

2-3-3 Basic Plan

(1) Site and Layout Plan

As the site conditions vary from school to school, the most adequate layout plan for each Project school shall be prepared after examining the school site configuration, infrastructure development conditions and the existing building arrangement.

The main layout-plan policies are as follows:

- 1) The arrangement of existing school facilities must be taken into consideration and the new buildings shall be arranged to match them.
- 2) A new building shall be arranged on flat land if possible. Dipped areas are to be avoided in view of the structural safety of the building foundation.
- 3) By considering the prevailing wind directions and thereby utilize natural ventilation to the maximum extent, a new building shall be arranged far enough away from existing ones to allow wind gusts to pass between.
- 4) A location that is liable to be damaged during typhoons or floods should be avoided.
- 5) A new building shall be arranged so as not to adversely affect existing facilities. The building shall be arranged to allow for the economical and easy installation of water supply, drainage facilities and electrical supply lines. Especially where there is no water supply, the location of the toilet and science laboratory should be carefully reconsidered with regard to the location of the well to be drilled by the Philippine side.
- 6) Toilets and science laboratories should be arranged independently away from the classroom buildings. Their arrangement should be made by taking into consideration the movement routes between them and existing facilities. Also, toilet locations should be decided upon by first giving careful consideration to the surrounding environment, such as odor problems.

- 7) Except for those schools having space limitations, classroom buildings should be arranged in an east-west direction in view of the country's climatic conditions.

(2) Architectural Plan

The architectural plan for the Project should basically be the same as those used in the Phase I and Phase II Projects. However, based on the results of discussions with DECS, the following modifications provide improvements to those plans:

- 1) Other than plywood, it is very difficult to procure lumber in the Philippines. Therefore, doors, furniture, and window frames should be steel or plastic products even though wooden products were adopted in the Phase I and Phase II Projects.
- 2) Although two-story classroom buildings were built for the Phase I and Phase II Projects, flat classroom buildings should be adopted for this Project to reduce per school construction costs and provide classrooms for as many schools as possible.
- 3) Window grills should be made of round steel bars instead of rectangular bars to reduce cost.
- 4) Non-lock type door knobs should be adopted; cylinder locks should be used.
- 5) The size of the closets for students will be changed for the purpose of easy handling.

A. Floor Plan

For the Project, the adopted room sizes were 8m x 7m for classrooms and 8m x 10.5 m for science laboratories. The minimum size of the module unit was 8m x 3.5 m (two units for classrooms and 3 units for science laboratories).

By arranging the concrete columns on the outer walls, the classroom will be rectangular in shape with no protrusions, allowing easy arrangement of furniture.

For multipurpose use classrooms will have movable partitions (walls). The science laboratories will have work counters below the windows and five sinks. For secondary schools, science laboratories and toilets will be located next to each other. The water to the laboratory will be supplied by the cistern for the toilet.

To be prepared for wet seasons, a 1.5 m wide outer corridor will be built on each facility. A slope and a special toilet will be set up for physically handicapped people.

Table 2-15 shows the comparison of project facility features to those having Philippine standards.

Table 2-15 Comparison of Project Facility Features to Those Having Philippine Standards

Structure	Type	Year Constructed	Size/Clrm. (mXm)
Wood/Timer	Gabalton Type	1910	7.00x9.00
	Army Type	1950 to 1960	6.00x7.00
	Magsaysay Type	1950	6.00x7.00
Steel	Marcos Pre-Pab.	early 1970's	6.00x7.00
	Typhoon Resistant Schoolbuilding Project I - V	1989 to 1994	6.75x8.00
	FVR Type	1993	7.00x8.00
	Demountable Schoolbuilding	1994 to 1995	7.00x8.00
Concrete	R.P./U.S. Bayanihan (funded by USAID)	1973	6.00x7.35
	Bagong Lipunan Type I - III	1970 to 1984	6.00x8.00
	Imelda Type	1983	6.00x8.00
	BSF (funded by USAID)	1982	6.00x8.00
	Pagcor/PMS (President's Social Fund)	1988 to present	6.00x8.00
	SEDP (funded by ADB)	1988 to 1995	7.20x8.00
	LGIF (Local Government Infrastructure Fund)	1994 (planning)	7.00x8.00
	The Project for the Improvement of Educational Facilities (Phase I, II)	1993 to 1994	7.00x8.00
	The Project for the Improvement of Educational Facilities (Phase III)	1995	7.00x8.00

B. Section Plan

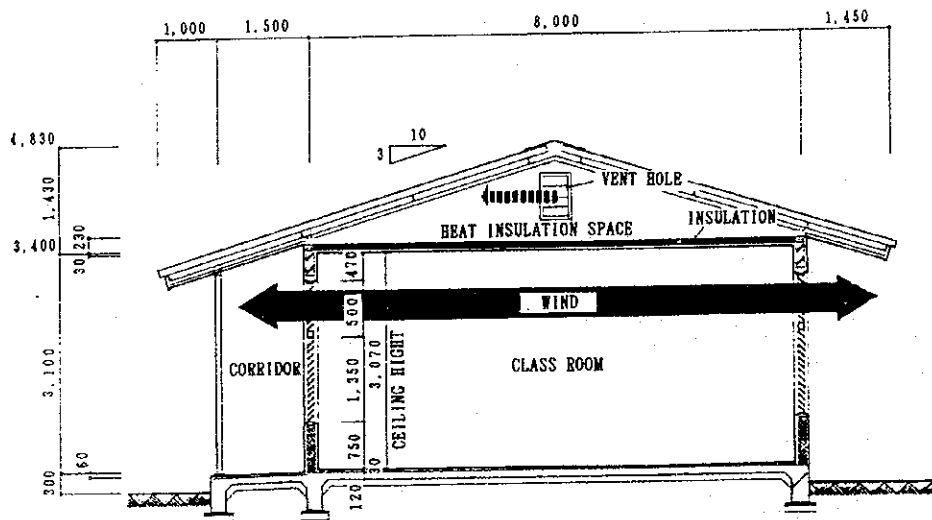
As the Philippines is located in the tropical climate zone, the section plan was prepared so that classroom activities could be conducted comfortably. An air vent will be installed in the loft to ease temperature rises.

Insulation will be installed to prevent heat from being transmitted into the classroom. Large windows will be provided to allow natural ventilation.

Eave lengths were examined from the viewpoint of intercepting direct sunshine, rain and wind. As a result, it was decided to have eave lengths of 2.5 m (1.5 m from the building walls to the center of the corridor columns and 1.00 m to the tip of the eaves). On the other side of the building, the eaves are to be 1.45 m. Considering the heat in the classrooms, the ceiling height will be 3.07 m.

The standard section is shown in Figure 2-2. To allow odors to escape from the toilets, ventilation blocks will be installed in the walls.

Fig. 2-2 Standard Section of Project Buildings



C. Structure Plan

1. Construction Method:

The structures will be built employing Philippine construction methods and will have reinforced-concrete columns and beams with trussed roofs. Local construction materials are not of uniform quality and the working conditions of the laborers in the Philippines are different from those in Japan. Thus, the structure plan shall allow for these factors.

2. Design Loads and External Forces

As a general principle the design loads stipulated by the National Structural Code of the Philippines will be adopted for designing Project facilities. The Code divides the entire country into three zones according to the frequency of typhoons and wind speeds for designing structures against wind forces.

Most of the Project schools are in Zone 2 ($p=30$ psf). The few remaining schools are in Zone 3 ($p=20$ psf). However, the locations of these few schools are close to Zone 2. Further, the boundary between Zone 2 and Zone 3 is not clear. Thus, the wind load in Zone 2 will apply for designing Project facilities.

Following design loads were used for the structure design:

(1) Live Loads	Roofs:	61.2 kg/m ²	(600 pa)
	Classroom Floors:	204.1 kg/m ²	(2,000 pa)
	Corridor Floors:	490.0 kg/m ²	(4,800 pa)

(2) Wind Loads

$$P=C_e \cdot C_g \cdot g_s$$

Where P = wind load per square meter

C_e = coefficient of height

C_g = wind force coefficient

g_s = wind speed at the building location

(3) Seismic Force

$$V = Z \cdot I \cdot C / R_w$$

Where $Z = 0.4$ (area coefficient)

3. Building Structure Plan

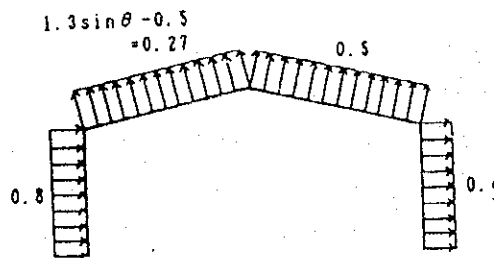
Vertical forces, such as fixed loads and uplift forces of wind, should be taken by the 8 m span steel frame truss and reinforced concrete columns and beams. Horizontal forces, such as wind loads and seismic forces in the building's longitudinal direction should be taken by the rigidity of the reinforced concrete foundations and columns. Horizontal forces in the buildings' cross sectional direction should be taken by the rigidity of the reinforced concrete columns and frame structure.

