) Independent Implementation Review

The Independent Implementation Review Team (IIRT) was set up to monitor scholarship and DBO programs in cooperation with the World Bank, AusAID, and JICA.   IIRT conducted the evaluation of the programs in West Java, South Kalimantan, East Nusa Tenggara, and North Sulawesi in 1998.[3]   The summary of their review is as follows.

Target Population/Schools: The numbers of the scholarship students and DBO recipient schools originally targeted were mostly covered (99% and 100% respectively).   81% of surveyed scholarship recipients lived in poor or very poor households.   Among the survey sample, 17.35% of the public schools received DBO, and 17.76% of the private schools received DBO.

Process of Recipient Selection: 61% of respondents used the economic condition of the family as the only criterion in selecting students.   37% used the economic condition of the family and students who had already dropped out of the schools or the economic condition of the family and students who were potential dropouts.

Process of Distribution: Generally, the correct amount was distributed but distribution was delayed.   The proportion of scholarship payments made within a period of three months was 66%.   The proportion of students receiving the correct amount of scholarship payment was 95%.   The proportion of schools receiving the correct amount of DBO was 93%.

Impact: The percentage change in annual enrollments was + 8%.   The annual dropout rates, however, continued to increase from 4.3% in 1996/97 to 4.9% in 97/98.

---

[3] In April 1999 the work of the IIRT was taken over by the Central Independent Monitoring Unit (CIMU) under MONE, and the monitoring has extended to all 27 provinces.

(2) REDIP Local Consultants' Review in Central Java and North Sulawesi

REDIP conducted an impact survey on Scholarship/DBO programs in the target provinces of Central Java and North Sulawesi.   The survey was conducted in April 1999, and the emphasis was placed on a more qualitative review of the Scholarship/DBO programs through questionnaire-guided interviews.   The survey covered 682 students in Central Java and 150 students in North Sulawesi as well as 140 schools in Central Java and 28 schools in North Sulawesi.   Parents and post office staff were also included as interviewees of this survey.

1) Impact of the programs

<u>Scholarships</u>

The scholarship was used mainly to purchase the necessary stationary such as pencils, pens, textbooks, notebooks, and uniforms as well as to subsidize BP3 fees and extra study charges. Besides, there were some students who utilized that money for purchasing food such as rice, fish, and meat, fertilizer, and other daily life needs for the family.   Both the provincial and the district officials commented that scholarships were effective to keep students from dropping out of school and to motivate them to be more active learners.   In Central Java, 25 out of 36 interviewed students said that scholarships elevated their motivation to study.   However, the decrease of the dropout ratio could not be clearly observed in the data as shown in **Table 2-9**. In Central Java, the number of dropout students was relatively low; about 1 student in a public school, and 8 to 10 students in a private school.   The main reason for dropping out of schools was not a financial one, but rather personal, such as a bad relationship with other students and early marriages.

Table 2-9: Changes of Dropout in North Sulawesi Province

Type of School	1997/1998			1998/1999		
	Total Number of Students	Number of Drop-out Students	Drop-out Rate (%)	Total Number of Students	Number of Drop-out Students	Drop-out Rate (%)
SD/MI	344,761	7,601	2.20	332,466	8,577	2.58
SLTP/MT	115,472	2,820	2.44	110.312	2,725	2.47
SM/MA	76.314	2,866	3.76	73,566	2,903	3.95

Source: Provincial Office of MOEC in North Sulawesi

On the other hand, negative impacts of the scholarship program were also observed in some of the surveyed schools.   For example, when a school had many students from poor family backgrounds who were eligible based on the formula, only a certain number of students can be selected as recipients of scholarships based on the proportion set at the district level.   This situation has caused some of the non-recipient students to be discouraged to go to schools[4]. In some cases, the amounts of scholarship equaled or were less than the amount of BP3 fees, and nothing was left for students even after they received the scholarship.

---

[4] This situation was observed in District Minahasa, North Sulawesi.

DBOs

According to the interviews, DBOs significantly contributed to the administration of the school, particularly in keeping the learning activities.   DBO is mainly used to purchase learning / teaching materials such as chalk, instructional aids, and learning materials, and to carry out light maintenance.   The procurement of clerical materials and the support for students (for providing notebooks and stationary, etc.) were the other usage of this grant. They were used properly except in a few cases where they were used for other activities.

2) Other Findings

The survey showed that overall implementing structures of the provincial committee, district committee, and school committee was working well without many serious problems. However, some problems associated with the institutional structure and the selection of the recipients existed.

Monitoring

Provincial committees had a role to monitor activities at the district level and school level, however there was no budget for monitoring activities at the provincial level in the program, which made the program monitoring and evaluation incomplete.   What made the monitoring even harder was the delay of the submission of the quarterly reports from the district committees to the provincial committee.   Monitoring at the district and school level went well in most cases.

Participation

It was originally planned that the members of the committees include both governmental officials and private representatives.   In many cases, private members were appointed by the authority but they were not always interested in or motivated to be involved in the activity due to the poor understanding of their responsibilities, and had little experience in participating in planning and creating forms and reports.   The absence of the committee members from the training activities or meetings made the socialization of programs difficult.   The post office staff who were in charge of paying the scholarships and DBOs were also supposed to join the socialization program, but due to the limited number of post office staff, they did not attend the program.   In school committees, principals played a dominant role in many cases, and BP3 played only supplemental/supporting roles in determining recipients.   Particularly in MORA schools that were operating under private non-profit foundations (yayasan), the school management was strongly controlled by them, and BP3 was not able to play an important role, which reflected the style of the current school management.   On the other hand, private schools operated under Catholic churches tended to have stronger initiatives of BP3.

Logistics of Payment

Scholarship recipients surveyed received the right amount of scholarships, but the delivery time was often late.   When students received scholarships late, their payment of BP3 fees was also delayed, which caused the late payment of salaries and honorarium of part-time teachers. Distribution procedures of the post office were quite good.   However, for the post office to

transfer money, they had to wait for a formal letter from the district committee, which sometimes delayed the payment.   In the case of the Post Office in Manado, North Sulawesi, at the time of the survey (April 1999), 99% of scholarship payment for the first semester of the year 98/99 was completed, 75% of payment for the second semester was completed, and 0% of payment for the third semester was completed.   In Central Java, schools coordinated all recipients and picked up all the scholarships from post offices and the school committee distributed them to each student.   In North Sulawesi, the distance between schools and post offices was sometimes a problem, since the transportation cost was more expensive than the amount of the scholarship.   DBO was properly distributed to the surveyed schools.   The payment was made as soon as the post offices received the money from the Bank, and the timing of the payment was normal.

Selection of recipients

The proportion of scholarship recipients per school was determined by district committees. Even when the absolute number of poor students was high, the number of the recipients became small if the total enrollment of the school was relatively small.   As a result, there were many poor students left without scholarships.   On the other hand, schools with a large enrollment received more allocation of scholarships even if they had few poor students. Another problem related to the selection is that the criteria based on school location do not always reflect the school needs.   For example, even when a school needed many scholarship allocations because there were many poor students, the allocation became small if the school was located in a more affluent village area (e.g. Kotamadya Semarang).   By Contrast, there were schools with only a low number of poor students that received a high proportion of scholarship allocation because they were located in a poor village (e.g. Kabupaten Demak).

2.2.4   Recommendations

(1) Improvement of the Current Programs

1) Expansion of the DBO program

The fact that the real dropout rate was much smaller than the MONE's original projection of 11.5% in the year 1998/99 proved that the current Scholarships/DBO programs have been effective in keeping the students enrolled in schools.   Particularly the provision of DBO was considered effective to maintain the minimum teaching/learning process by the many interviewees at schools.   DBO can be utilized to purchase teaching/learning materials and to maintain the school environment by which all students and teachers are able to enjoy the benefits, whereas scholarships can benefit only a few students who receive them.

Although it cannot be denied that scholarships are absolutely necessary for students who are motivated but having difficulties to continue schooling due to financial constraints, the number of scholarship allocations is still limited and it is not always effective in keeping children in schools where many of them have similar financial backgrounds.   As described in the previous section, scholarship provision can be a disincentive for non-recipients in some cases. It may be more effective to expand DBO programs to support the school as a whole.   DBO programs can be utilized in many ways, even as a scholarship if a school wishes.   Among the

surveyed sample, there are some schools that had saved enough money (about one million Rupiah) from DBO and used the savings as scholarships for the poor students.

Currently the number of DBO recipient schools is quite limited and the socialization of the program itself is not enough. The same amount of DBO is provided to all the recipient schools regardless of their financial status. In addition to the increased DBO allocation, more flexible implementation of DBO program needs to be considered.

2) Revision of the Selection Criteria

Scholarship and DBO were distributed based on the formula determined at the Central Program Coordination Unit (CPCU) and the criteria discussed at the district committees, yet, there were a number of non-recipient (schools) whose situation was worse than the recipient (schools). The problems associated with the selection were summarized as follows:

- Scholarship allocation based on the total number of students does not reflect the real needs. Since the proportion of scholarship recipients in each school was already determined by the formula, a school with a large enrollment receives more allocation regardless of the number of the poor students.

- The selection based on the poverty index of the village in which a school is located does not always reflect the real financial status of the school. The poverty index shows the economic condition of the community but does not explain the condition of the school. There are rich schools located in a poor village, and poor schools located in rich village.

- Distribution of funding among public and private schools is not always fair. Though the number of private schools accounts for 66.8% of total junior secondary schools (1993/94), public schools have received many more scholarships and DBO allocations than private ones. Many private schools are more dependent on student fees, but experiencing the decrease of enrollment, while students have more difficulties continuing schooling because of the higher school fees.

Considering the above problems, it is recommended that the real situation of students and schools should be observed more carefully in selecting recipients. The opinions of supervisors and principals, and school financial reports should be utilized more by district committees to determine the recipients and to give scholarships to the poorest students and DBO to the poorest schools. Distribution of the funds to private schools should also be more carefully reviewed. Junior secondary schools are roughly classified into three categories; a few private schools with high-performance in terms of student achievement and better financial conditions, good public schools, and many private schools with poor-performance in student achievement and poor financial conditions.

Since the high-performing private schools situated at the top of the pyramid can attract enough students to maintain schools and public schools are, in most cases, preferable compared to the other private schools, the decrease of enrollment, if there is any, is likely to occur at the private

schools at the bottom. Therefore, it can be said that schools that have been affected by the economic crisis most are the private schools situated at the bottom of the pyramid and the students who can enter only those schools. If the government is to keep the enrollment rate and quality of education in private schools, more emphasis should be placed on allocating scholarships and DBOs to private schools and their students.

3) Increase of School Decision Making Authority

Currently, the implementation of the program is quite rigid. The formula of recipient selection is set at the central level and is strictly followed by the lower levels. The utilization of the funding is uniform, as well. In the real situation, however, some indicators are not always valid for the appropriate selection and the alternative indicators may need to be taken into consideration. Some schools where many poor students are enrolled may need to introduce the rotation of scholarship provision to encourage many poor students to stay in school or to utilize DBO as scholarships. Such flexible arrangements may be necessary to effectively cope with the local needs, and that can be only determined at the school level.

4) Increase of the Community/Private Members Participation in the Committees

Although the committees at provincial, district, and school levels were set up for the schools as implementing agencies, the participation of the community and private members are not sufficient. Private institutions and members, in general, join the committee by appointment by the local government but not on a voluntary basis. REDIP's survey showed that there are a number of staff and institutions that are not very familiar with the programs because they did not fully participate in the socialization program or in implementation activities. The benefits of more community involvement are: it can increase the transparency in selection of the recipients, distribution of the payment, and utilization of the funding; and it can raise the educational aspiration of the community and parents. The "Stay in School (Aku Anak Sekolah)" campaign that UNICEF initiated has been effective in delivering messages that parents and community should keep children in school with government support. Through increasing community involvement, a similar message can be delivered at the local level.

(2) Other Short-Term Measures to be Considered

1) Awareness Raising of the Parents / Communities through Increased Participation

Although nine-year compulsory education is enacted, junior secondary education tends to still be considered as a preparation stage for senior secondary education. The JICA Study Team observed that the number of dropout students is smaller in Grade 3 than in junior secondary schools, and that the continuation rate to senior high schools for Grade 3 students is as high as 80% or more in many schools. That indicates that only students who plan to proceed to high schools manage to stay in junior secondary schools. Students who do not plan to or decide not to proceed to senior high schools tend to be less motivated to be enrolled in junior secondary schools from the beginning or drop out of the schools at an early stage.

This shows that there is a need to redefine junior secondary education as the basic education, and parents and communities need to be aware of the importance of JSE itself. In order to

deepen their understanding, first, they need to be well informed of what is being taught, what children are learning, what activities exist, and how the community can relate to the school activities as well as the curriculum need to be more relevant to their life. Then, the parents and communities should be invited to plan school activities together with teachers. School committees set for the Scholarship/DBO programs can be utilized to have closer linkage and coordination with BP3.

2) Support for SLTP Terbuka

Currently SLTP Terbuka is excluded from the Scholarship/DBO programs because they are offered for free. However, the transportation costs and stationery are not free, and it cannot be denied that these students who had been already facing economic difficulties were affected by the economic crisis as well. The dropout rates of the SLTP Terbuka can be as high as 20%. The enrollments of SLTP Terbuka are increasing but some measures to prevent students from dropping out need to be considered. Monetary measures such as scholarships, but also education support system to motivate them such as provisions for more tutoring, more relevant feedback on their assignments, and provision of opportunities to join regular school activities are needed.

2.3   Administrative and Financial Systems before Decentralization[1]

2.3.1   Education Administration in Indonesia[2]

(1) MOEC, MOHA, and MORA

There are three key Ministries in education administration in Indonesia.   First, the Ministry of Education and Culture (MOEC) is in charge of the whole range of education system.   MOEC provides formal and non-formal education, and sanctions the content and output of education provided by other government agencies and by private schools and teaching institutions.

The Ministry of Home Affairs (MOHA) is the second key ministry.   MOHA has substantial responsibility in delivery of public primary education while MOEC is responsible for the technical and policy aspects.   For public secondary and higher education, MOEC directly provides services.   After the universalization policy of JSE was adopted, MOHA is now expected to share more responsibilities in the delivery of JSE.   The Ministry of Religious Affairs (MORA) is the third key ministry that oversees both public and private Islamic schools (Madrasah Tsanawiyah Negeri: MTn, Madrasah Tsanawiyah Swasta: MTs).   They are most prevailing at the junior secondary or higher levels.

(2) MOEC Administrative Structure

MOEC is in charge of direct provision of secondary and higher level of education, and of technical and policy aspects of education administration for all levels.   MOEC carries out its functions through its vast sub-national network of field offices at three levels: 27 provincial offices of MOEC (Kantor Wilayah Diknas: Kanwil Diknas), 302 district/ municipality office (Kandep Diknas), and in most of the 3,500 sub-district offices (Kantor Kecamatan: Kancam)[3], making it the only ministry with representation in most of the sub-districts and with the most dispersed and penetrating administrative structure of any ministry.   This organizational structure is called "deconcentrated" rather than "decentralized"[4] given the fact that MOEC retains much central authority.

(3) MOHA Administrative Structure

MOHA has a structure virtually parallel to that of MOEC.   MOHA has educational services offices at the provincial level (Dinas P&K Tk I, or Dinas I), district/ municipality level (Dinas

---

[1]   This chapter was written in June 1999 before the decentralization process took place.   The current decentralized administration system is described in **Chapter 8.2.1 "The Decentralized System and Its Current Situation"**.

[2]   For more details see "Indonesia: Education in Indonesia-From Crisis to Recovery, December 9, 1998, World Bank, Annex 5.1, p. 136".

[3]   The number of administration bodies increased since then, and as of June 15, 2001, there are 30 provinces, 74 kotamadya, 269 Kabupatens, 3988 kecamatans.

[4]   "Deconcentraion" can be regarded as the center passing some functions to its regional (provincial or below) dependencies while retaining overall authority.

P&K Tk II, or Dinas II), and sub-district level (Dinas kecamatan, or Cabang dinas). The Dinas P&K often has more manpower than all other sectoral Dinas combined, and more than the Kanwil Diknas and Kandep Diknas. What makes the MOHA structure distinct of MOEC is that the heads of the provincial governments (Gubernur) and head of district governments (Bupati) have authority in administrative matters over the regional educational services of which a line of Dinas offices are in charge, while MONE retains much of the overall authority in the center.

In addition to primary education, MOHA shares increasingly more responsibilities in expansion of junior secondary education with MOEC. This reflect the fact that in 1997 the Indonesian government has made a decision to place the responsibility for implementing the program to achieve universal basic education directly with Bupatis who are the heads of Dinas II.

(4) MOHA and the Provinces Have Leading Roles in Primary Education

Responsibility for the management of primary schools and out-of-school education was decentralized in 1951 to the provinces (Public Law Number 65). Since then, many provincial governments have in turn delegated the responsibility to the districts and municipalities. MOHA takes responsibilities of the construction of schools, placement and transfer of teachers, and provision of recurrent budgets for materials – often referred to as the "3M", for manpower, money, and materials. The delivery of primary education is the most prominent sectoral function delegated to local governments. Out of a total of 1.8 million sectoral staff seconded to local governments, primary education staff accounts for 62 percent. Primary school teachers enter the civil service as employees of the central government and are immediately (and almost always permanently) seconded to the local governments. The Dinas office carries out actual recruitment.

MOEC retains responsibility for the technical and policymaking aspects of primary education, including teacher training, curriculum and textbook development, evaluation of teacher performance, pedagogical supervision, and student assessment.

Overall educational administration structure of MONE, MOHA, and MORA is as summarized in **Figure 2-5**.
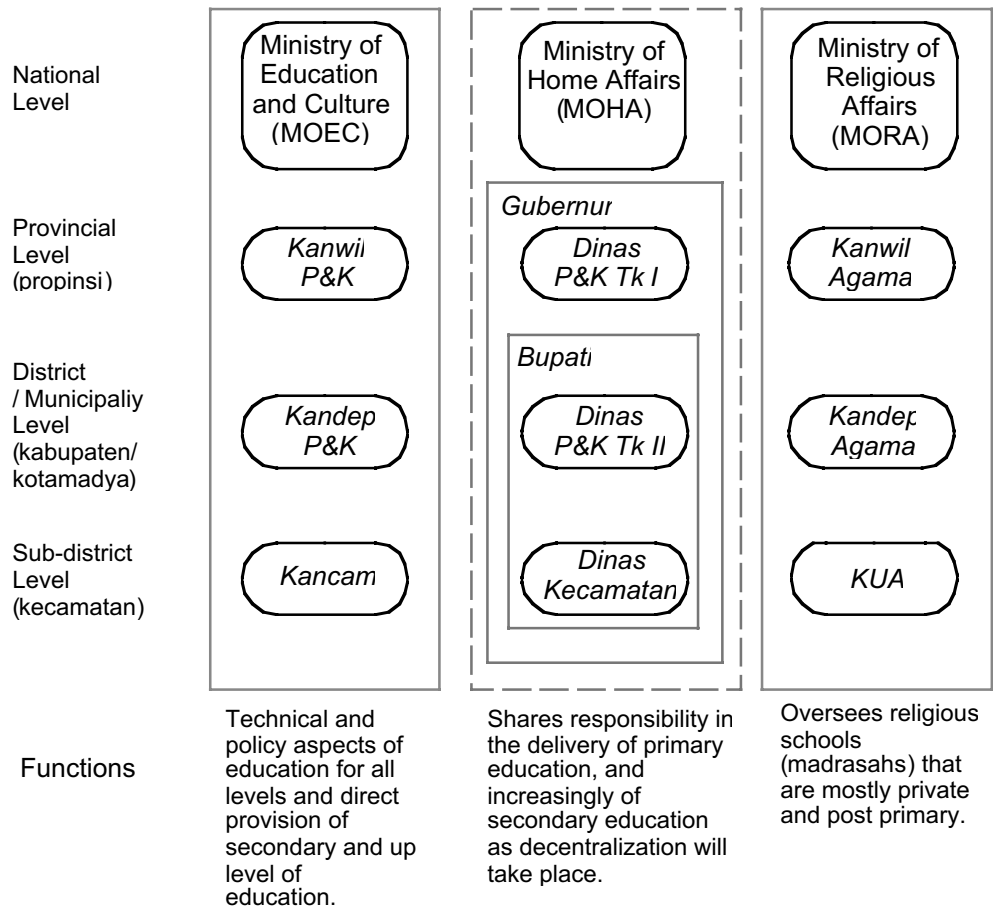
Figure 2-5: Educational Administration in Indonesia

2.3.2 Public Finance System for Education [5]

(1) Budget Structure – Routine and Development

Public financing of the education system in Indonesia is very complex. In short, the government budget in Indonesia is divided into the Routine (Dafter Isian Kegiatan: DIK) and Development (Daftar Isian Proyek: DIP) budgets. For education, DIK is much larger than DIP. A major portion of DIK is related to the salaries of teachers and other staff, and thus the purposes and amounts of spending are mostly predetermined. DIP, on the other hand, is associated with development-project-based expenditures for education. It should be noted, however, that DIK and DIP are not so clearly differentiated in practice. For example, these expenditures, such as honoraria for teaching staff, funds for textbooks and other teaching materials that are usually defined as recurrent in other countries are all included in DIP in Indonesia. Thus, DIP is not completely devoted to investment or development activities.

---

[5] This section is mainly drawn upon by the work of "INDONESIA: Education Finance Study/ Final Report, Prepared for Government of Indonesia (BAPPENAS) and Asian Development Bank by Hickling consultancy team, May 1997" that is the first attempt to compile data of educational public finance in Indonesia.

(2) Budgetary Process – Negotiation with MOF and BAPPENAS

There are several different government institutions that are involved with the education budgetary process.   In addition to MOEC, MOHA, and MORA that are implementing agencies in education, the Ministry of Finance (MOF) and BAPPENAS are major players in the budgetary process.   MOEC, MOHA, and MORA submit education budget requests to MOF for DIK (routine) and to BAPPENAS for DIP (development).   Then, they go through the negotiation process.   In broader sense, the education budgets are prepared in accordance with the priorities and targets presented in the current five-year plan (Repelita VI).   More details of budgetary process are summarized, taking a case of MOEC as an example, as follows.

The MOEC budgeting process for DIK is organized in 3 sectors.   These 3 sectors are sub-divided into 5 sub-sectors and 11 programs.   11 programs are further divided into 5 categories (staff salaries, supplies, maintenance, transport, and subsidy).   There are some financial standards set by category that specify unit amounts of budget, such as per student, per classroom, per school and the like.   Secretary General's Office of MOEC compiles budget requests into one piece, and then proposes it to MOF.   MOEC and MOF negotiate the amount.   The revised budget is usually not substantially different from the one originally requested by MOEC, because much of the budget is for staff salaries and largely predetermined.   Then, the revised budget is brought into the draft state budget (RAPBN).

For DIP, first, detailed descriptions and budgets of each project and sub-project are prepared every year.   Second, the Planning Bureau of MOEC compiles all projects into one DIP budget for the whole ministry.   Then, the DIP of MOEC is proposed to BAPPENAS that is in charge of coordinating development budget at the national level.   The proposed DIP budget is negotiated among MOEC, BAPPENAS, and MOF.   A process of negotiation for DIP is far more extensive than for the DIK.   Then, the revised budget will be a part of the draft state budget.   The series of activities related to DIP are summarized in **Table 2-10**.

In short, for both the DIK and DIP, the budgeting process is mostly a "bottom-up" function until the State Financial Budget Draft is completed (over August to December every year).   After the total state budget is drafted in January, "top-down" adjustment (usually reduction) takes place to finalize the budget up to March.

Table 2-10: The Series of Activities Related to DIP within a Fiscal Year

April – May	Evaluation of on going programs, conducted by line ministries
June – July	Coordination meeting for development planning at the district level. Preparation of reports documenting achievements of previous year development activities, to be attached to the Presidential Speech before the Parliament commemorating the independence day (August 17).
August	Presidential address before the plenary session of the Parliament. Coordination meeting for development planning at the provincial level.
September	Coordination meeting for development planning at the regional level. Submission of project proposals from line ministries and provincial governments to BAPPENAS.
October	National Level Coordination Meeting for Development Planning
November	Compilation of the Blue Book, containing the list of priority projects proposed for foreign assistance. The book is prepared primarily for the yearly Consultative Group on Indonesia (CGI) meeting in the following year.
December	Budget ceiling is decided. Finalization of development budget allocation at the sector, sub sector, and program levels. Plenary Cabinet Meeting to discuss the Budget Plan (RAPBN), and to get direction from the President.
January	Budget Plan is submitted to the Parliament.
End of March	Approval of the Budget Plan and the DIP by the Parliament. Distribution of the DIP documents to the project managers through the Governors of the provinces.

Source: BAPPENAS World Wide Web.

2.3.3   The Budgetary Envelope

(1) Overall Trends

The consolidated government expenditure for education from 1984/85 to 1996/97 is as shown in **Table 2-11**.   Education expenditure as proportion of GDP and government expenditure is shown in **Table 2-12**.

Overall trends are summarized as follows.

  - Nominal public education expenditure for education had been rising.
  - From mid-1980s to early 1990s education expenditure declined - from 4% of GDP and 18% of total public expenditure in 1985/86 to 2.7% of GDP and 12% of public expenditure in 1990/91.   This decline was associated with, first, the end of primary school expansion, and second, fiscal adjustment after the sharp drop of oil prices in 1986.
  - From 1991/92 to 1996/97 (before the economic crisis), education expenditure increased relative to total public expenditure.   In 1996/97, education expenditure accounts for 15.7% of public expenditure.
  - From 1991/92 to 1996/97, education expenditure relative to GDP has remained virtually at the same level around 2.8%.

