Annex to Appendix E

I. Road Construction and Maintenance System in the Philippines

I.1 Road Construction

I.1.1 Organization

For road construction, the general organizational set-up is as follows.

1) *National Roads*

Four agencies under DPWH are involved in the construction or implementation of road projects. They are as follows:

a) Bureau of Construction (Central Office of DPWH): The bureau is not directly involved in actual construction, unless specifically required to do so by the Secretary. Its major roles and functions are enumerated below.

- Formulate policies relating to construction management and contract administration;
- Review and evaluate construction programs, estimates, and tender and contract documents;
- Inspect, check and monitor construction and works supervision activities of field implementing offices;
- Provide specialist support to implementing field offices on construction management and contract administration; and
- Perform such other related duties and responsibilities as may be assigned or delegated by the Secretary or as may be required by law.

b) Project Management Offices (Central Office of DPWH): Foreign assisted projects are implemented by project management offices, usually by contract. Construction supervision is, in general, done by consultants hired by project management offices.

c) Construction Division Regional Office (Field Office of DPWH): Locally funded projects costing above 1.0 million pesos are implemented by regional offices, usually by contract. Construction supervision is done by administration.

d) Construction Section of District/City Offices (Field Office of DPWH): Locally funded projects costing up to 1.0 million pesos are implemented by district/city offices are done by contract or by administration.

2) Local Roads

In accordance with the Government policy of decentralization, local government units (LGUs) are given greater participation in the implementation of infrastructure programs funded by the National Government. The constriction of local road projects funded under the National Assistance to Local Government Units (NALGU) in the General Appropriations Act and costing not more than ₱ 200,000 each are implemented by the local government units.

LGUs implement projects by contract or by administration under the technical guidance and supervision of DPWH and the general supervision of DILG.

I.1.2 Construction Method

Generally, there are two methods adopted for road construction: construction by administration and construction by contract.

1) Construction by Administration

Under the present laws and regulations, construction can be done by administration when the following conditions are met:

a) Any project with a cost of 1.0 million pesos or less

b) A project costing over 1.0 million pesos

- Failure to award a contract after open competitive public bidding for valid cause or causes;
- Approval of the Secretary of DPWH must be obtained when the project cost is more than 10 million pesos.

2) Construction by Contract

There are two kinds of construction methods: equipment-based construction and labor-based construction. During the previous administration, the former was the governing method. However, under the present administration, extensive application of the latter is being pursued to create as many job opportunities as possible, so that the economy in the area will be stimulated and economic recovery of the country will be accelerated.

a) Equipment-based construction method

When a project is implemented by contract, contractors usually apply the equipment-based construction method which allows contractors to utilize their own equipment to the maximum possible extent.

When this method is applied, cost shares are 30~60% for materials, 40~60% for equipment and 5~15% labor to total construction cost are as shown below. Cost shares vary depending upon the nature of works involved. In general, when earth work is a major component, the equipment cost share become high, while the materials cost share increased when structural work is a major component.

Contractors are broadly classified into three: small, medium and large, based on their past experience, financial capabilities, equipment owned and engineering manpower resources. (Table EA.1)

Table EA.1
Categorization of Contractors

Class of Contractor	Allowable Range of Contract Cost	No. of Contractors	
		Roads	Bridges
Small	Less than or equal to P3.0M	436	526
Medium			
Subclass A	Above P3.0M up to P15.0M	79	68
Subclass B	Above P3.0M up to P30.0M	88	52
Large			
Subclass A	Above P3.0M up to P50.0M	25	10
Subclass B	Above P3.0M	27	15
	Total	655	671

b) Labor-based construction method ("Pakyaw System")

This method is being adopted in as many projects as possible. Executive Order No. 182 expresses the Government policy on this method as follows:

"Whenever technically and economically feasible, labor-based/equipment-supported methods shall be used in the implementation of the projects authorized in this Executive Order provided that:

i) The estimated financial cost of each project done by the labor-based method does not exceed the cost of the best alternative construction method defined by the agency concerned by more than ten per centum (10%).

ii) The estimated duration of the project done by the labor-based method does not exceed the duration of the best alternative method defined by the agency concerned by more than fifty per centum (50%).

iii) The employment of workers in the projects will not unduly impair the labor requirements of agricultural production.

For the labor-based method, the purchase of hand tools and other work implements in an amount not exceeding 5 per centum (5%) of the estimated project cost, may be charged against the project funds."

The Pakyaw contract system is traditional in the Philippines. It is widely used in the construction industry by both the Government and the private sector to undertake jobs in which manual labor is a major component. In line with the Government policy to create more job opportunities through the implementation of infrastructure projects in rural areas, this system is planned to be extensively used for rural roads projects.

In order to apply this system efficiently and effectively to rural projects, a guideline was prepared by Central Labor-based Advisory and Training Team (CLATT) and issued as Department Order No. 57, Series of 1987.

i) Coverage of the Pakyaw Contract: The contract covers the provision of labor services only. Construction materials, equipment, and tools are provided by the implementing agency.

ii) Labor groups: The contract is awarded only to local labor groups, such as Parent-Teacher Associations, and barangay groups, and not to regular/licensed contractors nor to any Government officials/employees.

The workforce is normally formed of about 20 workers from whom a group leader (a Pakyaw leader) is elected. The elected Pakyaw leader is the signatory to the contract and other documents pertaining to the work on behalf of the Pakyaw group.

Unskilled workers should come from the barangay where the project is located, semi-skilled workers from the municipality and skilled workers from the province.

The project facilitator (PF), who is normally an existing DPWH employee detailed to the project, assists in organizing Pakyaw groups and in the preparation of Pakyaw contracts.

iii) Award: Pakyaw contracts are awarded only after competitive selection, either through open public bidding or through the sealed canvass of at least three (3) Pakyaw groups.

Bidding is made for unit prices of certain construction work items such as bush clearing, grubbing, topsoil removal, etc.

Awards are made by the district/city engineer only up to a cost of P100,000.00 per Pakyaw contract, and by the regional director up to P200,000.00 per Pakyaw contract.

iv) Supervision: The resident engineer (RE) is responsible for overall construction and ensuring compliance with design standards and specifications. The RE directs the site supervisors (SS) and is a party to the calculations of payments and a joint signatory to all documents relating to the accomplishment and payment for the work.

Site supervisors (SS) closely supervise the construction work to ensure that it is in accordance with instructions. They also verify daily attendance.

v) Payment: Since Pakyaw contracts are, in general designed to be completed within one calendar month, the workers are paid at least once a month.

In some cased more frequent payments may be requested. Provided that it is agreed with the district/city engineer, a payment halfway through and on completion of the contract may be made. However, with mid contract payments, some retention (normally 10%) is withheld to ensure completion of the work.

I.1.3 Bidding Procedure

The Prequalification, Bids and Awards Committee (PBAC) is responsible for selecting contractors for construction works and suppliers of materials/equipment. PBACs are operated in the central office, regional offices and district/city offices of DPWH. Powers delegated to each level of office are presented in Table 3.16. PBAC members in the central office are composed of the following:

a) A chairman (regular), who should be at least the third ranking official of DPWH.

b) An executive officer and secretary (regular), who is the Legal Officer of DPWH.

c) A technical member (regular) to be designated by the head of DPWH.

d) Two members (provisional) with experience in the type of project to be bid and in project management, duly designated by the head of DPWH on a project-to-project basis.

e) A representative from at least one of the following organizations, who is a non-voting member.

- Philippine Institute of Civil Engineers
- Philippine Contractors Association
- National confederation of Contractors Associations of the Philippines, Inc.
- Philippine Institute of Certified Public Accountants

In line with Government policy to expedite project implementation through decentralization and administrative delegation, local government units were ordered in 1988 to create PBACs in each unit to undertake public bidding for the projects funded from National Government funds. PBAC members are specified to be composed of the following:

For each province:

Chairman	:	Governor
Members	:	Three (3) provincial board members duly designated by the Governor
Members	:	Three (3) representatives from non-government civic organizations
Members	:	One (1) representatives from Philippine Institute of Certified Accountants (PICPA) or any participating Certified Public Accountant from the private sector duly recommended by PICPA

All public tendering of contractors is conducted in accordance with the procedure based on Presidential Decree 1594, as shown in Figure EA.1.

Figure EA.1
Procedure for Bidding

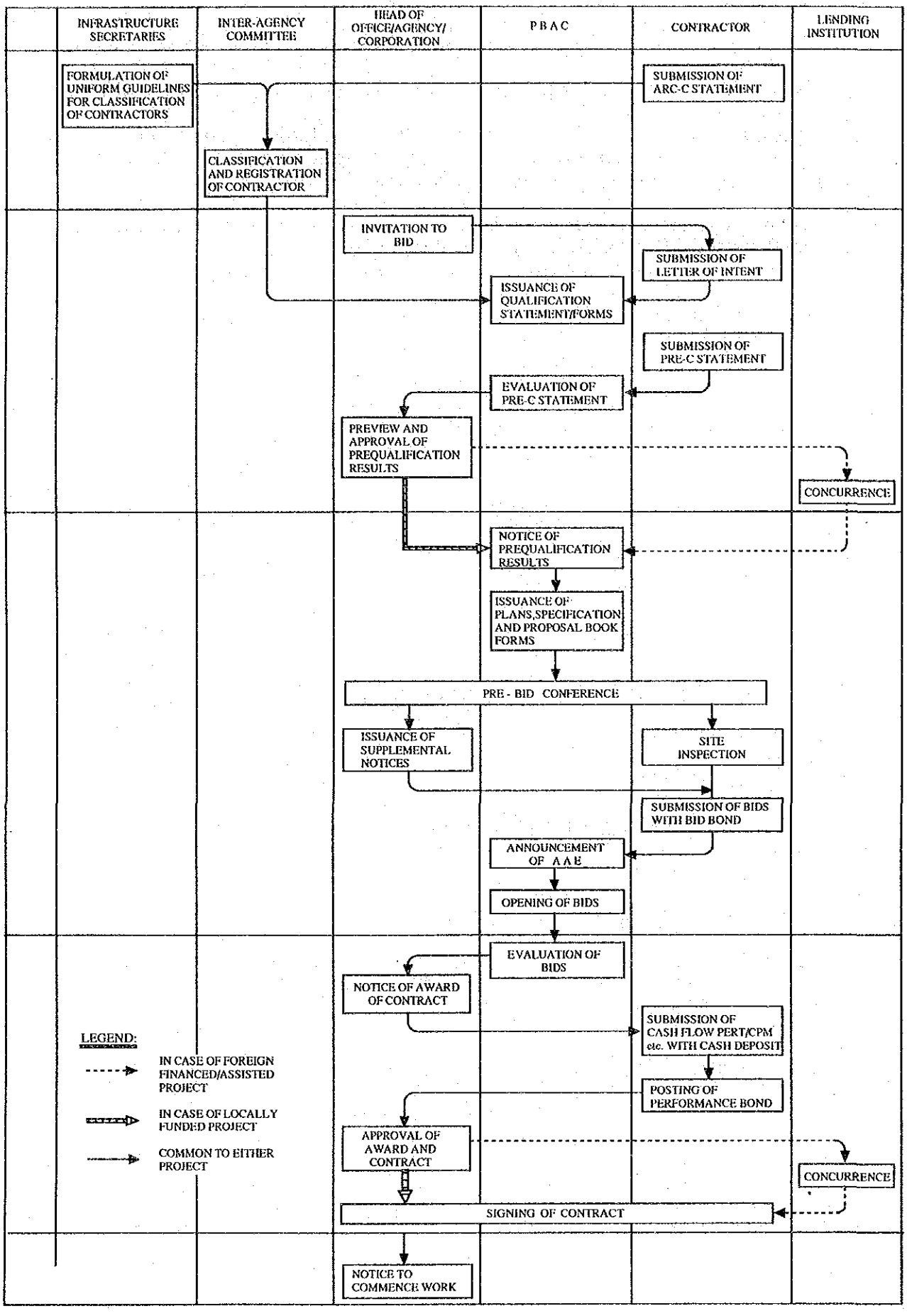


Table EA.2

Limits of Authority for Bids/Awards/Contracts

	DPWH				
	District/City Engineers	Regional Directors	Under-Secretaries	Secretary	President
Bidding/Awarding/ Entering into Contract	Below P1.0M	P1.0M-P5.0m	P5.0M-P100.0m	Above P100.0M	-
Approval of Awards/Contracts	Below P0.5M	P0.5M-P3.0m	P3.0M-P10.0m	P10.0-P100.0M (below P10.0M)	Above P100.0M (Above P10.0M

Source: Department Order No. 42, Series of 1988
Executive Order No. 164

I.1.4 *Assessment of the Existing System*

It can be noted from the programmed infrastructure investments and the evaluation of performance at each year-end that targets are normally not met (as reported in the Philippine Development Report each year). Delays in contract approval and implementation are said to cause the failure in accomplishing targets. These delays are expected due to the following reasons:

1) The cumbersome procedures for release of payments related to contracts have aroused complaints from various contractors and agencies. The bottleneck occurs both within and outside the agencies. Within an agency, the approval of contracts has to pass through management hierarchy. Since no fixed time is prescribed for each level of approval, the process is often unduly time consuming. Outside the agency, other management procedures exacerbate the process. For PPA and PNR, for example, additional approval from DOTC is needed for contracts above ₱ 50 million (₱ 5 million for negotiated contracts) and Presidential approval is needed for all contracts above ₱ 100 million (₱ 10 million for negotiated contracts). Further review of contracts by the Commission on Audit (COA) and NEDA creates additional delays outside the agencies. As of 1986, COA mandated a review of all feasibility studies for which contracts were signed after March 1984. Some of these project had already started, but had to stop until COA approved the feasibility study. The seriousness of the problem prompted a meeting with COA, at which COA agreed to review feasibility studies on a selective basis. COA, however, continues to pre-audit and post-audit contractors' billings. Thus, approvals that could be undertaken in two weeks may require months and sometimes years to obtain.

2) Delays in contract processing become particularly long when contract prices have to be adjusted and price escalations recalculated due to currency devaluation and inflation.

3) Another cause of delays is the sometimes weak quality and competence of staff involved in the whole decision process. Some of the delays occur simply due to lack of technical expertise at certain management levels to make an appropriate decision within a reasonable length of time. The tendency is to retain documents for longer than the required period while clarifications are being sought.

I.2 Road Maintenance

I.2.1 Maintenance Organization

The general organizational set up for road maintenance system is as follows:

1) Maintenance Organization for National Roads

Maintenance of national roads is under the responsibility of DPWH. For the CALABARZON region, maintenance of national roads is overseen by the DPWH Region IV Office.

Agencies concerned with roads and bridges maintenance in DPWH are as follows:

a) Bureau of Maintenance (Central Office)

The major duties and responsibilities of the Bureau of Maintenance (BOM) are as follows:

- Formulate policies relating to infrastructure projects and facilities;
- Review and evaluate maintenance programs, estimates, and tender and contract documents;
- Inspect, check and monitor maintenance activities of implementing field offices;
- Provide specialist support to implementing field offices; and
- Perform such other related duties and responsibilities as may be assigned or delegated by the Secretary of as may be required by law.

b) Maintenance Division of Regional Offices (Central Office of DPWH)

There are three (3) units in the Maintenance Division of Regional Offices; Planing and Control, Operation, and special Projects.

The Operation Unit undertakes actual supervision of maintenance operations which are done by district/city offices.

c) Maintenance Section of District/City Offices (Field Offices of DPWH)

This is the implementing arm of the actual maintenance work. The Maintenance Section is, in general, composed of the Planning Unit and Operation Unit (School Buildings; Flood Control, Ports, Water Supply, etc.; and Highways and Bridges units).

The Highways and Bridges Unit is further subdivided into several areas such as Areas I, II and III, and an Area Engineer is assigned to each Area. Under the Area Engineer, four (4) to five (5) crews are organized. A fixed crew is headed by a maintenance foreman and has about four (4) to six (6) maintenance men (laborers). In addition to fixed crews, several mobile crews are organized under a Field Operation Engineer as follows: Repair of paved roads crew(s), Bridge Repair crew, Hauling crew, and Grader crew.

d) Bureau of Equipment (Central Office of DPWH)

The major duties and responsibilities of the Bureau of Equipment (BOE) are as follows:

- Formulate polices relating to the management of infrastructure equipment and ancillary facilities;

- Review and evaluate programs, estimates, and tender and contract documents for equipment;
- Inspect, check and monitor the management of equipment by regional equipment services and area shops;
- Provide specialist support to implementing field offices on equipment management; and
- Perform such other related duties and responsibilities as may be assigned or delegated by the Secretary or as may be required by law.

e) Regional and Area Equipment Services (Field Office of DPWH)

Regional Equipment Services operate Regional Base Overhaul Shops where major repairs of equipment are done. It is supported by an average of five (5) Satellite Area Equipment Services which handle minor repairs and maintenance and serve as an extension of the regional equipment service.

Regional and Area Equipment Services are directly supervised by the Regional Director; however, equipment management responsibilities of BOE extend to these services.

2) Maintenance Organization for Local Roads

Local roads are maintained by each local government unit under the technical supervision of DPWH and the administrative supervision of DILG.

a) Provincial Roads

Provincial Engineer's Offices (PEOs) are responsible for the maintenance of provincial roads. Each PEO has a Roads/Bridges Maintenance Division and an Equipment Pool Division.

In general, one (1) fixed crew is organized for every 10 to 20 km of provincial roads and is composed of five to six maintenance men under a Capataz.

b) City Roads

The maintenance of city roads is under the responsibility of the City Engineer's Offices (CEO).

c) Municipal Roads

The maintenance of municipal roads is supposed to be under the responsibility of district/city offices of DPWH up to 1987. However, since 1988, responsibility has been shifted to each local government unit. City and municipal governments are responsible for the maintenance of barangay roads.

I.2.2 Maintenance System

1) General

The annual overall budget allocation for road maintenance is based on a fixed amount for each Equivalent maintenance Kilometer (EMK). The EMK is a formulae by which the road network in each district is converted into a length of standard road by applying factors to each road section and bridge, depending on their width, pavement type, terrain, rainfall, traffic, etc. For example, Batangas province has a total network of 405 km while its total EMK is 846 km as of 1988.

Maintenance funds for national roads are appropriated by the General Appropriations Act while funds for local roads are appropriated by the General Appropriations Act under National Assistance to Local Government Units (NALGU) and the local government's general fund.

DPWH is presently adopting two systems for road maintenance; one is maintenance by administration (MBA) and the other is maintenance by contract (MBC). Todate, 15% of all programmed road maintenance for national roads is by MBC with private contractors and the rest by MBA. In view with the government's thrust of increasing the private sector's involvement in nation building, MBC will be increased yearly, in a span of 5 years, to reach 84% of all programmed maintenance works for national roads while 16% will remain under MBA. It is usually at the discretion of the District Engineering Office to assign which particular portion of road maintenance for MBA and MBC.