At each Project school site simple penetration tests were conducted during the site survey to determine the bearing strength of the ground. The requested schools that had ground bearing strengths of less than 8 tons/m² were deleted from the list of Project schools. Thus, building structure design will be made on the bearing strength of 75 KN/m² (7.35 tons/m²).

Although some school sites have soil layers weaker than 8 tons/m² which are underlaid by more than 8 tons/m² at a depth of 1.5 to 2.0 m below ground surface, building structure design will be made based on the bearing strength of 8 ton/m² because the ground will be reinforced by placing rappel concrete.

Wind force coefficients for building design are as shown in Figure 2-3.

Figure 2-3 Wind Force Coefficients



4. Structure Member Material

Two types of materials, wood and steel frames, can be used for the roof's steel frame trusses. As lumber products are difficult to procure in the Philippines, it was decided upon to adopt steel frames. The most commonly used equal angle section bars will be used.

As the quality of reinforcing bars and concrete may differ according to the region, quality control must be carefully conducted.

Materials to be used for the Project must have the following strengths:

- a) Concrete: $F_c = 180 \text{ Kg/cm}^2$ 2,500 PSI
- b) Reinforcing Bars: $F_y = 2,376 \text{ Kg/cm}^2$ 33,000 PSI
- c) Steel Frames: $F_y = 2,592 \text{ Kg/cm}^2$ 36,000 PSI

D. Facility Plan

(1) Electrical Facility Plan:

Project schoolbuildings will not only be used for ordinary classroom activities but also for non-formal education and as meeting places for area residents. It is assumed that the schoolbuildings will also be used at night time. Thus, electrical facilities are planned to be installed in all Project schoolbuildings. All materials for the electrical facilities will be procured in the Philippines. The installation of lighting fixtures, outlets, and ceiling fan receptacles is planned.

Electrical wiring and switches for ceiling fans is planned under the Project by taking into consideration the Philippine side's plan for future ceiling fans installation.

Electricity is not supplied to some of the Project schools. However, electrical conduits will be installed to those schools for future electricity supplies.

The number of fluorescent lighting fixtures, outlets for ceiling fans, switches, and outlets per room are shown in Table 2-16. The lighting and outlet wiring diagram are shown in Fig. 2-4.

Table 2-16 The Designed Number of Electrical Appliance, Outlet and Switches per Room

Type of Room	Fluorescent Lighting Fixtures	Incandescent Lighting Fixtures	Outlets (Ceiling Fans)	Switches	Outlets
Classroom	4	0	2	2	2
Science Laboratory	6	0	3	3	4
Corridor	0	1	0	1	0
Toilets (Males)	1	0	0	1	0
Toilets (Females)	1	0	0	1	0
Toilets (Handicapped)	1	0	0	1	0

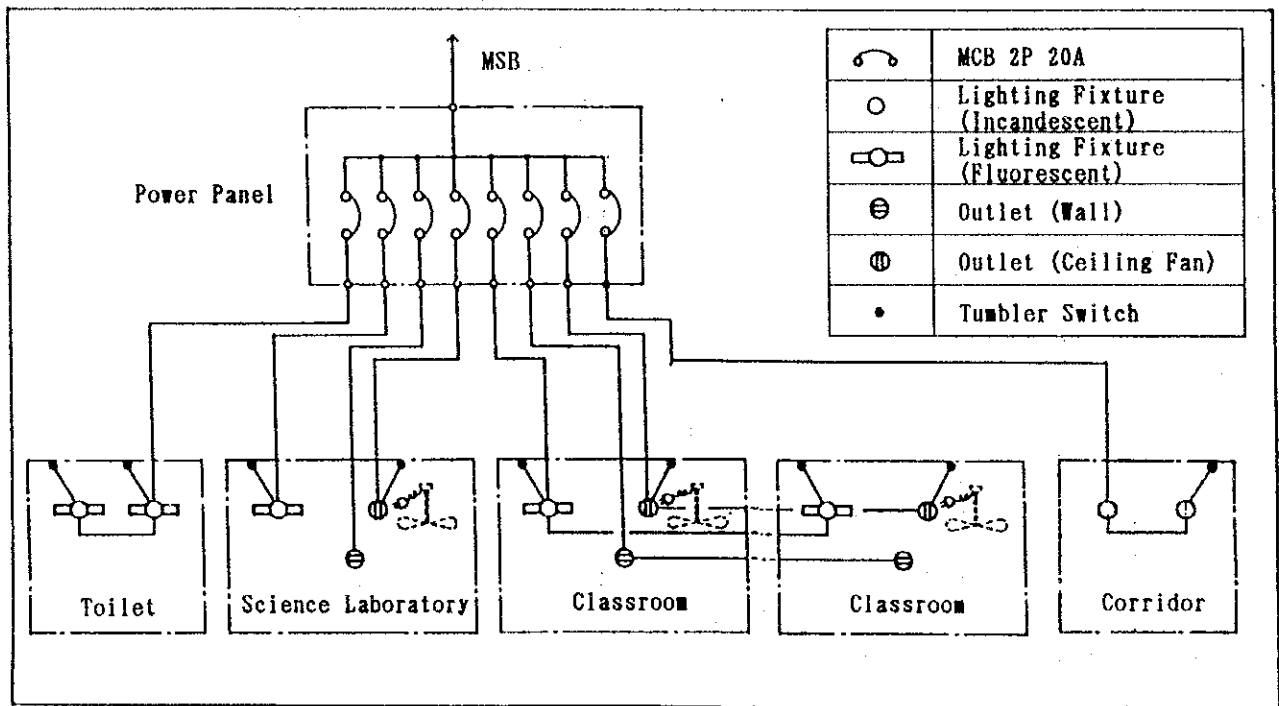
(2) Water Supply Facility Plan:

Site survey results reveal that the types of water sources at Project schools vary from school to school. In general, their water supply conditions are very poor. Although some of the Project schools have city water supplies, stable water supplies are not maintained due to the malfunctioning of water supply lines, difficulty in securing water sources, and excessive pressure drops. Even at schools having their own wells, it is very difficult to maintain a stable water supply because of pump failures and insufficient amounts of well water.

By taking into account the above situations, the water supply system having an elevated water tank and an electrically operated pump will not be adopted for the Project. A water supply system having a water tank that is approximately 2 m high above ground level will be used for the Project.

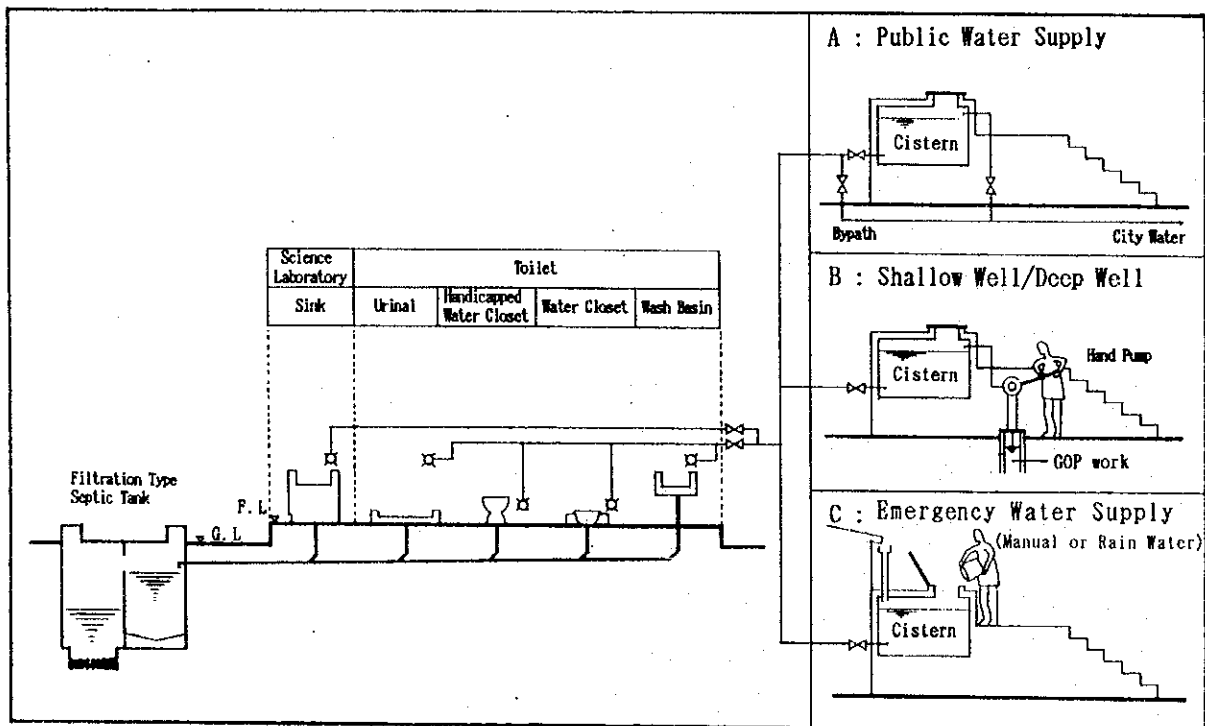
Water will be supplied to the tanks by the Philippine side. In the event of a water shortage, water should be carried manually in buckets to the tanks from nearby water sources.