Table 2-11: Consolidated Government Expenditure on Education /a /b   (Rp. billion)

Program	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Primary	**1,696**	**2,113**	**2,079**	**1,943**	**2,198**	**2,138**	**3,015**	**3,374**	**4,178**		**5,730**	**6,607**	**7,625**	
Routine	1,037	1,469	1,525	1,733	1,933	1,914	2,470	2,655	3,325		4,611	5,371	6,153	
Development	659	644	553	210	265	224	545	719	853		1,119	1,236	1,472	1,155
Junior Secondary	**420**	**695**	**493**	**515**	**544**	**654**	**778**	**933**	**1,131**		**1,796**	**2,156**	**2,591**	
Routine	226	320	356	378	434	500	545	654	801		1,079	1,379	1,602	
Development	195	375	137	137	110	154	233	280	329		717	777	989	1,044
Senior Secondary	**339**	**519**	**419**	**640**	**706**	**841**	**761**	**932**	**1,093**		**1,501**	**1,621**	**1,873**	
Routine	215	296	328	346	392	460	507	596	714		777	889	991	
Development	124	223	92	294	314	381	254	337	380		724	732	882	651
University	**268**	**443**	**497**	**663**	**712**	**891**	**786**	**841**	**1,152**		**1,127**	**1,449**	**1,673**	
Routine	131	197	231	234	301	333	404	389	500		549	664	730	
Development	137	246	266	428	411	558	382	452	652		578	785	943	1,093
Other	**190**	**239**	**237**	**280**	**285**	**404**	**666**	**738**	**984**		**730**	**869**	**886**	
Routine	141	180	206	234	258	319	354	391	434		562	623	668	
Development	49	59	31	46	27	86	152	258	337		168	246	218	332
of which:														
(routine+development)	27	32	22	42	20	24	27	36	65		115	136	136	
Total	**2,914**	**4,010**	**3,724**	**4,041**	**4,445**	**4,927**	**5,845**	**6,730**	**8,325**	**9,542**	**10,885**	**12,702**	**14,649**	**14,852**
Routine	1,750	2,462	2,646	2,926	3,317	3,525	4,280	4,684	5,774	6,351	7,579	8,926	10,144	10,577
Development	1,164	1,547	1,078	1,116	1,128	1,402	1,565	2,046	2,551	3,191	3,306	3,776	4,505	4,275
Memo Items:														
INPRES SD	595	536	498	150	130	100	371	529	645	699	748	799	945	1,049
SDO Guru SD	759	1,273	1,318	1,528	1,700	1,680	2,204	2,469	3,103	3,174	4,075	4,768	5,480	

/a. Consolidation of education expenditure of: central government development, central government routine, regional government routine and development, and Religious Affairs

/b. Actual expenditure figures up to 0992/93. For subsequent years, budget figures are shown.

Sources: BAPPENAS, *APBN* (various years)
Ministry of finance, *Economic Indicators and Budget Statistics* (various years)
Ministry of Home Affairs, *APB*
World Bank, *Indonesia: Public Expenditures, Prices and the Poor* (1993)
World Bank, *Country Economic Memorandum* (1996, 1997) and World Bank Staff Estimates.

Table 2-12: Education Expenditure as Proportion of GDP and Government (%)

	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	Average (86/87-96/97)
Education Expenditure/GDP	3.24	4.13	3.63	3.24	2.97	2.74	2.77	2.69	2.95	2.89	2.85	2.81	2.77	2.87
Education Exp./Total Government Exp.	15.03	17.57	17.01	14.99	13.47	12.91	11.82	12.94	14.31	14.80	15.05	15.37	15.67	14.13
Education Development Exp./Total Development Exp.	11.69	14.23	12.94	11.77	9.21	10.14	8.05	9.40	10.57	12.43	12.07	12.67	13.47	10.98
Education Routine Exp./Total Routine Exp.	18.56	20.60	19.51	16.73	15.99	14.49	14.27	15.50	16.97	16.37	16.86	16.90	16.90	16.10
Memo Items (Rp billion):														
GDP	89,885	96,997	102,683	124,817	149,669	179,582	210,866	249,969	282,395	329,776	382,220	452,381	528,954	
Total Government Routine Exp.	9,429	11,952	13,559	17,482	20,739	24,331	29,998	30,228	34,031	38,799	44,945	52,824	60,006	
Total Government Development Exp.	9,952	10,873	8,332	9,477	12,251	13,834	19,453	21,764	24,135	25,661	27,398	29,812	33,460	
Total Government Expenditure	19,381	22,825	21,891	26,959	32,990	38,165	49,451	51,992	58,166	64,460	72,343	82,636	93,466	
Government Expenditure/GDP (%)	22	24	21	22	22	21	23	21	21	20	19	18	18	

Sources for GDP and budget data: State Budget (Ministry of Finance) and World Bank, *Country Economic Memorandum* (1996 and 1997)

(2) Allocation Among Education Sub-sectors

Trends of allocation of public spending within education sub-sectors are summarized as follows (see **Table 2-13**).

- Primary education had kept shares more than 50% of budget in last decade. For primary education, routine budget is about 4 times as large as development budget, which reflects the fact that teacher salaries in public SD accounts for about 80% of government budgets for primary school, or 40% of the entire government budget for education.
- Junior secondary education has increased its share since 1988/89. JSE share in education budget that accounted for 12% in 1988/89 rose to 18% in 1996/97. This was mainly associated with increase in the development budget.
- Senior secondary education remains the same share, around 13-14% since 1990/91, after a substantial drop from 17% in 1989/90.
- Tertiary education (university) had decreased its share in education budget.

Table 2-13: Allocation of Government Expenditure on Education (%)

Program	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	Average (86/87-96/97)
Primary	58	53	56	48	49	43	52	50	50		53	52	52	51
Routine	36	37	41	43	43	39	42	39	40		42	42	42	41
Development	23	16	15	5	6	5	9	11	10		10	10	10	9
Junior Secondary	14	17	13	13	12	13	13	14	14		17	17	18	14
Routine	8	8	10	9	10	10	9	10	10		10	11	11	10
Development	7	9	4	3	2	3	4	4	4		7	6	7	4
Senior Secondary	12	13	11	16	16	17	13	14	13		14	13	13	14
Routine	7	7	9	9	9	9	9	9	9		7	7	7	8
Development	4	6	2	7	7	8	4	5	5		7	6	6	6
University	9	11	13	16	16	18	13	12	14		10	11	11	14
Routine	5	5	6	6	7	7	7	6	6		5	5	5	6
Development	5	6	7	11	9	11	7	7	8		5	6	6	8
Other	7	6	6	7	6	8	11	11	12		7	7	6	8
Routine	5	4	6	6	6	6	6	6	5		5	5	5	6
Development	2	1	1	1	1	2	3	4	4		2	2	1	2
Total Consolidation Ed. Exp.	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Routine	60	61	71	72	75	72	73	70	69	67	70	70	69	71
Development	40	39	29	28	25	28	27	30	31	33	30	30	31	29

(3) Recent Shift in Development Budget 1998/99

The recent revised development budget for education (June 1998), however, shows very different allocation that is clearly intended to safeguard basic education from the negative impact of the economic crisis. Development budgets for education in 1996/97 and 1998/99 are as shown in **Table 2-14**.

The amount of development budget for education stays the same in real terms (given inflation rate was around 230% in 1997-98). The basic education budget has increased in real terms by 56%. This was due to the allocation of Rp.1.4 trillion for the crisis-relief programs providing

scholarships and school block grants.   On the other hand, allocations for other education sub-sectors have been reduced.

Table 2-14: Basic Education Allocations Protected in the 1998/99 Budgets

	1996/97		1998/99		% increase
	(realized)/a (Rp million)	% share of total	(June budget) (Rp million)	% share of total	in real terms (1996/97-98/99)
Basic	1,033	33	3,635/b	52	56
Secondary	667	22	867	13	-42
Higher	999	32	1,661	24	-26
Nonformal	88	3	129	2	-35
Staff Development	145	5	169	2	-48
Operations and Maintenance	158	5	469	7	-32
Total Education	3,090	100	6,930	100	0
% of Total Development Budget	10%		8%		

/a Figures do not match Table 7.1 which are budget allocations.

/b Includes Rp 1.4 trillion for scholarships and school block grants (crisis-relief programs).

Note: (1) Development budget (Rp and foreign-financed). Includes INPRES SD and Dati II (rehabilitation of SD); and Ministry of Religious Affairs basic, secondary and tertiary education allocations. Excludes Culture, Youth and Sports.

(2) Total development budget: 1996/97 realized budget = Rp 33.45 trillion; 1998/99 budget allocations (June budget) = Rp 92.7 trillion.

Source: BAPPENAS

2.3.4   Overall Costs of Education

(1) Allocation of Total Expenditures of Education – Public vs. Family

It is not only the public spending that covers educational expenditures.   Households also cover considerable amount of costs for education especially those for the higher levels.   It is how much a family must spend on education that determines household level demand for education. Allocation of total yearly expenditures on education by sources and level of education is summarized in **Table 2-15** and **Figure 2-6**.

At a glance, it is clear that primary education accounts for the largest amount of education related spending with very high proportion of "in-school spending by government."   Tertiary education is the second largest with the smallest government spending and the largest "in-school spending by family and other non-governmental".   Both in junior and senior secondary education, total expenditures are much smaller in comparison with primary and tertiary education.

Total expenditure of junior secondary education is about a half of primary education.   It is mainly due to the fact that government spending for junior secondary is much smaller than for

primary.   On the other hand, in-school spending by family and other non-governmental for JSE is almost twice as much as the one for primary education.   Structure of sources of expenditures in junior secondary is quite similar to the one in senior secondary.

Table 2-15: Total Yearly Expenditures on Education, by Source of Funds and Level of Schooling in 1995-96 (Rp. billion)

| Types of School | Number of Students (000) | School Level/Education System Spending | | | Out of School Spending by Families | Total |
		Central Government	Family and other non-governmental	Sub-Total		
Primary	29,448	5,508	537	6,044	1,285	7,329
Junior Secondary	8,403	1,925	860	2,785	886	3,672
Senior Secondary	4,676	1,714	802	2,517	769	3,286
Tertiary	2,650	1,537	3,893	5,431	653	6,084
General Administration & other education	na	1,279	na	1,279	na	1,279
Totals	45,177	11,963	6,092	18,056	3,593	21,650

Source: *Indonesia: Education Finance Study* prepared for BAPPENAS and ADB, by HICKLING May 1997.
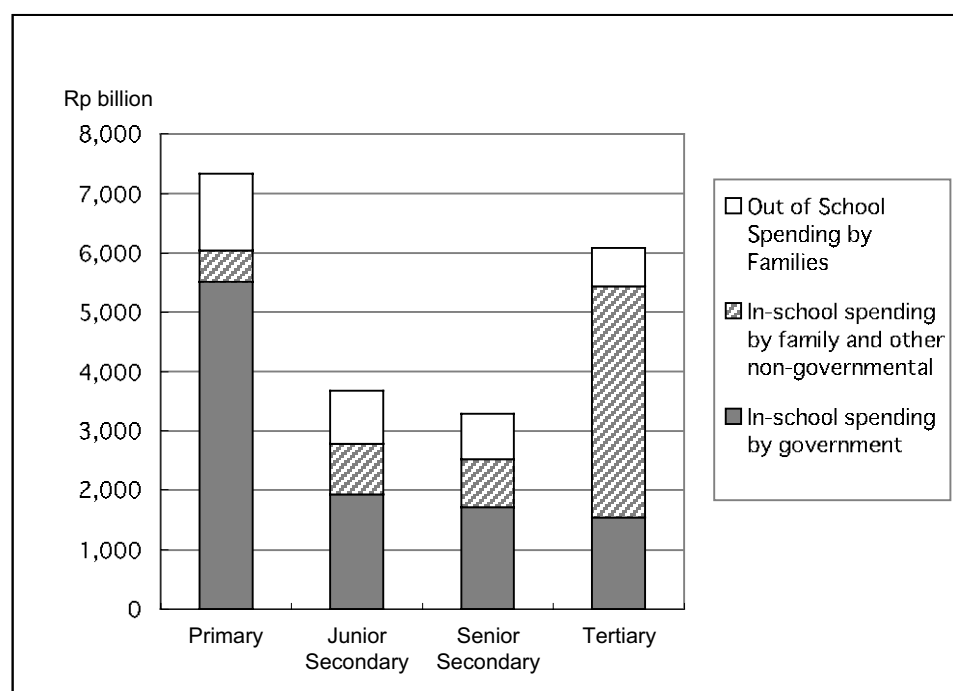
Figure 2-6: Total Yearly Expenditures on Education by Sources and Level of Education in 1995-96

(2) Per Student Expenditures on Education

Allocation of per student yearly expenditures on education by sources and level of education is summarized in **Figure 2-7**. It shows that tertiary education has a totally different scale of expenditure per student basis, and is very much dependent upon "in-school spending by family".
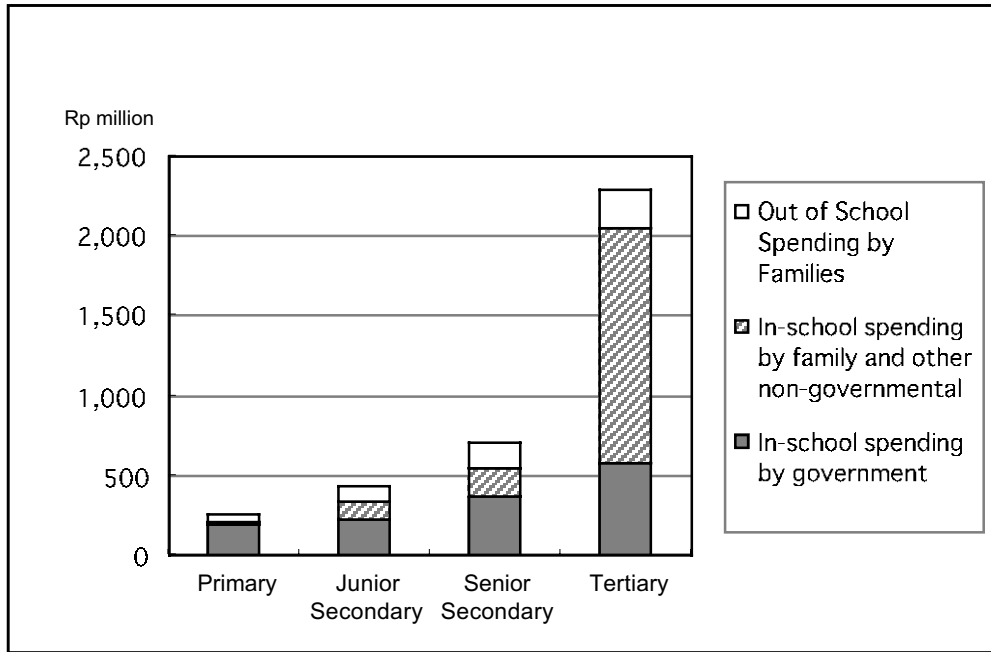
**Figure 2-7: Per Student Yearly Expenditure on Education
by Sources and Level of Education in 1995-96**
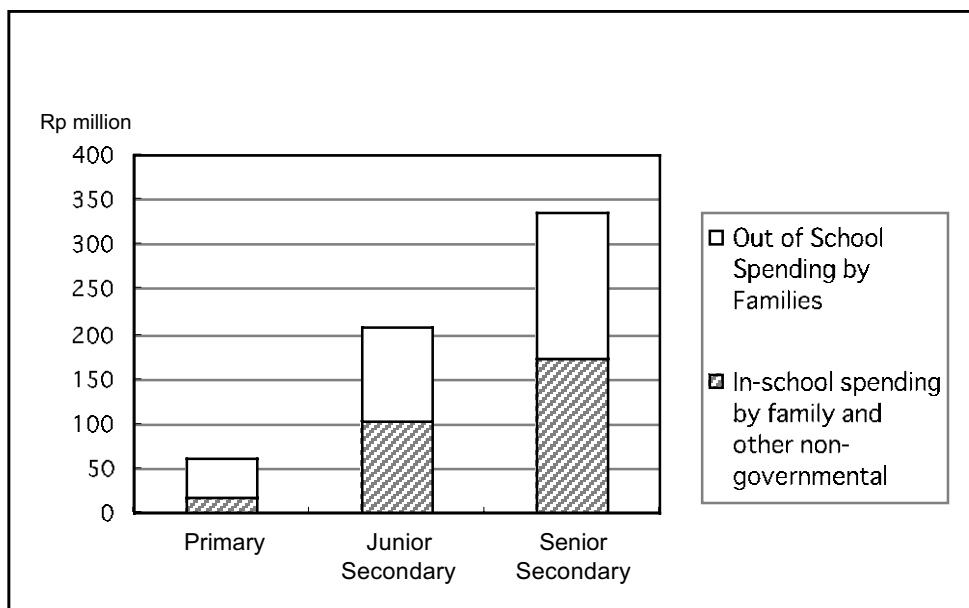
**Figure 2-8: Per Student Yearly Expenditures on Education under Family Spending
by Level of Education in 1995-96**

Figure 2-8 shows portions of per student yearly expenditure that is covered by family spending for elementary, junior secondary, and to senior secondary. This is to highlight the increase in size of household level burden as children progress from elementary, junior secondary, to senior secondary levels. It shows that there is a big difference in the amount of spending for primary education and junior secondary. The size of family spending for junior secondary education is an almost four-fold increase in comparison with the one for elementary education. In short, level and structure of cost of junior secondary education is quite similar to senior secondary education rather than those of elementary education. For the poor households, junior secondary education is far more expensive. This is one of the major constraints to expand JSE to the level of universal education.

2.3.5 Redefining Junior Secondary Education as Basic Education

In the short-term, minimizing possible negative impacts of the current economic crisis on basic education is the most immediate issue. In the medium to long-term, achieving nine years of basic education is one of the most important policy issues of the education system in Indonesia. Providing nine years of basic education to every child means that the GOI should redefine JSE as a basic education, which involves fundamental changes both in administrative and financial systems for JSE. These changes should also be intended to induce parents to perceive junior secondary education to be "an indispensable part of basic education" rather than to be only "a preparatory stage for senior secondary education."

Redefinition of JSE as basic education involves several constraints.

(1) Demand for JSE among the Poor is Low

The reasons for weak demand include the high direct and indirect costs (foregone incomes). In addition, the benefits and prospects for a child to remain in school are quite uncertain. Wage premiums for JS graduates have been diminishing overtime as shown in **Table 2-16**.

Table 2-16: Index of Urban Wage Differentials by Schooling and Gender, 1977 - 94

	Male			Female		
	1977	1987	1994	1977	1987	1994
Primary	100	100	100	100	100	100
Junior Secondary	182	133	116	266	176	140
General Secondary	162	166	153	255	238	227
Vocational Secondary	217	167	155	324	272	235
Tertiary	684	291	311	958	430	400

Source: Staff calculations from Labor Force Survey (SAKERNAS), various years.

It is virtually impossible to change wage level of junior secondary graduates in the labor market by policy intervention. It is more likely to have even smaller wage premiums for JS graduates as more children go to JSE. Thus, policy options to increase demand for junior secondary education should be the ones to reduce the costs of JSE to the poor and concentrate public

investments to underserved areas. Some of these options are already implemented including the following measures.

- Providing school facilities in rural areas.
- Giving scholarships to poor student.
- Providing matching or block grants directly to schools.
- Using alternative methods of education delivery (*SLTP Terbuka, Paket B*)

(2) The Costs of Expanding JSE are High for the Nation

If JSE is made universal, enormous additional financial inputs will be needed. Given the present structure and efficiency, it is quite unlikely to be able to finance JSE as a basic education component. It remains unclear how to make additional funds available for JSE. Thus, GOI should carefully consider options that efficiently expand JSE while increasing effectiveness. Streamlining institutional arrangements for basic education (both for primary and secondary) is one of the key options to expand JSE more efficiently. This issue is further discussed in the next section.

(3) Public Subsidy to Support Private Schools is Inefficient

Although private schools may help fill the shortage of public education, their quality varies from a top-notch school in an urban center to a poorly equipped very small school in a rural area. The poor are disproportionately concentrated in small private schools in rural areas.   At present, allocation of public subsidy to private schools is not efficient in terms of reaching the poor. Two-thirds of the public subsidy in 1995-96 to private junior secondary schools is for seconded teachers.   At the same time, it is pointed out that "a disproportionately large number of seconded teachers serve in private schools in the top accreditation categories (equivalent and recognized), while the poorest schools, which have the greatest need, receive very inadequate in-kind allocations if any."[6]   The smaller private schools in poorer rural areas that are usually not within the top categories receive fewer subsidies than those schools serving wealthier communities.   This reflects the fact that those teachers to be deployed have preferences to go to more prestigious private schools in the wealthier provinces rather than to poor schools in remote areas.   There are no tangible incentives to work in rural areas either in terms of salaries or promotion.

One option to remedy this inefficiency is to shift resources away from the provision of seconded teachers.   Instead, subsidies could be extended to poor schools in more direct forms such as grants for the recurrent budget.   If rural poor schools they need teachers, they can directly hire teachers with this fund instead of going through cumbersome procedures to request a new teacher often finding out that no one wants to come.

---

[6]   Indonesia: Education in Indonesia-From Crisis to Recovery, World Bank 1998, p.60.

In short, the issue of junior secondary education is how to enhance efficiency during the expansion.

2.3.6 Institutional Arrangement and Decentralization

(1) Issues in Institutional Arrangement for Basic Education

Issues of institutional arrangement for junior secondary education are suggested as part of policy options to achieve nine-year basic education, especially as a measure to realize "enhancing efficiency during expansion". At the same time, it is quite important to understand that decentralization of JSE administration is a part of the whole picture of streamlining basic education administration including primary education. Thus, a new set of institutional arrangements for basic education is expected to cover both primary and junior secondary. It is also expected that combining primary and JSE administration makes it easier for them to shift resources, when appropriate, between primary and junior secondary education, such as converting overabundant primary schools into new SLTPs.

There are several major issues of the present institutional arrangements to be addressed in the process of establishing a new unified system for basic education. These are as follows.

- First, organizational complexities at the primary level (due to a dual structure between MOEC and MOHA) affect both quality and efficiency of education. Thus, the present institutional structure for primary education is not a model that should be replicated for JSE.

- Second, operations at the junior secondary level are overly centralized and are unlikely to be capable of managing large-scale expansion for universalization. Thus, JSE needs to have more decentralized arrangements.

- Third, fragmentation and rigidity of the budgetary process leaves very limited rooms for managers or planners to adjust the use of resources when it is needed.

- Fourth, ineffective management at the school level is due to the fact that school principals have little autonomy in the running of the schools or resource allocation

(2) Lessons from International Experience in Decentralization

On the part of JSE level administration, the issue is decentralization. As already discussed in previous sections, decentralization cannot solve all problems. At the same time, it may improve efficiency when decentralization is in place under a certain circumstances. In short, decentralization is expected to have positive effects because it brings the following two elements.

- Moving accountability for services delivery closer to the beneficiaries. This reduces redundancy of administration and gives more responsiveness to the needs.
- Changing incentive systems. Decentralized system gives more sense of ownership that creates incentives to use resources more efficiently.

Experiences of the other countries with the decentralization of education provide some lessons. Lessons from international experiences are summarized as follows.[7]

Improve Educational Quality: Some experiences suggest that decentralization will lead to improved quality of teaching and learning by putting decisions closer to the point where they must be carried out and by mobilizing teachers, principals, and other school managers to do a better job. Results from New Zealand indicate that decentralization has had a positive impact on school learning. Similarly, in the state of Minas Gerais in Brazil, third grade students improved their scores in basic subjects. On the other hand, Chile is the one example where scores on national standard exams declined after decentralization, because there was heavy pressure to increase enrollment.

Improve Administrative Efficiency: Decentralization can reduce overlays of bureaucratic procedures and motivate education officials to be more productive. In Mexico, this indeed occurred when teachers began to be paid regularly. In Minas Gerais in Brazil, school autonomy led to lower costs and better school maintenance, teacher training, and availability and quality of school meals. In Chile, decentralization significantly reduced administrative costs because of the reduced number of ministry employees.

Effects on Spending for Education – It Depends: Experience shows some risks to give spending decision to local politicians. They are often more interested in using available funds for more tangible projects such as roads or irrigation schemes. This is, however, not always the case. In Argentina, total spending on education increased after decentralization. In Mexico, it did not. The impact of decentralization on spending for education very much depends upon external conditions of economic and political context.

Possible Negative Effects on Equity: A possible negative consequence of decentralization is that it may have a risk to widen the gap between wealthy and poor areas. Local areas with more financial and human resource are in a better position to make use of decentralized power compared to poorer areas. This implies that income, regional, and gender gaps must be carefully monitored during decentralization. Public funds should be more targeted to low-performing schools in the poor areas rather than to allocate them in a dispersive manner.

---

[7] Decentralization of Education - Politics and Consensus, E. D. Fiske, 1996, the World Bank.

(3) Recent Move in Institutional Arrangement for JSE in Indonesia

GOI has made a decision to place the responsibility for implementing the program to achieve universal basic education directly with Bupatis who are the heads of Dinas II. It is, however, still not clearly defined how this will affect reorganization of administration for JSE, especially how redefining the roles of Kanwil and Dinas.

