

Report No. 14680-PH

Philippines Public Expenditure Management for Sustained and Equitable Growth

(In Two Volumes) Volume II

September 5, 1995

Country Operations Division
Country Department I
East Asia & Pacific Region



Document of the World Bank

PHILIPPINES
PUBLIC EXPENDITURE MANAGEMENT FOR
SUSTAINED AND EQUITABLE GROWTH

Volume II

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PUBLIC EXPENDITURE MANAGEMENT FOR SUSTAINED AND EQUITABLE GROWTH: VOLUME II

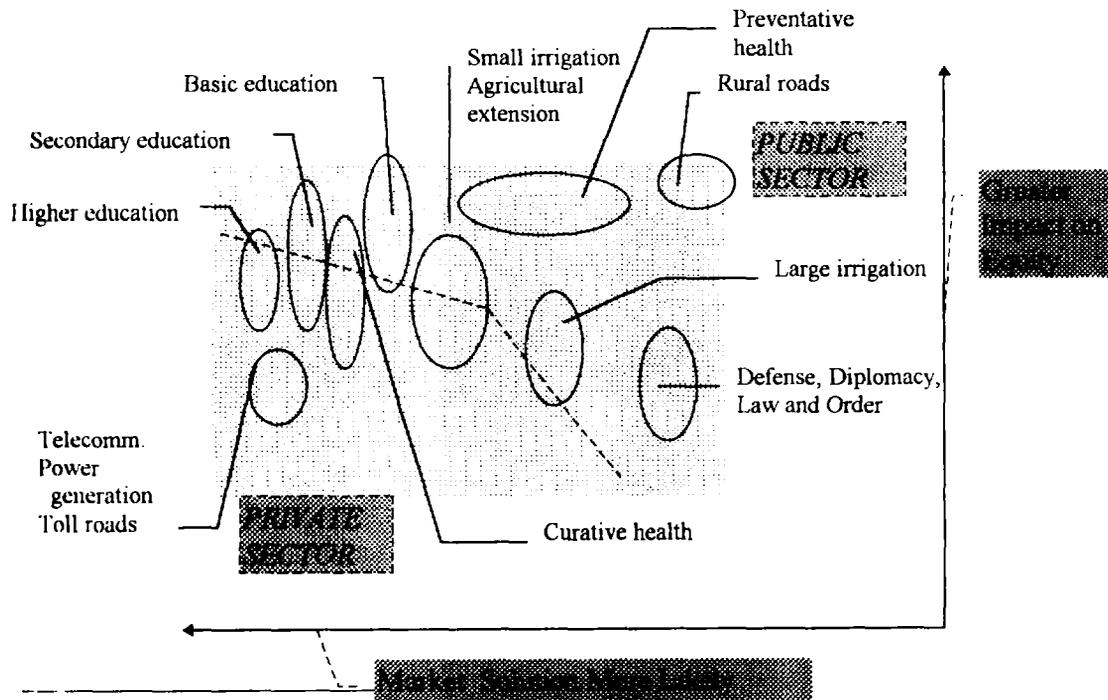
SECTOR ALLOCATION ISSUES

Introduction

This volume discusses major public expenditure management issues in transport, water, power, agriculture, and education¹. In each sector, the relative roles of the public and private sectors are reviewed carefully in view of the expanding private activities in the Philippines. The main public sector functions are: (i) to provide services that the society needs and yet the private sector does not provide at all, or does not provide efficiently in the market place; and (ii) to provide services that the private sector provides less than or at higher cost than the Government considers desirable for equity reasons.

The diagram below is a schematic example of these two points: when services are needed but there is no provision of such services in the market (defense, rural roads), the public sector will have to provide them. For other services which markets could provide, the Government needs to take an initiative in providing services when equity or externalities considerations dominate, for example, in the areas of preventive health care and basic education.

Public and Private Split of Existing Government Functions



¹ Health is not reviewed here as the entire health sector was devolved to local governments. Thus the past experience is not directly relevant as a lesson for the future, and also we do not yet know what sort of expenditure patterns are emerging from various local governments since the devolution is only a few years old. Moreover, the NG expenditure issues on health have been reviewed in World Bank (1993).

The role and capacity of LGUs are also an issue in many sectors. The Government has started the process of fiscal devolution in 1991 to improve local service provision. Local government officials are believed to be more aware of different local situations and preferences of local residents and thus better equipped to provide local services efficiently. While this assumption is generally correct, in the Philippine context, there are two issues: (i) the administrative capacity of LGUs to provide services and satisfy local needs; and (ii) LGUs' willingness to allocate resources on activities benefits of which spill over to other jurisdiction may be limited.

Given these two sets of considerations, chapters in this Volume recommends the following.

- in the *transport* sub-sectors, the GOP needs to shrink the networks the NG maintains to high standards. Local roads and small ports should be devolved to local governments and, where feasible, the private sector should provide services (either building toll facilities or through management contracts). For all transport modes, the Government needs to maintain strong network planning and a regulatory framework;
- for *utilities (power and water)*, the GOP's focus on privatization "production" of power and water services is in the right direction. The GOP can increase efficiency further by taking advantage of scale economies through consolidating distribution systems;
- in *agriculture and natural resources*, the GOP can focus on productivity increase in rural areas by investing in rural infrastructure and research. Also, the uncertainty regarding how and when the Agrarian Reform will be completed has allegedly reduced private investment because of the ban on changing land use in the areas designated by the reform program. Reduction of this uncertainty will thus likely contribute to increased private rural investment; and
- in *education*, it is important that the poor get access to quality education services, and that the service provision be done in a more cost effective manner.

6. TRANSPORT SECTOR

ROAD TRANSPORT

Network

6.1 The Philippine roads are classified by jurisdiction as National, Provincial, City, Municipal or Barangay and by type as concrete, asphalt, gravel and earth. The road inventory, as of end-1992, is shown in Table 6-1.

TABLE 6-1: PHILIPPINE ROAD NETWORK BY TYPE AND JURISDICTION

	Percentage by Jurisdiction					Total Kms
	National	Provincial	City	Municipal	Barangay	
Concrete	54%	6%	5%	14%	21%	13,389
Asphalt	48%	20%	16%	11%	5%	12,864
Gravel	13%	21%	1%	6%	59%	100,638
Earth	0%	15%	0%	9%	75%	33,952
Total Kms	26,554	29,156	3,949	12,820	88,364	160,843

Source : DPWH; Report on Road Classification and Pavement Type

6.2 Over the last two decades, investments in the road network (exclusive of the Barangay roads) have done little to expand the network. Instead, most of the investment has gone into upgrading through surfacing, widening, and rehabilitation. No significant changes were reported in the lengths of national, provincial, municipal or city road networks. The quality of the municipal roads was improved through graveling of the earth roads. The Barangay network was reported to have increased in size and improved in quality due to the investments of the national government but the current data is thought to overstate the amount and condition of these roads. The Department of Public Works and Highways' (DPWH) annual inspection of the condition of national roads indicates that national roads are not well maintained, although the situation is improving. About 2/5 of the national concrete roads, which require the least maintenance, are in fair-to-poor condition¹, and about 3/4 of the national asphalt network remain in fair-to-poor condition, despite efforts to expand and improve them. The maintenance-intensive gravel roads are in the worst condition with almost 100 percent reported as being in fair to poor condition. The city roads

¹ A more thorough survey using road roughness measurements is currently underway. So far the preliminary results appear to support the findings of DPWH survey.

appear to be in a similar condition to that of the national roads but the provincial, municipal and Barangay roads are in worse condition.

6.3 Because of the difficulty in maintaining a high quality national road network, the DPWH has identified a set of primary arterial roads on which to concentrate its maintenance efforts. This set is composed of a North-South backbone and East-West laterals, and includes the roads connecting the regional and provincial capitals as well as the links to other major urban centers, major agricultural areas, leading industrial and tourism centers, and the major airports and seaports.

Service Levels

6.4 The distribution of the road network relative to the area and population of the regions served indicates that the coverage is relatively uniform for Luzon, the Visayas and Mindanao as shown in Table 6-2. The only significant difference is the lower density of surfaced roads in Mindanao. Vehicle ownership as related to the development of the road network is highest in Luzon but even there it is relatively low. In contrast, Malaysia with its 43 thousand kilometers for surfaced roads has 2.31 Kilometers per 1000 population and 433 vehicles per kilometer. The existing national network, with the exception of the urban links, appears to have sufficient capacity for the foreseeable future; however, the situation on the city roads is much worse, especially in areas where congestion is increasing rapidly.

TABLE 6-2: PHILIPPINE ROAD NETWORK STATISTICS

	Road Length		Kms/1000 pop.		Kms/100 sq km		vehicles/km	
	Surfaced	& Gravel	Surfaced	& Gravel	Surfaced	& Gravel	Surfaced	& Gravel
NCR	2,731	321	0.32	0.04	429	50	293	2,491
CAR	747	6,482	0.61	5.32	4	35	29	3
Luzon	12,172	51,835	0.55	2.32	10	42	49	11
Visayas	5,956	27,498	0.43	2.00	11	49	43	9
Mindanao	4,641	48,454	0.30	3.16	5	48	46	4
Total	26,253	134,590	0.43	2.22	9	45	72	14

Source : DPWH Road Inventory, Philippines Statistical Yearbook - 1993

Organization and Staffing

6.5 The DPWH is responsible for the planning, construction, maintenance and upgrading of the national road network. Until 1992, it was also responsible for the provincial and barangay road networks, and for construction and maintenance of small ports, flood control and shore protection, water supply, and other government buildings. As a result of decentralization through the 1991 LGC, its responsibilities for provincial and barangay road networks, and for local water utilities and flood control were transferred to the local governments. Other responsibilities (i.e., construction and maintenance of small ports) have been assumed by the Department of Transportation and Communications (DOTC). These changes have had little impact on the expenditures or staffing levels of the DPWH, as it was already allocating about 2/3 of its expenditures to road construction, improvement and maintenance, so that the amount of funds available for reallocation was limited. Efforts were made to transfer personnel from the regional offices of the DPWH to the provincial, municipal and city engineer offices, but many of these were already over-staffed, and few had the funds needed to pay for the DPWH staff.

6.6 The staff of the DPWH consists of approximately 35,800 people, about 40 percent of which are casual workers (employed either on a daily or regular basis) and contract labor (hired for specific projects). This is about 25 percent less than the 1992 levels. Nearly all of the reduction was accomplished by eliminating positions held by casual labor. An accurate comparison of the staffing of departments between countries is difficult because of differences in both the type of infrastructure and specific obligations regarding planning, construction and maintenance. The Malaysian national network is about half the size of the Philippine national network but they are built and maintained to a higher standard.

Capital Expenditures

TABLE 6-3: DPWH APPROPRIATIONS AND ALLOTMENTS

Millions of Pesos	1991	1992	1993
Personnel Services	872	1,187	1,198
Maintenance and Operations	1,635	2,045	2,368
Infrastructure Program	9,534	12,633	15,205
Other Infrastructure Projects	18,275	11,279	9,530
Total	30,316	27,144	28,301

Source : DPWH, Budget Division, CFMS

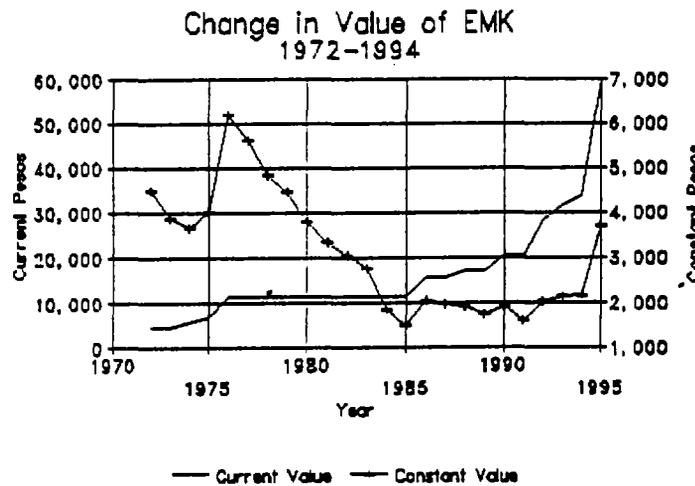
6.7 A summary of DPWH appropriations and allotments under the General Appropriations Act (1991-93) is shown in Table 6-3. The average amount funded over the last three years was ₱28.6 billion per year. A breakdown of the expenditures for the infrastructure program indicates that only 42 percent of the expenditures (about ₱10.4 billion p.a.) was for roads and bridges. Another 29 percent was spent on water supply, flood protection, schools and other public buildings. The

remainder was categorized as miscellaneous public works and includes road-related projects. The expenditures for permanent personnel amounted to ₱1.16 billion (1993), but this does not include benefits or other personnel-related expenditures, nor the cost of casual labor. The actual labor bill for the DPWH (excluding contract maintenance) probably exceeds ₱2.5 billion.

6.8 The DPWH's medium-term infrastructure program for 1993-1998 allocates about 3/4 of its total infrastructure budget (or, ₱124.9 billion) for roads, bridges and highways. Under this budget, the core arterial links are to be made all-weather and are to be upgraded so that 85 percent of its length meets minimum design standards. This will cost about ₱55.8 billion). In addition, it has been proposed to improve the secondary national roads so that 80 percent of its length is all-weather and that 60 percent is paved, costing about ₱56 billion.

Maintenance

Figure 6-1



6.9 The DPWH's level of expenditure for road maintenance has been determined through a system of budgeting based on an average annual unit cost per kilometer known as the effective maintenance kilometer (EMK). This unit cost is meant to cover the amortized costs for both routine and periodic road maintenance.

6.10 This approach has brought some transparency to the process of funding road maintenance, but has not produced a well-maintained network. One reason for this is that the EMK has not kept pace with inflation (Figure 6-1). Another reason is that the amount allocated by the DBM is less than requested by DPWH, so that the amount allocated for each section of the network is reduced by a uniform percentage. In addition, local governments often did not contribute their full share of the maintenance costs. Also a significant portion of this expenditure by the regional offices often went to fund the salaries of the regional office employees.

² For the period 1991 to 1993 the amount allocated for maintenance, excluding personnel services, as a percentage of the amount requested increased from 70% to 82% of the amount proposed. When personal services are included it declined from 123% to 78%.

6.11 In the last few years, The DPWH has attempted to address these problems through significant increases in the EMK and through increased reliance on contract maintenance. It has been proposed to nearly double the EMK from ₱33,500 (FY94) to ₱64,300 (FY95). However, it is estimated that the actual amount required to cover both the routine maintenance and a program of regular overlays is closer to ₱71,000 per EMK.

6.12 The change-over from maintenance by force account to contract maintenance began in 1988. Since then the percentage of routine maintenance contracted out has risen by 10 percent per year to an estimated 70 percent in 1994. The initial focus was on periodic maintenance, but most of the contracts have been for a combination of periodic and routine maintenance.

**TABLE 6-4: FUNDING REQUIRED FOR MAINTENANCE OF ARTERIAL AND
SECONDARY NATIONAL ROADS**

Millions Pesos/Year	Concrete	Asphalt	Gravel	Total
	Core Arterial Network			
Current Network	4,576 kms	4,586 kms	6,685 kms	
	₱880	₱535	₱755	₱2,170
Proposed Network	4,576 kms	11,271 kms		
	₱880	₱1,314		₱2,194
Secondary National Roads				
Current Network	1,944 kms	1,845 kms	6,955 kms	
	₱272	₱215	₱785	₱1,272
Proposed Network	1,944 kms	8,800 kms		
	₱272	₱1,026		₱1,298

6.13 A 1991 comparison of the costs for maintenance using force account and contracts found that the latter cost 10 percent to 50 percent less, after making allowances for taxes and the actual cost of equipment provided from the DPWH pool.³ Additional savings are obtained because under contract maintenance the contractor is paid on a lump sum basis rather than on a cost-plus basis, as is the case for force accounts. Furthermore, the contractor can be held liable for the quality of the work. The original goal of the Maintenance by Contract program was to transfer 84 percent of the work to the private sector, and to only retain responsibility for maintenance of bridges. This goal

³ Kampsax, Evaluation Report on the Implementation of Maintenance by Contract, CY90 and CY91

was scaled back to 70 percent, by assuming that a reserve capacity must be maintained to deal with disasters⁴ and to perform jobs that are too small or remote to attract a competitive bid from the private sector.⁵

6.14 The amount budgeted for maintenance of roads and bridges increased from ₱2.0 billion in 1989, to ₱3.28 billion in 1992 (Figure 6-2). The budget for national roads was only ₱1.66 billion in 1993 and ₱1.77 billion in 1994. The amount of this budget allocated for personnel services increased from ₱491 million to ₱755 million in the same period. The amount budgeted for the Bureau of Equipment for maintenance of equipment decreased from ₱193 million to ₱178 million during the same period, but had been greater than ₱250 million during the previous three years.

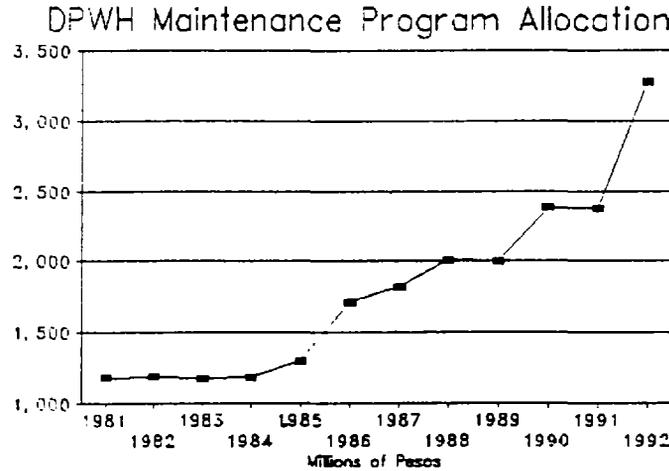
6.15 Based on current estimates⁶, the typical cost for the periodic and routine maintenance required to keep the different types of pavement in acceptable condition is amounts to ₱140,000 per year for concrete roads, ₱117,000 for asphalt roads, and ₱113,000 for gravel roads (Table 6-4). The annual cost for the existing network is estimated to be ₱2.17 billion for the arterial network, and ₱1.27 billion for the secondary roads. If the roads are surfaced and widened to the minimum standards previously discussed, then the maintenance costs will be similar for arterial roads and secondary roads.

⁴ Normally the government would look to the private sector to maintain the spare capacity to be mobilized at the time of natural disasters. However, the intense scrutiny by the Senate of the DPWH's contracting activities during the rapid mobilization following the eruption of Mt Pinatubo has made the DPWH reluctant to use contracts during such situations.

⁵ In the recent General Appropriations Act the amount of contract maintenance was reduced to 30% and force account increased to 70%. This attempt to return to the old, less efficient method is currently under dispute.

⁶ Source : Kampsax - Progress Reports for Contract Maintenance project. This is comparable to the ₱ 140 thousand spent in Malaysia for contract maintenance on its surfaced roads.

Figure 6-2



Equipment

6.16 The equipment for the force account jobs comes from the DPWH's equipment pool. At present, the Bureau of Equipment operates 10,849 units of major and minor construction and maintenance equipment and 59 units of marine equipment. The Basic Highway Maintenance Equipment fleet, which includes some 1,914 units, has been assigned to District Engineering Offices. The DPWH also provides some equipment to the City/District Engineering Offices and rents out equipment out to private contractors under Equipment Rental Request Order. The equipment fleet is in relatively poor condition due to its age and the level of maintenance. Formerly, the expenditures of the Bureau of Equipment accounted for about 30 percent of Department's maintenance budget, but this percentage has been gradually reduced with the increase in maintenance by contract. The current amount spent for equipment maintenance is relatively small; in 1993, only 3,064 units received servicing, at a cost of approximated ₱45 million. Moreover, no new equipment has been purchased in the last fifteen years, although some second-hand equipment has been obtained from donor-sponsored projects. A total of 1,359 units were rehabilitated over the last five years at a cost of ₱521 million, and for 1994, an additional 183 units are programmed for rehabilitation at a cost of ₱60 million. Despite these efforts, surveys indicate that about 22 percent of the equipment was unserviceable, and another 25 percent required major repairs. Although the DPWH began disposing its unserviceable units (mid-1994), in an effort to downsize its equipment fleet, only 311 units had been disposed of by mid-1994 because of delays due to accounting/auditing requirements.

Private Sector Involvement

6.17 The strengthening of the BOT law to provide new options for private sector investment in the construction, operation and maintenance of toll roads will permit the DPWH to transfer responsibility for the development of certain segments of the road network to the private sector. This BOT road program has both advantages and disadvantages. One advantage is that roads which have high political visibility but uncertain economic viability, can be transferred to the BOT program and not encumber the national budget. A disadvantage is that roads which are economically justified, but not financially viable, cannot be constructed under this program unless the government provides a revenue or traffic guarantee. Another disadvantage is that many of the

urban roads proposed for BOT are being treated as separate investments when, in fact, they must be integrated into the network in terms of access and egress.

Revenues

6.18 The funds produced through road user charges include charges to the vehicle for registration, license fees, import duties and sales taxes, as well as duties and taxes on fuel, tires and spare parts. The principal source of revenues are fuel taxes, which were estimated to average about ₱9.6 billion p.a. between 1989-92.⁷ Vehicle fees and charges were estimated to generate about ₱1.7 billion p.a. during the same period.⁸ Data on revenues from import duties were unavailable, but estimates based on the CIF value of vehicles imported suggest that this has become a major source of revenue, amounting to as much as ₱8 billion in 1993. The amount of revenues is well in excess of the expenditures for road maintenance costs, but not sufficient to cover the cost of the proposed medium-term investment plan.

Recommendations

6.19 The introduction of a primary national network on which the Department will focus its efforts at rehabilitation and maintenance is of critical importance given the limited funds which will be available to the DPWH in the future. By limiting its scope, the Department will be able to improve the quality of these roads. The existing road network is in poor condition relative to its ASEAN neighbors. The increase in private sector participation in the construction and maintenance of the roads and bridges has not significantly improved the quality of the network. Efforts to reduce the DPWH labor force should continue, along with an effort to upgrade the quality of the remaining staff.

6.20 The effects of the contract maintenance program and devolution will allow for considerable reduction in the staff. It should be possible to eliminate nearly all of the casual labor, and to reduce a significant part of the permanent staff. Under the retirement package required by law (one month per year employed), the payback period would be very short. Even with additional benefits, the return on this investment would be quite large.

6.21 The decision on the percentage of maintenance to be performed by contract needs to be reviewed, as little evaluation has been made of the effectiveness of the program relative to force account. The original goal of 84 percent contract maintenance was probably too optimistic, but the current target of 30 percent is probably too pessimistic. It is more important to identify types of maintenance most efficiently performed by contract maintenance (e.g. large scale, homogeneous and continuous construction rehabilitation and periodic maintenance).

6.22 The Bureau of Maintenance needs to be restructured to improve its planning and evaluation capabilities, and to reduce its engineering and equipment capabilities. A program should be

⁷ Source : Estimated revenues from SAPS reports based on taxes on transport fuels except aviation fuels and LPG.

⁸ Source : Land Transport Office

developed for contracting private companies to perform major repairs and maintenance on residual equipment, and to lease needed equipment. The majority of the current fleet of equipment should be selected for sale or scrapping based on simple economic criteria.

6.23 The future of the secondary national roads and the provincial roads needs to be reconsidered, as neither the DPWH nor provincial governments will have sufficient funds to maintain these networks. A procedure for selecting links which must be maintained must be developed along with a mechanism for generating the funds required.

6.24 The significant changes in the role of the DPWH raise the question of what would be the most appropriate structure for this Department. At a minimum, there should be a division into roads and other infrastructure, and to concentrate personnel in the former. Along with a change in the management structure, there should be a major overhaul of the accounting system to report and evaluate the expenditures for labor, material and contracts, and to relate performance to cost. It will also be necessary to collect performance data. In this regard, the effort to develop a pavement management system is an important first step.

6.25 Finally, the new BOT law raises some serious questions for the future direction of the DPWH. From the government's perspective, this law should be treated as one of the alternative mechanisms for financing roads. The roads selected for private sector development should be financially viable, and efforts to finance private roads through land deals should also be avoided unless the road is economically viable, and the two activities can be treated as separate components as allowed for under the new BOT law. Procedures should be developed to reduce completion risks if the government has to acquire the right-of-way and the commercial risks if the government will continue to regulate the tolls. The decision to convert an existing road to a toll road or to construct a new toll road should be preceded by an economic evaluation to determine the impacts of charging a toll on the expected level of traffic. Since the DPWH has always transferred much of the responsibility for construction maintenance of the roads to the private sector, arguments for implementing BOT projects should focus primarily on critical investment for which the government lacks funds and is unwilling to issue bonds.

RAIL TRANSPORT

Network and Organization

6.26 The Philippine National Railways (PNR) is a state corporation under the control of the DOTC. It operates and maintains the track, rolling stock and stations, rehabilitates passenger wagons, rebuilds locomotives, and performs its own regular maintenance. Some of the stations/flag points are operated by ticket agents under a commission arrangement, but this is being reduced as the PNR attempts to restore full operation at many of its stations. The cleaning of the stations used to be contracted out, but this practice was discontinued in order to reduce costs and absorb some of PNR's excess labor. The only activity in which the private sector is involved is the construction and rehabilitation of the track. The PNR operates a Southern Line extending 479 kilometers from Manila to Legaspi (under rehabilitation since 1976), and a short spur within the Metro Manila area. The Northern Line (Manila to San Fernando La Uma) has been closed for several years because the traffic was not sufficient to justify repairing the track.

System Performance

6.27 PNR's operating statistics (1990-92) are shown in Table 6-5. The long distance passenger service operates four trains a day in each direction, while the PNR operates only three train services: the main passenger/freight service on the Southern Line, and the commuter services from Manila-Malolos and Manila-Carmona. The load factor on these trains decreased to less than 60 percent, as the ridership declined by a half from 1990-92. This was due in part to an increase in tariffs, but the major cause was the deterioration of the quality of service (due to the poor condition of the track and rolling stock, and the large number of derailments). As a result, this produced travel times an average of three to four times greater than for bus transport. Moreover, the level of comfort declined due to the poor condition of the passenger cars. As a result, the PNR's modal share on the southern corridor has declined to less than 9 percent. For these reasons, it is unclear whether PNR can increase this market share even with rehabilitated track and refurbished cars. If this is to occur, it will be necessary to significantly improve train operations and maintenance of the system in order to recapture this traffic.

TABLE 6-5: PNR OPERATING STATISTICS 1990-1992

	1991	1992	1993
Long Distance Passenger Operations			
No. of Trains Run	1,479	1,335	831
Train Kilometers (000's)	585	537	334
Passengers Carried (000's)	655	467	402
Passenger Kilometers (millions)	182	121	102
Load Factor	73%	59%	63%
Avg. Revenue/Pass.-kms	0.36	0.37	0.34
Commuter Services			
No. of Trains Run	9,117	6,603	11,669
Train Kilometers (000's)	338	235	416
Passengers Carried (000's)	4,508	2,303	4,639
Passenger Kilometers (millions)	59.6	30.4	63.5
Load Factor	42%	35%	45%
Avg. Revenue/Pass.-kms	0.23	0.24	0.22
Freight Service			
No. of Trains Run	123	46	185
Train Kilometers (000's)	25	12	53
Tons Loaded	11,629	4,932	24,864
Net Ton-kilometers (000's)	2,236	929	
Load Factor	23%	22%	
Avg. Revenue/net ton-kms	1.27	1.69	

6.28 The existing train capacity could accommodate a doubling or even tripling of traffic over the next five years, but the PNR's financial position would not improve without a significant increase in the tariffs. The losses would increase with the traffic, even though the level of subsidy per rider would decrease. Given this situation, it is neither feasible nor practical to expand the

system or further rehabilitate the system. Instead, it will be necessary to reduce the size of the network as the track deteriorates.

6.29 PNR's freight operations all but ceased by 1992: less than one freight train per week was operating, with an average load factor of only 25 percent. The significant increase in the average freight charge contributed to the decline in traffic, but more important was the deterioration in service. In 1993, with the reopening of the Southern Line to full service, the PNR was able to offer more reliable service, and traffic returned to the 1991 level of activity (average of 3-1/2 trains per day, load factor of 33 percent). Even with this upturn though, the trains carry less than 3 percent of the freight travelling on the Southern corridor. The commuter service currently operates 20 trains per day in each direction. The annual ridership, after reaching 5.6 million in (1990), declined steadily to 2.3 million (1992), before recovering to 4.6 million (1993). There was a significant increase in fares during this period, but the loss of ridership was caused primarily by the deterioration in the quality of service due to the poor condition of the track and, reduced reliability of travel times.

Investment

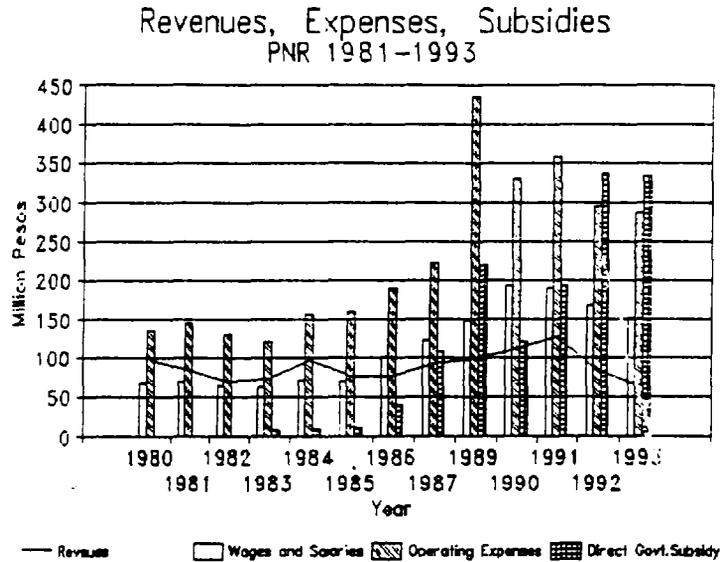
6.30 The rehabilitation of the Southern Line has been on-going since 1976: the first phase lasted until 1986 and was funded by ADB; the second phase, funded by the OECF, began in 1987 and is still continuing. Although it was anticipated that this project would boost long distance passenger traffic to 3 million passengers/year by 1993, traffic amounted to only 402,000 in 1993. The cumulative financial loss over this period has exceeded ₱2.2 billion. The total investment required to improve the Southern Line (inclusive of the current OECF balance) is estimated to total ₱1.33 billion. It now appears that the PNR's losses will continue to increase and the debt will be transferred to the National Treasury.

Staffing

6.31 The current PNR work force is about 2650 persons. The PNR has made a concerted effort to reduce its staffing level and redeploy the remaining workforce, over the last three years. Much of the reduction has been accomplished by eliminating casual labor, but about 500 permanent positions were also eliminated through a program of early retirement. Despite these efforts the PNR is significantly over-staffed at all levels. The work force is large compared to the number of trains operated and the length of track maintained, because the system is too small to enjoy economies of scale. In addition, the administrative section is over-staffed due to a lack of modern equipment, and the repair facilities are over-staffed relative to the amount of work performed, but suffer a shortage of skilled mechanics to properly maintain the rolling stock. Also, the track maintenance staff has been unable to maintain even those tracks which are not being rehabilitated.

Financial Position

Figure 6-3



6.32 The gradual decline in traffic has been softened by an increase in tariffs, so that the revenues generated from train operations has fluctuated between ₱45 and ₱105 million p.a. for most of the last 14 years. The total revenues, including earnings from real estate, have varied between ₱72 and ₱128 million as shown in the Figure 6-3. The total operating expenditures, including depreciation, peaked at ₱435 million in 1989, but has since declined to about ₱290 million. In addition, labor costs tripled from 1980-90, but have since declined by about 25 percent. Despite this improvement, the revenues from operations covered less than half of the labor costs in 1992-93. Moreover, the non-labor operating costs (includes fuel and lubricant) also exceeded gross revenues, and even the interest payments on outstanding foreign loans were nearly equal to the size of gross revenues.

6.33 The PNR has required ever increasing government subsidies. There are two forms of subsidy. The first is the direct operating subsidy, which has been escalating rapidly since 1986, totaling ₱1.2 billion over the last five years. The second subsidy is the conversion of the debt service on foreign loans to non-interest bearing government loans whose principal payment are reported as increases in the PNR's accounts payable. Over the last five years, this debt has increased by approximately ₱1 billion and currently totals over ₱2.16 billion. The combined annual subsidy is currently about ₱0.6 billion

TABLE 6-6: PNR CONSOLIDATED BALANCE SHEET 1989-1993

Million Pesos	1992	1993
Current Assets	557.3	503.5
Total Assets	5,666.1	5,213.5
Property, Plant and Equipment	5,094.9	4,696.6
Other Assets	13.9	13.3
Current Liabilities	2,576.5	2,304.0
Long Term Liabilities	5,372.1	4,743.8
Long-Term Debts	2,792.5	2,438.3
Other Liabilities	3.1	1.5
Stockholders' Equity	294.2	469.9
Capital Stock	1,500.0	1,500.0
Govt Grants, Fund Contrib.	0.9	0.9
Retained Earnings	(2,230.3)	(2,054.6)
Appraisal Increment due to	1,023.6	1,023.6

6.34 The existing financial condition of the railroad is difficult to determine from its balance sheet because of the way in which PNR accounts for its assets and liabilities. The value of the supplies and materials in Table 6-6 is meaningless. Auditors have been unable to verify the reported value of assets. The amount of accounts receivables is equivalent to about four months of salaries and wages, but the portion of these receivables which is collectable is indeterminate. In addition, the amounts in accounts payable to government agencies are primarily the government's assumption of foreign debt which will never be repaid. Likewise, long-term debt is also unlikely to be paid and will be converted to accounts payable and eventually to equity.

Private Sector

6.35 At present the private sector has relatively little involvement in the running of the railroad, but a number of projects have been proposed to change this using the new BOT law. However, neither of the two major proposals for BOT (to re-open the Northern Line, and to establish a rail line in Mindano) are likely to be financially viable, nor are they likely to attract private investment on the scale envisioned. However, certain subsections of the main line might be developed to serve special niche markets identified by the private sector, which can afford the considerable increase in tariffs necessary to operate on these small systems.

Recommendations

6.36 The future of the railroad is constrained in several ways: (i) the rail network is too short to achieve any economies of scale; (ii) the density of demand along the route is too low (iii) the freight business is unlikely to rebound despite the gains in 1993; (iv) the modal share of long-distance passenger traffic is unlikely to increase assuming that improvements are made in the arterial road network; and (v) the track is likely to deteriorate because of the small maintenance budget⁹ and with it the quality of service.

6.37 Given this scenario, it is necessary to consider ways to reduce the PNR's role either by discontinuing services or transferring them to the private sector. One option for reducing service would be for the PNR to divest itself of its provincial rail services. This would involve phasing out the long distance passenger service over a 3-5 year period. At the same time the PNR would discontinue its freight services, by selling of the rolling stock to industries which require rail freight, and by providing locomotives to haul unit trains which are made up by the shippers. These changes would allow the PNR to reduce its work force considerably and to limit its maintenance activities to those sections of the track which are financially viable. An alternative would be to separate the track from the train operations. The track would be maintained as a public service obligation, with the government contracting out the maintenance. The train operations would be provided by the PNR which would function as an operating company. This operating company would provide essential passenger services under a performance contract with the government and would provide locomotives for hauling unit trains; it would also coordinate the movement of trains over the network. Even without modifying services, it is necessary to reduce the manpower (accounts for nearly 85% of operating costs, excluding depreciation). A one-third reduction of the staff would reduce the PNR's annual deficit by about ₱ 55 million.

6.38 The reduction or elimination of money-losing operations would allow the PNR to focus on new markets which are potentially profitable or, at least economically justified. These would include activities such as the development of a unit train operation between the port and the CALABAR industrial zone, real estate ventures, and improvements in the commuter train service.

6.39 The potential for increased traffic and tariffs on the commuter service will depend on the frequency and quality of service which the PNR can provide in competition with other urban transport during the peak hours. In order to attract addition demand, it is necessary to increase the frequency of service. The potential for rapid growth in ridership can be seen in the growth of ridership on the LRTA. Also the current fares are about 50% below the jeepney and bus fares for comparable trips, so there is considerable option for tariff increases. Furthermore, the economic benefits arising from decreased urban congestion and reduced travel times will help to justify continued government subsidy.

⁹ This is the residual amount available after all other costs have been met out of the allocated funds.

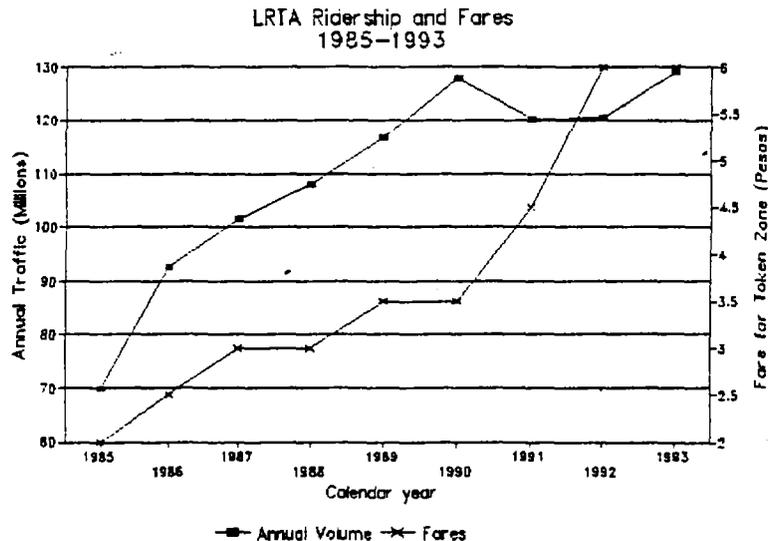
LIGHT RAIL TRANSIT AUTHORITY

Organization

6.40 The Light Rail Transit Authority (LRTA) is a government-owned corporation under the DOTC with responsibility for constructing, operating and maintaining and/or leasing light rail transit systems in the Philippines. The operation and maintenance of the system is performed under contract by the LRTA subsidiary Metro, which has responsibility for train operations including: collection of revenues, provision of all working capital, control and procurement of spare parts and materials, and maintenance and rehabilitation of the track and vehicles. The budget and staffing of LRTA's Board which has significant control over these costs. It will be extended on a year-to-year basis. The involvement of the private sector in operations is limited to the contractual janitorial and security services.

System Performance

Figure 6-4



6.41 The LRTA currently operates an elevated system running on the Taft-Rizal corridor. It has a fleet of 32 two-car articulated trains designed to handle a peak capacity of 18,000 passengers per hour in each direction. At present, the system operates 27 train sets during peak hours and carries a peak hour load which averages 36,000 in both directions. The vehicles and track of the LRTA appear to be in good condition, and the earlier problems of deferred maintenance and lack of spare parts appears to have been resolved.

6.42 Although constrained since 1987, traffic continued to grow rapidly through 1990, when the physical limits of the system were reached. Demand has been relatively price inelastic; the fare increases from 1985-1990 did not have a significant impact on the growth in traffic (Figure 6-4), and the large tariff increase in 1990 produced little reduction in traffic. The small reduction which occurred in 1991-92 was due to the deterioration in system performance during the rehabilitation of the track.