Figure 2-4 Lighting and Outlet Wiring Diagram



Note: Only the conduit but not the lighting fixtures will be installed to those schools that not having power supplies.

Figure 2-5 Water Supply and Sewerage System Diagram



E. Schoolbuilding Material Plan

1. Basic Requirements:

In the Project, almost all building construction materials shall be obtained on the local market firstly, to minimise construction costs so that the maximum number of classrooms can be constructed and secondly, to simplify the completed buildings maintenance and management work.

2. Major Materials to be Used:

a) Structure Material

The reinforced concrete that is commonly used in the Philippines shall be used for foundations, columns and beams. As the quality of cement and aggregate material differ according to locality, quality control must be carefully conducted. As for truss structures to support roofs, wooden trusses are widely used throughout the country. However, as lumber is difficult to obtain in the Philippines, steel frame trusses shall be used for the Project.

b) Roofing Material

In the Philippines, most of the schools are roofed with zinc plated steel sheet; thus, leakage is occurring as a result of corrosion. For the Project, aluminum-zinc alloy plated steel sheets are to be used because some of the sites are along the coast and corrosion caused by sea water is prevalent.

c) Windows - Doors

Wooden jalousies are most commonly used in the Philippines and they agree with the country's climate. Jalousies shall be adopted for the Project. However, some Project schools presently are without power supplies; therefore, glass jalousies shall be installed to efficiently utilize natural lighting. By taking into account glass protection and security, steel-bar frames will be

installed to each jalousie.

As for doors, only the frames shall be made of steel. The door body shall be made of wood to allow for easy opening and closing.

d) Floors, Walls and Ceilings

Reinforced concrete shall be used for floors by taking into account its durability. The floors shall be finished with colored cement mortar.

Concrete blocks shall be used for exterior walls in view of their insulation capability. Mortar shall be placed on the walls and painted. The inside partition walls (including some movable walls) and ceilings shall be made of painted plywood on lightweight steel frames. Ceilings shall be painted plywood on wooden foundations.

The major materials to be used for Project schoolbuildings are shown in Table 2-17.

Table 2-17 Finish Materials to be Used for Project Schoolbuildings

	Portion	Philippine Method	This Project's Method	Reason for Adoption
Exterior Finish	Roofs	Zinc plated corrugated steel sheets	Aluminum-zinc plated steel sheets	Stronger anticorrosion resistance
	Underside of Eaves	Plywood	Marine Plywood with S.O.P. coating	Easy maintenance and durability
	Walls	Concrete blocks, mortar finish	Concrete blocks coated with E.P.	Insulating effect and durability
	Windows	Wooden jalousies coated with S.O.P.	Glass jalousies (aluminum frame)	Maximize natural lighting
	Doors	Wooden doors	Wooden doors coated with S.O.P. finish (steel frame)	Durability and easy maintenance
	Baseboards	Cement mortar steel trowel finish	Cement mortar steel trowel finish	Durability and easy maintenance
	Corridor Floors	Cement mortar steel trowel finish	Cement mortar steel trowel finish	Durability and easy maintenance
	Septic Tanks	Reinforced concrete partially made of concrete blocks	Reinforced concrete and concrete block made (inside and outside tank tops are to be waterproof mortar steel trowel finish)	Durability and easy construction
Interior Finish	Classrooms and Science Laboratories			
	Floors	Reinforced concrete, mortar finish	Reinforced concrete, Colored cement mortar steel trowel finish	Durability
	Walls	Concrete blocks, mortar finish	Concrete blocks mortar finish with E.P., Plywood coated with O.P. (partition)	Easy maintenance and construction
	Ceilings	Plywood	Plywood coated with O.P. and insulation	Insulating effect
	Other Parts		Work benches with sinks Ceramic tile finish (science laboratories only)	Easy maintenance and accurate finish work
	Toilets			
	Floors	Mortar finish	Mosaic tile	Easy maintenance
	Walls	Concrete blocks laying with E.P. finish	Concrete blocks laying, Mortar steel trowel finish with E.P. finish and partially decorative blocks	Easy maintenance
	Ceiling	No ceiling O.S. finish	Plywood with O.P. finish and insulation	Insulating effect

F. Comparative Examination of School Buildings with those by other Supporting Agencies

In addition to receiving support from the Japanese government, the Philippines has received support from the Asian Development Bank and the United States Assistance for International Development. However, the support from United States Assistance for International Development, provided on the condition of using the U.S. base, was terminated on August 31, 1992 with the withdrawal of the U.S. base from the Philippines. The support plan by the Asian Development Bank began in 1988, and a total of 675 school buildings have been constructed. The plan consists of the constructing of three types of buildings, including a general classroom building (two-story), a building with technical art and home economics classrooms, a library and an administration building. One building of reinforced concrete using the conventional construction method at the site can be built in four months. Table 2-18 shows the unit price(¥) of constructing 1 m² of school buildings in accordance with the specifications of DECS and other supporting agencies.

Table 2-18 Unit price(YEN) of constructing 1 m² of school building by the specifications of DECS and other supporting agencies

Standard specifications of DECS	Five months	Approx. 22,300
Specifications by the President's Social Fund and DECS	Four months	Approx. 14,300
Prefabricated School Construction Program of DECS	One month	Approx. 14,300
Specifications by the Economic Support Fund of the United States Assistance for International Development	From seven to twelve months	Approx. 36,700
The Asian Development Bank (Phase 1 to 3)	Four months	Approx. 14,000
The Asian Development Bank (Phase 4 and 5)	Four months	1
The Asian Development Bank (Phase 6)	Four months	17,500
Typhoon-Resistant Schoolbuilding Project by the grant aid from the government of Japan (Phase 1 to 5)	Three months	Approx. 87,000
The Improvement of the educational facilities by the grant aid from the government of Japan (Phase 1)	Four months	Approx. 51,000
The Improvement of the educational facilities by the grant aid from the government of Japan (Phase 2)	Four months	Approx. 50,800
The Improvement of the educational facilities (Phase 3)	Four months	

Table 2-18 shows the unit price for building construction varies for each plan. However, as each plan has for example, different specifications, construction method and system, a comparison is not easy. For example, there is a contrast in design concept between the school buildings to be constructed by the Asian Development Bank and those by the Government of Japan. While the plan by the Asian Development Bank aims to construct comparatively large-scale school buildings in a limited number of schools with favorable conditions such as ample space, water, an electricity, and an access road to the site, the plan by the Government of Japan focuses on the construction of a large number of comparatively small-scale school buildings in as many areas as possible, including the remote areas, in a short period of time.

In addition there are two contrasting ideas concerning design. Firstly, the structural design of the foundation. The basis of the Japanese plan is to design the foundation according to the state of the ground by dividing the assumed bearing power of soil into two types. The Asian Development Bank, in general, included in its plan those schools which have good access and favorable ground, a large school building. Therefore construction is easy, which leads to simple foundation compared with the plan by the Government of Japan, in which the schools are scattered widely. Due to the simultaneous construction of many school buildings priority must be given to those schools having an insufficient number of classrooms. Foundations corresponding to various areas must be designed as quickly as possible by considering worst case scenarios and ground conditions. This is in contrast to the plan by the Asian Development Bank to construct mainly large-size school buildings.

Secondly, the selection of roof materials. In the Asian Development Bank's plan, zinc plated steel sheet, which is generally used in the Philippines, is used. However previous experience has shown that rusting or leaking occurs about two years after construction. In addition, damage caused by typhoons is often found along the eaves of buildings or on the portions around the roof such as the verge. The material to be used by the Government of Japan is an aluminum-zinc plated steel sheet, which has been shown to excel in durability in the Philippines. This roof material has a long life time when properly constructed, does not rust, and does not require special maintenance other than when damaged by flying objects during typhoons. This material also excels in anticorrosive characteristics caused by salty breezes making it an excellent choice for the coastal construction sites.

In the plan drawn up by the Asian Development Bank, an increase of room temperature is controlled by improving the efficiency of ventilation with large exterior corridor or wide eaves. However, for the schools to be constructed by the Government of Japan, of which many have site restrictions, the need to construct small-size school buildings is an important factor. Thus, the problem of room temperature is tackled by the use of attic insulation, which furthermore reduces the noise of rainfall. Table 2-19 shows the comparison between the two School Building Construction Plans.