2) Maintenance by Administration (MBA)

District/city offices prepare "Annual Maintenance Work Program and Performance Budget (AMWPP/PB)". AMWP/PBs are prepared based on each work activity. Planned work quantities are computed by multiplying feature inventory by standard work quantity which is determined for each inventory unit. Planned work quantities are converted to number of crew days, equipment days and quantities of materials based on each work activity standard. These are then estimated in costs.

AMWP/PBs are prepared for both routine maintenance and periodic maintenance. About 60% of the budget is allocated for the former and the rest for the latter.

AMWP/PBs prepared by district/city offices are summarized by regional offices for a Regional AMWP/PB. These are then summarized in the Central Office to develop the National Highway Maintenance budget request. These are adjusted to meet maintenance fund allocation.

An annual maintenance program for routine maintenance is prepared by spreading annual amounts over the 12 months of the year, expressed in crew-days for each work activity.

An annual maintenance program for periodic maintenance is prepared by specifying months for a section to be implemented and expressed in percentage to be accomplished.

Actual performance of road maintenance by administration usually follow the flow of activities outlined and described below:

a) Inspection and Identification of Maintenance Needs

An area Engineer, who is responsible for the maintenance of 80 to 150 km of roads, is required to make routine inspections at least once in two (2) weeks. In actual practice, routine inspections are conducted three times a week on the average. In addition to the area engineer's inspections, a maintenance foreman, who is assigned to 20 to 30 km of roads, makes inspections almost daily.

Based on inspections, the area engineer prepares a "Maintenance Needed Report". It should be mentioned that private individuals also report any damage or deteriorated road sections they encounter to the nearest engineer's office and these reports are verified and consolidated into the same "Maintenance Needed Report".

b) Preparation of Semi-monthly Schedule

A scheduled meeting is held usually three to four days prior to the beginning of the scheduling period. This meeting is arranged by the district/city maintenance engineer and is attended by the area engineers A semimonthly schedule is prepared

at the district/city office level every half-month, and actual work to be done is scheduled based on the "Maintenance Needed Reports". A semimonthly schedule consists of the following:

- Available man-days
- Activities and locations scheduled
- Workdays, crew sizes and man-days
- Dates scheduled
- Equipment and materials scheduled Supervisor
- Remarks about the work
- Alternate work in the case of inclement weather or the lack of some resources

Although each schedule is based on current needs, the annual program does act as a guide in all cases.

c) Work Assignment

Based on the semimonthly schedule, the work assignment is made by an area engineer for the maintenance foremen. Both written and verbal instructions area used. Written instructions are placed on an activity card which authorizes the maintenance foremen to perform one workday of an activity at a location.

The activities vary according to the type of maintenance to be undertaken as follows:

Routine Maintenance Activities

- Road and related features maintenance - unpaved road surfaces, bituminous pavement, concrete pavements, unpaved shoulders, drainage, bridges, etc.
- Roadside features maintenance.
- Traffic services maintenance
- Emergency works.

Periodic Maintenance Activities

- Resurfacing unpaved roadway and unpaved shoulders.
- Resealing bituminous surfaces.
- Replacing timber decks.
- Bridge repainting.

Special Maintenance Activities

- Upgrading unpaved roads/shoulders to bituminous roads/shoulders.
- Replacing several concrete slabs.
- Constructing new slope protection.
- Constructing new ditches, etc.

d) Directing

Directing, which consists of the actions necessary to produce acceptable work results, is made by a maintenance foreman to maintenance men. "Activity Standards" are prepared in the "Highway Maintenance Management Manual", which are important guides for determining the acceptable work results for a job.

e) Reporting

A reporting system is established based on "Activity Cards". An activity card given to a maintenance foreman is returned to an area engineer filled in with data about equipment, materials and laborers used as well as accomplishments.

All activity cards are collected and compiled at the district/city office and an "Activity Card Summary Worksheet" is prepared, which is then broken down into an "Activity Data Summary" and an "Activity Performance Summary." These reports are forwarded to the regional office and a Regional Summary is prepared, which then submitted to the Central Office where a National Summary is prepared.

3) Maintenance by Contract (MBC)

Determination of maintenance of roads by contract is generally left to the discretion of the District Engineering Office. After working out the Annual Maintenance Work Program and Performance Budget, the district engineer allocates 15% (at present MBC phasing which is expected to increase to 85% by year 1995) of the maintenance work for MBC.

It is only in 1990 that MBC has been implemented nationwide. It is likewise guided by the same EMK budget allocation as with MBA.

I.2.3 Assessment of the Maintenance System

Generally, the existing road maintenance system is found to be inadequate for achieving satisfactory standards of maintenance on the existing road network. This is due to a number of reasons as enumerated below.

1) Annual Budget Allocation

a) Equivalent Maintenance Kilometer (EMK)

The principal reason for the existing inadequate maintenance situation is the fact that the Government for an entire decade (1976-1985) maintained the budget allocation at Pesos 11,347 per EMK. For 1986, the EMK allocation was raised to Pesos 14,745, and for 1988, it was raised again, to Pesos 17,104.

It is evident that keeping the annual budget allocation constant for a decade must result in the accumulation of a huge backlog of maintenance, especially periodic maintenance. And that again has caused many roads to deteriorate to a state where they are virtually impossible to maintain, let alone to maintain economically.

Some of the roads have over these 13 years been rehabilitated, though, but not in sufficient numbers.

It is further evident that the 1988 budget allocation of Pesos 17,104 per EMK is not sufficient for providing adequate maintenance of the national road network in its present state of maintenance, let alone allowing DPWH to start overcoming the huge backlog or periodic maintenance. It is considered that even after the national road network was brought back to an adequate level of maintenance, through a massive capital investment program, DPWH would need an annual EMK allocation in the order of Pesos 30,000 in order to maintain adequately the network after rehabilitation.

b) Routine Maintenance Costs

Routine maintenance costs are fixed at 60 percent of the total EMK allocation, but as explained above the EMK allocation is an arbitrary and too low figure set by the Government, and the actual maintenance work performance possible, therefore, is far too small to overcome the actual routine maintenance needs, i.e., the quantity standards are reduced to fit the budget.

c) Periodic Maintenance Costs

Periodic maintenance costs are fixed at 40 percent of the total EMK allocation, but this arbitrary figure is far too small to overcome the actual periodic maintenance needs, especially of asphalt roads.

For example, for Batangas province, which has a majority of asphalt roads (about 30 kms out of a total network of 405 kms), dense heavy traffic and overloading problems, the total EMK allocation for periodic maintenance for 1988 amounts to some Pesos 5 million.

Considering that asphalt overlays, which many of the national asphalt and concrete roads in Batangas need, cost some Pesos 800,000 - 1,200,000 per km, the 1988 EMK allocation for periodic maintenance would thus cater for only 5 kms of overlay. This should be compared to normal overlay cycles for heavily trafficked roads of 7-10 years, or some 35-50 kms per year for national roads of Batangas province.

The result is that DPWH is order to conserve periodic maintenance funds has deemed asphalt overlays not to be a periodic maintenance activity, but a rehabilitation expenditure.

Periodic maintenance activities on asphalt roads are thus restricted to major patching, resealing and replacement of short sections of failed pavements only, and on concrete roads to replacement of failed slabs only.

d) Quarterly Releases of Maintenance Funds

Maintenance funds are released to the districts quarterly, but although the annual EMK allocation is known at the outset of the year, a district is not allowed to commit funds for work for coming quarters, nor for the current quarter before the quarterly release has actually been received in the district.

Also, the release for the district quarter of the year is seldom received in the districts before late February or early March, and later quarterly releases are sometimes not received in the districts before half way through the quarter.

This result in the district having to call bids for maintenance work by contract (so far mainly for periodic maintenance activities) every quarter; and that a periodic maintenance contract for a quarter often cannot commence before half way into the quarter, as the Auditor's office in the district will not endorse a contract which cannot be met from a quarterly allocation not actually released.

For the contractors, this result in them never knowing whether they have work for DPWH for more than one quarter of the year at the time, and they are therefore discouraged from making capital investments in new and more efficient equipment, and from investing in new types of equipment for execution of the various work activities by more effective methods or techniques.

2) Annual Maintenance Work Program and Performance Budget

Each district is required each year to prepare an Annual Maintenance Work Program and Performance Budget, based on national average quantity and performance standards and unit costs.

a) Labour and Material Costs

While the national average quantity and quantities standards used to appear to be reasonable (for maintenance of a network in an adequate state of maintenance, and considering the conversion to EMK of each road), the national average unit costs for labour and materials are unrealistic for many provinces.

For Batangas province, for example, costs of materials are some 50-100 percent higher that those national average unit costs the district is required by DPWH's head office to use in its budget.

This situation, although aggravated by the scarcity of equipment available for road maintenance, results in only 0-25 percent of the scheduled annual quantities of material-intensive maintenance works actually being performed, while labour-intensive activities are over-performed, often by as much as 8,000 percent.

Also, the casual labor force often has to be sent on forced leave (2 weeks' work - 2 weeks' leave) for long periods of time in order to conserve funds; although this situation is also caused by certain degree of overstaffing of the districts in Bohol and Batangas.

b) Equipment Rental Costs

The DPWH equipment standard rental costs for programming and budgeting appear to be totally unrealistic, but these do to some degree reflect that the average age of the equipment and vehicles is very high. For example, the total below reflects some very considerable drops in the equipment/vehicle standard costs for graders, road rollers, loaders and dump trucks through the period 1986-1988.

Item	1986	1987	1988
Grader	3,300	1,950	1,506
Roller	1,390	680	536
Loader	1,560	1,215	861
Truck	1,395	925	580

The high average age and low rental charges result in the workshops not having sufficient funds for for procurement of wear and spare parts and consumables to adequately maintain the equipment and vehicles. The consequence being that the availability/utilization figures are very low.

Another consequence of the unrealistically low rental cost figures is that contractors working for DPWH cannot afford to use new and more efficient equipment and vehicles for their work. This si because in the Approved Agency Estimates prepared by DPWH for contract bidding purposes, the districts use DPWH equipment/vehicle cost as basis, rather than the actual costs in the private sector (ACEL rates), and this results in too low estimates, especially for equipment intensive maintenance activities.

c) Quantity Standards

As mentioned under a) above, the existing DPWH quantity standards used for the preparation of the Annual Maintenance work Programs and Performance Budgets appear reasonable for an adequately maintained road network, but they are, of

course, not adequate for the present poorly maintained network. They are, therefore, presently not relevant at all for many districts, such as for instance, Batangas, especially since the current EMK allocations do not meet the districts' Annual Maintenance Work Programs and Performance Budgets, if these were prepared on the basis of actual labour and material unit costs, and include asphalt overlay requirements.

d) Performance Standards

As also mentioned under a) above, the existing DPWH performance standards used appear reasonable, but most of them are in the present situation not attainable due mainly to the severe shortage of suitable equipment and vehicles available for road maintenance, and due to the low productivity and frequent breakdowns of the few items which are available.

3) Equipment/Vehicle and Hand Tools Availability

As mentioned under b), the DPWH fleets of equipment and vehicles have a high average age, and their state of maintenance is generally very poor due to lack of funds for wear and spare parts.

Also, DPWH is critically short of operational small items of equipment for road maintenance purposes, such as compaction equipment, asphalt distributors, asphalt heater/sprayers, aggregate spreaders, emulsion hand pumps, etc. Also, there is a severe shortage of operational supervision vehicles, and dump and water trucks.

The equipment/vehicle availability is somewhat better in Bohol than in Batangas with respect to operational graders, loaders, trucks and large steel-wheeled road rollers, but in neither of the districts are there any operational small vibrating rollers/plate, asphalt heaters/sprayer, aggregate spreaders and emulsion pumps.

4) Materials Availability

Availability of materials vary by province. Some provinces are fortunate enough to have a good supply of raw materials to be used for road maintenance. Hence, it becomes relatively easier and cheaper to maintain their roads. Other provinces are not so fortunate and, therefore, suffer below performance of road maintenance.

Cationic asphalt emulsions (rapid and slow setting) seem to be not available in the Philippines. These types of emulsions are very suitable for all-weather routing maintenance of asphalt roads, both for straight use, and for production of cold asphalt mixes for direct use, or for stockpiling for later use.

5) Training

A system for continuous job-relevant refresher training, to imprint on the field engineers, foremen and operators the importance of maintaining technical and quality standards as best as possible even in the face of the present equipment and materials difficulties, which appears to be lacking within DPWH.

6) Axle Loads Control

The control of axle loads appears to be lax. This seriously affects road maintenance in some provinces which have a number of heavy industries. The frequency of overloaded trucks on a road section usually results to the poor condition of said road.

7) Pavement Maintenance Management System

The Bureau of Maintenance does not appear to have proper pavement maintenance management system for a systematic and objective determination of which road sections

should receive priority for periodic maintenance (asphalt overlay, resealing, regravelling) and the thickness of asphalt gravel required.

1.2.4 Maintenance System Improvement Policy

Prior to the implementation of the MBC, the DPWH maintenance system was studied and the following improvements were recommended:

a) The Maintenance Management System for national roads should be improved with emphasis placed on preventive maintenance activities.

b) For the annual budget allocation, it was found that the EMK formulation is insufficient especially considering the present road condition, number and composition of the traffic, the axle loads and the road width. As such revisions were presented as shown in Table EA.3.

Table EA.3
EMK Revision

Existing	Changes/New Parameters
Traffic: highest factor corresponds to AADT 10,000	- Parameters to reflect higher traffic values - Incorporate axle loading expressed as traffic load factor
Width: highest factor is not more than 12.5 m	- New parameters to include multilane roads
Road Surface	- Reflect any stabilized base course layer to be expressed as the equivalent full depth asphalt thickness for bituminous paved roads
	- Climatic Conditions: include annual rainfall in the locality - Terrain & Environment: consider road gradient for urban and rural area

c) For fund releases, it is recommended that the quarterly release system should be changed so that the regions/districts would be allowed to commit maintenance funds for contracts of more than one quarter at the time. If necessary, the contracts should include clauses limiting the contractors to a cash flow outlay corresponding to the quarterly releases of maintenance funds.

This would encourage the contractors to invest in more equipment intensive work methods and newer equipment and vehicles when they are assured of longer periods of work.

d) The districts should be allowed to use the actual unit costs for labour and materials in their Annual Performance Budget, rather than the national average unit costs. This would result in a more realistic performance budget for each district.

e) The districts/regions should be allowed to use the actual unit rates for equipment costs in the private sector when preparing the Approved Agency Estimates (AAEs).

f) Axle load regulations in heavily trafficked provinces (e.g., Batangas) should be strongly enforced. At the same time, axle load regulations should be reviewed and updated/adjusted to reflect the configuration of the current truck fleet. The adjustment

of axle load limits should also be used to update the pavement design of DPWH for periodic maintenance and rehabilitation activities.

I.3 Private Sector For Road Development

I.3.1 Area of Private Sector Involvement

Private sector involvement can be noted in the following areas of road development:

- Project Identification and Development;
- Detailed Engineering;
- Project Construction and Implementation; and
- Financing and Operation.

Private sector participation, on the whole, was encouraged during the period in construction, supply of goods and services and operation and maintenance of infrastructure projects. While the participation of the sector seem to have been on a limited scale, this is expected to increase from 1990 onwards as the government attempts to liberalize policy measures pertaining to project construction and implementation.

1) Project Identification and Development

In line with DPWH's operational policy to encourage greater participation of the people in infrastructure development, the so-called "bottom-up" project selection process is applied to initial identification and listing of projects for possible inclusion in the infrastructure program. The selection starts from the community or barangay level and works up to the municipal/city, provincial, regional and national level. Sometimes in foreign assisted projects, the project identification is conducted jointly by consultants and local government unit/DPWH/DLG staff.

Since economic viability of a project has to be established, feasibility studies are being undertaken either singularly by the staff of the government agency concerned or jointly with a consultant/consultancy group. Todate, DPWH has worked with some 15 foreign and local consultancy groups/firms.

The Prequalification, Evaluation and Award Committee (PEVAC) of DPWH is responsible for selecting consulting firms. The selection procedure of consultants is undertaken in accordance with the "Guidelines on the Hiring Consultants" prepared by NEDA as shown in Figure 3.4.

2) Detailed Engineering

There are four (4) offices in DPWH concerned with the preparation and review of detailed engineering designs as follows: a) Bureau of Design (Central Office); b) Project Management Offices (Central Office); c) Planning and Design Division of Regional Offices (Field Offices); and d) Planning and Design Section of District/City Engineering Offices (Field Offices).

Standard procedures for preparation, review and approval of the detailed engineering design are shown in Table 3.16. Projects are categorized into foreign assisted projects and locally funded projects (either initiated at regional level or by the central office).

Consulting firms are usually hired to prepare detailed engineering design for foreign assisted projects and locally funded projects initiated by the DPWH central office.