There is the "Daerah Percontohan pilot program" to explore new arrangements to integrate Kandep and Dinas II in this regard. Although, general applicability of the pilot is still premature to show a definite direction to proceed, the pilot has the following three features.

- The assignment of responsibilities at the junior secondary would be the same as the primary level, then institutional structure for basic education will be streamlined into one system.

- Responsibility for the delivery of basic education would be consolidated and largely shifted from central and provincial ministry offices to the entities, such as *dinas II* (district government), the school, or the school clusters, that report either directly or indirectly to the *Bupatis* (head of district).

- MOEC would continue to oversee quality and technical standard, particularly through curriculum development, assessment, and testing. Decentralization of responsibilities implies that GOI will need to redeploy central staff and strengthen capacities at the local government level.

2.4 Principals and Supervisors

2.4.1 Overview

Principals may be viewed as the lynch pin between the administration of education and the actual delivery of education to students. They perform four important functions. First, principals act as academic leaders, responsible for introducing new technology, content and methodologies to the school and creating a supportive environment so that quality teaching can take place. Principals formulate the school vision and build consensus on what the school is to be. By their leadership they create a teaching/learning environment that directly impacts on the quality of education.

Second, principals manage and supervise the school, including staff and resources. This includes planning, overseeing and evaluating school performance. Third, principals are responsible for community engagement activities that include seeking community support, keeping the community informed and integrating the school into the larger community. Fourth, principals administer their schools by accurate record keeping, budgeting and accounting, personnel administration, facilities upkeep, and linking with higher levels of government through reporting and requisition of resources. In the next section, these four functions are discussed in the context of Indonesian education. This is followed by an analysis of professional development opportunities, both offered and taken by principals.

It should be remembered that the following analysis is a generalization based on limited inputs. Variations exist from school to school. It should be remembered also that although principals are held accountable for these functions, they delegate many of the day-to-day activities to vice principals, department heads, teachers and administrators. The larger the school, the more staff available to assist the principal.

The variation between the Central Java and North Sulawesi provinces relate more to population distribution and density, resources provided for education, and the amount of external aid now available in each province. In analyzing the principals' performance in both regions, these factors have little to do with how well they perform their jobs and what recommendations will be made to improve their performance. Thus, the following discussion applies equally to both provinces.

2.4.2 Analysis

(1) Principal Selection and Appointment Process

Principals are supposed to be nominated by teachers; however, government agencies seem to assume primary responsibility for nominating or influence the teachers' selection of nominated principals. The Kanwil may be aware of which teachers have reached the D3 or A4 civil service classification and may nominate a teacher to become a principal based on this factor

alone. A teacher may express interest to a supervisor that he or she is interested in becoming a principal, and this may be communicated back to a Kanwil. Some of the combination of factors may account for how a teacher is nominated for the position of principal.

Nominees must pass a test administered at the Kanwil level. If successful, the principal is scheduled for national training, generally at a National In-Service Teacher Training Institute (Pusat Pengembangan Penataran Guru: PPPG). Training covers such subjects as literacy, academic skills, allegiance, curriculum, leadership, and administration. This training serves as the only means to certify principals. Once appointed, the principal is assigned to the school for four years. After four years the assignment can be extended or the principal can be transferred. During his or her tenure, the principal can be removed from the position, if judged as ineffective.

(2) The Academic Leadership Function

The school leader is the principal. It is this individual that is held accountable for what happens in schools. Principals demonstrate a range of leadership capabilities. Some act as facilitators of change, and they work to foster a sense of school learning in the community. Some operate from their own agendas rather than building a common one. Some share leadership while others don't. Principals determine the level of communication within the school and outside of school. They provide varying levels of support to teachers as well as demonstrate levels of technical competence concerning teaching and learning. Principals create the vision of what the school is to be and set the standards for achieving that vision. Different leadership styles motivate students, teachers and community. Leadership style can create a school climate that is conducive to learning or inhibits learning.

As anywhere else in the world, Indonesian principals demonstrate a range of leadership capabilities. Leadership styles cannot be determined by short visits by outside consultants; however, it is possible to get a sense of the impact of leadership by looking at the school environment. While some of the schools visited were orderly, some appeared noisy and not all classrooms had teacher coverage. Most schools were highly regimented. Students wore uniforms, and for the most part, schools were clean. In discussions with teachers, none was critical of the principal; however, the open forum created by the visits, was not conducive for sharing what really goes on in a school. Teachers did mention that in most cases, no incentives were in place beyond the standard salaries provided by Government. There seemed to be little in the way of incentives, or resources to work harder other than a teacher's intrinsic commitment to education.

In a recent report prepared under the Senior Secondary Education Project that included responses at the junior secondary level, additional information was provided about academic leadership. Some principals recognize that motivation is an important characteristic in the

teaching learning process. They demonstrate this understanding by providing such benefits as free lunch, informal discussions, visits to teachers' homes, and additional financial support, often funded by the BP3 budget. Principals will also attempt to increase the amount of resources available to teachers sometimes through linkages with community organizations and sometimes through diligence in working through the Kandep and Kanwil. No standard policy exists to create incentive systems; therefore, each school is left to its own devices to develop such systems. This includes providing other supportive relationships such as locating teaching resources, textbooks, and supplies as well as helping teachers identify and attend professional development programs outside of school.

As a result of these observations, it appears that much of the principal's ability to act as an effective academic leader is directly related to his or her personal background and qualities rather than through systemic professional development activities designed to prepare principals for this important role. Personal characteristics such as entrepreneurship, compassion, dedication to learning, leadership ability, and sensitivity lead to certain principal behaviors that augment technical abilities of a principal.

(3) The Management and Supervision Function

Whereas the academic leadership function requires the principal to show the way, clarify a collective vision and improve the quality of the learning process, management and supervision relate to overseeing the daily operation of the school. This means that the principal must schedule time to oversee school components such as facilities and equipment, teaching and other personnel, students, curriculum and instruction, and other support programs such as counseling and guidance, the library, laboratories, and financing. Academic supervision is divided between two individuals, the school supervisor (pengawas) and the school principal. The principal, in turn, may delegate part of this responsibility to a vice principal, department heads or senior teachers in the school. The academic function includes supervision and evaluation of teachers, teacher support, and teacher development. There is a wide range of behavior among principals in carrying out this function. While a few principals commit most of their school time to teacher supervision, others delegate this responsibility while focusing more on administrative responsibilities. Most principals fall within these two extremes. All principals are required to teach six hours per week.

Although principals generally arrange for the supervision of all teachers, more energy and time is devoted to new and younger teachers and problem teachers. In conducting classroom observations, principals may use a standard instrument developed by the Kanwil (under Curriculum 1994 and the Ministerial Decree in 1997), develop their own questions, or use other less formal methods. The Kanwil questionnaire is structured to observe the classroom where the lecture method is used, suggesting that little concern is given to observing non-traditional or innovative approaches to the teaching/learning process. Given that many principals teach

using the lecture method, it is assumed that such a method done properly leads to higher quality. Thus, teacher supervision is mostly geared to maintaining the present instructional methodology but improving on how it is done. Still, there is some evidence that a few principals will attempt to instill innovative ideas in the teaching process. This is especially apparent in certain private schools run by yayasans including laboratory schools operated by higher education institutions.

Based on the 1994 decree, principals are supposed to use certain instruments to evaluate each subject matter teacher once a school term to improve the teaching/learning process; prepare a data report on teaching/profession activities once a term; prepare a data report on teacher's professional attitude once every school term; and report on teacher/supervisor activities at least once a term. This represents five different forms to be used by principals in supervising teachers. Principals also collect and review teacher lesson plans periodically. New plans must be done each year, and many teachers report copying old lesson plans to be used again and again.

Teachers express a positive view about the supervisory system in their schools as surveyed in the recent ADB-funded study. The study stated that teachers preferred supervision by instructors and key teachers because they received the most support in addressing problems. Most stated they did not recall receiving visits from supervisors but did have periodic in-school visits by the principal or someone delegated this responsibility. They also preferred less formal supervisory methods that did not include an evaluation form and provided for immediate feedback after the lesson. Of particular importance was the supportive role performed by the principal. Teachers felt that principals who helped them with resources or incentives created a cooperative environment that led to the achievement of educational goals. This area is under-researched in Indonesia and a closer examination is needed to determine impact on learning and achievement. The Subject Teacher Support Program (Musyawara Guru Mata Pelajaran: MGMP) were also seen as important to teachers and principals leading to improved teaching. The associated travel expense to attend MGMP meetings sometimes made it difficult for teachers to participate.

In other aspects of management and supervision, principals report that they tour the school grounds each morning to make sure that all classrooms are covered, and if not, try to mobilize substitutes. Principals examine facilities and equipment on a daily basis to make sure everything is in working order. When necessary, the principal will discipline a child or a teacher. The principal schedules regular meetings to find out what problems need to be resolved as well as disseminate information passed from the Kandep or Kanwil. Many of the managerial and supervisory activities conducted on a regular basis are dictated by decree or custom such as celebration of certain holidays. In general, principals have a clear understanding of the responsibilities they have as dictated by Government policy. These are closely followed.

The supervisor or pengawas is not only responsible for teacher supervision, but ensuring that the principal complies with established policies. This is the nature of the dual role performed by the supervisor. Under the 1998 decree concerning supervisors, it appears this role will emphasize the evaluation of teachers based on subject matter. Given the ratio specified in an earlier decree, that is one supervisor per 15 schools, there should be over 1,900 supervisors in place in the 27 provinces[8]. There are only slightly more than 750 to perform the dual function of teacher and school evaluation. If supervisors are to take on the responsibility of evaluating subject content more than 12,000 supervisors will be needed. Only 6,000 would be needed if each was a specialist in two subject areas. Under the recent 1998 decree supervisors have transferred from Kanwil offices to the Kandep and even Kancam offices. Accurate information about the actual number of visits made by supervisors to specific schools is unknown. Based on anecdotal information, rural and isolated schools rarely receive visits while urban schools are likely to be visited by supervisors more frequently. It is assumed that the cost of transportation may act as one barrier to make frequent visits to rural areas.

School management and supervision is one of the most clearly defined areas for the principal as specified in several decrees. Although principals follow the regulations carefully, some expand their duties so as to increase teacher motivation through the creation of selected incentives and by providing support to teachers so they can do their jobs better. Still others delegate teacher supervision to master teachers who may be more qualified in appropriate subject areas and thus, better able to evaluate and provide feedback to teachers.

(4) The Community Engagement Function

The role of community in education is specified through decree and is directly linked to local funding of schools through the BP3 or parents organization. Each community forms a BP3 comprised of approximately six board members from among parents. This board meets with the principal at the beginning of each school year to determine school needs and what budget is required to support those needs. The Board then takes this information to the parents at large who vote on the funding level they will support. This is reported back to the principal who adjusts the school budget to conform to projected future income. Schools demonstrated a wide variation in BP3 money collected. While some schools had a standard fee for everyone, others had a sliding scale from between zero and 10,000 rupiah and parents could choose what they felt they could afford to pay. Some schools had an admissions fee and some collected a fee for each school year. A few schools had a capital investment fund.

Some principals report that they meet with the BP3 board once yearly whiles other state they meet twice or even three times each year. At times, a principal will request an emergency meeting to resolve a specific problem such as a flood or security. For the most part, parents do

not directly participate in school planning, program implementation, or evaluation. Individual parents may be invited into the school as a result of a specific problem related to the child or to attend a special school event.

With the advent of the social safety net scholarship program, the principal and village leader share information concerning the economic status of families that might qualify for such scholarships. A list is prepared and submitted to the Kandep requesting funding. There may be some interaction with families, but such interaction is limited and focused on the need for scholarships.

The private schools have more of a tradition of involving some community elements. Each school has a management structure called a foundation or yayasan. The yayasan is formed by a religious group, the Teachers' Union (Persatuan Guru Republik Indonesia: PGRI), other community interests, and for profit organizations. Depending on the nature and size of the yayasan, the school may have built-in community linkages. Religious organization naturally links the religious institution with the school. If the yayasan has a business orientation, linkages with the private sector may add certain resources for use at the school. An NGO with an international affiliation may have expertise in fund raising helping to ensure financial self-sufficiency while a private university may operate a Laboratory School.

State schools have been structured to rely primarily on Government, so there is no tradition of community involvement in any capacity until more recently. The school is treated as a closed organization with few two-way communication linkages. Communications may be delegated to a department head or vice principal in charge of public relations. Cultural imperatives may have conditioned parents to accept the school team as the experts and parents have no need to assist in planning or other processes important to school success. Also, parents have suggested that the responsibility of education is that of the school and not them. In most cases, the current environment is not conducive for decentralization, suggesting that a great deal needs to be done to prepare the school and community to meet future challenges.

There have been several projects that have developed community engagement activities. Also, there are many individual initiatives at the school level that demonstrate effective community engagement activities. Individual initiative relies on the principal's own interests, motivation, training and experience. Some of these initiatives have included one school that contracted with an outside organization to establish a rent-free canteen on campus and shared in the profits that went directly to use in the school. Another principal secured the donation from a private company to build new walls to partition large spaces for classroom use. The business also donated art supplies for students to decorate the exterior walls.

Two examples of an institutionalized process for community development include the World

---

[8] As of June 2001, there are 30 legalized provinces and 2 are in process of legalization.

Bank-funded Primary Education Quality Improvement Project (PEQIP) and the UNDP-funded Community Participation in Planning and Management of Educational Resources (COPLANER Project). Under PEQIP the project designed a variety of community development programs to involve families, parent teacher organizations, community members, classroom volunteers and other partnerships. The project developed a series of training manuals for targeted audiences, developed a community awareness program and conducted a number of training programs for the targeted audiences to get involved in the schools.

Under COPLANER, the project was designed to meet three objectives: i) Develop a planning mechanism for local educational needs, ii) Develop appropriate models for community support, and iii) Strengthen and decentralize bottom-up planning processes. The final project report was issued in April 1993. It stated, "As expected, COPLANER has not, as yet, been able to influence the allocation of resources under other than those under CFED's (Community Forums for Educational Development) direct control. The project has, however, facilitated many 'concrete' quality-improvement-based inputs at the school level. The task now is to consolidate what has been learned in the COPLANER process and to provide Government with a framework for community participation that can be adapted to suit local aspirations: if this can be done then the project has the potential to significantly contribute to Indonesia's long-term educational development." This suggests that it would be extremely useful to conduct a meta-analysis that examines all the community development efforts in Indonesia to determine the extent of bottom-up efforts in community and school planning. No such research has been conducted, and the information that would be derived by such an evaluation could be quite useful in determining future actions.

(5) The Administration Function

As a deconcentrated system at the lower secondary education level, the MONE maintains control of most of the planning, policies, program content, implementation and monitoring and evaluation. The information disseminated from the top down passes through lower government levels under national control. Generally, the Kandep is responsible for making the direct link with the school principal (directly and through supervisors), disseminating new policies and procedures, approval notifications, management of the school supervisors, teacher assignments, and training. In some cases, the role is simply to pass through information. In other cases, it interprets national regulations and acts on them. In return, the school has an obligation to provide monthly reports on school operation including completion of certain forms requiring quantified statistics. The principal sends this information to the Kandep to be aggregated and then passed to higher levels of the national system. Also, all requests for non-BP3 resources are sent to the Kandep as the first point of contact for approval. If approved, requests are passed to the Kanwil and then to appropriate agencies in MONE. This multi-step process, both down and up, takes time and involves numerous personnel at each level of government. It is one of the main reasons that resource acquisition does not react in a timely

fashion to needs of schools, especially in emergency situations. This places more responsibility on the principal to solve emergency problems through the BP3.

The provision for teachers in both state and private schools is similar. In state schools, the principal prepares a request for teachers, which can be done anytime throughout the school year. The request is passed to the Kandep and if approved goes up the national structure from Kanwil to MONE. It may take up to six months before school knows if its request is approved. If approved, the Kanwil selects and assigns new teaching staff, generally from the province but where there is a shortage such as in rural and isolated areas, may rely on out-of-province teachers to make up the shortfall. This approach also applies to private schools except when the permanent teacher is a yayasan employee. In this case, applicants send letters to the school principal who forwards them to the yayasan with a recommendation. The yayasan employs the teacher. In the case of contract or temporary teachers, the school may decide directly on who to hire using BP3 funding approved by the parent association. The main difference in the employment agreement generally relates to benefits where permanent teachers may receive travel, retirement and job security while temporary teachers may receive only salary and lower extra teaching hour pay.

In addition to funding provided under the terms of the BP3, principals in state and private schools prepare budgetary proposals for recurring and development programs and submit them to the Kandep once yearly. These are consolidated and submitted to the Kanwil. Budgets are further consolidated and BAPPEDA works with the Kanwil to prepare a DIP budget for development. The DIK or routine budget is passed to MONE for approval. Budgets are approved at the national level and allocated to the Kanwils. Schools receive cash transfers from the Kanwil to cover routine costs. Permanent teachers are civil servants and are paid directly by government. A separate annual budget is provided to cover school maintenance. Schools may also be notified that they will receive development funds for special projects such as new facility construction or block grants under current externally funded projects. Principals are generally informed of these developments rather than involved in the planning for school development.

The principal may request other resources throughout the school year using appropriate forms and submitting them to the appropriate department at the Kandep level. The textbook requisition and distribution system is of special interest due to the project activities related to the World Bank-funded Textbook and Reading Development Project started in 1996. Originally, textbooks were requested and passed through each level of Government. In the meantime, the Textbook Center prepared a single textbook title for each subject and films of the master were sent to each Kanwil. The Kanwil contracted out printing and then distributed texts through a three-step process that went from their warehouse to the Kandep warehouse to the Kancam warehouse to the schools. In many instances, schools had to pick up their textbooks because no money was left to cover the cost of this cumbersome distribution process. Often, textbooks

piled up in warehouses or were distributed incorrectly. The system is time consuming, costly, and gives no choice to schools.

Under the World Bank project, the Textbook center evaluates textbooks and teacher manuals submitted by publishers and prepares a recommended short list that is sent to each Kanwil and school at the junior secondary level throughout the country (primary and senior secondary education are not included under this project). Principals and teachers may select one title from the short list and place an order through the Kanwil. The private publisher is responsible for distribution directly to the schools. Currently, four curricular areas have been completed while the last two book lists will be issued during the 1999-2000 school year. A revised short list of Bahasa English books will be prepared as well. Although books are to be provided free to schools under the terms of the loan, there was no evidence that the process was being implemented in the 20 plus schools in Central Java or North Sulawesi visited by the consultant team. Each school continued to use the Government textbooks.

In many districts, MONE has established Kancam offices or sub-district offices. Principals are unclear about the role of these offices and when queried, they state that the Kancam is there to assist with solving school problems. Although the roles of government organizations are clearly spelled out in a recent ministerial decree, there is a question as to this office's effectiveness in linking with schools. Under the terms of the 1998 decree, some supervisors have been assigned to the Kancam. It is too early to evaluate the effects of these changes as well as the changes of the role of the supervisor.

The principal also has a responsibility to report all budgetary expenditures to the MOF on a monthly basis. Once again, the information is passed to the lowest level of government representing MOF in the province and then moves upward through the system.

The office of Village Community Development Council (Lembaga Ketahanan Masyarakat Desa: LKMD) at the community level is under the Ministry of Home Affairs. When asked, principals indicate that their connection with this organization is indirect, meaning that some parents of children in their schools are members of the LKMD. The World Bank West Java Project mentions that as part of its decentralization efforts, LKMD will assist schools with renovation and maintenance. For now, principals are reluctant to attend LKMD meetings fearing that their role would be in conflict with the LKMD mission as a separate ministerial organization.

In summary, principals are required to provide monthly reports to Kandep and BAPPEDA I or II. Annually, they are to complete a form for the Informatics Center in Jakarta that provides relevant data about all aspects of their school. This information is generally hand-written and must be computer entered at one of the levels of Government, often resulting in some data entry error. A new District Education Profile is being prepared annually by the Planning Bureau at

MONE that may require principals to complete another form for their database. Principals can request resources any time during the school year from either the Government or BP3, but requests for Government financing are made once yearly.

(6) Professional Development of Principals

Recognizing their limited preparation for the position of principal, MONE, through the PPPG, provides 16 days of training at one of its 12 centers. There is some indication that the Government is requiring three months of training at a Teacher Training Institute (Institut Keguruan dan Ilmu Pendidikan: IKIP)[9]; however, this could not be substantiated. Although budgeting and finance, human relations, community relations, classroom management, leadership, school administration, staff management, etc. are taught in principal training courses, the emphasis is on the regulatory nature of education and what responsibilities the principal has in compliance with these regulations. For example, training about community relations focuses on the principal's role in the BP3 process. No other role is seen as important in community relations, and therefore, is not addressed in training at this time. Given the need to schedule groups of principals for this training program, sometimes it is necessary to provide training during the school year. This means that many new principals will start their assignment before being trained.

Unlike teachers, principals have little opportunity for Government-funded training or professional development. Most of the principal training is addressed as part of externally funded projects such as those funded by the World Bank and the ADB. For example, under the World Bank Central Indonesia Junior Secondary Education Project (1997-2001), one of the goals is to strengthen educational management. In part, this is being achieved by training principals and other administrators in managing schools and providing pedagogical support to teachers. In Central Java, one of the four participating provinces, the first iteration of principal training was conducted over a ten-day period in October 1997 for 70 SLTP school principals and five supervisors. 104 hours of training was provided as shown in **Table 2-17.**

The methodology used in training avoided lecturing as much as possible. The methods employed included question and answer, discussion, simulation, demonstration, assignments, and role-playing. A field practice component was included and lasted three days. Each of five groups of 15 was assigned to conduct an academic supervision assignment for a specific subject area in one school. No follow-up program has been planned. The principals provided feedback at the end of training by completing a questionnaire. Training was also monitored by instructors who observed and reported on the training process.

---

[9] As of 1999, all the IKIPs were converted to State Universities.

Table 2-17: Principal and Supervisor Training Program

Conducted in Semarang, October 1997

Program	Training Subject	Time Allocation (hours)
General	1. Dikmenum policies 2. 1994 SLTP curriculum 3. Duty and function of the supervisor 4. Applied strategic planning	4 4 4 4
Basic	5. Academic supervision planning 6. Academic supervision instrument develop. 7. Academic supervision implementation 8. Analysis of academic supervision results 9. Reporting 10. Follow-up	6 8 30 8 6 6
Supporting	11. Supervision simulation 12. Background of materials 13. The correct usage of Indonesian language	4 12 4
Total		**104**

Outside of the externally funded projects, principals may be assigned by a Kanwil to training. This depends on whether a budget is provided for principal training in the province. For the most part, this training is conducted at the BPG associated with the Kanwil. Generally, the numbers are small and often pertain to primary school principals. In Semarang, for example, a total of 220 primary and junior secondary school principals during the school year of 1994-1995, 60 during 1995-1996, and 150 1996-1997 were trained. None was funded from the routine budget, but funded from special project funds. The in-service training options covered basic topics such as management and evaluation of personnel, financing and budgeting, facilities administration, and teacher supervision. Once again, the nature of training was oriented to compliance with Government policies and regulations.

For those principals who wish to pursue a degree in educational administration, one or more IKIPs offer S2 or S3 degrees in educational management. The S1 degree for educational administration is attended by senior high school graduates who are interested in becoming administrators at schools, or at district or provincial levels. The S2 and S3 programs have limited enrollment capabilities. For example, IKIP Malang has one of the few advanced degree programs and there are between 30 to 40 enrollees, either principals, supervisors or administrators. Course titles are similar to those found in programs offered in Australia, Canada and the USA. The S2 and S3 programs are relatively new to Indonesia and it would prove useful to conduct research concerning their effectiveness and relevancy. Public sector higher education institutions offering S1, S2 or S3 degrees include IKIPs in Medan, Padang, Jakarta, Bandung, Yogyakarta, Surabaya, Malang, Manado, and Ujung Pandang as well as the Universitas Nusa Cendans. There are over 100 private teacher-training institutions, but only 12 are equivalent to public institutions. It is unknown at this time, which, if any, offers administration programs.

LAN is the civil service training center for public administration located in Jakarta. Generally,

training is provided in management and administration of government across all ministries. Most places are taken up by middle and senior managers at the ministries. Although principals are civil servants, there is no training available at LAN for them.

The Principal's Working Group (Kelompok Kerja Kepala Sekolah: KKKS) program at the school cluster level brings principals together on a monthly basis to discuss school level issues and deal with common problems. Similar to the MGMP for teachers, this is a compulsory program for principals. There are times when outside presenters are brought in to provide just-in-time training; for the most part, however, the KKKS meetings address administrative issues such as scheduling and overseeing preparation and implementation of the Term-end tests (Catur Wulan: CAWU tests), cost-sharing of common programs, or organizing holiday celebrations.

Professional associations do not exist for principals. Some principals are members of PGRI, but due to the restructuring of this organization just one year ago, it is still too early to tell how principals might benefit. The focus of PGRI's new mission is to assist teachers as professionals and to help improve the benefits they receive. Principals do participate with such organizations as IKIPs in conducting research. They are involved in writing assignments or completion of surveys, but only a small percentage of principals engage in these kinds of activities. Principals are motivated to participate in these activities because they are paid and because they may reserve civil service credit leading to advancement. There is little else available to them to stay current in their field.