Table 2-19 Comparison of Plans by this Project and by Asian Development Bank

	This project	School Construction Plan by the Asian Development Bank
Structure	One- to two-storied building of reinforced concrete	One- to two-storied building of reinforced concrete
Size Schools to be constructed Number of classrooms	Elementary and secondary schools Three to five classrooms (one-storied building) Six classrooms (two-storied building) Science laboratory (for secondary school)	Secondary school Four classrooms (one-storied building two-storied building) Home economics room, library Science laboratory, faculty room
Size of classroom	Classroom:56m ² Science laboratory:84m ²	Classroom:50m ² to 72m ² Science laboratory:84m ² to 144m ² Home economics room:132m ² to 144m ² Library:108m ² to 144m ² Faculty room:28m ² to 72m ²
Specifications Column (mm)	One-storied building : 350 x 350 Two-storied building : 450 x 450	One-storied building : 300 x 300 angle Two-storied building : 400 x 400 angle
Beam	Floor of second floor: 450 x 700 1700 to 4000 angle 400 to 500 thick	Floor of second floor: 350 x 350 One-storied building:1200 x 1200 with 300 thick Two-storied building:1500 x 2000 with 400 thick
Finish Electric equipment Mechanical equipment Roof truss Insulation in attic Roof material Movable partition wall	Mortal finish with trowel With spare circuits for electric fans Cistern Steel Yes Aluminium plated steel sheet One for each school	Mortal finish with trowel Basically, with spare circuits for electric fans Elevated water tank/electric pump All parts with woods No Zinc plated steel sheet Basically none
Construction period of one school Number of schools to be constructed in a year Unit price of construction Work period of entire project Areas included in the project	Four months About 30 to 117 schools 15,000 pesos/m ² One year Phase 1:RegionIV(four islands)(Entire area including remote places) Phase 2:Region V, VI, VII, and ARMM (Entire area including remote places) Phase 3:RegionVI, VII, and X (Entire area including remote places)	Four months 675 schools in five years (Average of 135 schools in one year) 4,000 pesos to 5,000 pesos/m ² No limit Covers all the fourteen administrative districts (mainly of cities)
Construction supervising system Ordering method Method of Cooperation	Japanese and local consultants Comprehensive order to one company Grant aid	DECS Engineers Ordered separately for each area Loan

(3) Equipment Plan

In order to fulfill the educational activities after the Project facilities are opened, proper equipment must be provided. Upon completion of the classrooms and science laboratories in the Project schools, various types of equipment will be used.

Based on the contents of the request made by the Government of the Philippines for the Project and the results of the field surveys, the basic education equipment and science laboratory instruments will be provided as a part of the Project.

(1) Educational Equipment:

The selection of educational equipment was made by taking into consideration the standard types used in the elementary and secondary schools in the Philippines as well as the following aspects;

- 1) Desks and chairs for elementary school students shall be 2 person units.
- 2) Secondary school classrooms should be furnished with the desk-chair type for use by one person as is generally used in the Philippines.
- 3) Three-person type tables for the students and a demonstration workbench for the teacher (one workbench per room) should be installed in the science laboratories.
- 4) The storage cabinets to be installed in the science labs should have sufficient capacity to store the laboratory instruments.

As the equipment units to be provided by the Project will be used in elementary and secondary schools, they should be strong and durable, but not highly priced. The material for the units should be procured in the Philippines.

By taking into consideration the availability of manufacturing technology and materials, and material quality, the material for the equipment should either be combinations of steel and plywood or plastic.

The types of equipment and the number of units to be provided for each Project school classroom and science lab are listed in Table 2-20. The types of equipment and the number of units to be provided for each different size project school are shown in Table 2-21.

Table 2-20 Equipment Types and Number of Units to be Provided for Each Project School Classroom

	Name of Room	Name of Item	No. of Units for One Room	
Elementary Schools	Classroom	. Teacher's desk	1	
		. Teacher's chair	1	
		. Teacher's filing cabinet	1	
		. Student's desks	24	
		. Student's closets	8	
		. Blackboard	1	
		. Bulletin board	1	
Secondary Schools	Classroom	. Teacher's desk	1	
		. Teacher's chair	1	
		. Teacher's filing cabinet	1	
		. Student's armchair	42	
		. Student's closets	8	
		. Blackboard	1	
		. Bulletin board	1	
	Science Laboratory		. Experiment workbenches	14
			. Student's closets	5
			. Demonstration table	1
		. Stools (1 for Teacher, 42 for Students)	43	
		. Blackboard	1	
		. Bulletin board	1	
		. Storage shelves	1	
		. Steel shelves	1	

Table 2-21 Equipment Types and Number of Units to be Provided for Each Educational Level

Classroom Type Furnitures	Elementary School		Secondary School			
	3 classrooms (39 schools)		3 classrooms (3 schools)		3 classrooms and science laboratory (27 schools)	
	For one School	Sub Total	For one School	Sub Total	For one School	Sub Total
Teacher's desk	3	117	3	9	3	81
Teacher's chair	3	117	3	9	3	81
Teacher's filing cabinet	3	117	3	9	3	81
Student's desk (Large)	24	936				
Student's desk (Medium)	24	936				
Student's desk (Small)	24	936				
Armchair			126	378	126	3402
Student's closet	24	936	24	72	29	783
Experiment workbench					14	378
Demonstration table					1	27
Stool					43	1161
Blackboard	3	117	3	9	4	108
Bulletin board	3	117	3	9	4	108
Storage shelf					1	27
Steel shelf					1	27

(2) Science Laboratory Instruments:

The following aspects were taken into consideration when selecting the science laboratory instruments to be provided:

- 1) Instrument types shall be selected from the standard laboratory instrument list requested based on the new secondary school curricula as established by the Secondary Education Development Program.
- 2) Instruments shall be selected by carefully studying and examining facility conditions of the Project schools.
- 3) To effectively use the science laboratories to be constructed by the Project, basic packaged instruments for ordinary science and physics class use should be provided.
- 4) Instruments that require electrical facilities or chemicals that are difficult to obtain shall be avoided.
- 5) Consumable items, such as chemicals, shall not be included.

Science laboratory equipment manufactured in the Philippines is of variable quality. A re-education program for school teachers in the science field has been conducted in the Science and Mathematics Teachers Training Center. To secure the same quality of science laboratory equipment units that are used in the Center, the specifications for the science laboratory equipment units to be provided by the Project should be equivalent to Japanese teaching material standards. Thus, the Project's science laboratory equipment should be procured in Japan.

Seventeen (17) Project secondary schools already have science laboratory equipment units that were provided by the Secondary School Educational Equipment Improvement Project (Phase I, II, and III) that was financed by the Japanese Grant Aid Cooperation Program and the Australian Development Assistance Bureau. Thus, these schools will not be provided with science laboratory equipment under this Project. As a result, thirteen (13) schools

were evaluated as recipient schools of science laboratory instruments. List of science laboratory instruments to be provided to each school are shown in Table 2 - 22.

Table 2-22 List of Science Laboratory Instruments to be Provided to Each School

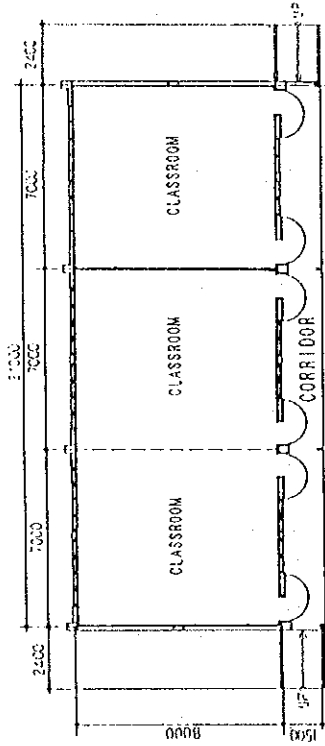
	Description	Quantity/Set
Science & Technology I (General Science)	Platform Balance	4
	Anemometer with Vane	1
	Hand Lens	8
	Magnetic Compass	8
	Stop Watch (Digital)	8
	Mercury Thermometer (-5 Celsius to 110 Celsius)	8
	Terrestrial Globe	1
	Graduated Cylinder	8
	Alcohol Burner	16
	Beaker	24
	Evaporating Dish	8
	Meterstick	8
	Cork Stoppers	2
Science & Technology II (Biology)	Compound Microscope (with lens cleaning solution)	4
	Slide Glass	8
	Cover Glass	4
	DNA Model	1
	Mitosis Model	1
	Chart on Gene Map of Human Chromosomes	1
	Chart on Dominance	1
	Dissecting Set	8
	Petri Dish	16
	Pocket Magnifier	16
	Test Tube (21 dia.)	1
	Medicine Dropper	40
	Mortar and Pestle	8
Test Tube (15 dia.)	1	

	Description	Quantity/Set
Science & Technology III (Chemistry)	Triple Beam Balance	4
	Graduated Cylinder	8
	Volumetric Flask	8
	Erlenmeyer Flask	8
	Pipet	8
	Iron Stand	8
	Tripod, Wire Gauge	8
	Test Tube Holder	8
	Evaporating Dish	8
	Watch Glass	8
	Glass Tubing	8
	Funnel	8
Science & Technology IV (Physics)	Stirring Rod	16
	Convex and Concave Mirrors	8
	Spring Balance (Newton)	16
	Dynamic Carts (two pulleys & one test bench)	8
	Electroscope	1
	Prism Set (Equilateral)	1
	Magnet (U-Shape)	4
	Magnet (Alcomax)	4
	Magnet (Bar)	4
	Multi-tester (Analog)	4
	Logic Gates (for Teachers)	1
	Logic Gates (for Students)	12
	Set of Tuning Forks	2
	Resonance Apparatus	1
	Electric Motor Generator	4
	Scientific Calculator	8
	Biconcave and Biconvex Lens Set	1
	Lead Line with Alligator Clip Attached	16
	Mercury Manometer	1
	Electric Circuit Experimental Apparatus	4
	Timer	8
Wire (ϕ 0.3)	1	
Wire (ϕ 0.5)	1	
Wire (ϕ 1.0)	1	