Figure EA.2
Procedure for the Selection of Consultants

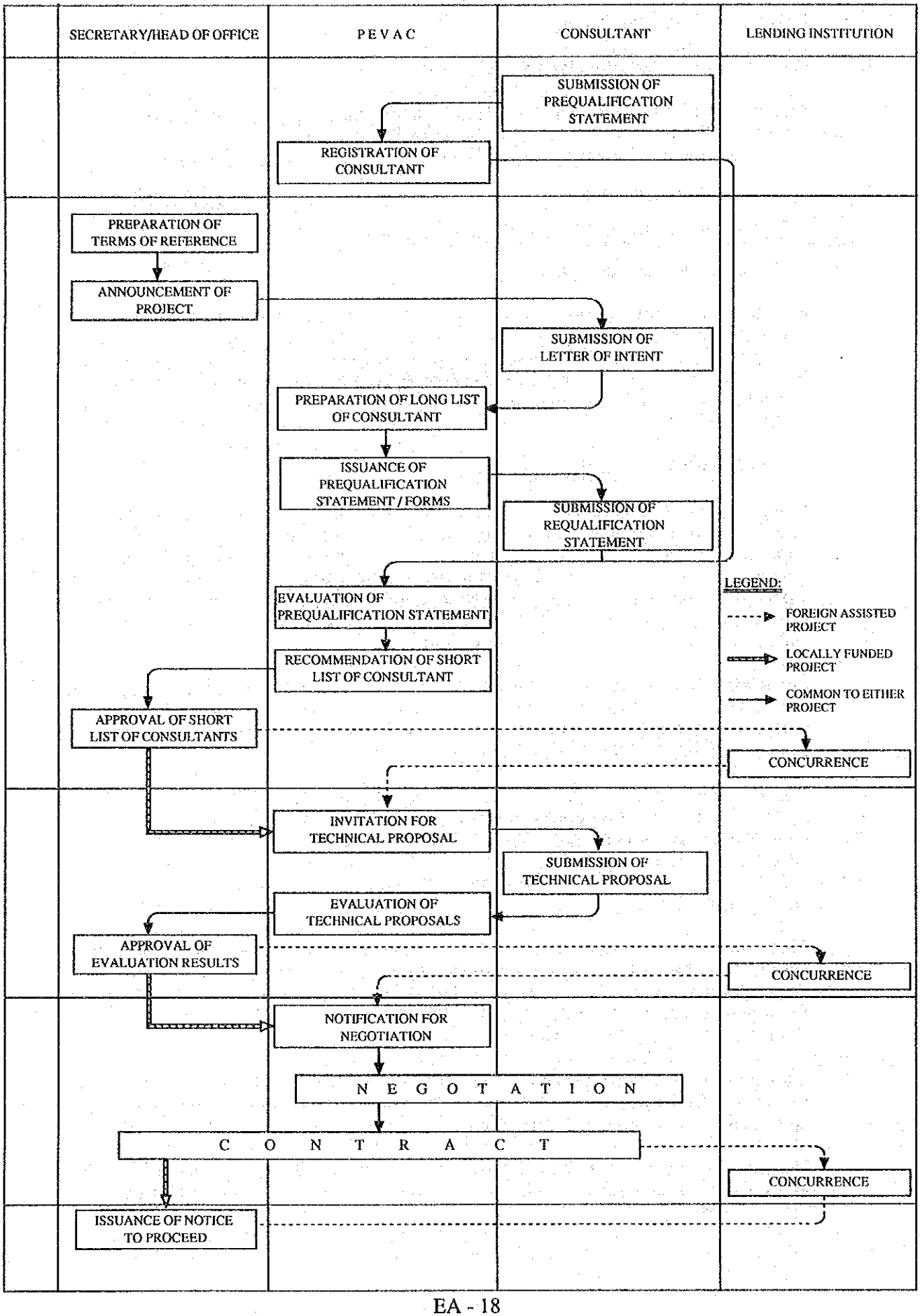


Table EA.4
DPWH Standard Procedures for Approval of Design

Type of Project		Office Concerned and Responsibility			
		Implementing Office	Review and Recommendation For Approval	Approval	Estimated Cost
Foreign Assisted Project		Project Management Office (usually by hiring consultants)	Bureau of Design	Undersecretary	₱5.0 - ₱10.0million
				Secretary	Above ₱1.0 million
Locally Funded Projects	Project Initiated by Regional Level	Planning/Design Section of DISTRICT/CITY Office (by Administration)	——	District/City Engineer	Below ₱1.0 million
		Planning/Design Division of Regional Office (usually by administration)	——	Regional Director	₱1.0 - ₱5.0million
			Bureau of Design	Undersecretary	₱5.0 - ₱10.0million
				Secretary	Above ₱10.0 million
	Project Initiated by Central Office	Organization (by hiring consultants or by administration)	Bureau of Design	Director, Bureau of Design	Below ₱5.0 million
				Undersecretary	₱5.0 - ₱10.0 million
				Secretary	Above ₱10 million

Source: Department Order No. 42, Series 1988

3) Project Construction and Implementation

As previously mentioned, the Prequalification, Bids and Awards Committee (PBAC) of DPWH is responsible for selecting contractors for construction works. To date, there are some 3,600 contractors listed with PBAC who applied for accreditation but only 655 contractors actually worked on road projects and 671 on bridge projects nationwide.

PBACs are created in the central office, regional offices and district/city offices of DPWH. It should be noted that the private sectors are made to participate as a member of the PBAC in all levels.

4) Financing and Operation

The different levels of resource requirement for the different types of urban facilities necessitate the distribution of responsibilities for their development and financing. These development responsibilities may be distributed in a manner as that presented in Table EA.4. Cognizant of the resources constraints of the LGUs, greater participation of national government, non-government and foreign organizations are needed.

Although most of the infrastructure projects are developed and financed by the government, private sector involvement in urban facilities development are always encouraged. Possible tie-ups between government and private sector are to be explored, specially in the areas of housing and human settlements, industrial estate development, telecommunications, energy supply development, and education.

It is encouraging to note that in many of the cities, the private sector is playing an active role in the development efforts in the cities. In many cases private institutions such as NGOs, civic and religious groups, private voluntary organizations (PVOs) have contributed to the development of urban facilities in their cities. These include the construction of educational and health facilities, sports facilities, housing, barangay halls, waiting sheds, etc. and donations in the form of vehicles for the city police force, waste cans, radio equipment, etc.

The government also encourages the private sector to finance the construction and operate infrastructure with the end view of making a reasonable profit. However, todate there is only one such example of a private sector in this field of road development. The PNCC (formerly known as CDCP) constructed and is currently operating the South and other Expressways. Road users of these expressways are charged toll fees, which serve as revenue for PNCC.

It is only this year (1990) that the national government gave legal basis for the private sector to have a more active participation in financing and operating public infrastructure. Republic Act. No. 6957 lays ground for this type of undertaking through the build-operate-and-transfer (BOT) or build-and-transfer (BT) scheme.

The BOT scheme is a contractual arrangement whereby the contractor undertakes the construction, including financing, of a given infrastructure facility, and the operation and maintenance thereof. The contractor operates the facility over a fixed term during which it is allowed to charge facility users appropriate tolls, fees, rentals, and charges sufficient to enable the contractor to recover its operating and maintenance expenses and its investment in the project plus a reasonable rate of return thereon. The contractor transfers the facility to the government agency or local government unit concerned at the end of the fixed term which is not to exceed 50 years.

The BT scheme is a contractual arrangement whereby the contractor undertakes the construction, including financing, of a given infrastructure facility, and its turnover after completion to the government agency or local government unit concerned which shall pay the contractor its total investment expended no the project, plus a reasonable rate of return thereon. The arrangement may be employed in the construction of any infrastructure project, including critical facilities which, for security or strategic reasons, must be operated directly by the government.

Table EA.5
Developers and Financiers of Urban Facilities

Facilities	Main Developers 1/	Main Financiers 1/
a. Roads and bridges	NG, LG	NG, IO
b. Traffic management systems	NG, LG, PS	NG, LG
c. Ports	NG, LG, PS	NG, IO, PS
d. Railroad	NG, LG, PS	NG, IO, PS
e. Transport terminals	NG, LG, PS	NG, PS
f. Storage facilities	NG, LG, PS	NG, PS
g. Flood control and drainage systems	NG, LG	NG, LG, IO
h. Shore protection/seawalls	NG, LG	NG, LG
i. Solid waste collection and disposal equipments		NG, LG
j. Acquisition of dumpsites	NG, LG	NG, LG, PS
k. Water supply systems	NG, LG	NG, LG
l. Power supply	NG, LG	NG, PS
m. Telecommunications	NG, PS	NG, PS
n. Schoolbuildings	NG, LG	NG, LG, PS
o. School facilities	NG, LG	NG, LG, PS
p. Housing & human settlements	NG, LG	NG, LG, PS
q. Industrial estates devt.	NG, LG, PS	NG, PS
r. Area upgrading	NG	NG, LG
s. Multi-purpose buildings	NG, LG	NG, LG
t. Barangay halls	NG, LG	NG, LG
u. Waiting sheds	NG, LG	NG, LG
v. Sports facilities	NG, LG	NG, LG, PS
w. Markets/Slaughterhouse	NG, LG	NG, LG, PS
x. Cottage industry centers	NG, LG	NG, LG
y. Health centers	NG, LG	NG, LG

1/ Legend: NG - National Government
LG - Local Government
PS - Private Sector
IO - International Funding Organization

I.3.2 Contractors' Capability

The data which can be used to gauge local contractors' capability are those from the Pre-Bidding and Awards Committee (PBAC) of government agencies actively involved in infrastructure development. Todate, three (3) departments are mandated to have their own PBAC offices: Department of Public Works and Highways (DPWH), Department of Interior and Local Government (DILG), and Department of Transportation and Communications (DOTC). However, it is only DPWH which holds a more comprehensive database on local contractors for infrastructure development, particularly on road construction and maintenance. Table 3.18 gives a detailed distribution of contractors nationwide by classification of financial capacity (i.e., present net worth) and by maturity (i.e., years in operation). It is noted that 31% of the contractors are located in Metro Manila alone. Moreover, 85% of the contractors are classified as large with present networth of more than ₱ 4 M. In terms of maturity, 42% of the contractors have been operating for more than 6 years.

Table EA.6

Local Contractors' Capability

	Area	Classification 1/					Years in Operation			
		N.K.	S	M	L	Total	1-5	6 Above	N.K.	Total
1.	NCR	27	4	57	510	598	299	268	31	598
2.	Abra					4	3	1		4
3.	Benquet	2	1		13	16	8	8		16
4.	Ilocos Norte			1	10	11	2	9		11
5.	Ilocos Sur			1	6	7	2	5		7
6.	La Union			2	8	10	6	3	1	10
7.	Mt. Province			2	9	11	6	5		11
8.	Pangasinan	1		6	58	65	39	16	10	65
9.	Batanes									
10.	Cagayan				13	13	4	9		13
11.	Ifugao									
12.	Isabela			4	11	15	10	5		15
13.	Kalinga-Apayao				1	1		1		1
14.	Nueva Vizcaya				1	1	1			1
15.	Quirino									
16.	Bataan	2		3	41	46	27	17	2	46
17.	Bulacan	3		5	35	43	25	17	1	43
18.	Nueva Eciia			2	33	35	17	17	1	35
19.	Pampanga		1	2	51	54	29	24	1	54
20.	Tarlacq	2	1	9	84	96	72	21	3	96
21.	Zambales			1	11	12	7	5		12
22.	Aurora				5	5	3	1	1	5
23.	Batangas			7	49	56	38	18		56
24.	Cavite			7	19	26	14	12		26
25.	Laguna	2		4	22	28	15	12	1	28
26.	Marinduque				4	4	4			4
27.	Occ. Mindoro		1		5	6	2	3	1	6
28.	Or. Mindoro			1	4	5	2	2	1	5
29.	Palawan			1	4	5	2	3		5
30.	Quezon	1		4	25	30	16	10	4	30
31.	Rizal		2		22	24	14	8	2	24
32.	Romblon			1	4	5	4	1		5
33.	Albay	1		10	46	57	46	10	1	57
34.	Camarines Norte			2	9	11	6	5		11
35.	Camarines Sur	2		11	32	45	22	23		45
36.	Catanduanes		1	5	14	20	17	3		20
37.	Masbate			5	7	12	8	4		12
38.	Sorsogon			7	20	27	23	4		27
39.	Aklan				7	7	4	3		7
40.	Antique		1	1	4	6	2	4		6
41.	Capiz			1	15	16	4	12		16
42.	Iloilo	2		4	25	31	14	16	1	31
43.	Negros Occ.		1	2	24	27	9	18		27
44.	Bohol			1	4	5	2	3		5
45.	Cebu	2		6	55	63	38	25		63
46.	Negros Oriental	1		5	3	9	6	3		9
47.	Siquijor									
48.	Leyte	1		6	36	43	26	15	2	43
49.	Southern Leyteq			1	8	9	5	3	1	9
50.	Eastern Samar			2	13	5	5	10		15

Cont. Table EA.6

	Area	Classification 1/					Years in Operation			
		N.K.	S	M	L	Total	1-5	6 Above	N.K.	Total
51.	Nothern Samar			7	17	24	15	9		24
52.	Western Samar			3	4	7	5	1		6
53.	Basilan				5	5	2	3		5
54.	Sulu				3	3	3			3
55.	Tawi-Tawi									
56.	Zamboanga del N.	1		1	14	16	7	9		16
57.	Zamboanga del S.	1		5	34	40	19	19	2	40
58.	Agusan del Norte				10	10	6	4		10
59.	Agusan del Sur		1			1	1			1
60.	Bukidnon				3	3	1	2		3
61.	Camiguin				2	2	1			2
62.	Misamis Occidental			1	8	9	3	6		9
63.	Misamis Oriental	1		2	20	23	15	8		23
64.	Surigao del Norte			5	10	15	11	4		15
64.	Surigao del Norte			5	10	15	11	4		15
65.	Devao del Norte	1		1	13	15	1	14		15
66.	Davao del Sur			9	36	45	15	30		45
67.	Davao Oriental				2	2	1		1	2
68.	South Cotabato				13	13	6	7		13
69.	Surigao del Sur				7	7	4	3		7
70.	Lanao del Norte	1		1	16	18	10	8		18
71.	Lanao del Sur	1		4	11	16	8	8		16
72.	Maguindanao			2	7	9	5	4		9
73.	North Cotabato				4	4	3		1	4
74.	Sultan Kudarat				8	8	4	4		8
	Total	55	14	230	1,631	1,930	1,054	805	71	1,930
	(%)	(2.8)	(0.7)	(11.9)	(84.5)	(100)	(54.6)	(41.7)	(3.7)	(100)

Source: DPWH

1/ Present net worth is categorized as follows:

S = ₱250,000 ~
M = ₱1.25M to 25M
L = ₱4.2 Above
N.K. = Not Known

II. Transport Infrastructure Development at Local Government Level

II.1 Development Process

1) Planning Organizations at National Level.

As previously mentioned, the National Economic and Development authority (NEDA) is the key agency in the formulation of plans and programs at the national level. At the helm of NEDA is the NEDA Board, headed by the President and composed of several members of the Cabinet.

2) Planning Organizations at Regional Level.

The organizational machinery for planning at the regional level consists of the Regional Development Council (RDC), the RDC Sectoral Committees, the Regional Development Assembly, the regional offices of national line agencies, and the NEDA Regional Offices.

The powers and functions of RDC, a local development body composed of elective officials of the provinces and cities comprising the region, regional directors of agencies operating in the region, representatives from the offices of budget, finance and economic planning, and representatives of non-government and private volunteer organizations, have been expanded for it to take a more influential and substantive role in regional policy and decision-making. Its coordinative function relative to the planning, programming and implementation of programs now includes the approval of regional projects proposed by the implementing agencies, identification and development of other priority projects where initiative or capability on the part of the implementing agency is absent or lacking, and approval of annual and multi-year work programs and budget estimates on the basis of which funds for regional projects are allocated to implementing agencies.

RDC may create Sectoral Committees with private sector and government membership to assist the Council in the performance of its functions such as coordinating all sectoral planning and programming activities of agency regional offices (AROs), LGUs and other institutions in the region.

On the other hand, the Regional Development Assembly serves as the forum for the review and validation of the annual and multi-year infrastructure programs for the region, which require appropriation of national government funds. Its members include all provincial governors and city mayors in the region, all congressmen from the region, senators who opt to join the particular RDA when so authorized by their respective chambers, the chairman of the RDC, and the RDC member-representatives of NGOs.

The counterpart of the RDCs at the local level are the Local Development Councils. These are the Provincial Development Councils, City Development Councils, and the Barangay Development Councils. The Office of the Provincial/City/Municipal Planning and Development Coordinators are the planning units of the respective local government units and also serve as the Secretariat of their respective LDCs. Planning assistance to the LGUs are also extended by the personnel of national line agencies based in the provinces, municipalities, cities and barangays.

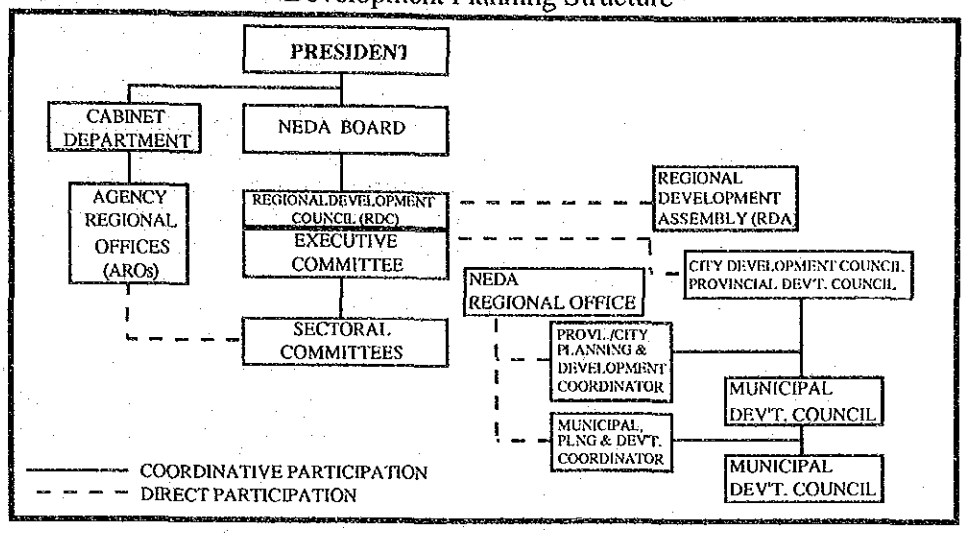
3) Planning

The national, regional and local development planning structure is presented in Figure EA.3.

There are two approaches to planning, i.e., the top-to-bottom approach and the bottom-up approach. The first approach proceeds from the issuance of planning guidelines or directives from the national level to the departments and agencies of the government, then to the regional, provincial and other local levels. In the other approach, programs

and projects are identified at the barangay level, integrated into the city or municipal development plans, then integrated into provincial and regional development plans, and finally into the sectoral, macroeconomic and regional development chapters of the Philippine Development Plan.

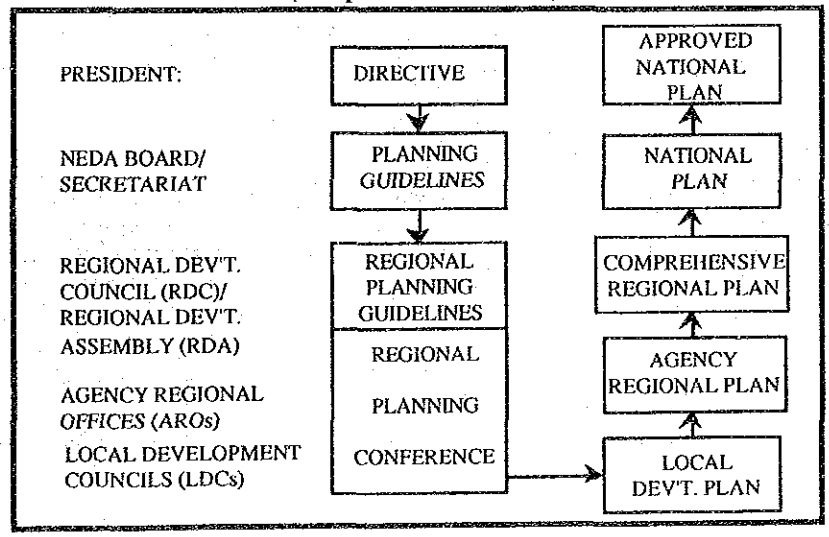
Figure EA.3
National, Regional and Local
Development Planning Structure



A combination of both approaches is presently being adopted by the government. Whereas the top-to-bottom approach was more in use before, the current strategy is to adopt and institutionalize the planning-from- below process as part of the decentralization policy.