Staffing

6.43 The LRTA employs some 1300 staff, and there has been little change in the level of employment in the last few years. Wages and salaries are determined through collective bargaining and the current remuneration is sufficient to retain the skilled labor and managers needed to operate and maintain the system.

Investment

TABLE 6-7: INVESTMENT COSTS FOR THE EXPANSION OF LINE 1 AND FOR LINE 2

Millions of Pesos	1993	2000	
	Line 1	Expansion	Line 2
Riderships/Day (thousands)	355	125	420
Annual Revenue (millions)	704	248	832
Incremental O & M	412	125	487
Surplus	292	123	345
₱ /Passenger	2.25	2.69	2.25
Investment		2,368	10,967
Interest Expense	445	57	263
Surplus after Interest	(153)	66	82
₱ /Passenger	(1.18)	1.44	.53
Depreciation	220	95	322
₱ /Passenger	1.70	2.08	2.10
Surplus After Depreciation	(2.88)	(.64)	(1.57)

Source : LRTA Annual Reports

6.44 The LRTA is planning to expand its capacity by introducing three car train,¹⁰ and by reducing headways, which would increase rush hour capacity by about 65 percent. The additional traffic is expected to exceed 125,000 per day, by the year 2000. The investment is expected to produce a positive cash flow for the LRTA of P66 million p.a. The DOTC is also investigating the construction of two additional lines which would have common ticketing, inter-line transfers, management and maintenance facilities. It is projected that by the year 2000, this line would serve

¹⁰ Further increases in train length would require an extension of the station platform.

220,000 trips per day for Line 2, as well an additional 200,000 trips transferring to/from Line 1.¹¹ Line 3 would have a capacity of 18,750 passengers per hour in each direction (if operating at 3.5 minutes headway - Table 6-7). The economic justification for the project is based on the benefits from reduced congestion along the EDSA route, and the increase in commercial value for the land around the stations. The project would be made financially viable by allowing the contractor to collect rentals on the commercial property located above the stations, as well as any revenues derived from advertising. The IRR for this investment would be about 18 percent in current terms (about 13 percent in constant terms). While this is somewhat low for a private sector investment, the government has assumed a large amount of the risk by protecting the investor from higher-than-expected project costs or increases in maintenance costs. It also provides for reciprocating penalties if completion is delayed due to the fault of the government or contractor. Lines 4 and 5 are now being considered.

Financial Performance

6.45 Table 6-8 and Table 6-9 show the income statement and balance sheet of the LRTA. The majority of the LRTA's operating costs are fixed; fixed costs doubled from 1989-93 as a result of the increase in labor costs and the costs for the rehabilitation of the track and vehicles. The two major variable costs (power and material) accounted for about 1/4 of total operating costs in 1993. Labor costs were about 27 percent of total operating costs. The costs for depreciation and the amortization of pre-1985 management costs totaled 40 percent of the total operating costs (1993).

6.46 Increases in revenues have managed to keep pace with the rise in costs. As a result of the adjustments in tariffs and the growth in traffic, the farebox ratio has been relatively healthy reaching 1.7 in 1993, and the operating ratio has remained close to 1.0 since the system opened. Its cumulative operating losses since 1985 were about ₱3.1 billion, after depreciation (including annual interest payments).

¹¹ Based on an update of the DOTC study of 1984 using the screenline data from a 1990 study and the TRANSTEP model.

TABLE 6-8: LRTA INCOME STATEMENT - 1991 - 1993

Million of Pesos	1991	1992	1993
Gross Revenue	514.97	659.37	703.9
Less: Sales Discount	1.71	2.31	2.6
Net Revenue	513.27	657.06	701.30
Other income from operation	13.87	16.04	15.33
Total Revenues	527.14	673.10	716.63
Metro Operating Expenses	303.98	363.75	375.99
LRTA Oper. & Adm. Expenses	304.68	309.10	305.93
Total Expenses	608.66	672.85	681.92
Net Income (Loss) from Operations	(81.53)	0.25	34.71
Interest/Misc. Income	40.38	33.50	59.79
Govt. Subsidy	19.03	10.16	15.05
Interest/Bank Charges	(545.23)	(504.22)	(445.70)
Foreign Exchange Losses	0.00	0.00	0.00
Net Income/(Loss)	(567.35)	(460.31)	(336.15)

Source : LRTA Annual Reports

6.47 The LRTA has continued to receive government financial support. The Treasury pays the LRTA's debt service to its lenders then the LRTA reports these funds as advances and new debt. The outstanding debt to the Treasury, including accumulated interest, is currently about ₱4.1 billion. The remaining ₱2.7 billion of long term debt is a combination of supplier credits and loans. The proposed expansion of Line 1 and addition of Line 2 will approximately double the amount the government must contribute. Line 3, as planned, would increase this total by as much as 100 percent. However, the Treasury has not planned for these disbursements under the assumption that Line 3 will be financially self-sufficient.

TABLE 6-9: LRTA CONSOLIDATED BALANCE SHEET

Millions of Pesos	1992	1993
Fixed Assets	4,778.5	4,997.8
Current Assets	1,246.4	641.1
Other Assets	184.54	202.08
Total Assets	6,234.8	5,863.2
Current Liabilities	1,171.7	1,251.8
Public Debt-loans, Advances	5,721.0	5,177.6
Total Liabilities	6,892.6	6,429.4
Capital Deficiency	(657.8)	(566.2)
Liab. + Capital Deficiency	6,234.8	5,863.2

Recommendations

6.48 The LRTA appears to have restored the quality of its and has been able to maintain a healthy farebox ratio through tariff increases, despite pressure to keep tariffs low. In the future, it will be necessary to allow timely adjustments in fares to cover expenses. For this purpose it is necessary to establish clear financial goals.

6.49 First, the LRTA can cover its operating expenses under the existing fare structure, but cannot repay its outstanding loans without raising the fares to an unacceptable level. Therefore, a reasonable goal would be to maintain the operating ratio of 1.0 and to have the government assume responsibility for the debt service less the depreciation charges. Second, since additional traffic will not generate enough revenue to cover the additional debt service, the government must be prepared to provide the additional funding. Third, the LRTA and DOTC are undertaking major expansions of the system. While these appear to be justified given the increasing problems of congestion on the streets of Metro Manila, it is important to ensure that the planning for these investments provides the maximum benefit from these investments. Finally, the LRTA should be given responsibility for the development of all Light Rail Vehicle Systems in Metro Manila. The private sector should be involved in the operation and maintenance of the system, and the LRTA should contract out these services through competitive bid. The LRTA should divest itself of Metro and allow it to compete for the operating and maintenance contract. In the future, the DOTC and LRTA should avoid the use of BT, BOT, or BLT operations, in favor of competitive bidding of the construction and rehabilitation of the Lines and management contracts for operation and maintenance of the systems.

MARITIME PORTS

Organization and Network

6.50 The role of the Philippines Port Authority (PPA) is to develop and administer the principal public port system of the Philippines which includes 19 base ports and about 90 secondary ports, as well as about 100 municipal ports and over 200 private ports. The PPA develops and maintains its ports but does not operate them, instead, granting franchises and leasing out facilities. The PPA also regulates all public and private port activities, as well as regulating fees charged by private stevedoring companies. It issues licenses for the construction and operation of all port facilities, while the Bureau of Land leases the waterfront to the private operators. The PPA establishes a uniform tariff which is applied in all of its ports (part of the tariff is also applied in the private ports).

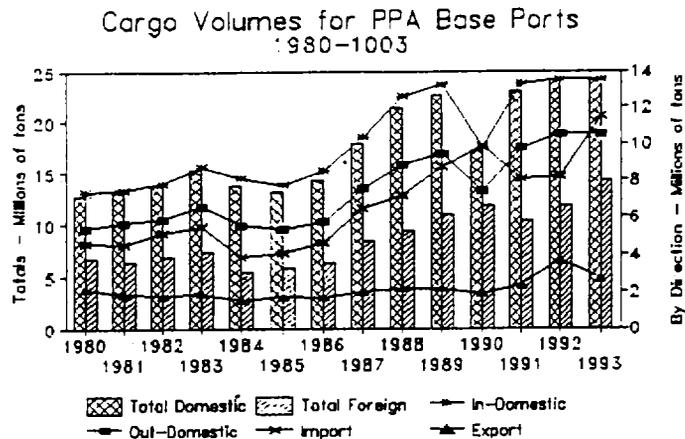
6.51 The PPA organization is designed to administer and regulate the ports, and to act as landlord for the larger ports. The PPA also provides dredging services and maintains a fleet of dredges. The organization has four layers. The headquarters is responsible for planning, capital budgeting and investment, pricing, central accounting and overall administration. It has a large engineering staff for preparing and evaluating investments in new facilities as well as maintenance of existing facilities. The next layer is the Port District Offices (PDO's) which are meant to perform many of the functions of the headquarters but at a regional level. Below this are the 19 Port Management Offices (PMO's) each of which administers a base port and one or more terminal ports, monitors the activities of nearby private ports and collect fees from them. At the bottom of the institutions are the port managements. In the case of Manila, these are divided into North Harbor, South Harbor and the Manila International Container Terminal (MICT).

System Performance

6.52 The quantity of cargo handled at the PPA ports fluctuates with the performance of the national economy. During the last four years, the cargo tonnage grew at an average of 5.9 percent (Figure 6-5) versus 8.6 percent for the preceding five years. The total tonnage handled at the public and private ports under the supervision of the PPA amounted to about 140 million tons in 1993. About 1/4 of this was either crude or petroleum products and 1/6 minerals, iron and steel. The ratio of domestic to foreign cargo was about 55:45, as it has been for the past decade.

6.53 The ports of Manila and Cebu, and the private ports, serve a mix of international and domestic cargoes. There appears to be no shortage of port capacity, although some congestion has resulted from inefficient use of existing resources. Overall, the private ports handled 57 percent of the total cargo but about 70 percent of the international tonnage.

Figure 6-5



Investment

6.54 The PPA is responsible for construction of new capacity, however, most of its investments have been for rehabilitation. The total investment program amounts to ₱4.35 billion, of which 80% is funded through foreign assistance. The primary investment in new infrastructure was the expansion of the MICT. The expenditures programmed for 1994 total ₱1.88 billion, with another ₱12 billion programmed for the next four years. The majority of these funds are for investments in the ports of Manila, Cebu and Batangas, but now, increasing attention is to be given to using private investment for rehabilitation and expansion.

Staffing

6.55 There are about 2880 total staff of which about 20 percent are casual or contract labor. It should be possible to reduce this staff by about one-third, primarily by eliminating the casual labor and reducing middle management. In this regard, the PMO's (which were meant to take on the duties of the headquarters but instead added a layer of bureaucracy) should be eliminated, and the PMO's (which perform local administrative and regulatory duties) need to be downsized and consolidated. A rationalization of the organizational structure should also consider additional reductions in the size of the headquarters staff. The transfer of additional port activities to the private sector will have little impact on PPA staffing, since their responsibilities have been limited to administration of the port infrastructure and the private operators.

Tariffs and Cross-Subsidies

TABLE 6-10: OPERATING INCOME FOR PPA BASE PORTS FOR 1993

MILLIONS OF PESOS

PMO's	Revenue	Expense	Net Income	Private Sources	Residual
Manila	688.42	198.87	489.55	121.24	368.31
Luzon	228.88	93.62	135.26	161.59	(26.33)
Visayas	233.37	374.45	(141.08)	63.88	(204.96)
North Mindanao	121.24	171.85	(50.61)	54.75	(105.36)
South Mindanao	145.75	165.25	(19.50)	67.17	(86.67)
Total	1,417.66	1,004.04	413.62	468.63	(55.01)

6.56 The PPA determines the general port tariffs and applies the same tariff in all of its ports. Since individual ports have very different facilities, traffic and operating costs, the use of uniform general port tariffs leads to extensive cross-subsidization; there is no relationship between each port's revenues and its expenditures. Because of the unrealistically low charges for the domestic cargoes and vessels, international cargoes subsidize the domestic cargoes, and the few ports which handle the international cargoes subsidize all of the other ports in the system. In fact, the entire system of PPA ports operates at a loss (except the port of Manila). Although cargo handling and pilotage services in the PPA ports are provided by the private sector, the PPA sets the tariffs for these services as part of the concession agreement and retains part of the revenues. This creates an explicit conflict between the PPA's roles as a regulator of prices and recipient of the resulting revenues.

6.57 The PPA determines the wharfage and port dues for private ports and collects the resulting charges as well as an annual operating fee; in effect, the PPA is taxing its competitors (private ports) to fund its losses. While this should be stopped, it will be necessary to identify substitute sources of revenues since the whole system would operate at a loss if it were not for the revenues derived from the private ports (Table 6-10). Two sources are an increase in port revenues to reflect their costs and greater use of lease payments.

6.58 Although the PPA is one of the few profitable public entities in the transport sector, it derives its profits by using its monopoly position, rather than by providing efficient services to its users. There is no need for cost-based tariffs since the PPA does not provide any services, but it is necessary to efficiently collect the revenues needed to maintain the port infrastructure and cover the administrative costs. The web of cross-subsidies prevents the PPA from establishing financial performance criteria for individual ports within the system, and its inclusion of the charges on private ports in its accounting for the revenues of the PMO's distorts the financial performance of

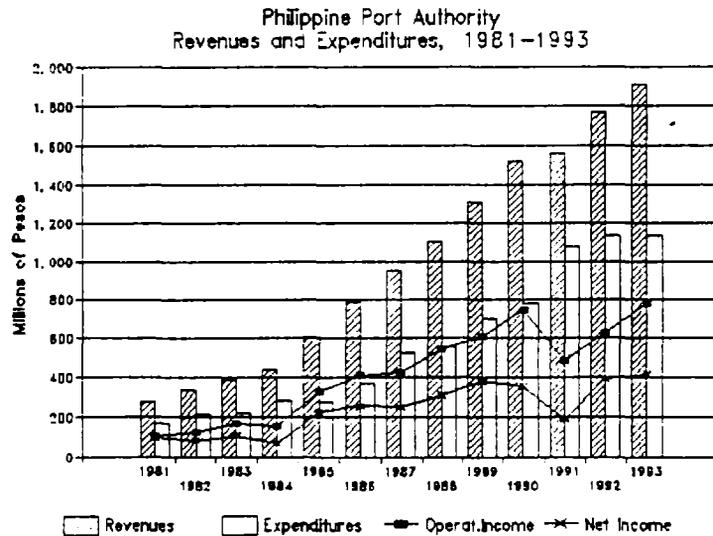
each grouping of base and terminal ports. There is also a need to revise the port tariffs to accommodate the increased use of leases and concessions.

Private Sector

6.59 Private contractors provide all services to the vessels and their cargo (except dredging and security). The port cargo-handling and storage facilities are made available through leases and concession arrangements. The PPA awards the cargo-handling franchises for 5-10 years¹² either through competitive bidding or through a special selection procedure. The PPA has used these franchises to prevent excessive competition in the process has created monopolies. In addition, the private sector has made relatively few investments in the PPA's public port facilities. Their investments in port facilities have been concentrated in private ports. This includes not only bulk cargo terminals but also facilities which handle general cargo for the account of the owner and in a few cases for third parties. Recently though, the PPA has begun to look to the private sector to finance rehabilitation and new facilities.

Financial Position

Figure 6-6

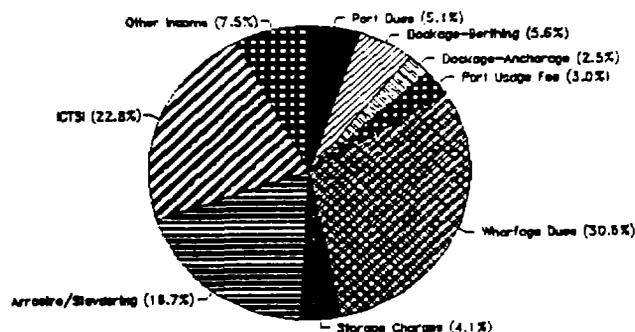


6.60 The PPA is a relatively profitable organization, currently earning about ₱775 million in operating income. Its revenues have continued to grow faster than its costs (Figure 6-6), despite the fact that there was no tariff increase between 1985-93. However, much of this profitability derives from the fees charged to the private sector. Lease payments from MICT account for 23 percent of total PPA revenues (Figure 6-7), while cargo-handling franchise fees account for 19 percent, and wharfage fees account for another 30 percent. Overall the private port facilities contributed about 25 percent (₱470 million) of the total revenues in 1993.

¹² In the smaller ports, it will sometimes give a one year permit while in one controversial case in the port of Manila, it granted a 15 year contract.

Figure 6-7

Distribution of PPA Revenues
By Source for 1993



6.61 One half of PPA's operating expenditures (about ₱0.54 billion) are for personnel and other administrative costs. Prior to 1991, the personnel expenditures increased more rapidly than other expenditures, but have been held in check in the last two years; however, administrative costs have continued to increase rapidly. In addition, the cost for depreciation in 1993 accounted for a third of operating costs (₱440 million), while expenditures for maintenance accounted for only 8 percent. This does not include the amounts spent for rehabilitation (a form of deferred maintenance), nor does it include the contribution of the private sector towards the maintenance of the leased facilities. Since most of the ports assets are structures and infrastructure, the total level of expenditure for maintenance should be around 1.25 percent-1.75 percent of the replacement value of these assets.

TABLE 6-11: PPA LIABILITIES AND NET WORTH

Millions of Pesos	1993	1992	1991	1990
TOTAL LIABILITIES	5,770	5,036	4,913	4,784
- Current Liabilities	1,363	1,194	846	748
- Long Term Liabilities	4,407	3,842	4,067	4,036
NET WORTH	16,385	16,324	12,596	7,065
- Capital Contribution	3,392	3,363	3,362	3,292
- Appraisal Surplus	9,825	10,034	6,689	1,465
- Other Surplus	210	185	152	123
- Retained Earnings	2,958	2,743	2,394	2,184
LIABILITIES + NET WORTH	22,155	21,360	17,510	11,849

6.62 The value of the PPA's fixed assets was reported as ₱19.6 billion at the end of 1993. The substantial increase in the value of these assets (Table 6-11) was due to the revaluation of (June 1991). The return on assets was reduced as a result of this revaluation, from 6.4 percent in 1991 to 4.6 percent in 1993. In addition, the current assets amounted to ₱2.14 Billion, 3/4 of which is in cash or short term investments.

6.63 While the PPA has been able to finance a large portion of its investments through its annual net cash flow, there has also been a substantial increase in debt. The outstanding long-term debt at the end of 1993 was ₱4.4 billion. The annual capital expenditure is now running at nearly ₱1.0 billion. The annual debt service is currently ₱0.85 billion and is expected to rise but, with the continuing increase in traffic and the recent increase in wharfage, the PPA should have no difficulty in meeting future debt service.

Recommendations

6.64 Although the private sector is involved in almost all activities of port operations, the ports are neither well equipped nor efficient. Future improvements in efficiency and quality of service will depend on accomplishing the following tasks: (a) downsizing PPA port system by transferring the less important ports to municipalities; (b) deregulating port activities to allow greater competition in the provision of port services; (c) devolving responsibility for the major ports to individual port authorities or corporations; (d) rationalizing tariffs to eliminate cross-subsidization between ports and to obtain a better return on assets; (e) financing life-line ports in an economically efficient manner; (f) developing concession and joint venture arrangements to reduce the investment requirements of the PPA; (g) increase the return on PPA equity; and, (h) re-engineering the PPA organization and reducing the labor force to lower operating costs.

6.65 The remaining area in which the private sector should be involved is dredging. The dredges and crews could be transferred to a private company, and a service contract could then be established to provide the PPA with dredging services for a fix number of years.

AIR TRANSPORT

AIRPORTS - Network and Organization

6.66 The Philippines has some 87 public airports and about 60 private airfields. Of the public airports, Manila and Cebu are under the control of separate airport authorities, Subic is under the control of the Subic Bay Metropolitan Authority, and the rest are under the control of the Air Transport Office (ATO) which is an agency of DOTC. ATO not only operates the 82 minor public airports but also the national air traffic control system. In addition, it operates the control towers and navigational aids at all public airports and supervises their runway maintenance. The following discussion focuses primarily on Manila because of its dominance not only in terms of volume (9 million passengers), but also in terms of current and future costs.

6.67 The Manila International Airport Authority (MIAA) was established in 1982 and given responsibility for running Ninoy Aquino International Airport (NAIA). It has assumed a landlord role similar to that found in many international airports, but continues to provide terminal maintenance and parking. The ground services are provided by the national airlines (PAL) and

another smaller concessionaire, ticket counters and gates are assigned by MIAA (on an “as-needed” basis) but are operated by the airlines, and hangars are leased out (as are all of the retail facilities in the terminals). MIAA also maintains the runway lighting, but all other navigational aids are under the control of ATO. The design, construction and major maintenance of the facilities are contracted out.

Performance Level

6.68 Traffic at NAIA has increased at an average growth rate of 6 percent p.a., over the last twenty years. International traffic has grown faster than domestic traffic, with the result that international traffic accounts for almost two-thirds of the passengers. NAIA's international terminal was constructed with a design capacity of 4.5 million passengers, but the current traffic is almost 6 million. Domestic terminals are also experiencing overcrowding problems. As a result of these circumstances, NAIA is experiencing capacity problems at runways as well as terminals. It cannot add another runway because of land constraints, but it is constructing high speed exit taxiways to decrease capacity problems. It is also proposing to move all private aviation to a reliever airport. These changes would allow the airport to handle the projected traffic for the next 10 years, after which a new airport will be required. A new international terminal will be constructed under a BOT arrangement, and it has been proposed to construct a new domestic terminal using OECF funds. The NAIA also handles about 275,000 tons of air cargo. These facilities are also operating close to capacity, and it has been proposed to construct an international cargo terminal under a BOT arrangement. The remaining airports do not have capacity problems.

Staffing

6.69 The permanent staff of the ATO is more than 2,750, but only about 750 are directly involved in airport management. About 56 percent of the total staff are involved in air navigation and traffic control. Moreover, MIAA has a staff of about 1,500 despite the fact that it has no operating responsibilities. The size of the staff has been relatively unchanged for the last four years. In comparison, the Airport Authority of Thailand, which handles more passengers at four major airports, has a staff of only about 2350.

Investments

6.70 The investments in the ATO airports are relatively small and are funded from government appropriations. The total 1993 investment for traffic control, navigational aids, and airport development was about ₱300 million from local funds, and ₱1.055 billion from foreign loans and grants. The medium-term investment program for NAIA totals ₱12.1 billion and includes: ₱3.75 billion for the international passenger terminal, ₱4.8 billion for the domestic terminal, ₱1.5 billion for the cargo terminal, ₱0.70 billion for a multi-level parking facility, ₱0.41 billion for the improvements to the main runway, ₱0.43 billion for the standby power facility, and ₱0.6 billion for various other investments. Of this amount about 45 percent is to be funded through BOT schemes. The remainder are to be funded through retained earnings and loans provided by multilateral agencies.

Financial Position

TABLE 6-12: ATO INCOME STATEMENT (000'S PESOS)

	1992	1993
REVENUES		
Operating & Service Revenues	4,391	9,981
Aircraft Landing, Parking Fees	142	3,515
Terminal Parking Fees	2,627	4,326
Inspection and Licensing Fees	976	962
Utilities, Others	648	1,178
Government Operations	202,886	249,386
Charges for Use of Air Nav aids	202,561	247,805
Other	325	591
Miscellaneous Income	712	578
Total Revenues	207,989	259,946
EXPENDITURES		
Personnel	148,426	118,838
Materials, Utilities Expenses	40,925	42,793
Operations and Maintenance	59,052	49,034
Capital Expenditures	89,436	102
Total	337,839	210,767

6.71 The revenues earned by ATO are part of the government's general revenues, and its expenditures are paid out of the DOTC budget. The main source of revenues are from the fees for the use of airspace, which are determined by the ATO in negotiation with the airlines. They account for about 95 percent of the total ATO revenues and subsidize the operations of all of the airports. Until 1993, the revenues were insufficient to cover the direct operating expenses, but the increase in the charges for the use of Philippine airspace and the reduction in personnel costs produced a surplus in 1993. The revenues from airport fees are negligible.

6.72 A little more than half of the operating expenditures for the ATO are for personnel (Table 6-12). The reduction in these costs has been accomplished mainly through attrition in the permanent labor force. The expenditures for maintenance are relatively small: in 1993, only ₱19 million was spent for the maintenance of the air navigation systems, and only ₱14 million for airports. Maintenance expenditures are determined by the residual amount of funds available in the annual budget, and the head office is given responsibility for prioritization of the projects. As a result, the condition and safety of airports varies considerably---many do not meet minimum ICAO standards.

TABLE 6-13: MIAA CONSOLIDATED INCOME STATEMENT

Millions Pesos	1991	1992	1993
Operating Revenues	937.9	1,039.6	1,254.2
Operating Expenses	486.6	529.2	487.5
NET OPERAT. INCOME	451.3	510.4	766.7
Interest Income	122.2	134.7	129.7
Miscellaneous Income	17.4	14.0	31.6
Interest Expense	23.5	18.1	13.7
Foreign Exchange Loss		41.3	34.8
INCOME BEFORE TAX	567.4	599.7	879.6
Total Taxes	236.7	248.9	363.6
INCOME AFTER TAX	330.7	350.9	516.0

6.73 MIAA airport derives most of its revenues from three sources: landing and parking fees, passenger terminal fees, and leases and concessions. Passenger terminal fees have increased dramatically in recent years¹³ and are much greater than those in other airports with reg___ while; meanwhile, charges to airlines are much less. Personnel services account for about 1/3 of total operating expenses, and over the last five years personnel costs increased by 75 percent, while other costs increased by only 50 percent (Table 6-13).

¹³ MIAA has taken advantage of the exclusion of this revenue from the 20% government tax on gross revenues, and the fact that these increases do not require negotiation with IATA and the airlines.

TABLE 6-14: MIAA CONSOLIDATED BALANCE SHEET

Millions of Pesos	1993	1992
Current Assets	2,194	1,726
Fixed Assets	7,574	7,339
Contingent Assets	1,378	1,367
Total Assets	11,146	10,433
Current Liabilities	750	622
Contingent Liabilities	4	
Long Term Liabilities	148	310
Total Liabilities	902	932
Net Worth	10,244	9,502
Total Liabilities and Surplus	11,146	10,434

6.74 MIAA is an extremely profitable organization. Its pre-tax profit has increased by more than 250 percent since 1989 (Table 6-14). This profitability is attributable, in large part, to the small and declining amount of depreciation and very low maintenance expenditures. The large amount of operating income and the small amount of capital expenditures and debt service has resulted in a significant positive cash flow over the last several years. MIAA has been paying off its remaining debt and building up a cash surplus in excess of ₱1.6 billion. In addition, the net value of fixed assets amount to only ₱7.57 billion (Table 6-15). This relatively low value is a result of the age of the assets. The lack of investments has left the MIAA with less than ₱150 million in outstanding debt relative to an equity in excess of ₱10 billion. However, the investments proposed over the next four years would increase the value of the assets by about 150 percent.

TABLE 6-15: ATO CONSOLIDATED BALANCE SHEET

Millions of Pesos	1993	1992
CURRENT ASSETS	2,194	1,726
Cash	1,262	793
Marketable Securities	373	460
Accnts. Rec.-Doubtful Accnts	402	346
Other	156	128
FIXED ASSETS	7,574	7,339
Land and Land Improvements	6,794	6,750
Buildings, Structures, Eqp.	2,042	1,744
Less: Accumulated Depreciation	1,262	1,155
Contingent Assets	1,378	1,367
TOTAL ASSETS	11,146	10,433
CURRENT LIABILITIES	750	622
Accts Pay. & accrued exp.	144	128
Income Tax Payable	462	315
Trust Liabilities	130	83
Other	24	96
LONG TERM LIABILITIES	148	310
TOTAL LIABILITIES	902	932
NET WORTH	10,244	9,502
Govnt Capital Contribution	7,182	7,192
Donated Capital	23	23
Retained Earnings	1,723	981
Contingent Surplus	1,316	1,306
TOT LIAB. AND SURPLUS	11,146	10,434

Recommendations

6.75 The strong financial condition of MIAA contrasts strongly with the rather deteriorated condition of the airports physical assets and the congestion resulting from under-investment. Despite a number of planning studies which have identified the problems and proposed solutions, the management has been slow to develop the necessary improvements required to serve both international and domestic traffic. In addition, MIAA is not only over-staffed but also, the staff lack experienced professionals. The organization needs better financial management, improved maintenance, and also needs to be client-oriented. These improvements will require a smaller, and better trained and paid staff. Finally, the ATO badly needs restructuring. It has a major conflict of interest as the regulator of air transport safety, and operator of airports and air traffic control systems. It lacks the funds to properly maintain the airports under its control; the result is that many are in poor condition or do not operate at an acceptable level of safety.

6.76 In order to resolve these problems, the ATO needs to be restructured into two agencies. A new commercial entity should be created to manage the airports. It would have the authority to increase fees and to close or sell loss-making airports, unless the government provided subsidies to operate them safely. The larger airports would be converted to separate authorities when they achieve financial sustainability. The residual ATO would be converted into a separate authority with a smaller staff but with the authority to set pay scales which will be attractive to skilled professionals. It would maintain its regulatory responsibilities but spin off the national air navigation system. The ATO should then undertake a review of the safety standards of the airports and the air navigation system and prepare a plan for improving these standards.

Philippine Airlines - Organization and Performance

6.77 The Philippine Airlines (PAL) was converted to a publicly held company in October of 1991, but the government is still a major shareholder and the airline continues to operate as a national flag carrier rather than as a fully commercial airline. The government has direct ownership of 33 percent of the shares in PAL through GSIS pension funds, and owns another 13.4 percent through its investments. Because of the considerable financial exposure, it is considered necessary to examine the financial condition of the company and its future impact on government finances.

TABLE 6-16: PHILIPPINE AIRLINES INCOME STATEMENT

	FY91	FY92	FY93
REVENUES	18,603.8	24,405.8	24,425.1
Passenger	14,177.2	19,091.6	19,224.9
Cargo	1,929.3	2,492.9	2,305.4
Other	2,497.3	2,821.3	2,894.8
EXPENSES	18,236.9	21,093.0	23,014.5
Flying Operations	5,647.6	6,076.3	6,234.6
Maintenance	1,998.8	2,173.3	2,887.0
Passenger service	1,463.7	1,943.8	2,314.2
Aircraft/traffic servicing	2,364.6	2,873.3	3,050.0
Lease charges	3,363.5	751.4	783.3
Depreciation	876.3	819.0	1,455.3
Other	2522.3	6455.8	6290.1
OPER. INCOME/(LOSS)	366.8	3,312.8	1,410.6
OTHER CHARGES	2,679.8	2,199.3	385.0
Exchange loss	1,270.9	823.5	5.6
Financing Charges	1,620.7	1,221.9	305.7
Discount on debt	(564.8)		
Other - net	352.9	154.0	73.6
NET INCOME (LOSS)	(2,312.9)	1,113.5	1,025.7

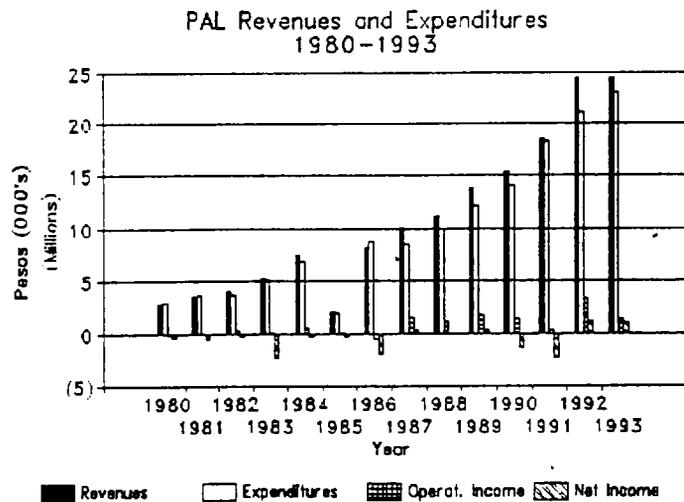
6.78 PAL has experienced slow but steady growth in both passenger and freight traffic. Domestic passenger traffic has grown at an average rate of 5 percent annually over the last 13 years, while international traffic grew at an annual rate of 7 percent over the same period. The growth in domestic traffic, which currently accounts for about 2/3 of the passengers carried, was due to increased coverage and greater demand at the prices established by the government. However, despite its relatively captive market, PAL's overall load factor has been declining recently as a result of the growth in fleet capacity. Although the management has attempted to

rationalize the fleet by retiring the more expensive aircraft, they still achieve relatively low utilization on the domestic routes. Many of the airports are limited to daylight operations and Visual Flight Rules. As a result, the aircraft serving all but the trunk routes have an average utilization of less than 7 hours/day. Only the larger aircraft operating on the international routes average only 10-11 hours/day.

6.79 The supply of aircraft serving the domestic market has not increased as rapidly as passenger traffic. Despite partial deregulation of the domestic market, there has been little increase in competition. The new entrants have been limited to a few operators with old planes because the government-regulated fares on many domestic routes were not sufficient to provide a reasonable rate of return on investment. PAL is able to cross-subsidize these loss-making routes with its more profitable domestic and foreign routes.

Financial Position

Figure 6-8



6.80 The PAL had a long period of losses in net income prior to its privatization but in FY92 and FY93 its was able to earn a profit of over ₱1 billion. This was accomplished through a 35 percent increase in passenger revenues on the international route. It was less successful in controlling its operating costs which rose at an annual rate of 12 percent (Table 6-17). The company would have reported a much smaller net income in FY93 had it not been for a sharp decrease in its leasing and interest charges. In the current year, the company is expected to report a loss because of a softening of demand, a rapid increase in maintenance costs and a much higher debt service. In addition, although PAL's operating income has been positive for most of the last 14 years (Figure 6-8), the amount earned has not been sufficient to cover the debt service. The revenues have increased steadily but so have the operating costs. The result has been a cumulative loss over the period of about ₱7 billion. This effectively wiped out the equity of the state corporation and required that the government absorb all of the outstanding debt of the company prior to its privatization.

TABLE 6-17: PAL BALANCE SHEET

	1993	1992	1991
Current Assets	6,273	5,908	7,146
Investments Affiliated Company	297	237	210
Property and Equipment	12,707	12,390	9,128
Advances-aircraft Purchase	3,094		
Deferred Charges, Other Assets	1,824	1,375	1,744
TOTAL ASSETS	24,194	19,910	18,228
Current Liabilities	10,377	9,513	13,475
Long-term Debt	3,060	592	9,580
Reserves and deferred credits	1,612	1,674	1,953
EQUITY	9,145	8,131	(6,779)
Common stocks P10 par value	5,000	10,000	2,000
Additional paid-in capital		5,467	5
Revaluation increment in land	2,699	3,178	224
Adjusting Entry	18	30	
Deficit	1,428	(10,544)	(9,008)
LIABILITIES & EQUITY	24,194	19,910	18,228

6.81 Despite the attempts to improve the financial position of the corporation, the company still faces serious problems due to a serious overinvestment in aircraft in 1993. This not only lead to a deterioration in the net income but increased the debt-to-equity ratio from a modest 1:3 at the end of FY93 to a highly leveraged 4.5:1 at the end of FY94. In this regard, the financial results for 1993 conceal more than they reveal. The total cost of the aircraft, exclusive of the options, was about US\$0.9 billion and this debt has not yet appeared on the company's financial statements. Assuming a modest 2% above LIBOR and a seven year period, the cost of debt service would be about US\$172 million or, at the current favorable exchange rate, ₦ 4.6 billion. This exceeds PAL's average annual income before depreciation over the last two years.

Recommendation

6.82 The over-investments was a result of mismanagement rather than poor planning. The lack of commercial discipline on the part of the both the government and the management of the company allowed this to occur. Such miscues are likely to continue as long as the company is prevented from acting as a totally commercial venture without government interference. The government should deregulate the routes and fares. PAL would be allowed to establish its own rates and fly on profitable routes as would its competitors. The government would then charter services for the non-profitable missionary routes either from PAL or from other private carriers. Once PAL has demonstrated its ability to act in a competitive manner, then the value of the shares should increase and the government should then sell them.

6.83 PPA to enter into concession agreements or joint ventures with private operators as a means to develop new terminal facilities within the PPA ports.

6.84 The high cost of administration and administrative personnel and the relatively small amount spent on port maintenance, suggests that a major review of the PPA's corporate objectives is required. A program for the rapid reduction in the casual labor force and attrition of the permanent staff should be instituted. The resulting savings should be used to increase the maintenance budget by at least 50%.

7. POWER DEVELOPMENT¹

Introduction

7.1 The Status of Private Power Development. Since 1988, the Philippines has experienced a major crisis of electricity supply. At the lowest point of the crisis in 1992-1993, brownouts averaging seven hours per day were common in many regions across the Philippines. Facing serious economic losses, the Government sought to supplement the capacity of the National Power Corporation (NPC), the Philippines' monopoly supplier of electricity, with private power development. When the first Independent Power Producer (IPP) delivered a timely addition to generation capacity, the Government came to view a public/private partnership in the power sector as a viable strategy to help curtail temporary capacity shortages. As the shortage crisis deepened, the Government accelerated privatization of the power sector by taking a number of bold steps: it rewrote laws; drafted new policies in support of IPPs; streamlined clearance processes; restructured the Government energy sector policy departments and regulatory agencies and, in general, acted to remove the constraints to broader participation of IPPs in Build-Operate-Transfer (BOT) and other similar arrangements.

7.2 By mid-1994, within an improved enabling environment, the private sector had some 30 generation projects under development, accounting for approximately 3000 MW of new capacity. While NPC remains the monopoly supplier for both generation and transmission to all electric distributors, the growing involvement of IPPs will result in a marked transformation of the power generation subsector from nearly 100% public in 1991, to nearly 80% private by 1998. With some 15 investor-owned utilities (IODs) and about 120 member-owned cooperatives (coops) owning and operating the entire distribution system, private interests will dominate the Philippine power sector.

Current Sector Structure

7.3 Private Sector Effectiveness. The recent Philippine private power development experience is marked by a successful supply response to urgent capacity shortages and generous financial incentives. Installation of 1300 MW by end-1993, completion of about 15 plants by end-1994, and agreements reached for an additional 5000 MW strongly support the policy shift from a public to a public/private sector collaboration for the development and rehabilitation of generation capacity. Even with their relatively high costs, the early IPPs could be justified in economic terms within a context of extreme supply shortages. More recent IPPs have lower prices and costs closer to international levels due, among other factors, to increased competition.

7.4 Private Power Financing for Generation. Detailed information on the sources and structure of private financing for power generation is limited. Evidence suggests, nonetheless, that mobilization of load capital for IPPs is on the rise. Moreover, the pattern of debt appears to have shifted from a heavy reliance on official financing in early projects, to a growing participation of

¹ This chapter draws upon a recent World Bank study: Power Sector Study: Structural Framework for the Power Sector (Report No. 13313; November 30, 1994).

commercial banks and bond issues in more recent generation investments. Domestic resources have also begun to be mobilized, a phenomenon that warrants support and encouragement.