(4) Basic Design Drawings

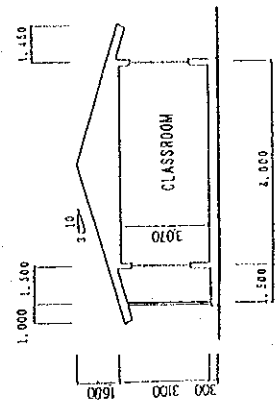
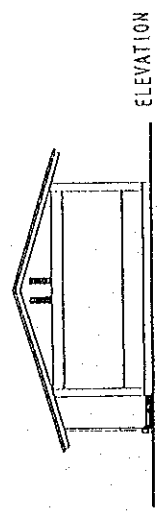
Drawing List

<u>No.</u>	<u>Title</u>
01	Elementary/Secondary School, (3 classrooms) Plan, Elevation, Section
02	Elementary/Secondary School Toilet, Secondary School Science Laboratory and Toilet Plan, Elevations Sections
03	Elementary/Secondary School, Equipment Arrangement

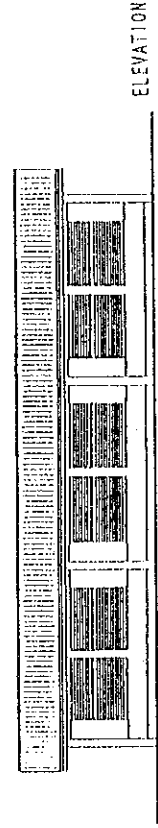
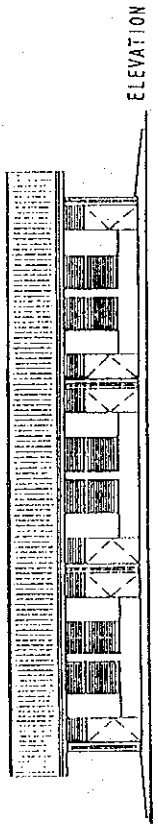


ELEMENTARY-SECONDARY SCHOOL - A-TYPE PLAN

--- REMOVABLE PARTITION WALL



SECTION

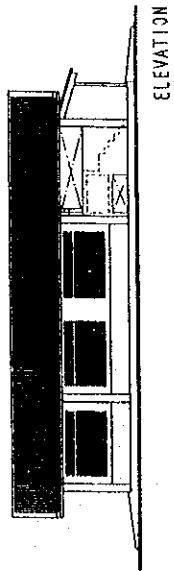
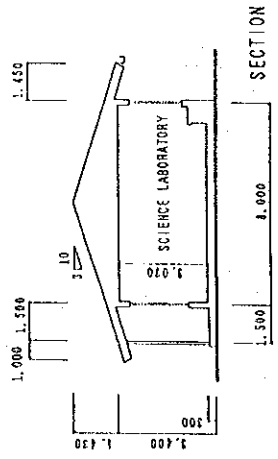
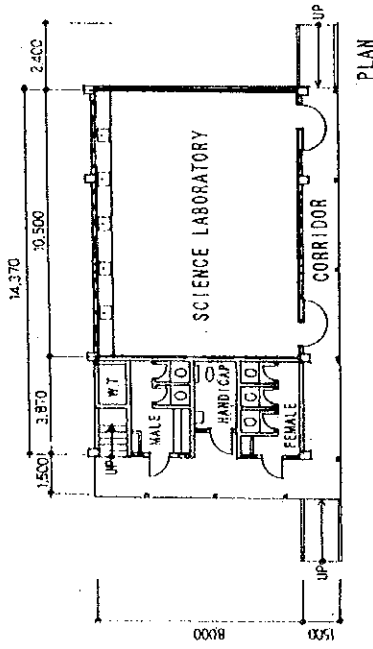


THE EDUCATIONAL FACILITIES IMPROVEMENT PROGRAM (PHASE III)

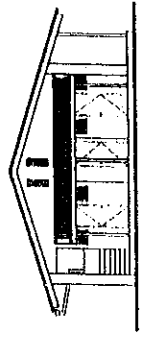


ELEMENTARY-SECONDARY SCHOOL
 3 CLASSROOM
 PLAN, ELEVATION, SECTION

01



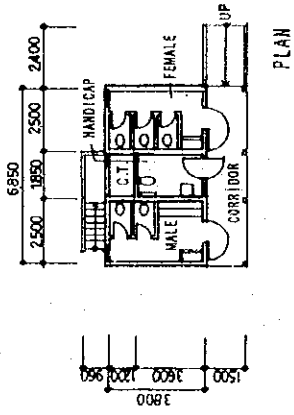
ELEVATION



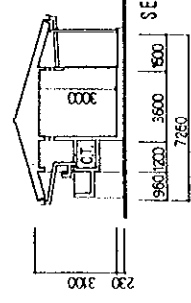
ELEVATION



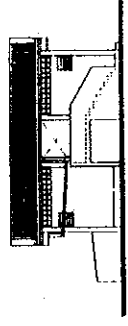
ELEVATION



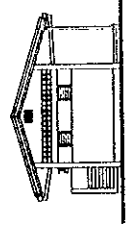
PLAN



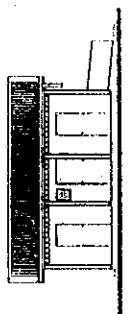
SECTION



ELEVATION



ELEVATION



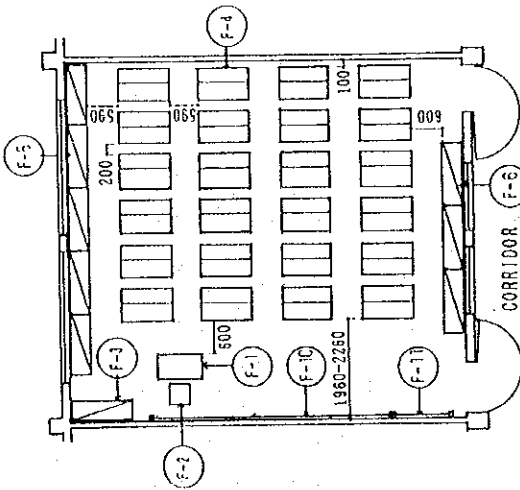
ELEVATION

THE EDUCATIONAL FACILITIES IMPROVEMENT PROGRAM (PHASE III)

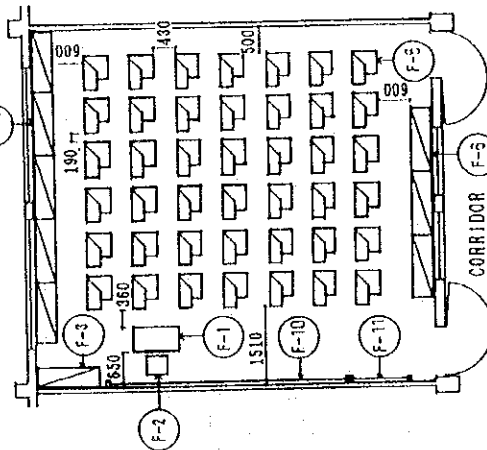
SCIENCE LABORATORY & TOILET
ELEMENTARY SCHOOL TOILET
PLAN, ELEVATION, SECTION



02

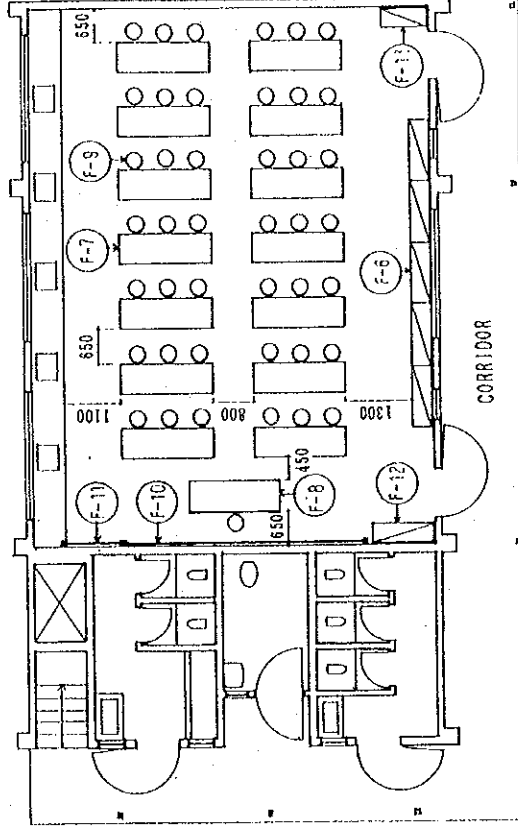


ELEMENTARY SCHOOL CLASSROOM EQUIPMENT PLAN



SECONDARY SCHOOL CLASSROOM EQUIPMENT PLAN

No.	TYPE	DIMENSIONS (W x D x H)
F-1	TEACHER'S DESK	900 x 500 x 760
F-2	TEACHER'S CHAIR	410 x 410 x 860
F-3	TEACHER'S FILING CABINET	1200 x 400 x 1800
F-4	STUDENT'S CHAIR-DESK	1010 x 615 x 661
F-5	STUDENT'S ARMCHAIR	460 x 635 x 800
F-6	STUDENT'S CLOSET	1200 x 400 x 850
F-7	EXPERIMENT TABLE	1800 x 600 x 850
F-8	DEMONSTRATION TABLE	1800 x 600 x 850
F-9	STOOL	ø 330 x 600
F-10	BLACKBOARD	4800 x 1200
F-11	BULLETIN BOARD	1200 x 1200
F-12	STORAGE SHELF	1200 x 400 x 800
F-13	STEEL SHELF	900 x 400 x 1830