Figure EA.4 presents a simplified flowchart of the activities involved in the preparation of the regional development plan. In essence, the comprehensive regional plan is an integration of local development plans and agency regional plans. Interaction among the plan formulators to ensure consistency with regional guidelines is initiated in regional planning conferences. Popular consultation through public hearings is also undertaken prior to the finalization and submission of the comprehensive regional plan to the NEDA Secretarial at the Central Office for integration into the national development plan.

Figure EA.4
Regional Development Plan Preparation
(Simplified Flowchart)

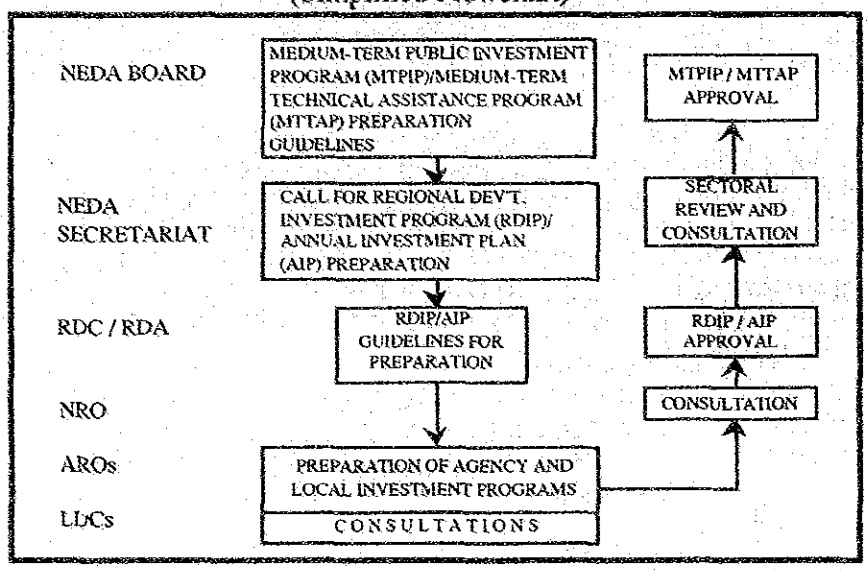


4) Investment Programming

After the regional development plans are formulated, specific programs and projects are identified and included in the various investment programs of government. These are done through the Comprehensive Investment Programming System (CIPS). The CIPS aims to link programs and projects to the national, regional and local development plans through a systematic selection of projects generated by LGUs and AROs. The major outputs of the CIPS are the local development investment programs (LDIPs), regional development investment programs (RDIPs), medium-term public investment program (MTPIP) and medium-term technical assistance program (MTTAP).

At the regional level, the RDIPs serve as the basis for determining priority development activities that will be undertaken or implemented in the region. The drawing up of a particular region's RDIP is a process that begins with the identification of project ideas at the barangay level through the Barangay Development Councils (Figure EA.5). These then go up to the Municipal and City Development Councils, the Provincial Development Councils, and finally, the Regional Development Councils. The investment programs at the subregional levels are collectively termed as Local Development Investment Programs or LDIPs. The projects listed in the LDIPs then go into the RDIP for integration within a five-year time frame. Each year, the RDC undertakes the appraisal and prioritization of these programs and projects to come up with the Annual Investment Programs (AIPs). The RDIPs are then integrated into the MTPIP and the MTTAP.

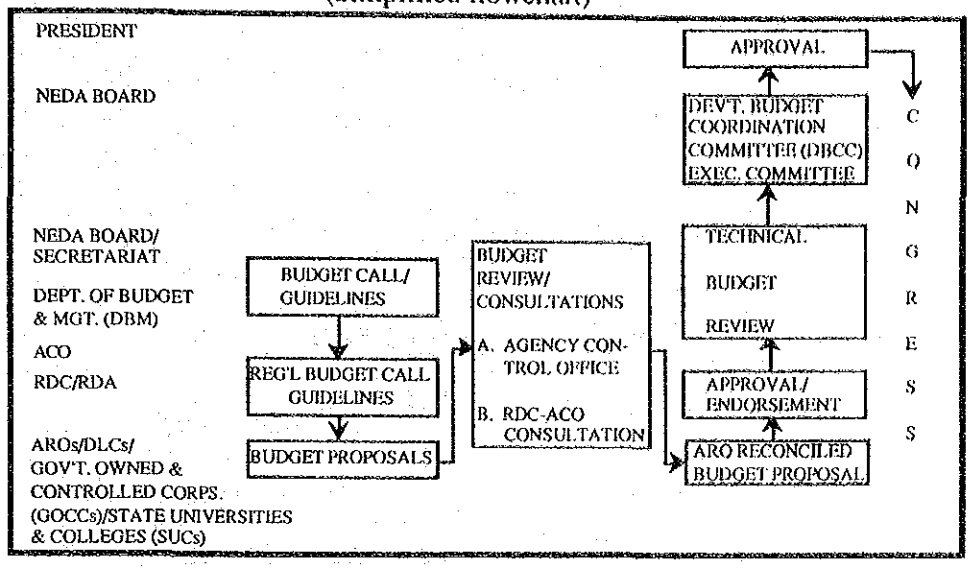
Figure EA.5
Regional Investment Programming
(Simplified Flowchart)



5) Budgeting

After investment programming, the next activity in the development planning process is budgeting, which is the translation of investment programs into its financial requirements. The process is best described by the following simplified flowchart.

Figure EA.6
Regional Budget Preparation
(Simplified flowchart)



The chart reflects the present emphasis on decentralizing the budgetary proces. The regional budget allocation criteria of various line agencies have been reviewed in consultation with the RDC in order to make them more realistic and responsive to the needs of the region. In addition, the RDCs are now given greater responsibility in the sub-allocation of regional budgets. For example, the Department of Public Works and Highways now allows the regions to allocate among project categories the "block grant" allocated for the region on the basis of the region's own priorities. In relation to this, budget review and consultations are conducted between the agency central offices and agency regional offices and between the finalized and submitted to the Department of Budget and Management. Once the proposed budget has been reviewed, it is endorsed to the Development Budget Coordination Committee (DBCC) and the Cabinet for approval. The Cabinet-approved budget is then submitted by the President to the Congress for approval.

6) Program/Project Implementation

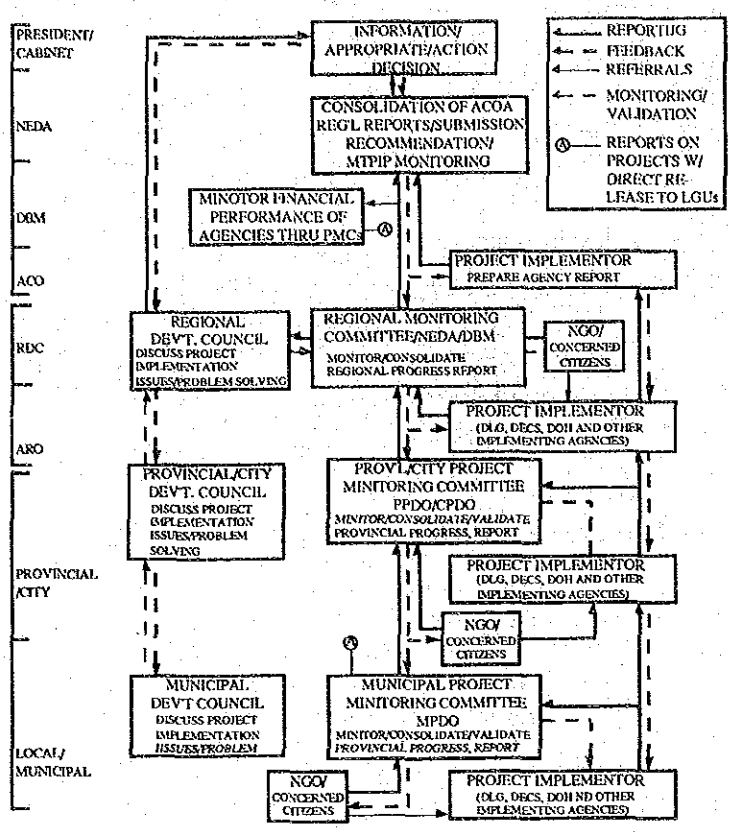
The implementation sequence of the planning process refers to the actual execution of projects or delivery of services in support of development plans. This is carried out by the national agencies and local governments who largely rely on the capability of executive bodies.

7) Monitoring and Evaluation

The last step in the development planning process is the monitoring and evaluation activity which enables the planning and implementing agencies to compare the actual performance of programs and projects against development plans, identify problems and issues encountered by programs and projects, and identify solutions to improve program and project implementation.

To further strengthen this process, a Regional Project Monitoring and Evaluation System (RPMES) has been devised. Under this system, the RDCs take the lead role in monitoring programs and projects implemented in the regions. It further institutionalizes the linkages among the RDC and the smaller politico-economic units by involving the LDCs, the NGOs, and the Project Monitoring Committees in the region, provinces, cities and municipalities in monitoring programs and projects in their respective localities. The following flowchart illustrates this process.

Figure EA.7
Regional Project Monitoring and
Evaluation System RPMES) Flowchart



II.2 Implementation of Infrastructure Program

1) Government Program

Table EA.7 presents a matrix of the primary agencies involved in the public infrastructure program, according to the type of infrastructure and the activity phase in the development planning process.

There are various government agencies that take part in the public infrastructure program but the two major ones involved are the so-called infrastructure agencies, namely the Department of Public Works and Highways (DPWH) and the Department of Transportation and Communications (DOTC). The other departments as well as government owned and/or controlled corporations (GOCCs) also have infrastructure projects under their respective sectors but it is DPWH and DOTC, although more of the former, which implement most of these projects. For example, the programs of the Departments of Education, Culture and Sports and of Health have social infrastructure components such as the construction of school buildings, hospitals, etc., but actual construction of said infrastructure is handled by DPWH. Thus, these two agencies have their own separate infrastructure programs which include components from other agencies.

As public corporations, the GOCCs are usually involved in all phases of their respective infrastructure programs, including budgeting and implementation.

All these agencies, however, coordinate and have linkages among themselves as well as with other public and private institutions in the planning, implementation and overall development of infrastructure programs/projects.

2) Foreign-Funded Programs:

As part of its development programs, the Philippine Government also receives financial and technical assistance from foreign sources, either in the form of loans, grants-in-aid or a combination of both. The bulk of these foreign funds go to the financing of infrastructure programs. Some of the country's major foreign sources of official development assistance (ODA) are the World Bank (WB), United States Agency for International Development (USAID), United

Table EA.7
Agencies in the Infrastructure Development Program 1/

Activity Phase / Sector	Planning	Programing	Budgeting	Program/Project Implementation	Maintenance	Monitor and Evaluation
TRANSPORT						
Roads and Highways	DPWH	DPWH	,DPWH	DPWH, DLG (only for institutional capability building)	Private Contractors, LGUs	President, Cabinet, NEDA,DBM,,NGOs, AROs, LDCs, RDCs, ACOs, Concerned citizens.
Ports						
Nat'l/Secondary	PPA	PPA	PPA	PPA	PPA	
Fishing Ports	DPWH	DPWH	DBM,DPWH LGUs	LGUs	LGUs	
Urban Transport	LRTA MMTC DOTC	LRTA, MMTC DBM	LRTA MMTC	LRTA,MMTC		
Railways	PNR,DOTC	PNR	PNR,DBM	PNR	PNR	
Airports/Airways	DOTC, ATO	DOTC, ATO	DOTC, ATO DBM	DOTC, ATO	DOTC,ATO	
COMMUNICATIONS						
Telecommunications	DOTC,NTC PAGASA	DOTC,NTC PAGASA	DOTC,NTC PAGAWA	DOTC,NTC PAGAWA	DOTC,NTC PAGAWA	
Postal Communications	PSO	PSO	PSO	PSO	PSO	
ENERGY						
Power	NPC	NPC	NPC	NPC	NPC	
Rural Electrification	NEA	NEA	NEA	NEA	NEA	
Energy Resource Devt.	PNOC	PNOC	PNOC	PNOC	PNOC	
Downstream Activities	PNOC	PNOC	PNOC	PNOC	PNOC	
WATER RESOURCES						
Water Supply, Sewerage & Sanitation	MWSS LWUA DPWH	MWSS, LWUA DPWH	MWSS LWUA DPWH	MWSS, LWUA,DPWH	MWSS LWUA DPWH	
Irrigation	NIA	NIA	DPWH,DBM NIA	NIA	NIA	
Flood Control, Drainage & Shore Protection	DPWH	DPWH	DPWH,DBM	DPWH,LGUs	DPWH LGUs	
SOCIAL, INFRASTRUCTURE						
School Buildings						
Elementary	DPWH	DPWH	DPWH,DBM	PWH	DPWH	
Secondary	DECS	DECS	DPWH,DBM	PWH	DPWH	
Health Facilities	DOH	DOH	DOH	DOH	DOH	
Urban Community Infrastructure	PREMIUME D MMINUTE RCDP	PREMIUME D MMINUTE RCDP	PREMIUME D MMINUTE RCDP	PREMIUMED MMINUTE CDP	PREMIUME D MMINUTE RCDP,LGUs	
National Buildings	DOTC,DPW H	DOTC,DPW H	DPWH,DBM	PWH	DPWH	

1/ This table only indicates the major/primary agencies involved in the government infrastructure program. Under the government's present decentralization thrust, all national and sub-regional government organizations/units are involved in all phases of the whole development planning process. These include the President, Cabinet, Congress, NEDA, ACOs, GOCCs, RDCs, AROs, LGUs, LDCs and NGOs and concerned citizens.

AROs - Agency Central Office
AROs - Agency Regional Offices
ATO - Air Transport Office
DBM - Department of Budget and Management
DECS - Department of Education, Culture and Sports
DLG - Department of Local Government
DOH - Department of Health
DOTC - Department of Transportation and Communication
DPWH - Department of Public Works and Highways
GOCCS - Government Owned and/or Controlled Corporations
LDCs - Local Development Councils
LGUs - Local Government Units
LRTA - Light Rail Transit Authority
LWUA - Local Water Utilities Administration
MMINUTE- Metro Manila Infrastructure Utilities, Transport and Engineering
MMTC - Metro Manila Transit Corporation
MMWSS - Manila Waterworks and Sewerage System
NEA - National Electrification Administration
NEDA - National Economic and Development Authority
NGOs - Non-Government Organizations
NIA - National Irrigation Administration
NPC - National Power Corporation
PAGASA - Philippine Atmospheric, Geo-physical and Seismological Administration
PNOC - Philippine National Oil Company
PNR - Philippine National Railways
PPA - Philippine Ports Authority
PREMIUMED- Program for Essential Municipal Infrastructure, Utilities, Maintenance and Engineering Development
PSO - Postal Service Office
RCDP - Regional Cities Development Program
RDA - Regional Development Assembly
RCDs - Regional Development Councils

Nations Development Program (UNDP), Overseas Economic Cooperation Fund (OECF), Government of Japan through the Japan International Cooperation Agency (JICA), Asian Development Bank (ADB), and various other foreign governments.

Among the more recent foreign-funded infrastructure programs in the country are the Regional Cities Development Program (RCDP), the Metro Manila Infrastructure, Utilities and Transport Engineering (MMINUTE) and the Program for Essential Municipal Infrastructure, Utilities, Maintenance and Engineering Development (PREMIUMED).

II.3 Implementing Capabilities of Local Governments

1) Development Projects and Financing

In general, most of the infrastructure projects of local cities are being funded out of the national government budget. These include the construction and improvement of roads and bridges, railway and marine transport facilities, drainage and flood control projects, waterworks systems, power and energy facilities, industrial estate development, and social infrastructure like education, health and sports/recreation facilities. Majority of these projects are to be funded and implemented mainly under the DPWH Infrastructure Program and by other government agencies and government owned and/or controlled corporations concerned (e.g., the Philippine National Railways for railroad projects; the National Power Corporation for electric power and energy projects; the National Housing Authority for housing and human settlements projects, etc.).

There are, however, specific local government projects which are either wholly or partly financed by the LGUs themselves. These include the construction and maintenance of city and municipal road and bridges, local drainage projects, solid waster management projects, and public market facilities.

City governments derive their income from both local and national revenue sources. Local revenues include tax revenues and operating and miscellaneous revenues. Revenues from local taxation include those from real property taxes; taxes on goods and services (e.g., business taxes and licenses, fines and penalties); and other taxes (e.g., residence tax, amusement tax, miscellaneous taxes). Operating and miscellaneous revenues include operating and service income from inspection and registration fees, and those from government business operations (e.g., operation of public utilities, market, slaughterhouse, cemeteries, rent of equipment, parking/landing fees, etc.).

National revenue sources of LGUs consist of internal revenue allotment (the amount of which depends partly on the income classification of the cities), specific tax allotment and special funds (e.g., Highway Special Fund). Aside from these, local governments can also secure funding from international or national government and non-government institution in the form of loans, grants-in-aid, or a combination of both.

As to fund sourcing, it may be noted that, generally, larger and higher income class cities derive more revenues from national sources. Perhaps, this is because of their entitlement to higher internal revenue and specific tax allotments from the national coffers. In the case of other first class cities, the bulk of its revenue come from local taxation and operating income, although a sizeable portion of its total income is also from national tax allotments. The smaller cities rely more on its local revenue sources than from national allotments to them as second and fourth class cities, respectively.

Income-wise, therefore, it is indicated that the larger and richer (i.e., in terms of local government income) cities tend to be more capable of implementing more local development projects. The smaller, lower- income cities would need more external financing assistance for their projects. This is partly reinforced by the fact that present financing aid programs for LGUs (e.g, PREMIUMED) specifically target the latter cities as their beneficiaries.

In terms of budget allocation and expenditure programs, the city governments basically have three types of funds, namely the General Fund, Infrastructure Fund, and Special Education Fund. The General Fund finances expenditures for the provision of general public services (e.g, executive, legislative, auditing, treasury, assessment, prosecution, adjudication, land registration, and administrative services); education and culture; health, nutrition and population control; and other social services. Likewise, it finances economic services (e.g., agricultural services; operation of markets, slaughterhouse, terminals, utilities, etc.); the 20% Development Fund; the Barangay Development Fund; and various aids to both government and non-government institutions (e.g., hospitals, Integrated National Police, RDC, Kabataang Barangay, Boy Scouts, Girl Scouts, etc.). Thus, it is understandable why the General Fund is always the biggest.