7.5 Private Sector Performance in Distribution. Responsibility for distribution in the Philippines lies entirely with some 135 investor-owned private utilities (IODs) or member-owned cooperatives (coops). These have exclusive rights to provide medium and low voltage service within their franchise areas, and are subject to price regulation. Only the Manila Electric Company (MERALCO) is of substantial size, with established international commercial credit. MERALCO is capable of self-financing a significant portion of its ongoing network rehabilitation and attracting IPP interest. At the same time, though, its regular tariffs are distorted by cross-subsidy requirements. The remaining utilities are modest operations serving small towns, villages and rural areas, with a record of operational performance ranging from acceptable to poor. The other 14 IODs have demonstrated mixed financial performance, notwithstanding large wholesale-retail markups on NPC-sourced power. They do not own or control their sub-transmission networks, since they lack adequate maintenance capacity. The 120 coops, on average smaller than the IODs, have even less opportunity to become commercially viable, given their small size, modest engineering and maintenance capacity and concentration of low-income, low consumption customers.

7.6 Public Sector Effectiveness. As the capacity shortage became a crisis, the Government initiated some restructuring of various energy agencies, while seeking broader private sector participation. The organizational framework of the Department of Energy (DOE), the Energy Regulatory Board (ERB), and the National Electrification Administration (NEA) is sound. Institutional weaknesses can be remedied through capacity building, training, and a realignment of staffing levels. At the same time, however, these institutions do not have the authority or means to adjust their staffing and budgetary resources to address these constraints. Moreover, although the regulatory framework and laws are well established, power sector reform will continue to pressure ERB's regulatory capabilities, requiring increased staffing in some instances, and improved skills of existing staff. Important challenges for the regulators include: (i) the rapid increase of IPP involvement; (ii) legally mandated shifts in organizational responsibilities among the agencies; and (iii) freer interaction in the future between suppliers and consolidated distributors. As the role of private developers increases, so too, will the importance of regulation. These challenges can only be met successfully if the Government is committed to addressing the existing capacity constraints.

7.7 Policy Formulation and Planning Capacity. An enabling environment for private sector participation requires (i) clear Government policies and rules for independent power generation, (ii) independently priced transmission, and (iii) stronger distribution companies. DOE's capacity for policy formulation and rulemaking has not kept pace with the requirements of sector transformation. Moreover, the growing number of decision makers within the power sector requiring access to adequate and reliable information on supply and demand indicates that weaknesses in the public sector's capacity for planning needs to be remedied. Over the longer term, however, Government agencies' capabilities for data gathering and analysis must be upgraded to provide a reliable stream of information on the status of power projects, thereby reducing uncertainty in planning future supply. Since contracts have already been signed that ensure the provision of enough capacity by 1999, even to meet the highest demand scenarios, the Government

does not need to compromise either on the approach it takes to planning, or on the fastidiousness with which it implements the accreditation process.

7.8 Government Power Sector Objectives. The Government's major power sector goal is to meet all future capacity requirements in collaboration with private developers and private capital. Taking this into account, NPC and the distribution companies must be restructured and Government agencies need to be strengthened to capture the benefits expected to ensue from privatization. In fact, the realization of these benefits depends, in large part, on the development of competitive markets for electricity at both the supply and distribution ends of the industry.

7.9 Major Restructuring Issues. Following the Energy Sector Action Plan (ESAP), studies have been conducted to find the best course by which the Government and the power sector can achieve their goals. At this point, three issues dominate: (i) the restructuring and privatization of NPC or some of its parts; (ii) promoting and realizing the benefits of competition as manifested by lower retail prices and the sharing of risks between suppliers and distributors, without the intervention of the Government as an intermediary; and (iii) formulating appropriate future roles of NPC and the Government in a transformed power sector. Privatization of generation has grown rapidly, but effective competition and risk sharing have been inhibited by captive relationships, franchise restrictions, and monopolies. NPC is still the dominant supplier in the sector, purchasing for resale more than 80% of planned IPP-produced electricity and assuming most of the market risk as well. NPC would prefer to pass the market risk to distributors, but most are so weak and fragmented that few IPPs are willing to deal with them directly. Except for some direct connections to NPC's higher voltage, customers must purchase power from the local distributor. NPC holds a monopoly on the transmission system, and by literal default, responsibility for subtransmission systems outside MERALCO's service area.

Realities and Constraints

7.10 Successful power sector restructuring must take account of constraints that derive from current realities. The structural framework that works best will necessarily be rooted in feasible adjustments to the status quo; if adjustments are not feasible, then those constraints must be accommodated. These constraints include:

7.11 *Pressure to Privatize NPC*. Pressure to reorganize NPC is considerable. DOE has already stretched the ESAP schedule for privatizing NPC. The momentum within the Government, the general public, and the Philippine Congress is to split NPC along regional lines. Riding this wave, the Government must steer regionalization proposals so that actions proposed are comprehensive and appropriate; and so that institutional capabilities are developed for functions that may be retained within the Government's ambit.

7.12 *NPC's Corporate Problems*. NPC is still recovering from a decade of institutional shocks, and faces challenges to its technical, financial, and public credibility: (i) it must rebuild its technical cadre, key elements of which were lost to better-paying competitors; (ii) it must maintain credit only recently rebuilt following years of uneven financial performance; (iii) it must maintain a strong cash position and realize its local currency requirements from revenues; and (iv) it must rebuild the public confidence that was lost during the depth of the power crisis.

7.13 Condition of Existing NPC Generating Plants. NPC's thermal generation facilities are old and overworked. As a result, they fall into disrepair more often than they should be for continued dependable production. Because of drought and siltation, NPC's hydro plants operate at reduced capacities. The condition of these plants will likely depress the price they could command in a privatization.

7.14 Bundled Transmission and Underdeveloped Dispatch. As a sponsor of captive IPPs, generation developer, and wholesaler of electricity, NPC cannot serve as sponsor of the IPPs, developer of its own generation capacity, and wholesaler of electricity, and also act as (i) an impartial planner and operator of the transmission system and (ii) formulator of rules of dispatch. In the future, when supply is ample, multiple suppliers will need unbiased access to the transmission system. Therefore, a dispatch entity that is competent to establish fair and transparent rules needs to be developed.

7.15 Deteriorating Distribution Systems. Almost all distributors have let their networks suffer from underinvestment and neglect of maintenance. The reasons for this vary widely, but the end result is the same -- substantial investment is needed to renew deteriorating assets, over and above requirements for meeting the needs of a growing market.

7.16 Island Geography. Geography imposes constraints and costs on the network. The nine largest islands, containing 95% of the population, are served by seven separate grids, most of them too small to optimize. Within each island, the topography and settlement patterns make electrification expensive.

7.17 Pricing and Tariffs. The Government's pricing policies have been at variance with NPC's supply constraints. As a result, electricity is already very expensive for unsubsidized consumers. The structure of tariffs needs revision to include demand charges. Distorting subsidies need to be eliminated or made fully transparent. Appropriate regimes for wheeling and standby charges need to be developed.

7.18 Regulation and Rulemaking. As the role of the IPPs increases, so too will the importance of regulation. Yet, ERB has serious capacity constraints, and the Government must support its development and assure adequate funding for its operations.

Proposed Structure for the Power Sector

7.19 Collaboration Between the Public and Private Sectors. All electricity supply and demand scenarios (including long-deferred replacement of near-failing plants) project capital requirements for generation during 1994-2000 at US\$10 billion or more; for the same period, investments in transmission should exceed US\$3 billion. Neither the Government nor the private sector, acting alone, can mobilize such amounts. Therefore, the Government and the private sector must continue collaborating constructively for the foreseeable future. For its part, the public sector must focus on two extremely different roles:

- (a) *Maintaining an Orderly Industry*. The Government needs to focus on maintaining an enabling environment, within which the private sector can compete without undue constraints. Some laws that enable independent production are currently in place. However, few limitations were placed on (i) the primary fuels or on the technology that an IPP can deploy; (ii) an IPP's ability to sell to the grid or directly to one or more distribution utilities; (iii) guaranteed off-takes through take-or-pay provisions in PPAs; or (iv) the plant factors to be realized by some of the new facilities. NPC is still formulating its policies regarding stand-by capacity and wheeling. Very little consideration was given to the requirements for economic dispatch.
- (b) *Providing Electricity Supplies*. NPC, either in its present or some unbundled form, must continue operating plants and purchasing generation and stand-by capacity over and above what is provided by the IPPs. Thus, it will continue to be the supplier of last resort and to bear the burden of market risk. The IPPs have thus far shown limited interest in investing in facilities designed to serve lesser markets, and the smaller distribution utilities lack the financial strength or the market attractiveness to make separate purchase arrangements with the IPPs.

7.20 Restructuring of NPC. Recognizing these constraints, a restructuring proposal for the power sector was developed, starting with unbundling of NPC. It was recommended that certain corporate functions remain national in scope:

- (a) *Power System Planning*. The Government should retain the responsibility for general coordination of its own and the IPPs' planned additions to the power system. Responsibility for power system planning should be moved from NPC to DOE, but only after the Government furnishes DOE with adequate staff resources to absorb this function.
- (b) *Hydroelectric Development*. The harnessing of hydro resources involves several departments of the national Government. Therefore, investments concerning the exploitation of these resources need to be formulated at the national level, and should remain within the ambit of NPC's national headquarters.
- (c) *Backbone Transmission Systems and Dispatch*. The backbone transmission system, consisting of facilities for 138kV and above, could still be regionalized. However, responsibility for the system should be retained at the national level, so that the priority for interconnection will not be subordinated to regional concerns. The need to

ensure suppliers unrestrained access to the transmission system provides a compelling rationale for creating a transmission company that is distinctly separate from any state enterprise involved in power generation. For the same reason, this proposed new company should also own and operate all facilities for dispatch. The dispatch function must be executed fairly and efficiently. The participation of the Government, NPC, the IPPs and distributors in the formulation of a dispatch entity and dispatch policy can be an outstanding opportunity to reach long-term consensus on those principles and enable a competitive environment for private sector participation.

7.21 Other major functions, including generation, engineering, procurement, and maintenance are not national in scope, and can be organized on a regional basis (previously discussed).

7.22 Charter and Structure of the Transmission Company. Capitalization requirements for the new backbone transmission company need to be determined by the Government, with independent advice. At the outset, the new company would operate transmission facilities, complete projects belonging to NPC, and absorb outstanding associated liabilities. The Government should provide the new company with enough initial working capital so that it can be organized as a commercially operated utility. The company's networks should be available non-discriminatorily to all suppliers, and the rules of dispatch should be transparent. The company's investment program should be approved annually by ERB; and its tariff should be based on cost and subject to ERB regulation. While the company should follow commercial operating principles and its charter should allow for some future private ownership, scrupulous impartiality should be nurtured by not offering shares for sale to the public (and risking that one or two suppliers acquire significant ownership) until a healthy competition among suppliers has been achieved.

7.23 Regional Subsidiaries. NPC's generation facilities should be spun-off to proposed wholly-owned subsidiary regional companies, functioning as holding companies for existing plants and developers of new state-sponsored thermal generation facilities. Three such subsidiaries lend themselves to being spun off--one each to serve Luzon, the Visayas, and Mindinao. Capitalization plans for these companies remain to be developed; still, creditors will require the subsidiaries to absorb all liabilities related to assets they acquire from NPC. Their charters should enable them to (i) follow commercial operating practices; and, once soundly operated, (ii) sell some of their shares to private interests. Pursuant to ESAP's commitment for NPC to privatize rehabilitation and operation of existing facilities, the regional companies should have the same authority to enter into a broad array of such arrangements with qualified IPPs. However, if the regional companies succeed in implementing commercial operating practices for their own plants, they should not be precluded from competing with the IPPs to supply distributors in their areas.

7.24 NPC will continue to have a vital headquarters operation in the future. In the near term, it should establish a sound basis for spinning off the transmission company and regional subsidiaries, then help them acquire investment capital and operating credit. Until the regional subsidiaries have developed favorable records for operating and financial performance, the parent could be expected to act as their guarantor. Once the subsidiaries can obtain financing on their own merits, the parent will act more like a holding company; it will (i) assist the subsidiaries with cash management, (ii) collect interest and dividends from the subsidiaries; and (iii) meet its remaining liabilities.

7.25 Distribution Consolidation. Because real competition among suppliers depends on the development of more large commercially-viable buyers, the recommended eventual structure depends on consolidation of the distribution utilities. Such a consolidation can lead to needed efficiency reforms. It should be formulated to accommodate the combination of coops and IODs; the general thrust should be shrink the number of small utilities from more than 130 entities to about 15 or even fewer continuous units. Consolidated utilities would reside within natural geographic boundaries defined by NPC's main supply points. While MERALCO would continue to be a dominant distribution company, a dozen or more amalgamated 300+ MW utilities can become a competitive market of commercially credible consumers for the IPPs.

7.26 Until the distribution subsector is consolidated, NPC subsidiaries will be unable to shed some important technical functions, as well as the market risk, which should really be borne by the distribution utilities. Even so, the regionalized parastatal subsidiaries will need to continue buying electricity for resale to the unconsolidated distributors; and the backbone transmission company will need to continue to operate and maintain the subtransmission networks. The process of consolidation could an opportunity to implement transition arrangements that are far more orderly than the current ones, and to develop true competition among IPPs vying to supply electricity to strengthened distribution companies that emerge from consolidation.

7.27 Subtransmission. While the subtransmission systems properly belong with the distributors, virtually all but MERALCO are too weak and fragmented to manage these networks properly. Therefore, the 69kV networks outside of MERALCO's service area should remain with the national transmission company; however these networks should be offered as incentives to distribution utilities to consolidate.

7.28 Commerce among Producers, Buyers, and Sellers. The proposed structure anticipates and supports competitive market-based contracts among all commercially qualified and credible participants. Impartial and fairly priced dispatch and transmission services would permit buyers to find the most appropriate match of wholesale level supplies, capacity, service, and price. Even as NPC subsidiaries continue to play a role as purchasers and resellers of electricity during transitional arrangements, these reforms are expected to move the power sector toward the Government's goals of ample, appropriate, and competitively priced supplies.

7.29 Government Agencies and Functions. The proposed framework will continue to involve regulation and monitoring by the Government's energy agencies (eg.DOE, ERB, and NEA). The study analyzed their current structure and operation, and recommended roles and improvements are offered later in this summary. A major feature of the proposed sector structure is increased reliance on effective competition as a regulator. Except for some minor shifting of functions to strengthen alignment of roles within these agencies, the majority of the structural reform has already been anticipated and authorized by legislation. Significant staff development and organizational strengthening will be required, and they are needed now; these matters are discussed in the recommendations for the interim arrangements.

7.30 Need for Transitional Arrangements. The recommended framework cannot be implemented before NPC and the distribution utilities are restructured. NPC has already realigned its organization into profit centers, and it has already taken substantial steps toward (i) giving autonomy to transmission operations, (ii) separating the costs of generation from transmission, and (iii) decen-

tralizing the structure of its generation activities. Such arrangements, rooted in decisions of the NPC Board as opposed to legislation, might not accord the necessary independence to the transmission company, but the operational aspects of reorganization could begin. On that basis, NPC and ERB could develop the parameters for wheeling charges and dispatch criteria.

7.31 On the other hand, the viability of the recommended structural framework depends on the reform of the distribution subsector. In their current fragmented state, distributors other than MERALCO have insufficient levels of demand to attract the attention of the IPPs or to absorb the market risk of PPAs. Many of the others have been chronically late at paying their bills and have been regarded as marginal credit risks. With few exceptions, they have no alternative but to draw their supplies from NPC since few IPPs would consider taking the commercial risk of serving them unless, they are subjected to a substantive subsector-wide reform process. The recommended structural framework cannot work unless the distribution subsector has been consolidated. Until then, the regionalized parastatal generating companies need to retain the ability to buy electricity for resale to the unconsolidated distributors; and the backbone transmission company will need to operate and maintain the subtransmission networks.

7.32 Congruence of the Study Proposals with Other Initiatives. On June 10, 1994, NPC's management presented internal reorganization proposals of its own to the National Power Board; these were directed at encouraging and decentralizing management of the various parts and functions of NPC. Proposed subsidiaries include: (i) an NPC Holdings Company, to handle treasury, planning, and centralized dispatch; (ii) a transmission subsidiary to serve Luzon and the Visayas and administer Power Purchase Agreements (PPAs) within these service areas; (iii) an integrated Mindanao Power Corporation, to provide transmission and generation services within that large southern island; (iv) separate subsidiaries for hydropower, geothermal, and barge based (and small island) supplies; and (v) an engineering and maintenance subsidiary to take responsibility for NPC's operational activities.

7.33 The Government's Energy Sector Action Plan (ESAP) committed the Government to policies of privatizing NPC and devolving future power sector development to private interests. Several studies commissioned under the Plan examined possible approaches to unbundling NPC. These studies concurred that the unbundled parts of NPC can be managed more effectively than the current Corporation; in contrast, they all but left unanswered questions about how rapidly NPC can be privatized. A receptive market is needed if the Corporation would sell its shares successfully; and the Corporation cannot expect to divest itself of plant and equipment unless those assets are in good condition. Therefore, the issues of power sector structure and NPC ownership are quite distinct; any recommendations to change ownership need to be feasible, and recommendations regarding structure should not depend on changes to the pattern of ownership.

Planning, Regulation, Competition, and the Role of Government

7.34 Financial Implications. Private investments in generation must be integrated with NPC's own generation and transmission investments and with the distribution utilities' investments in network expansion and rehabilitation. At the same time, NPC must maintain its profitability in order to raise official and commercial capital, and structure tariffs to yield revenues adequate to cover the costs of ever more expensive generation from all sources. By efficiently (i) rehabilitating

its own power plants, and (ii) improving the technical capacity of the transmission system, NPC can contain the extent of cost increases that must be recovered.

7.35 Only modest efficiency improvements in the distribution subsector are possible without consolidation. To date, distributors have seen few incentives to grow larger and integrate their service areas, even though larger consolidated companies could better attract effective managers, reduce overhead, and enhance distributors' financial prospects. In particular, bigger, stronger buyers capable of dealing directly with IPPs would also hasten the evolution of the power sector by shouldering the market risk for themselves, thereby enabling the Government to press the IPPs to assume the commercial risk associated with their investments. However, the Government must develop strong incentives for consolidation to occur.

7.36 Competition and Risk Assumption in the Proposed Structure. To assure ample and efficient long-term supply, the Government needs to (i) create a level playing field for all participants in the sector; (ii) foster competition at both the supply and distribution ends of the industry; and (iii) reduce the layering of institutions between suppliers and consumers. The recommended structure has at its core a separate transmission company that would wheel power between and among NPC's regionalized generation subsidiaries, the IPPs, the large volume higher voltage consumers, and the consolidated distribution companies. The distributors and large volume higher voltage consumers, in turn, would have direct contractual relationships with suppliers, so that they would absorb the market risk. Monopoly and captive relationships among originators, producers, distributors, and large consumers of power would give way to market exchanges among them, subject chiefly to technical and competitive economic considerations.

7.37 By moving NPC or its subsidiaries away from reselling energy, consumers and weaker participants in the power sector will be less protected from supply and price risks. These risks can be minimized and managed by a stronger DOE through its exercise of enhanced planning and accrediting functions. DOE will need to maintain a current and detailed inventory of all planned and ongoing IPP activity; and its accreditation process will need to be tightened to ensure that each new development is rationally financed and fits into a general system plan.

7.38 Directly Connected Customers and Wheeling. Some 91 consumers now receive electricity at 69kV directly from NPC. Under the proposed new structure, consumers with monthly loads over 5 MW and financial credibility will be able purchase supplies directly from IPPs, NPC subsidiaries, or their local distributors, paying suppliers for energy, NPC for wheeling related to transmission, and local distributors for wheeling related to subtransmission (where appropriate).

7.39 The Role of Regulation. Because the recommended structure anticipates and supports direct contact between suppliers and distributors, it also has the important advantage of relying less on Government regulation than several alternative frameworks that were considered. In effect, competitive market forces would protect the consumer as well as the regulatory process. ERB would continue regulating the distributors' tariffs since they would effectively continue to have protected monopolies; moreover, since this model would continue to feature long-term supply contracts, the distributors would benefit from ERB conducting a prior review of provisions of those agreements related to distributors' ability to pass-on properly incurred energy and power costs. To strengthen its capacity, ERB would still need to undergo a substantial institution building effort; in

addition, ERB needs to recruit more qualified staff and charge a regulatory fee to defray its expenses.

7.40 Load Dispatch. Implementing a fair and transparent load dispatch system appears to be one of the most important residual future roles in the power sector for the Government. Load dispatch should be linked to operation of the transmission system; that linkage appears to have advantages in the Philippines, where no precedent exists for collaborative pooling among competing suppliers. As substantial additions to capacity come on line, the dispatcher will determine the order with which plants are brought on line so as to minimize consumers' costs. However, provisions will be needed to honor NPC-executed PPAs that guarantee a high off-take for some relatively high cost electricity.

7.41 Technically, dispatch is an adjunct to transmission; and the dispatch function should be performed by an independent dispatch entity located at and as a part of the proposed new transmission company. The forerunner of this dispatch entity should be a preliminary technical Coordination Committee, composed of representatives of parties to existing power generation contracts, with ERB and DOE as advisors. Its purpose will be to formulate rules and priorities for dispatch, and to design a framework for the evaluation of financial risks of existing contracts. With the eventual creation of a power pool, this Committee will evolve into a permanent Committee with similar dispatch rulemaking authority.

7.42 Recommended Roles of the Government Power Sector Agencies. The framework for the eventual structure and arrangements during the transitional period rests on rationalized roles of the Government agencies participating in the sector:

7.43 DOE should serve mainly as the policy maker for the sector. DOE should provide clear vision on strategic issues and clear rules forming the framework within which the regulator can adjudicate. DOE should become more fully capable and then responsible for developing the strategic plan for sector development. Because DOE is in a position to span the entire range of the power sector without conflict of interest, it should take responsibility for accrediting IPP proposals and for maintaining a comprehensive, up-to-date inventory of all power developments nationwide.

7.44 NPC, through its subsidiaries, should limit its role to being an owner and sometime operator of generating facilities. It should retain lead responsibility for developing hydropower projects, and should be one of many suppliers of thermal electricity, all competing on equal commercial footing. In the near term until DOE develops the needed capabilities, NPC should continue as the agency responsible for power sector planning. Also in the intermediate term, until distribution subsector reform has taken root, NPC will need to continue as the wholesaler of electricity.

7.45 The new national transmission company should serve strictly as an owner, developer, and operator of high voltage networks, providing all suppliers with nondiscriminatory access to the system for a fee. To ensure adequate and timely service, it should submit its investment program annually to ERB for approval. To ensure that its charges are fair, its cost-based rates should be subject to regulation.

7.46 NEA's should shed some peripheral activities and focus on its current primary role, that of an interested lender for subtransmission and distribution systems. To facilitate distribution utility

consolidations, NEA should be encouraged to lend to the IODs with at least the same priority it has traditionally accorded coops. NEA's role in the program to reform the distribution subsector can be pivotal, as it could provide guidelines, and the distributors themselves could be invited to formulate the consolidation framework. However, NEA lacks some of the institutional capacity needed to spearhead the proposed consolidation of the distribution utilities, and it should therefore be strengthened. In addition, NEA's ability to deal with issues of credit and financial engineering will need reinforcement.

7.47 ERB should remain a quasi-judicial agency for regulating mainly the tariffs of all companies that qualify as electric utilities. However, the approach to regulation should rely most heavily on market forces and thereby limit the interventions of the regulator. ERB's span of jurisdiction should be altered to include the power to award franchises, thereby bringing franchising and certification activities under the same organization (previously discussed).

7.48 A dispatch entity needs to be created, as noted earlier. The rules for dispatch should initially be made by a technical committee consisting of representatives of parties to existing power sales contracts, with advice from DOE and ERB.

7.49 These roles will enable the various Government agencies to create the proper environment for encouraging the continued momentum of the private sector for developing power sector facilities. Where market forces are not yet strong enough to drive sector development, these roles will permit the Government to fill those voids.

7.50 Policies for Consolidation of Distribution Utilities. Legislation to restructure the power sector should include policies on consolidation of distribution utilities. At the outset, the distributors should be invited to formulate their own consolidation programs; however if they fail to do so within a reasonable time-frame, NEA should issue detailed guidelines for accomplishing this objective. The Government could offer incentives to distribution utilities that do consolidate, and impose price and tax disincentives on those that prefer the *status quo*. The leading incentive is the 69kV subtransmission system, by which distributors with solid financial and commercial potential can earn wheeling and possibly supply charges for serving their areas' medium and higher voltage consumers. NEA should encourage the consolidation of distributors by making the availability of credit much more stringent for those refusing to combine.

7.51 Enhanced Regulatory Capacity. Structural changes in the sector have already placed new pressures on the country's regulatory capabilities. While DOE, ERB, and NEA are generally performing well, the size and technical complexity of the increased work load necessitates a major increase in staffing as well as additional training for new and existing regulatory staff. These agencies need to become quickly capable of dealing with: (i) the rapid increase in IPP involvement in the sector; (ii) legally mandated shifts in organizational responsibilities among the agencies; and (iii) the anticipated direct interaction between suppliers and consolidated distributors.

7.52 NEA has performed creditably as the regulator of the coops through 1992. However, with the passage of the Department of Energy Law, that function was transferred to ERB. In order to enable this recent allocation of regulatory responsibility to function effectively, additional legislation will be needed to transfer responsibility for awarding electric utility franchises from NEA to ERB. This would consolidate the authority to award franchises and to certify distributors within one

agency--ERB. The effective transfer of franchising responsibility will relieve NEA of inherent conflicts between its roles as lender and quasi-regulator, while consolidating ERB's legal and technical authority.

7.53 Recommended Types of Regulation. Rate-of-return regulation should be continued. ERB was developed according to the U.S. regulatory model, and its staff has developed expertise with regard to U.S.-based systems. At a time when ERB is struggling to expand its capacity to service 135 distribution utilities and NPC on a timely basis, it cannot also change its approach to regulation. At the same time, the IODs and NPC are all legally required to limit their financial performance to less than the maximum level stipulated by their charters. As a result, they are subject to a modified version of price cap regulation.

Recommendations to Enable the Environment for Competition

7.54 The most important objective of the enabling environment is uniform market arrangements for all participants. To develop this rapidly, the Government needs to address specific issues related to pricing, dispatch and regulation, in addition to the restructuring proposals discussed above.

7.55 Tariff Reform. Higher voltage power tariffs should be structured to reflect costs. Actions should be taken to: (i) unbundle fixed and variable costs within tariffs, and (ii) introduce time-of-day differentials, at least for high and medium voltage consumers. Tariffs should unbundle the cost-based components of energy and capacity in order to end inter-regional distortions and stimulate demand side management. At the retail level, residential subsidies should be eliminated over a five-year period, enabling distributors to lower their rates to larger higher voltage consumers or risk losing them to less expensive wheeled supplies. Tariffs must explicitly include costs of stand-by capacity; otherwise self-generation will remain an attractive and implicitly subsidized alternative, and will continue to remain a random component in forecasts of power supply and demand. Moreover, at the wholesale level, pricing of power in the different regions should reflect the true costs of generation and transmission. Current inter-regional cross-subsidies have served as a substantial disincentive to IPPs interested in locating plants in the Visayas or Mindanao.

7.56 Wheeling Charges. The development of independent transmission is necessary for competition. Separation of transmission costs and development of wheeling charges as part of the tariff for energy can be developed and later applied to the bulk transfer of electricity between buyers and sellers in the power sector. In order to encourage IPPs to site their plants at favorable locations without losing the flexibility to identify the best possible selling arrangements, an acceptable framework for wheeling charges over the transmission and subtransmission systems is needed.

7.57 Taxation. Taxation of fuels for power generations needs to be rationalized. To enable all suppliers of electricity to pay the same amount for fuels while shouldering the fuel supply risks for themselves, it should be recommended that, for now, fuel tax exemptions be extended to the IPPs. Since the IPPs have been avoiding this tax by engaging in energy-conversion contracts with NPC the Government would not be foregoing any existing tax revenues. Equal treatment of all suppliers could similarly be achieved by eliminating the fuel-tax exemption entirely; however, this would require a politically difficult 10-15% increase in retail electricity prices without concomitant improvements in service. As the sector gets restructured, the policy needs to be reviewed.

Conclusion

7.58 The measures employed to resolve the power crisis of 1992-93 are the leading edge of a major transformation of the Philippine power sector. The Government should now guide this ongoing transformation so that private development becomes self-sustaining, and the private sector participates in the spate of sector development prospects, not just those few that are particularly favorable financially. The Government can do this by (i) simplifying the structure and roles of public agencies participating in the sector; (ii) taking necessary steps to support development of market transactions in wheeled electricity over transparently operated transmission and subtransmission systems; and (iii) encouraging balanced market power between private companies in the generation and distribution subsectors. The principal objective of these agencies and the opening of the transmission system should be to encourage a business climate in which the private sector can flourish.

8. WATER AND SANITATION SECTOR

8.1 Close to 70 percent of the population in the Philippines are estimated to have an access to public potable water supply--62 percent in Metro Manila and 67-70 percent outside Metro Manila. The sector, however, is beleaguered with a number of inefficiencies. 58 percent of piped water supply does not yield revenue in Metro Manila due mainly to physical leakage, and the tariff policy for industrial water drives large consumers to using ground water at a rate that far exceeds the recharge capacity¹ threatening depletion. Shallow ground water used primarily by households in Metro Manila is now so polluted that its use has become minimal leaving no alternative for households who have no access to piped water supply. The water supply is thus perceived to be in a near crisis as shortages are anticipated in Metro Manila and other major urban centers. Most of 1,500 water supply schemes outside major urban centers are fairing no better; they are small in size, and suffer from over-design and, as a consequence, lack of financial viability. This chapter reviews existing water sector institutions and expenditure patterns, and recommends policy reforms. The recommendations are based on private sector participation (PSP) initiatives for Metro Manila and Metro Cebu areas and consolidation of smaller water supply schemes into regional schemes to take advantage of scale economies for the rest of the schemes.

Sector Institutions The following institutions contribute to water supply and sanitation.

8.2 Department of Public Works and Highways (DPWH) - A line agency responsible for the development of integrated water supply programs consistent with national plans and policies. DPWH is also directly involved in rural water supply development. It performs engineering and construction functions, where it undertakes the drilling of wells, development of springs and the improvement of water supply.

8.3 Metropolitan Waterworks and Sewerage System (MWSS) - Created in 1971, MWSS provides for the daily water supply requirements of the 5 cities and 12 municipalities comprising Metro Manila aside from the adjacent urbanized areas of Cavite and Rizal provinces. MWSS is a public corporation with control and responsibility over the planning, design, construction, operation and maintenance of water supply and liquid waste disposal systems within its jurisdiction.

8.4 Local Water Utilities Administration (LWUA) - Created in 1973, LWUA serves as a lending institution for the promotion, development and financing of local water utilities, mainly piped systems, in water districts (WDs) formed by local governments over all areas outside MWSS jurisdiction, including communities with less than 20,000 persons. LWUA likewise provide engineering services to WDs and rural waterworks and sanitation associations (RWSAs). Funds are secured by LWUA from national government equity subscriptions, locally generated funds and foreign borrowings and grants. Loans are relent to water districts through LWUA's financial assistance program.

¹ The recharge capacity in Metro Manila is 50 million cubic meters a day while the industrial use is 350 million cubic meters a day.

8.5 The WDs were intended to be non-profit, quasi-public, independently administered local entity but were recently declared by the Supreme Court as GOCCs. They are created on local governments' choice for acquiring and operating water supply and distribution systems for domestic uses. A RWSA is a non-profit cooperative organized and registered with LWUA and franchised to operate a rural water supply system. These are established in remote rural areas where access to WD service is difficult

8.6 National Water Resource Board (NWRB) - Created in 1974, the National Water Resources Council was renamed as NWRB in 1987. NWRB is a multi-agency regulatory body, responsible for the overall coordination and integration of water resources development for water supply, hydropower generation and irrigation, as well as in the formulation of appropriate framework plans and policies. Accordingly, NWRB reviews and approves development plans and programs of all agencies related to the development and management of water resources.

8.7 Local Government Units (LGUs) - With the enactment of the Local Government Code in 1991, provision of water supply and sanitation facilities has been devolved to the LGUs. LGUs are expected to plan and implement waterworks projects. It is envisaged that the LGUs, together with the beneficiary communities, will eventually be financing the operation and maintenance costs of the water supply facilities, as well as, sourcing of funds for its improvement and/or expansion.

8.8 Department of Interior and Local Government (DILG) - DILG has so far assisted the LGUs in the establishment and development of BWSAs or RWSAs. DILG is expected to provide overall direction in the implementation of all water supply and sanitation projects at LGU level.

8.9 Department of Health (DOH) - Responsible for rural sanitation, specifically latrine construction. DOH is also responsible for promoting safe water supplies and exercises surveillance of water quality.

Expenditure Patterns

8.10 Of the total national public resource of ₱143.67 billion during 1987-92, funding allocation for water resources ranked third behind energy (power), and transportation. Investment on water resources development was ₱31 Billion. Of this amount, expenditures on water supply and sanitation amounted to only ₱11.5 Billion or over a billion pesos less than the investment in irrigation despite great efforts to close the water supply gap. Table 8.1 summarizes the Medium Term Public Investment Program, 1987 to 1992, reflecting the plan targets and actual expenditures of government on infrastructure. About ₱55 billion was programmed for water resources development (This represents 21.6 percent of the total amount programmed) for the period 1987 to 1992. However, of that amount, only ₱31 billion, 57 percent of the programmed amount, was spent. The low disbursement is attributed to: non-completion of feasibility studies (LWUA); delayed fund releases (DPWH); legal impediments/court cases (MWSS); and inadequate capacity in implementing and monitoring projects (DPWH).

8.11 Within the water sector, the capital expenditure levels by the agencies for the period 1987 to 1993 are summarized in Table 8.2. There is a lop-sided emphasis on MWSS investment. It

Table 8.1 - MEDIUM TERM PUBLIC INVESTMENT PROGRAM, 1987-92
(In Million Pesos)

SECTOR	Actual		Plan Targets		Percent Accomplishment	
	1992	1987-1992	1992	1987-1992	1992	1987-1992
POWER ENERGY AND ELECTRIFICATION	17,658	55,910	44,068	128,250	40.1%	43.6%
Power	16,414	41,613	32,626	92,499	50.3%	45.0%
Energy Resource and Development and Downstream Activities	275	9,975	7,813	24,127	3.5%	41.3%
Electrification	969	4,322	3,629	11,624	26.7%	37.2%
TRANSPORTATION	9,182	44,204	31,278	89,469	29.4%	49.4%
Roads and Highways	7,362	35,042	18,491	60,507	39.8%	57.9%
Railways	46	1,045	325	3,374	14.2%	31.0%
Airport and Airways	972	2,354	2,717	6,766	35.8%	34.8%
Ports/Shore Protection/Lighthouses	321	5,192	2,688	10,376	11.9%	50.0%
Urban Transport	58	148	6,513	7,485	0.9%	2.0%
Others	423	423	544	961	77.8%	44.0%
WATER RESOURCES	5,464	31,042	9,879	54,652	55.3%	56.8%
Irrigation	1,807	13,028	3,347	19,008	54.0%	68.5%
Water Supply & Sewerage Sanitation	2,804	11,598	5,162	28,361	54.3%	40.9%
Flood Control and Drainage	853	6,416	1,370	7,283	62.3%	88.1%
SOCIAL INFRASTRUCTURE	1,657	9,577	7,693	24,204	21.5%	39.6%
School Buildings	1,657	7,024	5,231	15,844	31.7%	44.3%
National Buildings	n.a.	16 a/	965	1,669		1.0%
Health Facilities	n.a.	298 a/	698	2,878		10.4%
Urban Community Infrastructure	n.a.	2,239 a/	799	3,813		58.7%
COMMUNICATIONS	446	2,940	9,181	16,958	4.9%	17.3%
Postal Communications	47	356	536	1,445	8.8%	24.6%
Telecommunications	399 b/	2,584	8,645	15,513	4.6%	16.7%
TOTAL	34,407	143,673	102,099	313,533	33.7%	45.8%

a/ Excludes 1992 actual expenditure

b/ Based on 1992 GAA.

Sources of basic data: Infrastructure agencies/government and controlled corporations.

carried out 61 percent of total sector investments while serving 15 percent of those who had an access to safe public sector water. This is attributed to the continuously growing demand for water caused by rapid urbanization in Metro Manila, coupled with the industrial development in the suburbs and outlying areas. Investments on additional water sources, distribution networks, rehabilitation works and on sewerage occurred almost simultaneously, thus explains the huge investment. LWUA's investment levels steadily grew annually by around 50 percent from 1987 until its equity was depleted in 1992.

TABLE 8.2 - PUBLIC INVESTMENT IN WATER SUPPLY (1987-1993) (₱ BILLION)

Agency	Amount	%	Period Covered
MWSS	11.61	61	1989-1993
LWUA	2.76	14	1987-1993
DPWH	4.39	23	1986-1993
DILG	0.24	1	1986-1993
NWRB	0.09	Nil	1986-1993
Total	19.08	100	

Sources: MWSS, LWUA, DPWH, DILG, NWRB

MWSS

8.12 As of December 31, 1993, MWSS's service connections totaled 788,432 which was 42,372 more than 1992 level. Total number of people served reached 6.53 Million out of 10.68 Million in the MWSS service area. Water production likewise increased by 81,167 ML to 932,758 ML in 1993. Unaccounted-for-Water (UFW), caused mainly by illegal water use, leakage in the transmission and distribution lines and metering errors, has been high at around 58 percent of production recently. Table 8.3 shows operational performance and Table 8.4 shows capital outlays, revenues and current expenditures of MWSS.