SECONDARY SCHOOL SCIENCE LABORATORY-TOILET EQUIPMENT PLAN



ELEMENTARY-SECONDARY SCHOOL EQUIPMENT PLAN

03

THE EDUCATIONAL FACILITIES IMPROVEMENT PROGRAM (PHASE III)

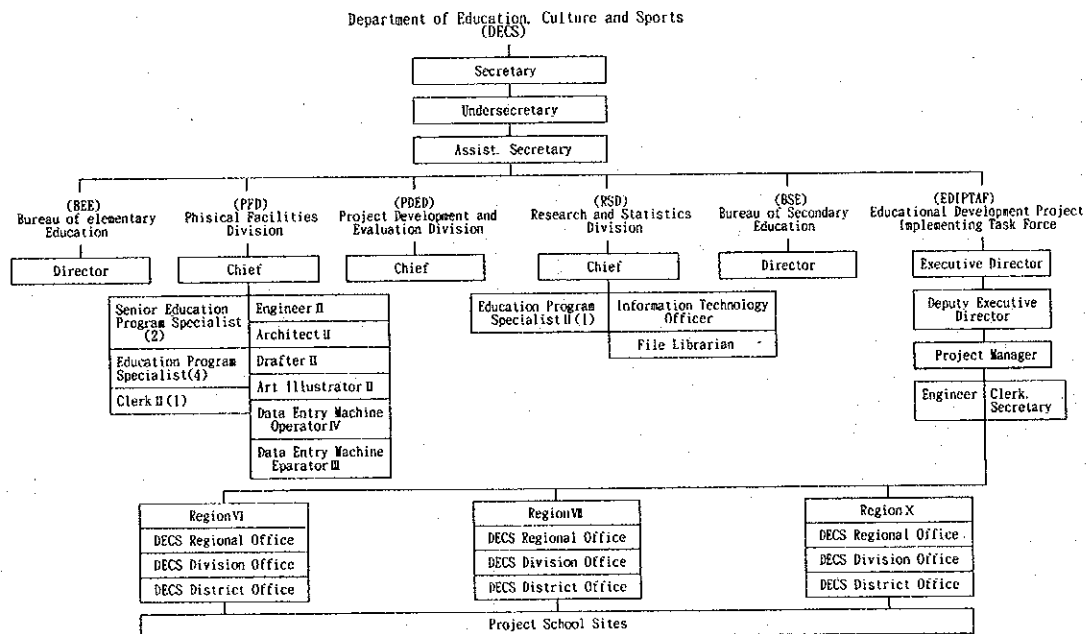
2-4 Implementation System of Project

2-4-1 Organization

(1) Organization of the implementing agency

This project will be implemented in the Philippines by the Project Management Unit (PMU) of EFIP, which is an organization under the Educational Development Projects Implementing Task Force (EDPITAF) within DECS. With regard to the organization of DECS, in addition to the head office in Manila, a regional office, which is a branch office of DECS, is located in each region. Under each regional office, there are regional offices for provincial or city level, under which there is a DECS district office. The schools included in the project are governed by the DECS district office. The EDPITAF has established a Project Management Unit consisting of one project manager, engineers, and clerk, whose main function is to implement this plan with the cooperation of the DECS regional offices beginning with the construction design through to the completion of facilities. Figure 2-6 shows the organization chart of the agency to implement this plan. The agency to implement this plan is a comprehensive one ranging from DECS, which is the upper agency, to the schools to be constructed, and is determined to be able to implement this plan smoothly.

Figure 2-6 DECS Organization Chart for JICA Assisted Projects



2-4-2 Budget

The budget allocated to DECS in the 1995 fiscal year is about 44.9 billion pesos (about 157.2 billion yen), which is about 11.50% of the entire budget of the Government of the Philippines and occupies the largest ratio after debt repayment. This alone highlights the emphasis the Government is placing on its educational policy. The number of classrooms of elementary and secondary schools throughout the Philippines in 1995 is 362,409 including 313,227 classrooms for elementary schools and 49,182 classrooms for secondary schools. Under this plan, a further 227 classrooms will be constructed, or 0.057% of the entire number of classrooms, meaning that the plan is sufficiently within the range of budget allocation.

A special budget is appropriated for this plan: an implementation budget of 173 million pesos (about 605.5 million yen) for Phase 1 of this plan and for 225 million pesos (about 787.5 million yen) for Phase 2. A similar budget will be allocated for this plan. Table 2-23 shows the results of the appropriated budget for the implementation of Phases 1 and 2 of this plan.

Table 2-23 Budget for the Implementation of EFIP Phase I and II

Items	EFIP(Phase I)	EFIP(Phase II)
Salaries	1,351,000	1,817,000
Maintenance & Operation Expenses	1,730,000	2,250,000
Educational Equipment Infrastructure Construction	5,250,000	21,309,000
Tax	513,000	4,870,000
Total	8,844,000	30,246,000

CHAPTER 3. IMPLEMENTATION PLAN

CHAPTER 3 IMPLEMENTATION PLAN

3-1. Implementation Plan

3-1-1 Implementation Concept

This plan aims to construct a number of school buildings in an extensive area in Region VI, VII and X stretching about 480 km from north to south and 440 km from east to west, within a limited period of time. An appropriate construction plan is made by obtaining the existing site situations. Main policies on the construction plan are described below.

- 1) The area will be divided into eight construction districts, and the construction bases will be established in the cities of Iloilo, Bacolod, Cebu, and Cagayan de Oro. Sub-construction bases will be established in the cities of Dumaguete, Tabilaran, and Butuan. About three to ten school buildings will be constructed in each district.
- 2) Because the facilities are constructed in the premises of the existing schools, effects to educational activities and the security of students will be sufficiently considered.
- 3) Following discussions with those in charge of construction at each school, the construction plan will be formulated, to avoid problems which may arise from the simultaneous construction of multiple schoolbuildings.
- 4) At schools without electricity, small generators must be used. With regard to the water for construction purpose, public water or well water will be used as the water for construction.
- 5) Throughout the construction, the maintenance of security and prevention of theft at the construction site will be considered.
- 6) The success of construction lies in the cooperation with contractors at the site. Attention will be paid to the clear division of roles between the general contractor and the subcontractors at the site. The staffing of personnel will be conducted properly when making the organization

system so that smooth management will be achieved.

- 7) With regard to the science laboratory equipment to be obtained from Japan, sufficient quality control and product testing will be conducted to minimize the occurrence of probable at the site.
- 8) A total of four schools will be selected as model schools. These will be located in San Jose in the Panay construction district, Bacolod in the construction district of Negros Island, Cebu in the construction district of Cebu and Bohol Islands, and Cagayan de Oro in the construction district of Mindanao island. At these schools training will be conducted, first to the engineers of the construction chief class in the form of on-the-job training and in teaching techniques to train others. Thus these engineers will be the key personnel in the construction of the remaining schoolbuildings.
- 9) As the conventional on-site construction method will be used in this project, traditional construction methods and the customs and opinions of local artisans will be respected. In addition, because a number of school buildings are to be constructed within a limited time frame, it will be beneficial to employ local consultants experienced in such school projects. Local consultants having participated in the design supervision of Phases I and II of this project can work in remote areas. This will allow a smoother implementation of the project as directions and advice can be given in tagalog. The impact of technology transfer will also be greater. Furthermore, local consultants and architects throught the Philippines can learn about Japanese construction technology.
- 10) With regard to the security situation of the areas included in this project, according to the interviews conducted at the time of site study, guerrilla activities such as the NPA have been calm since 1988. Some limited guerrilla activities. Continue to occure but are confined to the mountainous areas. Region X in Mindanao is not included in the range of activities of Abu Sayyaf, which is a Muslim radical group. Thus, this district is fairly safe. In addition, the schools in this plan are limited to those along the main highways where the security situation is considered to be comparatively good. However, since the security situation changes frequently, the latest information must always be

obtained, the advice of the local consultants must be observed, and night time activities avoided.

3-1-2 Implementation Conditions

Because the quality of the reinforced concrete for this plan depends significantly on the work situation at the site, and due to the pressure for accurate work, allowances will be made for differing standards of work between sites. In addition, under the guidance of the Japanese consultants, local consultants must closely supervise each step of construction. Reliable subcontractors and laborers must be used. As the science laboratory equipment is to be obtained from Japan, Japanese engineers must be dispatched to provide instruction. In addition, since a number of school buildings must be constructed simultaneously, strict approval of design drawings and site inspections at each step of construction by the consultants is necessary and to report the results to DECS as necessary.

Reliable implementation of the construction to be borne by the government of the Philippines, (refer to 3-1-7 obligation of Recipient Country), Project Construction Boundaries are indispensable for the smooth progress of this plan. The Japanese team must give guidance in the construction so that proper wells can be excavated by the Philippine side or providing specifications on the excavation of wells at the monthly meetings held at the site. Without proper development of construction site, construction cannot begin. Therefore work instructions must be given so that the Philippine side can implement proper development work without delay.