The Infrastructure Fund is mainly used to finance the local infrastructure program, including personal services, maintenance and other operating expenses, and capital outlays for various public works projects.

The special Education Fund is exclusively used for the education and culture program such as in providing school supervision and public education.

It is significant to note that ratio-wise, the bulk of local government expenditures go to the payment of personal services, that is, the salaries, allowances and other personnel benefits of the employees and staff of the various local government offices. For many of the cities, from 60 - 70% of their total budget are spent for this item alone. About only a third is pent for maintenance and other operating expenses while capital outlays have a minimal share.

This seemingly lopsided allocation of the typical local government budget partly explains the difficulties of the LGUs in financing their local development programs. Since most of their funds are spent for general administrative purposes, the LGUs would need more money to spend for the operations and maintenance of, as well as the acquisition of equipment for local development projects, particularly on infrastructure and urban facilities development. Thus, they resort to borrowings at times.

2) Assessment of the Existing System in the Local Government

Theoretically, the local government system described in the earlier part of the preceding section is quite an ideal set-up. Increasing the participation of the people at the local level in the planning, implementation and monitoring of local development programs ensures that such programs will be more attuned to the actual needs of the local communities. As in any other system, however, theory can be different from practice.

Table EA.8 gives an indication of the various problems and issues encountered by the agencies/organizations concerned in the local development process.

The main problems hindering the LGUs in effectively addressing all their local development needs can be summarized as follows.

a) Financial Constraints - The financial capability of most local government are not enough to sustain all their development needs. Thus, in most cases, finding assistance from the national government and from foreign sources re sought. Because of competing priorities, however, such assistance are often difficult to come by.

b) Local Resources Constraints - The lack of adequate maintenance equipment and facilities also hinders the effectiveness of LGUs in implementing local development projects. The equipment pools of most of the cities include many old, dilapidated and unserviceable equipment which further limits their implementing capabilities. Exceptions, perhaps are the cities which are beneficiaries of new equipment under the RCDP loan program.

c) Weaknesses in the Local Development Capabilities - There is a need to continuously upgrade the capabilities of local government officials and personnel in managing local development. Not only is there a need to equip local government officials and personnel with the necessary knowledge and skills, but to nurture positive work attitudes in promoting work efficiency and effectiveness as well. There are a number of management tools (e.g., performance budgeting, development planning, etc.) designed to upgrade local capabilities but these should be better appreciated and utilized in order to improve organizational competence and performance in pursuing development efforts.

d) Weaknesses in Local Government System - It has also been observed that the local government bureaucracy generally suffers from some structural, value and tool orientation limitations. Studies on bureaucratic behavior, for example, indicate that, generally, the organizational structure of local governments are not responsive to the types and magnitude of the problems that they face at the local level today.

Table EA.8
Problems and Issues in the Local Development System

Admin. Level / Activity / Phase	NATIONAL	REGIONAL	PROVINCIAL	CITY/MUNICIPAL	BARANGAY
PLANNING	There have been some drawbacks in the national plans partly due to the change in leadership and development thrusts.	Difficulty in the integration and synchronization of the regional / national projects by the RDCs.	Change in local and leadership brought about by the change in the government had resulted in the changing of highly technically prepared local government staff, specially in the provincial/city planning offices.	Lack of accurate and updated data base and information necessary for planning at the local level. Lack of qualified technical planning staff due to unattractive salaries. Some agencies/org. are not involved in planning activities..	Lack of technical expertise among barangay leaders due to generally low level of education. This often results in the "spoon feeding" of barangay leaders in the planning process. Difference between the capabilities of the barangay leaders of the poblacion and those in the rural barangays.
INVESTMENT PROGRAMMING/ BUDGETING	General lack of financial resources for development projects/programs. High foreign debt interest payments.	Programming at the provincial/city/municipal/barangay levels depends largely on the availability of financial resources (e.g., the release of interest revenue allotments, tax collection, local government income, etc.). Lack of funds for local development programs/projects is a common problem among the LGUs. Other problems include the following: - Bureaucratic red tape in releases of subsidy funds - Outmoded tax laws - Laxe implementation of tax ordinances - Inefficient tax assessment and collection capabilities - Generally low salaries of LGU staff - Competing rural and urban needs in terms of local - Development programs/projects - Lack of cooperation from some private investors.			
PROGRAM/ PROJECT IMPLEMENTATIO N MAINTENANCE	Delays in budget releases hamper the effective implementation of local development programs/projects. In addition, the following problems also arise: - Incompetent/inefficient private contractors (e.g., local infrastructure projects) - Lack of technical capability in the implementation of local development projects. - Centralized decision-making in the disposition of public funds. - Lack of funds for maintenance of projects.				
MONITORING & EVALUATION	Need to strengthen linkages and coordination between national and local development institutions	Generally, as in the planning-programming-budgeting-implementation phases, there is an need to strengthen/improve the monitoring and evaluation capabilities of local government institutions as well as manpower.			

Source: City Government in Study Areas; Department of Local Government.

III. List of Transportation Projects

III.1 Summary of Road Projects

Code	Project Name/Description	Estd. Cost (P million)	Agency Status	Information Source
	CAVITE			
R201	Laguna-Canlubang-Tagaytay Road	not given	DPWH	Prov. Eng'g. Office (PEO)
R202	Balibago-Tagaytay Road	not given	DPWH	- do -
R203	Aguinaldo-Talaba Road Flyover	not given	DPWH	- do -
R204	Noveleta-Sangley Point Access Road	not given	DPWH	- do -
R205	Noveleta-CEPZ Diversion Road	not given	DPWH	
R206	Rosario-Gen. Trias-Imus-Molino Expressway	not given	DPWH	- do -
	LAGUNA			
R301	Laguna Lake Shore Roads	no data	no data	no data
R302	Manila East Road (road widening from Calamba to Famy)	no data	no data	no data
R303	Provincial Roads Improvement			
	a) Nagcarlan-Dayap Road	no data	no data	no data
	b) Liliw-Novaliches Road	8.0	Laguna Govt./ Proposal under preparation.	Prov. Eng'g. Office (PEO)
	c) Cavinti-Bukal Road (improvement)	11.2	- do -	- do -
	d) Nagcarlan-Abo Road (improvement)	10.0	- do -	- do -
	e) Calamba- Punta-Bunggo Road	9.0	- do -	- do -
	f) Alaminos-Lima Road (widening)	5.0	- do -	- do -
	BATANGAS			
R401	Batangas Coastal Road (Nasugbu-Lian-Calatagan-Balayan-Calaca-Lemery-Taal-San Luis-Mabini-Bauan-San Pascual-Batangas-Lobo-San Juan)	371.9	NEDA, DPWH & Batangas	not given
R402	Batangas Inland Roads	not given	not given	not given
	a) Tanauan-Sto. Tomas Road	6.3	DPWH & Batangas	
	b) Lipa-Sto. Tomas Road	36.8	DPWH & Batangas	
	c) Malvar-Balete Road	20.0	DPWH & Batangas	
	d) Laurel-Tamayo Road	24.2	DPWH & Batangas	
	e) Cuenca-Batangas City Road	-		
	f) Padre Garcia-Quilo Road	11.5	DPWH & Batangas	
	g) Rosario-Taysan Road	19.0	DPWH & Batangas	
	h) Ibaan-Catandala-Taysan Road	21.3	DPWH & Batangas	

Code	Project Name/Description	Estd. Cost (P million)	Agency/Status	Information Source
	BATANGAS			
R403	Lian-Nasugbu Bridge	5.0	DPWH & Batangas	not given
R404	Taal Lake Circumferential Project	not given	not given	not given
R405	Package A:			
	a) Mataas na Kahoy-Balete-Ambulong-Tanauan Road	28.0	DPWH & Batangas/ Concept formulated	OPPDC
	b) Sto. Nino-Tulos-Rosario-Palahanan 2nd Saan Juan Road	19.5	- do -	- do -
	c) Anilao-San Teodoro Road, Mabini	9.5	- do -	- do -
	d) San Jose-Bauan Road	42.7	- do -	- do -
R406	Package B:			
	a) San Jose-Ibaan Road	21.0	- do -	OOPDC
	b) Poblacion-Muzon Road	9.0	- do -	- do -
	c) Taysan-Dagatan Road	10.6	- do -	- do -
	d) Taal-San Luis Road	4.5	- do -	- do -
R407	Package C:			
	a) Lucsuhin-Biga-Duhatan Road, Calatagan	5.0	- do -	not given
	b) Tuy-Lian Road	13.0	- do -	not given
	c) Nonong Casto Road, Lemery	2.5	- do -	not given
	d) Tapia Road, Tanauan	1.0	- do -	not given
	e) Artery Road-M. Pulo-Altura-Cale-Sala-Trapeche-Poblacion, Tanauan	19.2	- do -	not given
R408	Batangas 3rd District Road Improvement Package:			
	a) Concreting of Balele Bgy. Road, Tanauan	not given	not given/for inclusion in Phil. Aid Plan	Batangas Report (3rd Dist.)
	b) Concreting of Dingin Bgy. Road, Alitagtag	1.3	- do -	- do -
	c) Construction of Pansipit Bridge and approaches in Agoncillo-San Nicolas	7.5	- do -	- do -
	d) Construction of Sampalocan Foot-bridge in Sampalocan, Balete	0.5	- do -	- do -
	e) Concreting of Plaza Municipal Road, Alitagtag	0.73	- do -	- do -
	f) Construction of San Gregorio Bgy. Road, Malvar	1.1	- do -	- do -
	g) Construction of San Nicolas-Sinturisan-Taal Road (Calangay-Talang Section), San Nicolas	0.5	- do -	- do -
	h) Construction of Bgy. Abalo Rd., San Nicolas	0.5	- do -	- do -
	i) Concreting of Irukan-Kalayaan Bgy. Road, Sta. Teresita	2.6	- do -	- do -
	j) Concreting of Saimsim Bgy. Rd., Sta. Teresita	2.6	- do -	- do -

Code	Project Name/Description	Estd. Cost (P million)	Agency/Status	Information Source
	BATANGAS			
	k) Construction of San Agustin-San Luis Provincial Rd., Sto. Tomas	12.5	- do -	- do -
	l) Concreting of San Bartolome Provincial Rd., Sto. Tomas	2.0	- do -	- do -
	m) Cementing of Pantay na Matanda-Pagaspas Barangay Road, Tanauan	2.7	- do -	- do -
	n) Cementing of Altura Matanda Bgy. Road, Tanauan	not given	- do -	- do -
	o) Cementing of Altura South Provincial Rd., Tanauan	1.5	- do -	- do -
	p) Concreting of Luyos Bgy. Rd., Tanauan	not given	- do -	- do -
	q) Concreting of roadway and construction of drainage system in Barangay Malaking Pulo (Rd. Nos. 1,2,5 & 7), Tanauan	1.0	not given/for incl. in Phil. Aid Plan	Batangas Report (3rd Dist.)
	r) Concreting of roadway and construction of drainage system in Banadero North Barangay Road, Tanauan	1.1	- do -	- do -
	s) Concreting of Cale-Bilog-Bilog Barangay, Tanauan	2.7	- do -	- do -
	t) Concreting of Tanauan-Talisay Rd., (Tanauan Section) Tanauan	7.82	- do -	- do -
	u) Construction of Tadlac Bgy. Rd., Alitagtag	3.29	- do -	- do -
	v) Concreting of Poblacion-Miranda Road, Talisay	4.74	- do -	- do -
	w) Cementing of Pantay na Bata Bgy. Road, Tanauan	2.65	- do -	- do -
	RIZAL			
R501	San Mateo Bridge Project	To be determined by F/S and detailed engineering designs	DTI, BOI & DPWH; F/S to be completed	Board of Investments (FAPS)
R502	Laguna de Bay Viaduct Project	1,255,000 (Approx.)	- do -	Prov.Eng'g. Office(PEO)
R503	Talim Bridge Project	55 (Approx.)	- do -	- do -
R504	Widening of Ortigas Avenue	67.3	DPWH; project concept formulated	- do -
R505	Construction of Shaw Blvd. Ext. (Mercedez Benz Road) to Taytay	336	- do -	- do -

Code	Project Name/Description	Estd. Cost (P million	Agency/Status	Information Source
	RIZAL			
R506	Construction of Roads Bosoboso (Antipolo)-Sam Mateo Bridge to Batasan Complex	60	DPWH; F/S & D/E updating still in progress.	- do -
R507	Construction of Manggahan-Longos Bridge in Pasig	50	DPWH; F/S & D/E currently undertaken.	- do -
R508	Construction of Fairview-Montalban Road	80	- do -	- do -
R509	Opening of Mababang Parang-Gupiing-Pilapila, Limbon-Limbon to Tapao Point	45	DPWH; F/S to be undertaken in 1991.	- do -
R510	Antipolo-Angono-Daraongan Road	20	- do -	- do -
R511	Macamot Binagonan to Bombongan Morong	25	- do -	- do -
R512	Construction of Road leading to Bgy. Ticulio and Circumferential Road in Talim Island; 9 km and 60 km, respectively	207	DPWH; F/S & D/E currently undertaken.	- do -
	QUEZON			
R601	Quezon Canal	Not given	Prov. Gov. Office	Prov. Planning Development Coordinator
R602	Circumferential Road (Lucena-Tayabas-Lucban-Sampaloc-Mauban-Mainit Loop Road)	251.289	DPWH	
R603	Atimonan-Mauban-Real-Infanta Coastal Road Project	300.00 M.	DPWH	
R604	Calamba-Calauag Road (Rehabilitation Project)	304.82 M	DPWH	
R605	Jct. Pitogo-Mulanay-San Narciso Road	140.0 M	DPWH	
R606	Famy-Real-Infanta Road	417.0 M	DPWH	
R607	Marikina-Infanta Road Project	676.106M	DPWH	

Code	Project Name/Description	Estd. Cost (P million	Agency/Status	Information Source
R608	Quirino Highway Road Project (Tabugon-Tagkawayan-Camarines Sur Bdry.	298.877M	DPWH	
R609	First Congressional District Road Package A: Concreting of National Roads		DPWH LGU DLG	
	a. Lucban-Tayabas Rd.	11.0		
	b. Lucban-Luisiana Rd.	11.0		
	c. Lucban-Sampaloc Rd.	16.0		
	d. Lucban-Majayjay Rd.	10.0		
	e. Lucban-Tayabas-Lucban-Mauban Port Rd.	12.0		
	f. Mauban-Mainit-Tayabas Rd.	15.0		
	g. Pagbilao-Tayabas Rd.	4.5		
	h. Sampaloc-Lucban Port Rd.	24.0		
	i. Lucban-Mauban Port Rd.	16.4		
	j. Quezon Ave.	1.5		
R610	First Congressional District Road Package B: Concreting/Construction of Provincial Roads		DPWH DLG	
	a. Burdeos-Polillo Rd.	10.0		
	b. Mauban-Tignoan Rd.	45.0		
	c. Tongohin Prov'l Rd.	0.70		
	d. Ingas-Roboin Rd.	0.25		
	e. Mauban-Tignoan	50.0		
	f. Mauban-Atimonan	15.0		
	g. Mauban-Cavinti	30.0		
	h. Tignoan-Mauban	0.50		
	i. Kinaluman-Kisusuyo Rd.	1.0		
	j. Km. 14-Tipuan Rd.	0.50		
	k. Cawayan-Waterfall Rd.	0.25		
	l. Malapad-Pinamaytuan Rd.	0.12		
	m. Lubayat-Sto. Buho Rd.	0.25		
R611	First Congressional District Road Package C: Concreting of Municipality Streets		DPWH	
	a. Poblacion-Sabang Port Road	1.0		
	b. Municipal Streets	2.5		
R612	First Congressional District Road Package D: Construction of Brangay Roads		DPWH LGU	
	a. Coastal along B/r along Tourism Dist. (Boboin-Dinahican)	3.0		
	b. Restoration of Infanta-Dinahican Road	8.0		
	c. Restoration of Infanta-Real Boundary Rd.	5.5		

Code	Project Name/Description	Estd. Cost (P million	Agency/Status	Information Source
	d. Poblacion-S. Tapul	0.15		
	e. S. Tapul-Poblacion	0.30		
	f. Poblacion-S. Sangil	0.30		
	g. S. Sangil-Poblacion	0.15		
	h. Poblacion-S. Gatmon	0.30		
	i. S. Gatmon-Poblacion	0.30		
	j. Main Luod-S. Sinintan	0.30		
	k. S. Sinintan-Main Luod	0.30		
R613	Second Congressional District Road Package A: Concreting of National Rds		DPWH, LGU	
	a. Dolores-Tiaong Road	12.6		
	b. Dolores-San Pablo Road	5.25		
	c. National Road in San Antonio	28.0		
	d. Tiaong-San Antonio	5.0		
	e. Palisa-Cabay-del Rosario	6.0		
R614	Second Congressional District Road Package B: Concreting of Poblacion Provincial Road	1.3 M.	PHO	
R615	First Congressional District Road Package C: Construction of Barangay Roads		NALGU, LGU	
	a. Dolores Municipal Road	0.50		
	b. San Antonio Municipal Road	4.50		
	c. San Antonio Municipal Road	10.0		
R616	Third Congressional District Road Package A: Construction/Concreting of Provincial Roads		DPWH; DEO	
	a. Gen. Luna Prov'l. Road	0.20		
	b. Buenavista-Guinayangan	45.0		
	c. S. Francisco Div. Road	1.5		
	d. Poblacion Prov'l Road	1.3		
	e. Poblacion-B. Silang Prov'l Road	12.0		
	f. B. Silang-Batabat N.	15.0		
	g. Batabat Norte-Magallanes-Lopez	15.0		
	h. Macalelon Jct. Road	0.8		
	i. Poctol Cros. Prov'l. Road	6.0		
	j. S. Francisco Prov'l. Road	3.0		
	k. Poblacion-Panaon-Socorro	28.0		
R617	Third Congressional District Road Package B: Construction/Concreting of Barangay Roads		DPWH	
	a. Pagsanjan B/R	10		
	b. Casay B/R	10		
	c. Don Juan Vercelos-Nasalaan	20		
	d. San Roque-San Pablo-Doongan Ilaya	10		
	e. Nieva-Recto-Ilaya	8		
	f. Casay-Nasalaan	7		