8.13 Despite the large loss of water, MWSS has been making positive profits. This is partly due to passing-on to consumers the cost of inefficiency, and suppressed expenditures on operations and maintenance (O&M). Assuming that the entire recurrent expenditures of MWSS are for operation and maintenance, O&M expenditures are about US\$33 million for 1991-92. This means that MWSS spends about 4 cents (US) for every cubic meter of water they produce for operation and maintenance, a lowest available figure in the region. For Bangkok, where the attributes of the water supply scheme are closer to Manila's, it is 7 cents per cubic meter. In addition, the value of

Table 8.3 - MWSS OPERATIONAL PERFORMANCE

Key Result Areas	1986	1987	1988	1989	1990	1991	1992	1993	As of Oct. 1994
Water Distribution									
(In Million Liters)	904,508	862,634	878,819	888,051	909,127	900,094	851,591	932,758	841,020
<i>Daily Average</i>	2,478	2,363	2,401	2,433	2,491	2,466	2,327	2,555	2,304
Revenue Water									
(In Million Liters)	310,811	336,449	359,449	375,855	384,666	386,486	383,584	397,105	349,508
Domestic							255,484	266,598	233,690
Commercial							76,782	79,845	71,723
Industrial							24,162	24,373	21,761
Government							27,156	26,289	22,334
<i>Daily Average</i>	852	922	982	1,030	1,054	1,059	1,048	1,088	958
Percentage to Water Produced	34%	39%	41%	42%	42%	43%	45%	43%	42%
Unaccounted-for-Water	66%	61%	59%	58%	58%	57%	55%	57%	58%
Gross Billings									
(In Million Pesos)	1,489	1,647	1,898	2,155	2,379	2,900	3,178	3,508	3,136
<i>Daily Average</i>	4.10	4.50	5.20	5.90	6.50	7.90	8.71	9.60	10.30
Total Collections									
(In Million Pesos)	1,322	1,580	1,741	2,103	2,266	2,681	2,982	3,275	2,914
<i>Daily Average</i>	3.60	4.30	4.80	5.80	6.20	7.30	8.15	9.00	9.60
Collection Efficiency	89%	96%	92%	98%	95%	92%	94%	93%	93%
Water Service Customers	501,225	536,805	566,506	627,312	667,818	709,767	746,051	788,423	812,853
Sewer Service Customers	77,403	76,074	74,294	88,269	89,740	91,140	92,695	90,015	90,181

Source: MWSS

Table 8.4 - MWSS CONSOLIDATED INCOME STATEMENTS
(P Millions)

	1986	1987	1988	1989	1990	1991	1992	1993
REVENUE								
Water Revenue	1,242	1,352	1,567	1,782	1,976	2,407	2,617	2,901
Maint. Service Charge	10	11	11	12	13	14	15	15
Sewer Revenue	128	135	147	162	178	216	271	291
Environmental Charge	106	135	157	178	198	241	262	289
Other Operating Income	8	24	23	33	28	76	80	72
Total Revenue	1,494	1,657	1,905	2,166	2,393	2,954	3,245	3,568
DIRECT EXPENSE								
Wages	213	280	360	475	507	576	567	689
Chemicals	50	41	53	66	64	80	102	85
Power	158	137	117	101	124	146	151	155
Supplies and Materials	30	37	29	31	33	32	29	33
Others	74	90	100	117	160	161	221	255
Total Direct Expenses	524	585	659	790	888	995	1,070	1,217
OPERATING INCOME								
	970	1,072	1,247	1,376	1,505	1,959	2,175	2,351
Provision for Bad Debts	60	65	75	85	47	58	63	70
Other Indirect Cost	0	0	0	3	3	3	3	3
INCOME BEFORE DEPR'N								
	910	1,007	1,171	1,288	1,455	1,898	2,109	2,278
Depreciation	155	218	238	246	342	381	623	623
INCOME BEFORE INTEREST								
	755	789	934	1,043	1,113	1,517	1,486	1,655
Interest Payment & Debt Service	9	361	562	799	730	844	632	803
Interest Income	108	98	167	252	408	384	341	270
NET INCOME								
	854	526	539	496	791	1,057	1,195	1,121
Memo								
Total Investment	n/a	n/a	n/a	1,336	2,448	3,136	2,485	2,204

Source: FCBD, MWSS

Table 8.5 - MWSS CONSOLIDATED BALANCE SHEETS
(in P Millions)

	1986	1987*	1988	1989	1990	1991	1992	1993
ASSETS								
FIXED ASSETS	12,930		14,558	16,074	18,652	22,318	21,492	27,049
CURRENT ASSETS	1,937		2,592	3,258	3,940	4,404	4,877	5,120
Cash on Hand and in Banks	1,365		1,793	2,321	2,364	2,649	2,745	3,398
Accounts Receivable	436		530	498	967	682	1,480	1,096
Inventories	136		269	439	609	605	652	626
OTHER ASSETS	186		221	462	468	586	806	883
TOTAL ASSETS	15,053		17,371	19,793	23,060	27,308	27,175	33,052
EQUITY AND LIABILITIES								
EQUITY	8,939		10,573	12,197	14,597	17,997	17,368	22,369
Government Equity	2,735		3,133	3,532	4,916	5,076	5,518	5,524
Government Subsidy						166	245	314
Revaluation Surplus	4,948		5,405	6,378	7,043	8,832	6,136	10,011
Operational Surplus	1,256		2,035	2,287	2,638	3,924	5,468	6,390
LONG-TERM LIABILITIES	4,817		4,990	5,033	7,081	7,840	8,199	9,066
of which Foreign Loans Payable	4,655		4,661	4,803	6,351	5,910	6,089	7,127
CURRENT LIABILITIES	1,310		1,808	2,563	1,382	1,470	1,608	1,647
of which Accounts Payable	1,129			445	582	787	810	726
TOTAL LIABILITIES	6,126	6,798	7,596	8,463	9,311	9,807	10,713	
TOTAL EQUITY & LIABILITIES	15,065		17,371	19,793	23,060	27,308	27,175	33,052

Notes: * Not Available

Source: FCBD, MWSS

3,548 kilometers in 1991/2. This gives 189 connections per kilometer--a number comparable to Seoul and Singapore where the average number of floors is much higher than in Manila. Bangkok has 120 connections per kilometer of the network.

8.14 The consolidated balance sheets of MWSS is presented in Table 8.5. As of December 31, 1993, total resources of MWSS stood at ₱33 billion or a growth of ₱6 billion over prior year's level. The substantial increase in total assets was brought about by additions to property, plant and equipment, cash accounts and investment in the sinking fund reserve. Financial and Operational Indicators appear in Table 8.6. Current Ratio for 1993 was 3.1 which indicated that MWSS financial condition could adequately meet its outstanding obligations upon maturity. This condition, however, indicates underutilization of resources.

TABLE 8.6 - MWSS FINANCIAL AND OPERATIONAL RATIOS

	1989	1990	1991	1992	1993
Acid Test Ratio	1.10	2.41	2.58	2.63	2.73
Current Ratio	1.27	2.85	3.00	3.03	3.11
Debt Equity Ratio	41%	49%	44%	47%	40%
Rate of Return	10%	9%	11%	11%	12%
Gross Accts. Rec'ble Level	5	5.25	5.49	4.96	4.86
Employees per Thou. Conncn	9.51	8.91	8.38	7.47	7.05

LWUA

8.15 Presented in Table 8.7 are the programmed amounts and fund releases for the period 1987 to 1993 based on the schedules of equity and subsidies granted by the national government. The table indicates that: (a) authorized equity was depleted in 1992; and as a result (b) subsidies from the national government increased dramatically from 1992 to 1993 by 192 percent. Amount released has often been higher than the amount approved. This means that more resources were extended to LWUA through subsidies. Income statements of LWUA are in Table 8.8. The main source of revenue for LWUA is its re-lending operations. Funds are secured by LWUA from National Government equity subscription and local as well as foreign lending institutions. These funds are in turn relent by LWUA to Water Districts for their various water supply projects.

8.16 For 1993, total interest income on loans amounted to ₱381 Million which represents 89 percent of total revenues earned. However, although interest income continually showed an increase over the eight-year period, in terms of absolute amounts, its percentage to total revenues declined towards 1992 through 1993. This was brought about by the low volume of loans made

Table 8.7 - LWUA PROGRAMS AND FUND RELEASES (P millions)

Year	FROM EQUITY CONTRIBUTION			SUBSIDIES FROM NAT. GOVT.			TOTAL			Difference
	Program	Amount Approved	Amount Released	Program	Amount Approved	Amount Released	Program	Amount Approved	Amount Released	
1987	95.30	205.19	205.19	40.97	2.50	2.50	136.27	207.69	207.69	
1988	306.75	250.52	200.52	29.64	-	3.00	336.39	200.52	203.52	50%
1989	208.73	208.73	208.73	38.00	38.00	96.36	246.73	246.73	305.09	31%
1990	324.81	324.18	324.18	31.45	31.45	77.07	356.26	355.63	401.25	53%
1991	672.34	410.18	423.72	169.00	31.45	191.43	841.34	441.63	615.15	
1992	580.28	438.55	438.55	60.13	59.13	149.74	640.41	497.68	588.29	
1993	10.00	10.00	10.00	460.50	459.50	436.51	470.50	469.50	446.51	
TOTAL	2,198.21	1,847.35	1,810.89	829.69	622.03	956.61	3,027.90	2,419.38	2,767.50	

Table 8.8 - LWUA INCOME STATEMENTS
(P millions)

	1986	1987	1988	1989	1990	1991	1992	1993
REVENUE								
Loan operation	174	185	205	227	279	321	362	380
Other Operating Income	13	8	5	11	10	10	64	48
	<u>187</u>	<u>193</u>	<u>210</u>	<u>238</u>	<u>289</u>	<u>331</u>	<u>426</u>	<u>428</u>
EXPENSES								
Personnel Services	50	56	63	70	89	106	121	111
Interest and Debt Service Charges	51	93	89	90	114	143	41	109
Bad Debts	14	5	13	15	16	10	46	77
Currency Conversion Losses	-	15	8	25	16	21	20	27
Maintenance and Other Operating Expenses	61	9	20	0	14	18	102	65
	<u>115</u>	<u>169</u>	<u>173</u>	<u>200</u>	<u>235</u>	<u>280</u>	<u>228</u>	<u>324</u>
OPERATING INCOME	72	24	37	38	54	51	198	104
OTHER INCOME(EXPENSES)								
Income from Investments	16	9	15	13	10	3	2	8
Other Income (Expenses)	1	(8)	(10)	(24)	(17)	(21)	(17)	14
Net Other Income	<u>17</u>	<u>1</u>	<u>5</u>	<u>(11)</u>	<u>(7)</u>	<u>(18)</u>	<u>(15)</u>	<u>22</u>
INCOME BEFORE TAX	89	25	42	27	47	33	183	126
PROVISION FOR INCOME TAX	10	2	2	3	6	3	26	9
NET INCOME	<u>79</u>	<u>23</u>	<u>40</u>	<u>24</u>	<u>41</u>	<u>30</u>	<u>157</u>	<u>117</u>

available because of the exhaustion of the capital limit. This has prompted Congress to pass measures to increase the capitalization of LWUA from ₱2 billion to ₱10 billion.

8.17 Direct expenses consist mainly of cost of financing and debt service charges as well as personnel cost. In 1993, interest and debt service charges accounted for 27 percent of total expenses while personnel and bad debts respectively costed 29 and 20 percent. Total expenses for 1993 amounted to ₱324 million or an increase by ₱96 million or 29 percent higher than the 1992 level. The increase was mainly due to the increase in bad debts-up by 67 percent and that of currency conversion losses - up by 35 percent over the 1992 level. The collection rate is low at 64 percent. Other expenses declined in 1993 like personnel cost which dropped by 9 percent. This can be accounted to staff cost directly related to a project which are billable to water districts.

8.18 Total resources for LWUA stood at ₱5,563 million as of December 31, 1993. On the other hand, total liabilities amounted to ₱2,686 million thereby showing a debt ratio of 47 percent. Creditors are thus not adequately protected for their investments. Current assets in 1993 amounted to ₱902 million while current liabilities amounted to ₱614 million. This resulted to a current ratio of 1.47:1 which gave slim margin to creditors. Included in current assets are trade receivable in the amount of ₱193 million which accounts for 21 percent of the total current assets. Other financial and operational indicators appear in Table 8.9 below.

TABLE 8.9 - OTHER FINANCIAL AND OPERATIONAL INDICATORS

	1986	1987	1988	1989	1990	1991	1992	1993
Current Ratio	1.40	2.21	1.59	1.27	0.84	0.96	1.14	1.47
Acid Test Ratio	1.34	1.76	1.31	1.07	0.73	0.88	1.06	1.42
Debt Equity Ratio	38%	66%	60%	58%	62%	55%	53%	47%
Rate of Return	3.37%	1.92%	2.25%	2.30%	2.56%	0.81%	3.24%	2.31%
Earnings Per Share - PESO	4.48	2.71	3.28	3.44	3.29	1.14	5.03	4.21

DOH

8.19 DOH's environmental sanitation program aims to reduce morbidity and mortality due to water-borne and sanitation-related diseases like diarrhea, colitis, typhoid, cholera and intestinal parasitism through the provision of basic sanitation services and facilities to households, communities and public places. DOH has reported the expenditures indicated in Table 8.10 in the course of executing their sanitation program. These covers only personnel services and MOOE. No expenditure data is available for 1992. The expenditure levels for 1993 and 1994 are ₱29 million and ₱13 million, respectively.

8.20 The total approved DOH budget is ₱ 7.33 billion for 1994. For the same year, the environmental health program of DOH is ₱13.25 million, or only 0.18 percent of total budget. Fund allocation for environmental health services is extremely low possibly due to the numerous and multi-focus activities and programs of DOH meriting higher priority. Also, if investments in environmental health services is compared to water supply, the situation is equally bad, a lop-sided investment on water supply development.

TABLE 8.10 - DOH'S STATEMENT OF EXPENDITURES(₱ THOUSAND)

Locally Funded Projects	
1988	13,855
1989	11,518
1990	10,793
1991	9,198
Sub-Total	45,364
Foreign-Assisted Projects (IBRD-FRWSSP)	
1986	49,365
1987	54,132
1988	20,720
1989	37,240
1990	407
Sub-Total	161,864
Total	207,228

MAJOR ISSUES

MWSS

8.21 Decreasing Capital Outlay. Investments on capital projects has been continuously decreasing since 1992 due mainly to unresolved court cases on contract awards in a number of projects and delayed implementation of new water source development projects (e.g. Angat-Umiray Transbasin Project). This will likely widen the future gap between water demand and supply resulting in intermittent supply in many areas and total absence in some other areas. Reliance on groundwater source will also be greater aggravating the situation of extraction that is currently already seven times the recharge capacity. MWSS' average water tariff rate (with greater than 200,000 connections) is almost the same level as Seoul, Bangkok and Taipei despite the fact that in

these cities O&M spending for every cubic meter of water produced is twice to three times higher than in Manila.

8.22 Inadequate Maintenance and High Unaccounted For Water Due to the gross under spending on maintenance as described above, the system leakage has been high despite the low water pressure. This has contributed to the high level of unaccounted-for-water increasing the cost to consumers.

8.23 Inadequate Funds for Sewerage Projects Aside from the sewerage projects implemented in 1988 and 1989, which registered 32 percent and 23 percent of total expenditures, respectively, investment on sewerage is almost negligible causing higher incidence of morbidity. The reasons given for low investment in sewerage are high investment cost and poor project acceptance by potential beneficiaries.

8.24 Spatial Imbalance in Resource Distribution Under the current institutional arrangement, MWSS is responsible for around 9.8 million people within Metro Manila and its adjoining municipalities. LWUA is responsible for about 18 million people around the country but mainly in urban areas. The rest of the population is within the service coverage of DPWH and the LGUs. Despite this population distribution MWSS had received higher appropriations than LWUA and DPWH combined during the past decade. There is an inequitable distribution of resources within the water sector. As a result, many areas outside the Metro Manila are not appropriately served with water service or have to collect water from sources of doubtful quality due to lack of funds for water supply development.

LWUA

8.25 Low Collection Efficiency LWUA has had problems recovering loans from WDs and has limited capacity to support all the WDs under its jurisdiction. While its collection rate has significantly improved from 39 percent in 1991 to 64 percent in 1993 and to 73 percent in 1994, continued efforts are needed. Many Water Districts that were provided with LWUA loans in the past are now allegedly financially unviable. This, together with the limited capital base of LWUA will limit its funds for re-lending as well as resources for counterpart funds as in the case of loans and grants from external sources. Those Water Districts, which cannot operate their water systems in a viable manner, will suffer from poor operation and maintenance, therefore, facilities will tend to deteriorate more rapidly.

8.26 No Funds for Sewerage Funds lent by LWUA to Water Districts is only for water supply development. Aside from the grant-funded pilot conventional sewerage system in Baguio City, there are no other sewerage projects scheduled for implementation.

DPWH/DILG/LGU

8.27 Implementation Capacity of LGU and DILG The enactment of the Local Government Code (LGC) of 1991 and the issuance of NEDA Board Resolution No. 4 of 1994 (NBR4S94) Clause (g) triggered a shift in the current institutional arrangement. There is now a need to devolve the delivery of water services to LGUs; and refocus planning and programming activities. DPWH, DILG and the LGUs, the main players, should be prepared to undergo a certain transition

arrangement which will lead to a more permanent institutional arrangement. The envisioned institutional changes are expected to result in the assumption of key roles and responsibilities by the LGUs and DILG. LGUs and DILG's capacity to implement water supply projects are perceived to be low, hence, the need to enhance their capacities chiefly in project preparation, contract management and operation and maintenance. DPWH is supposed to give some assistance, but it has also had a poor record of implementing similar projects. In addition, the IRA allocation for many LGUs may not be adequate in covering the cost of water supply and sanitation.

8.28 Cost Recovery There is no cost recovery for the drilling rigs and other equipment procured by DPWH for its projects. Also, by law, water beneficiary communities should be contributing 10 percent of total project cost as its contribution. However, it was gathered that many BWSAs are not contributing the required 10 percent equity.

EXISTING REFORM STRATEGY AND ITS PROBLEMS

8.29 As envisaged in the Medium Term Philippine Development Plan, 1993 - 1998, the levels of investment for each subsector are indicated in Table 8.11. Water Resources Subsector was allotted 15 percent (17.4 percent in 1987 to 1992) of the total projected investment amounting to ₱89 billion. Of this amount, ₱32 billion goes to water supply, sewerage and sanitation. In the previous medium term plan (87-92), the actual expenditures were ₱ 11.6 billion although the allocation in the plan was ₱ 28.4 billion. With these resources, MWSS targets to expand coverage to 90 percent by year 2000. Also by 2000, LWUA hopes to increase the population coverage from 12 million to 20 million, and DILG aims to provide 90 percent of all rural population with safe water through working with LGUs.

8.30 It is, however, difficult to examine if this level of sector spending for the sector is adequate at a time when the sector environment is changing rapidly. Specifically, the 1994 NEDA Board Resolution No. 4 has established a sector strategy, which consists of:

- (i) Reorientation of LWUA to its original corporate mission as a "specialized lending agency" financing only viable water supply projects with tariff levels formulated towards full cost recovery;
- (ii) Privatization of all existing WDs to be vigorously pursued whenever feasible and large commercially viable water service areas like Metro Manila, Cebu, Zamboanga and Davao to be formed or converted into SEC-style private water corporations, independent of LWUA and other government funding institutions but subject to regulations by NWRB; and
- (iii) Delineation of sector responsibilities to allow LGUs to implement all levels of water supply projects consistent with government's decentralization and devolution process, as follows:
 - a. Level I (point source system), Level II (communal faucet) and Level III (house connections) water supply projects may be implemented by the concerned LGUs within their jurisdiction.

Table 8.11 - GOVERNMENT INFRASTRUCTURE PROGRAM, 1993-98 a/
(In Million Pesos, Current Prices)

SUBSECTOR	1993	1994	1995	1996	1997	1998
ENERGY, POWER & ELECTRIFICATION	36,668	41,614	42,996	38,917	52,320	56,517
Energy Resource Dev't. & Downstream Activities	5,895	6,198	7,115	5,175	1,152	995
Power Generation & Transmission	29,958	34,319	34,469	32,140	50,181	54,604
Electrification	672	997	1,234	1,381	757	710
Others b/	143	100	178	221	230	208
TRANSPORTATION	18,660	20,574	25,847	34,105	37,896	49,599
Land	13,808	15,225	16,825	22,828	27,605	39,664
Water	2,426	2,674	2,948	2,923	3,352	3,217
Air	933	1,029	1,791	2,351	3,566	6,372
Rail	1,493	1,646	4,283	6,003	3,373	346
COMMUNICATIONS	2,202	1,160	2,129	1,854	1,357	680
Telecommunications	2,202	1,108	1,900	1,541	1,316	645
Postal Communications		52	299	313	41	35
WATER RESOURCES	8,354	11,114	13,980	16,497	17,838	21,432
Irrigation	2,211	4,300	6,299	6,550	6,300	6,952
Water Supply, Sewerage & Sanitation	4,318	4,864	5,471	6,506.000	5,879	5,115
Flood Control & Drainage	1,799	1,826	2,116	3,360	5,595	9,297
Others c/	26	124	94	81	64	68
SUB-TOTAL d/	65,884	74,462	84,952	91,373	109,411	128,228
SOCIAL INFRASTRUCTURE e/	4,192	7,546	9,659	5,579	6,776	6,641
Schoolbuildings	2,301	5,784	7,005	3,167	3,853	4,938
Health Infrastructure	50	93	890	746	1,412	1,091
Housing	1,841	1,669	1,714	1,666	1,511	612
TOTAL	70,076	82,008	94,611	96,952	116,187	134,869

a/ Does not include projects of LGUs and the private sector. LGUs and the private sector are expected to play a more active role in infrastructure development and thus help fill the gap between total requirements (demand-based) and the resource-based Infra Program. Capex program of govt. infrastructure corporations do not include expected subsidies from GOP.

b/ Infrastructure program of DOE (OEA), ERB, and DOST-PCIERD

c/ Infrastructure program of LLDA and NWRB

d/ Corresponds to the infrastructure component under the MTPIP except for the investment requirements of the transportation and water resources subsectors that are not yet updated based on the April 1994 resource ceilings estimates.

e/ Investment requirements for social infrastructure under the Chapter on Total Human Development.

Sources: DPWH, DOTC, NPC, PNOC, NEDA

- b. MWSS to be responsible for Level III water systems in Metro Manila and adjacent areas.
- c. LWUA to implement only financially viable Level III water supply projects in areas outside the MWSS jurisdiction.
- d. The Department of Interior and Local Government's (DILG) participation to consist of general administration and institution building, such as assistance to the LGUs in the formation of Rural and/or Barangay Waterworks and Sanitation Associations (RWSAs/BWSAs) as well as in the identification of water supply systems.
- e. The Department of Public Works and Highways (DPWH), together with DILG and the Department of Health (DOH), to provide technical assistance (within a period of about 2 years) to LGUs in the planning, implementation and operation and maintenance of water supply facilities.

But, this strategy suffers from the following problems:

1. It is obvious that the strategy flows out of the primary objective of restoring LWUA's financial viability. However, the mechanism chosen, restricting LWUA's jurisdiction to financially viable water projects, leaves the major problems of the sector unresolved. **What is to be done about the approximately 460 non-viable WDs and the 960 urban water supplies that LWUA never even got around to assist?**
2. The implication that the problems of the non-viable WDs and the non-WD water supplies would be addressed by the LGUs returns the sector back to the situation prevailing in 1973 when the LWUA/WD structure was introduced precisely because LGUs had failed to deliver acceptable services. **What is the basis of assuming that the LGUs would be able to deliver services more successfully than before?**
3. The hope that DPWH, DILG and DOH would be able to build the capacity of LGUs to plan, implement, operate and maintain water supply facilities rests on very shaky foundations. **The track record of government departments successfully building capacity of other government entities has been weak.**
4. The mechanism suggested for ensuring financial viability of water supply projects, formulating tariff levels based on full cost recovery, ensures that **utilities would continue to pass on all the costs of inefficiencies to consumers.** It generates no incentives to achieve financial viability through controlling costs, managing demand, seeking efficiencies in production or distribution of water or in generating economies of scale or scope.

5. The corporatization of large, commercially viable water service utilities, independent of LWUA and other government funding institutions is feasible though at the expense of further restricting LWUA's jurisdiction. However, **no strategy is proposed for the privatization of other WDs although the same is a key recommendation.** After the corporatization of the large, commercially viable WDs the remaining, barring a few, are unlikely to be large enough to attract experienced private operators. **What would it take to ensure that the benefits of privatization or private sector participation (PSP) are not exceedingly limited leaving the bulk of the sector unaffected?**

RECOMMENDATIONS

8.31 **Efficiency in Water Supply Provision.** Higher efficiency is a key to improving sector performance. Financial viability of water supply institutions should not be attempted primarily through raising tariffs to achieve full recovery of existing costs as this only passes on costs of inefficiencies to consumers. Rather, the route to viability should also rely increasingly on cost reduction, demand management and increased efficiency in production and distribution. The principal initiative capable of introducing incentives consistent with such an objective is the **private sector participation (PSP)** initiative. The PSP strategy should ensure that the benefits of the initiative extend as far as possible. Towards this end, the transitional steps are the following:

- (i) Rapid introduction of PSP alternatives in the large metropolitan centers (Metro Manila, Metro Cebu, Metro Davao) with contracts tailored to their specific circumstances. GOP is already acting on this initiative.
- (ii) Regrouping of smaller municipalities into regional **service areas** large enough to yield necessary economies of scale in management and administration², lower transaction costs and be capable of attracting private sector participation in due course. This remains compatible with GOP's policy of devolving responsibilities to local governments and provision for such a change exists in legislation governing the formation of Water Districts (PD 198)³. Several institutional options to achieve such regrouping exist depending upon the rigidity of the constraints imposed by the present status of the WDs. The service area concept could be initiated by merging adjoining areas in the contracts for Metro Cebu and Metro Davao. Outside of these, the Calabarzon area, comprising twelve municipalities south of Metro Manila with very rapid urbanization and industrialization, should be considered for fast-tracking as a service area in order to arrest Metro Manila

² One example of foregone economies of scale resulting from consolidation is provided by the adjoining Water Districts of Tanauan and Sto. Tomas with populations of 98,000 and 54,000, respectively. Both have separate, parallel transmission lines from the same spring source.

³ Local Governments encompass provinces as well as municipalities. PD 198 was well-intentioned and envisaged creation of WDs at the provincial level. However, overlooked negative incentives in the legislation resulted in a severe bias towards the formation of small and over-designed WDs.

type problems (especially regarding intense ground water extraction and untreated waste water disposal) from arising⁴.

- (iii) Setting up a credible regulatory framework to undertake financial and other contract related regulation of private service operators. Current policy is leaning towards housing the regulatory function within the National Water Resources Board (NWRB), a public sector institution. However, international private operators are almost certain to ask for a more independent regulator. In the UK, for example, financial regulation of utilities and quantity and quality regulation of water resources are handled separately by the Office of Water Services (OFWAT) and the National Rivers Authority (NRA), respectively.
- (iv) One primary cause of excessively high non-revenue water in Metro Manila is physical leakage and that a major network rehabilitation would be more cost-effective than any program of progressive leak detection and repair. If so, it needs to be considered whether undertaking of such an investment by the public sector would reduce the risk to be taken by the private operator and thereby lead to proportionately better contractual terms. If borne out by preliminary assessment, network rehabilitation could proceed concurrently with the preparations for privatization of the Metro Manila system.

8.32 Coverage. Most municipalities need expansion of coverage to improve financial viability (even Metro Cebu with a population exceeding one million spread over eight towns and cities has service coverage of only 26 percent - 56 percent of the population get water from privately owned wells and 19 percent from public wells or vendors). The availability of alternative, often easily accessible, sources is a special characteristic of water. Use of alternative source would only decrease significantly if consumers are provided higher quality service at competitive prices. In this context also, continuously raising tariffs can be a self-defeating strategy. The current pattern of incremental expansion of coverage based on internal resources of Water Districts or small loans from LWUA is leading to suboptimally engineered systems based on small diameter pipes extending out in a "spider" formation. To avoid high sunk costs, network expansion plans should begin to recommend network investments compatible with appropriate master plans. This would improve contract terms when the service areas are considered for private sector participation.

8.33 Sewerage. While the absolute quantity of water supplied has been increasing over time, there has been virtually no investment in infrastructure for waste water disposal (sewer service is available to 10 percent of the population in Metro Manila and 2 percent of the population outside Metro Manila) and the price is beginning to be paid in increasing pollution of water resources, recourse to more distant and costly sources of raw water and higher morbidity rates due to waterborne diseases. The non-existent infrastructure sharply distinguishes Metro Manila from Buenos Aires to which it is frequently compared (Buenos Aires had the essential waste water

⁴ The population of five municipalities falling in Laguna province in 1960, 1970, 1980 and 1990 is reported as 151,000, 247,000, 410,000 and 647,000, respectively. The population of seven municipalities falling in Cavite province in 1980 and 1990 is reported as 256,000 and 478,000, respectively.

collection and treatment infrastructure in place with over 50 percent of the population connected to the sewer network)⁵. For Metro Manila, the bundling of sewerage and water supply investments could either prove unacceptable to private concessionaires or could raise contract terms to a politically unacceptable extent. This would be the consequence not only of the higher investment requirements but the commercial risk of not obtaining enough connections in a situation where over a million households have already invested in private septic tanks. One institutional option to get around this problem is to add only the management of the sewer network to the private contract and induce the public sector to shoulder the responsibility for investment in sewer network expansion. Treatment plants can be unbundled and feasibly financed under BOT type arrangements especially if markets for reused water are developed as part of demand management initiatives. Within the sewerage and sanitation sub-sector, the following transitional steps are recommended:

- (i) Initiating private management of household septic tanks including regularly scheduled emptying and septicage disposal.
- (ii) In the majority of urban centers (between 100,000 and 500,000 population), where the opportunity for timely intervention still exists, investment in sewerage networks should be initiated. The centers of the municipalities ("poblacions") are already fully built up and a sewer network to serve these centers could be put into place in conjunction with a primary treatment plant (as is required for new housing developments). When urban population and density attain the appropriate levels in the future, the plant could be replaced by a secondary treatment plant. A number of engineering design options are available and need consideration. Given the considerable sunk investment in septic tanks, they could be incorporated in the sewer network by using a lower cost small bore or solids free sewer design. Also, the feasibility of separate versus combined sewer and storm water drainage systems needs to be considered.
- (iii) Any future water supply projects should require, unless the case for doing otherwise is very strong, minimum complementary investments in waste water disposal at least in the "poblacions."
- (iv) Efficiently operated water supply projects can, in general, pay for themselves and, especially after the formation of service areas, ought to be progressively financed by private capital. Concessional long-term funding should be utilized for investments in sewerage and environmental infrastructure.

8.34 Water Resource Management. Actual or potential water scarcity during the dry season, particularly in or near major urban areas, combined with increasing water quality degradation from inadequate waste water and solid waste disposal requires the active management, planning and allocation of water resources. The administrative infrastructure to do this already exists in the form

⁵ The other key differences are the much higher household income levels and pre-privatization public sector water tariff in Buenos Aires.

of the National Water Resources Board (NWRB), a number of river basin authorities and a Water Code. This arrangement needs to be activated with appropriate updating, funding and empowerment. GOP has already endorsed this transition at the 1994 Water Summit and preparation for technical assistance is under way to specify detailed arrangements tailored to the specific geographical and hydrological characteristics of the Philippine archipelago. Sub-sector policies need to anticipate the emergence of active water resource management by authorities based on hydrological jurisdictions. In this context, the designation of service delivery areas should anticipate this development. Investment in water resource management infrastructure (flood control, storage, river training, etc.) is also an obvious area for future Bank lending. The transition to active water resource management should start with the two or three hydrological basins currently under excessive stress.

8.35 Solid Waste and Storm Water Management. Because of the close link between water quality and adequate solid waste and storm water management, these should be considered as part of water sector strategy. Solid waste collection and disposal is particularly easy to privatize and a number of alternative models could be examined to tailor the solution to the context of the Philippines. However, very little progress has been made in this sub-sector and some easy opportunities to arrest environmental degradation have been lost. Storm water management is likely to remain a public sector responsibility. The transitional steps include initiation of private collection and disposal of solid waste in one or two service areas with progressive extension to other urban areas over time.

9. AGRICULTURE, NATURAL RESOURCES, AND ENVIRONMENT

A. BACKGROUND

9.1 Agriculture continues to play a significant role in the economy, both in terms of its direct contribution to production and employment, and as a basis for activities in the manufacturing and services sector. In 1993, agriculture accounted for 22 percent of GDP (45 percent of labor force), agriculture-based industry for 13 percent of GDP, and at least 33 percent of the services sector is also linked to agriculture. Although agriculture's share in national output and employment has dropped over the past two decades, this has happened at a remarkably slow pace. Value-added in the agriculture sector accounted for 28 percent of GDP in 1970, and has remained around 22 percent since 1990. In comparison, the share of agriculture in Thailand's GDP dropped from about 28 percent to 15 percent during the same period. This slow structural shift in the Philippine economy is mainly a reflection of the relatively slow growth of sectors other than agriculture in the last decade.

Development Issues

9.2 The three main development issues are rural poverty alleviation, improved management of natural resources/environment, and an increase in the competitiveness of the agriculture sector and its diversification by providing adequate rural infrastructure and support services.

9.3 Rural Poverty. The persistence of poverty, particularly rural poverty, is a major issue in the Philippines. Poverty has had an adverse impact on many facets of economic, political and social life, including natural resource management and the environment. The majority of the poor in the country are rural, with the rural poverty incidence over 50 percent. In addition, most of the rural poor live in upland areas. The Government's goal is to reduce the overall poverty incidence from the current official level of 40 percent¹, to 30 percent by 1998. While overall growth of the industrial and service sectors would play the key role in the alleviation of rural poverty, further development of the more labor-intensive forms of agricultural production, agro-processing, and small scale rural industry, commerce and services, would contribute to poverty alleviation, labor absorption, and increased value-added. However, this is now constrained by inadequate public and private investment in rural areas, and the consequent weak rural infrastructure.

9.4 Management of Natural Resources and Environment. The major problems facing biodiversity, natural resources, and the environment include overexploitation of natural resources, deforestation, severe soil erosion, and pollution. These problems are likely to become more severe because of a rapidly growing population (2.5 percent a year) and increasing industrialization and urbanization.

¹ The World Bank (1993) pointed out that the consumption basket that is used to measure the poverty threshold contains a higher proportion of non-staple food and a higher proportion of non-food consumption goods than, say, Thailand. Using a similar consumption basket, as in Thailand, poverty incidence was measured to be 33 percent.

- (a) Deforestation. The country has lost a substantial portion of its primary forests since the early 1900s: forests now cover only about 6 million ha of total land area, and deforestation continues at an estimated annual rate of 100,000 ha. One of the major causes of deforestation is shifting agriculture in the uplands. The scarcity of arable land in the lowlands has compelled landless people to migrate into the uplands, where they convert primary and secondary forests into farmlands every 3-5 years, when soil nutrients in existing farms begin to decline. Commercial logging also contributes to deforestation. The extensive loss of forest cover in the Philippines has resulted in substantial soil erosion. About one-third of forest lands are estimated to be severely eroded because of extensive cropping. In addition, agricultural productivity in the uplands remains marginal because of major losses of soil nutrients associated with severe soil erosion. Upstream erosion has also had a major downstream impact, in terms of increased siltation which threatens vital infrastructure, including: irrigation, hydroelectric power, and municipal water installations.
- (b) Destruction of Coral Reefs and Mangrove Forests. Coastal resources are threatened by over-exploitation and the widespread use of illegal and destructive fishing methods. Coral reefs are among the most threatened coastal habitats: an estimated 30 percent of the total coral reef area in the country has already been destroyed and another 30 percent is in poor condition. Mangrove forests are also under threat, primarily due to illegal construction of fish ponds and felling for fuelwood.
- (c) Air Pollution. Air pollution is another environmental problem, though it is limited to major industrial centers and urban areas with heavy traffic. The most polluting industrial operations are power generation, cement manufacture, petroleum refineries, and chemical plants.
- (d) Water Pollution. About 30-40 of the 400 major rivers in the country are heavily polluted, mainly by untreated industrial discharges and municipal waste. Industry is mainly responsible for toxic and hazardous wastes, which contaminate water through uncontrolled discharge or disposal in unsafe landfills. There are three reasons for industry's reluctance to invest in pollution abatement: weak enforcement of environmental standards; lack of incentives to invest; and lack of information about cost-effective abatement strategies.

9.5 Increasing Competitiveness and Diversification of Agriculture. Inadequate public and private investment in rural infrastructure and agricultural support services and some distortions in production incentives have constrained agricultural growth and rural poverty alleviation. Specifically, investment in irrigation has decreased substantially (real terms) in recent years. Even the rural financial system, which is not constrained by Government budget ceilings, has had problems, including: (a) the steady decline of formal-sector agricultural loans (as a share of sectoral value-added and as a share of total lending); (b) the high cost of credit and lack of long-term financing; (c) the weak financial condition of many rural banks; and (d) the limited access of small farmers to formal lending. In recent years, both crop diversification and agro-processing development have occurred too slowly due to: (a) the Government's indecisive implementation of

the Comprehensive Agrarian Reform Program (CARP); (b) poor rural transport; (c) high cost of credit and lack of long-term financing; (d) exchange rate overvaluation; and (e) inadequate market information systems.

9.6 Prospects for increases in farm productivity for staple foods and traditional cash crops are limited. Increased rural family incomes will thus require diversification, including increased production of non-traditional crops and greater dependence on non-farm income, including agro-processing. Impediments specific to agro-processing include: irregular quantity and quality of raw material supply; high cost of packing materials (due to high protection); and high minimum wages.

Government Response to Sector Issues

9.7 The Government response to the above development issues has been largely appropriate in recent years, albeit constrained by budgetary problems. The policy framework has significantly improved, and the liberalization policy (including deregulation, abolition of monopolies, reduction of protection, freeing up the foreign exchange market, and reduction of subsidized credit) has created a more favorable environment for private sector development of agriculture. However, investment uncertainties have been caused by the slow implementation of the CARP, and some remaining protectionist trade policies constrain growth. Further investment and management uncertainties have followed the promulgation of the Local Government Code, and inadequate counterpart funding has adversely affected the implementation of major projects.

B. SECTORAL PUBLIC EXPENDITURE LEVEL AND COMPOSITION

Level and Composition

9.8 A comparison of the relative share of agriculture in total government expenditures and the contribution of the agricultural sector to GDP, shows that the agriculture sector receives substantially less public sector support than it contributes to the economy's value-added. The Philippines' average expenditure bias indicator (defined as a share of agricultural spending in budget divided by the share of agriculture in GDP) compares relatively unfavorably with that of comparator countries: while the indicator for the Philippines was about 0.27 (1992-94), that for Thailand, Indonesia and Mexico was 0.62, 0.41 and 0.40, respectively, (late 1980s). As such, the current level of public expenditures in agriculture appears to be inadequate to make a significant contribution to poverty alleviation and sustainable resource management during the remaining part of the 1990s.

9.9 Table 9.1² shows that government expenditures on agriculture and natural resources management and environment are overwhelmingly through three Departments: Agriculture (DA),

² It should be noted that these expenditures do not include the personnel and operating expenditures of many autonomous or attached agencies such as the National Irrigation Administration (NIA), National Food Authority (NFA), etc., which are met from these agencies' own resources. Table 9.1 also does not capture some government rural expenditures such as on barangay/rural roads, nor expenditures on **agricultural extension services** by the local governments after devolution

Agrarian Reform (DAR) and Environment and Natural Resources (DENR). The DA is the major agency, accounting for over 40 percent of total government expenditures on the sector in 1994, followed by the DAR (about 35 percent), and the DENR, (about 20 percent). Table 9.2 provides a breakdown of current and capital appropriations of the DA and DENR in 1993 and 1994.