3-1-3 Scope of Work

Table 3-1 shows the division of work between the Japanese and Philippine sides. The detailed cost estimation to be borne by the Philippines are listed in the plot plan attached at the end of this report.

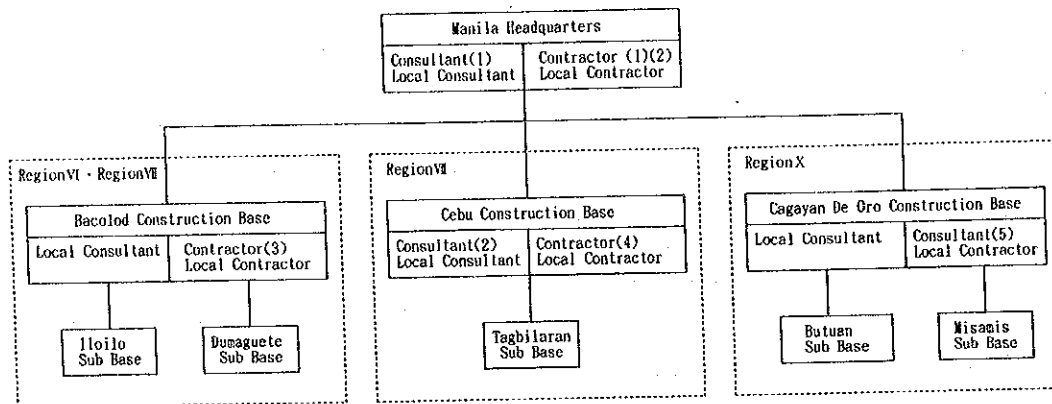
Table 3-1 Scope of Work

Work Item	Japanese Side	Philippine Side
1. Site clearing work before school building construction takes place.		○
2. Removal/demolishing of existing facilities at school site before school building construction takes place.		○
3. Removal of rocks and obstructions at school sites before school building construction takes place.		○
4. Associated exterior work, such as landscaping and fencing.		○
5. Construction of access roads to Project sites prior to the commencement of Project Construction Work.		○
6. School building construction	○	
7. To provide facilities for the distribution of electricity 1) The distributing line to the site 2) The drop wiring and internal wiring within the buildings	○	○
8. Water Supply 1) Securing of water source for toilet and science laboratory-use and installation of water supply lines up to the cistern tanks. 2) Installation of the cistern tanks and water supply system from the tanks.	○	○
9. Equipment (Educational Equipment, Science Laboratory Instruments)	○	

3-1-4 Consultant Supervision

Because this plan covers the areas broadly divided into five regions (Panay Island in Region VI, Negros Island in Region VII, Cebu and Bohol Islands in Region VII, Mindanao Island in Region X), sufficient attention must be paid to both the supervision of construction and quality control. Thus, stationed at the site will be a Japanese consultant who is experienced in the supervision of overseas construction and 4 Philippine chief consultants who are experienced in the supervision of construction conducted under the grant aid from Japan. In order to integrate all aspects of supervision, consultants and contractors will be based in Manila, which has the advantage of easy access to the DECS Head Office. Under the control of this head office, the construction base of Region VI will be established in the city of Iloilo in Panay Island, that of Region VI and VII in the city of Bacolod, the sub-base in the city of Dumaguete, the construction base of the Region VII in the cities of Cebu and Tagbilaran of Bohol Island, that of the Region X in the city of Cagayan de Oro, and the sub-base in the city of Butuan. Each construction base and sub-base in the cities of Iloilo, Bacolod, Dumaguete, Cebu, Tagbilaran, Cagayan de Oro, and Butuan will take charge of three to ten construction sites. They will become the bases for the delivery of equipment to construction sites, as well as for close supervision of the construction sites by the consultants, local consultants, contractors and local engineers. After considering several factors, including air transportation links, it was decided that Japanese supervisors will be stationed in the cities of Manila and Cebu. Figure 3-1 shows the organization table of the system of supervising construction.

Figure 3-1 Project Construction Management Organization Chart



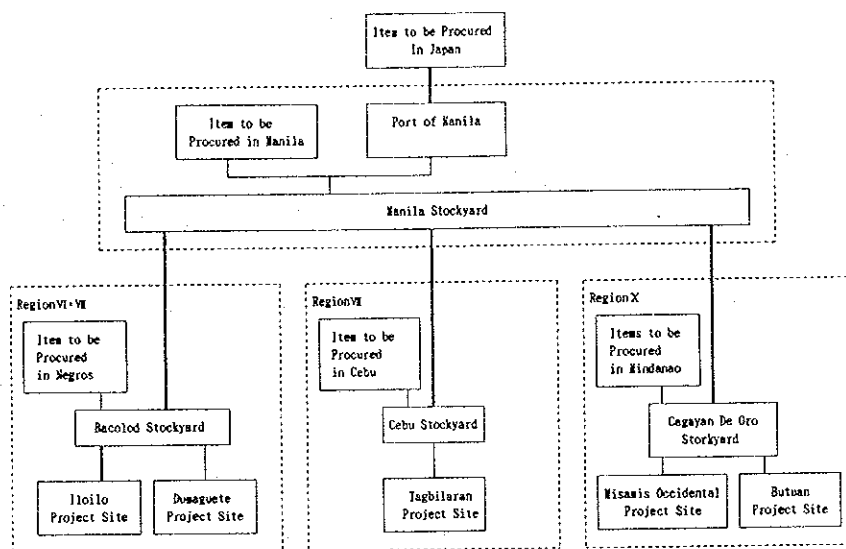
3-1-5 Procurement plan

(1) Policy of the procurement plan

For the ease of facility maintenance after they are delivered, almost all of the construction equipment and furniture is to be procured at the site. Most of the construction equipment can be obtained from the main cities. However the items that cannot be or those being inferior in quality if obtained at the site, will be transported from the city of Manila via the sea route. Thus, for example, the equipment for the science laboratories will be imported from Japan.

With regard to the procurement of the science equipment, shipping via the sea route will be arranged to coincide with the completion of facilities. Figure 3-2 shows the procurement plan of construction equipment.

Figure 3-2 Transportation Plan for Procured Equipment and Materials



(2) Transportation and storage plan

The equipment for science experiments imported from Japan will be unloaded at the Manila International Port. After clearing customs, they will be temporarily stored at the equipment storage base in Manila along with other equipment obtained in Manila. Then they will be delivered to the equipment storage bases in Region VI, VII and X via sea and transported to each construction site via land. With regard to the land route, the main highways are in good condition but the access roads from main highways and the bridges enroute to the schools often have weight and width limitations. Therefore alternative access roads must also be considered in the transportation plan. Collapsed bridges may affect the progress of work during the rainy season.

3-1-6 Implementation Schedule

The Project's implementation within the framework of the grant aid system will become effective after the division of work by the Government of Japan and the necessary procedures have been completed. The Project will commence following the signing of the E/N by the two countries. After the signing, the Project will be implemented in 5 stages: detailed design; tender; procurement and transportation of equipment and materials and construction.

<Detailed Design>

After approval of the consultant agreement, the Consultant will prepare the tender documents based on the basic design, and will consult with the representatives of DECS to decide on specifications. Regarding the size of the Project based on the E/N and grant aid system and the division of work, confirmation must be received at the early stage of the basic design thereby allowing the Government of the Philippines to set up budget and construction management systems, adjusting it to a single year budget of the grant aid system method. Two months will be required to prepare the detailed design.

<Tender>

This includes the announcement of the tender, qualification examination of the companies, open tender, results, and the construction agreement. The methods for construction orders and bids will be decided prior to consultation.