Code	Project Name/Description	Estd. Cost (P million	Agency/Status	Information Source
R618	Fourth Congressional District Road Package A: Construction/Concreting of National Roads		DPWH	
	a. National Road	127.0		
	b. Guinayangan-Buenavista Road	27.0		
	c. Repair of National Road	2.5		
R619	Fourth Congressional District Road Package B: Construction/Concreting of Provincial Roads		DPWH	
	a. Atimonan-Mauban Road	24.0		
	b. Guinto Blvd. Provincial Road	5.0		
	c. Summit-Talaba Provincial Road	10.0		
	d. Guinayangan-Sumulong Prov'l Rd.	5.0		
	e. Gapas-Aloneros Prov'l Road	3.5		
R620	Fourth Congressional District Road Package C: Construction/Concreting of Barangay Roads		DPWH	
	a. Poblacion-Magibay Road	4.2		
	b. San Isidro-Manato Station (via Mangayao)	3.2		
	c. Lopez Barangay Roads	101.3		

III.1.1 Road Projects in Cavite

Calabarzon Project Information Sheet | Project Code : R201

Particular	Description
1. PROJECT TITLE	Laguna-Canlubang-Tagaytay Road
2. LOCATION	Tagaytay City, Calamba and Canlubang, Laguna
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	Creation of an adequate and shorter access from Tagaytay City to Canlubang and other parts of Laguna and Batangas.
5. DESCRIPTION	The road will be a concrete 4-lane project connecting Tagaytay City to Canlubang Exit of South Expressway. The number of bridges shall be determined after the technical field survey.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	
7. IMPLEMENTATION SCHEDULE	
8. STATUS OF PREPARATION	
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	a) Shorter and adequate access from Tagaytay City to Canlubang and other parts of Laguna and Batangas. b) Increased economic activities within the road influence area. c) Access to adequate health and education facilities. d) Increased revenues of local and national governments following increased economic activities in the road influence area. e) Maintenance of peace and order situation in the influence area.
10. REMARKS	

(Cont...Cavite)

Calabarzon Project Information Sheet | Project Code : R202

Particular	Description
1. PROJECT TITLE	Balibago-Tagaytay Road
2. LOCATION	Tagaytay City and Silang both of Cavite and Sta. Rosa, Laguna
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	a) Creation of an adequate road access from Tagaytay City to Sta. Rosa and other parts of Laguna and Metro Manila. b) Decongestion of Tagaytay-Zapote Road. c) Access to new industrial areas.
5. DESCRIPTION	The road will be a concrete 4-lane project from Tagaytay City directly to Balibago Exit of the South Expressway.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	
7. IMPLEMENTATION SCHEDULE	
8. STATUS OF PREPARATION	
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	a) Decongestion of Tagaytay-Zapote road; b) Encouragement of estabishment of other enterprises along the proposed road; c) Increased per capita income due to expected increase in economic activities within the road influence area; d) Access to adequate health and education facilities; e) Maintenance of peace and order situation in the influence area; and f) Increased revenues of local and national governments following the increased economic activities within the road influence area.
10. REMARKS	

(Cont...Cavite)

Calabarzon Project Information Sheet

Project Code : R203

Particular	Description
1. PROJECT TITLE	Aguinaldo-Talaba Flyover
2. LOCATION	Bacoor
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	Decongestion of the entrance/exit of Aguinaldo Blvd (Cavite Coastal Road) to and from Manila.
5. DESCRIPTION	The overpass road will be a concrete 4-lane project with 4.3 meters vertical clearance.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	
7. IMPLEMENTATION SCHEDULE	
8. STATUS OF PREPARATION	
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	a) Decongestion of the entrance/exit of Aguinaldo Blvd (Cavite Coastal Road) to and from Manila; b) Reduced travel time of working commuters following decongestion of traffic at the junction; and c) Increased income for traders and businessmen as a result of reduced fuel consumption.
10. REMARKS	

(Cont...Cavite)

Calabarzon Project Information Sheet

Project Code : R204

Particular	Description
1. PROJECT TITLE	Noveleta-Sangley Point Access Road
2. LOCATION	Noveleta, Cavite City
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	a) Complementation of the road project with the conversion of Sangley Point to international container port; b) New adequate route for hauling trucks/ equipment from Sangley Point (international container port) directly to the proposed extension of Cavite Coastal Road up to Noveleta and Rosario diversion roads up to Cavite Export Processing Zone; and c) Decongestion of existing road from Cavite City to Zapote and Cavite City to Rosario.
5. DESCRIPTION	The road will be a concrete 6-lane project connecting Sangley Point (international container point) to Cavite Coastal Road and Rosario Diversion Road up to Cavite Export Processing Zone.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	
7. IMPLEMENTATION SCHEDULE	
8. STATUS OF PREPARATION	
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	a) Complementation of the road project with the proposed conversion of Sangley Point to international container port; b) Decongestion of existing road from Cavite City to Zapote and Cavite City to Rosario; c) Increased economic activities within the road influence area. d) Increased revenues of locan and national governments following the conversion of Sangley Point to international container port and increased economic activities within the road influence area. e) Establishment of urban facilities.
10. REMARKS	

(Cont....Cavite)

Calabarzon Project Information Sheet

Project Code : R206

Particular	Description
1. PROJECT TITLE	Rosario-Gen. Trias-Imus-Molino-Expressway Road
2. LOCATION	Roasario, Gen. Trias, Imus, Bacoor, all of Cavite and Muntinlupa (Alabang), Metro Manila
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	a) Decongestion of Zapote and Binakayan areas; b) Shorter access to industrial areas of Cavite using the South Expressway from Metro Manila.
5. DESCRIPTION	The road will be a concrete 4-lane project connecting Rosario directly to Alabang Exit of the South Expressway. The number of bridges shall be determined after the technical/field survey.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	
7. IMPLEMENTATION SCHEDULE	
8. STATUS OF PREPARATION	
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	a) Decongestion of Zapote and Binakayan areas; b) Adequate access of farm products to market centers; c) Adequate and shorter access to industrial areas of Cavite using South Expressway from Manila; d) Increased economic activities within the road influence area; e) Establishment of adequate health and education facilities; and f) Increased revenues of local and national governments following increased economic activities within the road influence area.
10. REMARKS	

III.1.2 Road Projects in Laguna

Calabarzon Project Information Sheet | Project Code : R303

Particular	Description
1. PROJECT TITLE	Provincial Roads Improvement a) Nagcarlan-Dayap Road b) Liliw-Novaliches Road c) Cavinti-Bukal Road d) Nagcarlan-Abo Road e) Calamba-Punta-Bunggo Road f) Alaminos-Lima Road
2. LOCATION	a) Nagcarlan b) Liliw c) Cavinti d) Nagcarlan e) Calamba f) Alaminos
3. PROPONENT/ IMPLEMENTING AGENCY	Provincial Engineer's Office/Provincial Government of Laguna
4. OBJECTIVE	These provincial roads will be improved to (a) provide better access roads to/from the market center(s) and, therefore, provide better trading opportunities to farmers; (b) to promote tourism in affected municipalities; and (c) to facilitate other activities which will help uplift the socio-economic condition in each area.
5. DESCRIPTION	Concreting of; a) Nagcarlan-Dayap Road b) Liliw-Novaliches Road (4 km gravel) c) Cavinte-Bukal Road (7 km gravel) d) Nagcarlan-Abo Road (5 km gravel) e) Calamba-Punta-Bunggo Road (6 km gravel) f) Alaminos-Limao Road (3.26 km asphalted road, repair/widening of carriageway from 5 to 6 m.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	a) Not given b) ₱8M c) ₱11.2M d) ₱10M e) ₱9M f) ₱5M
7. IMPLEMENTATION SCHEDULE	a) Not given b) 1st quarter of 1990 c) 1st quarter of 1990 d) 1st quarter of 1990 e) 1st quarter of 1990 f) 1st quarter of 1990
8. STATUS OF PREPARATION	General plan, specification and cost estimate covered in the proposal under preparation.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	These road improvements will facilitate better access to/from town markets/trading centers and will promote better economic opportunities especially among farmers.
10. REMARKS	None

III.1.3 Road Projects in Batangas

Calabarzon Project Information Sheet | Project Code : R401

Particular	Description
1. PROJECT NAME	Batangas Coastal Road
2. LOCATION	Coastal roads that runs from the Western towns of Nasugbu to Lian, Calatagan, Balayan, Calaca, Lemery, Taal, San Luis, Mabini, Bauan, San Pascual, Batangas City Bay Rd., Lobo & San Juan
3. PROPONENT/ IMPLEMENTING AGENCY	NEDA, DPWH and Province of Batangas
4. OBJECTIVES	To spur the socio-economic and industrial development of the coastal areas which will depend to a large extent on the improvement/construction of adequate roads and bridges and other components.
5. DESCRIPTION	The project will connect all existing coastal roads and bridges around Batangas province which would boost industrialization, tourism development, agricultural productivity as well as the utilization of marine resources.
6. EST'D. PROJECT INVESTMENT REQUIREMENT	Roads for Construction (108.54 km) = P 249.6M Roads for Improvement (87.36 km) = 122.3M Total Project Cost ..... P 371.9M Note: road construction at P2.3M/km and improvement at P 1.4M/km
7. IMPLEMENTATION SCHEDULE/WORK PLAN	Activity/Component (1988 to 1992) 1. Start-up 2. Civil Works a) preparation of eng'g. plans, program of work and specifications b) preparation of tender documents (prequalified and invitation to bid) c) evaluation and awards of contract d) construction period
8. STATUS OF PREPARATION	not given
9. SOCIO-ECONOMIC JUSTIFICATION	The construction and improvement of roads and bridges are prime factors to the development of an area, supportive to any industrial, agricultural, commercial, & other socio-economic development plans & programs of the locality; municipality, province as well as the region & national.

(Cont...Batangas)

Calabarzon Project Information Sheet

Project Code : R402

Particular	Description
1. PROJECT NAME	Batangas Inland Roads
2. LOCATION	a) Tanauan/Sto. Tomas Section b) Sto. Tomas c) Malvar/Balete Section d) Laurel & Lemery Section e) f) Padre Garcia g) Rosario/Taysan Section h) Ibaan/Taysan Section
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH; Provincial Engineering Office of Batangas.
4. OBJECTIVES	To spur the socio-economic and industrial development of the area which will depend to a large extent on the construction and improvement of inland roads in Batangas province.
5. DESCRIPTION	Concreting of: a) Tanauwan-Sto. Tomas Road (2.52 km) b) Lipa-Sto. Tomas Road (14.71 km) c) Malvar-Balete Road (89.07 km) d) Laurel-Tamayo Road (9.66 km) e) Cuenca-Batangas City Road f) Padre Garcia-Quilo Road (4.54 km) g) Rosario-Taysan Road (7.60 km) h) Ibaan-Catandala-Taysan Road (8.50 km)
6. EST'D. PROJECT INVESTMENT REQUIREMENT	a) ₱6.3 M e) ₱ b) ₱36.8 M f) ₱11.5 M c) ₱20.0 M g) ₱19.0 M d) ₱24.2 M h) ₱21.3 M
7. IMPLEMENTATION SCHEDULE/WORK PLAN	Upon approval.
8. STATUS OF PREPARATION (As of _____)	
9. SOCIO-ECONOMIC JUSTIFICATION	The construction and improvement of Batangas Inland roads are prime factors to the development of the area supportive to the industrial, agri-cultural, commercial and other socio-economic activities in the barangay, municipal, provincial as well as in the national level.
10. REMARKS	None

(Cont...Batangas)

Calabarzon Project Information Sheet

Project Code : R403

Particular	Description
1. PROJECT NAME	Lian-Nasugbu Bridge
2. LOCATION	Lian, Batangas
3. PROPONENT/ IMPLEMENTING AGENCY	Provincial Government of Batangas and Dept. of Public Works and Highways
4. OBJECTIVES	To increase family income, increase influx of tourism, provide easy access to social and medical amenities, and provide easy transport of agricultural produce from farm to market.
5. DESCRIPTION	Construction of 33.54 linear meters of bridge.
6. EST'D. PROJECT INVESTMENT REQUIREMENT	P 5.0 million for the year 1990.
7. IMPLEMENTATION SCHEDULE/WORK PLAN	Project implemention is scheduled for the year 1990.
8. STATUS OF PREPARATION	not indicated
9. SOCIO-ECONOMIC & FINANCIAL JUSTIFICATION	not indicated
10. REMARKS	none

(Cont...Batangas)

Calabarzon Project Information Sheet

Project Code : R405

Particular	Description
1. PROJECT NAME	Package A: a) Mataas na Kahoy-Balete-Ambulong-Tanauan Road b) Sto. Nino-Tulos-Rosario-Palahanan 2nd San Juan Road c) Anilao-San Teodoro Road, Mabini d) San Jose-Bauan Road
2. LOCATION	a) Mataas na Kahoy, Balete, Tanauan b) Taysan, Rosario, San Juan c) Mabini d) San Jose, Bauan
3. PROPONENT/ IMPLEMENTING AGENCY	Provincial Government of Batangas and Dept. of Public Works and Highways
4. OBJECTIVES	To construct passable roads, increase family income, decongest the flow of traffic and provide easy access to social amenities and health facilities.
5. DESCRIPTION	a) Construction and paving with asphalt the whole length of the proposed road with a total length of 8 kms. b) Construct the unconstructed portion and pave with gravel and sand the whole length of 13 kms. from Sto. Nino, Taysan to Palahanan 2nd, San Juan. c) Construct the unconstructed portion and pave the whole length with gravel and sand 6 kms. d) Asphalting the whole length of 17.07 kms.
6. EST'D. PROJECT INVESTMENT REQUIREMENT	a) P 28.0M b) P 19.5M c) P 9.5M d) P 23.5M
7. IMPLEMENTATION SCHEDULE/WORK PLAN	a) 1991 b) 1991 and 1992 c) 1991 and 1992 d) 1990 to 1992
8. STATUS (As of _____)	Project concept has been formulated. (Status date not indicated)
9. SOCIO-ECONOMIC & FINANCIAL JUSTIFICATION	not indicated
10. REMARKS	Prepared by: OPPDC

(Cont....Batangas)

Calabarzon Project Information Sheet | Project Code : R406

Particular	Description
1. PROJECT NAME	Package B: a) San Jose-Ibaan Road b) Poblacion-Muzon Road, San Luis c) Taysan-Dagatan Road d) Taal-San Luis Road
2. LOCATION	a) San Jose and Ibaan b) San Luis c) Taysan d) Taal and San Luis
3. PROPONENT/ IMPLEMENTING AGENCY	Provincial Government of Batangas and Dept. of Public Works and Highways
4. OBJECTIVES	To construct passable roads, increase family income, decongest the flow of traffic, stabilize transportation cost of agricultural products and inputs, and to provide easy access to social amenities and health facilities.
5. DESCRIPTION	a) Cementing of 8.40 kms. San Jose-Ibaan Road. b) Cementing the whole length of 6.0 kms road from poblacion of San Luis to Bgy. Muzon. c) Asphalting the whole length of Taysan-Dagatan Road via Mahanadieng, Mataas na Lupa and Sto. Nino, Taysan which has a total length of 9.07 kms. d) Concreting the whole of Taal-San Luis Road with a total length of 3.0 kms.
6. EST'D. PROJECT INVESTMENT REQUIREMENT	a) P 21.0M b) P 30.5M c) P 22.7M d) P 4.5M
7. IMPLEMENTATION SCHEDULE/WORK PLAN	a) upon approval b) upon approval c) 1990 and 1991 d) 1991
8. STATUS (As of _____)	Project concept has been formulated. (Project status data not indicated)
9. SOCIO-ECONOMIC & FINANCIAL JUSTIFICATION	not indicated
10. REMARKS	Prepared by: OPPDC

(Cont....Batangas)

Calabarzon Project Information Sheet

Project Code : R407

Particular	Description
1. PROJECT NAME	Package C: a) Lucsuhin-Biga-Duhatan Road, Calatagan b) Tuy-Lian Road c) Nonong Casto Road, Lemery d) Tapia Road, Tanauan e) Artery Road-M.Pulo-Altura-Cale-Sala-Trapeche-Poblacion, Tanauan
2. LOCATION	a) Calatagan b) Tuy and Lian c) Calatagan d) & e) Tanauan
3. PROPONENT/ IMPLEMENTING AGENCY	Provincial Government of Batangas and Dept. of Public Works and Highways
4. OBJECTIVES	To construct passable roads, increase family income, decongest the flow of traffic and provide easy access to social amenities and health facilities.
5. DESCRIPTION	a) Improvement of 10 kms. Lucsuhin-Biga-Duhatan Road. b) Improvement of 5.20 kms. Tuy and Lian Road. c) Concreting/widening of Nonong Casto Road, Lemery with a total length of only 1 km. d) Improvement of 1 km Tapia Road, Tanauan. e) Improvement/concreting of 12 kms. Artery Road -M.Pulo Altura-Cale-Sala-Trapiche-Poblacion, Tanauan Road.
6. EST'D. PROJECT INVESTMENT REQUIREMENT	a) P 5.0M b) P13.0M c) P 2.5M d) P 1.0M e) P19.2M
7. IMPLEMENTATION SCHEDULE/WORK PLAN	a) 1991 b) 1991 c) 1990 to 1992 d) 1990 e) 1990 and 1991
8. STATUS (As of _____)	Project concept has been formulated. (Project status date not indicated)
9. SOCIO-ECONOMIC & FINANCIAL JUSTIFICATION	not indicated
10. REMARKS	none

(Cont....Batangas)

Calabarzon Project Information Sheet | Project Code : R408

Particular	Description
1. PROJECT NAME	Batangas 3rd District Road Improvement Package
2. LOCATION	1) Tanauan 2) Alitagtag 3) San Nicolas 4) Balete 5) Sta. Teresita 6) Sto. Tomas 7) Talisay 8) Malvar
3. PROPONENT/ IMPLEMENTING AGENCY	Not indicated
4. OBJECTIVES	To provide passable roads, improve transport conditions and increas family income.
5. DESCRIPTIONS	a) Concreting Balele Barangay Road, Tanauan. b) Concreting of Dingin Barangay Road, Alitagtag c) Construction of Pansipit Bridge and approaches in Agoncillo-San Nicolas. d) Construction of Sampalocan Footbridge in Bgy. Sampalocan, Balete. e) Concreting of Plaza Municipal Road, Alitagtag f) Construction of San Gregorio Barangay Road, Malvar. g) Construction of San Nicolas-Sinturisan Taal Road (Calangay-Talang Section), San Nicolas. h) Construction of Bgy. Abalo Rd., San Nicolas. i) Concreting of Irukan-Kalayaan Bgy. Road, Sta. Teresita. j) Concreting of Saimsim Bgy. Rd., Sta. Teresita k) Construction of San Agustin-San Luis Provincial Road, Sto. Tomas. l) Concreting of San Bartolome Provincial Road, Sto. Tomas. m) Cementing of Pantay na Matanda-Pagaspas Bgy. Road, Tanauan. n) Cementing of Altura Matanda Bgy. Rd., Tanauan o) Cementing of Altura South Provincial Road, Tanauan. p) Concreting of Luyos Bgy. Rd., Tanauan. q) Concreting of roadway and construction of drainage system in Barangay Malaking Pulo (Road Nos. 1,2,5 & 7), Tanauan. r) Concreting of roadway and construction of drainage system in Banadero North Barangay Road, Tanauan. s) Concreting of Cale-Bilog-Bilog Bgy., Tanauan. t) Concreting of Tanauan-Talisay Road (Tanauan Section), Tanauan. u) Construction of Tadlac Bgy. Rd., Alitagtag. v) Concreting of Poblacion-Miranda Rd., Talisay. w) Cementing of Pantay na Bata Bgy. Rd., Tanauan

(Cont... Batangas)

Calabarzon Project Information Sheet

Project Code : R408

Particular	Description
6. EST'D. PROJECT INVESTMENT REQUIREMENT	a) not given b) P 1.3M c) P 7.5M d) P 0.5M e) P 0.73M f) P 1.1M g) P 0.5M h) P 0.5M i) P 2.6M j) P 2.6M k) P12.5M l) P 2.0M m) P 2.7M n) not given o) P 1.5M p) not given q) P 1.0M r) P 1.1M s) P 2.7M t) P 7.82M u) P 3.29M v) P 4.74M w) P 2.65M
7. IMPLEMENTATION SCHEDULE/WORK PLAN	not indicated
8. STATUS OF PREPARATION (As of 4/24/90)	Submission of list of infrastructure projects for inclusion in the Philippines Aid Program (Special Development Project) for the third district of Batangas.
9. SOCIO-ECONOMIC & FINANCIAL JUSTIFICATION	not indicated
10. REMARKS	Prepared and submitted by the Office of the Representative of the 3rd District of Batangas, Rep. Lally Laurel-Trinidad (House of Representatives) to the Office of Representative Ramon Bagatsing, Jr.