TABLE 9.1 - PUBLIC SECTOR EXPENDITURES IN AGRICULTURE, 1991-94 ^{1/}

(BILLION PESOS IN CURRENT PRICES)

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Department of Agriculture ^{2/}	6.71	7.87	7.43	6.20
of which: NFA	1.00	1.53	3.59	1.48
Department of Agrarian Reform ^{3/}	0.74	1.83	0.74	0.82
Department of Environment and Natural Resources ^{4/}	4.12	3.94	3.82	4.38
NIA ^{5/}	2.30	2.38	2.09	2.22
Research ^{6/}	0.42	0.45	0.50	0.50
Others ^{7/}	0.13	0.25	0.07	0.05
Agrarian Reform Fund ^{8/}	7.97	4.95	4.05	4.21
Total Agriculture	22.39	21.67	18.70	18.38
Total Government ^{9/}	293.59	328.42	330.78	320.47
Agriculture as % of Total Government Expenditures	7.6	6.6	5.7	5.7
Agriculture as % of Total Govt. Expenditure excluding Debt Service ^{10/}	12.9	10.4	9.2	7.8
^{1/}	Including fisheries, environment, natural resource management, and agrarian reform. Except where noted, figures for 1991 are actual obligations (though not necessarily actual expenditures), those for 1992 are estimated obligations and those for 1993 and 1994 approved appropriations. The figures include capital outlay (CO), personnel services (PS), and maintenance and other operating expenditures (MOOE).			
^{2/}	Includes the Department as well as all Commissions, Corporations, Councils, Authorities, Administrations and Institutes under its control but excludes NIA.			

<u>3/</u>	Excluding the Agrarian Reform Fund. The figures are actuals as reported to the Bank by the DAR in August 1995.
<u>4/</u>	Including about Pesos 100-140 million a year for the National Mapping and Resource Information Authority (NAMRIA), but excluding support to projects under National Electrification Administration and National Power Corporation, which ended in 1993.
<u>5/</u>	Previously under the Department of Public Works and Highways (DPWH), now under the DA. The figures include foreign-assisted and locally-funded projects.
<u>6/</u>	Data for 1991 and 1992 is from PCARRD. 1993 and 1994 figures are assumed, based on 1991 and 1992 figures.
<u>7/</u>	Includes Aurora Integrated Area Development Project, Central Visayas Regional Project, and Small Water Impounding Projects (SWIP) under DPWH.
<u>8/</u>	The figures are actual expenditures as reported to the Bank by the DAR in August 1995. Approximately 50% of the expenditures have been for land owners' compensation.
<u>9/</u>	The totals include the Internal Revenue Allotment (IRA) to local governments. The totals, as shown in the official documents, did not include the Agrarian Reform Fund (ARF) in 1991 and 1994 but included it in 1992 and 1993 (Pesos 6.77 billion and Pesos 5.0 billion, respectively). For calculating the proportion of agricultural expenditures, the total government expenditures were adjusted for the actual ARF figures shown in the Table.
<u>10/</u>	Debt service was Pesos 120.43 billion in 1991, Pesos 119.32 billion in 1992, Pesos 126.49 billion in 1993, and Pesos 86.32 billion in 1994.

9.10 Agrarian Reform. To address criticisms on the limited scope and slow pace of land reform, a Comprehensive Agrarian Reform Program (CARP) was launched in July 1987. The DAR is the lead agency for CARP implementation. Later, the legal framework of CARP was provided by the Republic Act (RA) No. 6657 of June 1988, also known as the Comprehensive Agrarian Reform Law (CARL). The CARP has a much broader coverage than earlier land reform programs, in that it covers lands other than rice and corn, legitimizes the de facto occupation of large areas of public land, and provides the beneficiaries with credit, marketing, infrastructure, extension and training services. The individual retention limit under CARP is 5 ha (although the overall retention limit for a family can be as high as 14 ha), and the scope is estimated at about one-third of the land area in the Philippines (10.3 million ha). The program is to be implemented over 1987-98 in three overlapping phases, and will benefit 3.9 million agrarian reform beneficiaries (ARBs), as shown in Table 9.3. The Department of Agrarian Reform (DAR) is responsible for distributing 3.8 million ha (37 percent of CARP area), of which 3.2 million ha (85 percent) are private lands, and 0.6 million ha (15 percent) are government-owned, sequestered, and resettlement lands. The major area under CARP (6.5 million ha or 63% of CARP, later reduced to 5.9 million ha) is the responsibility of DENR and involves public alienable and disposable (A&D) lands, and lands under the Integrated Social Forestry (ISF) Program. However, the ISF areas (about 1.88 million ha) were devolved to the local governments in 1992 under the Local Government Code.

TABLE 9.2 CURRENT AND CAPITAL APPROPRIATIONS OF THE DA AND DENR, 1993 AND 1994

(MILLION PESOS IN CURRENT PRICES)

	<u>DA 1/</u>		<u>DENR 2/</u>	
	Amount	%	Amount	%
<u>1993</u>				
Personnel Services	1061.0	11	1675.0	44
Maintenance and Other				
Operating Expenses	6040.0 <u>3/</u>	63	1000.0	26
Capital Outlay	2423.0	26	1151.0	30
Total 1993	9524.0	100	3826.0	100
<u>1994</u>				
Personnel Services	1147.4	14	1609.0	37
Maintenance				
and Other Operating				
Expenses	3968.3 <u>4/</u>	47	1524.8	35
Capital Outlay	3311.2	39	1244.2	28
Total 1994	8426.9	100	4378.0	100

1/ Includes NIA, NFA and other attached and autonomous agencies.

2/ Includes NAMRIA.

3/ Includes Pesos 3590 million for NFA's grain price stabilization.

4/ Includes Pesos 1104 million for NFA's grain price stabilization (another Pesos 375 million for NFA's general management and supervision is in capital outlay category).

Note: The figures in the above table are the budget figures. Actual expenditures for 1993 and 1994 were not available at the time this chapter was drafted.

TABLE 9.3 COVERAGE OF COMPREHENSIVE AGRARIAN REFORM PROGRAM (CARP)

	<u>Area (ha)</u>	<u>No. of ARBs ^{1/}</u>
<u>Phase 1</u>	<u>1,054,613</u>	<u>631,674</u>
Rice and corn lands	727,800	522,675
Idle and abandoned lands	250,000	83,332
PCGG surrendered/sequestered lands ^{2/}	2,313	833
Govt-owned agricultural lands	74,500	24,834
<u>Phase 2</u>	<u>7,660,135</u>	<u>2,742,600</u>
Public A & D lands & lands under agricultural leases ^{3/}	4,595,000	1,721,000
Integrated Social Forestry Areas ^{3/}	1,880,000	626,667
Resettlements/Reservations	478,832	159,500
Private Agricultural lands in excess of 50 ha	706,303	235,433
<u>Phase 3</u>	<u>1,580,997</u>	<u>526,997</u>
Other Private Agricultural Lands		
5.01 to 24.00 ha	1,063,581	354,526
24.01 to 50.00 ha	517,416	172,471
<u>Total</u>	<u>10,295,745</u>	<u>3,901,271</u>

Source Department of Agrarian Reform (DAR)

^{1/} Agrarian reform beneficiaries.

^{2/} PCGG = Presidential Commission on Good Government.

^{3/} Under the DENR. All other lands are covered by the DAR.

9.11 The implementation of CARP has been much slower than anticipated. During the period July 1987-June 1994, total lands distributed by the DAR and DENR stood at 2.8 million ha, of which 1.6 million ha (57 percent) was distributed by the DAR, and the balance 1.2 million ha, by the DENR. This is about 67 percent and 27 percent of the targets of the DAR and DENR, respectively, or 41 percent overall for the period; achievement has been consistently below targets. As of June 1994, the DAR and DENR achievement was only 27 percent of the CARP target. The slow progress reflects the multiple problems faced by the DAR and DENR, particularly related to institutional capabilities, frequent leadership changes, legal difficulties, and land valuation and processing of claims.

9.12 The challenge appears even larger when considering the financial problems of CARP. The original cost of CARP was estimated at ₱ 130 billion. An Agrarian Reform Fund (ARF) was created with an initial amount of ₱ 50 billion to cover the estimated cost of CARP from 1987 to 1992. The sources of ARF came from proceeds of sales of the Asset Privatization Trust (APT) and the Presidential Commission on Good Government (PCGG), proceeds of the disposition of the government's foreign properties, foreign aid/grants, and other government funds not otherwise appropriated. The ARF was, therefore, independent of the regular budget allocations under the General Appropriations Act (GAA). From July 1987-June 1994, the total inflows to the ARF amounted to ₱ 33.2 billion. Of this, about ₱ 29.4 billion had been released by the Department of Budget and Management (DBM) through Advice of Allotment (AA), of which about ₱ 23.9 billion had been obligated, and ₱ 21.0 billion actually spent through June 1994.

9.13 The total amount required to implement the CARP from 1994-1998 is ₱ 101 billion (current prices). Of this, about ₱ 67 billion will be required for land acquisition and distribution and corollary activities, and the balance ₱ 34 billion for support services and infrastructure (₱ 20 billion), and program management (P14 billion). Including about P5 billion available in the ARF as of June 1994, and projected remittances of about ₱ 24 billion from the APT, PCGG and other sources over 1994-98, the DAR projects a deficit of over ₱ 70 billion for CARP over the remaining period. The projected funds will not be sufficient to cover landowners' compensation, and, in fact, an additional ₱ 79 billion will be required for the servicing of agrarian reform bonds beyond the year 2000.

9.14 To overcome the funding gap, the DAR is pursuing various measures which include: allowing either direct selling or voluntary land transfer between landowners and farmers without the intervention of the government; actively seeking assistance from foreign and local donors for the support services component of the CARP; imposition of a land conversion tax and a progressive agricultural land tax; and transforming the ARF into a revolving fund with replenishment from the repayment of loans and amortization payments.

9.15 Expenditures on support services and infrastructure under the CARP have been significant. Over July 1987-June 1994, these expenditures accounted for about 55 percent of the ARF utilization (including PS and MOOE), with yearly proportion ranging from a low of 34 percent in 1987, to a high of 71 percent in 1989 and 1990. The land acquisition and distribution activities, which accounted for 45 percent of ARF expenditures (including PS and MOOE) over July 1987-June 1994, have gradually increased to about 59 percent in 1993 and 1994, and will increase further as the bond servicing requirements increase. Credit, infrastructure and support services (excluding PS and MOOE) accounted for only ₱ 7.3 billion (about 30 percent of the obligations

under the ARF). The LBP released a further ₱ 13 billion in credit for the agrarian reform beneficiaries from its own corporate fund. The expenditure on PS and MOOE of about 51 percent of the ARF shows the staff-intensive nature of agrarian reform. According to DAR estimates, the cost of distributing one ha of land in 1992 was ₱ 5,484, and is expected to decline further to ₱ 3,500 in 1994.

Impact of Devolution

9.16 The revised Local Government Code has thus far had an unfavorable impact on the agriculture sector. The Code devolved *in toto* responsibility for communal irrigation, tertiary roads, agricultural extension, and natural resource management from national government departments to the provinces, cities and municipalities. Due to the inadequate financing and implementing capacity of most local governments, the delivery and quality of these services have been seriously affected. While the national government stopped financing these activities in 1992 (except for foreign-funded projects approved before 1992), most local governments do not have the resources and the institutional framework to undertake these activities. For example, out of 113 ongoing communal irrigation schemes devolved in 1992, only two are reportedly being implemented by local governments. After a hiatus of 3 years, the national government has once again made an allocation to NIA in the 1995 budget to complete the remaining 111 schemes. However, the infrastructure completed on these schemes through 1992 has deteriorated and the cost of completing these schemes is currently estimated to be almost twice the original cost (₱ 650 million compared to ₱ 350 million). In any case, the future funding of new communal irrigation schemes, which has to come from local governments, is uncertain at this stage. As for agricultural extension, after much delay and uncertainty, about 17,500 extension staff were accepted by the local governments but the links between extension and research have been practically severed since research continues to be under the DA. The effectiveness of both research and extension under the prevailing situation is open to serious question. Expenditures on other devolved programs, including integrated social forestry (ISF) and barangay/rural roads, are not available, but activities for ISF at least now appear to be minimal. In the past, foreign financing allowed the national government to make up for shortfalls in available revenues, but the rapidity and magnitude of changes under devolution have moved ahead of the national government's financial policies, financial mechanisms, and the institutional and regulatory framework necessary to enable foreign funds to be channeled to the local governments.

Planned Level and Composition of Public Agricultural Expenditures

9.17 Medium-Term Philippine Development Plan. The Medium-Term Philippine Development Plan (1993-98) provides a framework for development and targets for individual sectors. It is supported by the Medium-Term Public Investment Plan (MTPIP), which specifies the level and composition of public investment in various sectors. Of the total MTPIP of about ₱ 727 billion (excluding the Agrarian Reform Fund) in current prices, the share of agriculture, natural resource management and the environment is projected at ₱ 67 billion or 9.2 percent (Table 9.4). This represents a doubling of the sector's share, and this share will be even higher, depending on the amount of agrarian reform funding available. In addition, the implementation of the MTPIP for the sector is encouraging: the 1994 allocation of ₱ 8.2 billion was almost double that of 1993 (₱ 4.7 billion) in nominal terms; this is a substantial real increase, as inflation was about 8 percent (1993).

However, the increasing trend must be maintained to achieve the MTPIP investment targets for the sector.

9.18 Under the MTPIP, the DA will continue to have the major share of resources as in the past. The DENR's share of ₱ 19.6 billion (29 percent of the total sectoral allocation) would appear to be relatively low, considering the DENR's mandate and potential contribution. However, the DENR has embarked on a community-based, participatory, approach to natural resource conservation, management and utilization, with the help of NGOs. This approach will necessitate considerable institutional reorientation of the DENR and it is, therefore, appropriate that DENR expenditures should increase gradually, as experience in working with the communities and NGOs is internalized.³ The projected allocation of ₱ 20.3 billion to NIA under the MTPIP is appropriate considering its implementation capacity; this allocation would reverse the trend of sharply declining expenditures on irrigation. Another encouraging feature of the MTPIP is the envisaged phasing out of NFA's price stabilization functions.

³ It should be noted that the NGOs do not offer their services free; they are paid by the DENR

TABLE 9.4 - MEDIUM -TERM PUBLIC INVESTMENT PROGRAM FOR AGRICULTURE, NR AND ENVIRONMENT (1993-98)^{1/}

(MILLION PESOS IN CURRENT PRICES)

	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>Total</u> <u>1993-98</u>
Department of Agriculture (DA)	3694	5790	8168	8056	10,500	11,384	47,592
Of Which: NIA ^{2/}	1905	1678	4733	4096	3927	3975	20,314
NFA	86	809	30	30	63	68	1086
Department of Environment and Natural Resources (DENR)	1014	2458	3338	3606	4381	4834	19,631
Total Agriculture,							
NR and Env. ^{3/}	4708	8248	11,506	11,662	14,881	16,218	67,223
Total MTPIP	83,331	98,592	110,172	123,335	150,991	160,705	727,126
Total Agriculture,							
NR and Environment	5.6	8.4	10.4	9.5	9.9	10.1	9.2
as % of Total MTPIP							

9.19 The DA has prepared its own Medium-Term Agricultural Development Plan (MTADP) for 1993-98. The MTADP (guided by the Medium-Term Philippine Development Plan) adopts the Key Production Area (KPA) development approach to help fulfill the twin goals of "Philippines 2000": global competitiveness and people empowerment. The KPA approach identifies and focuses

^{1/} Revised (April 1994). Source: NEDA. The MTPIP excludes agrarian reform funding. The MTPIP is defined to include all national government expenditures on foreign-assisted and locally-funded Projects and capital outlays (CO) and maintenance MOOE part of national government Programs. The Programs are further divided into general administration and support, support to operations, and operations. Only the CO and MOOE of operations are included under MTPIP. The CO and MOOE of general administration and support, and support to operations, and all personnel services of Programs are thus excluded from the MTPIP.

^{2/} Includes only the foreign-assisted programs. The locally-funded program is small and is included under the DA allocation.

^{3/} Excludes research under PCARRD and PCAMRD (including State Colleges and Universities), for which no data is available. The investment program for extension by local governments is also not known and not included here. Some expenditure will also be undertaken by DPWH on small water impounding projects but the precise amount (which is likely to be relatively small) was not available with NEDA in mid-1994.

Government support on areas where agro-climatic features and market conditions are favorable for producing, processing, and marketing specific crops, livestock, and fishery products. By concentrating Government support in these areas, the DA aims to remove the bottlenecks that impede competitiveness of key commodities, ensure efficient use of scarce resources, and help farmers and fishermen obtain the best returns on their investments. The MTADP envisages a dramatic diversification of agricultural land use. The 5 million ha planted to rice and corn (50 percent each) in 1993 are expected to be diversified by 1998 as follows: rice 1.2 ha (100 percent irrigated), corn 0.7 ha, forage crops production for livestock raising 1.8 ha, and commercial crops cultivation (including fruits, vegetables, rootcrops, legumes, spices, coffee, cocoa, rubber, cashew, cut flowers, etc.) 1.3 ha. The livestock and commercial crop areas replacing rice and corn will be in addition to the areas now being used for such activities. The DA expects the hog and poultry industries and the commercial crops to be the "export winners" that would increase the country's share of world agricultural markets.

9.20 The MTADP is estimated to require a total investment of ₱ 181 billion over 1993-98 (Table 9.5). This amount is expected to come from National Government allocations (P72 billion), private sector (₱ 15 billion), government financial institutions (₱ 54 billion), and external assistance (P41 billion). In addition, the MTADP is to be implemented through four programs: Grains Production Enhancement Program (GPEP), Medium-Term Livestock Development Program (MTLDP), Key Commercial Crops Development Program (KCCDP), and Fisheries Management and Development Program (FMDP).

9.21 From 1993 to 1998, NFA's palay procurement is to be scaled down from about 6 percent of total production, to 3 percent. Moreover, in 1995, it is expected to cut off its interventions in the corn market. As NFA's direct interventions in the grains market will be phased out, DA will support the gradual take-over by qualified farmer cooperatives of selected NFA warehouses under Project Self-Reliance (PSR). The PSR seeks to enable farmer cooperatives and federations to directly procure palay and corn from their members, and process and market these to end-users. Using the KPA approach, the DA has identified 34 provinces (out of a total 76 in the country) for rice, 17 for corn, and 44 for livestock. Many provinces will also receive support for commercial crops. For the FMDP, the DA has identified coastal resource management areas, aquaculture management areas, and lake management areas. Each province in the country will be the site of at least one KPA.

**TABLE 9.5 - MEDIUM - TERM AGRICULTURAL DEVELOPMENT PROGRAM (MTADP), 1993-98
REQUIRED FUNDING**

(BILLION PESOS IN CURRENT PRICES)

<u>Funding Source</u>	<u>GPEP</u>	<u>MTLDP</u>	<u>KCCDP</u>	<u>FMDP</u>	<u>TOTAL</u>
Domestic Sources	45.35	18.99	6.50	0.94	71.78
Official Development Assistance	17.43	3.41	7.80	12.25	40.89
Government Financial Institutions	11.78	33.11	3.90	4.84	53.63
Private Sector	0.74	5.41	7.80	1.17	15.12
TOTAL	75.30	60.92	26.00	19.20	181.42

Source: Department of Agriculture

- GPEP - Grains Production Enhancement Program
 MTLDP - Medium-Term Livestock Development Program
 KCCDP - Key Commercial Crops Development Program
 FMDP - Fisheries Management and Development Program

9.22 While the MTADP's proposed growth strategy based on comparative advantage is appropriate overall, it has ambitious financial and physical targets. The total MTPIP allocation for the DA (including NIA, NFA, PCA and other agencies) is only ₱ 47.6 billion, compared to ₱ 112.7 billion expected from national government allocations and external assistance under the MTADP (Table 9.5). The physical targets are also fairly optimistic. For example, targets for rice envisage 200 percent irrigated cropping intensity and increased yields from an average of 3.5 metric tons of palay per ha per cropping in 1993, to 5 metric tons. by 1998. This is unrealistic, considering the variety of problems with irrigation systems, and because there are only three reservoir systems (covering about 15 percent of the total irrigated area) with reliable water supply in the dry season, and even in these systems the irrigated cropping intensity is less than 200 percent. The rest of the irrigation systems, based on run-of-the-river supplies, have inadequate water availability in the dry season. If the irrigated cropping intensity of 200 percent cannot be achieved by 1998, the average yield increase to 5 metric tons. per ha per crop will also be extremely difficult to achieve. Taking this into account, it will be necessary to revise the MTADP irrigated rice area target of 1.2 million ha upwards. This, in turn, will necessitate a significant downward adjustment of the targeted diversification of 1.3 million ha into commercial crops, and consequent adjustments in the geographical focus of agricultural development and the level of investments in support services and infrastructure.

C. MAJOR ISSUES IN RESOURCE ALLOCATION

Development Strategy

9.23 As previously discussed, use of the MTADP as a framework for agricultural development needs significant adjustments. Moreover, the sectoral development strategy is not clear, as it appears that there are at least three distinct approaches for resource allocation being followed in the agriculture, natural resource management and environment sector: (i) DA's growth strategy, which is based on comparative advantage represented by the MTADP. This is essentially a top-down approach which picks "winners" for rice, corn, commercial crops, livestock, and fisheries in specific areas; (ii) a bottom-up approach, involving participation by local communities and NGOs. This is focused primarily on poverty alleviation, represented by the Agrarian Reform Community (ARC) concept of the DAR, and some area-based Integrated Agricultural Development Projects (IADPs) under the DA; and (iii) another bottom-up, participatory approach followed by the DENR. This is focused mainly on sustainable resource management. All three approaches would have an indirect impact on poverty alleviation and, to the extent that the areas covered under (i) and (ii) are depressed areas, there will be a direct impact on poverty.

9.24 It is essential to clearly define the rural development strategy and integrate and coordinate the three approaches, in order to maximize the efficiency of public resource allocation to the agriculture and natural resource management sector. Conceptually, the three approaches can complement each other and address the needs for growth, poverty alleviation and sustainable natural resource management. In practice, however, the process may not work smoothly since the three approaches are being followed by three different agencies: DA, DAR and DENR. These approaches are too recent to be evaluated in terms of their effectiveness on the ground. However, some problems have already come to the surface and in mid-1994, the DA and DAR reached an agreement whereby, when the DA's key production areas (KPA) and the DAR's ARCs are both in the same area, the ARC will serve as the main conduit for the KPA program. A similar agreement is needed among DA, DAR, DENR and local governments regarding their respective jurisdiction.

Level and Composition of Public Expenditures

9.25 As previously mentioned, the current level of public expenditures in the sector is inadequate to significantly reduce poverty, improve natural resource management and the environment, and provide infrastructure and supporting services in the rural areas. The problem is much more serious when considering that lending to agriculture by the banking system (an important indicator of the production and investment activities in the rural sector) declined by 58% (real terms) over 1981-92. A major increase in the level of public expenditures in the sector, as envisaged under the MTPIP (see Table 9.4), and some adjustment in the composition of these expenditures, would be required to deal with rural poverty alleviation, improved natural resource management and environment, and provision of adequate support services and infrastructure. Some institutional issues, which are discussed in Section D below, also need to be addressed to enhance the effectiveness of increased public expenditures.

9.26 Poverty. Although the focus on poverty alleviation has become sharper over the last few years, a clear rural poverty alleviation strategy is yet to be formulated. As a result, the respective

contributions of the main agencies involved in rural poverty alleviation (DAR, DENR, NIA and PCA) are not defined, and there is little inter-agency coordination to achieve targeted poverty reduction. An equally important result is the imbalance in expenditures on poverty alleviation, and the lack of an accepted and replicable model for poverty projects and programs.

9.27 Rough estimates show that, in 1994, the total capital outlay on projects and programs with a direct poverty focus (excluding agrarian reform) was about ₱ 3.8 billion. Of this, NIA programs (whose beneficiaries have a very high poverty incidence) totaled ₱ 2.2 billion, DAR's support services and infrastructure capital outlay (excluding landowners' compensation) ₱ 0.6 billion, DENR's projects ₱ 0.8 billion, and DA's projects (excluding NIA) ₱ 0.2 billion. Although the level of expenditures is substantially higher than a decade ago, the 1994 capital outlay for these projects and programs represented an expenditure of only ₱ 1086 per rural poor family, if all poor families are covered. The 1994 budget, however, does not cover all the poor families in rural areas and, therefore, the expenditure per beneficiary family is much higher.

9.28 A major development issue in the rural sector which remains unresolved is to identify a model/s for rural poverty alleviation which can be replicated throughout the country, consistent with the financial constraints and national and local implementation capacity. Currently, several models are being pursued, all following (to varying degrees) the participatory approach pioneered by the Central Visayas Regional Project, but with very different costs per family. The cost-effectiveness of various approaches (including their total and delivery costs) and their replicability throughout the country needs to be evaluated urgently. Following this evaluation, the preferred model should be adopted and public expenditures on direct rural poverty alleviation projects should be adjusted to improve coverage.

9.29 Issues relating to agrarian reform and its impact on rural poverty alleviation are more complicated. The DAR wants to push CARP as the lead development program for the country and the catalyst for bringing about a strong infrastructure and empowered communities at the grassroots level. The coverage of CARP is quite comprehensive and could be analyzed under three headings: (a) tenurial reform; (b) increase in area under cultivation; and (c) improved natural resource management. Tenurial reform, in turn, could be broken down into two separate components: (a) the straightforward conversion of tenants (mostly on rice and corn lands) into landowners through granting of Emancipation Patents, and sharecroppers into lessees through leasehold operations; and (b) the more complicated conversion of regular farm workers, mostly on lands other than rice and corn, into individual and collective owners of plantations. Increase in area under cultivation is achieved through resettlement programs, distribution of new public alienable and disposable lands and distribution of idle and abandoned lands. Improved natural resource management is sought to be achieved through the integrated social forestry program, which involves no transfer of land.

9.30 The comprehensive coverage of CARP shows both its strength and its weakness. The strength is that its potential impact on agricultural productivity and rural poverty alleviation is substantial. The weakness of CARP is its huge demands on funds, implementation capacity of public sector institutions, interagency coordination, and capacity for impact monitoring and evaluation. It will take a long time to overcome these weaknesses. Even if these weaknesses are overcome, it is important to recognize that CARP alone will not overcome rural poverty, as there is a need for a wider and more integrated approach to rural poverty alleviation.

9.31 If CARP is to contribute to increasing agricultural productivity and incomes, clear priorities will have to be laid down for the achievement of both quantitative and qualitative targets. The qualitative targets should become increasingly more important, since the real impact of CARP on the productivity and incomes of beneficiaries is very limited so far. It is also important to evolve appropriate evaluation mechanisms to assess the impact of agrarian reform.

9.32 To define its role sharply in terms of poverty alleviation, it is essential that the DAR strictly apply a poverty criterion and the selection of ARCs must follow that criterion, among others. This will give the ARC approach an indisputable poverty focus and help avoid dispersing public resources too thinly in all agrarian reform areas.

9.33 It is important to recognize that, in terms of number of poor families covered, the DENR has a much bigger role than the DAR. It would be appropriate to designate both DAR and DENR as the lead agencies for poverty alleviation (and NIA and PCA as the supporting agencies), and to allocate public resources to them in proportion to their respective roles. In this regard, there appears to be some imbalance in the projected resource allocations to the DAR and DENR: while the DAR projects ₱ 20 billion for support services and infrastructure over 1994-98, which will presumably benefit about 1 million families, the projected allocation to the DENR for capital outlay over the same is only ₱ 15.6 billion. This is such even though the DENR is expected to cater to the needs of almost 4 million families living in the uplands, in addition to its responsibility for biodiversity conservation, forest protection and management, etc. This imbalance should be analyzed and public expenditures in the sector restructured in the later years of the MTPIP. To integrate the growth objective with poverty alleviation and sustainable natural resource management objectives, the DA should target its support under the MTADP through both DAR and DENR. The DA should also consider whether to designate the DAR or DENR as the lead agency for some of the IADPs currently under its control. In selected cases, local governments, which have a demonstrated capability for rural development management, should be designated lead agencies for poverty alleviation and natural resource management.

9.34 Natural Resource Management and Environment. Most of the natural resource management projects being implemented in the country have a direct poverty alleviation focus and benefit the poorest of the poor: the upland dwellers. Increasing public expenditures on natural resource management projects and programs would, therefore, achieve the dual benefit of poverty alleviation and sustainable resource management.

9.35 Public expenditures on natural resource management and environmental protection, as represented by the DENR's budget averaged about ₱ 4 billion over 1991-94 in current prices (Table 9.1). In addition, foreign assistance constituted about one-third of DENR's total expenditure over this period. The MTPIP envisages a doubling of DENR's allocation from 1994 to 1998 (Table 9.4), a nominal growth of about 18 percent p.a., which would be a substantial real increase if the inflation rate remains below 10 percent. The DENR's allocation would thus be about 30 percent of the total MTPIP allocation to the agricultural and environment and natural resource management sector (excluding agrarian reform) by 1998.

9.36 The above trends in resource allocation represent a welcome change in Government strategy, and have been accompanied by several policy and institutional changes intended to preserve the Philippines' rich bio-diversity and fragile environment. The Congress has passed

legislation increasing logging stumpage fees, banning commercial fishing gear from Manila Bay, and greatly reducing commercial logging. In addition, a Master Plan for Forestry Development was prepared, outlining policy reforms and investments necessary to ensure efficient and equitable management, conservation, and utilization of forest resources. The DENR has also made major strides on: (a) the preservation of biodiversity through the passage of the National Integrated Protected Areas System Act, supported by (i) the adoption of a General Management Planning Strategy to serve as a guide for the preparation of site-specific management plans; (ii) the establishment and management of multi-use buffer zones in protected areas; and (iii) the management of the protected areas by community-based management boards; and (b) the establishment and rehabilitation of mangrove areas and artificial coral reefs under the Coastal Environment Program. Progress has also been made in addressing brown environmental issues; the World Bank and other donors have assisted the Government and DENR in designing a strategy to encourage industry to prevent and reduce pollution, and, over time, to internalize the cost of pollution abatement. The key elements of this emerging strategy are: (c) strengthening monitoring and enforcement of environmental policies, possibly through creation of an Environmental Management Corporation; (d) creating financial incentives for industry to undertake abatement on its own initiative through the introduction of a pollution charge, and by offering soft funding for pollution abatement investments; and (e) facilitating transfer of know-how on cost-effective abatement technologies to industry, through sector-specific training activities and plant level advisory services on clean technology and waste minimization.

9.37 Despite this significant progress, several institutional and resource allocation issues still need to be addressed. The foremost institutional issues are the capability of the DENR to effectively handle green, brown and blue environmental issues, as well as mining sector development in long term, and the absence of an effective national-level coordination for watershed management planning, implementation and monitoring. The major sub-sectoral resource allocation issue relates to watershed management. DENR's activities in watershed management so far have been fragmented and not very different from a typical reforestation program. It is likely that most of the watershed management activities have had little impact on achieving the intended goal of reducing soil erosion and improving water quality.

9.38 Over 1989-93, the DENR rehabilitated only about 30,000 ha of watersheds using vegetative and structural soil conservation methods. A few thousand ha of watersheds were also reforested under the Contract Reforestation Program. Thus compared to even the "proclaimed" watershed area of 1.4 million ha, a huge area still needs to be rehabilitated and protected. Of the ₱ 16.4 billion projected allocation for forestry under the MTPIP over 1994-98, the DENR shows only ₱ 1.8 billion for soil conservation and watershed management (Table 9.1); this allocation appears extremely low. Given the extent of existing watershed degradation in the country and the disastrous consequences of further degradation, it is essential that this issue be given urgent attention and a long-term, programmatic approach be developed, and protection clearly planned and monitored. This programmatic approach should be accompanied by institutional changes within DENR and at the national level

9.39 Infrastructure and Supporting Services. The main resource allocation issues in promoting greater competitiveness and diversification of agriculture through provision of adequate

infrastructure and support services involve irrigation, rural roads, and agricultural research and extension.

9.40 Irrigation. The steep real decline in public irrigation expenditures has had unfavorable effects on both agricultural growth and rural poverty alleviation. From a rice surplus through the early 1980s, the Philippines has become a rice deficit country. At the same time, per capita rice consumption is three times higher than that of other grains combined. This, in combination with population and income growth, could result in a rise in consumption by as much as 30 percent; corresponding imports could range from 0.7-1.0 million tons.

9.41 During the past two decades, growth in rice production has come mainly from yield increases, as planted area has remained relatively unchanged. Three factors have accounted for the yield increases: the widespread adoption of high-yielding varieties (HYVs), increased use of fertilizers, and the relatively rapid expansion of irrigated area. Rice production from irrigated areas now accounts for about 70 percent of total production. Since growth in yields has leveled off and expansion in planted area is not feasible, most future growth in paddy production will have to come from a considerable expansion of irrigated area. Therefore, in the medium term, rice production increases will depend largely on the rate at which rainfed land will be converted to irrigated land. As only about half of irrigable land is currently irrigated, the potential for expansion of irrigated area remains significant .

9.42 With the decline in public expenditures on irrigation, new area generated has declined from an average of 25,000 ha in the 1980s, to less than 10,000 ha irrigated a year over the last two years. While adversely affecting agricultural growth and poverty alleviation, the decline has also created serious financial problems for NIA, which has to finance its operating budget and depends for a part of its revenues on management fees (5 percent of the investment by the Government). In 1993, NIA's total operating and non-operating revenues amounted to about ₱ 691 million. These revenues were insufficient even to meet NIA's total operating expenses in, and after allowing for depreciation, the net income was negative by ₱ 37 million.

9.43 An Accelerated Irrigation Development Program, which envisages the development of about 1.5 million ha of new irrigation facilities over 10 years, was legislated in 1992. However, this will require over ₱ 6 billion a year and a considerable improvement in NIA's implementation capacity. The MTPIP allocation of about ₱ 4 billion a year is financially more realistic and consistent with NIA's current implementation capacity. Nevertheless, the investment program has to be carefully drawn up with a higher priority to rehabilitation and modernization compared to new area generation.

9.44 The performance of many irrigation systems has been below expectations due to: highly variable and low dry-season water supplies; less than adequate system management; inadequate agricultural support services; lack of emphasis on flood control and drainage in the design of some irrigation systems; inadequate funding of operation and maintenance; and institutional weaknesses in NIA and Irrigators' Associations (IAs). The most common problems are deteriorating canals and structures, silted and defective diversion works, inadequate drainage and on-farm facilities, and poorly maintained service roads. Moreover, in many cases, water control structures cannot provide equitable and timely water deliveries to all users. In addition, achieving a sustainable level of operation and maintenance of national irrigation systems remains an unrealized goal. Considering

these factors, the priority under the MTPIP should be the improvement and repair of existing national irrigation systems, and construction and rehabilitation of communal and small-scale irrigation schemes, which will require smaller investments but yield faster returns. However, communal and small-scale irrigation schemes have been devolved to LGUs and now face an uncertain future.

9.45 Rural Roads. Domestic trade of agricultural products is hampered by the lack of adequate rural infrastructure and port facilities. The resulting high transport costs reduced the competitiveness of agricultural products. There are also marked regional differences in the availability and quality of infrastructure. These regional differences punish farmers in areas with low quality infrastructure, while protection accorded to domestic products, on grounds of high transportation costs, present windfall profits to those farmers who live in better-served areas.

9.46 Road transportation of agricultural products has been hindered by the low road density in major producing areas and by the low quality of existing roads, which significantly delays the hauling of produce during the rainy season. In fact, a study in the Philippines found a close correlation between agricultural productivity and the density of both barangay roads and all roads (Philippines Department of Agriculture, "Impact of Rural Roads on Agricultural Productivity and Farm Income", mimeo, 1989). Inadequate road infrastructure has likely also had a negative effect on the development of higher-value perishable crops, as there is evidence that access to market roads creates shifts in cropping patterns in favor of high-value crops.

9.47 An increase in transport infrastructure expenditures in favor of the major agricultural producing areas is essential if the sector's performance is to improve. However, if the area-based programs of the DAR and DENR and some IADPs under the DA are accepted as the appropriate development approaches, the increase in rural infrastructure expenditures is best handled through these programs in coordination with LGUs, who are now responsible for most rural infrastructure. This will ensure complementarity with support services and inputs, and have a monitorable impact on growth, poverty alleviation and natural resource management. The major issue to be resolved is the role of local governments in financing and implementing rural roads projects, and the lending and on-lending arrangements if foreign donors are to be involved.

9.48 Agricultural Research and Extension. Although annual public expenditures on agricultural research amount to only ₱ 700-800 million, the more critical issue at this stage is the responsiveness of the research system to farmers' needs. The development of an efficient agricultural research system in the Philippines faces several problems, including (among others): (a) non-inclusion of local governments, NGOs, and farmer organizations, causing an insufficient balance between national and local needs; (b) technologies not adapted to farmers' needs; (c) lack of attention to economic/social effects of research recommendations; and (d) weak links with private sector research.

9.49 The main problems of extension are: (a) organizational structures/functions that result in duplicative extension services between provinces and municipalities; (b) budgetary constraints that impede the provision of a modern extension service; (c) negligible farmer participation in defining needs and priorities for extension programs; (d) inadequate management capability to implement programs. The devolution of extension services from the DA to the local governments has also left a void in responsibility for the formulation and implementation of matters related to extension at the

regional and national levels. The reorganization and strengthening of the extension system is, therefore, a priority.

Role of the Private Sector and Privatization

9.50 An overwhelming proportion of agricultural and rural expenditures is undertaken by the private sector. At the same time, considerable scope exists for greater private sector participation in certain public sector activities, including research, extension, irrigation, and NFA. First, some agricultural research undertaken by the private sector but the nature of this research is not precisely known. It is recommended that PCARRD start collecting information research expenditures by the private sector, and evolve an institutional mechanism to promote greater participation of the private sector in the research system. Second, there are significant extension activities undertaken by private corporations but, as in the case of research, no institutional effort has been made by the public sector to take stock of these activities nor to utilize them in selected areas. Moreover, public sector extension activities have not been very responsive to farmers' needs, and it is important to evolve a strategy to involve more private activities in extension services over the long term, so that they become demand-driven. Third, the participation of the beneficiaries in planning, construction and O&M of communal irrigation schemes has been extensive and should remain so. However, the participation of farmers in the national irrigation systems (NIS) has been limited to O&M. An accelerated program of turnover of the NIS (or parts of it) to farmers should be implemented by NIA. Moreover, privatization of at least some of NIA's mechanical equipment fleet appears feasible and desirable in order to increase efficiency of operations. Finally, the phasing out of NFA's activities and privatization of its facilities (this is ongoing) will release large amounts for public spending in higher priority areas.

Spatial Balance in Resource Allocation

9.51 While the DA's growth strategy would not appear to require any specific spatial considerations, the poverty alleviation strategy of the DAR would have to specifically take into account the inter-regional differences in poverty incidence, which are significant. While a variety of factors cause inter-regional differences in rural poverty, analysis indicates that the only factor consistently explaining poverty levels across all regions is the concentration of land holdings -- regions with a high land concentration ratio clearly have a higher incidence of rural poverty. Regions with high incidences of rural poverty are characterized by land scarcity and low agricultural productivity. The redistribution of lands in these areas under the CARP will obviously help poverty alleviation in the medium to long term. In addition, provision of support services and infrastructure to the ARCs in these areas on a priority basis will help increase employment and incomes immediately.