2.4.3   Conclusions and Recommendations

Table 2-18 identifies those activities in which the principal is currently involved and those that may be required as Indonesia's education system evolves. It is inevitable that educational management in Indonesia will be decentralized, probably to the district and school levels. The role of the principal will change from one in which he or she is responsible for policy implementation at the school level to the leader in school-level policy, planning, implementation and evaluation. The matrix in **Table 2-18** demonstrates that much of the principal's time is spent in performing school management and administrative tasks as specified by Government. In the future, the key responsibilities of the principal will be as an academic leader and community mobilizer. Currently, principals are not prepared to assume these new roles. As much as two thirds of the principal's time is spent preparing reports, managing the school, and overseeing the school operations. In many instances, the interaction with teachers is formal and geared to ensuring that teachers are following established procedures in the classroom. With the exception of those principals that act on an individual basis, the only interaction with community is during the BP3 process, and even that interaction is limited to board members of BP3. Thus, there is a mismatch between what the principal knows how to do and what the future suggests principals will be required to do. This limits the level of effectiveness that principals can achieve.

Table 2-18: Responsibilities of the School Principal in Indonesia

Functional Areas	Description of Responsibilities	Suggested Responsibilities
Academic Leader	1. Teaches 1 hour per day. 2. Provides support to teachers as needed. 3. Reviews teacher lesson plans. 4. Helps to organize in-service training.	1. Work with teachers to align instruction with curriculum and make more relevant for students. 2. Create opportunities for teachers to innovate and use more technology. 3. Introduce more techniques for student evaluation besides traditional tests. 4. Find ways to increase resources available for teachers. 5. Learn to build a clear vision, prepare school plan and build consensus. 6. Create a working environment for trust and two-way communication.
Management and Supervision	1. Visits teacher classrooms to evaluate. Provides feedback to improve performance. 2. Holds staff meetings weekly and monthly. 3. Handles student and teacher discipline problems. 4. Meets with other administrators to plan tests/special events. 5. Manages facilities, personnel, students, and finances.	1. Develop more comprehensive M&E system at school level to measure quality. 2. Develop a clear teacher evaluation system 3. Develop a teacher incentive system.
Community Engagement	1. Prepares budget and meets with BP3. 2. Meets with individual parents as needed.	1. Develop a community engagement plan. 2. Involve parents more such as volunteers or non-teaching assistants. 3. Involve other types of community organizations. 4. Create an open two-way communications with stakeholders. 5. Find other ways to secure financing whether revenue or in-kind funding.
Government Linkages and Administration	1. Receives direction for program implementation. 2. Prepares and submits requests for resources. 3. Prepares monthly reports for Kandep and MOF. 4. Maintains facilities & equipment. 5. Maintains budget.	1. Become more active in designing systems for planning and implementing administration. 2. Learn how to work in new decentralized system to use school-based management
Professional Development Activities	1. Receives 2 weeks initial training after appointment. 2. Participates in monthly KKKS meetings. 3. Has options to take advanced degree or being assigned to in-service programs.	1.Keep current professionally through reading & researching. 2. Attend more short in-service for target skills such as community engagement & budgeting. 3. Re-orient KKKS to provide more on-service experiences

A second factor in limiting principal effectiveness is the fact that many principals work at second jobs or are required to supervise other programs such as SLTP Terbuka programs in the

afternoon. This leaves them little time for professional development activities or performing other roles that would benefit students. By taking a second job, principals as leaders send the wrong message to teachers, the community and students.

A third factor is the limited opportunities and incentives for principals to develop appropriate skills and knowledge related to their profession. Few training programs are available that are subsidized by government. Principals have to pay from their own resources and there is little incentive to do this. Also, there are no professional organizations or societies that a principal can join. The KKKS does bring professionals together, and this is one positive interaction that could be built upon to improve principal effectiveness.

What needs to be done to improve the effectiveness of principals, given the changes that are foreseen? This starts with recreating the role of the principal so that it reflects the importance of that position to the school, community and society in general. Principals need to be given incentives to stay on site, act in a professional manner, and act as educational leaders. This starts by establishing both an incentive system and professional development system for principals. The incentive system needs to provide sufficient financial remuneration so that principals do not need to take outside employment. A variety of monetary and non-monetary incentives need to be created to encourage principals to behave as educational leaders.

Second, principals should be required to meet certain professional standards that are clearly stated. They must be technically qualified as educators, trained as school-level leaders and managers, and given the appropriate decision-making authority to carry out their duties. They should be held accountable for their actions, and accountability measures should be clearly defined and implemented through the Dinas II. Principals should have to be certified as a result of a nationally defined set of procedures that are met within a specified period of time. Finally, there should be many alternatives that principals can pursue to develop their abilities and meet professional development standards.

Within the four functional areas for which a principal is responsible, the two most important in ensuring quality of learning involve academic leadership and community engagement. As suggested, the Indonesian principal is least prepared to carry out these functions in a manner that best leads to quality education. It is recommended that principals need to learn how to create a school environment that encourages teachers to be more innovative in the classroom. To do this, the principal needs to change how he or she interacts with teachers. Teachers need to feel they can trust their principals and know that two-way communication is acceptable in their schools. They need to feel they have the support of the principal, which is demonstrated, in a variety of ways. This means that principals have to keep the community informed and support the teachers in their efforts. He or she needs to find the resources necessary for teachers to innovate. The principal needs to create interactions that lead to teachers discovering new and more effective ways of teaching whether by mixing KKKS and MGMP meetings on occasion, bringing in outside presenters, using volunteers as non-teaching assistants in the classroom, and by providing suggestions to teachers based on the principals master teaching background. And the principal must set high performance standards for teachers and then hold

them accountable for that performance. This means establishing a system for setting standards, showing teachers how to meet those standards, continuous evaluation of teachers against those standards, feedback to teachers on how those standards were evaluated and how to improve performance.

Equally important is community engagement. In a decentralized system, the school and district need to take more responsibility in managing schools. This includes providing resources for the school to achieve its goals. The principal is key in mobilizing the community. The community is more than parents and includes business and industry, non-governmental organizations, religious organizations, citizens that do not have children in school and others that are directly or indirectly served by the school. The principal needs to develop skills that bring representatives from these organizations into the school planning, implementation and evaluation process. This should link inputs for the school, with quality processes that occur inside and outside the school, and lead to relevant outcomes that impact positively on the community. The community helps define what impacts they expect, and, along with teachers and even student representatives, plan how this will be achieved. The planning system works backwards starting from what impacts are expected by the community. Educational goals are jointly established, specific activities are defined, procedures are developed, and resources are identified. The school and community are then mobilized to secure the resources, conduct education and monitor the process. The principal is the key person in building the common vision about the school and acting as leader to establish this community process.

One way to do this is to redefine the role of the school as a community school. Currently, educational facilities are underutilized. Those on single shifts use less than half their facilities in the afternoon and almost never use them in the evening. By defining the school as a community school, the community can make better use of these facilities in the afternoon and evening by operating in a similar manner to the Community Learning Center (Pusat Kegiatan Belajar Masyarakat: PKBM) now being implemented at the primary school level. By using a creative approach, facilities can pay for themselves as well as provide additional services to the community. In the afternoon, in addition to operating a Sekolah Terbuka, the school could provide remedial education for certain students or operate a Sekolah Kecil on part of the campus as a separate school. In the evening, space could be leased to community organizations generating income for the school. Such programs as Paket B, a nutrition clinic, adult skills training, recreational programs or other activities could be offered to adults and adolescents.

For the principal to be more effective in community engagement and as an academic leader, the way principals are selected needs to be changed. First, principals need to demonstrate they are master teachers. Second, objective criteria need to be applied to principal selection and may include pre-service training and provisional principal certification before being selected. If this is the case, organizations such as the IKIP need to provide more opportunities for teachers to take courses in educational management and administration. The nature of these courses needs to change and become more relevant to the new realities of educational management. The need is to be less focused on administration and more focused on community level involvement and leadership, expanding this concept well beyond BP3 interaction. One major

training goal is to demonstrate to principals how to acquire financial and in-kind resources through community engagement. Few such formal or informal training programs currently respond to this need. It remains to be seen if the effects of the community development efforts under such projects as COPLANER and the former primary education project have been sustained subsequent to the termination of external project funding. Therefore, three areas of development need attention - student-centered learning methods, school-based management, and community engagement.

For principals and would-be principals to be motivated, they need to see this as professional advancement as well as know what career paths are open to them once they become principals. First, salaries for principals need to be increased and then it must be mandated that principals cannot hold second jobs if this conflicts with their expected working day. Second, other incentives such as performance promotion, special recognition, and many other techniques need to be considered to create a motivational package. Third, professional development opportunities and resources need to be created such as journals, conferences, and membership organizations. Government needs to sponsor quality in-service training that integrates school activities and follow-up so that training is meaningful and directly applicable to the principals' needs. More than one path needs to be defined for principals to become certified so that the system is flexible and matches with specific needs of the principal. This may mean creating certain distance education packages or bringing instructors to the community rather than requiring principals to travel.

The creation of a system to improve the quality of principals requires the support of Government and intermediary institutions. Government needs to review how to recreate the role of the principal in light of decentralization. It must also define who is responsible for managing the principals, which includes selection, monitoring and evaluating their performance, certification, training and development, and promotion. One way to achieve this is to fund action research on these topics. It is possible to contract with the Research Center of an IKIP to work with a group of principals and community representatives to research other funding mechanisms at the community level, and prepare a plan for how this might be enacted. Another topic might include how to establish an implement a community/school management model. This type of research is important because it creates new opportunities for schools as well as redesigns the working relationships among stakeholders. Such relationships act to lower barriers to two-way communication.

Several intermediary institutions should participate. The IKIP can play a major role in providing programs leading to principal certification. The PGRI or a new professional organization for principals can create opportunities for conferences, workshops, and publications. Other training organizations such as the PPPG and Regional In-Service Teacher Training Institute (Balai Pelatihan Guru: BPG) have dormitory facilities so that in-depth workshops can be offered away from the school. And the KKKS can be redesigned so that more development activities can be instituted. A variation of the KKKS might be contemplated that brings together community work teams for planning and development experiences. These teams could be comprised of specialized work teams such as fund raising,

performance monitoring, use of facilities in the evening, or education technology utilization. Members might include students, teachers, managers and community volunteers who work together as a specialized leadership team that reports to the principal. Each specialized team would be responsible for some aspect of school planning and development. A byproduct of such a school organization would be to help break down the hierarchical distinctions between student, teacher and principal as well as changing the school from being a closed organization to an open organization. LAN may be enlisted to develop civil service training programs for middle and senior education managers on how their roles and responsibilities have changed with the advent of decentralized education.

Figure 2-9 shows the linkages among the types of organizations that could perform this important professional development function.
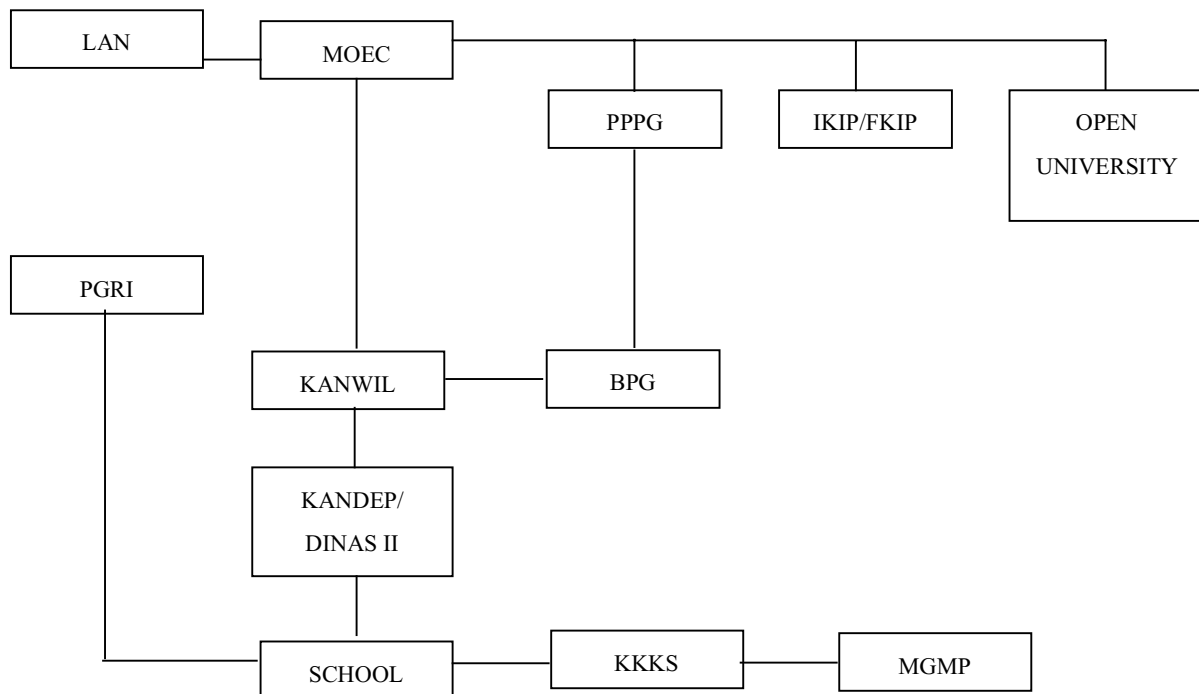
**Figure 2-9: Actual and Potential Professional Development Service Providers
for School Principals**

It is clear from this discussion there is a mismatch between what the principals now do, and what they need to do if they are to take responsibility for increased school and community-based management. Also, they are unprepared for acting as academic leaders to assist teachers in shifting their methods from teacher-centered to student-centered learning. It is the responsibility of Government to initiate changes by redefining the role and responsibilities of the principal and then to create an incentive system to attract and develop the capabilities of quality educational leaders. This must be integrated into a larger systems approach to improving the various component parts of the educational system. Although much of the external funding points to improving the quality of teaching, much less is directed at resolving this dilemma of the principal mismatch. Future projects need to rethink how to design a principal development

effort that integrate with the rest of the system and then provide sufficient resources to ensure that the new process is sustained.

Little has been said about the role of the supervisor. Under a recent decree in 1998 this role has been redefined and, as explained earlier, it is likely that the new role is untenable since supervisors do not have the proper training nor are there sufficient member to fulfill their roles effectively. Government should reconsider the role of the supervisor. Given the decentralization movement, the educational system may be better served to assign the supervisor to the Dinas II offices rather than the Kandep and Kancam offices of MOEC. The role may need to focus on school effectiveness and educational quality, a much broader role than as a teacher evaluation. Teacher evaluation may be better handled by Guru Inti through the MGMP mechanism.

If this is an effective model, then supervisors may be considered as head managers as Guru Inti are considered master teachers. Their training should focus on the key functions of managing effective schools. Formal training through the IKIP system could be provided through S2 and S3 school management programs, while in-service and specialized supervisor certification programs would be offered through BPG and PPPG programs. Supervisors could link with principals through the KKKS.

Endnote: Definition of Community and Intermediary Institutions

Throughout the preceding narrative, references have been made concerning a number of stakeholder organizations and institutions that provide education and training services. This section defines those organizations:

Badan Pembantu Penyelenggaraam Pendidikan (BP3 or Parent School Association). Parents from the school community are selected to participate with school representatives and meet three times a school year to determine the structure of school fees. There may be some discussion of program but the main purpose of this organization is to ensure the local contribution to the school's operating budget.

Lembaga Ketahanan Masyarakat Desa (LKMD or Local Development Council). The LKMD is a community organization that is government-operated through the Ministry of Internal Affairs. Membership is comprised of many community members and the purpose is to set priorities for community development needs. In reality, LKMD has been seen as a means for government to set its own development priorities. LKMD is seen as a potential participant in accordance with the new decentralization system now being piloted in West Java. LKMD's participation should be closely examined as to whether it is a viable community-based organization to integrate educational development needs with other community activities.

Pusat Kegiatan Belajar Masyarakat (PKBM or Community Learning Center). Through the MOEC' Directorate of Community Education, 304 PKBM have been established at the district level located in primary schools. The purpose of this institution is to provide educational services to the community such as Paket A and B training; literacy programs; income generating programs; individual interest programs; quality of life programs; and poverty alleviation programs. In some countries, such programs including basic health care and government information dissemination programs including legal and environmental information. Although offered on campuses of primary schools mostly in the evening, junior secondary education campuses may also serve as community schools as part of a community's effort to provide social services including education. The government wishes to expand this program and therefore, the SLTP is a possible campus.

Persatuan Guru Republic Indonesia (PGRI or Teacher's Association). For over 30 years PGRI was a political instrument of government. Last year, the organization was reconstituted as a professional association organized as a yayasan. The organization has three goals - to assist in the professional development of educators; to improve the salary, benefits and working conditions of educators; and to provide services to help communities. PGRI is organized as a national level body, with provincial and district level subdivisions. The only source of revenue is from teacher membership that is 250 rupiah per month. Of that amount, 25 rupiah is designated for Jakarta, 30 rupiah is designated for the province in which the member works, and 190 rupiah is assigned to the district. Most members are teachers from primary and secondary levels of education. The balance is university professors, kindergarten teachers, administrators and other educational professionals. Contract teachers may join with Kanwil recommendation. As a new organization, the first priority is to find sources of funding to sustain its efforts. It

also lacks the ability to effectively communicate with its membership. Although it has a clear mandate, it lacks a specific plan on how it will achieve its intended outcomes. Its greatest achievement to date has been to recreate itself as an independent, non-political organization. There is some evidence that new teacher associations are being organized at the provincial level in Sumatra and Nusa Tengarah Timor.

Institut Keguruan dan Ilmu Pendidikan (IKIP or Teacher Training Institute). IKIPs report to the Directorate of Higher Education under MOEC and generally located in provincial capitals. They provide pre-service and in-service diploma and degree programs for teachers at primary and secondary education levels. The IKIP is headed by a rector and assisted by three vice rectors. Deans head as many as six different faculties referred to as institutes. These cover various disciplines such as science, primary teacher education, and education technology. An IKIP may also house centers such as those dealing with community services or educational research. The IKIP also has a non-academic stream for administration and the registrar's office. The IKIP issues the **AKTA** or teaching certificate where AKTA1 is issued with the one year D1 diploma; AKTA2 issued with the D2 diploma; AKTA3 issued with the D3 diploma; and AKTA4 issued with the **Sarjana** or four year undergraduate degree. The IKIP may issue an S2 or master's degree for elected programs such as sports education or languages. The IKIP relies heavily on lecturers and the minority of teaching staff are professors. To a lesser degree, the IKIP may provide technical assistance to projects such as those funded by the World Bank where they be asked to customize a diploma or degree program.

Other universities may also provide diploma or degree programs in education through a **faculty of education (FKIP)**. This faculty may be structured similarly to the IKIP but part of a larger university structure. There are a limited number of IKIPs throughout Indonesia, but they enroll many thousands of pre-service and in-service students to provide the largest number of new teachers as well as upgrade active teachers. The campus resembles a university often located on the fringe of the city with many out buildings and open areas. There are 12 government IKIP and 19 FKIP. In the private sector the **Sekolah Tinggi Keguruan dan Ilmu Pendidikan (STKIP or private advanced school for teacher training)** offers another opportunity for teacher training. Over 100 such private schools exist offering a range in quality from those equalized with the public institutions to those well below state educational standards. PGRI operates a number of these programs.

Whereas state schools have a standardized admission system, private school admission varies across institutions. Admissions to public programs can be achieved in one of three ways: UMPTN state examination; the UMPGSD national entrance examination for primary teachers; or a merit-based selection process that assesses the interest and ability of upper secondary students.

Universitas Terbuka (UT or Open University). The Open University is headquartered in Jakarta with regional and district campuses throughout Indonesia. UT provides distance education programs in a number of academic areas including education. Administrative offices are established in larger cities that have state universities and each establishes sub-units

at the Kabupatan or district level called regional learning centers.   Students register for programs which are forwarded from Jakarta by post or truck to the administrative office, and they, in turn, distributed to students.   Students are provided with take-home tests, except for the final examination which is administered at the district centers.   UT provides D2 and D3 in-service programs for teachers who cannot attend an IKIP or FKIP.   These courses are taken while teachers continue to work.   Currently, UT has a letter of agreement with the DG for Primary and Secondary Education at MOEC to provide D2 (mainly primary teachers) and D3 (mainly junior secondary teachers) teacher upgrading.   Over 16,000 teachers are enrolled across the six-semester program at the Semarang administrative unit (Semarang encompasses 23 KEBUPATAN of the 34 in Central Java province) and 1,500 in the D3 program.   UT makes a significant contribution to AKTA upgrading each year to augment the IKIP and FKIP programs. UT designs its own materials and tests.

Balai Penataran Guru (BPG or Teacher Training Center).   BPG is a provincial-level organization reporting to the KANWIL.   Its purpose is to provide in-service and on-service training to teachers and other professionals serving education.   Programs are non-diploma and non-degree training of varying duration.   Centers are well built with housing facilities, library, classrooms, laboratories, and other amenities to provide a conducive training environment. Funding is provided by the KANWIL through the routine budget and through the development budget for special programs.   Funding may also be provided through other project activities funded by the World Bank or other organizations.   BPG develops its own training materials and curriculum to meet current demand.   Each BPG trains between 5,000 and 8,000 education professionals in a year; funding is a key factor in how many people are trained each year.   Due to low levels of funding, facilities appear to be underutilized.   The World Bank is currently processing a loan for BPG development, and if approved, should have a significant positive affect on the number of professionals trained in short term programs.

Lembaga Pendidikan Administrasi Negara (LPAN).   This organization is the government's administrators' training center located in Jakarta.   It reports to the President of Indonesia through the coordinating ministry.   Its purpose is to providing management, administration and leadership training for civil servants, especially more senior ones.   It has no programs for teachers or principals.   It could serve, however, by providing training to MOEC management once decentralization and devolution is begun.   LPAN could determine the new roles and responsibilities of the different categories of MONE staff, develop new training materials and providing training in their new management and administration responsibilities.

Pusat Pengembangan Penataran Guru (PPPG or Center for Development and Training of Teachers).   Centers are operated under MONE with specialty campuses in selected cities - Jakarta has two centers, one for languages and one for vocational education; one in Yogyakarta for arts; one in Malang for mathematics and social studies; one in Surabaya for sciences. Each of the 12 campuses offers specialty training, so that science teachers from around the country will visit the campus in Surabaya for example.   Primary school educators would be assigned to the campus in Bogor.   For the most part, the programs at PPPG are training of trainer programs and those to be trained are selected by the Kanwils. In many cases, those that

are trained return to BPG training centers as staff and provide training to teachers and other professional staff including counselors, principals, and supervisors. PPPG is strictly a non-diploma in-service training provider. One of the goals is to provide training for nominated principals. The two-week's training program covers only the key policy issues that they must implement such as reporting, school management and administration, and the BP3 process. Given that most training is funded by Government, the limited budget does not provide sufficient financing for full capacity utilization of PPPG facilities and staff. PPPG has a core of teaching staff and augments its need for trainers by hiring instructors from the local IKIP.

2.5   Teachers

2.5.1   Policy Implications and its Achievement

Teacher quality is generally determined by the following two factors: academic background of their expertise through pre-service training and skill development and professional efforts through daily teaching activities and in-service training. Government policy has been focusing on both factors. First, efforts to upgrade all teachers academic background to D3 level (three years diploma course) have been deployed since 1989. To accomplish this target, teacher training institutions in cooperation with the ministry have provided various schooling access to teachers including mobile schooling at the district level. Open University also offers its course mostly to primary school teachers.   Many teachers are trying to meet this minimum requirement. As far as the JICA Study Team observed, some of the districts in Central Java are targeting that 100 % of teachers receive S1 (equivalent to bachelor) degree by the year 2000.

The second way to enrich teachers skills is to provide various in-service training courses at the Regional In-Service Teacher Training Institute in-service teacher training center (BPG) in each province. Subject teachers study group named MGMP has been formed nationwide since the 1980s at the school level. Such school-based approach is still active, however, most of the MGMP have limited functions such as preparing CAWU examinations, developing syllabi, and preparing the graduation examination named EBTANAS (Evaluasi Belajar Tahap Akhir Nasional).

2.5.2   Current Situation: Pre-service Training and Recruitment of Teachers

Teacher Training Colleges (IKIPs) are one of the major institutions to produce teachers from pre-primary to senior secondary levels. Students in other tertiary schools must receive a teaching certificate through the faculty of education in order to become teachers. A recent trend shows that more highly qualified undergraduates are being recruited as new teachers due to the oversupply of teachers. Teachers are recruited in two ways. One way is to be officially accepted by passing an examination for service; however, not all accepted candidates could be employed as teachers. The other is to be employed as a temporary teacher at individual schools. Schools pay their salary mainly using the BP3 fee.   Temporary teachers who pass the examination seem to have a priority to become permanent teachers.

The teacher employment system of private schools is unique.   There are three kinds of categories: government teachers, non-government/permanent teachers and non-government/ non-permanent teachers. The ratio of government teachers in private schools varies depending on the provinces and districts. Private schools in North Sulawesi are highly dependent on the government teachers while the ratio is lower in Central Java.

2.5.3   Current Situation: Skill Development and Professional Development

As an in-service training institution, BPGs are located in every province.   They are fully equipped with facilities and located in an accessible place in the capital.   Trainers of this regional training center, some master teachers and principals, have an opportunity to take a

training course in National In-Service Teacher Training Centers (PPPG). PPPG are located in several provinces depending on subject areas. For example, the national training course for mathematics teachers is hosted in Yogyakarta center, science in Bandung. However, frequency and duration of each training course as well as the number of trainees is quite limited compared with their capacity due to financial constrains.