III.1.4 Road Projects in Rizal

Calabarzon Project Information Sheet | Project Code : R501

Particular	Description
1. PROJECT NAME	San Mateo Bridge Project
2. LOCATION	San Mateo, Rizal to Quezon City across Marikina River.
3. PROPONENT/ IMPLEMENTING AGENCY	Department of Trade and Industry, Board of Investments, Department of Public Works and Highways
4. OBJECTIVES	1) Linkage between San Mateo/Montalban and Quezon city; 2) Decongestion of Marikina road; 3) Access to new industrial areas.
5. DESCRIPTION	The bridge will be a concrete two-lane project connecting San Mateo and Montalban directly to Quezon City. It will span the Marikina River and serve as alternate route for residents of the two towns and city.
6. EST'D. PROJECT INVESTMENT REQUIREMENT	To be determined by feasibility study and detailed engineering designs. Fund Source: Italian ODA, Soft Loan
7. IMPLEMENTATION SCHEDULE/WORK PLAN	To be developed following completion of feasibility study and engineering designs.
8. STATUS OF PREPARATION	Not given
9. SOCIO-ECONOMIC JUSTIFICATION	1) Decongestion of Marikina road from vehicle diversion; 2) Complementation of bridge project with proposed BOI sponsored mini-industrial estate project in Montalban/San Mateo; 3) Encouragement of establishment of other enterprises within bridge vicinity; 4) Increased productivity among new and existing enterprises with new route to Metro Manila market; 5) Increased revenues of local and national governments following increased productivity of new and existing enterprises within San Mateo/Montalban/Quezon City area.
10. REMARKS	Prepared by: Allan P. E. Tolentino (Consultant - FAPS) Office: Board of Investments

(Cont....Rizal)

Calabarzon Project Information Sheet | Project Code : R502

Particular	Description
1. PROJECT TITLE	Laguna de Bay Viaduct Project
2. LOCATION	Calamba to Talim Island
3. PROPONENT/ IMPLEMENTING AGENCY	Department of Trade and Industry, Board of Investments, Department of Public Works and Highways
4. OBJECTIVES	1) Linkage between Calamba and Talim Island; 2) Together with Talim Bridge, a strategic alternate highway for South Superhighway linking Batangas, Laguna, Bicol, and Quezon to Metro Manila, Central and Northern Luzon completely bypassing EDSA.
5. DESCRIPTION	The proposed viaduct will be about 15 km. long. It will link Calamba to Talim Island across Laguna de Bay. The development of the viaduct will provide a strategic highway by-pass and alternate route in the event of closure or congestion of South Superhighway. The Laguna de Bay Viaduct will accommodate the container vans from the Batangas International Port without passing through the already congested EDSA or C-4.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Approximately ₱1.255 billion. A firmer estimate will follow upon completion of the feasibility study & detailed engineering designs.
7. IMPLEMENTATION SCHEDULE/WORK PLAN	To be determined by the feasibility study and engineering designs.
8. STATUS	Not indicated
9. SOCIO-ECONOMIC AND FINANCIAL	1) Linkage of rural productivity centers to Metro Manila; 2) Decongestion of main road arteries of Metro Manila with alternate route for container trucks; 3) Linkage between northern and southern Luzon provinces thereby encouraging establishment of enterprises along the entire route; 4) Increased tax revenues of local and national government following increased productivity of new and existing enterprises along the route.
10. REMARKS	None

(Cont...Rizal)

Calabarzon Project Information Sheet | Project Code : R503

Particular	Description
1. PROJECT TITLE	Talim Bridge Project
2. LOCATION	Talim Island to Binangonan, Rizal province across Laguna de Bay
3. PROPONENT/ IMPLEMENTING AGENCY	Department of Trade and Industry, Board of Investments, Department of Public Works and Highways
4. OBJECTIVES	1) Linkage of Talim Island to Binangonan; 2) With Laguna de Bay Viaduct, a strategic alternate highway route (C-6) will connect Laguna, Batangas, Quezon, and the Bicol province to Rizal, Metro Manila, Central and Northern Luzon provinces but bypassing EDSA.
5. DESCRIPTION	The proposed bridge will be 300 lineal meters connecting Talim Island to Binangonan, Rizal across Laguna de Bay. The bridge will be a steel truss type with two lanes.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Approximately ₱55.0M. Firmer estimate to follow feasibility study and detailed engineering designs. Source: Italian ODA, Soft Loan
7. IMPLEMENTATION SCHEDULE/ WORK PLAN	To be developed by DPWH and DTI following feasibility study and engineering designs.
8. STATUS OF PREPARATION	Not given
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	1) Linkage of rural productivity centers to Metro Manila market; 2) Decongestion of main road arteries of Metro Manila with alternate route for container trucks; 3) Linkage between northern and southern Luzon provinces and encouragement of enterprise establishment along the route; and 4) Increased tax revenues of local and national government following increased productivity of new and existing enterprises along the route.
10. REMARKS	None

(Cont....Rizal)

Calabarzon Project Information Sheet | Project Code : R504

Particular	Description
1. PROJECT TITLE	Widening of Ortigas Avenue
2. LOCATION	Ortigas Avenue (from Rosario to Kay-Tikling)
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To accommodate the ever increasing commuter population due to rapid growth and urbanization in the area.
5. DESCRIPTION	Ortigas Avenue (from Rosario to Kay-Tikling) is a main artery connecting the province of Rizal to Metropolitan Manila. Improvement in the form of road widening is recommended for this purpose.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱67.3 million
7. IMPLEMENTATION SCHEDULE	From 1992 to 1994
8. STATUS OF PREPARATION	a) Project concept has been formulated. b) Project has updated F/S and D/E.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	Present travel hours from Kay-Tikling to Rosario required 2 hours while after improvement this will be reduced to 20-30 minutes.
10. REMARKS	None

(Cont.... Rizal)

Calabarzon Project Information Sheet | Project Code : R505

Particular	Description
1. PROJECT TITLE	Construction of Shaw Blvd. Extention (Mercedes Avenue) to Taytay.
2. LOCATION	Taytay, Rizal, Cainta and Pasig
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To alleviate the traffic congestion along Ortigas Avenue.
5. DESCRIPTION	The road proposal was intended to relieve Ortigas Avenue from vehicles coming from Cainta proper, Taytay, Angono, Binangonan and Cordona, Rizal in going to Metro Manila (7 kms). It will also reduce the travel time of the commuting public.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱336 million.
7. IMPLEMENTATION SCHEDULE	1992-1995
8. STATUS OF PREPARATION	a) Project concept has been formulated b) Project F/S and D/E is currently being undertaken.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	To divert the big volume of traffic passing Metro Manila to take the congested town proper of Taytay, Cainta and Ortigas Avenue.
10. REMARKS	None

(Cont..... Rizal)

Calabarzon Project Information Sheet | Project Code : R506

Particular	Description
1. PROJECT TITLE	Construction of Roads Bosoboso (Antipolo) - San Mateo and Bridge to Batasan Complex.
2. LOCATION	Marcos Highway, Antipolo to San Mateo, Rizal
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	a) To lessen the perennial traffic problem situation in the areas of Cubao, crossing Marcos Highway and QMC; b) To shorten the route from San Mateo going Batasan in Quezon City.
5. DESCRIPTION	This project will start at Marcos Highway in the vicinity of Sitio Bosoboso, Bgy San Isidro, Antipolo to existing farm-to-market road in San Mateo. Pintung Bocaue, Sitio Maarat in Bgy Malanday leading to public market at Bgy. Guitnang Bayan II (7 kms). A reinforced concrete bridge over Marikina River will link San Mateo and Quezon City, one (1) km construction more or less, extension of Kambal Road, improvement (concreting) of existing major road in Quezon City.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱60 million.
7. IMPLEMENTATION SCHEDULE	1993-1995
8. STATUS OF PREPARATION	Updating of F/S and D/E is currently being undertaken.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	The project will be the initial stage in developing the upland of Antipolo and San Mateo which will open up vas agricultural lands into industrial, residential and commercial areas.
10. REMARKS	None

(Cont....Rizal)

Calabarzon Project Information Sheet

Project Code : R507

Particular	Description
1. PROJECT TITLE	Construction of Manggahan-Longos Bridge in Pasig (300 meters)
2. LOCATION	Barangay Manggahan, Pasig, Metro Manila
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To decongest the Rosario area from vehicles coming from Quezon City and Metro Manila going to Rizal province.
5. DESCRIPTION	The project necessitates the construction of the concrete bridge that will cross Marikina River which will connect E. Rodriguez Ave. to the by-pass road of Manggahan Floodway going to Ortigas Avenue without passing the congested area of Rosario, Pasig.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱50 million.
7. IMPLEMENTATION SCHEDULE	1994-1996
8. STATUS OF PREPARATION	F/S and D/E currently being undertaken.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	Transport facilities coming from the area of Quezon City going to Rizal has a better alternative route if Rosario area is congested whether they are plying to Ortigas Ave. or Marcos Highway.
10. REMARKS	None

(Cont....Rizal)

Calabarzon Project Information Sheet

Project Code : R508

Particular	Description
1. PROJECT TITLE	Construction of Fairview-Montalban Road (12 kms)
2. LOCATION	Quezon City and Montalban, Rizal
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To open up direct access from Quezon City to Montalban, Rizal without traversing the congeste areas of Marikina and San Mateo.
5. DESCRIPTION	This project will traverse lowland and upland agricultural areas of Quezon City and Montalban, roads which will connect the existing road network of Fairview area. Provision for the construction of the bridge is necessary.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱80 million.
7. IMPLEMENTATION SCHEDULE	1993-1995
8. STATUS OF PREPARATION	1) Project concept has been formulated. 2) F/S and D/E are currently being undertaken.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	In the realization of this project, travel time from Fairview area to Montalban will be reduced from 2 1/2 hours to about 20-30 minutes.
10. REMARKS	Right-of-way still has to be acquired.

(Cont....Rizal)

Calabarzon Project Information Sheet

Project Code : R509

Particular	Description
1. PROJECT TITLE	Opening of Mababang Parang-Gupiing-Pilapila, Limbon-Limbon t Tapao Point
2. LOCATION	Binangonan, Rizal
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To develop access road that ill lead to the proposed construction of bridge that will connect the Talim Island to the mainland.
5. DESCRIPTION	Construction of 9km access road that will lead to the proposed construction of bridge from Tapao Point in the mainland to Talim Island. This will include acquisition of road righ-of-way and widening of existing routes.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱45 million.
7. IMPLEMENTATION SCHEDULE	1992-1995
8. STATUS OF PREPARATION	F/S to be undertaken in 1991.
9. SOCIO-ECONOMIC AND FINANCIAL	Reduce travel time by half and provide better opportunities to farmers and traders.
10. REMARKS	Right-of-way still has to be acquired.

(Cont....Rizal)

Calabarzon Project Information Sheet

Project Code : R510

Particular	Description
1. PROJECT TITLE	Antipolo-Angono-Darangan Road
2. LOCATION	Antipolo. Angono and Binangonan
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	a) To shorten the travel time from Antipolo to Binangonan and vice-versa. b) To open more space for development and investment
5. DESCRIPTION	The road will traverse existing routes in Darangan and the construction of new road that will connect it from Angono to Yupangco in Antipolo. It will involve the construction of 4.0 km more or less of new road.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱20 million.
7. IMPLEMENTATION SCHEDULE	1992-1995
8. STATUS OF PREPARATION	F/S and D/E to be undertaken in 1991.
9. SOCIO-ECONOMIC AND FINANCIAL	The area traversed by their route is very much ideal for industrial and commercial uses.
10. REMARKS	None

(Cont....Rizal)

Calabarzon Project Information Sheet

Project Code : R511

Particular	Description
1. PROJECT TITLE	Macamot, Binangonan to Bombongan, Morong
2. LOCATION	Morong-Binangonan, Rizal
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To facilitate mobility of the people of Bombongan and surrounding barangays to various parts of Binangonan by avoiding the route to Cordona.
5. DESCRIPTION	Construction of new road that will directly link Bombongan, Morong to Barangay Macamot and various parts of Binangonan. It will involve some 5.00 km of road construction.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱25 million.
7. IMPLEMENTATION SCHEDULE	1992-1995
8. STATUS OF PREPARATION	F/S to be undertaken in 1991.
9. SOCIO-ECONOMIC AND FINANCIAL	Reduce travel time by 30 minutes and open up space for agricultural and commercial production.
10. REMARKS	Right-of-way still has to be acquired.

(Cont..... Rizal)

Calabarzon Project Information Sheet

Project Code : R512

Particular	Description
1. PROJECT TITLE	Construction of Road leading to Bgy. Ticulio and Circumferential Road in Talim Island; 9 km and 60 km, respectively.
2. LOCATION	Binangonan and Cordona, Rizal
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	a) To tap the dvelopment potentials on tourism and agriculture of Talim Island. b) To give its residents direct access to all barangays of Talim Island with land transportation.
5. DESCRIPTION	The existing road network connecting all barangays will be widened to accommodate two-way traffic since the present condition of the road is good only for light vehicles and pedestrian traffic only.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱207 million
7. IMPLEMENTATION SCHEDULE	1993-1996
8. STATUS OF PREPARATION	Project F/S and D/E is currently being undertaken.
9. SOCIO-ECONOMIC AND FINANCIAL	Accessibility to the area of Talim Isalnd at present is by means of motorized banca which are on limited schedule of trips/day, thereby affecting the daily living condition of the people. If this project materializes, the residents can go to the town proper anytime.
10. REMARKS	Acquisition of right-of-way for widening is necessary.

III.1.5 Road Projects in Quezon

Calabarzon Project Information Sheet

Project Code :R601

Particular	Description
1. PROJECT TITLE	Quezon Canal
2. LOCATION	Atimonan to Unisan
3. PROPONENT/ IMPLEMENTING AGENCY	Provincial Governor's Office/Office of the Provincial Planning Development Coordinator
4. OBJECTIVE	1. Provide a by-pass for ocean vessels coming from the eastern side of Luzon to Manila and the China Sea. 2. Increase the volume of inter-island shipping and trade between coastal towns. 3. Generate employment activities.
5. DESCRIPTION	The physical characteristics of the canal are as follows: 1. Length - 17 kms. 2. Width - 100 meters 3. Depth - 12 meters 4. Width of canal zone - 4 kms.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	No given.
7. IMPLEMENTATION SCHEDULE	
8. STATUS OF PREPARATION	Feasibility Study
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	1. Increase the volume of inter-island shipping and trade between coastal towns. 2. Generate employment activities.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R602

Particular	Description
1. PROJECT TITLE	Circumferential Road (Lucena-Tayabas-Lucban-Sampaloc-Mauban-Mainit Loop Road)
2. LOCATION	Quezon Province
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ provincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Construction/improvement of 60 kms. of road along the sections of Tayabas-Lucban-Sampaloc-Mauban. The construction/improvement level of the project is 6.10 carriageway with 0.23 meter thickness of Portlamd Cement Concrete Pavement (PCCP) and 1.5 meters gravel shoulder on each side. Also under this project is the construction of 3 RCDG bridge and box culverts.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 251.289
7. IMPLEMENTATION SCHEDULE	1992-1995
8. STATUS OF PREPARATION	F/S completed under NRIP of 5th UNDP Road F/S; Detailed engineering programmed under 3rd ADB Road Improvement Project Loan
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R603

Particular	Description
1. PROJECT TITLE	Atimonan-Mauban-Real-Infanta Coastal Road Project
2. LOCATION	Quezon Province
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ provincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Under this coastal road project is the construction/improvement of about 100 kms. of road along the coastal section of Atimonan, Mauban, Tignoan and Real.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 300.00 million
7. IMPLEMENTATION SCHEDULE	F/S on-going/for completion in 1990.
8. STATUS OF PREPARATION	
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R604

Particular	Description
1. PROJECT TITLE	Calamba-Calauag Road (Rehabilitation Project)
2. LOCATION	Laguna, Batangas and Quezon
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ provincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Under this project is the rehabilitation of the Manila-South Road (Maharlika H-way) from Calamba to Calauag which involves: a) construction and widening of 2-lane along Calamba-Sto. Tomas; b) rehabilitation of road from Sto. Tomas-San Pablo City; c) rehabilitation of road sections from San Pablo-Pagbilao-Calauag; and d) construction and rehabilitation of 9-RCDG bridges and drainage facilities along sections from Calamba-Calauag.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 304.82 million
7. IMPLEMENTATION SCHEDULE	1991-1994
8. STATUS OF PREPARATION	Detailed Engineering Design completed; Pre-qualification of contractors for project construction in process under DPWH-PMO.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	
10. REMARKS	OECF-assisted project

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R605

Particular	Description
1. PROJECT TITLE	Jct. Pitogo-Mulanay-San Narciso Road
2. LOCATION	Pitogo; Mulanay; San Narciso; Bondoc Peninsula
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ provincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Construction/improvement into asphalt-cement of 56 kms. road and construction of 4 RCDG permanent bridges namely: a) Daniwdiw bridge; b) Nasimbahan bridge; c) Poras bridge; and d) Sabit bridge.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 140.0 million
7. IMPLEMENTATION SCHEDULE	1991-1994
8. STATUS OF PREPARATION	Detailed Engineering Design scheduled for completion by the end of 1990;
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	
10. REMARKS	Locally-funded under DPWH 1990-94 MTIP