Role of Local Governments

9.52 Under the LGC, local governments have a major role to play in the sector's growth, rural poverty alleviation, and improved natural resource management and environment. However, this role is marginal even after three years. A major problem is the lack of a mechanism for foreign donors to work with local governments. Even if local governments were creditworthy, it would be impossible for donors to deal individually with hundreds of municipalities, cities and provinces. This situation is having an adverse impact on rural expenditures on communal irrigation, extension,

roads, and natural resource management, and, therefore, a framework needs to be evolved to incorporate local governments into foreign-assisted projects

Agricultural Incentives

9.53 After significant liberalization in the late 1980s, there have been few economic distortions influencing resource allocation in agriculture. The main issue is the Government's involvement (through NFA) in grains marketing. For example, corn prices are kept well above border prices through a combination of quantitative restrictions and import tariffs. This has kept livestock production costs, and therefore, the price of meat products high, thus dampening the demand for livestock products. This industry has a strong potential for growth and even exports, but uncertain supply and high feed prices put the domestic industry at an international disadvantage. In addition, poor infrastructure, which constrains the development of the entire agriculture sector, particularly affects high-bulk, low-value products like grains. Protection of the corn industry, though, is likely to be phased out (after ratification of the Uruguay Round of the GATT). Regarding price stabilization, the GOP has decided to phase out the NFA's role, and therefore, distortions in price incentives for agricultural production are expected to be minimal.

Budgetary Releases

9.54 The problem of low allocations to some agencies has been further complicated by late and staggered releases of the capital outlay, which adversely affect the performance of these agencies. DENR and NIA have been particularly hard hit because of the seasonal nature of their operations. These variable releases hamper planning for agencies like NIA or DENR; contracts are implemented at the wrong time, resulting in a considerable waste of public resources. One solution is that, since almost the entire development program of agencies like NIA or DENR is supported by external agencies, NCA/NCAA may be discontinued for externally-assisted projects which should depend on special accounts.

9.55 The usefulness of Special Accounts is underlined by another problem faced by the implementing agencies: the DBM releases cash only for that portion of the budget which pertains to local funding (Peso counterpart). Projects must initially utilize the Peso counterpart funds and, after expenditures are incurred, apply for reimbursements. Since external loan financing is typically about 75 percent of project costs, the projects have to roll over the 25 percent counterpart fund several times each year before receiving the full loan reimbursement. The projects thus suffer twice: first, due to actual budget allocations being much less than required, and, second, due to the need to roll over the counterpart funds to get loan reimbursements. Both factors (in addition to that of cash releases) have contributed to serious project implementation delays. The opening of Special Accounts will resolve this problem.

9.56 Revised guidelines for release of funds have been issued recently by the DBM, and became operational from January 1, 1995. However, it is too early to tell whether the new system will be implemented in a way to overcome the problem of late cash releases

D. INSTITUTIONAL ISSUES

9.57 There are several institutional issues, both cross-sectoral and sector-specific, which need to be addressed to enhance the effectiveness of public expenditures in promoting rural and agricultural growth, rural poverty alleviation, and natural resource management and environmental protection.

Cross-Sectoral Issues

9.58 Water Resources Planning and Allocation. The potential for conflict among water users is growing, and is already significant during critical periods of the dry season in Region III. The institutional weaknesses of the National Water Resources Board (NWRB) have precluded carrying out and updating of basin-wide studies, adjustment of investment programs in irrigation and other water sub-sectors, formulation of improved procedures for water allocation among competing users, and monitoring of water use by legal and illegal users. A Water Supply Sector Reform Study⁶ made recommendations for the NWRB, mainly from the water supply sector viewpoint, and a team of consultants is expected to prepare a strengthening plan for NWRB in 1995⁷. The strengthening plan should have a broader framework, including all water users. Some work has also been done on NWRB, and water demand and supply projections, in preparation of the proposed Water Resources Development Project (WRDP). The final report (December 1994) included some interesting projections, which show potential water deficits in at least three (Magat, Pampanga and Angat) of the 10 basins studied. The Water Summit (December 1994) recommended the preparation of a National Water Management Plan. The proposed WRDP could provide a vehicle to implement some of the required changes in the institutional framework for water resource planning and allocation.

9.59 Watershed Management. The degradation of watersheds and its impact, is becoming increasingly critical. The major issue is the absence of an integrated, comprehensive approach to watershed management. Current watershed-related projects have partial area coverage and sometimes concentrate on reforestation alone. A high-level body is needed to plan and monitor a comprehensive. In this context, it should be considered whether the NWRB should be the national policy-making and coordinating body for watershed management and, if so, whether this mandate should be included in any strengthening program for the NWRB.

9.60 Institutional Capability of Local Governments. For the decentralization program to succeed, a major effort is required for institutional strengthening of local governments. Agricultural extension, natural resource management, environmental protection, and tertiary roads construction and maintenance capability would need to be upgraded. For communal irrigation, the issue is more complicated, as NIA staff involved in communal irrigation schemes have not been (and may never be) absorbed by local governments. While in the long-run, creation of a capacity within the local governments for communal irrigation could be considered, in the short-to-medium-term, the most efficient option is for local governments to contract out the planning and construction of communal irrigation schemes and organizing of the IAs to NIA.

⁶ This was financed by a Japanese grant and executed by the World Bank, and was carried out in 1993.

⁷ This was financed under a Japanese grant administered by the World Bank.

Sector-Specific Issues

9.61 Institutional Capability of DENR. The magnitude of responsibilities entrusted to DENR is huge, covering regulatory functions, conservation, development, and industrial promotion. It is important to undertake a study of DENR to review its current mandate, resources and a future institutional framework to deal with the functions currently entrusted to it. In this regard, a draft legislation has been under discussion in the Congress to create an Environmental Management Corporation, to strengthen monitoring and enforcement of environmental policies. This legislation (along with the justification for continued handling of the mining sector by DENR) should be analyzed in the study, and strengthening proposals for the DENR should be based on a clear definition of its role in the future.

9.62 Institutional Capability of DAR. If, on top of land acquisition, distribution, and land tenure improvement programs, the DAR has to oversee a ₱ 20 billion program for support services and infrastructure (1994-98), there will be a need for institutional strengthening. Taking this into account, the staffing, financial, and training needs of the DAR need to be reviewed.

9.63 Capability of NGOs. Although increasing reliance is being placed on NGOs by both the DAR and DENR for implementation of their respective programs, the institutional arrangements and capacity for evaluation of the NGOs appear limited. To ensure efficient implementation of the DAR and DENR programs, it is essential to evolve institutional arrangements for the evaluation of NGO capability and performance. This issue should be dealt with in the context of the previously recommended studies of the DENR and DAR.

9.64 Streamlining and Rationalization of NIA and PCA. Both NIA and PCA have a significant role in agricultural growth and rural poverty alleviation, but have faced multiple organizational and funding problems. A streamlining program, based on voluntary retirements, has already been prepared by NIA internally. This program should be complemented by an accelerated program to turn over national irrigation systems (or parts of it) to IAs, improvement in the management of NIA's mechanical workshops and equipment fleet, and establishment of a computerized management information system within NIA.

9.65 The PCA has a significant role in as it is responsible for the development of coconut, which provides incomes for at least one-fourth of rural families, and a significant number of people engaged in coconut-based industries and trade in urban areas. Coconut-based products are the biggest agricultural export of the country, accounting for over 30 percent of agricultural exports and 10 percent of total merchandise exports, and the Philippines accounts for about 70 percent of total world exports of coconut oil and copra. Developments within this sub-sector, therefore, have important effects not only on the rural sector, but also on the economy as a whole. The PCA, however, has organizational, management, staffing and funding problems. The development program of the PCA has been implemented over the last few years through the Small Coconut Farms Development Project (IBRD-assisted). As the PCA is one of the four main agencies involved in rural poverty, it is essential that, in the context of a poverty alleviation strategy, the contribution of the PCA be clearly defined, its future development strategy formulated, and its organization, staffing and funding rationalized.

E. CONCLUSIONS AND RECOMMENDATIONS

9.66 The current level of public expenditures on agriculture (about ₱ 18 billion per annum) is inadequate to help the agricultural sector become an important source of growth, and make a significant contribution to poverty alleviation and sustainable resource management during the later 1990s. The recent decline in public expenditures has been accompanied by a long-term real decline in lending for agriculture by the banking system over 1981-92. This trend must be reversed. The MTPIP (1993-98) envisages a near doubling of the sector's share in the total MTPIP (which excludes agrarian reform) from about 5.6 percent in 1993, to 10.1 percent in 1998. This is appropriate, considering the implementation capacity of the concerned agencies. The share of the sector will be even higher, depending on the amount of agrarian reform funding that becomes available. The main conclusions and recommendations on the composition of public expenditures in agriculture and institutional issues are summarized below:

- (a) The persistence of rural poverty, with an incidence of over 50 percent, is a major development issue. However, progress on CARP implementation, the GOP's main poverty alleviation program, has been slow. Of the target of 10.3 million ha over 1987-98, only 27 percent was distributed (or redistributed) by June 1994 and the remaining 73 percent will have to be achieved in four and a half years. The financial requirements for achieving the remaining program over 1994-98 are huge: ₱ 101 billion (in current prices), of which about ₱ 67 billion is required for land acquisition and distribution activities (₱ 63 billion for landowners' compensation) and the balance ₱ 34 billion for support services and infrastructure (₱ 20 billion) and program management (₱ 14 billion). Innovative policy changes, including a "recalibration of targets" (under consideration by the DAR), would be required to meet this staggering financial challenge.
- (b) The MTADP needs significant adjustments. Moreover, to achieve greater efficiency in resource allocation and use in agriculture, the sectoral development strategy needs to be defined clearly and, in this context, there is a need to integrate three distinct approaches being followed: the DA's growth strategy under the MTADP based on comparative advantage; the bottom-up approach, involving participation by the local communities and NGOs, primarily focused on poverty alleviation, represented by the ARC concept of the DAR; and another bottom-up, participatory approach, primarily focused on sustainable resource management, being followed principally by the DENR.
- (c) A rural poverty alleviation strategy needs to be formulated. The strategy should clearly define the contributions of the main agencies involved in rural poverty alleviation. The imbalances in poverty alleviation expenditures should also be addressed: while the overall public expenditures on direct poverty alleviation in rural areas are low compared to the severity of poverty incidence, expenditures per family vary widely among projects and programs, and delivery costs are fairly high. The correction of imbalances would require an evaluation of the cost-effectiveness of various projects and programs and their replicability throughout the country. While expenditures on poverty alleviation need to be increased, the DAR, in particular, should ensure a sharp focus on poverty.
- (d) Several favorable policy changes and investments have occurred in the environment and natural resource management sub-sector, and a community-based approach, involving the help of NGOs in community-organizing, has been adopted by the DENR. An important area, which

deserves more emphasis, is watershed management. Both institutional changes and increased investments are necessary in this area. Given the extent of watershed degradation in the country, it is recommended that a long-term, programmatic approach be developed, with the contribution of external financiers and of various activities of the DENR and other agencies to watershed rehabilitation and protection clearly planned and monitored.

(e) The sharp decline in the share and value of irrigation expenditures during the 1980s has had unfavorable effects on both agricultural growth and rural poverty alleviation. Considering that rice deficits are expected to continue into the next century, irrigation expenditures of about ₱ 4 billion p.a. envisaged under the MTPIP must be ensured. The major part of the expenditure should be on rehabilitation and improvement of existing irrigation systems.

(f) Public expenditures on communal irrigation, agricultural extension, integrated social forestry, and barangay/rural roads, which were devolved to the local governments in 1992, have been adversely affected due to the limited financial and implementation capacity of the local governments. It is recommended that a framework be evolved urgently to incorporate local governments into foreign-assisted projects and determine workable cost-sharing, lending and on-lending arrangements.

(g) Although overall agricultural research expenditures are less than half of the recommended level of 1 percent of GVA in agriculture, the more critical issue is to shift resources within research so that it becomes more responsive to the needs of the farmers. The research-extension linkages, which have been practically severed after devolution of extension to the local governments, also need to be re-established.

(h) While the expenditures in the agricultural sector are overwhelmingly private (the Government accounting for only 6 percent of the GVA in agriculture), there is scope for privatization of extension services in the long term, more active collaboration of the private sector in the agricultural research system, an accelerated program to turn over the national irrigation systems or parts of the systems to the Irrigators' Associations, and privatization of at least part of NIA's equipment fleet and mechanical workshops.

(i) The problem of low allocations to some agencies in the sector is further complicated by late and staggered cash releases over a three-year period, which adversely affect the performance of agencies such as DENR and NIA because of the seasonal nature of their operations. Opening of Special Accounts is recommended for all external loan-financed projects to overcome the problem of late and staggered cash releases.

(j) There are several institutional issues that need to be resolved over the next few years to increase the efficiency and effectiveness of resource use in the agriculture and environment and natural resource management sector. The major cross-sectoral issues are the weaknesses in national water resources planning and allocation and the need for institutional strengthening, particularly of the NWRB; absence of a national-level body to plan, coordinate and monitor a comprehensive and integrated approach to watershed management; and the weak institutional capability of local governments. The major sector-specific issues are the need to strengthen the institutional capability of the DENR and DAR; to establish a system for the evaluation of NGO capability and performance; and to streamline and rationalize the organization and staffing of NIA and PCA.

10. EDUCATION SECTOR

Central Government Financing

10.1 Constitutionally, education commands the highest priority in the inter-sectoral allocation of government resources (Table 10.1). The government's commitment has commensurately been appreciable; budget allocations to education¹ represented 28 percent of available government resources, net of debt service and transfers to local government units (LGUs). But, including debt service and LGU transfers, the education sector appears to receive a rather modest 13-14 percent of the national budget in the period 1991-93, which is significantly below regional norms.

TABLE 10.1 - CENTRAL GOVERNMENT EDUCATION EXPENDITURE^A

Year	Million Pesos		% of National Budget		% of GNP
	Current Prices	Constant '93 Prices	Total	Exl. Debt & IRA	
1985	8,371	16,961	10.5	15.1	1.5
1986	14,046	28,235	12.7	19.5	2.4
1987	15,730	30,484	13.0	33.5	2.3
1988	20,716	36,895	15.2	33.7	2.6
1989	26,741	42,221	15.5	32.0	2.9
1990	32,922	45,772	15.1	31.4	3.0
1991	32,873	38,492	13.3	28.4	2.6
1992	36,633	39,422	13.6	26.2	2.6
1993	38,015	38,015	13.5	28.8	2.5
1994 ^{b/}	46,184	42,377	14.3	31.4	2.6
1995 ^{b/}	55,324	47,440	14.0	26.0	2.8

Sources: DECS, DBM, NSCB; 1994 General Appropriation Act, 1995 General Appropriation Bill.

^{a/} DECS, SUCs and NMYC combined (actual expenditure).

^{b/} Estimate.

^{1/} I.e., the combined budget of DECS, the State Universities and Colleges (SUCs), and the National Manpower and Youth Council (NMYC).

10.2 Indeed, this budget allocation to the sector amounts to 2.5 percent of GNP, and is among the lowest in the region. In addition, an extended period of low economic growth further constrained the level of available government resources between 1989-93.

Recent Trends

10.3 The effects of economic adjustment and fiscal austerity during the first half of the 1980s were severely felt in the education sector; government spending for education declined in real terms during that period (30 percent overall), and was down to 1.5 percent of GNP in 1985. Enrollment in public schools continued to increase at all levels, but at substantially lower rates than during the previous decade. The slowdown was particularly significant at the elementary level, where the growth of enrollment fell below the rate of population growth.

10.4 The Aquino Administration initiated a drastic increase in resource allocation to the sector, from less than 10 percent of the national budget in 1985, to 15.5 percent in 1989.² Total government expenditure for education increased almost fourfold during the remainder of the decade, reaching 3 percent of GNP in 1990. A substantial part of this increase was absorbed by upward salary adjustments.

10.5 Two important measures contributed to the sharp increase in financing requirements in that period. First, in 1988 Department of Education, Culture and Sports (DECS) took over the operation of village high-schools, previously funded by LGUs. This "nationalization" was inspired by concern for the low quality of educational services delivered in those schools, and by the commitment towards universal free access to basic education. Village high-schools practiced a significant degree of cost-recovery through tuition and other fees. The abolition of such fees in the nationalized schools generated a considerable addition to public resource requirements and an increase in public secondary enrollment. The financial consequences of this measure were reflected in a fourfold increase in DECS spending on secondary education, from an initial level of ₱ 1.4 billion in 1987 to ₱ 5.8 billion in 1990. Secondly, a program for Government Assistance to Students and Teachers in Private Education (GASTPE) was launched in 1989. The GASTPE program was designed to provide financial assistance to students from lower income families enrolling in private high schools and tertiary institutions. But, as discussed below, this measure has had the unintended consequence of creating a class of low quality, cum low cost, private schools.

10.6 Recession and renewed fiscal austerity in the early 1990s brought an end to the rapid expansion of government's education sector spending. Allocations to the education sector fell back to 13-14 percent of total government expenditure between 1990-93 (2.6 percent of GNP). Part of this relative decline reflects the rising incidence of fiscal decentralization, initiated under the new

² Measured in terms of affective government resources (i.e., net of debt service and IRA), the share of education reached 33.7 percent in 1988; this peak has since then never been reached again.

LGC of 1991.³ According to the 1991 LGC, the financial responsibility for school construction and maintenance in basic education was to be devolved from DECS to LGUs. So far, however, there has been no formal devolution of educational services. With central government resources diminished by IRA transfers, DECS should therefore have received an increasing share of available resources, so as to be able to sustain adequate delivery of basic education services to a rapidly growing school age population.

10.7 In reality, the required proportional adjustment in resource allocation to education did not materialize. Instead, the share of the national budget accruing to the education sector declined to 26 percent in 1992, and has since remained within this margin. As a result, earlier commitments are becoming increasingly difficult to sustain effectively.

Expenditure Patterns

10.8 Renewed high government commitment to education following the demise of the Marcos regime, combined with rapid economic expansion, spawned an unprecedented increase in sector resources. Overall, government education expenditure rose by about 150 percent in real terms between 1985 and 1989. The bulk of this expansion (87 percent) was allocated to basic education (Table 10.2). Overall, the financial situation of the public education system underwent a major improvement during the late 1980s, which, by and large, benefited the entire sector.

10.9 The trend towards increasing public resource allocation for education could not be sustained in the subsequent four-year period, as economic growth slowed down to a trickle. Total expenditure for education, (real terms) declined on average by 2.6 percent p.a. between 1989-1993. As stated earlier, this decline was in part also a consequence of the fiscal decentralization process initiated in 1991.

³ Since 1993, the volume of IRA transfers from central government to LGUs is roughly equal to the entire public education budget.

TABLE 10.2 - EVOLUTION OF GOVERNMENT EDUCATION FINANCING 1985-95, BY CATEGORY OF EXPENDITURE

	1985 89	1989-93	1993-95	1985-95
I. Average Real Growth p.a.:				
Total Education		-2.6	11.7	10.8
DECS				
Personnel Services	26.9	-1.4	13.6	12.1
MOOE	<u>21.4</u>	<u>2.0</u>	<u>5.6</u>	<u>10.1</u>
Total Recurrent Exp.	27.2	-1.1	11.5	12.0
(Same, per student)	(22.8)	(-3.1)	(9.0)	(8.9)
Capital Expenditure	<u>47.0</u>	<u>-26.6</u>	<u>28.9</u>	<u>8.4</u>
Overall Total	28.2	-2.4	11.9	11.9
	1985	1989	1993	1995
II. Distribution of DECS Exp. (%):				
Personnel Services	83.2	80.0	82.6	84.7
Overall Total	100.0	100.0	100.0	100.0

Sources: DECS, DBM, NSCB; 1994 General Appropriation Act, 1995 General Appropriation Bill

10.10 The pace of education spending picked up again in 1994, as a result of new government-wide salary adjustments. On balance, a considerable improvement (e.g., real GOP spending per student more than doubled) in the sector financing situation has thus been achieved during the last decade. However, in view of initial conditions, it is unlikely that this increase was sufficient, overall, to meet the growing quantitative and qualitative needs of the public education system. There are three areas of concern: (i) the rapid increase in salaries; (ii) MOOE; and (iii) the chaotic year-by-year evolution of the various categories of expenditure.

10.11 *Salaries.* Overall, the total compensation package of teachers recorded a fourfold increase between 1985-1995 (or, 5 percent p.a). Moreover, the raise in basic salaries and other compensations granted in 1994-95 were part of a longer term package. Thus, between now and 1998, another 35 percent increase in staff compensation is already in the pipeline; this could boost DECS' wage bill to an even larger extent. Crucial non-salary outlays are thus at risk of being crowded out under the pressure of personnel costs.

10.12 *MOOE*. Expenditures for MOOE have been on a downward slide since 1990. The recovery in government education spending in 1994 did not stop this trend. This erosion of earlier achievements is disturbing, as it may have significant adverse impacts on school maintenance and the provision of essential educational inputs. And, while budget appropriations suggest a sizable increase for 1995, past discrepancies between budget allocations and actual spending raise doubt as to whether this increase will be realized.

10.13 *Stop-Go Financing Patterns*. Underlying the trends shown in Table 10.2 are wide year-to-year fluctuations in expenditure patterns. The resulting unpredictability of funding levels hampers educational planning efforts, and is a major impediment for effective sector management at the operational level.

Intra-sectoral Distribution of Expenditures

10.14 The breakdown of central government expenditure in the education sector is shown in Table 10.3. About 85 percent of central government appropriations for education are channeled through DECS. Most of the rest is absorbed by the State Universities and Colleges (SUCs), which are funded through direct appropriations. Since 1991, minor but rapidly growing direct financing is also being allocated to the National Manpower and Youth Council (NMYC), which is essentially responsible for non-formal manpower training and skills upgrading programs.⁴ DECS' share of total education financing has remained virtually constant during that period. Neither repeated salary adjustments nor the nationalization of secondary schools have raised DECS' share in the central government's total education budget. On the other hand, the establishment of NMYC did not alter DECS' share in the central government's total education budget either; so far, this claim on public resources has been at the expense of the SUCs. This rigidity in the distribution of finances suggests a tension between resource appropriation rules and procedures, on the one hand, and rapidly evolving sector needs, on the other. These factors are a first indication that DECS may not have been granted sufficient additional resources to meet the new commitments entrusted to it in that period.

10.15 Over the medium term, the nationalization of LGU-funded highschools has not dramatically altered the intra-sectoral distribution of resources. The final outcome, however, is the net result of two counterbalancing rounds of adjustment. First, the share of secondary education shot up from an initial 10 percent in 1987 to 21 percent in 1989. This increase was mainly at the expense of elementary education.

10.16 From 1990 onward, however, the DECS' budget constraints affected primarily secondary education, and the respective shares of sector resources moved back towards their original level. By 1994, secondary education had gained only a net 7 percent share of sector resources and elementary education lost 4.5 percent, other DECS programs making up the difference. These

⁴ Minor amounts of education sector financing, essentially for on-the-job staff training, can further be identified in the respective budget allocations of several Departments. These are omitted here.

consecutive rounds of adjustment illustrate DECS' difficulty in balancing conflicting claims on its resources.⁵

10.17 Table 10.3 also shows a strong upsurge in the portion of sector resources absorbed by DECS' central administration. This phenomenon largely reflects the salary adjustments implemented under the 1989 Salary Standardization Law. In 1988, before the rounds of salary adjustments, DECS' central administration accounted for a modest 7 percent of the sector's total budget appropriations; it is now back to that level, after rising to over 20 percent in 1990 and 1991.

TABLE 10.3 - GOVERNMENT FINANCING, BY LEVEL AND TYPE OF EDUCATION

	1987	1988	1989	1990	1991	1992	1993	1994
Elementary	60.0	56.6	42.3	40.4	41.9	50.8	54.1	55.5
Secondary ^a	9.8	18.5	21.3	20.2	18.3	14.8	15.9	16.7
Tertiary ^{ab}	16.8	16.9	17.7	18.0	16.1	16.4	17.6	16.4
Vocational ^c	2.1	1.2	.7	.6	3.1	3.0	3.3	3.3
Other ^d	--	--	--	--	.0	.0	.0	.4
DECS Central Adm.	<u>11.3</u>	<u>6.8</u>	<u>18.0</u>	<u>20.8</u>	<u>20.6</u>	<u>15.0</u>	<u>9.1</u>	<u>7.7</u>
Overall Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(o.w. Total DECS)	(84.9)	(85.0)	(84.5)	(84.4)	(86.5)	(85.9)	(84.7)	(85.1)

Source: 1987-94 General Appropriations Acts

1989090 SUCs Expenditure Program

^{a/} Including GASTPE from 1989 onwards.

^{b/} SUCs, plus DECS-managed tertiary institutions.

^{c/} DECS-managed programs, plus NMYC from 1991 onwards.

^{d/} Pre-school and non-formal programs (DECS).

^{5/} A new round of adjustment might be emerging in the 1995 General Appropriation Bill, which restores the share of secondary education to 18.6 percent of the total sector budget.

Functional Distribution of Expenditure

10.18 What proportion of Government education expenditure actually benefits education delivery at the school level? In the DECS' 1994 budget appropriation, just over 6 percent was allocated for General Administration (Table 10.4). On the whole, there does not appear to be much wastage in terms of administrative and other not strictly operational expenditure. The detailed functional breakdown of budgeted DECS expenditure, however, raises a number of potential concerns.

10.19 First, of the total of ₦ 34.3 billion reserved for regional operations, ₦ 1.8 billion (5 percent) was not allocated to specific educational institutions at divisional and district levels. Unallocated funds represented over 21 percent of non-personnel expenditure earmarked for regional operations. DECS' regional offices also have discretion over a certain percent of regional appropriations for capital expenditure, transfers and MOOE. Of concern, therefore, is that the utilization of these unallocated funds may escape DECS control, given the relatively weak expenditure monitoring system in place.

10.20 A second issue concerns the high proportion of the total resource appropriation for MOOE which is retained in the regional administration. Overall, less than 60 percent of budgeted MOOE funding is earmarked for specific operations. And, under the prevailing budgetary system it is difficult, if at all possible, to ascertain whether and to what extent these funds were used for the intended purpose.

TABLE 10.4 - FUNCTIONAL DISTRIBUTION OF THE 1994 DECS BUDGET

	Personnel Services	Transfers ^a	MOOE	Capital Expenditure	Total Expenditure
I. General Administration					
Central	2.8	0.8	1.6		2.3
Regional	1.5	--	25.6	1.9	4.0
Sub-total	4.3	.8	27.2	1.9	6.3
II. Operations					
Central ^b	0.6	9.0	8.8	3.0	1.8
Regional	95.1	90.2	64.0	95.1	91.9
(o.w. unallocated)	(.6)	(12.5)	(5.5)	(28.1)	(4.8)
Sub-total	95.7	99.2	72.8	98.1	93.7
III. Total Budget					
	100.0	100.0	100.0	100.0	100.0
(same in million ₦ .)	(28,188)	(777)	(3,182)	(4,556)	(37,333)

Source: 1994 General Appropriation Act

^{a/} Essentially the GATSPE program (90% of total transfers), which is specified under Regional Operations.

^{b/} General operations and operations support.

10.21 Concerns about the lack of transparency in the allocation and utilization of the DECS budget are underscored by the actual versus budgeted expenditure (Table 10.5). Overall, there appears to be a systematic tendency towards underspending, which averaged 6 percent of DECS total budget allocation in the 1991-93 period. With regard to MOOE, funding allocated to DECS' regional offices appears to be fully utilized. Funding retained in the central administration, however, is under-utilized by as much as 14 percent.

TABLE 10.5 - ACTUAL VERSUS BUDGETED DECS EXPENDITURE

OBLIGATION/ALLOTMENT RATIO (1991-93 AVERAGE)

	Personnel Services	MOOE	Capital Expenditure	Total Expenditure
Central ^a	50.5	85.9	80.7	65.9
Regional ^a	<u>99.9</u>	<u>98.9</u>	<u>73.8</u>	<u>98.9</u>
Total Budget	95.0	95.9	77.7	94.0

Source: DECS

^{a/} General administration and operations

Recurrent Expenditure Per Student

10.22 The evolution of per student recurrent expenditure at successive levels of the education system (Table 10.6) underscores the government's difficulty in balancing competing claims on its resources, without inducing intra-sectoral allocative disturbances. Spurred by the nationalization of village high schools, unit expenditure at the secondary level increased by about 130 percent (real terms) between 1987-89, compared to a gain of 42 percent at the tertiary level, and only a 5 percent increase at the elementary level. Between 1990-93, however, elementary education was effectively protected from the consequences of fiscal retrenchment, whereas many of the earlier gains in unit spending at secondary and tertiary levels were lost. The subsequent recovery in government education spending benefited both elementary and secondary education, while the downward slide in unit expenditure continued unabated at the tertiary level.

TABLE 10.6 - EVOLUTION OF PER STUDENT RECURRENT EXPENDITURE ^A BY LEVEL OF EDUCATION

	Elementary	Secondary ^b		Tertiary	
	A	A	B	A	B
1987	2,176	1,822	.8	19,058	8.8
1988	2,342	3,305	1.4	23,223	9.9
1989	2,281	4,224	1.9	32,005	14.0
1990	2,413	4,281	1.8	33,057	13.7
1991	2,464	3,743	1.5	23,379	9.5
1992	2,468	2,703	1.1	18,212	7.4
1993	2,346	2,386	1.0	20,134	8.6
1994	2,422	2,592	1.1	18,910	7.7
1995	2,698	2,673	1.0	17,155	6.4

A: In Pesos, at constant 1993 prices.

B: Ratio to per student expenditure at elementary level

Source: DBM, DECS

^{a/} Actual expenditure for 1988-93; mission estimates of actual expenditure for 1994-95.

^{b/} Including vocational/technical education

10.23 To a large extent, the huge increase in secondary level unit expenditure (1987-89) reflects the substitution of central for local government financing of nationalized village high schools, rather than more and better educational inputs per student. Since 1990, though, lack of adequately sustained commitment by the central government led to a rapid erosion of secondary education financing. As a result, unit recurrent expenditure at elementary and secondary levels have been at parity since 1992. In addition, implementation of the nationalization of village high schools entailed the commitment of substantial additional public resources, which the Government has not been able to sustain. Instead, it has neglected public secondary schools, and encouraged the private

sector to pick up the slack. As a result, the goal of universal secondary education remains largely unmet.

10.24 While the growth of student enrollment was fairly steady⁶ in basic education, the pattern of unit recurrent expenditure at the tertiary level is mainly a reflection of large fluctuations in student enrollment (i.e., as enrollment increases, the per student spending goes down when the total allocation remains the same). The evolution of tertiary unit expenditure in Table 10.6 shows respective effects of "allocation" policies and "enrollment" changes⁷. Most of the increase in unit expenditure between 1987-89 thus reflects the sharp drop in tertiary enrollment, whereas most of the subsequent decline appears to be the outcome of deliberate allocative decisions.

% CHANGES IN TERTIARY UNIT EXPENDITURE
(AT CONSTANT 1993 PRICES)

	Actual	Allocation Effect	Enrollment Effect
1987-1989	68	18	42
1989-1993	-36	-25	-15
1993-1995	-15	2	-16

10.25 It is difficult to say whether public secondary and tertiary sub-sectors are under-financed relative to elementary education, or whether elementary education is financially privileged. MOOE per student provides a better picture of these levels of educational resource endowment, and is shown in Table 10.7⁸. Two important observations emerge. First, the tertiary/basic education ratio of unit MOOE is much higher than the corresponding total recurrent expenditure ratio. Second,

^{6/} There was some acceleration of enrollment throughout the late 1980s, particularly at the secondary level following the nationalization of village high schools, causing unit expenditure to rise slightly less than would otherwise have been the case.

^{7/} Hypothetical unit expenditure, computed on the basis of the 1987-95 trend in student enrollment, is taken to represent the effect of resource allocation decisions. The difference between actual and hypothetical changes in unit expenditure reflect the student enrollment effect.

⁸ The breakdown of recurrent expenditure between personnel expenditure and MOOE is not available for elementary and secondary education separately. Basic education includes elementary as well as secondary education.

unit MOOE has been declining steadily since the early 1990s, both in basic and tertiary education,⁹ but much more in basic education.

TABLE 10.7 - EVOLUTION OF PER STUDENT MOOE IN BASIC AND TERTIARY EDUCATION

Year	Basic	Tertiary	Ratio
	(1)	(2)	(2)/(1)
	(In Peso, at constant 1993 prices)		
1987	388	n.a.	--
1988	293	n.a.	--
1989	369	n.a.	--
1990	510	n.a.	--
1991	491	5,437	11.1
1992	378	4,151	11.0
1993	363	4,837	13.3
1994	184	3,766	20.5
1995	212	3,387	15.0

Source: DBM, DECS

10.26 In real terms, 1994 unit MOOE in basic education was almost at one-third of the 1990 level. This is very low by regional standards, considering that: (i) a large portion of that amount does not reach schools; (ii) the underlying unit MOOE figure for elementary education is likely to be much lower, and (iii) there is a wide variation in per student budget allocations for MOOE among school divisions and districts.

^{9/} The 1991-94 tertiary/basic education ratio of unit MOOE averages 13, compared to 8 for the total recurrent expenditure ratio, the latter declining from 8.5 in 1991 to 7.7 in 1994, and the former increasing from 11 to about 21 in the same period.

Local Government Financing

10.27 Although the role of local governments in financing public education was greatly reduced¹⁰ after nationalization of village high schools, fiscal decentralization gave LGUs financial latitude for a renewed commitment to education. As a result, education expenditure from LGU sources increased from ₱ .7 billion in 1990, to ₱ 2.9 billion in 1993, following enactment of the new LGC; similarly, LGUs' contribution to public financing of education rose from 2 percent to 7 percent during the same period.¹¹

10.28 The bulk of the increase in education spending by LGUs has been financed through the Special Education Fund (SEF). Since part of LGU revenues are earmarked for education, it may be argued that the large increase in local education financing was the result of national legislation rather than of local commitment. However, the absolute amount of resources allocated to the SEF depends on the extent of local taxation efforts. Moreover, local education financing from non-earmarked general funds has also been rising significantly. On the whole, however, there is significant room for further increases in education financing by LGUs, particularly where the local tax collection effort can be strengthened and where IRA proceeds have so far exceeded the incremental cost of devolution. In view of the rising budget constraint at central government level, it would therefore make sense to explore ways of encouraging greater education spending by LGUs, where feasible. Also, care should be given lest the SEF should end up being considered as the sole source of local education finance.

10.29 Municipalities account for almost half of local education expenditure, followed by cities and provinces -- 45, 37 and 18 percent respectively in 1993.¹² Cities allocate the highest proportion of their budget to education -- 9 percent in 1993, compared to 8 and 6 percent respectively for municipalities and provinces. In addition, the pattern of LGUs education spending is characterized by a striking degree of complementarity with central government spending. Whereas in recent years an increasing share of the central education budget is being absorbed by personnel expenditure, LGUs allocate three-quarter of their education budget for non-personnel expenditure (Table 10.8).

10.30 Among LGUs, cities spend the lowest proportion of their education budget on MOOE, and the highest both for personnel and capital expenditure. Concerning MOOE and capital expenditure, cities' diverging behavior appears to accommodate the differential outcome of DECS' budget allocation norms. DECS distributes its MOOE funding largely on a per student basis, which tends to favor densely populated urban areas. School construction, on the other hand, is primarily targeted to barangays and municipalities without schools, and too distant from the nearest school,

^{10,} The total budget of LGUs doubled in the 1990-93 period.

^{11,} It is estimated to have reached 9 percent in 1995.

^{12,} The new LGC did not significantly alter this distribution.

thus favoring rural areas. Cities, finally, are also known to pay the highest teacher salary supplements, which explains the relatively high share of personnel expenditure in their education budget.

TABLE 10.8 - LGU EDUCATION FINANCING BY EXPENDITURE CATEGORY (% DISTRIBUTION)

	Provinces		Municipalities		Cities		All LGUs	
	1990	1991-93 Average	1990	1991-93 Average	1990	1991-93 Average	1990	1991-93 Average
Personnel Services	21.6	11.6	31.4	24.7	34.8	28.3	30.9	24.1
MOOE	59.2	67.2	40.6	43.8	52.8	32.9	48.1	43.0
Capital Expenditure	<u>19.2</u>	<u>21.2</u>	<u>28.0</u>	<u>31.5</u>	<u>14.4</u>	<u>38.8</u>	<u>21.0</u>	<u>32.9</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(same, in Million Pesos)	(124.1)	(304.7)	(337.9)	(855.8)	(248.7)	(803.9)	(710.7)	(1,964.3)

Source: COA, Financial Statements and Other Schedules (1990-92), Annual Financial Report of Local Governments, 1993

10.31 Staff in the public education system is to be paid by central government. LGUs, however, assume a small, but rising part of the overall wage burden. LGU outlays for personnel services serve three purposes: (i) supplementing salaries paid by central government¹³; (ii) paying salaries of newly recruited teachers until they are integrated in the DECS payroll; and (iii) recruiting permanent teachers above school staffing norms applied by DECS¹⁴. For these reasons, local personnel expenditure in education doubled in 1992, and rose by a further 33 percent in 1993. Relative to total education spending by LGUs, however, the incidence of personnel expenditure has been declining, averaging 24 percent through 1991-93, compared to 31 percent in 1990. An interesting phenomenon is that virtually the entire 1991-93 increase in LGUs' personnel expenditure for education was financed through the SEF, as shown below (in million ₱):

¹³ Supplementing teacher salaries is unconstitutional, as the Philippines' Constitution prescribes that there should be equal pay for equal work. It is, however, a widespread practice among LGUs.

¹⁴ The "students per teacher" norms used by DECS for the allotment of extra teacher positions has been increasing, reflecting budget constraints. If they can afford it, LGUs hire extra teachers to have smaller classes, or to avoid of multi-grade teaching in under-enrolled schools.

	1991-92	1992-93	1991-93
Increase in LGUs			
Ed. personnel expenditure	264.0	169.1	433.1
<u>Source of financing:</u>			
SEF	167.8	229.1	396.9
General Fund	96.2	60.0	36.2

10.32 Compared to the central government, budget execution among LGUs is weak, as evidenced by a rather wide margin of underspending. Overall, the ratio of actual expenditure to budget appropriations for education averaged over 70 percent over the 1991-93 period. In terms of the total education budget, the extent of underspending is about the same for the three LGU classes. There are sizable differences in performance, however, between recurrent and capital operations. The 1991-93 expenditure/appropriation ratio averaged 80 percent for the former (85 and 78 percent for personnel services and MOOE respectively), but only 55 percent for the latter. DECS' implementation performance for capital operations, although far from satisfactory, is much better (78 percent over the same period). Since capital operations are eventually to be devolved to LGUs, this is a serious issue that requires timely attention.

Private Financing

10.33 The private sector contributes directly to the financing of the education system in three ways, namely through: (i) household financing of private education; (ii) household financing of costs related to attendance of public schools; and (iii) voluntary contributions, both to private and public schools, including payments related to income generating activities by schools¹⁵.

Private Education

10.34 Of the roughly 18 million students enrolled in the education system, over one-fifth are in private schools. It is estimated that private education financing from private sources totaled about ₱ 29 billion in 1994 distributed as follows (in million ₱). Over half of total private outlays are for tertiary education, and almost 60 percent consists of tuition and other fees. Voluntary contributions are significant: the total amount (serving almost 4 million students) is equal to an average private contribution of ₱ 7,300 per student. Over half of total private outlays are for tertiary education and almost 60 percent consists of tuition and other fees. Voluntary contributions

¹⁵ There are no regular statistics of these financial flows; estimates are therefore tentative.

also play a significant role: the total amount (serving close to 4 million students) is equivalent to an average private contribution of ₦ 7,300 per student.