Many programs have been implemented to aim at increasing the quality of teachers, but all training courses and activities do not necessary ensure the provision of better services to students. Along with the improvement of academic background of teachers, skill development of teaching by themselves or by teacher group needs to be taken into consideration. At the school level, MGMP works on how to implement the national curriculum in the form of lesson plans. The nature of its activity is based more on implementation activities rather than creative activities. As a result, even though teachers acquire more academic knowledge, this inner and top-down oriented MGMP does not motivate teachers to develop innovative skills and teaching methods.

There are several reasons that can be pointed out. First, the student assessment is solely based on EBTANAS. As a result, teachers are very reluctant to adopt innovative teaching techniques and develop new teaching methodology. Second, it is difficult to introduce student-centered teaching with the existing average class size (more than 40 students per class). Third, though many teachers complain about the lack of or inadequate teaching tools/materials, even existing teaching aids are not much utilized in the classrooms.

2.5.4 Limitations

(1) Poor Technical Guidance to Improve Teaching Skills

The teaching skills of teachers improve according to teaching experience through in-service or on-service training. Especially professional guidance and advice through lesson observation directly affects the teaching discipline of teachers. The inspection and supervision system only keeps a minimum standard of teaching discipline. Supervisors who are currently assigned to district levels are quite limited in terms of quantity and their professional development, since they have to cover all subjects as well as the supervision of school management. Parents inspection of their children s learning also seems to be insufficient.

(2) Low Motivation for Teaching and Learning Innovation

Even though the various training programs and seminars impart training about teaching innovation, the innovative activities were hard to find. In addition to that, though some teaching tools and equipment such as OHP, science kits, etc. are seen in many urban schools and some in rural schools, most of these tools were covered with dust, and there was little indication that these tools have been utilized in the classroom, except in arts and local contents classes.

(3) Lack of Professional Exchange of Information and Experience among Teachers

MGMP activities are based on a top-down structure. It is well-functioning to diffuse national curriculum to school level and they do not serve as a platform where teachers exchange their knowledge and experiences.

(4) Overloaded Teaching Conditions

The large number of subjects and teaching/learning hours per week forces heavy workloads for both teachers and students. For example, standard teaching hours per teacher is limited to 18 hours per week. However, teachers are compelled to teach more than 30 hours due to the insufficient number of teachers. To solve this problem, schools are hiring part-time teachers by using BP3 funds. In the worst cases, teachers are teaching more than 40 hours a week in double shift schools. In such situations, it is not possible for teachers to spend time to prepare for the next lessons.

(5) Poor Welfare for teachers

The overall welfare for teachers is minimal, and some teachers need to work in different schools or provide tutoring to supplement their low salary. Moreover, there is no incentive program that encourages teachers to develop their teaching skills.

(6) Non flexible Student Assessment

The student assessment is solely made by the EBTANAS test. The CAWU test is carried out three times a year; however, its contents are again largely influenced by the EBTANAS test and CAWU plays a role as a kind of preparation for the EBTANAS.

2.5.5   Recommendations

(1) Strengthen the Technical Inspection and Supervision System

The government has initiated efforts to strengthen the inspection and supervision system at the district level. Decentralization and strengthening this authority to a district level is one of the measures to improve the function of inspection and supervision at the school level. The district needs to increase the number of inspectors based on subject group as well as to equip them with direct action when teachers need technical guidance from them.

(2) Develop Different Approach for Student Assessment

Teacher effectiveness should not be measured by the number of the students who pass the EBTANAS but by the quantity and quality of students learning. Therefore, it is recommended that teachers develop different ways of assessing students abilities such as knowledge acquisition, logical and creative thinking ability, and ability of analysis and application. In addition to the EBTANAS, diagnostic test should be developed to find out the weaknesses of student learning and to monitor student achievement.

(3) Expand the Function of Teachers Working Group (MGMP)

There is a potential to improve MGMP activities as a technical forum. This would require the development of the institution itself and planning of activities on how to innovate daily teaching activities and how to better share teaching methods. It is also recommended to involve external persons such as Guru Inti (experienced teachers), as advisory resources and setting up networks with MGMPs in other areas, other districts, and provinces so that their activity will be more openly shared and utilized.

2.6 Curriculum and Textbooks

2.6.1 Policies and Current Issues

The government policy of 1994 indicates that junior secondary schools must be a part of compulsory education for nine years, and involving the community and strengthening local authority should be encouraged under the direction of the decentralization movement. The new curriculum of 1994 emphasizes providing students with basic capabilities that assist in the advancement of knowledge and skills acquired in primary schools. This reform enables students to improve daily life in society and/or to enter the next level of education. To accomplish this, the continuation and the linkage with primary school curriculum and basic skills are emphasized in curriculum content. The new curriculum also introduces locally based subjects to cope with local needs, especially for ethnic languages, arts, and skills, which account for 20 % of the total curriculum.

2.6.2 Changes in Content by Curriculum Reform

For the educational approach and methodology, more emphasis should be placed on process and problem-solving. For example, speaking, writing, and reading is emphasized in language subjects rather than grammar-based teaching. Meanwhile, localization of textbook contents and privatization of textbook publishing and distribution started in 1996 at the JSE level. Private publishing companies join to publish textbooks through the textbook screening process by the National Textbook Examination Committee. The ministry has a future policy to decentralize textbook selection process up to the school level so that schools can choose the best textbook suitable for local needs. The ministry also anticipates that this new system of direct distribution of textbooks to schools can solve the problems of the existing distribution process.

The subject of Local Contents was introduced in the new curriculum to reflect teaching and learning content reflecting local needs. The guideline, curriculum and teaching/learning content are developed below the provincial level. A curriculum Development Committee is organized at the district level. The role of the committee is to develop the guidelines for local subject and to develop a syllabus and textbooks. In the case of Central Java, the committee at the provincial and the district levels determine some of the subjects in local content. Schools, based on their local environments, decide the balance of subjects.

2.6.3 Gaps in the Textbook Distribution Process

The government policy for textbook distribution states one textbook per student and per subject. Though the privatization process for textbook publication and distribution has started, the JICA Study Team observed that many schools in Central Java and North Sulawesi provinces do not receive enough textbooks. A Madrasah Tsanawiyah in Wonosobo, Central Java did not obtain any textbooks for students except sample textbooks that teachers received from the provincial office. Even though the private textbook process started in 1996 nationwide, during the survey conducted in April 1999, neither new textbooks that were developed by a private company were found nor any information concerning new distribution process from the provincial/district office were obtained.

According to the local government offices, the funds from the central government are not enough to distribute textbooks to schools especially after the economic crisis. Therefore, the provincial office cannot afford to provide enough textbooks upon request from schools. The other problem regarding textbook distribution is that schools do not get textbooks when they need them. The number of textbooks is requested from each school to the district office. The office collects the data from all the schools that the office administers, and then reports to the provincial office. The provincial office forwards these data to the central office.

2.6.4 Limitations

The new curriculum has had positive impacts on various aspects of JSE improvement. The institutional problems in the process of implementation, such as an overloaded curriculum, poor management of teaching / learning materials, has prevented local governments and schools from properly functioning. The nature of top down mechanism makes the curriculum inflexible and creates a mismatch between local content and local needs.

(1) Overloaded Curriculum and Teaching Contents

The junior secondary school curriculum revised in 1994 requires 42 hours teaching per week and 13 subjects per grade. These figures are far greater compared to the international standards (25 hours to 30 hours per week)[1]. Textbook contents seem quite heavy and take an inductive approach rather than deductive or daily life based approach.

(2) Mismatch between Local Contents and Local Needs

In Central Java, two teaching subjects are decided at the provincial level and schools are supposed to decide the other subjects. In reality, most of subjects at school level are determined based on how many teachers can teach these subjects. As far as the team observed, many schools have adopted cooking and handicrafts without any relation to community traditions, local business needs, and local environment.

(3) Institutional Weakness in Textbooks Distribution

The lack of coordination and among the central, provincial, district, and school management causes problems with the new textbook publishing and distribution system. As a result, it is difficult to distribute textbooks on time when the new school year starts. The shortage of textbooks at school level and the lack of textbooks for the new curriculum make the implementation of new curriculum even more difficult.

(4) Poor Management of Teaching and Learning Materials and Low Utility Ratio

Schools require a variety of teaching/learning tools and materials for teachers to improve and modify teaching methodology. Even when available, they may not be properly utilized and selected according to their teaching and learning needs. For example, many schools are very

---

[1]   In the case of Japan, 34 hours per week is the standard.

careful not to lose textbooks and they are only available during the class.   Students may not take books home.

2.6.5.   Recommendations

(1) Integrate Curriculum and Improve its Effectiveness

To reduce the overloaded curriculum but not to decrease its quality, the ministry may need to consider how subjects and contents can be integrated. As the first step, it is necessary to evaluate the effectiveness of new curriculum as well as to examine any overlaps and linkages among subjects and grades.

(2) Improve Management and Development Skills of Teaching and Learning Materials

The survey or pilot testing of equipping various teaching and learning materials/tools should be conducted, since many materials are unutilized. At the same time, manuals for handling those materials and tools should be distributed in each school. Teachers can also develop many teaching and learning materials/tools by themselves using locally obtained or developed materials.   Along with textbooks, utilizing these simple teaching tools in the classroom contributes to easier understanding of content for students.

(3) Increase Community Involvement in Local Contents

In deciding subjects for local content, it is important for schools to mobilize local/community resources to organize curriculum and classroom teaching since they have specialists in business and daily life activities. By utilizing community resources, students can understand the whole picture of the community and will develop an awareness of how they fit into community life.

(4) Strengthen Monitoring System of Textbook Procurement/Distribution

Two textbook systems are in place: one utilizing the traditional distribution and the other available under the World Bank project. It is necessary to clarify which system should be used by schools.   It does not appear that schools are taking advantage of the World Bank free textbook distribution system.

(5) Decentralize Decision Making in Local Contents at School Level

To improve community-based curriculum at the school level, it is necessary to provide flexibility to schools in determining curriculum and selecting textbooks. Many of the subjects such as local contents, social science, and science should be matched with local economic situations, culture, tradition and local needs.

2.7   Educational Processes

2.7.1   Overview

The educational system of Indonesia involves several ministries, a variety of intermediary organizations, communities, and schools. One model used to understand the complex array of institutions and people that comprise the educational process, is a systems model. The systems model in **Figure 2-10** suggests that an educational system contains a number of institutions, each contributing resources, policies, people, and students to the school. Inputs that are created and transferred to the school require linkages be formed between and among the various institutions that participate in the educational system. These linkages create the system. The resources assist in meeting the purpose of providing for the teaching and learning of students enrolled in the schools.
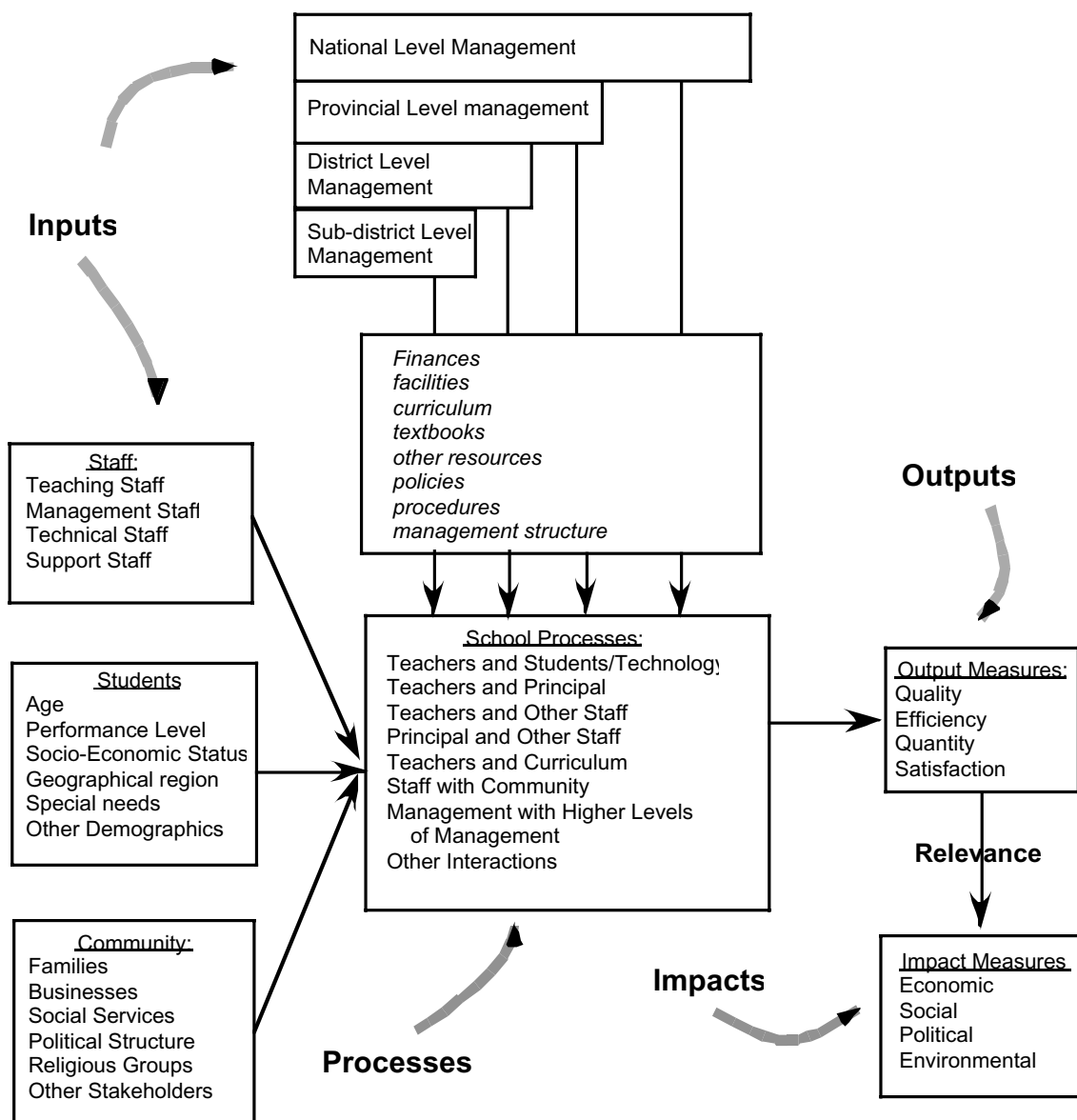
Figure 2-10: Concept of Education as a System

Teaching and learning occurs when the various resources interact in any number of ways. Interactions are referred to as educational processes. These interactions include those between teachers and students (along with other resources such as textbooks); interaction among professionals within the school such as the principal and teachers; interactions between the school staff and the community; and professional interaction for the purpose of improving the quality of the school experience such as in-service and on-service training (defined as training while at the job site). This interaction of resources leads to changes in the skills, knowledge, psychomotor capabilities and attitudes possessed by each of the students in the school. It also leads to changes in similar attributes held by those directly and indirectly involved in the process, that is teachers, other school staff, parents and community, and society in general. Changes that occur within the school environment or internal to the school environment are called outputs. Those that have an affect on society as a whole are called impacts.

The organizational structure for providing education in Indonesia is shown in **Figure 2-11**. Many of the inputs provided by various organizations in the structure were discussed in previous sections. The purpose of this paper is to describe how selected inputs interact with each other, leading to changes within the school environment. This will be discussed in the next section. The last section will draw conclusions concerning these interactions and provide recommendations for their improvement.
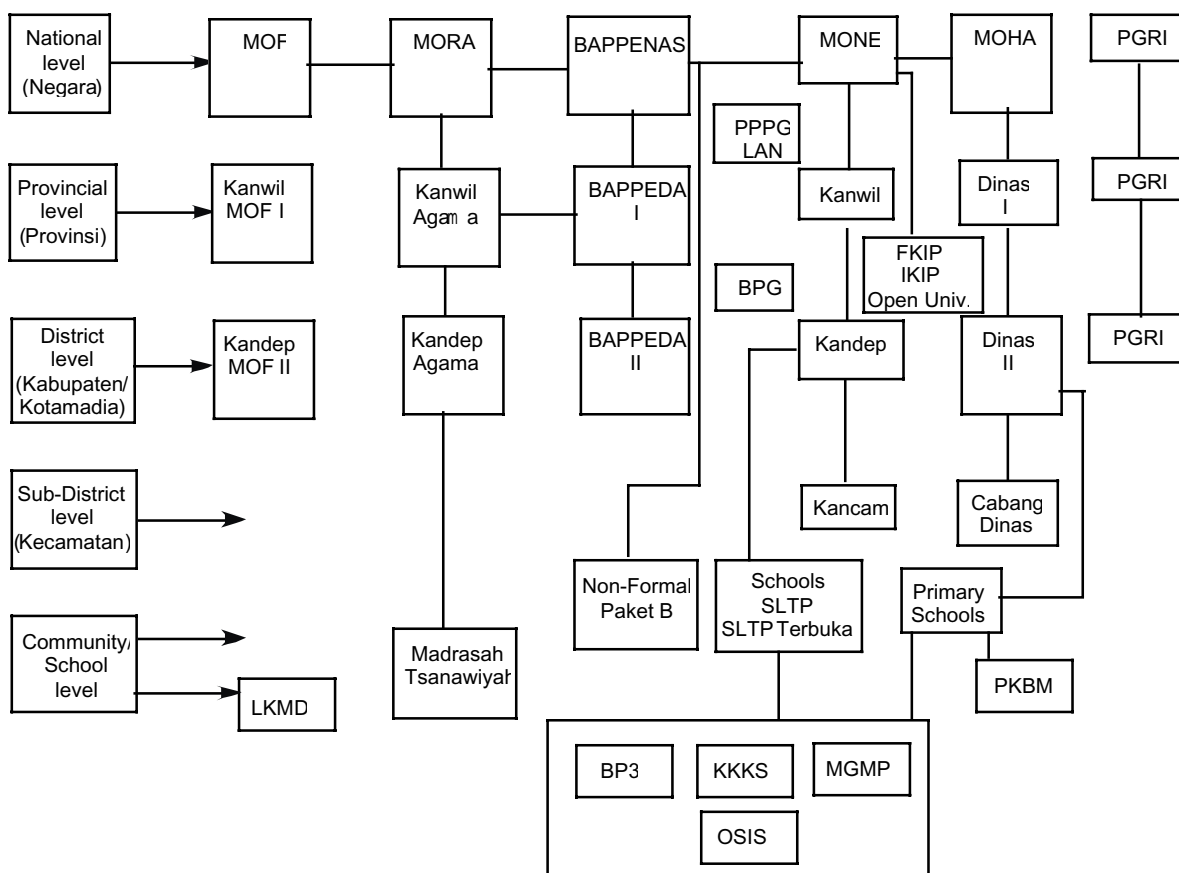
Figure 2-11: Structure of Education in Indonesia at Different Levels of Government

2.7.2   Analysis of Educational Processes in Junior Secondary Schools

(1) Teacher Student Interactions

Probably the most important process related to student learning is the interaction between teachers and students. There is great uniformity throughout the public and private junior secondary system with regard to instructional methodology. Uniformity in this sense means that teachers use the lecture method as the primary and possibly only method of instruction. This is described as a teacher-centered approach, and under the terms of Curriculum 1994, teachers are to use more student-centered activities to implement the curriculum. Such techniques as discussion, questioning, projects (individual and group), experimentation, learning centers and other techniques are encouraged.

It is suspected that the methodology is standard for three reasons. First, there is a long-standing tradition of teacher lecture approach, and without quality interventions to change this methodology, the system perpetuates itself. Given the low level of teacher qualifications and then assignment to an environment that does not reinforce new methods, new teachers will revert to a traditional system - the way they were taught. Also, teachers may revert to a cultural imperative that can be paternalistic creating rigid lines between social levels such as between student and teachers. This means that students are not encouraged to ask questions or express opinions. Cultural barriers are difficult to bridge and the community environment must change to create a situation where teachers are able to change attitude and behavior.

Second, the educational system places emphasis on high risk testing, that is testing that results in decisions as to whether the student will qualify for the next cycle of schooling or will have to find another way to continue education or find employment. It has been reported that testing is about 80 percent knowledge- based. And, memorization is the best way to score high. The teacher lecture method can be an effective way to prepare students for such high-risk tests. Given that parents measure school performance by whether their children score well on high-risk tests, there is reluctance on their part to accept innovation about which they are unfamiliar. Although the external testing system is a government policy, teachers do have control over other types of student testing and performance evaluation as evidenced by their development of CAWU tests administered each school trimester.

Third, limited classroom space and limited supplies deter classroom innovation. The 48 to 56 square meter classroom provides an average of slightly more than a square meter per child. Even by reconfiguring desks, little additional room can be created to set up displays or learning centers. Limited budgets prevent teachers from acquiring the proper materials to establish such methods even if space were available. Since it is unlikely that student-teacher ratios will be reduced in the near future, it will be difficult to institute changes in teaching methodology that are more student-centered such as discussions, group projects and use of learning centers.

Tucker, Resnick and many others have identified five principles for learning. They are:

   1) Student effort is a more important determinant of achievement than natural ability.

2) Getting all students to achieve at high levels depends on clear expectations that are the same for all students.

3) All students need a thinking curriculum - one that provides a deep understanding of the subject and the ability to apply that understanding to the complex, real-world problems that the student will face as an adult.

4) Students of all ages learn best in two types of circumstances: when they are seeking and using knowledge and skills to address problems that challenge and engage them and when they are teaching others.

5) People learn well when working beside an expert who models skilled practice and encourages and guides learners as they create products or performances for audiences whose reactions really matter.

Since most of the school day is classroom-based, students spend most of their time interacting with teachers in a lecture situation or copying information into notebooks. There is little evidence that any of the above principles apply in junior secondary classrooms as observed during visits to more than 20 public and private schools of all sizes. There are two occasions when this interaction may change. First, during the time students meet for their OSIS commitment, they are in charge of planning and implementing their programs. Teachers act as advisors and interact more as facilitators. Second, during enrichment classes such as sports or tutoring, the teacher s role serves as a mentor rather than lecturer. In these two instances, students and teachers are more actively involved in the learning process. These types of interactions were described by teachers and principals and students were not questioned to validate this claim. It is unclear at this if any pattern exists in how enrichment and OSIS programs operate.

One would expect that during laboratory work, students would have time to experiment and use discovery methods to learn. In reality, laboratory experiences are little more than classroom lectures. Some schools are not equipped with laboratories or teacher manuals on how to use the laboratory. Although students more actively interact with materials, they still respond to direction from the teacher to achieve predetermined outcomes. Of course there are exceptions to this observation; however, such examples are the exception. Some of the equivalent private schools are better equipped and teachers more likely to use more student-centered learning methodologies. Overall, however, limitations of space and poor teacher training, along with an unsupportive administration and community, make it almost impossible for an average school to initiate any form of innovative instructional methodologies.

(2) School/Community Engagement

Although the link between the school and its community can be broad and enriching, the Indonesian public education system, and the private schools to a lesser extent, do not take full advantage of this potential. The interaction with community is primarily restricted to BP3 activities. In this case, the principal or individuals responsible for public relations at the school reports to the BP3 board, during their first meeting of the year, the schools education plan and financial needs with an accompanying budget. The board meets with all parents to determine what they are willing to commit in terms of BP3 fees and for how much of the program they

wish to pay. In subsequent meetings (generally four months apart-the beginning of each CAWU), the school provides an update on the status of the education program to the BP3 board and may request additional funds because of certain arising needs. Generally, the only other time parents visit the school is when the school requests to see them.

Investigation into secondary sources suggests that numerous community relations programs have been developed and tested throughout Indonesia. For example, the COPLANER project that ended in 1993 and funded by UNDP was a large project that developed and field tested an approach to develop community-based models for stakeholders to participate in school planning, program implementation, management and evaluation. The Primary Education Quality Improvement Project developed a series of manuals for stakeholders to train them on such topics as parent volunteers, helping children with homework, and involvement of community organizations in their schools. There is no evidence that such programs were adopted in the Kabupatens where the REDIP project is involved.

The OSIS program does offer opportunities for the students to link with the community. They may take field trips, or work with certain organizations such as the Red Cross to gain experience in the real world. Private schools and their yayasans have a tradition of greater community involvement. Religious schools link to the mosque or church; yayasans may have a fund raising mechanism in place to access additional community resources; and the more elite schools may involve parents more in some school activities. Much of the state school interaction is in the form of public relations or one-way information flow from the school to the community on a limited basis. It is suggested that great variation exists among school OSIS programs and given the potential this program offers for student active learning, more research should be done to investigate what is really happening when students attend OSIS sessions.

(3) Other Professional Interactions

The purpose of professional interaction is to improve the ability of educators to deliver education. Professional interaction in Indonesia, for the most part, does not encourage crossover between and among the different levels and functions in the educational process. For example, teachers MGMP meetings are separate from the principals KKKS meetings. Once again, this may be culturally determined which sets rigid distinctions between social groups such as teachers and principals. When they do meet, communication tends to be one way in such ways that a principal disseminates information and that a principal asks whether there are problems that teachers are experiencing. Teachers are reluctant to express too much negativity so as not to appear they are complaining.

Professional interaction of principals is carried out in KKKS meetings. The purpose of these meetings is to discuss standardized approaches to providing support to such educational activities as student testing. These meetings occur on a regular basis, possibly monthly in some Kecamatan while more frequently or less frequently in other areas. The attendees represent either all the public and private schools in the Kecamatan or smaller clusters of as few as eight schools. At times, the KKKS may elect to bring in outside trainers to upgrade a

specific set of skills, knowledge or innovation, but for the most part, meetings are designed to perpetuate existing procedures rather than introduce innovation or new ideas to the schools.