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R606

Particular	Description
1. PROJECT TITLE	Famy-Real-Infanta Road
2. LOCATION	Famy, Laguna; Real and Infanta, Quezon
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ provincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	A total of 58.5 kms. of road will be constructed along Famy, Real and Infanta section, including 6.1 meters of concrete carriageway of 0.23 meters thickness and 1.0 meter gravel shoulder on both sides.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 417.0 million
7. IMPLEMENTATION SCHEDULE	1992-1993
8. STATUS OF PREPARATION	F/S completed and approved under the 5th ADB Assisted Road Improvement Project.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R607

Particular	Description
1. PROJECT TITLE	Marikina-Infanta Road Project
2. LOCATION	Rizal; Laguna and Quezon
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ provincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Construction/improvement of 133 kms. of roads which will start from Marikina-Cogeo-Boso-Boso in Rizal, traverse the rugged Sierra Madre Mt. and terminate in Infanta, Quezon. Carriageway level will be at 6.70 meters (0.23 meter thick) and gravel shoulders on each side at 1.5 meters. The project will be accomplished in 2 phases: Phase I : Sumulong-Camp Capinpin Section (Rizal) - 36.86 kms Phase II: Camp Capinpin-Infanta Section (Laguna & Quezon) - 96.04 kms.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 676.106 million
7. IMPLEMENTATION SCHEDULE	1992-1995
8. STATUS OF PREPARATION	F/S completed.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R608

Particular	Description
1. PROJECT TITLE	Quirino Highway Road Project (Tabugon-Tagkawayan-Camarines Sur Bdry.)
2. LOCATION	Quezon Province
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ provincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	This road project is included in the DPWH 1990-1994 Medium Term Public Investment Program and is currently funded under the US-Assisted Rural Infrastructure Fund Project (RIFP).
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 298.877 million
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Construction is on-going.
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code:R609

Particular	Description
1. PROJECT TITLE	First Congressional District Road Package A: Concreting of National Roads 1. Lucban-Tayabas Rd. 2. Lucban-Luisiana Rd. 3. Lucban-Sampaloc Rd. 4. Lucban-Majayjay Rd. 5. Lucba-Tayabas-Lucban-Mauban Port Rd. 6. Mauban-Mainit-Tayabas Rd. 7. Pagbilao-Tayabas Rd. 8. Sampaloc-Lucban Port Rd. 9. Lucban-Mauban Port Rd. 10. Quezon Avenue
2. LOCATION	Lucban, Mauban, Pagbilao, and Burdeos.
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH; LGU; DLG
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	This package will cover concreting of national roads with the following measurement (length): 1) not given 2) not given 3) not given 4) not given 5) 12 kms. 6) 15 kms. 7) 3 kms. 8) 16 kms. 9) 11 kms. 10) 0.8 km.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 11.0 2) 11.0 3) 16.0 4) 10.0 5) 12.0 6) 15.0 7) 4.5 8) 24.0 9) 16.4 10) 1.5
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (First Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrated agricultural development program; d) increase Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code:R610

Particular	Description
1. PROJECT TITLE	First Congressional District Road Package B: Concreting/Construction of Provincial Roads 1) Burdeos-Polillo Rd. 8) Tignoan-Mauban 2) Mauban-Tignoan Rd. 9) Kinaluman-Kisusuyo Rd. 3) Tongohin Prov'l Rd. 10) Km. 14-Tipuan Rd. 4) Ingas-Roboin Rd 11) Cawayan-Waterfall Rd. 5) Mauban-Tignoan 12) Malapad-Pinamaytuan Rd. 6) Mauban-Atimonan 13) Lubayat-Sto. Buho Rd. 7) Mauban-Cavinti
2. LOCATION	Burdeos; Mauban; Infanta; Mauban and Real
3. PROPONENT/ IMPLEMENTING AGENCY	*DPWH; DLG*
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures.
5. DESCRIPTION	This particular package will cover concreting and construction of provincial roads of the following lengths: 1) 18 kms. 5) 80 kms. 9) 4 kms. 13) 11 kms. 2) 30 kms 6) 15 kms. 10) 2 kms. 3) 2.8 kms. 7) 30 kms. 11) 1 km. 4) 1.0 km. 8) 2 kms. 12) 0.30 km.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 10.0 5) 50.0 9) 1.0 13) 0.25 2) 45.0 6) 15.0 10) 0.50 3) 0.70 7) 30.0 11) 0.25 4) 0.25 8) 0.50 12) 0.12
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (First Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrated agricultural development program; d) increase Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code:R611

Particular	Description
1. PROJECT TITLE	First Congressional District Road Package C Concreting of Municipality Streets 1. Poblacion-Sabang Port Road 2. Municipal Streets
2. LOCATION	Burdeos
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	This particular package will cover concreting of provincial roads in Burdeos.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 1.0 2) 2.5
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (First Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrated agricultural development program; d) increase Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code:R612

Particular	Description
1. PROJECT TITLE	First Congressional District Road Package D: Construction of Barangay Roads 1. Coastal B/R along Tourism Dist. (Boboin-Dinahican) 2. Restoration of Infanta-Dinahican Rd. 3. Restoration of Infanta-Real Boundary Rd. * 4. Poblacion-S. Tapul * 5. S. Tapul-Poblacion * 6. Poblacion-S. Sangil * 7. S. Sangil-Poblacion * 8. Poblacion-S. Gatmon * 9. S. Gatmon-Poblacion *10. Main Luod-S. Sinintan *11. S. Sinintan-Main Luod * Farm to market road.
2. LOCATION	Infanta and Patnanungan
3. IMPLEMENTING AGENCY	DPWH; LGU
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures.
5. DESCRIPTION	This particular package will cover concreting of provincial roads with the following lengths: 1) 12 kms. 4) 3 kms. 7) 3 kms. 10) 3 kms. 2) 12 kms. 5) 3 kms. 8) 3 kms. 11) 3 kms. 3) 9 kms. 6) 3 kms. 9) 3 kms.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 3.0 4) 0.15 7) 0.15 10) 0.30 2) 8.0 5) 0.30 8) 0.30 11) 0.30 3) 5.5 6) 0.30 9) 0.30
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (First Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrated agricultural development program; d) increase Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code :R613

Particular	Description
1. PROJECT TITLE	Second Congressional District Road Package A: Concreting of National Roads 1. Dolores-Tiaong Rd 2. Dolores-San Pablo Rd 3. National Road in San Antonio 4. Tiaong-San Antonio 5. Paiisa-Cabay-del Rosario
2. LOCATION	Tiaong; Dolores; and San Antonio
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH; LGU
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Concreting of national roads with the following lenght: 1) 6 kms. 2) 2.5 kms. 3) 11.7 kms. 4) not given 5) not given
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 12.6 4) 5.0 2) 5.25 5) 6.0 3) 28.0
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Second Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increased employment and productivity; c) redirected/integrated agricultural development program; d) increased Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code:R614

Particular	Description
1. PROJECT TITLE	Second Congressional District Road Package B: Concreting of Poblacion Provincial Road
2. LOCATION	Agdangan
3. PROPONENT/ IMPLEMENTING AGENCY	PHO
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Under this package is the concreting of the poblacion provincial road in Agdangan.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	₱ 1.3 Million
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Second Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increased employment and productivity; c) redirected/integrated agricultural development program; d) increased Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code:R615

Particular	Description
1. PROJECT TITLE	First Congressional District Road Package C: Construction of Barangay Roads 1) Dolores Municipal Road 2) San Antonio Municipal Road 3) Tiaong Municipal Road
2. LOCATION	Dolores; San Antonio; and Tiaong
3. PROPONENT/ IMPLEMENTING AGENCY	NALGU; LGU
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	This particular package will cover concreting of several municipal roads of the following lenghts: 1) not given 2) 5.7 kms. 3) not given
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 0.50 1) 4.50 2) 10.0
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Second Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increased employment and productivity; c) redirected/integrated agricultural development program; d) increased Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R616

Particular	Description
1. PROJECT TITLE	Third Congressional District Road Package A: Construction/Concreting of Provincial Roads 1) Gen. Luna Prov'l Rd. 2) Buenavista-Guinayangan 3) S. Francisco Div. Rd. 4) Poblacion Prov'l Rd. 5) Poblacion-B. Silang Prov'l Road 6) B. Silang-Batabat N. 7) Batabat Norte-Magallanes-Lopez 8) Macalelon Jct. Rd. 9) Poctol Cros.Prov. Rd 10) S.Francisco Prov. Rd 11) Poblacion-Panaon-Socorro
2. LOCATION	Agdanag; Buenavista; Macalelon; Pitogo, Unisan and San Francisco.
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH; PEO
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Following are the provincial roads covered by the project and their correnssponding lengths: 1) 0.5 kms. 2) 30 kms. 3) 4 kms. 4) 0.9 km. 5) 4 kms. 6) 5 kms. 7) 5 kms. 8) 0.35 km. 9) 4 kms. 10) 2 kms. 11) 16 kms.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 0.20 2) 45.0 3) 1.5 4) 1.3 5) 12.0 6) 15.0 7) 15.0 8) 0.8 9) 6.0 10) 3.0 11) 28.0
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Third Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provincial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrate agricultural development d) increase Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code:R617

Particular	Description
1. PROJECT TITLE	Third Congressional District Road Package B: Construction/Concreting of Barangay Roads 1) Pagsanjan B/R 2) Casay B/R 3) Don Juan Vercelos-Nasalaan 4) San Roque-San Pablo-Doongan Ilaya 5) Nieva-Recto-Ilaya 6) Casay-Nasalaan
2. LOCATION	San Francisco; Catanauan; and General Luna
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH;
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Roads to be constructed/concreted have the following measured lenghts: 1) 8 kms. 4) 10 kms. 2) 8 kms. 5) 19 kms. 3) 26 kms. 6) 35 kms.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated Costs in ₱ million 1) 10 4) 10 2) 10 5) 8 3) 20 6) 7
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Second Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provicial infrastructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrate agricultural development; d) increase Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R618

Particular	Description
1. PROJECT TITLE	Fourth Congressional District Road Package A: Construction/Concreting of National Roads 1) National Road 2) Guinayangan-Buenavista Rd. 3) Repair of National Rd.
2. LOCATION	Lopea; Alabat; Guinayangan; and Plaridel
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Roads covered and their corresponding measured lenghts: 1) 72 kms. 2) 24 kms. 3) not given
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 127.0 2) 27.0 3) 2.5
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Fourth Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provicial infrstructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirecte/integrate agricultural development d) increase Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet

Project Code :R619

Particular	Description
1. PROJECT TITLE	Fourth Congressional District Road Package B: Construction/Concreting of Provincial Roads 1) Atimonan-Mauban Rd. 2) Guinto Bldv. Provincial Rd. 3) Summit-Talaba Provincial Rd. 4) Guinayangan-Sumulong Provincial Rd. 5) Gapas-Aloneros Provincial Rd.
2. LOCATION	Atimonan and Guinayangan
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Following are the provincial roads covered by the project and their corrensponding lengths: 1) not given 2) 0.96 kms. 3) not given 4) 14 kms. 5) 4.5 kms.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated cost in ₱ Million: 1) 24.0 4) 5.0 2) 5.0 5) 3.5 3) 10.0
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Fourth Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provicial infrstructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrate agricultural development d) increase Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

(Cont...Quezon)

Calabarzon Project Information Sheet | Project Code:R620

Particular	Description
1. PROJECT TITLE	Fourth Congressional District Road Package C: Construction/Concreting of Barangay Roads 1) Poblacion-Magibay Rd. 2) San Isidro-Manato Sation (via Mangayao) 3) Lopez Barangay Roads
2. LOCATION	Tagkawayan and Lopez
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH;
4. OBJECTIVE	To further improve and extend the national/ povincial/municipal network roads along with other infrastructures and social overhead facilities in order to spur better agricultural production, facilitate industrial expansion, and promote livelihood opportunities.
5. DESCRIPTION	Roads to be constructed/concreted have the following measured lenghts: 1) 16.9 kms. 2) 12.9 kms. 3) 103.8 kms.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Estimated Costs in ₱ million 1) 4.2 2) 3.2 3) 101.3
7. IMPLEMENTATION SCHEDULE	1990-1994
8. STATUS OF PREPARATION	Included in the 1990-1994 Local Development Investment Plan (Fourth Congressional District)
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	As part of the provicial infrstructure program these road projects are directed towards achieving the following socio-economic goals within the next 10 years: a) generate enterprise development; b) increase employment and productivity; c) redirect/integrate agricultural development d) increase Gross Provincial Value Added; and e) alleviate poverty affecting 80% of the area's population.
10. REMARKS	

III.2 Profile of CALABARZON Anchor Projects for Transport Sector

Sector	Project Name/Description	Total Cost (P million)	Agency/Status
Road	R001: Calamba-Sto. Tomas Expressway Extension: 8 Km, new construction of extension of South Superhighway	not given	DPWH/ Detailed Design completed, OECF special rehab'loan
	R002: Sto. Tomas-Batangas Expressway Extension 45 km, new construction a) Sto. Tomas-Lipa: 21 km b) Lipa-Batangas: 24 km	3,000	DPWH a) 16th OECF loan b) 17th OECF loan
	R003: Carmona-Ternate-Nasugbu Road (92 km upgrading) a) Ternate-Nasugbu: 43 km b) Gen. Trias-Rosario Road: 22.6 km c) Trece Martires-Ternate: 26.4 km	357.8	DPWH, 15th OECF loan/Construction 1990-91
	R004: Gen. Trias-Rosario Road(21 km upgrading) a) Mabatang-Rosario: 10 km b) Binakayan-Noveleta, Rosario: 5 km	not given	DPWH/Detailed Design ongoing
	R005: Cavite Coastal Road: 10.5 km., new constructiion of road as part of the reclamation project on concession basis, toll road to be operated by PEA	not given	DPWH & PEA/ under tender
	R006: Marikina-Infanta Road	not given	DPWH
Rail	RL001: Rehabilitation of PNR South Commuter Line: intends to increase transport capacity for commuter to 50,000 a year by rehabilitating the facilities.	not given	PNR: Construction of maintenance depot is ongoing under 15th OECF. The project is committed under 17th OECF.
	RL002: Manila Batangas PNR Line Extension: intends to reconstruct a branchline from MLS to Batangas for passenger and goods transport.	not given	PNR: Pre F/S completed.
Port	P001: Batangas Port Development: intends to develop Batangas port as a primary port alternative to Manila port.	not given	PPA: Phase I development project ongoing under 15th OECF.

Calabarzon Project Information Sheet

Project Code : R001

Particular	Description
1. PROJECT TITLE	Calamba-Sto. Tomas Expressway Extension
2. LOCATION	Laguna and Batangas
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the road network in order spur agricultural production, facilitate industrial development and promote livelihood opportunities.
5. DESCRIPTION	New construction for the extension of South Superhighway.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Not indicated
7. IMPLEMENTATION SCHEDULE	Not indicated
8. STATUS OF PREPARATION	Detailed design completed, OECF special rehabilitation loan
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	Not indicated
10. REMARKS	None

Calabarzon Project Information Sheet

Project Code : R002

Particular	Description
1. PROJECT TITLE	Sto. Tomas-Batangas Expressway Extension
2. LOCATION	Batangas
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To further improve and extend the road network in order to spur agricultural production, facilitate industrial development and promote livelihood opportunities.
5. DESCRIPTION	a) Sto. Tomas-Lipa: 21 km, Batangas b) Lipa-Batangas: 24 km, Batangas new construction of roads.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	a) 16th OECF loan b) 17th OECF loan Total of P 3,000M
7. IMPLEMENTATION SCHEDULE	Not indicated
8. STATUS OF PREPARATION	Not indicated
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	Not indicated
10. REMARKS	None

Calabarzon Project Information Sheet

Project Code : R003

Particular	Description
1. PROJECT TITLE	Carmona-Ternate-Nasugbu Road
2. LOCATION	Cavite and Batangas
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH, 15th OECF loan
4. OBJECTIVE	To improve present road network
5. DESCRIPTION	Upgrading of the following road sections: a) Gen. Trias-Rosario Road: 22.6 km b) Trece Martires-Ternate: 24 km c) Ternate-Nasugbu: 43 km
6. EST'D PROJECT INVESTMENT REQUIREMENTS	P 357.8M
7. IMPLEMENTATION SCHEDULE	1990 - 1991
8. STATUS OF PREPARATION	Construction 1990 - 1991
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	Not indicated
10. REMARKS	None

Calabarzon Project Information Sheet | Project Code : R004

Particular	Description
1. PROJECT TITLE	Gen. Trias-Rosario Road
2. LOCATION	Cavite
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	To upgrade and improve existing roads
5. DESCRIPTION	Upgradin of the following roads: a) Mabatang-Rosario: 10 km b) Binakayan-Noveleta, Rosario: 5 km
6. EST'D PROJECT INVESTMENT REQUIREMENTS	not given
7. IMPLEMENTATION SCHEDULE	not indicated
8. STATUS OF PREPARATION	Detailed design ongoing
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	not stated
10. REMARKS	none

Calabarzon Project Information Sheet

Project Code : R005

Particular	Description
1. PROJECT TITLE	Cavite Coastal Road
2. LOCATION	Cavite
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH and PEO
4. OBJECTIVE	Creation of passable roads and extend road networks.
5. DESCRIPTION	New construction of road as part of the reclamation project on concession basis, toll road to be operated by PEO.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	not given
7. IMPLEMENTATION SCHEDULE	not indicated
8. STATUS OF PREPARATION	Under tender
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	not indicated
10. REMARKS	none

Calabarzon Project Information Sheet | Project Code : R006

Particular	Description
1. PROJECT TITLE	Marikina-Infanta Road
2. LOCATION	Marikina, Rizal/Infanta, Quezon
3. PROPONENT/ IMPLEMENTING AGENCY	DPWH
4. OBJECTIVE	Creation of passable roads to spur increase in agricultural production
5. DESCRIPTION	This is a developmental road that will serve the development of Quezon Province as an important agricultural resource base. All will provide access to potential agricultural areas and serve as market linkage of the eastern coast to the Metro Manila Area. It has an approx. length of 103 km. About 40 km is in Rizal.
6. EST'D PROJECT INVESTMENT REQUIREMENTS	Not given
7. IMPLEMENTATION SCHEDULE	Not given
8. STATUS OF PREPARATION	Not given
9. SOCIO-ECONOMIC AND FINANCIAL JUSTIFICATION	Not given
10. REMARKS	none