	₦ million	%		₦ million	%
Elementary	3,666	(12.8)	Tuition & fees	17,000	(59.6)
Secondary	8,944	(31.3)	Oth. private costs ¹⁶	9,163	(32.1)
Tertiary	15,935	(55.8)	Voluntary contr.	2,382	(8.3)
Total	28,545	(100.0)	Total	28,545	(100.0)

Private Financing of Public Education

10.35 There are significant private costs to attending public schools. Private financing of public education amounts to about ₦ 21 billion in 1994, detailed as follows.

	₦ million	%		₦ million	%
Elementary	12,573	(60.1)	Tuition & fees	5,037	(24.1)
Secondary	6,505	(31.1)	Oth. private costs	15,342	(73.3)
Tertiary	1,849	(8.8)	Voluntary contr.	548	(2.6)
Total	20,927	(100.0)	Total	20,927	(100.0)

10.36 The contrast with private education is striking: tuition and other fees account for a modest portion of total private financing since basic education is free (in principal) and tertiary education is heavily subsidized. Other school related costs supported by parents make up the bulk of private financing of public education. This is essentially the counterbalancing item for the shortfall in public financing: schools are nominally free, but several schooling costs are *de facto* privatized, with potentially critical equity implications. Voluntary contributions are marginal, particularly on account of tertiary institutions, which deploy little efforts to attract them. The distribution of financing by level of education is the mirror image of the distribution of public enrollment, hence the opposite picture of private education.

^{16/} Other school related items financed by households, such as books, educational materials, and transportation, but excluding school uniforms and boarding.

10.37 Private financing of public education in 1994, for a total enrollment of almost 14 million students, is equivalent to ₱ 1,540 per student. A corresponding World Bank estimate for 1986 was ₱ 210 per student. In real terms, the difference implies a 16 percent rate of increase in private financing per public student -- i.e., over twice the corresponding rate of increase for private education. A fundamental conclusion emerges from the relative growth of private financing for public versus private schools. Private schools continue to be a vital element of private sector involvement in education.

Synthesis

10.38 A synthesis of the sources of education financing is shown in Table 10.9.¹⁷ Slightly over 100 billion was spend on education in 1994, equal to about 6 percent of GNP. This estimate is probably low, as it does not include the cost of non-degree skills development programs offered in private institutions, nor the private cost of pre-school education and early childhood development.

TABLE 10.9 - TOTAL EXPENDITURE BY LEVEL OF EDUCATION AND SOURCE OF FINANCING (1994)

Level of Education	Source of Financing (in million Pesos)			
	Central Gov't.	Local Gov't.	Private	Total
Elementary	29,756	2,965	16,222	48,943
Secondary ^a	9,436	932	15,337	25,705
Tertiary	<u>10,270</u>	<u>137</u>	<u>17,973</u>	<u>28,380</u>
Total	49,462	4,034	49,532	103,028

Source: General Appropriation Act 1994; COA Annual Financial Report

Local Government 1993; FAPE; mission estimates

^{a/} Including vocational/technical education

10.39 The World Bank's 1988 Education Sector Study estimated total recurrent expenditure for education at 3.2 percent of GNP in 1986, compared to 5.4 percent in 1994 (excluding capital expenditure from the present estimate). This rough comparison underscores the tremendous increase in national investment in educational development that has taken place during the period. The commitment of national resources for education has now reached a comparatively high level by international standards. This investment is reflected in impressive quantitative educational achievements, but its qualitative returns are modest thus far.

^{17/} For the sake of comprehensiveness, the table includes all minor education items, mostly vocational and in-service training programs offered by the various Government Departments. These items, totaling P422 million, are included in tertiary education.

10.40 Over half of the total increase in recurrent education expenditure through 1986-94 came from private sources, so that the share of Government (central and local) declined from 61 to 48 percent (Table 10.10). Moreover, both the differential growth rate and diverging sub-sectoral evolution of government and private expenditure have led to some significant changes in the overall pattern of education financing. Whereas government accounted for 82 percent of total elementary education financing in 1986, its share was reduced to 64 percent by 1994. On the other hand, the decline in government's share of tertiary education financing was relatively minor (from 33 to 29 percent). From a social equity point of view, the distributional pattern of education financing remains efficient -- i.e., the private sector's share of total financing is rising at each successive level of the education system, as the implicit extent of government subsidization declines. A cause for concern, however, is that this distributional pattern has become less progressive since 1986.

TABLE 10.10 - CHANGING PATTERN OF EDUCATION FINANCING [^], 1986-94

	Source of Financing					
	Government		Private		Total	
	1986	1994	1986	1994	1986	1994
I. Distribution of						
<u>Financing by source (%):</u>						
Elementary	67.5	63.1	22.5	32.7	49.8	47.2
Secondary	17.5	20.9	31.2	31.0	22.9	26.2
Tertiary	<u>15.0</u>	<u>16.0</u>	<u>46.3</u>	<u>36.3</u>	<u>27.3</u>	<u>26.6</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0
II. Distribution of						
<u>Financing by Level (%):</u>						
Elementary	82.2	63.6	17.8	36.4	100.0	100.0
Secondary	46.3	37.9	53.7	62.1	100.0	100.0
Tertiary	<u>33.1</u>	<u>28.5</u>	<u>66.9</u>	<u>71.5</u>	<u>100.0</u>	<u>100.0</u>
Total	60.5	47.6	39.5	52.4	100.0	100.0
Memo item:						
Total in million P. (1994 prices)	25,181	44,912	16,417	49,532	41,598	94,444

Source: 1994, see Table 2.10; 1986, The Philippines Education Sector Study

(World Bank, December 1988).

[^] Recurrent expenditure only

MAJOR ISSUES

Education and Poverty

10.41 There is a pervasive link in the Philippines between educational outcomes, both quantitative and qualitative, and the incidence of poverty. Table 10.11 provides evidence of this relationship, focusing on two regions: the National Capital Region (NCR), which has the highest average family income and the lowest incidence of poverty in the country, and the Eastern Visayas region, which is at the other end of the scale.

10.42 At the elementary level, where school infrastructure is extensively developed and opportunity costs are still low, income levels have a moderate, though significant, impact on participation. Nonetheless, a nation-wide total of 1.7 million elementary school-age children were not attending school (18% of the 7-12 age group) in 1989/90, a disproportional number of which in the poorest areas. More important at this level, however, is the link between family income and completion rates: nation-wide, one out of three children entering the first grade does not complete the cycle. Regionally, there is near-universal completion in the most affluent areas, in comparison to over 70 percent non-completion in the poorest provinces.

10.43 With rising opportunity costs, the impact of income differentials on school participation is more significant at the secondary and tertiary levels. Inversely, the relation between income and school completion becomes weaker, once initial supply/demand constraints to access are overcome. The ratio of highest to lowest completion rates among provinces and cities is about two at the secondary level, compared to almost four at the elementary level (Table 10.11). The strong incidence of economic factors on school participation is also evident from the results of a recent survey of out-of-school youth among the lowest 30 percent income group of households (Table 10.12). According to this survey, the high cost of education and the need to contribute to the family income account for almost half of non-attendance in the 13-16 age group, and over two-third in the 17-24 group.

TABLE 10.11 - FAMILY INCOME, SCHOOL PARTICIPATION, AND COMPLETION

	<u>E. Visayas</u>	<u>NCR</u>	<u>Ratio</u>
	(1)	(2)	(1)/(2)
Avg. Family Income (₱ 1,000)	38.5	138.3	0.28
Poverty Incidence (%)	40.7	14.9	2.73
Gross enrollment rate:			
Elementary	98.0	112.0	0.88
Secondary	55.0	95.0	0.58
Tertiary	16.0	34.0	0.46
Completion rate:			
Elementary	54.0	97.0	0.55
Secondary	64.0	75.0	0.85

Sources: DECS, 1989/90

TABLE 10.12 - REASONS FOR NOT ATTENDING SCHOOL
(LOWEST 30% P.C. INCOME GROUP)

	Percent of Respondents in Age Group: ^a					
	Elementary (7-12)		Secondary (13-16)		Tertiary (17-24)	
Inaccessibility of school	14.2	(17.8)	4.4	(6.0)	2.1	(2.0)
High cost of education	10.1	(8.9)	22.0	(25.6)	22.2	(22.2)
Illness/disability	7.5	(7.8)	3.8	(5.1)	2.1	(2.0)
Working/looking for work ^b	9.0	(11.4)	25.4	(31.1)	46.6	(55.4)
Lack of interest	59.2	(54.1)	44.4	(32.2)	27.0	(18.4)

Source: Herrin/Racelis, 1992

^{a/} Corresponding values for females are indicated between brackets.

^{b/} Including housekeeping.

10.44 Although public basic education is free (in principle), there are private costs related to participation, both direct and in terms of foregone income. According to the 1991 Family Income and Expenditure Survey, average family expenditures for education in the lowest income decile represented less than 5 percent of the corresponding average in the highest income decile where, in all likelihood, families send their children to private schools. Given the inequality in income distribution, however, both levels of education spending represented about the same proportion of total family income. A case can therefore be made for strengthening school participation incentives among the poorest households, by providing extra subsidies to reduce the private cost of education.

10.45 A major reason for non-attendance is a "lack of interest" in education. This may be the outcome of supply-related factors, such as inadequate curricula, unqualified teachers, and lack of learning materials. Combined with low growth of modern sector employment, this may fuel parents' perceptions of low private returns to investment in education, and adversely affect their attitude. Lack of interest may also reflect specific poverty-related constraints. Irregular class attendance due to competing work-related activities, for instance, affects children's ability to cope with the learning process, which may cause a loss of interest. Malnutrition may have the same outcome, and likely accounts for a significant proportion of the professed lack of interest among children from the poorest 30 percent of households. The high percentage of 7-12 age children not attending school because of illness/disability is a reflection of widespread malnutrition and poor health care among the poor. Also, the health and nutrition situation in the Philippines compares unfavorably with regional standards, as well as with countries in the same range of per capita GNP

(Table 10.13). The evidence thus suggests that school feeding programs in the poorest areas may be required.

TABLE 10.13 - COMPARATIVE NUTRITION & HEALTH INDICATORS ^A

	PHL	EAP	LMI
Prevalence of malnutrition (% under -5)	34	25	17
Low birthweight babies (%)	15	10	11
Infant mortality (p. 1,000 live birth)	40	39	45
Under -5 mortality (p. 1,000 live birth)	50	49	59
Life expectancy at birth (yrs.)	65	68	68
Population/physician	8,120	3,990	2,230
Population/hospital bed	780	553	516

Source: World Development Report 1994; Social Indicators of Development 1994.

^a PHL = Philippines; EAP = East Asia & Pacific; LMI = Lower middle-income countries

10.46 Inaccessibility of schools plays a minor role at post-elementary levels, and although somewhat of an issue at the elementary level, this does not appear to be related to poverty *per se*. However, non-completion is certainly also a result of inadequate quality. There is evidence of substantial and widening quality differentials in basic education between prosperous and poor regions in the Philippines; for example, mean scores in exams in public elementary and secondary schools are much higher in the NCR than in the Eastern Visayas region (Table 10.14).

10.47 As a rule, private schools score higher than public schools, both in terms of completion rates and test results. Note, however, that the poorer a region the higher the performance differential between private and public schools, suggesting that regional quality differentials tend to be larger among public than among private schools. In other words, the poor receives a lower quality basic education, not only because he attends a public school, but also because the quality of public schools is comparatively lower in the poorest regions. This phenomenon is related to the inequitable distribution of essential educational inputs, both quantitatively and qualitatively, among the various regions and between rural and urban areas.¹⁸

¹⁸,

This fundamental issue, addressed in section 3.3., is extensively documented in Background Paper Section 1.

TABLE 10.14 - SCHOOL PERFORMANCE: EASTERN VISAYAS REGION VS. NCR

	E. Visayas	NCR	Ration
	(1)	(2)	(1)/(2)
Elementary level:			
Mean NEAT scores (public) ^a	61.00	71.00	.86
Idem, ratio private/public scores	1.47	1.37	1.07
Ratio private/public completion rate	1.67	1.03	1.62
Secondary level:			
Mean NCEE ratings ^b	461.00	523.00	.88
Idem, ratio private/public ratings	1.11	1.21	.92
Ratio private/public completion rate	1.29	.99	1.30

Source: DECS

^{a/} National Elementary Achievement Test

^{b/} National College Entrance Examination

10.48 The conclusion emerging from available evidence is that improving the quality and retention of public schools should be a fundamental part of Government's fight against poverty. The priority is at the elementary level, where a vast majority of children from poor families do initially access the public school system, but a substantial proportion of them eventually drops out prematurely, without having acquired the minimum literacy and numeric skills required for productive participation in economic development.

Fiscal Decentralization and Equity

10.49 The fiscal decentralization process initiated by the 1991 LGC has triggered a rapidly increasing role of LGUs in the financing of public education. Relative to needs, however, the incidence of local education financing is unevenly spread. Although education services have not been formally devolved to LGUs, under-financing of the public school system from the central government budget is de-facto leading to selective decentralization of education financing.

Special Education Fund (SEF)

10.50 The SEF is the largest source of local education financing. Since it is maintained from local proceeds of the real estate tax, one might expect the magnitude of SEF resources available to LGUs to depend on the distribution of wealth among rural and urban areas. In this respect, data shows that there is a major imbalance in SEF endowment between the NCR and the rest of the country. The NCR (10 percent of total enrollment in public schools) accounted for half of national SEF expenditures in 1993, compared to 10 percent for the five Mindanao regions combined (over 25 percent of total public enrollment).

10.51 Excluding the NCR, variations in SEF expenditure per student among regions are less extreme, and only tentatively related to wealth differentials. And, although most of the regions facing a relatively high incidence of poverty also had below average SEF expenditures per student (1993), there are a number of outliers. For instance, unit SEF expenditures were almost at par with the national average (excluding NCR) both in the Central Luzon and Central Mindanao regions, even though the incidence of poverty is the lowest in Central Luzon (33 percent) and the highest in Central Mindanao (56.2 percent). Similarly, the Cagayan Valley region is close to the national average (excluding NCR) in terms of poverty incidence, but it had comparatively high unit SEF expenditures (₱ 264 per student). This evidence thus suggests that regional variations in SEF endowment may be related as much to variations in taxation rates and efficiency, as to differences in the relative size of the tax base. It also indicates that there may be room for increasing local contributions to education financing through greater effectiveness in real estate tax collection, even in some of the less affluent provinces. In the long-run, however, local tax reforms and improvements in tax administration are likely to exacerbate revenue disparities among LGUs. A central equalization mechanism may be required to even out flagrant regional disparities.

General Funds

10.52 Without formal devolution of educational responsibilities, local financial commitment to education remains entirely voluntary. Nonetheless, evidence suggests that willingness to invest local resources in education is high, even though the ability may vary according to means¹⁹, independent of needs. In addition, although local communities have always supplemented Central Government financing of education from local resources, enactment of the 1991 LGC has substantially increased this involvement. In doing so, it contributed to broadening initial disparities among LGUs, in terms of their capacity for supplementing the increasingly constrained flow of DECS resources. There is a danger that this process will increase the quality gap of public education between rich and poor LGUs, and therefore widen existing disparities in school completion rates and learning outcomes.

¹⁹

It remains ambiguous as to how the 1991 LGC has changed the financial situation of individual LGUs (see Chapter 4, Volume I).

Social Targeting

10.53 Given the shrinking size of its budget, relative to rapidly growing needs, DECS should increasingly seek to target its financing towards the most disadvantaged LGUs, population and/or income groups. It may also have to devolve some financial responsibilities to the most affluent LGUs. Table 10.15 compares the relative magnitude of 1994 central budget allocations for the two outlying regions on the family income scale. Note that allocations per school (more than per student) tend to favor the most affluent and urbanized region. Schools in the latter benefit inherently from economies of scale, which are not taken into account in the regional budget allocation criteria. Present norms underlying DECS' regional budget appropriations do not aim at counterbalancing the regressive impact of fiscal decentralization on local education financing. Analysis of the 1994 DECS budget shows that per student allocations for MOOE among Divisions are confined within a close range, both at the elementary and secondary levels, regardless of actual needs (NCR Divisions are an exception). An overriding issue, in this context, is the lack of a coherent DECS strategy for actively targeting resources towards the most pressing needs, the most disadvantaged areas or population groups. The issue is essentially political: continuous interference by the national and local legislature is depriving DECS of the control required for effective social targeting. The outcome is the generalized application of regional resource sharing criteria, without adequate reference to local circumstances, actual needs, and specific cost factors.²⁰

^{20/} A minor component of DECS' central MOOE budget is being allocated to each region on the basis of a development index which reflects regional differences in poverty incidence, literacy, participation rate and educational achievement level. It is unclear, however, how these resources are further distributed among Divisions and Districts. Overall, this modest element of social targeting does not appear to be noticeable at the school level.

TABLE 10.15 - DECS RESOURCE ALLOCATION: E. VISAYAS REGION VS. NCR

	E. Visayas	NCR	Ratio
	(1)	(2)	(1)/(2)
I. Per Student Allocation (P.)			
<u>Elementary level:</u>			
Recurrent expenditure	2,451	2,527	.97
Maintenance & other operating exp.	117	209	.56
Capital Expenditure ^a	1,747	136	12.85
<u>Secondary level</u>			
Recurrent expenditure	1,525	2,982	.51
Maintenance & other operating exp.	175	344	.51
Capital Expenditure ^b	201	581	.35
II. Per School Allocation (P. 1,000)			
<u>Elementary level:</u>			
Recurrent expenditure	427	4,741	.09
Maintenance & other operating exp.	20	392	.05
<u>Secondary level:</u>			
Recurrent expenditure	806	11,231	.07
Maintenance & other operating exp.	93	1,294	.07

Source: DECS, 1994 General Appropriation Act

^{a/} Per out-of-school 7-12 age youth

^{b/} Per out-of-school 13-16 age youth

Other Educational Inputs

10.54 Several uniformly applied staffing rules affect the relative quality of basic education in rural versus urban areas. For instance, the criteria used for the allocation of new teacher positions force schools in less populated areas to operate classrooms in a multi-grade teaching mode. Although cost-effective, this actually becomes a disadvantage, since teachers do not have adequate training for this teaching mode. If able, local school authorities often hire additional teachers, to avoid operating multi-grade classrooms. Similarly, rules underlying the attribution of slots for school principals tend to favor more densely populated areas.²¹ There is an overall shortage of school principals, which is particularly severe in outlying regions. In addition, seniority (hence qualifications and experience²²) of school principals is significantly higher (on average) in wealthier regions. The same applies regarding the distribution of teacher qualifications; the proportion of lowest ranking (thus, least experienced) staff in the teaching corps tends to be highest in the poorest regions (see Table 10.16). These factors account, to a significant degree, for regional differentials in education quality.

²¹ Both at elementary and secondary levels, only schools with more than 11 teaching positions are awarded a principal. Below that number, the school is managed by a head teacher. Above this minimum, the rank of a principal also increases (from P1 to P4 level) as a function of the number of teaching positions.

²² Promotion is based, among other criteria, on pupil performance, in-service training record, and community relations.

TABLE 10.16 - SCHOOL STAFFING CHARACTERISTICS: E. VISAYAS VS. NCR

	E. Visayas	NCR	Ratio
	(1)	(2)	(1)/(2)
Elementary level:			
Principal/school ratio	.15	1.24	.12
Average no. of teachers per principal	44.00	47.00	.94
Percent of lowest level principals	82.00	49.00	1.67
Percent of lowest level teachers	91.00	50.00	1.82
Secondary level:			
Average no. of teachers per principal ^a	.21	.85	.25
Percent of lowest level principals	77.00	85.00	91.00
Percent of lowest level teachers	75.00	65.00	1.15

Source: DECS, 1990/91

^a Including Assistant Secondary School Principals

10.55 Raising the quality of school management through empowerment of school principals, increasing both their decision-making authority and accountability for school outcomes, is an important element of DECS' emerging strategy of improving the quality of basic education. Greater parity in the distribution of qualified managerial staff is required, however, if decentralization of management authority is to be a success; it may, otherwise, widen existing regional disparities in the quality of public education services.

Government Assistance for Private Education

10.56 Social targeting inspired the creation of the GASTPE programs (funded through the DECS budget) to enable youth from lower income households to attend private high schools and colleges. GASTPE support at the secondary level is channeled through two different schemes: Tuition Fee Supplements (TFS), and Educational Service Contracting (ESC). The TFS scheme subsidizes a ₱ 290 portion of annual tuition fees for students enrolled in private high schools; it was allocated ₱ 187 million for the 1994/95 school-year, for 644,000 beneficiaries (41 percent of total private enrollment at that level). The ESC is an innovative financing scheme designed to enable students to enroll in participating private schools, in communities where there is no public high school, or

where there is excess enrollment in existing public high schools.²³ Private schools participate on a voluntary basis, and must meet certain quality criteria. The ESC subsidy amounts to ₱ 1,500 per year, paid directly to the school. ESC funding totals ₱ 280 million in 1994/95, for 187,000 secondary students (12 percent of private enrollment).

10.57 GASTPE plays a much less prominent role at the tertiary level. It consists of: (i) a TFS scheme similar to the one for secondary schools -- ₱ 10,000 per student, for about 17,650 beneficiaries in 1994/95 (1.5 percent of private enrollment at that level); (ii) a Study Now Pay Later student loan scheme ---also ₱ 10,000 per student, for 2,890 beneficiaries (0.2 percent of private enrollment); and (iii) a College Faculty Development Fund -- ₱ 29 million for 550 beneficiaries.

10.58 From a regional distribution perspective, GASTPE might be seen as an example of successful targeting resources to lower income groups. Regional allocation of GASTPE funding by and large favors the poorest regions. Relative to total private enrollment, for basic education, the 1994/95 allocation for the highest income NCR amounts to about ₱ 30 per student, compared to almost ₱ 484 for the lowest income Eastern Visayas region. At the grassroots level, however, a DECS commissioned survey of ESC beneficiaries provides mixed findings with respect to targeting effectiveness.²⁴ The reported income of a vast majority of respondents appear to have been below the poverty line. But, simultaneously reported educational attainment of parents was significantly above the national average of low income households, which could not be compatible with the reported income profile. Most likely, family incomes were considerably under-reported.

10.59 The essential admission criterion for ESC beneficiaries is to have been declared overflow students. Although preference is to be given to students from lower income families, the procedure does not guarantee that this happens. Since the Government has a constitutional obligation to provide free secondary education, any applicant qualifies for ESC regardless of family income.

10.60 Another drawback of the GASTPE system is the low level of subsidization relative to actual costs per student. The TFS subsidy only benefits students who can afford the unsubsidized portion of total costs. The ESC scheme does not cover total costs either: first, it only covers tuition fees, and second, the imposed tuition fee ceiling of ₱ 1,500 is unrealistically low. Thus, the unsubsidized cost of private school attendance remains prohibitive for students from the poorest families. The same holds for the tertiary GASTPE programs. There is also evidence that the low tuition fee ceiling, as well as delays in the payment of the subsidy, has discouraged qualified private high schools from continuing participation in the ESC program. There is thus a danger that the ESC scheme fosters the emergence of a third tier secondary schooling system: i.e., private but low quality high schools for subsidized students from lower income groups.

²³, Student enrolled in public schools beyond the maximum allowable class size of 55 are considered "overflow" students, eligible for free enrollment in a private school.

²⁴, See "Government Subsidy to Private Secondary Education: A Review and Assessment", Secondary Education Development Project, Research Monograph No. 2 (DECS, 1992). This study was in part based on a nation-wide survey of 640 participating high schools with 3,395 student beneficiaries, and a random control sample of 946 non-ESC students. The survey was conducted during the 1991/92 school-year.

10.61 It seems the GASTPE has essentially sought to maximize the number of student beneficiaries; these indeed represent a substantial proportion of private enrollment. If GASTPE is to benefit the poor, however, it might be better to increase the level of subsidization, even if it means reducing the overall number of beneficiaries. More effective targeting criteria for the selection of beneficiaries is also needed.

Public Versus Private Education

10.62 As discussed earlier, education financing from private sources plays an important role in the Philippines, with respect to private and public schools. This direct private contribution is, to a large extent, the counterpart of a relatively inefficient public resource mobilization effort, reinforced by the weak progressivity in national taxation. The question may therefore be raised whether the distribution between public and private education financing is appropriate, from a social equity point of view. Can additional education financing from private sources be mobilized, without generating prohibitive needs for extra compensatory subsidization from public sources for lower income households? The following analysis is based on 1994 estimates of the per student cost (unit cost) of educational services in public and private schools at the respective levels of education.

Comparative Unit Recurrent Costs

10.63 The per student cost of educational services consists not only of operating costs but also of: direct private costs other than fees (transportation, books, etc.);²⁵ and the cost of DECS' sector management and operational support (curriculum development, student examination, school inspection, etc.),²⁶ serving both public and private education. Estimates of the average recurrent cost per student in public and private education are shown in Table 10.17.

²⁵ Unit costs, as defined in this section, exclude the cost of school uniforms, meals and boarding, as well as the opportunity cost of students' forgone earnings.

²⁶ This cost is distributed pro-rata of enrollment in public and private schools at the respective education levels.

TABLE 10.17 - UNIT RECURRENT COST OF PUBLIC AND PRIVATE SCHOOLS BY LEVEL OF EDUCATION (1994)

	Level		
	Elementary	Secondary	Tertiary
Unit Cost (P.):			
Public	4,085	4,846	24,870
Private	4,580	6,101	14,170
Public/private ratio	.89	.79	1.76
Ratio to public elementary:			
Public	1.00	1.19	6.09
Private	1.12	1.49	3.47

Source: Table 10.10; DECS

10.64 A first conclusion is that private education is somewhat more expensive than public education at the elementary and secondary level (12 and 26 percent respectively); public tertiary education, however, is considerably more costly (76 percent) than its private equivalent. Secondly, public and private unit costs are moderately progressive from one level to the next; the cost of secondary education exceeds that of public elementary education by a 20-50 percent margin, while the cost of one tertiary student would accommodate 3 to 6 public elementary students. Thirdly, relative to per capita GNP, both private and public unit operating costs are comparatively low, particularly at the secondary level (Table 10.18²⁷).

^{27/} Malaysia's resource commitment to higher education is substantially above regional standards, and may therefore not be an appropriate benchmark.

TABLE 10.18 - UNIT COSTS AS PERCENT OF GNP PER CAPITA: PHILIPPINES VERSUS REGIONAL COMPARATORS

	Philippines (1994)				Comparators ^a			
	Public		Private		Malaysia	Indonesia	Korea	Asia ^b
	Operating Cost	Total Cost	Operating Cost	Total Cost	(1992)	(mid-1980s)		
Elementary	12	15	11	17	14	13	17	10
Secondary	15	18	15	23	25	23	23	19
Tertiary	85	94	40	54	171	91	71	149

Source: World Bank estimates for Malaysia and the Philippines, and Mingat and Tan (1992) for others.

^{a/} Unit operating costs of public education

^{b/} Bangladesh, China, India, Indonesia, Korea, Malaysia, Nepal, Philippines, Sri Lanka and Thailand

10.65 Private education in the Philippines is considered to be less costly and of better quality than public education.²⁸ This perception had a major impact in shaping government policy towards private education. The prevailing view is that it is more cost-effective for the government to subsidize post-elementary students to attend private schools, than to absorb them in the public education system. The 1994 unit costs estimates, however, no longer support this view.

10.66 There are grounds for challenging this belief. First, underfunding of the public education system has led to a significant decline in unit recurrent expenditure. Moreover, there is ample evidence that the operating cost of private schools has caught up with public schools. Deregulation of tuition fees charged by private schools has reinforced this tendency. This is also confirmed by the growth of unit operating cost in private and public, as shown below.

^{28/}

The World Bank's 1988 education sector study, among other studies, made a strong contribution to the general understanding and acceptance of the evidence in this respect.

IMPLICIT 1986-94 ANNUAL GROWTH OF UNIT OPERATING COSTS

(IN %, AT CONSTANT PRICES)

	Private	Public
Elementary	7.6	4.5
Secondary	10.6	2.7
Tertiary	18.9	8.2

10.67 Second, unit cost comparisons between public and private education in the Philippines usually focus on school operating costs only, overlooking the cost of other privately financed school inputs. Such direct social costs are substantially higher for private schools. Private elementary school students spend almost twice as much on school-related inputs than their public school counterparts. Thus, while the unit operating cost of public elementary schools is indeed higher than that of private elementary schools, the differential impact of direct social costs more than bridges the gap (Table 10.19). The comparison in Table 10.19 shows that relative costs in elementary and tertiary education have not changed. A crucial change, however, has taken place at the secondary level, where the cost of private schooling was below its public equivalent in 1986 but now exceeds it. Since the private/public ratio of direct social costs hardly changed during that period, this shift is the combined outcome of upward adjustment of private school fees and financing constraints with regard to public high schools. Unlike in secondary and tertiary education, there has been a sharp decline in the private/public ratio of direct social costs at the elementary level. This suggests that cost containment in public elementary schools (imposed by government financing constraints) has been mitigated through an increasing recourse to direct parental financing.

TABLE 10.19 - PRIVATE/PUBLIC UNIT COST RATIOS

Level of Education	Operating Cost		Direct Social Cost		Total Unit Cost	
	1986	1994	1986	1994	1986	1994
Elementary	.70	.89	4.87	1.85	1.15	1.12
Secondary	.66	1.18	1.46	1.42	.83	1.26
Tertiary	.22	.47	1.30	1.47	.36	.57

Source: DECS and mission estimates.

10.68 That private elementary and secondary schools, on the whole, have higher unit costs than public schools does not necessarily mean that the latter are also more cost-effective. This depends on the relative internal efficiency of public and private schools, as well as on the relative quality of education delivery, as measured by learning achievements. From this perspective, public education does not compare favorably with its private counterpart (Table 10.20). All school performance indicators favor private education, thus, the total cost of producing one elementary graduate may prove to be lower in private than in public schools, even though the annual per student cost of school attendance is somewhat higher.²⁹ This, however, is unlikely to be the case at the secondary level, given the narrower margin in school performance and the larger difference in unit costs.

**TABLE 10.20 - COMPARATIVE SCHOOL PERFORMANCE INDICATORS IN BASIC EDUCATION
(PRIVATE/ PUBLIC PERFORMANCE RATIOS)**

Performance Indicators	Elementary	Secondary
<u>Internal Efficiency (1990/91):</u>		
Repetition rate	36	55
Drop-out rate	64	60
Completion rate	148	105
<u>Final Examination Scores: ^a</u>		
Total Unit Cost (1994)	112	126

Source: DECS

^{a/} Elementary: NEAT (National Elementary Achievement Test) 1993/94;

Secondary: NCEE (National College Entrance Examination) 1992/93.

Cost Sharing in Public Education

10.69 A major part of the 1986-94 increase in unit costs in the public education system appears to have been charged to households, in terms of fees and other private costs (Table 10.21). At the elementary and secondary level, government's contribution to unit cost financing grew by 40 and 30 percent respectively, whereas parental contributions increased five-fold at the elementary level, and almost two-fold at the secondary level (tertiary education is again an exception). The Government now subsidizes a higher percentage of unit costs in tertiary education than it does at

^{29/} Student cohort analyses have not been attempted, in this context, essentially because the required data is either unreliable or missing.

the elementary level. Moreover, since access to public education is supposed to be free at elementary and secondary levels, it is not surprising that most of the increase in private costs has been in the form of direct costs other than school-based fees. It seems that part of the shortfall in government funding of schools' operating cost, which cannot legitimately be recovered through fees, is being shifted into the realm of other direct private costs. This conclusion also finds support in the fact that private non-fee costs rose more rapidly in public than in private schools, where there are fewer constraints on increasing fees.³⁰

³⁰ In 1986, parents were paying about five time more for non-fee items in private than in public elementary schools; this ratio is estimated to have dropped to two by 1994. The same tendency is apparent at the secondary level, albeit to a much lesser extent. Tertiary education, where private non-fee costs increased more rapidly in the private sub-sector, is again an exception.

TABLE 10.21 - COST SHARING IN PUBLIC EDUCATION, 1986-94
(GOVERNMENT AND PRIVATE SHARES IN % OF TOTAL UNIT COST)

Financing Sources	1986	1994	1994 Index (1986 = 100)
I. Elementary:			
Government	87.9	69.1	139
Households	10.6	30.4	507
Fees	(—) ^a	(4.9)	(—) ^a
Other Private Costs	<u>(10.6)</u>	<u>(25.5)</u>	<u>(392)</u>
Total^b	100.0	100.0	177
(id. in P., 1994 prices)	(2,305)	(4,085)	
II. Secondary:			
Government	66.5	57.3	132
Households	33.5	42.5	195
Fees	(12.6)	(10.1)	(123)
Other Private Costs	<u>(20.9)</u>	<u>(32.4)</u>	<u>(238)</u>
Total^b	100.0	100.0	154
(id. in P. 1994 prices)	(3,155)	(4,846)	
III. Tertiary:			
Government	73.9	78.1	193
Households	26.1	17.9	125
Fees	(13.3)	(8.1)	(111)
Other Private Costs	<u>(12.8)</u>	<u>(9.8)</u>	<u>(140)</u>
Total^b	100.0	100.0	183
(id. in P., 1994 prices)	(13, 615)	(24,870)	

10.70 The argument can be made that, even in elementary schools, parents are willing to pay some price for educational services, and that this is not a major issue, as long as those services

remain affordable for lower income households. Student enrollment at the elementary level, however, suggests that this may no longer be the case. The growth of elementary enrollment is lagging behind the rate of population growth. At the same time, enrollment in public elementary schools has been growing at a much lower rate than in private schools (1.4 versus 3.7 percent p.a. respectively over the period 1987-93). The implicit conclusion emerging from the available evidence suggests that there has been a substantial increase in cost-recovery in public basic education, and an opposite tendency at the tertiary level.

10.71 In view of these findings, the answer to the introductory questions in this section is clear. There is presently an imbalance between public and private education financing, to the disadvantage of a relatively large segment of the population. Continued reliance on private sources to fill the shortfall in central government financing increasingly requires compensatory measures to protect the poor. Private education is not a socially acceptable palliative to public resource constraints. Government responsibility, in this respect, is simply to strengthen the contribution of private education to the country's development. This means continuing progress towards deregulation and improved accreditation. Subsidization, however, is most likely to yield greater social benefits in public basic education.

10.72 In the public education system, there is a need to reduce the private cost of elementary schooling, with special focus on the poorest areas in the country. There are three venues to achieve this objective: (i) improving the cost-effectiveness of education delivery in elementary schools, to reduce the need for extra financial contributions from parents; (ii) increasing cost-sharing with LGUs, where possible, with more selective targeting of central government financing towards disadvantaged areas; and (iii) selective direct subsidization of private costs for children for the poorest households.

10.73 Cost-recovery at the secondary level need not necessarily be reduced, but selective subsidization for children from lower income households is a must. To that end, cost-recovery ought to be regularized notwithstanding the constitutional garnet of free access. At the tertiary level, both the cost-effectiveness of operations and the extent of cost-recovery are targets for drastic improvement.

Cost-effectiveness in Public Education

10.74 Priority needs of public schooling are: (i) improving the quality of elementary education, making sure that resources actually reach schools; (ii) expanding enrollment capacity and quality improvements at the secondary level; (iii) improving the equity of the system, by reducing the private cost of basic education for lower income households; and, more specifically, (iv) special support for basic education in priority provinces. Eventually, the secondary cycle will have to be lengthened from four to five years, which will require a considerable additional commitment of resources.

10.75 Current budget appropriation levels are insufficient for DECS to satisfactorily meet those priority needs. However, given the prevailing global resource constraints, and in view of the emerging imbalance in cost-sharing between Government and households in basic education, improving the cost-effectiveness of basic education seems the most realistic option. Greater cost-effectiveness works on two fronts: generating savings for alternative use, and raising the returns

per unit of expenditure. In the long-term, the best way to raise the cost-effectiveness of the system is to improve its internal efficiency. This, however, will require considerable initial investment in quality improvement.³¹ In the immediate future, the following options for easing DECS resource constraints warrant further consideration: (i) reducing the cost the SUCs to central government, which would make it possible to increase DECS' share in the total education budget; (ii) rationalizing DECS' staff deployment; and (iii) devolving DECS' remaining responsibilities for school construction and maintenance to LGUs. The basis for these recommendations is provided below.

State Universities and Colleges

10.76 Prevailing regulations and privileged budgetary treatment of SUCs have stifled incentives towards cost-recovery, as well as for greater financial autonomy. Unlike private tertiary institutions, SUCs have yet to start mobilizing private financing for research and extension services. The combined budget of SUCs, illustrates their lack of cost-effectiveness. In 1994, the operating costs of higher and advanced education services provided by SUCs accounted for less than 40 percent of their total recurrent budget, the rest being absorbed by administration (33 percent), support for auxiliary, research and extension services (8 percent), the operation of non-tertiary education services (elementary, secondary, non-formal, and technician education, altogether 5 percent), and recurrent costs associated with projects (15 percent).

10.77 Rationalization of SUCs is high on the Government agenda. The creation of an inter-departmental Commission for Higher Education, which relieves DECS from the overall management responsibility for this sub-sector, hopefully paves the way for radical reforms. On another front, DBM stopped scrutinizing the budget proposals submitted by SUCs, and started to grant them flat subsidies based on enrollment and other criteria, instead of providing line-by-line financing. In addition, the establishment of SUCs is usually motivated by local interests. Therefore, it seems appropriate to decentralize the financial responsibility for these institutions, and grant them full autonomy for independent resource mobilization. Decentralization would also make SUCs more responsive to the specific needs of the various regions. Continued subsidization from the national budget would be selective, and based on output performance. Equity considerations would require higher cost recovery to be accompanied by compensatory adjustments in scholarship and student loan programs. To a large extent, such adjustments could be co-financed by LGUs.

10.78 The outlined strategy would eventually eliminate the burden of SUCs on the national budget. These savings would have to be retained in the education sector, to increase DECS' resource base. It should be acknowledged, though, that SUCs inadequate cost-effectiveness is partly due to the sub-standard learning achievements of high school graduates. Therefore, the first two years of higher education include inordinate amounts of remedial secondary level instruction. This is clearly an area of joint responsibility for DECS and SUCs, with potentially significant mutual benefits.

^{31/} It is the intention of the World Bank to provide financial support for quality improvement at the elementary level through a Third Elementary Education Project, identified and prepared jointly with DECS.

DECS Staff Deployment Norms and Practices

10.79 DECS had a total of 437,600 staff in 1994, slightly less than in at the beginning of the decade. Total DECS staff can be broken down into three categories: teaching teachers, teachers in non-teaching positions, and other non-teaching personnel (Table 10.22).

**TABLE 10.22 - TEACHING VERSUS NON-TEACHING DECS STAFF IN 1992, BY LEVEL OF EDUCATION
(PERCENT OF DISTRIBUTION)**

	Teachers		Non-teachers	Total Staff
	Teaching	Non-teaching		
Elementary ^a	89.8	6.2	4.0	100.0
Secondary ^a	85.4	5.4	9.2	100.0
Tertiary ^a	66.0	2.5	31.5	100.0
Office of the Secretary	-----	<u>27.1</u>	32.9	<u>100.0</u>
Total Staff	87.8	6.0	6.2	100.0
(same in 000)	(389.4)	(26.5)	(27.3)	(443.2)

Source: DECS (the breakdown of tertiary level staff is based on mission estimates).