The MGMP process is potentially a key element in in-service and on-serve teacher training at the school cluster level. Teachers meet frequently at the school level, less frequently at the cluster level and even less frequently at the Kabupaten level by subject and grade level. The MGMP in some districts have access to **Guru Inti** or expert teachers to assist them in improving content and methodology. These Guru Inti are identified as quality educators by the Kabupaten or Kanwil. They receive specialized training at either the IKIP or BPG before being assigned to assist teaching clusters. Their training is both content and pedagogical. The Guru Inti is especially important in rural areas with isolation makes it difficult for teachers to meet. The Guru Inti serves as a resource for in-service and on-service training at the school level and cluster level.

The distribution of activities within MGMP ranges between in-service/on-service training and management of classroom level and school level activities such as testing. For example, it is the responsibility of the school cluster to design the CAWU tests that are given each trimester and the end of the school year. There is great variation across the MGMP in terms of how much time is spent on training versus planning. Although it can be argued that planning is a good training activity, unless outside expertise is brought into the equation, little or no change will be introduced into the planning process. Thus, teachers will continue to teach and test the way it has been done for years. This is supported by current research and classroom observations of teachers performance. World Bank funding is being used to improve MGMP and PKG C training for rural and isolated teachers. For the PKG C training in Central Java, rural teachers will be brought to Semarang for training. For MGMP, selected teachers will be brought to Semarang, trained and then return to their schools to serve as expert teachers. For PLTK Terbuka, a **Sekolah Induk (lead cluster school)** will be identified and teachers trained in dual curriculum. The school will receive students twice a week from the outlying areas. These programs will reach only 10% of the schools in the province. Currently, there is no such external funding for similar programs in North Sulawesi; however, the new ADB-funded Junior Secondary Education project has recently begun, and North Sulawesi is to be a beneficiary.

In recent years, MONE and MORA have pursued an aggressive program for teacher upgrading, using considerable financing from bilateral and multilateral sources. To meet the teacher certification requirement of AKTA3 for lower secondary education, the current effort is to move D1 teacher to D2 level, D2 teachers to D3 level and D3 teachers to the S1 level where they receive AKTA4 certification. The IKIP/FKIP and UT are the cornerstones for delivering these programs. UT and off-campus IKIP programs allow teachers to continue working while completing their upgrading. Although some teachers pay for their own upgrading, government has taken a larger role at the national and provincial level to cover the cost of thousands of teachers each year to complete the next level of their upgrading. For example, under the World Bank Central Indonesia Project, four provinces are receiving considerable financial assistance for teacher training and upgrading. Other projects mentioned earlier have and will reach all 26

provinces in Indonesia. Schools and individuals are being selected using procedures established by Government and approved by the funding agency as long as the selection process uses quantifiable and objective selection criteria.

The PGRI, as a result of its 18th Congress, has shifted its energies to improving the professionalism of the teaching environment. It has yet to have any impact since it is at the incipient stages of planning and must resolve its need for financial input. Thus it is unlikely it will have any impact on teachers professional development in the near term unless external aid is secured. The largest portion of teacher dues is given to the district level of PGRI, and it may be valuable to examine how these revenues will be utilized for professional development. For now, many teachers know they have dues deducted from their pay, but have no understanding of PGRI s new role or how those dues are allocated.

Much of the non-diploma and non-degree training is provided by the BPG training centers in most of the provinces and to a lesser extent by the IKIP/FKIP. Subject matter content training is also provided across the 12 PPPG that are operated as specialized training institutions and managed by MONE. The government drives this training rather than the teachers. Each year the Kanwil, Kandep and MONE plan what types of teacher and other professional training should be provided in each province and district. Financing is provided as part of the development budget. Additional funds are provided to the BPG and PPPG as part of their routine budget. The Kandep, Kanwil or MONE then contracts with various organizations to design and implement customized training programs, relying primarily on the BPG or PPPG. Teachers and other professionals are selected based on the school and district needs and report for training at the specified time and location.

For example, the BPG in Semarang (1997/1998 school year) trained 600 primary teachers and 350 junior secondary teachers. It trained 700 teachers from SLTP Terbuka and 120 school administrators. 54 primary principal and no junior secondary school principals received training. 1260 Islamic religious teachers were trained at the Semarang BPG. In all 6,435 staff and education professionals were trained by project and routine budget funds, many in key content areas such as science, mathematics and language. Still, even with the amount of training provided by BPG and PPPG, facilities are well underutilized resulting in a great deal of downtime. Much more training could be conducted at existing BPG and PPPG facilities without taxing their annual capacity.

There is little evidence that teachers are involved in other professional development activities or have access to professional materials. The PGRI publishes a monthly journal called *SUAKA GURU*. This publication contains articles covering an array of topics serving teachers, administrators and others interested in education. The IKIP does produce an annual paper about the results of its research, and MONE produces an educational science journal; however, neither document is circulated widely. The IKIP and FKIP may have research centers associated with their campuses and will hire teachers and other educational professionals to assist in conducting research. The IKIP instructional media centers may contract with teachers to assist in the design and production of multimedia materials. The civil service promotion

credit system for teachers encourages teacher participation by awarding points toward promotion; however, this incentive may actually inhibit the ability of teachers to improve teaching if the research is not meaningful to their classroom activities. Although there is no systematic approach to conference scheduling, conferences are held in provinces and nationally to serve special interest needs. This might include a conference on English language training sponsored by an international organization and an IKIP.

Principals interact with teachers more individually than in groups. Schools do have weekly meetings, but such meetings do not necessarily involve all teachers and generally last less than a half-hour. Monthly meetings last longer and involve the entire staff. The nature of these meetings varies across most schools but are designed to disseminate information from government as well as solve school problems. It is unlikely that much time is spent in improving teacher performance. These meetings reflect on the principal as an administrator rather than as an educational leader.

Supervisors assigned by Kanwils to each Kandep visit schools to observe their operation and could offer potential for individual teachers to receive input about their classroom performance. Since supervisors must visit as many as 75 schools in a year, they spend no more than an hour or two in each school and may visit only a few classrooms. Principals are more likely to visit teachers classrooms on a regular basis and provide immediate feedback on teacher performance as well as provide a prescription for improvement. Given principals limited training and teaching experience, it is likely that professional feedback will be designed to reinforce traditional rather than innovative teaching methodology. Recently, the supervisor s role has been redefined by government. Instead of evaluating the school, supervisors are to be subject matter experts assigned to working with teachers. Insufficient financial resources preclude the government s ability at this time to select, train and assign an appropriate number of supervisors to districts to carry out this new function. The new system would require six subject matter supervisors for every one current supervisor. Given that the current system is completely understaffed, the new system is six times as understaffed. It appears that unless significant funding is provided for supervisors, it is unlikely that the new system will become a reality.

(4) School/Government Linkages
As a deconcentrated system at the lower secondary education level, the MONE maintains control of most of the planning, policies, program content, implementation and monitoring and evaluation. As has been shown, the information disseminated from the top down passes through lower government levels under national control. Generally, the Kandep is responsible for making the direct link with the school principal, disseminating new policies and procedures, approval notifications, management of the school supervisors, teacher assignments, and training. In some cases, the role is simply to pass through information. In other cases, it interprets national regulations and acts on them. In return, the school has an obligation to provide monthly reports on school operation including completion of certain forms requiring quantified statistics. This information is sent to the Kandep to be aggregated and then passed to higher levels of the national system. Also, all requests for non-BP3 resources are sent to the

Kandep as the first point of contact for approval. If approved, requests are passed to the Kanwil and then to appropriate agencies in MOEC.

This multi-step process, both down and up, takes time and involves numerous personnel at each level of government. It is one of the main reasons that resource acquisition does not react to timely needs of schools, especially in emergency situations. This places more responsibility on the principal to solve emergency problems through the BP3. Also, it is unlikely that principals ever see the results of district and provincial level evaluations that result from their statistical inputs.

In many districts, MONE has established Kancam offices or sub-district offices. Principals are unclear about the role of these offices and when queried, they state that the Kancam is there to assist with solving school problems. There is a question as to this office s effectiveness in linking with schools. A decree does exist that defines the roles and responsibilities of Kandep, Kancam and other government organizations in relation to the schools. Although this topic is likely covered in the training provided to new principals, the information does not translate into reality for principals in their daily activities.

The school also has a responsibility to report all budgetary expenditures to the MOF on a monthly basis. Once again, the information is passed to the lowest level of government representing MOF in the province and then moves upward through the system.

The LKMD office at the community level is under the Ministry of Internal Affairs. When asked, principals indicate that their connection with this organization is indirect, meaning that some parents of children in their schools are members of the LKMD. The West Java Project mentions that as part of its decentralization efforts, LKMD will assist schools with renovation and maintenance. For now, principals are reluctant to attend LKMD meetings fearing that their role would be in conflict with the LKMD mission as a separate ministerial organization.

One last minor involvement with government is at the Desa or Kota level. Some principals have indicated that they request assistance for the purposes of school security, and at this level, such services are provided free or on a limited cost basis.

2.7.3   Conclusions and Recommendations

(1) Classroom-level Processes

Current brain research suggests that children learn in different ways (multiple intelligence theory posited by Howard Garner and others) and they begin the education process from different experiences and levels of understanding. To ensure that each child can achieve more fully, the child should be exposed to different learning environments and actively participate in learning. The current instructional technique employed by classroom teachers in Indonesia focuses on teaching rather than learning. The teaching methodology is uniform and does not support current research on how to improve the quality of learning. Since the classroom is the most important aspect of the educational process, much of the change necessary to improve

educational quality must focus on how to change the teaching/learning process.

The principles listed earlier suggest that teachers in Indonesian schools need to change methodological approaches to reflect more student-centered activities that lead to higher order learning and more relevant learning activities. The role of the teacher changes in this setting to one of facilitator and classroom leader rather than lecturer. Recent multilateral loans have contained provision for improving the quality of teaching by utilizing a more student-centered approach. This includes learning how to develop inexpensive instructional materials, using more real world lessons, implementing peer mentoring, and instituting a continuous progress evaluation system. As suggested, teacher behavior will not change no matter how effective their training unless community attitudes toward education and student testing are changed. Any system of teacher training must be integrated into a more expanded effort of social marketing that provides information, education and communication to all stakeholders. Teachers must feel they have support from the principal, the educational system and the community before they risk changing the way they teach.

Various factors have made it difficult to implement such programs on a large scale. It is recommended that improvement in this area must begin on a modest scale and focus on curricular areas that are not tested under the national examination system. Local content courses and OSIS programs offer a classroom environment to practice aligning the curriculum to student needs and using more student-centered learning methods. It is important to understand that changing the teacher s is a difficult task, requiring continuous improvement with support from the system. The IKIP provides training in a variety of educational practices in their pre-service programs but there is little evidence that such innovations are practiced soon after the teacher begins full time employment. Since new teachers are on unchartered ground, they quickly adapt to the school culture that shows the new teachers what it expects. Other teachers, the principal, and even the students communicate what attitudes and behaviors are expected. Thus, the school needs to change the way it supports teachers use of different methodologies, and it is the principal s responsibility to establish the climate for this to take place.

Although the national external examination system will not be changed in the near future, schools do control the trimester CAWU examination system. It is recommended that more focus should be placed in KKKS and MGMP meeting on how to broaden a student performance evaluation system. This means utilizing other than multiple choice techniques and evaluating student learning as a continuous process. Besides testing, teachers should be taught how to assign tasks that measure the students ability to learn concepts, as well as display critical and creative thinking - higher order learning. In addition to changing the CAWU to reflect more relevancies in measuring learning, schools need to develop a system for continuous student performance evaluation.

(2) School-level Processes

If the teacher is the academic leader in the classroom, the academic leader in the school is the principal. In Indonesian schools, much of what the principal focuses on are both

administrative and managerial in nature, with little in the way of academic leadership. More time is spent by the principal in managing the school. Principals who lack the capacity to manage a school effectively will accomplish nothing, so management is important. Before the principal can manage, he or she must build a team to share the responsibilities of leading the school, and this means building a broad consensus around goals, plans and then managing their implementation. Therefore, one key role of the principal needs to be redefined as that of an educational leader. As a leader, the principal introduces processes that create an environment for leaning. This includes setting high standards for everyone, building effective communications networks, building trust, providing support to teachers so they can do their jobs, delegating authority more broadly, and introducing incentives and other conditions that motivate students and teacher to achieve.

Next, the principal selection process needs to be reviewed. The process appears to be subjective and based more on who the prospective principal knows rather than what he or she knows. This may account for why there are so many more men at administrative levels than women. A more objective selection process needs to be put into place that involves evaluating the potential principal in accordance with a variety of criteria including teaching skills, understanding of the educational process and attitudes toward education and community. To continue the principal s development, a program of incentives and professional development needs to be designed to ensure that the principal increases his or her effectiveness. This may include a certification requirement for principals that reflect a balance of training and on-the-job evaluation.

Processes at work inside Indonesian schools don t necessarily reflect this. The hierarchy is highly differentiated with limited opportunities for effective, two-way communication. Power is concentrated in the hands of a few people who, in turn, react to policies and procedures established outside of the school and community. Few incentives are in place to motivate teachers and students. There is no school-wide vision except to secure high achievement scores on tests. In general, the school is a closed system, with little if any input from community. Outside evaluation is restricted to observations conducted by supervisors, a system that is well understaffed and as a result, unable to be effective. The school climate, often seen and measured as a predictor of school quality, may be ranked as less than appropriate.

A major endeavor that has been discussed and now being field-tested under several externally funded projects involves school-based management. This model is contrary to the traditional approach in managing schools, yet fits well with the Indonesian Government s current plan to decentralize the management of education. The model suggests that power be shared among staff in the school; that skills and knowledge is an on-going process for staff development and should be designed to create a professional environment; that schools gather more information about students, teaching practices so that improvements can be made in a timely fashion; that incentives should be established to increase motivation (see **Table 2-19** for examples); that a guidance mechanism led by the principal and established by stakeholders should be prepared

and monitored; that the school should connect both internally and externally so that the school becomes relevant to community needs; and other school-based management techniques.

Table 2-19: Types of Teacher Incentives

Remuneration	Instructional Support	Working Condition

Salary:
    beginning salary
    salary scale
    regularity of payment
    merit pay
	Instructional Materials:
	    Teacher guides
	        On-time
	        In all subject areas
	        In appropriate language
	    Student textbooks
	        On-time
	        In all subject areas
	        In appropriate language
	    Classroom charts
	    Science equipment
	    Copy books
	    Pencils
	    Chalkboard
	    Safe storage for materials
		School facilities
		
		Classroom facilities
		
		Number of students
		
		Age range of students
		
		Collegiality

Allowances:
    materials allowance
    cost of living
    hardship
    travel		

In-Kind Salary Supplement:
    free or subsidized housing
    free or subsidized food
    plots of land
    low interest loans
    scholarships for children
    free books
	Supervision:
	    Observation
	    Feedback
	    Coaching	

Benefits:
    paid leave
    sick leave
    maternity leave
    health insurance
    medical assistance
    pension
    life insurance
    additional employment
    additional teaching jobs
    examination grading
    textbook writing
    development projects
    research opportunities
	Teacher training:
	    Classroom management
	    Materials use
	    Lesson preparation
	    Test administration
	
	Career Opportunities:
	    Master teacher
	    Principal
	    Supervisor
	    Post-service training	

Source: Kemmerer, F. (1990). An Integrated Approach to Primary Teacher Incentives, In Chapman, D.W. and Carrier, C.A. *Improving Educational Quality: A Global Perspective*, Westport, CN: Greenwood Press.

Community involvement in school-based management is not an easy process to initiate and many schools have failed. **Table 2-20** contains an analysis of a recent study in the United States comparing successful schools versus those that are struggling with the concept.

**Table 2-20: Comparison of Schools that Actively Use School-Based Management
with Those that Have Tried and Are Struggling**

Actively Restructuring Schools	Struggling Schools
Power	
Disperse power broadly throughout the school organization and use councils to coordinate the efforts of various stakeholders involved in the decision-making process. Also, use decision-making authority to create meaningful changes in teaching and learning. Central office changed to become more service orienting and supportive.	Concentrate power in the school site council and get bogged down in power struggles. Decision-making process focused more on creating and maintaining power relationships. Central office personnel continued to mandate decisions.
Knowledge and Skills	
Development of skills and knowledge of staff is an on-going process toward building a school wide capacity for change, creating a professional learning community and developing a shared knowledge base. Professional development activities are linked to a school s reform agenda. Schools actively seek nontraditional sources for professional development.	Professional development is restricted and activities are often on-time training sessions for a few teachers. Schools tend to lack a staff development plan. Schools rely on traditional modes of professional development and look to the central office to provide policies and procedures for staff training.
Information	
Schools collect considerable information and use it to meet school priorities for improving teaching and learning. Schools have multiple mechanisms for communicating information to stakeholders. Quick dissemination of information is a high priority, ensuring that stakeholders were aware of decisions, engendering trust.	Schools lack clear priorities and, as a result, do not gather information systematically or comprehensively. Lacking broad communications networks, schools encounter suspicion and resistance to council decisions from an uninformed community.
Rewards	
Schools use both monetary and non-monetary rewards to acknowledge individual and group progress toward school goals.	Schools use a limited amount of rewards for individuals and groups.
Instructional Guidance Mechanism	
Establishes a mechanism that involves a school vision, learning goals, curriculum framework, materials, and accountability assessment to focus restructuring effort.	Unable to reach a common consensus on a common direction for teaching and learning.
Leadership	
Principal s role moves toward that of manager and facilitator of change, and foster strong sense of a school learning community. Leadership is shared and often there emerges a cadre of teacher leaders.	Principals operate from their own agendas rather than building a common one. This can alienate school staff and lead to rejection of principal leadership.
Resources	
Cultivate resources outside of school through involvement in professional networks and through entrepreneurial activity in the local business community (school districts continue to control and restrict flexibility in funding at school level).	Outside resources are not cultivated.

Table 2-20 (Continued)

Dialogue about Purpose	
Schools provide for on-going dialogue about purpose, leading to a common understanding of what the school should be. This framed direction of what changes are to be introduced and what performance outcomes are important.	Schools lacked on-going dialogue and a common understanding. Often, schools are mired in power struggles.
Connectedness Among Participants	
Significant informational linkages among participants allow people to learn from each other. Enabling this are such activities as common planning periods, decision-making forums, and collaborative teaching teams.	Connectedness fails to develop among participants. Only a few are involved in decision-making. Mistrust arises.
Systemic Thinking	
Participants think of the whole school system not just components. They see how changes in one part of the school can affect another.	Participants tend to advocate their own sub-component of the school system with less concern about how their decisions affect other parts of the school.
Learning from Experience	
Participants learn from experience by assessing change, piloting new approaches, and measuring, examining and seeking causes of trends.	Participants fail to learn from experience because they are not focused on a common understanding of what this school should become.
Connection to External Environment	
Extensive connections with external organizations both as a source of technical learning and to determine the needs of the community. Teachers stay in close contact with families, survey communities, and learn about businesses that will eventually hire graduates.	External connections are weak where participants were focused inward rather than outward.
Personal Mastery	
Continually involved in formal staff development for deeper understanding of content and methodological approaches. Also, it involves expansion of capabilities.	Schools may or may not have continuous staff improvement programs for personal mastery, but personal mastery has less impact on school performance than collective learning.
Involvement of All Participants	
Effective schools combined all the points mentioned above in the context of collective mastery for the greatest number of participants.	For all of the above topics, less effective schools were sporadic in their implementation and do not foster collective mastery for all participants.

(3) Community-level Processes

There are definite boundaries separating the school and the community. This structure does not lend itself well to decentralization efforts. More recent views see the school as an open system that involves stakeholders from inside and outside the school in planning, program implementation and evaluation, thus removing boundaries. Decentralization and devolution of authority to district and local level organizations require two conditions to exist. First, a favorable political environment is necessary. Second, alignment of political and other goals, that is consensus among stakeholders, is imperative. Political stability is not a precondition

for successful decentralization. Although the first condition is being put into place as evidenced by the recent joint ministerial decree (SKB) issued on 4 March 1998 establishing an interim decentralization structure, it is recommended that the second condition receive a great deal of attention. If decentralization is to have a positive impact on quality, access, and efficiency of education, a broad consensus among stakeholders and beneficiaries needs to be built. Policymakers and local stakeholders inside and outside the system must be familiar with nine steps in building consensus:

1) Identify stakeholders and their interests.
2) Build legitimate interests into the model.
3) Organize public discussion.
4) Clarify the purposes of decentralization.
5) Analyze the obstacles to decentralization and how to deal with them.
6) Respect the roles of various actors at all stages of the process.
7) Provide adequate training.
8) Develop a monitoring system.
9) Provide a comprehensive feedback mechanism.

It is expected that the three levels dealing with processes to improve educational quality - classroom, school and community processes- are new phenomena for Indonesian education. As number seven suggests, adequate training is necessary to introduce these changes. To sustain these changes, however, training and development activities need to be continuous and monitored for their effective implementation. The next section discusses this.

(4) Other Processes

Professional development processes are seriously lacking for other than teachers at the local and district level. There appears to be no professional development programs to build capacity of community to participate in a decentralized system. There is limited availability for principal training programs. Teachers have much greater opportunities for sponsored service training and have access to development activities on a regular basis within the school. This is changing with the implementation of several regional education projects and the new West Java Basic Education Project. A variety of training materials has been developed for principal in-service training, community development training and a wider range of teacher in-service and on-service training.

The major concern is that such training is not integrated to reach a tipping point where the school, community and classroom teachers work together in integrating the improvement of quality, ensuring that all children go to school, that a relevant education is provided, and that the unit cost is lower than it has been in the past. Several conditions are necessary for community-based management to work. In all cases, the roles and responsibilities of stakeholders change significantly. The nature and extent of these changes have to be made in the context of Indonesian culture and adapted to local community standards.

To achieve a tipping point, representatives from all parts of the community and inside the

school need to participate in on-service training that is directed at completing a set of applicable activities. This means that step-by-step apprenticeship programs or just-in-time training may be required. Participants are trained in a concept and then given a set of tasks to complete that are interrelated. For example, while the principals have to identify all stakeholders of the school, stakeholders may be tasked with identifying priority outcomes that the school should contribute to the community. Teachers may, at the same time, conduct a review of the curriculum to identify where they need to build relevancy into teaching. This combined effort is brought together periodically so that everyone can interact and by doing so, begin to build the skills and processes required to develop a successful community-based management system. Thus, as education is a system, changes require an integrated approach at all levels and across all structures. The most important process changes, however, have to occur at the classroom, school and community levels, especially as government decentralizes the educational process and requires that districts and communities share the responsibility.

2.8   Educational Outputs and Impacts

2.8.1   Overview

What results from the various interactions of the educational inputs is considered the output of the educational process. The primary output deals with how students have been affected by the process, but there are secondary outputs that relate to the effect of the educational process on teachers and other school personnel. Whereas these effects are considered outputs and internal to the school, impacts relate the effect that outputs have on the larger community and society in general. Impacts relate to the effect on the labor market, economic productivity, changes in attitudes and behavior toward the environment and politics, changes in health and nutrition practices, and in general, how society benefits as a result of the educational process. Various measures have been designed to act as indicators or predictors of outputs and impacts. This is discussed in the following two sections.

2.8.2   Analysis of Outputs and Impact

(1) Educational Outputs

Of primary concern to educational systems is how much learning is taking place by students. In Indonesia, measurement of learning is conducted by administering a student testing system involving internal and external examinations. Internal examinations are prepared by MGMP clusters administered at the end of each school trimester or CAWU. The tests are essentially multiple choice and measure factual knowledge and skills such as mathematical computations, with little or no provision for testing higher order skills such as conceptual understanding and critical thinking. Foreign language testing is also paper-pencil only. A nine-point scale is used in computing results and scores are aggregated and reported by subject, by grade and by school mean averages. Schools chart their progress on large display boards usually in the teachers room or office showing grade level averages for each subject for each CAWU in the year. In this manner, schools can quickly assess how subject mean averages have changed (up or down) by comparing the first CAWU results with the second CAWU or scores from previous years. Teachers also prepare their own classroom level tests called **ulangan hakian** and are based on specific subject topics.

There are six curricular areas that are measured by national external examinations at the end of a school cycle (end of primary, junior secondary and senior secondary education).   These are mathematics, science, social studies, Bahasa Indonesia, civics and English. The test is administered in schools; however, they are computer scored by MONE s Examination Center and aggregated by school, Kandep, Kanwil and national level as well as by type of school - state, private, open, etc. Tests are multiple choice and test items are generated by MONE s testing center from a test item bank. Test items are created by master teachers and then field-tested. If acceptable, each item is categorized and stored in the test item bank. The results of the external examination are referred to as the NEM or pure score. NEM scores are combined with students results on their last year of the cycle school tests to create an EBTANAS score. The score is critical in applying for admission to the next level of education - connoting a high risk because of the limited number of student spaces available at state schools at the junior and senior levels of education.

The nature of student testing is norm-referenced - that is, student results on subject area tests are compared to each other. This is an acceptable form of testing for the external examination system since it is used to rank order students in comparison to each other. The results are used to select students for placement at the next level of education. Since external examination scores are combined with the final year scores of tested designed and administered by teachers, they too need to be norm-referenced so they can be averaged with the external examination scores.

No attempt is made to cross-reference results on the external examination or teacher-prepared CAWU tests to show where students have mastered curriculum content and where remediation is needed. This type of test result is referred to as criterion-referenced testing where the student is compared to specific performance outcomes. Teachers can compensate for the system s lack of criterion-referenced testing. They may institute a classroom-based continuous evaluation system that involves assessing student progress against intended learning outcomes. The assessment does not necessarily have to be in the form of a test and can involve reports, projects, extemporaneous writing, presentations, and other techniques besides multiple choice testing. There is no evidence that such an assessment system is practiced in any classroom or school other than through teacher classroom testing. It may, therefore, be assumed that the measurement of learning in the Indonesia context is very narrowly defined to six subject areas as measured by the national examination system (local content is not measured by the national examination but is tested and scored by teachers in the school). Student achievement is measured by using multiple choice testing of lower order learning - measurement of knowledge and some skills.

Educational systems also measure other outputs. These are easily quantifiable data that include such measurements as completion rate, dropout rate, repetition rate, graduation age, and others. To measure progress, many of these indicators are compared with educational inputs and combinations of inputs such as student teacher ratio, school enrollment, amount of money spent per student, etc. Such comparisons offer results that can be compared across schools and administrative levels as well as across time for the purpose of drawing conclusions about educational quality, efficiency and access. These results are used in planning for future development and to improve programs.

In Indonesia (as with many other countries), very little is done to measure what actually happens in schools (educational processes and interactions), or what may be referred to as the measurement of quality. Considerable research has been conducted around the world dealing with organizational effectiveness and what processes are important in predicting that an organization will be effective. In fact, there are two types of research, effective schools research and school improvement research, that are focused on educational output as compared to inputs and processes. In the former case, research correlates inputs with outputs to look for causal relationships that explain the how much impact various inputs have on output. The most recent research summarizing effectiveness research in developing countries has included the following factors as important:

> Necessary Basic Inputs
> > 1) Instructional materials such as textbooks, supplementary teachers guides and
> >   materials, library books, etc.

2) A curriculum with appropriate scope and sequence and content related to pupils experience.

3) Time for learning.

4) Teaching practices dealing with active student learning.

Facilitating conditions

1) Community involvement, to include good school/community relations and parental involvement in schools.

2) School-based professionalism to include leadership by the principal, teacher collegiality and commitment, accountability through assessment and supervision, and support.

3) Flexibility relevant to pupil curricula, adjustments in level and pace, organizational flexibility to include school clusters, multi-grade teaching, and pedagogical flexibility to include teaching innovations.

4) The will to act (having vision and using de-centralized, school-based solutions to problems.

School improvement refers to a school s attempt to implement innovation leading to learning outcomes by students. Researchers have developed research methodologies that focus on quality indicators. The strength of this type of research lies in its concentration on how change occurs in school systems. Key themes included in this research involve:

1) Effective leadership.

2) Shared vision-building and support of school improvement permeating the organization at both the school and district level.

3) Commitment and acceptance of school improvement efforts.

4) Active initiation and participation.

5) Changes in behavior and beliefs.

6) Collaborative planning and decision-making.

7) Organizational policies, support for action and press for improvement.

8) Staff development and resource assistance.

9) Monitoring efforts for accountability and improvement.

10) Recognition for a job well done.

Craig and Heneveld (1996) have integrated these two approaches into a systems model that looks at student outcomes being determined by a mix of inputs and processes such as school climate, enabling conditions and teaching/learning process. This conceptual framework is shown in **Figure 2-12.** This model is rather fluid and suggests that no attempt should be made to fix any weighting to any attribute since each school is different. The indicators serve as generalizations so that how the various elements are integrated by a school system is determined by that system. For purposes of research related to this project, it is possible to construct a research design that takes into account a broader range of variables dealing with input and process as well as output and use descriptions of effect rather than over-quantifying results.
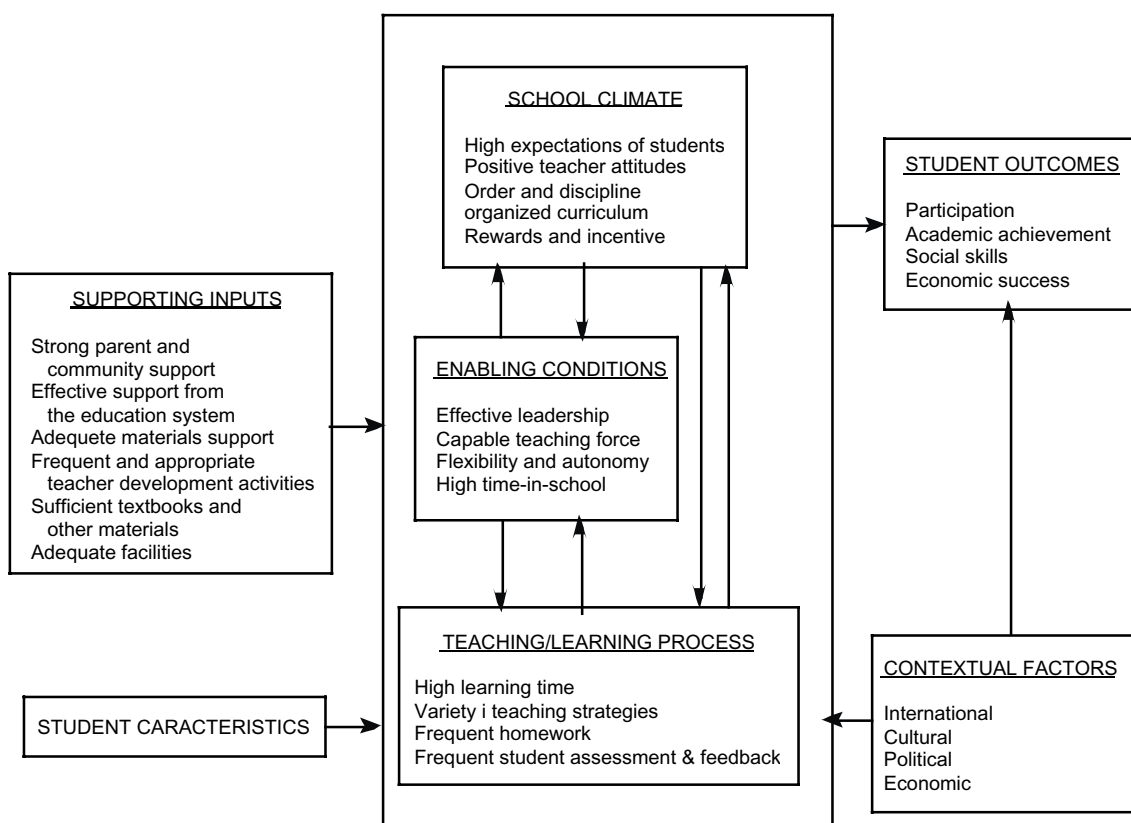
Figure 2-12: Factors that Determine School Effectiveness
(Heneveld Craig Model)

In Indonesia, measurement of school effectiveness and educational quality is currently limited to examining output in terms of test scores and observations made by supervisors. Under the terms of the recent 1998 decree, the role of the supervisor has been revised dramatically. The role has had two elements where supervisors have been expected to evaluate teacher performance and also evaluate school performance. Under the new decree, the role has shifted to emphasize observation and evaluation of teachers of junior and senior secondary schools relative to their content knowledge. This requires that supervisors be subject matter specialists, a condition that does not currently exist among supervisors.

Supervisors are currently assigned to the Kandep or in some cases, the Kancam, a requirement under the new decree. It has been reported that supervisors visit schools once or twice per year and remain for up to two hours. During that time, they are required to tour the school to evaluate it as well as visit classrooms to evaluate teachers. Under Curriculum 1994, supervisors are required to use selected instruments for the purposes of evaluation. They use one form to summarize the evaluation the teaching learning process; a variation of that form to evaluate each teacher; another data report form on teacher s professional attitude; a summary of teacher-supervisor activities; and a summary about each school under the supervisor s jurisdiction. Supervisors are to be assigned to 15 schools, and a quick calculation suggests that a total of more than 1,600 supervisors are needed to cover the entire country. There are approximately 750 supervisors currently assigned.

Under the new decree, supervisors are to be subject matter experts, increasing the need to six times the number required. It remains to be seen how the evaluation of teacher and school quality and effectiveness are to be conducted under the new decree, but no matter what the conceptualization, actual implementation will be impossible until a much larger budget is provided, master teachers are promoted, and training is provided for new teachers to replace them. It is unlikely that such an evaluation system will be put into place in the near future. Any plans to use data from this process to measure output, should not depend on the system for results.

Principals are responsible for providing a considerable amount of data concerning their schools. Some of this information is input-related while the balance refers to outputs that are easily quantifiable such as graduation rate and EBTANAS scores. Principals are also required to evaluate teachers using the same forms as the supervisor. This is carried out on a more dependable basis either by the principal or staff delegated by the principal, with each teacher being evaluated at least once per term.

Pertaining to the model in **Figure 2-12** above, four student outcomes are shown. Participation outcome refers to such factors as attendance and graduation. This information is available at the school level. Academic achievement is defined by the CAWU tests and EBTANAS scores. Social skills are not measured under the current system. Economic success is discussed under the next section dealing with impact. The model in **Figure 2-10** does not deal with other educational outcomes such as teacher and community satisfaction; specific measures of school quality measured in a variety of ways such as student reports on their satisfaction, other measures of school processes such as school climate and enabling environment as mentioned in **Figure 2-10**. Although process indicators, they act as predictors of quality.

For Indonesia, it may be concluded that the evaluation of education is reduced to an input-output model using easily acquired and quantifiable data. Reports on school performance are, therefore, limited to results that show relationships between various inputs and outputs. Conclusions based on this information can look at access, equity, and efficiency of education, but information about the quality of education can only be suggested. It is inferred that by improving teacher training and by providing more resources, that the quality of education will be improved. Thus, input variables are treated as predictors of quality and by changing the combination of these inputs, learning will be improved. Certain processes are also treated as predictor variables. For example, by providing more in-service training, it is predicted that teacher performance will improve resulting in increased quality. There is, however, no direct measurement of educational processes such as observation and quantification of what happens in the classroom, school climate involving such factors as communication, trust, supportive relationships, setting high standards, or professional interactions, strong indicators of school effectiveness and educational quality.

(2) Educational Impacts

Societal impacts are well documented for Indonesia. For example, increased educational attainment has facilitated occupational, industrial, and geographic mobility, thereby integrating the national labor market. This has also resulted in a steady increase in wage employment and earnings and a

reduction in poverty. Social indicators have shown that there is an inverse relationship between family size and level of education resulting in a national birth rate that has been significantly reduced. Also, increases in educational attainment have led to better health care and nutritional practices, directly affecting the quality of the future labor market. With the coming of increased democratization process in Indonesia, it is expected that a more educated populace will be better able to participate in the new institutions that will be created to govern at all levels.

It is the responsibility of the education system to prepare its students for participating in all aspects of society. It follows that the system must analyze the impacts that education makes on society by its graduates. The measurement of impact can be achieved by correlating student output information with various economic and social measures. This information is readily available through other ministries in Indonesia. Each ministry maintains data on a number of indicators from birth and death rates, to employment information, average income, to health and nutrition information. The multilateral funding agencies utilize these sources to develop their sector lending plans while BAPPENAS uses similar information in its national planning.

It is less likely that information may be acquired by a ministry to compare to its data. To some extent, MONE does select population data and other basic information sources when incorporating into its data analyses. For example, MOEC, in computing gross and net enrollment rates, must utilize national population statistics to compare to actual enrollment data. There is no evidence, however, that MONE uses broader impact measures to determine its contribution to society. Although MONE may use statistical information to compute internal efficiency rates, an output measure, it does not compute such measures as external efficiency, measuring impact of the relevancy of education to society. If the educational system is to develop closer linkages with its beneficiaries, it will need to examine ways to define and compute impact data.

(3) Educational Management Information System and Monitoring and Evaluation

An Educational Management Information System (EMIS) is the database or databases that are used to store, compute and generate reports about the system. A Monitoring and Evaluation (M&E) refers to the technique defined by government on how to measure performance of the educational system and when and how it will provide feedback to decision-makers for planning purposes. MONE has, for years, been improving its EMIS by requiring that information about schools be collected and computerized. Various data are stored and reporting formats designed to show various level of aggregation and comparison of data. For example, Informatics Center within MONE has the responsibility of collecting and disseminating formation to organizations internal and external to MONE. It is a highly comprehensive computer database that covers school level through national level data about all aspects of demographics, inputs, and ratios of inputs and outputs such as student/teacher ratios and graduation rates. It is currently implementing a system that looks at other quality indicators and collecting data from three provinces, and expanding this to nine provinces. Given the Center s mission, information is readily available to researchers. This includes MORA school data. In addition, MORA has its own data collection center acting in parallel to MONE.

The Planning, Bureau also under MONE, collects data for the purpose of national planning. This information is not generally available and special permission is needed to see it. The Bureau is designing and implementing what is called the District Education Profile. The Bureau has developed a template to analyze these profiles and collects data disks from districts as well as relying on Informatics for other information. This information should be available in a more timely fashion; whereas, the lee time at the Informatics Center is one year out of date when reported.

Other sources of information include SUSENAS or the National Bureau of Statistics, BLKN or the Office of Civil Service Administration, BKKBN or the Bureau of Family of Planning, and other line ministries such as the Ministry of Manpower, Ministry of Industry and Ministry of Health. These sources provide health, labor, nutrition, economic information and other data that can serve as impact data to be correlated with educational data. Three problems are related to the wealth of information available. They lack timely collection of data; comprehensiveness of data; and cooperation within and among ministries to organize data to best serve the nation.

It is possible to examine data relating to numerous inputs and outputs at school, Kecamatan, Kabupaten, province and national levels by grade level, by sex, and by other demographic classifications over time. This information is essential in evaluating and planning for improvement of education by answering such questions as where are more resources needed, what is the difference between rural and urban areas of education, and where has output diminished over time. Each externally funded project is also required to establish an EMIS in accordance with the goals of the project. Both the World Bank and ADB have instituted a new project planning, M&E system referred to as the Logical framework (log frame) model. This M&E system establishes a procedure for determining if the project is on schedule and meeting its stated objectives. The question arises as to whether the large number of multilateral projects has EMIS/M&E systems that integrate and contribute to the national system or operate as separate systems. Also, whereas the multilateral EMIS/M&E systems require monthly reporting and provide timely responses, there is a question as to whether the national system provides timely feedback to decision-makers concerning the situation of education.

2.8.3 Conclusions and Recommendations

It is important to measure outputs and impacts. The information is invaluable in the planning and decision-making process. Many policy questions arise, however, on what is measured, how should it be measured, how frequently, what needs to be reported to which decision-makers at what level, and how much should be spent. Research and practice suggests that a good monitoring and evaluation system begins with the timely collection of clearly defined data. The data is stored and retrieved through the creation of an EMIS beginning at the school level and continually aggregated as it moves up the educational hierarchy. Further, different data should be combined in numerous ways to be compared to the same data over time as well as applied and compared to different demographics such as age, geography, ethnic group, socio-economic classification, and sex. In the following sections, conclusions about the current system are made and recommendations provided for improvement of the EMIS/M&E system.

(1) Student Assessment

Norm-referenced tests such as those used exclusively in the junior secondary program are used to rank-order students from high to low rather than used to determine whether students have achieved the desired learning based on the curriculum. Although it might be desirous to redesign the national examination system, it is unlikely that any major changes will occur. It may be that the national examination may be eliminated between primary and junior secondary education, as a result of junior secondary education being compulsory. It could still be used as a placement tool to determine which students will go to the better schools. If any modification to the testing system were to be contemplated, it should focus on the nature of the types of questions asked based on what is to be measured. More questions should be included to measure higher order learning such as understanding of concepts or critical thinking. Ideally, measurement of higher order learning is done by using more in-depth techniques such as completing a project or solving a real-world problem. Since this cannot be contemplated for a multiple-choice test, more effort should be made to construct multiple-choice items that can predict higher level learning.

For tests that are constructed by teachers and administered quarterly by schools, more creativity could be used. For example, multiple choice may be one of a few ways to evaluate student work. For English language, students may have to listen to prerecorded tapes in English and write out in Bahasa Indonesian what they hear. An essay question may be included for a social science question. Students may have to list steps in conducting a specific experiment for science. This type of testing requires more active involvement by students where the multiple choice is more passive. Students can be involved in some of the planning on how they are to be assessed on certain projects.

Minimal evaluation of student performance occurs between the CAWU tests. It is important to develop feedback mechanisms for students to see if they are achieving the intended curriculum. It is possible to assign homework and evaluate it or administer short multiple-choice tests at the beginning of each class and have students mark each other s work. In fact, daily testing is practiced by some teachers. Other techniques should be contemplated and teachers need to be trained on measuring student performance in terms of relevancy to the real world. For example, a good measure to determine whether a student can bake a cake is to have the student bake a cake. There is a growing emphasis in some countries of implementing a portfolio evaluation system. In this system, teachers assign work - projects, tasks, homework- that is based on a predetermined standard of performance. The work is collected and stored in the student portfolio. It is marked by the teacher against the established standard and shown to the student. If the work is poor, the student understands why and must redo the assignment to a higher standard. There is much more to the portfolio system, but its main attribute is that evaluation becomes performance-based rather than testing-based. Testing still remains part of the process; however, students are asked to perform in many different ways that include art, music, experiments and problem solving, projects, and group interactions.

Since the nature of the evaluation system determines, to a great extent, on how teachers will teach, it is important that the national system redesign how testing can be conducted to introduce more relevancy to the teaching/learning process. Policy change will take several years, and in the meantime, emphasis should be given to changing the school cluster s examination system.

Teachers can still prepare students for the national examination system; however, if the cluster uses a different evaluation system for quarterly testing, then teaching methodology would have to change to some degree to adapt to this new way of performance testing.

(2) School and System Evaluation

School quality is measured by the aggregated performance on CAWU testing and by the national examination system. This is an output measure. A more relevant way to measure the quality of a school is by how graduates impact on their community and the nation as a whole, after they graduate. Since impact can take as long as a lifetime, researchers tend to use proxy measures to predict the impact on society. Hence, they choose the examination system as a predictor of impact. There are two approaches to measuring quality, one a school level approach and one more regionally oriented. This should be considered for future implementation.

At the school level there has been considerable research conducted concerning organizational effectiveness. Much of the research in the private, for-profit sector has been adapted for public sector organizations including schools. The research is based on examining various organizational processes, measuring them and linking them to outputs and impacts. What may be more relevant is a discussion on the technique of measuring school effectiveness. Researchers have developed a variety of constructs or concepts such as organizational climate. Climate, for example, may include such constructs as trust, communication, openness, technical competence, motivation, support, and leadership. For each variable, a quantified measurement is constructed. Techniques used to quantify these measures might include classroom observation, focus group interviews and questionnaires. Results are tabulated and a school profile is constructed.

Research has suggested that certain organizational climate profiles lead to more effective organizations while other profiles are associated with less productive organizations. Such factors as high levels of trust, setting high standards, good two way communication, and others, lead to higher teacher and student motivation that lead to better quality education as measured by such variables as reduced drop out rates, high attendance, job satisfaction, community satisfaction with the school, higher performance on a variety of tests by students, lower job turnover rates, less vandalism in the community, and others. Many of these approaches are not suitable or even feasible in the context of the Indonesian education system. It is feasible, however, that the principal and supervisor as well as teachers can be trained on the concept of quality, what variables impact on quality, and how to create a school and community environment that leads to quality. Plus a definition of quality needs to be constructed that takes into account other variables besides performance on tests.

It is recommended that a testing system for measuring quality should be field-tested. Numerous measures of school processes now exist that use self-report questionnaires completed by teachers, students, principals and community members. A pilot field test could be instituted to select one of many types of commercially produced assessment tools, translate into Indonesian, administer and score using a computer program provided by the manufacturer. The testing system can then be evaluated and adopted for use as a measure of school quality, eventually expanded as a national-level tool.

At the system level a rationale can be created to support the idea of quality, in part, by looking at a research technique that can be used to quantify variables leading to school and system effectiveness. One way to measure impact of education is to conduct reverse tracer studies. This requires that a sampling of former graduates and non-graduates be selected. In-depth interviews are conducted to determine what key variables led them to become more or less successful. Much of the success can be attributed to specific educational experiences. The tracer study can be a powerful tool to justify certain approaches to education that lead to societal impacts. It has a few limitations. It is expensive to administer and the results trace back to an older system of education, not the current system. Still, reverse tracer studies provide important information pertaining to the impact of education on society.

This discussion leads to the recommendation that a broader definition is needed to determine what is quality and how to measure it. By linking decision-making and planning to such narrow measures as school examinations as the quality of output compared to a variety of inputs, the system is denying itself information about broader issues such as relevancy and quality. An M&E system needs to be expanded to include additional variables that allow for broader conclusions to be reached about the education system in Indonesia.

Finally, due to the large amount of bilateral and multilateral investment, there are a number of education development projects underway in Indonesia. Each has a requirement for M&E, and considerable data are generated as a result of the work being done. Much of the data could be useful in national planning and would be more powerful if integrated into the existing MOEC EMIS. The question is threefold. First, can the current EMIS be modified to accept additional data that expands the variables now stored in the database? Second, will the findings of these projects find their way to the EMIS so the information can be entered, stored and retrieved when desired? Third, can reports be made available to a broader audience, providing valuable information to principals and communities and other educational managers?

2.9   School Buildings and Facilities

2.9.1   Current Conditions of School Buildings and Facilities

The following guidelines have been set by the MOEC for the construction of facilities for Junior Secondary Schools (SLTPs) in Indonesia.

(1) School Building Standards by Size Based on Curriculum and Number of Classes

SLTPs are classified into five types, A through E, depending on the size.   The number of classrooms is determined on a multiple of the basic unit of classrooms per grade. The standard maximum number of pupils per classroom is 40.   The standard floor areas of different rooms are also determined for each type of SLTP (**Table 2-21**).   In addition, there is a standard plan prepared by the Ministry of Public Works (PU) for each type of SLTPs.

(2) Configuration of Classrooms, Special Rooms and Other Necessary Rooms

The guidelines set forth the curriculum for each subject and the required teaching facilities. The subjects of Pancasila and language are conducted mainly in the form of lectures.   Another types of rooms directly related to teaching include a science laboratory for practical experiment, an art room for handicrafts and art lessons, a library for self-study and supplementary study, and a multi-function room for music lessons and other activities.   The other necessary rooms include the rooms for school administration, such as a teachers room, a principal s room, and rooms to cater for auxiliary activities, including a counselling room, room(s) for extra-curricula activities and a medical room.

(3) Guidelines for Facility Locations

The following general guidelines are set forth for the location of SLTP facilities.
   - No new SLTP should be opened in a city center but should be located in suburban areas (outskirts of cities and towns).
   - New SLTPs should be constructed in areas with the number of children of school age (13 - 15 years old) is high.
   - New SLTPs should be constructed in the locations where the support for school facilities can be easily provided.
   - New SLTPs should be constructed in the locations where there are means of transportation to school and where such infrastructure as water and electricity supply are available.
   - New SLTPs should be constructed in locations with favorable environmental conditions, such as the absence of factories.