^{a/} The proportion of teaching staff varies among regions, between 85 and 93 percent at the elementary level, and between 72 and 94 percent at the secondary level.

^{b/} Excluding SUCs.

10.80 While the proportion of non-teaching staff is higher at the secondary level than at the elementary level (15 and 10 percent respectively), such rates do not suggest an excessive burden of non-teaching staff on the DECS payroll.³² At the regional level, however, there are wide disparities in the proportion of non-teaching staff, which may reflect institutional rigidities with respect to the reassignment of teachers³³ (teaching and non-teaching) across school divisions. Relaxing

^{32/} The very small DECS-managed tertiary sub-sector (essentially non-chartered colleges) is an exception.

^{33/} The Magna Carta for Public School Teachers, enacted in 1966, stipulates that "... no teacher shall be transferred without his consent from one station to another." In principle, the law gives the school superintendent, at the

impediments to regional mobility of teachers, if politically feasible, would contribute to achieving a more efficient use of available teacher resources.

10.81 Although there is no major explicit diversion of teachers into non-teaching positions, there is evidence of teachers in teaching positions assigned part- or full-time to administrative or other support functions in school or, to a lesser extent, at the district office. This "local designation", appears to be limited to regular and master teachers in elementary schools. Nationally, it affects over one-fifth of this teaching force, again with considerable regional variations. Local designation, to some extent, may reflect a shortage of regular administrative and support personnel in schools and district offices. Another interpretation may be that administrative demands on schools and district offices are excessive. Whatever the interpretation, a substantial part of the teaching force is either temporarily or permanently diverted from actual teaching. More productive use of available teachers has potential for cost-savings. Another issue, in this context, is the large salary differential between teaching and non-teaching staff in the DECS hierarchy, illustrated below.

DECS 1992 AVERAGE BASIC SALARY RATIOS

(TEACHING TEACHER = 100)

	Regional Operations	Office of DECS Secretary
Teaching teachers	100	---
Non-teaching teachers	147	158
Other non-teaching staff	72	107

10.82 Teachers are promoted into non-teaching positions, and corresponding higher remuneration rates, after several years of teaching services. The above ratios thus reflect normal career patterns rather than preferential remuneration rates. The present salary structure provides nonetheless a strong incentive for teachers to eventually move out of teaching. The most experienced practitioners tend to leave. It may be worth considering extending career opportunities within the teaching profession.

10.83 There is an urgent need for a thorough and in-depth survey of teaching, administrative and support staff deployed in elementary schools, and possibly high schools, with a view to assessing how and to what extent DECS' operational staff might be used more effectively. The study should also provide a comprehensive assessment of the efficiency and equity of existing allocation processes with regard to school inputs, with particular focus on the prevailing system of staff deployment and career development norms and practices.

divisional level, the authority for transferring teachers where such is required by the exigencies of the services. His decisions, however, are open for appeal to DECS' central administration.

School Construction

10.84 Centralized responsibility for financing and execution of school construction and maintenance is a particularly wasteful proposition in the Philippines. Long chains of command between central resource appropriation and local execution, with multiple intermediate level decisions and weak coordination between planning and executing agencies, often lead to final outcomes not matching effective needs. Uniform architectural designs are being used throughout the country, causing cost-raising adaptation problems in specific regions. Similarly, a single unit price norm determines budgetary allocations for school construction, irrespective of site location. Where actual construction costs are above the norm (i.e. where difficult access increases transportation costs), school construction stops as soon as this cost reaches the fixed financial ceiling, and school buildings remain uncompleted. Locally financed and executed school construction, by contrast, generally proves to be less costly, of better quality, and more suitably adapted to local circumstances. Local involvement in school construction and maintenance also strengthens community commitment towards the school, and of providing some income-generating activity for local craftsmen.

10.85 All in all, there is a strong case, on grounds of cost-effectiveness, for decentralization of school construction and maintenance. Full devolution of this responsibility to LGUs, which is in line with the intent of the 1991 LGC, would have the added benefit of freeing DECS resources for use in priority alternatives. Selective compensatory support would have to be provided to financially disadvantaged LGUs. Ways of granting this support without discouraging local taxation efforts, or resource commitment to education, need to be identified.

STATISTICAL ANNEXES

- Table A1 National Accounts 1975-94 (Current Prices)
- Table A2 National Accounts 1975-94 (Constant Prices)
- Table A3 National Government Accounts 1976-94
- Table A4 National Government Maintenance and Operations Expenditures 1975-94
(Obligation Basis)
- Table A5 National Government Investment Expenditures 1975-94
(Obligation Basis)
- Table A6 Statement of Actual Financial Operations of 14 MNFGCs 1985-93
- Table A7 Statement of Actual Financial Operations of NPC 1985-93
- Table A8 Consolidated Income and Expenditures of LGUs 1986-92
- Table A9 Consolidated Public Sector Financial Position 1986-94
- Table A10 Consolidated Public Sector Investment 1980-94

Table A.1: The Philippines: National Accounts, 1975-94 (current prices)
(in millions of pesos)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GDP at market prices	107953	127214	145455	167251	202897	243749	281596	317177	369077	524481
GDP at factor cost	96965	116182	132336	149488	182189	223617	259962	292623	339557	486115
Agriculture	32752	37234	41772	47190	55682	61220	70090	74060	82550	129820
Industry	37786	45989	53582	61682	76027	94545	110309	123154	144801	198819
Mining and quarrying	1367	1548	2096	2485	4182	5460	5173	4882	6182	8142
Manufacturing	27720	32330	36995	43539	51018	62654	71829	79608	89472	129171
Services	37415	43991	50101	58379	71188	87984	101197	119963	141726	195842
Imports of GNFS	29265	32119	35091	41707	54046	69398	76514	82897	103641	131504
Exports of GNFS	22689	24586	30630	34566	43747	57458	67094	64526	79813	126682
Resource balance	-6576	-7533	-4461	-7141	-10299	-11940	-9420	-18371	-23828	-4822
Total Expenditures	114529	134747	149916	174392	213196	255689	291016	335548	392905	529303
Total Consumption	79045	90885	105852	121800	148407	178923	206207	237033	268031	399137
General Government	11591	13729	14963	16818	19041	22099	24661	28929	30552	36880
Private, etc.	67454	77156	90889	104982	129366	156824	181546	208104	237479	362257
Statistical discrepancy	2178	2063	-484	1351	-2488	5868	7475	10101	15647	15863
Gross domestic investment	33306	41799	44548	51241	67277	70898	77334	88414	109227	114303
GDFI	26598	33499	36619	42198	55896	66350	78147	87325	110167	128587
National Government	2100	2694	2823	4334	4953	8405	12679	9278	10409	9786
Nonfinancial Pub. Enterp.	2300	10383	7695	7387	10109	12241	18062	14537	12149	18421
Private Sector	22198	20422	26101	30477	40834	45704	47406	63510	87609	100380
Changes in stocks	6708	8300	7929	9043	11381	4548	-813	1089	-940	-14284
Gross domestic saving	26730	34266	40087	44100	56978	58958	67914	70043	85399	109481
Net factor income	-271	-1060	-976	-658	640	-478	-1053	-3633	-5809	-15996
Net current transfers	1940	1741	1694	1918	1846	1972	2204	1764	2916	6446
Gross national saving	28399	34947	40805	45360	59464	60452	69065	68174	82506	99931
Net Indirect Taxes	10988	11032	13119	17763	20708	20132	21634	24554	29520	38366
Indirect taxes	11649	11644	13575	18336	21296	20739	22169	25119	30102	38691
Subsidies	661	612	456	573	588	607	535	565	582	325
Gross national product	107682	126154	144479	166593	203537	243271	280543	313544	363268	508485
Nominal Exchange Rate(p.a.)	7.248	7.440	7.403	7.366	7.378	7.511	7.900	8.540	11.113	16.699
GDP at mp (curr. mill. US\$)	14894	17099	19648	22706	27500	32452	35645	37140	33211	31408

Table A.1: The Philippines: National Accounts, 1975-94 (current prices)
(in millions of pesos)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
GDP at market prices	571883	608887	682764	799182	925444	1077237	1248011	1351559	1475042	1687607
GDP at factor cost	531027	565399	623139	742446	904819	989352	1133784	1217554	1324623	1511924
Agriculture	140550	145810	163927	183515	210009	235956	261868	294922	318546	371636
Industry	200548	210528	235094	280957	322964	371347	424504	443813	481900	552201
Mining and quarrying	11893	14144	14354	15275	15446	16659	17504	16263	16621	16509
Manufacturing	143851	149958	169627	204784	230163	267485	315938	326839	349595	393788
Services	230785	252549	283743	334710	392471	469934	561639	612824	674596	763770
Imports of GNFS	125205	136235	179030	215292	280118	358548	406698	459911	592580	715571
Exports of GNFS	137030	160187	182179	226431	263880	296415	369377	393706	462384	583281
Resource balance	11825	23952	3149	11139	-16238	-62133	-37321	-66205	-130196	-132290
Total Expenditures	560058	584935	679615	788043	941682	1139370	1285332	1417764	1605238	1819897
Total Consumption	464352	492960	539663	630948	737462	875904	1040269	1149733	1271585	1427076
General Government	43520	48431	57333	72183	88186	108843	123885	130524	149057	168326
Private, etc.	420832	444529	482330	558765	649276	767061	916384	1019209	1122528	1258750
Statistical discrepancy	8009	-5466	20476	7902	4310	3301	-7192	-20370	-27800	-33721
Gross domestic investment	87697	97441	119476	149193	199910	260165	252255	288401	361453	426542
GDFI	99818	102374	112663	142226	192665	248954	250147	282783	358401	418207
National Government	8796	11683	12913	15234	20861	29155	37607	46125	40315	42492
Nonfinancial Pub. Enterp.	12472	5611	6372	7764	11993	16313	13975	20493	33642	40889
Private Sector	78550	85080	93378	119228	159811	203486	198565	216165	284444	334826
Changes in stocks	-12121	-4933	6813	6967	7245	11211	2108	5618	3052	8335
Gross domestic saving	99522	121393	122625	160332	183672	198032	214934	222196	231257	294252
Net factor income	-15809	-12611	-11938	-7360	-11318	5310	18059	34003	44772	63878
Net current transfers	7049	8997	11804	16352	22676	10959	12897	20746	17199	27819
Gross national saving	90762	117779	122491	169324	195030	214301	245890	276945	293228	385949
Net Indirect Taxes	40856	43488	59625	56736	20625	87885	114227	134005	150419	175683
Indirect taxes	41793	45778	61913	59454	82705	101185	122473	138675	156187	182122
Subsidies	937	2290	2288	2718	62080	13300	8246	4670	5768	6439
Gross national product	556074	596276	670826	791822	914126	1082547	1266070	1385562	1519814	1751485
Nominal Exchange Rate(p.a.)	18.607	20.386	20.568	21.095	21.737	24.311	27.479	25.512	27.120	26.417
GDP at mp (curr. mill. US\$)	30735	29868	33195	37885	42575	44311	45417	52977	54389	63883

Table A.2: The Philippines: National Account, 1975-94 (constant prices)
(in millions of 1985 pesos)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
GDP at market prices	454264	494262	521952	548947	579910	609768	630642	653467	665717	616962
Net Indirect Taxes	46961	45769	48802	55305	63965	64442	58071	59047	62626	51664
GDP at factor cost	407303	448493	473150	493642	515945	545326	572571	594420	603091	565298
Agriculture	112091	123324	128717	133503	137733	143295	148479	149641	144586	143247
Industry	174355	193505	207816	219412	235391	247057	258545	264959	268987	238038
Mining and quarrying	5738	5886	7065	7318	8249	9128	935	9165	9244	8959
Manufacturing	128638	136090	144745	154323	161545	16829	171569	174315	173756	156195
Services	167818	177433	185419	196032	206786	219416	223618	238867	252144	235677
Imports of GNFS	105930	107656	114654	129249	150065	179477	178057	182414	176841	145934
Exports of GNFS	76181	85954	100062	106121	110678	154748	164698	151489	158252	164327
Resource balance	-29749	-21702	-14592	-23128	-39387	-24729	-13359	-30925	-18589	18393
Total Expenditures	484013	515964	536544	572075	619297	634497	644001	684392	684306	598569
Total consumption	355788	372301	389989	409320	428631	447581	456633	474395	474488	469738
General government	43940	44865	45283	46644	48368	50177	48675	52328	49854	43971
Private	311848	327436	344706	362676	380263	397404	407958	422067	424634	425767
Statistical discrepancy	11259	6059	8103	13528	25030	25846	21709	30423	19575	1267
Gross domestic investment	116966	137604	138452	149227	165636	161070	165659	179574	190243	127564
GDFI	95151	112105	115213	123875	138132	150716	169028	177632	191810	144627
National Government	7512	9016	8882	12723	12240	19092	27424	18873	18123	11007
Nonfin. Pub. Enterprise	8228	34747	24210	21685	24982	27806	39067	29570	21152	20719
Private Sector	79411	68343	82121	89467	100910	103818	102537	129189	152535	112901
Changes in stocks	21815	25499	23239	25352	27504	10354	-3369	1942	-1567	-17063
Net factor income	-1157	-4128	-3461	-2139	1775	-1169	-2317	-7281	-10234	-18622
Net current transfers	8283	6780	6007	6235	5120	4810	4850	3535	5137	7585
Gross national product	453107	490134	518491	546808	581685	608599	628325	646186	655483	598340
Gross domestic saving	93163	112355	123876	127097	137040	130191	143738	139149	149586	122213
Gross national saving	100289	115007	126422	131193	143935	133832	146271	135403	144489	111176
Capacity to import	82127	82407	100078	107119	121469	148598	156136	141989	136184	140583
Terms of trade adjustment	5946	-3547	16	998	10791	-6150	-8562	-9500	-22068	-23744
Gross domestic income	460210	490715	521968	549945	590701	603618	622080	643967	643649	593218
Gross national income	459053	486587	518507	547806	592476	602449	619763	636686	633415	574596

Table A.2: The Philippines: National Account, 1975-94 (constant prices)
(in millions of 1985 pesos)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
GDP at market prices	571883	591423	616923	658581	699448	718069	716522	718941	734310	765749
Net Indirect Taxes	49350	50810	63530	52636	59376	61160	67366	71380	74883	79718
GDP at factor cost	522533	540613	553393	605945	640072	656909	649156	647561	659427	686031
Agriculture	140554	145725	150414	155292	159964	160734	162937	163571	167053	171043
Industry	200548	205164	213389	232052	249175	255484	248718	247384	251459	266820
Mining and quarrying	11893	12313	11232	11704	11389	11091	10770	11495	11571	10763
Manufacturing	143851	146453	154604	169316	179152	183925	183111	179947	181289	190489
Services	230781	240534	253120	271237	290309	301851	304867	307986	315798	327886
Imports of GNFS	125205	138021	177532	212357	244590	269148	259127	289273	324656	382815
Exports of GNFS	137030	160453	170889	195997	216980	219703	232353	241432	256451	306405
Resource balance	11825	22432	-6643	-16360	-27610	-49445	-26774	-47841	-68205	-76410
Total Expenditures	560058	568991	623566	674941	727058	767514	743296	766782	802515	842159
Total consumption	464352	478484	498178	530505	558053	588814	599463	616846	637335	658816
General government	43520	43669	45792	49943	53434	57042	55826	55337	58746	58710
Private	420832	434815	452386	480562	504619	531772	543637	561509	578589	600106
Statistical discrepancy	8009	-7085	13800	19932	16042	2286	233	-4316	-6236	-5348
Gross domestic investment	87697	97592	111588	124504	152963	176414	143600	154252	171416	188691
GDFI	99818	102374	105130	119052	147457	170570	141903	150974	169144	183279
National Government	8796	11683	12050	12752	15966	19975	21334	24626	19026	18622
Nonfin. Pub. Enterprise	12472	5611	5946	6499	9179	11177	7928	10941	15877	17920
Private Sector	78550	85080	87135	99801	122312	139418	112642	115408	134241	146737
Changes in stocks	-12121	-4782	6458	5452	5506	5844	1697	3278	2272	5412
Net factor income	-15809	-12248	-10978	-6170	-8689	3693	10294	18198	22137	29160
Net current transfers	7049	8739	10662	13473	17135	7307	7404	11090	8519	12696
Gross national product	556074	579175	605945	652411	690759	721762	726816	737139	756447	794909
Gross domestic saving	99522	121858	114711	135491	138785	129773	119821	112611	100086	117919
Gross national saving	90762	118349	114395	142794	147231	140773	137519	141899	130742	159775
Capacity to import	137030	162287	180655	223344	230412	222507	235348	247632	253326	312043
Terms of trade adjustment	0	1834	9766	27347	13432	2804	2995	6200	-3125	5638
Gross domestic income	571883	593257	626689	685928	712880	720873	719517	725141	731185	771387
Gross national income	556074	581009	615711	679758	704191	724566	729811	743339	753322	800547

Table A.3: The Philippines: National Government Accounts, 1976-94
(in millions of pesos)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total Current Revenues	68961	79245	103214	112861	152410	180902	220787	242714	260316	344250
Direct Taxes	18655	19148	21799	27409	37592	49366	61053	70123	74532	83920
Indirect Taxes	42598	46343	64124	62943	84870	102334	121222	138582	155584	187530
Import Duties/Taxes	15785	16859	25977	18611	29107	35355	39076	40443	47036	
Nontax Receipts	7708	13754	17291	22509	29948	29202	38512	34009	30200	72800
Total Current Expenditures	55275	66921	95503	112166	142785	177995	196525	214939	234600	287000
Consumption	36092	40015	51410	60341	78173	92398	108598	108010	113300	129900
Subsidies	1009	1720	1835	2032	5575	3045	4270	3531	6200	6900
Allotment to LGUs	3522	3574	4304	2931	3388	4714	6708	16114	34700	37800
Interest Payments	14652	21612	36905	45866	54714	71114	74922	79571	76500	108000
External Debt	4193	6456	12605	13686	13681	17462	18572	16459	20300	19200
Domestic Debt	10459	15156	24300	32180	41033	53652	56350	63112	56200	88800
Other Current Transfers ^{1/}	0	0	1049	996	935	6724	2027	7713	3900	4400
Budgetary Savings	13686	12324	7711	695	9625	2907	24262	27775	25716	57250
Capital Outlays	23149	28428	17327	18485	24814	34810	42607	41036	43900	54950
Budgetary Investment	8796	11683	12913	15233	20861	29155	37607	46125	37800	42492
Capitalization/Equity	14353	12336	4414	1823	2107	3059	1926	-9150	6191	3070
Capital Transfers	0	4409	0	1429	1846	2596	3074	4061	-91	9388
Net Lending & CARP Land Acquisition	1679	15148	7077	5416	4379	5291	8004	2705	3709	4130
Overall Surplus/(Deficit)	-11142	-31252	-16693	-23206	-19568	-37194	-26349	-15966	-21893	-1830
Financing	11142	31252	16693	23206	19568	37194	26349	15966	21893	1830
Net Foreign Borrowing	-340	3580	6782	4242	8210	4126	6880	14390	12993	-13670
Net Domestic Borrowing	11482	27672	9911	18964	11358	33068	19469	1576	8900	15500
Memorandum Item:										
Primary Deficit (-)	3510	-9640	20212	22660	35146	33920	48573	63605	54607	106170

^{1/} includes tax expenditures and transfer to OPSF.

Table A.3: The Philippines: National Government Accounts, 1976-94
(in millions of pesos)

	1976	1977	1978	1979	1980	1981	1982	1983	1984
Total Current Revenues	18089	19959	24073	29470	34077	35933	38206	45632	56861
Direct Taxes	3648	4089	5474	6194	7270	7759	8406	9056	12139
Indirect Taxes	11679	12866	14967	19762	23263	23664	25394	30792	37979
Import Duties/Taxes					11166	10841	11809	16225	15448
Nontax Receipts	2762	3004	3632	3514	3544	4510	4406	5784	6743
Total Current Expenditures	15798	17719	19230	20608	23673	26389	30980	34522	42873
Consumption	14081	15782	16708	17102	19227	21893	23064	25818	29259
Subsidies	289	255	633	478	622	523	1979	1104	429
Allotment to LGUs	685	784	753	1187	1528	1544	2377	2603	2776
Interest Payments	743	898	1136	1841	2296	2429	3560	4997	10409
External Debt	147	151	378	491	706	1009	1450	2177	4269
Domestic Debt	596	747	758	1350	1590	1420	2110	2820	6140
Other Current Transfers ^{1/}	0	0	0	0	0	0	0	0	0
Budgetary Savings	2291	2240	4843	8862	10404	9544	7226	11110	13988
Capital Outlays	4540	5047	6772	8351	12927	20761	19412	16148	19631
Budgetary Investment	2694	2823	4334	4953	8405	12680	10044	10409	9786
Capitalization/Equity	1846	2224	2438	3398	4522	8081	9368	5739	9845
Capital Transfers	0	0	0	0	0	0	0	0	0
Net Lending & CARP Land Acquisition	100	45	238	853	675	929	2218	2394	4423
Overall Surplus/(Deficit)	-2349	-2852	-2167	-342	-3198	-12146	-14404	-7432	-10066
Financing	2349	2852	2167	342	3198	12146	14404	7432	10066
Net Foreign Borrowing	51	250	1852	3185	2403	5992	4597	5437	2005
Net Domestic Borrowing	2298	2602	315	-2843	795	6154	9807	1995	8061
Memorandum Item:									
Primary Deficit (-)	-1606	-1954	-1031	1499	-902	-9717	-10844	-2435	343

1/ includes tax expenditures and transfer to OPSF.

Table A.4 : The Philippines: National Government Maintenance and Other Operating Expenses (Obligation Basis)
(in thousands of pesos)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Grand Total	4499559	6011138	5697951	6573609	7368140	7365820	7732222	9651248	10510104	11544719
General Public Service	688722	1183299	955856	1160404	1117941	1293835	1352733	1520001	1977366	2730072
Public Administration	577786	840565	560512	626447	716172	800654	930194	1229292	1390384	2161068
Peace and Order	66679	152439	131533	464806	401769	493181	422589	290709	586982	553023
Unallocable	44257	195295	263811	69151	0	0	0	0	0	15981
Defense	1538491	2104704	2069447	1983900	2231224	1890411	1724047	2897293	2660294	2866283
Education, Health, Social & Housing	819946	1012845	1004436	1383059	1605656	1574492	2041941	2858844	2931960	2782551
Education	285032	301373	362701	541286	610130	602365	796726	993803	977675	1065803
Health	340478	440652	443635	503479	628145	666236	858451	1207564	1193910	1013000
Social Service	187752	213725	176819	261044	270126	182298	309697	288902	388217	257836
Housing & Commun.	3765	53759	16206	70164	85023	94681	56078	329078	339292	415363
Other Social Services	2919	3336	5075	7086	12232	28912	20989	39497	32866	30549
Agriculture, Natural Res. & Industry	1452400	1705290	1668212	2046246	2413319	2607082	2613451	2375110	2940484	3165813
Agrarian Reform	34768	26357	36250	41725	39706	57816	65460	72204	78499	66633
Agriculture	151432	161918	124220	211323	222695	211627	236567	323280	348485	378453
Natural Resources	171923	222393	240556	261239	269341	277095	348211	378424	370498	1002383
Industry	12230	15420	15897	45904	51440	120480	146537	197116	129633	238208
Trade	60146	80586	75485	87170	68632	3201	5056	4338	66371	62107
Tourism	28768	28948	28321	31612	29480	46451	37796	44425	47993	38799
Power and Energy	6329	14560	15240	20925	321192	71035	21731	23917	80693	42747
Water Resources Devt.	6673	7873	3236	8397	6740	4640	7407	5757	7265	376
Transportation & Communication	980131	1044556	1129007	1335072	1287484	1728608	1626112	1184675	1806180	1200841
Other Economic Services	0	102679	0	2879	116609	86129	118574	140974	4867	135266
Debt Service	0	0	0	0	0	0	0	0	0	0

Table A.4 : The Philippines: National Government Maintenance and Other Operating Expenses (Obligation Basis)
(in thousands of pesos)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Grand Total	12143340	14648439	19904896	20973310	24525425	28281954	30345440	33161063	33583046	37514000
General Public Service	2528802	2812224	4839965	4204703	5195694	5635869	6745110	9201995	9844394	8174214
Public Administration	2008423	2017948	4266671	3357626	4025764	5618099	5330797	7727417	8235768	6623443
Peace and Order	462483	794276	573294	847077	475997	17770	1392324	1474578	1608626	1550771
Unallocable	57896	0	0	0	693933	0	21989	0	0	0
Defense	2056669	3041698	3332162	4543153	4396462	4175936	4705001	5649030	5787019	5554719
Education, Health, Social & Housing	3619445	4543591	4344861	5639468	6752699	8211298	10021932	9566121	8979066	9267615
Education	1442228	1601310	2005894	2488164	3374848	4507392	5273666	4658342	4836638	4713450
Health	1307789	1578431	1973668	2681038	2778962	3108586	3992857	4241600	3495522	3494822
Social Service	316184	226236	205553	292725	324374	352556	469869	455327	448131	875906
Housing & Commun.	494048	1081687	98540	83636	136682	99811	104850	30571	39927	51376
Other Social Services	59196	55927	61206	93905	137833	142953	180690	180281	158848	132061
Agriculture, Natural Res. & Industry	3938424	4250926	7387908	6585986	8180570	10258851	8873397	8743917	8972567	14517452
Agrarian Reform	81174	99843	299409	502043	1985403	3248192	793041	640127	777105	6094164
Agriculture	543768	540406	866130	956007	1346976	2072020	2674712	2533969	2170896	2166755
Natural Resources	1322184	460330	531785	633983	795612	889412	1147900	977121	932707	1471273
Industry	203667	146079	178874	285480	344756	276648	321224	314752	372346	671795
Trade	67488	6097	13987	24255	27663	25909	23849	26079	28051	135046
Tourism	41396	2257	67146	62324	63495	60440	145888	103118	93044	146105
Power and Energy	31091	12311	3410	5175	7060	6060	35624	25579	77395	147416
Water Resources Devt.	8335	2487	1623	2534	2468	24389	2743	3572	2492	5896
Transportation & Communication	1504236	2834650	4973348	3928176	3094312	3429044	3656941	4069360	4511491	3552203
Other Economic Services	135085	146466	452196	186009	512825	226737	71475	50240	7040	126799
Debt Service	0	0	0	0	0	0	0	0	0	0

Table A.5 : The Philippines: National Government Investment Expenditure (Obligation Basis)
(in thousands of pesos)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Grand Total	7356091	6811604	7015193	8501372	11275807	12419127	18893526	15510777	15228148	16896687
General Public Service	317908	97780	406796	204237	425133	294655	358832	149478	328905	692792
Public Administration	241400	96166	365990	196237	400609	250950	300270	145208	254757	215095
Peace and Order	53109	1472	25806	0	14433	28705	58562	4270	74148	26941
Unallocable	23399	142	15000	8000	10091	15000	0	0	0	450756
Defense	642821	304692	705274	185777	309594	290016	341305	186556	475860	298348
Education, Health, Social & Housing	355764	512906	541163	664667	1405154	1829070	2228779	1709820	2787041	1280710
Education	137490	111071	118555	244290	330908	358273	568971	493313	554130	346474
Health	26722	84041	162096	27555	118435	110171	143546	113186	53692	104240
Social Service	58423	84366	2049	3664	2483	5499	6411	3304	9235	610
Housing & Commun.	132088	233203	258060	388946	948328	1325161	1488123	1072088	2167580	756932
Other Social Services	1041	225	403	212	5000	29966	21728	27929	2404	72454
Agriculture, Natural Res. & Industry	6039598	5896226	5361960	7446691	9135926	10005386	15964610	13464923	11636342	14624837
Agrarian Reform	123445	36745	40946	61506	79701	81563	35019	36844	79100	21365
Agriculture	1112253	767306	727068	1592581	148233	580809	1139581	1399829	1085146	540421
Natural Resources	59033	38699	65236	53495	71067	59970	102603	69477	60945	4646402
Industry	193347	141706	86125	106186	165304	757760	2077944	1063890	469812	206189
Trade	40997	6146	22229	34213	43822	3098	8605	7029	48188	7800
Tourism	4257	599	2188	3237	3594	96	59	60	402	15
Power and Energy	524506	943276	951310	1866396	2495490	2283963	2839056	1723023	1021721	796234
Water Resources Devt.	24695	180425	147500	150000	391986	771018	843639	573716	29254	379192
Transportation & Communication	3494703	2877366	2551430	3010019	5413572	5039621	6450587	6940822	6596721	1048764
Other Economic Services	462362	903958	767928	569058	323157	427488	2467517	1650233	2245053	6978455
Debt Service	0	0	0	0	0	0	0	0	0	0

Table A.5: The Philippines: National Government Investment Expenditure (Obligation Basis)
(in thousands of pesos)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Grand Total	23516803	22003508	17234899	17017651	26030204	37435633	46531434	36334628	43555429	66417046
General Public Service	1062645	102513	1645585	2971776	3056454	3542465	2922362	3507507	2859599	6792500
Public Administration	288337	102513	1596168	2913340	2617060	3541857	2649986	3330636	2751941	6460818
Peace and Order	1776	0	49417	58436	439394	608	266625	176871	107658	331682
Unallocable	772532	0	0	0	0	0	5751	0	0	0
Defense	393663	132075	289321	469728	636218	730119	420990	235241	1252656	1785393
Education, Health, Social & Housing	1697523	6455589	3814142	3594163	5887723	7814760	7096494	1955223	2466874	11019241
Education	933302	1124696	2022942	2236865	2512927	3376750	4228619	1677337	1733221	5757542
Health	150661	199295	340727	554159	605467	886164	526329	156629	302592	1386965
Social Service	12193	1890	11516	24644	33889	6166	24514	38510	40286	172874
Housing & Commun.	588209	5127019	1434037	765224	2683796	3537143	2255708	70211	388230	3680349
Other Social Services	13158	2689	4920	13271	51644	8537	61324	12536	2545	21511
Agriculture, Natural Res. & Industry	20362972	15313331	11485851	9981984	16449809	25348289	36091588	30636657	36976300	46819912
Agrarian Reform	52797	26458	93261	357714	1240941	622421	57404	44623	18987	111137
Agriculture	1173064	147505	2129815	720637	508621	514218	484542	1817653	2460078	3417358
Natural Resources	5942338	21692	36480	211106	963333	1540985	1284639	606419	760846	2026747
Industry	389846	978	555682	234680	55939	85656	66917	96649	181041	296902
Trade	30292	0	9366	3887	33334	37841	20	787	1687	5523
Tourism	76	7485	12488	16885	6642	4254	7403	12754	50974	111117
Power and Energy	592322	0	1719557	123760	275995	1175205	791737	1068342	4066525	854023
Water Resources Devt.	83933	0	195300	506501	367399	328320	575201	818688	797512	193
Transportation & Communication	561884	2687499	6733633	7321645	12995397	19192495	30348407	25778311	28040469	36034534
Other Economic Services	11536420	12421714	269	485169	2208	1846894	2475318	392431	598181	3962378
Debt Service	0	0	0	0	0	0	0	0	0	0

Table A.6 : The Philippines: Statement of Actual Financial Operations of 14 MNFGCs, 1985-93
(in millions of pesos)

	1985	1986	1987	1988	1989	1990	1991	1992	1993
Total Receipts	56310	38738	49837	59818	57521	76755	97660	102421	109690
Operating receipts	50568	34638	44910	48240	53479	71183	90703	95465	102435
Sales of goods/services	50532	34523	44158	46595	48933	68913	87487	93225	97897
Current subsidies	36	115	753	1644	4546	2269	3216	2240	4537
Other receipts	5742	4100	4927	11579	4042	5573	6956	6956	7256
Current Expenditures	51885	38425	43091	47847	45549	69073	79181	90110	93727
Operating expenditures	39480	27080	31097	35237	32695	54299	62527	69298	69606
Wages and salaries	874	1399	2324	2876	3452	4029	4175	4564	4763
Others	38606	25681	28773	32361	29243	50270	58352	64733	64844
Other current expenditures	12405	11346	11995	12611	12854	14774	16655	20813	24121
Interest payments	10940	9523	9468	9821	7397	7494	8508	10226	11151
Tax payment to NG	331	346	371	468	448	842	384	3675	8550
Interest on NG advances	0	0	1116	586	2918	1398	793	1194	489
Dividend payments	0	0	38	12	91	197	47	400	629
Other expenditures	1134	1477	1002	1724	2001	4843	6922	5317	3302
Capital Expenditures	12307	5881	7863	9026	14967	26819	19890	22559	41571
Acquisition of fixed assets	9508	7141	6372	7764	11996	16313	13975	20429	33875
Change in inventories	1329	-1681	925	247	2316	7971	1838	-2429	1078
Other capital expenditures	1470	421	566	1015	655	2535	4077	4559	6617
Capital Transfer	0	1211	-1362	0	0	0	0	0	0
Internal Cash Generation	4425	313	6746	11971	11972	7682	18478	12311	15963
Financing Deficit (-)	-7882	-6779	245	2945	-2995	-19137	-1412	-10249	-25607
Net External Financing	-2326	-5261	319	-2875	2603	6273	113	4616	21860
Gross external financing	30084	18060	27386	30602	34246	50509	47252	53601	71344
Repayments & amortization	32410	23321	27068	33477	31643	44236	47140	48985	49484
Net Domestic Financing	10208	12040	-564	-69	392	12864	1299	5633	3747
NG equity	2504	2045	3750	-2943	2078	252	2101	1010	5640
NG net lending	1490	6898	5140	4063	2174	2181	4148	1394	1549
Net domestic bank credits	-259	896	-247	-1224	2236	7456	-4010	1652	1986
Other net domestic financing	6473	2202	-9207	34	-6094	2975	-940	1578	-5428

Table A.7: The Philippines: Statement of Actual Financial Operations of National Power Company, 1986-93
(in millions of pesos)

	1986	1987	1988	1989	1990	1991	1992	1993
Total Receipts	16354	19234	24125	21903	25986	34301	39433	40791
Operating receipts	15441	19254	19830	20966	24855	32327	37565	40494
Sales of goods/services	15441	19254	19830	20665	24712	32152	37526	39896
Current subsidies	0	0	0	301	143	175	39	598
Other receipts	913	-20	4295	937	1131	1974	1868	297
Current Expenditures	14273	12830	18076	14158	22520	30896	28965	33088
Operating expenditures	9419	7693	12289	9758	15311	21828	19876	18191
Wages and salaries	279	733	939	1194	1224	1531	1406	1562
Others	9140	6960	11350	8564	14087	20297	18470	16629
Other current expenditures	4854	5137	5787	4400	7209	9068	9089	14897
Interest payments	4752	5020	4944	3161	3556	4184	3367	6107
Tax payment to NG	0	68	74	57	71	31	2563	6631
Interest on NG advances	0	0	270	0	394	752	28	407
Dividend payments	0	0	0	0	0	0	0	0
Other expenditures	102	49	499	1182	3188	4101	3131	1752
Capital Expenditures	1863	3239	3287	7403	10898	10207	17926	28411
Acquisition of fixed assets	2729	2681	2705	6107	10804	8730	14503	27357
Change in inventories	-866	558	582	1296	94	1477	3423	1054
Other capital expenditures	0	0	0	0	0	0	0	0
Capital Transfer	0	-1362	0	0	0	0	0	0
Internal Cash Generation	2081	6404	6049	7745	3466	3405	10468	7703
Financing Deficit (-)	218	4527	2762	342	-7432	-6802	-7458	-20708
Net External Financing	304	35	-52	3145	4093	2685	7164	17542
Gross external financing	2074	1819	1182	4927	9435	5254	11314	24770
Rpayments & amortization	1770	1784	1234	1782	5342	2569	4150	7228
Net Domestic Financing	689	-4562	-2710	-3487	3338	4117	294	3166
NG equity	372	59	-4390	0	597	556	410	4350
NG net lending	57	-1502	-1010	-1288	762	3114	-424	-132
Net domestic bank credits	-1427	-467	-782	284	1140	-1774	1027	3370
Other net domestic financing	1687	-2652	3472	-2483	839	2221	-719	-4422

Table A.8 : The Philippines: Consolidated Income and Expenditures of LGUs, 1986-92
(in millions of pesos)

	1986	1987	1988	1989	1990	1991	1992
Total Income	9446	9661	11205	14461	17535	25570	28976
Local Sources	5706	6067	6717	9492	10620	14606	13229
Revenue from Taxation	3524	3665	4144	5478	6394	7633	8821
Real Property Tax	2258	2375	2670	3678	4310	4852	5334
Business Taxes	1266	1290	1474	1800	2084	2781	3487
Non-Tax Revenue	2182	2402	2573	4014	4226	6973	4408
Receipts from Econ. Ent.	788	822	911	1276	1310	1548	1470
Other Receipts	1394	1580	1662	2738	2916	5425	2938
Aids and Allotments	3740	3594	4488	4969	6915	10964	15747
Statutory Allotments	3299	3142	3974	4343	6175	9734	15363
National Aids	441	452	514	626	740	1230	384
Total Expenditures	8626	9122	10250	12524	15401	22532	25170
Current Expenditures	8018	8535	9517	11749	14208	20294	22433
General Government	2327	2659	2902	3839	4291	8293	10083
Public Welfare and Safety	1930	2080	2296	2430	2726	2826	3894
Economic Development	1676	1695	2016	2027	3687	3931	3628
Other Charges	2085	2101	2303	3453	3504	5244	4828
Capital Outlay	608	587	733	775	1193	2238	2737
Deficit (-)	820	539	955	1937	2134	3038	3806

Table A.9: The Philippines: Consolidated Public Sector Financial Position, 1986-94
(in billions of pesos)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total PSBR	-25.7	-8.8	-16.4	-25.6	-44.9	-16.1	-20.4	-58.6	-10.7
National Government	-31.3	-16.7	-23.2	-19.6	-37.2	-26.3	-16.0	-21.9	18.1 4/
Monitored GOCCs	-6.8	0.2	2.9	-3.0	-19.1	-7.4	-10.7	-25.6	-13.0
CB Restructuring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-15.1	-24.4
OPSF 1/	0.0	0.0	0.0	-5.9	5.8	10.5	4.4	-7.9	2.6
Adj. to GOCCs 2/	12.4	7.7	3.9	2.9	5.1	7.1	2.5	11.9	6.0
Other Adjustments 3/	0.0	0.0	0.0	0.0	0.5	0.0	-0.6	0.0	0.0

Notes:

1/ includes OPSF balance, OPSF transfer to NG, NG transfer to OPSF and adj. for PNOC share of OPSF balance.

2/ includes NG transfers to monitored corporations, NPC transfer to NG, NG transfer to PNOC and PNB transfer to NG.

3/ includes adj. for net lending for debt buyback, reconciliation of cash accounts with bank data and other adjustments.

4/ includes P6.5 billion below-the-line privatization proceeds for 1994.

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1981

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