Table 2-21: Guideline for Floor Area of Different Rooms

1. Type-A

Room	No.of Rooms	Each area (㎡)	Tatal area (㎡)
STUDY ROOM			2,499
1. Class Room	27	63	1,701
2. Library	1	126	126
3. Skill Room	2	144	288
4. Science Room	2	120	240
5. Multifunction Room	1	144	144
OFFICE ROOM			210
6. Principal Room	1	21	21
7. Vice-Principal	1	15	15
8. Faculity Room	1	90	90
9. Administration Room	1	45	45
10.Printing Room	1	9	9
11.Teacher's WC/Shower	4	3	12
12.Visitor's Room	1	18	18
SUPPORTING ROOM			368
13.Storage Room	1	54	54
14.Student's WC	27	3	81
15.Councelling Room	1	24	24
16.Medical Room	1	24	24
17.Student Organization/Boy scouts	1	24	24
18.Canteen / Coop.	1	36	36
19.Worship Room	1	50	50
20.Garage	1	36	36
21.Pomp Room / Water Tank	1	3	3
22.Guard Room	1	36	36
TOTAL FLOOR AREA			3,077
SITE AREA			9,000

2. Type-B

Room	No.of Rooms	Each area (㎡)	Tatal area (㎡)
STUDY ROOM			1,767
1. Class Room	18	63	1,134
2. Library	1	105	105
3. Skill Room	1	144	144
4. Science Room	2	120	240
5. Multifunction Room	1	144	144
OFFICE ROOM			180
6. Principal Room	1	21	21
7. Vice-Principal	1	10	10
8. Faculity Room	1	70	70
9. Administration Room	1	45	40
10.Printing Room	1	9	9
11.Teacher's WC/Shower	4	3	12
12.Visitor's Room	1	18	18
SUPPORTING ROOM			335
13.Storage Room	1	54	54
14.Student's WC	18	3	54
15.Councelling Room	1	24	24
16.Medical Room	1	24	24
17.Student Organization/Boy scouts	1	24	24
18.Canteen / Coop.	1	30	30
19.Worship Room	1	50	50
20.Garage	1	36	36
21.Pomp Room / Water Tank	1	3	3
22.Guard Room	1	36	36
TOTAL FLOOR AREA			2,282
SITE AREA			9,000

3. Type-C

Room	No.of Rooms	Each area (㎡)	Tatal area (㎡)
STUDY ROOM			1,059
1. Class Room	9	63	567
2. Library	1	84	84
3. Skill Room	1	144	144
4. Science Room	1	120	240
5. Multifunction Room	1	144	144
OFFICE ROOM			150
6. Principal / Vice Principal Room	1	21	21
7. Faculity Room	1	50	50
8. Administration Room	1	40	40
9. Printing Room	1	9	9
10.Teacher's WC	4	3	12
11.Visitor's Room	1	18	18
SUPPORTING ROOM			293
12.Storage Room	1	54	54
13.Student's WC	10	3	30
14.Councelling Room	1	24	24
15.Medical Room	1	24	24
16.Student Organization/Boy Scouts	1	24	24
17..Canteen / Coop.	1	24	24
18.Worship Room	1	50	50
19.Garage	1	24	24
20.Pomp Room / Water Tank	1	3	3
21.Guard Room	1	36	36
TOTAL FLOOR AREA			1,502
SITE AREA			6,000

4. Type-D

Room	No.of Rooms	Each area (㎡)	Tatal area (㎡)
STUDY ROOM			582
1. Class Room	6	63	378
2. Library	1	84	84
3. Science Room	1	120	120
OFFICE ROOM			84
4. Principal Room	1	21	21
5. Faculity Room	1	30	30
6. Administration Room	1	12	12
7.Teacher's WC	3	3	9
8.Visitor's Room	1	12	12
SUPPORTING ROOM			329
9.Storage Room	1	27	27
10.Student's WC	5	3	15
11.Councelling Room	1	24	24
12.Medical Room/Student Organizaqtion	1	24	24
13..Canteen / Coop.	1	12	12
14.Worship Room	1	50	50
15.Garage	1	12	12
16.Guard Room	1	18	18
17.Pomp Room / Well	1	3	3
18.Principal Residence	1	36	36
19.Teachers Residence	1	108	108
TOTAL FLOOR AREA			995
SITE AREA			4,000

Table 2-21   (Continued)

5. Type-E

Room	No.of Rooms	Each area (㎡)	Tatal area (㎡)
STUDY ROOM			252
1. Class Room	3	63	189
2. Library	1	63	63
OFFICE ROOM			42
3. Principal Room	1	18	18
4. Faculity Room	1	18	18
5.Teacher's WC	2	3	6
SUPPORTING ROOM			306
6.Student's WC	2	3	6
7.Counceling Room/Medical Room	1	24	24
8.Worship Room	1	24	24
9.Principal Residence	1	36	36
10.Teachers Residence	1	108	108
11.Student Dormitory	1	108	108
TOTAL FLOOR AREA			600
SITE AREA			3,000

(4) Master Plan and Zoning of School Premises

The guidelines set forth the desirable size of premises by type of SLTP and the facility layout. For example, parking space and a sports ground are required on the school premises, and the facility layout is required to create suitable environment for a school by taking into the consideration of natural condition such as sunlight and wind direction. In addition, the guidelines demand open corridors to provide lines of flow to the various rooms in the building and set forth the maximum height of the building(s) and the distance from neighboring buildings on the same premises.

The establishment of new SLTPs in accordance with the guidelines is determined on the basis of priority ranking made by independent research by the MONE and the city planning done by the PU. However, the guidelines are not necessarily reflect the real needs as the distribution of school age children is not clearly surveyed and stated on the school map.   In order to solve this problem, it will be necessary to establish a system that relates the number of the population of the school age children and the location of a new SLTP to be established. The fact that the construction of SLTP facilities in donor agencies' projects has not always met its target can be explained by the discrepancy between the ambiguous number of school age children on the school map and the actual number of such children in a given area.

Even though guidelines for schools facilities do exist as described above, many existing SLTPs do not necessarily meet the standards. Most schools lack a gymnasium, a sports ground and even a library.   Even if a library does exist, its collection seldom includes dictionaries to assist teaching, novels, folk storybooks, complete collections and technical books except for some schools.

Table 2-22: Library Guidelines

(Dimension: m2)

Type	A	B	C	D	E
Bookshelf	63	63	63	63	63
Staff / Book Storage	12	12	12	12	-
Locker Space / Corridor	9	9	9	9	-
Audio / Multipurpose	42	21	-	-	-
Total Floor Area	126	105	84	84	63
Measurement	18m x 7m	15m x 7m	12m x 7m	12m x 7m	9m x7m

Source: Pembakuan Bangunan Sekolah Lanjutan Tingat Pertama
Depatemen Pendidikan dan Kebudayaan 1997

The data suggests that 84% of SLTPs in Indonesia have some kinds of laboratory (**Table 2-23**). However, only a few schools have a laboratory with a good range of equipment as most science rooms only have an anatomical model of the human body, basic equipment for the study of electrical theories and a model of the earth's rotation, etc. Reagents are generally quite old and are no longer usable. Consequently, teaching using equipment is hardly conducted and emphasis is placed on lectures without practical experiments. There are guidelines for laboratory equipment, glass apparatus and reagents, etc. to be provided in laboratories but in reality, these are hardly provided at present[1].

Table 2-23: Number of SLTPs, Laboratories and Handicraft Rooms

	No. of SLTPs	Laboratories (IPA)				Total	Handicraft Rooms
		Science	Biology	Chemistry	Physics		
SMP	7,256	6,039	31	6	20	6,096	1,041

Source: Statistik Persekolahan SMP 1991/1992, Departmen Pendidikan dan Kubudayaan

In regard to building service facilities, fluorescent lamps are provided for classrooms and other rooms in schools that have electricity supply. However, the number of such schools is extremely small. In general, teaching is conducted from 06:45 to 12:20. As most school buildings are provided with many windows for lighting and ventilation purposes, lighting equipment is seldom used. At those schools where two-shift teaching is conducted, lighting equipment is used for evening classes but the number of lamps is insufficient and the luminous intensity is inadequate, being 100 lux or less. If necessary, a simple electricity generator is used in schools in unelectrified areas. Well water is commonly used except at those schools that receive municipal water supply. At many schools, however, the pump is out of order and water is drawn manually.

---

[1] ・Alat Pendidikan IPA-SMP dan SMA (Fisika Kimia, dan Biologi) di Indonesia, Departmen Pendidikan dan Kebudayaan,
　　・Alat Pendidikan IPA-SMP, Departmen Pendidikan dan Kebudayaan,

Table 2-24: Standard Luminous Intensity Based on the Guidelines and Proper Range

Room Name	Indonesia (lux)	Japan (lux)	Proper range (lux)
Class Room	215	200	150～300
Library	215	200	150～300
Laboratory Phisic (IPA)	200	200	150～300
Handcraft & Art	323	500	300～700
Administration, Office	215	200	150～300

Source:　Pembakuan Bangunan Sekolah Lanjutan Tingat Pertama
　　　　　Depatemen Pendidikan dan Kebudayaan 1997

Table 2-25 shows the comparison between standard types of SLTP by size based on the guidelines of the MONE and the classification of SLTPs in Central Java and North Sulawesi in three categories.　Compared to the standard types, existing schools have an insufficient number of classrooms. The shortage is particularly serious in the case of supporting rooms.

Table 2-25: Current Availability of SLTP Facilities in Central Java and North Sulawesi

Room		Standard Type					Central Java			North Sulawesi		
		A	B	C	D	E	H	M	L	H	M	L
STUDY ROOM												
1	Class Room	27	18	9	6	3	12-21	6-12	3-6	12-20	6-12	3-6
2	Library	1	1	1	1	1	1	1	-	1	1	-
3	Skill Room	2	1	1	-	-	-	-	-	1	-	-
4	Science Room (IPA)	2	2	1	1	-	1	1	-	1	1	-
5	Multifunction Room	1	1	1	-	-	1	-	-	1	-	-
OFFICE ROOM												
6	Principal Room	1	1	1	1	1	1	1	1	1	1	1
7	Vice-Principal	1	1	-	-	-	-	-	-	-	-	-
8	Teachers Room	1	1	1	1	1	1	1	-	1	1	-
9	Administration Room	1	1	1	1	-	1	1	1	1	1	1
10	Printing Room	1	1	1	-	-	-	-	-	-	-	-
11	Teacher's WC/Shower	4	4	4	3	1	4	2	1	4	2	1
12	Visitor's Room	1	1	1	1	-	1	1	-	1	1	-
SUPPORTING ROOM												
13	Storage Room	1	1	1	1	-	1	1	1	1	1	-
14	Student's WC	27	18	10	5	2	6-10	4-6	1-3	6-10	4-6	1-3
15	Counselling Room	1	1	1	1	1	1	-	-	1	-	-
16	Medical Room	1	1	1	1		-	-	-	-	-	-
17	Student Organization/Boy scouts	1	1	1	-	-	1	-	-	1	-	-
18	Canteen / Coop.	1	1	1	1	-	1	-	-	1	-	-
19	Worship Room	1	1	1	1	1	1	-	-	1	-	-
20	Garage	1	1	1	1	-	1	1	-	1	1	-
21	Pomp Room / Water Tank	1	1	1	1	-	1	1	-	1	1	-
22	Guard Room	1	1	1	-	-	1	1	-	1	1	-
23	Principal Residence	-	-	-	1	1	-	-	-	-	-	-
24	Teachers Residence	-	-	-	1	1	-	-	-	-	-	-
25	Student Dormitory	-	-	-	-	1	-	-	-	-	-	-

In both Central Java and North Sulawesi, SLTPs that were established after 1980 adopted a facility plan based on the guidelines, however, hardly any of them have all of the required

rooms. A SLTP building is constructed using a basic module of 7 m in width and the standard classroom size is 7 m x 9 m. The classrooms of most SLTPs are, therefore, approximately 7 m x 9 m although some of them are smaller with a size of approximately 7 m x 7 m. The floor areas of other rooms considerably vary from one school to another.

In many cases, supporting rooms are used for multiple purposes. In addition to these rooms, some SLTPs have a computer room and a mathematics room but these are the exception. Some SLTPs are facing a classroom shortage because of an increase of the number of pupils, which caused by the introduction of compulsory junior secondary education. The number of pupils at many schools exceeds the maximum of 40 pupils per classroom, forcing the partitioning of special classrooms and multi-purpose rooms for use as ordinary classrooms. This results in a decline of the teaching function at these schools. To meet all of the required functions of a school, multi-purpose rooms may need to be used in more flexible manner. The introduction of such flexible multi-purpose rooms in view of the performance of a small number of rooms as various special rooms may well prove effective for the future consolidation of SLTP facilities. In regard to such auxiliary facilities as a canteen, an independent simple building(s) is constructed with the financial assistance of the BP3 in many cases.

While the physical conditions regarding the location of SLTPs among the relevant guidelines are generally met, the present situation is that the facilities and equipment required for junior secondary education fall short of the minimum requirements. Multi-purpose facilities and equipment are required to realize the emphasis on the revitalization of education and the present facilities, particularly special rooms, and equipment are far from adequate. In addition, the work standards for facilities are very poor as shown by, for example, the peeling of floor tiles, cracking and/or water leakage within several months of the completion of new schools.

2.9.2 Current Construction, Maintenance and Procurement Systems

(1) Construction

The establishment of a new SLTP is decided on the basis of statistics of the school enrollment rate by province, which is based on independent research by the MONE and city planning by the Ministry of Public Works (PU). However, these statistics are not entirely accurate and the distribution of the school age population on the school map is also not very clear. The Kandep usually plays a central role in the acquisition of land for a new SLTP using the BP3, etc. The construction of facilities is conducted by the successful bidder in the tender process for which a local consultant in the province prepares drawings and other necessary documents. The building standards of the PU for school facilities provide technical standards for the preparation of drawings and other documents for school building construction and, prior to tender, an application for building certification (IMB) is made to a provincial office of the PU.

Construction companies are classified into three classes (Class A through Class C) by the PU based on their capacity and the quality of work. Local schools tend to be constructed by Class C construction companies because of the low cost, and in many cases the building repair becomes necessary comparably soon after the completion. The contract for construction work

is concluded between the project team of the Kanwil in each province and the contractor (successful bidder).   The actual work is supervised by the provincial office of the PU.   The MONE and its provincial offices usually fund the construction cost while the PU is responsible for the construction of school buildings, creating a situation in which the opinions of the MONE and local people are not necessarily reflected on the planning.   Moreover, the supervision of the construction work by the PU and a consultant is not always thoroughly done.   There is a widespread failure to generally control construction projects in that post-completion maintenance is not taken into consideration.   The establishment of a local project team prior to the construction of new schools is highly desirable so that local people can participate in the planning process as members of this project team.   This project team should also cooperate with the local contractor not only from the funding aspect but also in every stage of the construction work, including the supply of labor.   Such arrangements should lead to a system in which local people consciously participate in the operation and maintenance of the buildings after their completion.

(2) Renovation/Rehabilitation

When the renovation or rehabilitation of school facilities is necessary, the school authority requests such work to the Kanwil via the Kandep.   During this process, the Kandep determines the priority of the requests made by various schools and recommends prioritized work to the Kanwil which then applies for budgetary appropriation to the MONE based on the given priorities.   If the planned work exceeds a certain scale, making a proper contract necessary, either the Kanwil or the Kandep concludes a contract depending on the proposed scale of work. If required, a consultant is also involved.   The renovation / rehabilitation work is conducted by the local office of the PU while the provincial office of the PU is responsible for work supervision.   **Figure 2-13** shows the renovation and rehabilitation procedures.
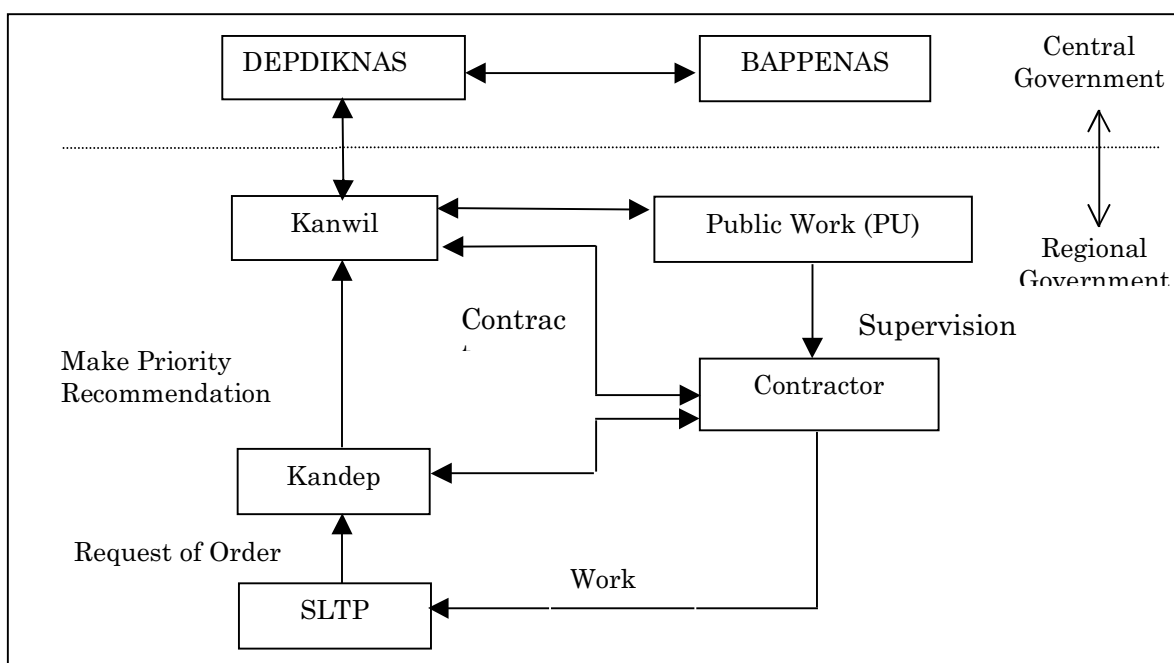
Figure 2-13: Procedure of School Facility Renovation and Rehabilitation

(3) Maintenance

The maintenance of school facilities in Indonesia is mainly performed by the Kandep and is conducted by each school and the BP3, etc.   Common maintenance items are regular touching-up of painting work or repainting, repair of damaged floor tiles, repair of roof leakage, repair of doors and other fixtures and repair of such school furniture as desks and chairs.   The maintenance budget of each school comes from the routine budget and is commonly in the range of Rp. 1 million to Rp. 5 million a year. However, the actual size of the maintenance budget greatly varies from one school to another and some schools rely entirely on the money collected from BP3 because of the lack of maintenance budget. In general, private schools have a smaller maintenance budget than public schools.

2.9.3   Cost Analysis for Renovation or Rehabilitation of SLTP Facilities

The following documents A to E (attached in Appendix 2.1) list some typical costs related to school facility.   The contents are as follows.

Appendix 2.1.A: Unit prices for main renovation or rehabilitation works by category.
   These unit prices consist of material costs and manpower costs which should be properly proportioned to perform the work.

Appendix 2.1.B: Basis of calculation for cost breakdown of A above.
   Material, manpower and those unit prices which consist of each work.

Appendix 2.1.C: Unit cost of manpower and material.

Appendix 2.1.D: Standard prices for main furniture for SLTP facility.
   Various types of furniture are necessary for SLTP in accordance with the "PENBAKUAN PERABOT SEKOLAH LAHNJUTAN TINGAT PERTAMA".   This price list does not cover all types of furniture mentioned in the above guideline.   However, the prices of furniture which is not mentioned here can be inferred from similar ones of the price list. Furniture actually installed in the schools does not always follow the above guidelines.
   Please also refer to the above guidelines when estimating the prices.

Appendix 2.1.E: Guideline of Unit Price (m^2) for the construction of government building 1999/2000)

All prices in A to D above are subject to the VAT (PPN) 10%.   All prices are the standard for the purpose of reference.   Those prices are variable depending on the market of regions and seasons.

2.9.4   Facility Development in Relation with Decentralization

A kabupaten-level body will play a leading role in the auditing.   Acting as the auditing body within the framework of the local administration, the Inspector Wilayat is expected to continue kabupaten-level auditing. The division of responsibility between the different administrative

bodies for the construction/rehabilitation of school facilities and the procurement of equipment following decentralisation is shown in the table below.
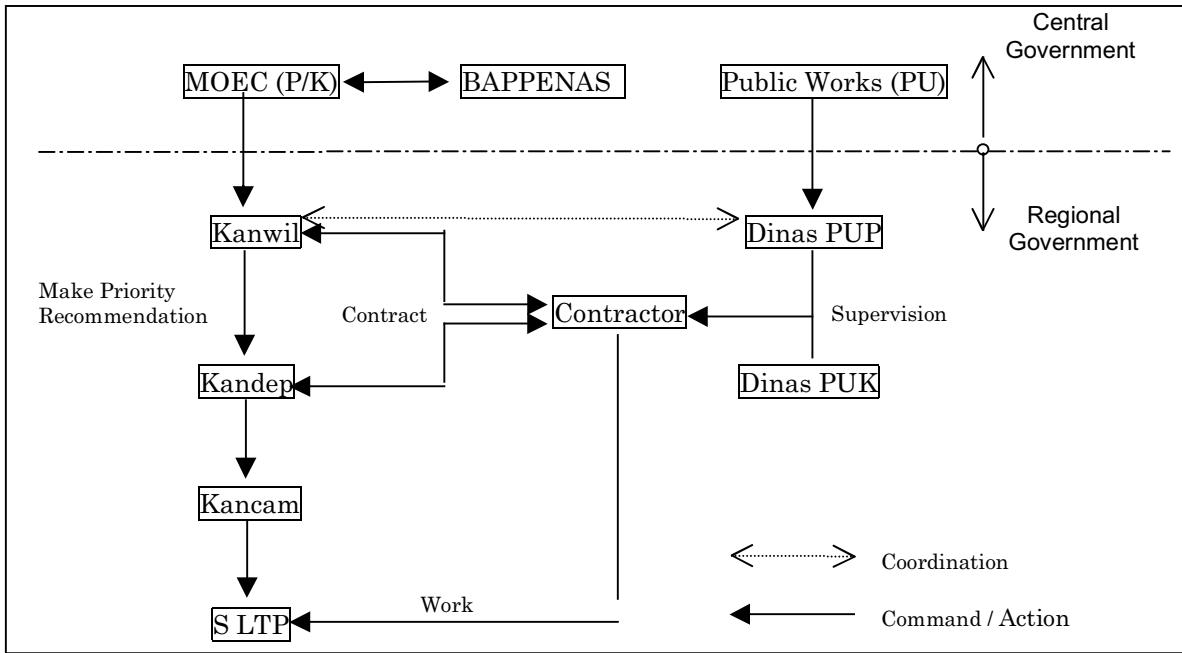
Table 2-26: Changes in Roles in Relation with Decentralization

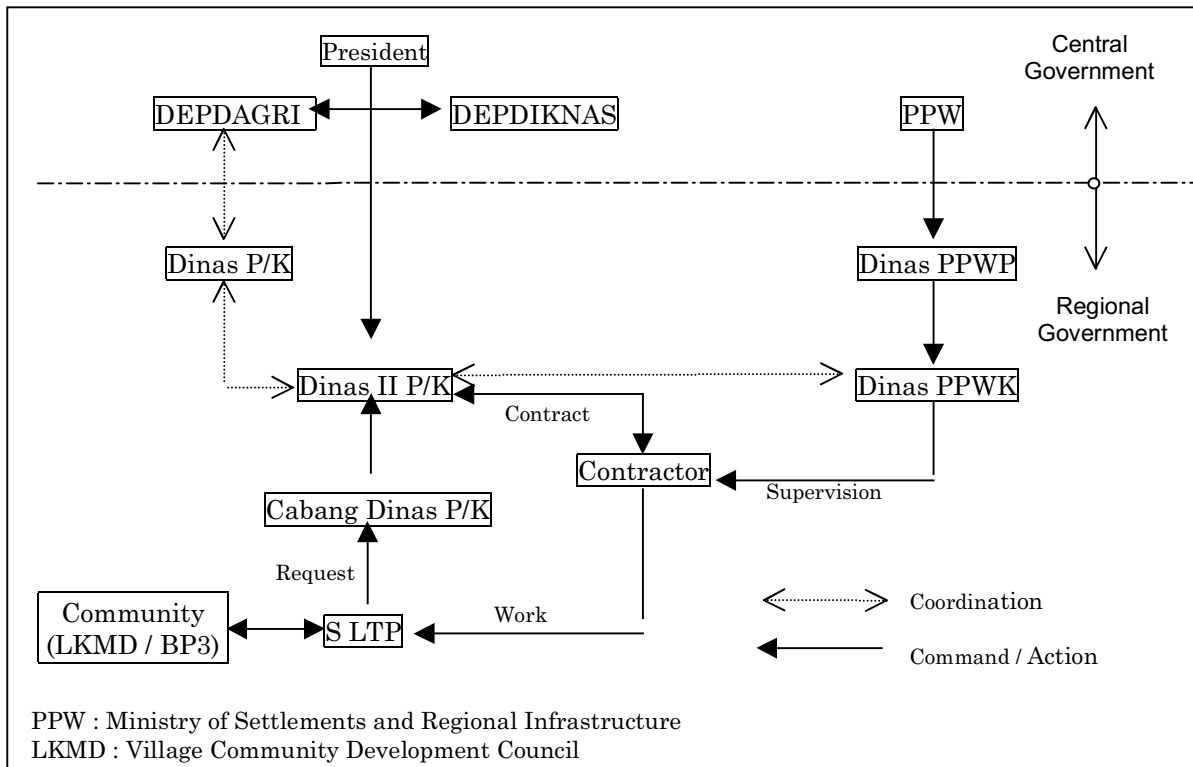| Decentrali-sation	Schools		Acquisition of Land	Design of Educational Facilities	Construction of Facilities	Procurement of Educational Equipment	Facility and Fixture Maintenance	Facility Improvement
Before	Public	SLTP	Kec.	PUP	DIKNAS (Kanwil)	DIKNAS	Kanwil	Kanwil/ Kandep
		MTs	MORA	PUP	MORA	MORA	-	-
	Private	SLTP /MTs	Yayasan	-	Yayasan	Yayasan	-	-
After	Public	SLTP	Kab.	PPWK	Kab.	Kab.	School Community	School Community
		MTs	Agama Kab.	PPWK	Agama Kab.	Agama Kab.	School Community	School Community
	Private	SLTP /MTs	Yayasan	-	Yayasan	Yayasan	School Community	School Community

① Central Government (DEPDAGRI; DEPDEKNAS; MORA)
② Public Works (PU): establishment of detailed standards and criteria regarding school construction and construction cost
  PUP: PU Provincial; PUK: PU Kabupaten; PPWK: PPW Kabupaten

Table 2-27: Advantages and Disadvantages of Decentralization in Facility Development

	Procedure	Advantages	Disadvantages
Construction of Facilities	Request for Kandep	- School needs are reflected	
Rehabilitation of Facilities	Dealt with by school management	- Cost can be kept low - Voluntary work by the community and BP3 can be expected as part of fund raising	- Difficult to ensure steady quality - Supervision is required
Bulk Procurement of Equipment	Request for Kandep		
Procurement of Single Equipment	Dealt with by school management	- Cost can be kept low	- Difficult to maintain quality
Maintenance of Facilities	Dealt with by school management	- A maintenance body linking schools can be established - Voluntary work by the community and BP3 can be expected	- Clarity of accounting may become inadequate
Maintenance of Equipment	Dealt with by school management	- A maintenance body linking schools can be established	- Clarity of accounting may become inadequate

Figure 2-14: Procedure of School Facility Renovation and Rehabilitation
(Before Decentralization)

PPW : Ministry of Settlements and Regional Infrastructure
LKMD : Village Community Development Council

Figure 2-15: Procedure of School Facility Renovation and Rehabilitation
(After Decentralization)