<Procurement and Transportation of Materials and Equipment>

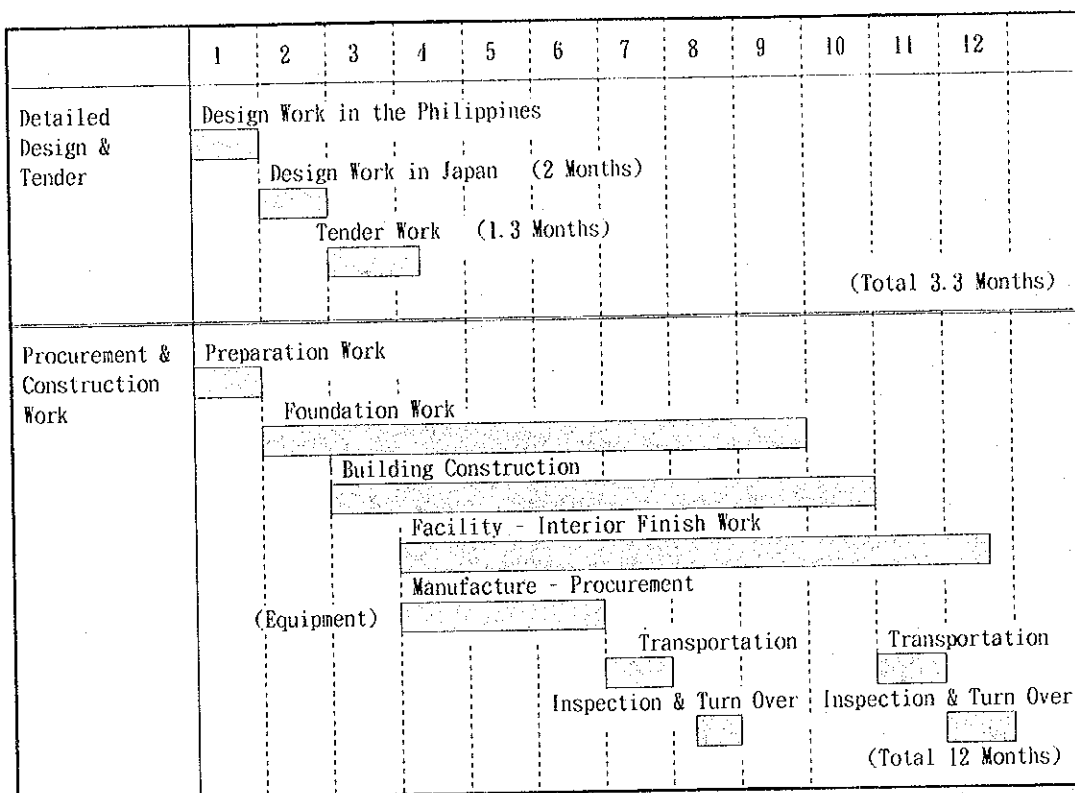
Following the signing of the construction agreement, preparation of shop drawings is started immediately. Procurement of equipment starts after approval of shop drawings. The first equipment is delivered to the site about one month after the conclusion of contract.

<Construction>

After a month of preparation following the signing of the agreement, the construction work commences. Each of the eight construction bases and sub-bases takes charge of the construction of six to ten schools. In each base, basically two to three groups construct three to four schools. A total of 12 months will be required to complete all of the schools.

The project schedule is shown in Table 3-2.

Table 3-2 The Project Implementation Schedule



3-1-7 Obligations of Recipient Country

Project Construction Boundaries

The construction boundaries to be undertaken by the Japanese and Philippine side are shown in Table 3-3.

Table 3-3 Project Construction Boundaries to be Undertaken by
the Japanese and Philippine Side

Work Item	Japanese Side	Philippine Side
1. Securing of Project sites.		○
2. Site clearing prior to commencing Project construction work.		○
3. Incidental work, such as gardening and fencing.		○
4. Construction of access roads to Project sites prior to the commencement of Project construction work.		○
5. Installation of facilities for distribution of electricity, water supply, drainage and other incidental facilities to Project sites when needed.		○
6. Obtaining building, occupancy and all necessary permits for the Project with respect to the laws and regulations of the Philippine Government.		○
7. Securing the necessary budget and personnel for the proper and effective maintenance of Project school-buildings and equipment.		○
8. Procurement of Project use equipment and materials in Japan and their shipment to Project sites in the Philippines.	○	
9. Procurement of Project use equipment, materials and labour in the Philippines and their transportation to Project sites.	○	
10. Construction of Project facilities.	○	
11. Exempting Taxes and all other levies and duties and ensuring prompt unloading and customs clearances at the port of disembarkation in the Philippines for Project use materials and equipment.		○
12. Exempting Japanese nationals involved in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in the Philippines with respect to the supply of the equipment and services under the verified contracts.		○
13. According Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contracts for their entry into the Philippines and stay therein for the execution of the Project.		○
14. Bearing of commissions to the Japanese foreign exchange bank for the banking services based on the Banking Arrangement in accordance with the standard grant procedure.		○
15. Bearing all expenses other than those to be borne by the Grant, necessary for the construction of the schoolbuildings as well as for the transportation and installation of the equipment.		○
16. Effective operation and management of the facilities and equipment to be provided under the Grant Aid.		○

3-2 Operation and Maintenance Plan

The maintenance of the facilities after they are completed and delivered to the recipients of this plan is conducted by the division office of the Department of Education, Culture, and Sports (DECS divisional office), and the maintenance costs are allocated by DECS. Prior to the introduction of this system in June 1994, the maintenance of the necessary costs allocated by DECS was the function of the division office of the Department of Public Works and Highway (DPWH divisional office). When the budget allocation system was changed to rationalize the maintenance of educational facilities, the maintenance costs which had been allocated through complicated procedures were divided to each school according to the activity level of each school from DECS through each DECS divisional office. DECS secures the two necessary fund sources for the maintenance and other operating expenditure (MODE) for basic repairs and the capital outlay (CO) for large-scale repairs, construction work, and implements the annual repair of school facilities. When the school needs basic building repairs, an application is submitted from the DECS district office to the DECS regional office. After an evaluation of the application, a school list is submitted to the DECS head office. Then the Department of Budget and Management (DBM) approves the necessary expenditures and the final amount of budget is determined. Based on the determined budget, the DECS head office determines the distribution of budget to each school, and the engineering division of the DPWH makes the implementation plan and informs the principle of each school. The construction is conducted under the management of the DECS and the DPWH. When the school needs large-scale building repairs, such as when damaged by natural disasters, the principle of the said school directly submits an application to the DECS head office, then the government service insurance system (GSIS) is informed. Under this system, said school is individually inspected to evaluate the validity of the request. The GSIS informs the DECS head office of the results of the inspection which examines the report. When the implementation of repair work is decided, the budget is determined and GSIS informed, followed by the DPWH regional office. The construction is implemented by the DPWH division office and delivered to the school, and finally the DECS head office accepts it. Table 3-4 shows the procedure for basic repairs of school facilities and Table 3-5 shows the flow of maintenance operation with regard to a large-scale of repair caused by natural disasters.

Table 3-4 Flow of Maintenance Operations for Easy Repair Works of School Facilities

Responsible Agency	Work Procedures and Contents
DECS	1. Each school's principal investigates the necessity of repair work and requests funding from DECS's regional office.
DECS	2. DECS' regional office examines the requests and submits a list indicating the schools that require repair work to DECS head-quarters.
DECS	3. DECS headquarters requests budgetary funds from DBM.
DBM	4. DMB evaluates DECS' request and reports the amount of budgetary funds to be authorized to DPWH's regional office.
DPWH's Regional Office	5. DPWH's regional office notifies each concerned school of the repair work program.
DPWH's Area Office	6. The repair work is implemented under the management of DECS and DPWH. The repaired school facilities are to be turned over to each concerned school.
School Principal	7. the principal accepts the repaired facilities.

Table 3-5 Flow of Maintenance Operations for Large-scale Repair Works Caused by Natural Disasters

Responsible Agency	Work Procedures and Contents
DECS	1. Each school's principal submits the request for large-scale repair work to DECS.
DECS	2. DECS forwards the school principal's request to the Government Service Insurance System (GSIS) Agency.
GSIS Agency	3. GSIS Agency investigates and evaluates the appropriateness of the school's request.
GSIS Agency	4. GSIS Agency reports the results of its investigation and evaluation to DECS.
DECS	5. DECS re-examines the request and determines the amount of budgetary funds to be allotted for the repair work and notifies the GSIS Agency of their decision.
GSIS Agency	6. GSIS Agency reports the budgetary fund amount to the DPWH regional office.
DPWH Regional Office	7. DPWH regional office notifies the DPWH area office of the budgetary fund amount.
DPWH Area Office	8. DPWH area office implements the repair work and turns over the completed facilities to the school concerned.
DECS	9. DECS officially accepts the completed school facilities from the DPWH regional office.

To efficiently conduct classes in the classrooms to be built under the project, it will be necessary to secure teachers. This plan is to construct school buildings in order to solve the insufficient number of classrooms in existing schools which has meant that classes are held in open-air classrooms, temporary classrooms, or rented facilities. In these cases, there is no need to employ further teachers with the construction of school buildings. The plan also hopes to alleviate the problem of shift classes. In this case, additional teachers are necessary. In the 1995 fiscal year, there is a deficit of about 35,800 teachers in elementary and secondary schools in the Philippines, (26,246 teachers in elementary schools and 9,565 teachers in secondary schools). DECS is coping with this situation by increasing the number of students per class and the number of class teaching hours, or asking the administrative teaching staffs to teach classes. The average yearly salary of a teacher is about 40,000 pesos (about 140,000 yen). The total number of teachers required under this plan is about 180. The budget necessary for these additional teachers is 7.2 million pesos, which is about 0.018% of the budget for DECS in the 1994 fiscal year. Thus it is determined that the additional salary is within the budget allocation.

The maintenance costs of this project will be budgeted in the same manner as in Phases I and II. Maintenance and operation costs were important factors in the selection of facility equipment, so that overall costs could be minimized. However, for wooden doors, jalousie windows, fluorescent lamps, and gutters, regular adjustment, inspection, and replacement are indispensable to prolong durability. In addition, aesthetically, it is desirable to paint the interior and exterior walls as well as the ceiling and to wax floors regularly, but these not considered as necessary for the maintenance of the school buildings. Table 3-7 shows the operation and maintenance costs of an average school building with public water supply and electricity.

Table 3-6 Operation and maintenance costs of one school building in a year

Item	Material Costs (pesos)	Labor Costs (pesos)	Maintenance Frequency	Annual Costs (converted) (pesos)	Remarks
Wooden Doors & Jalousies	3.300	1.400	Once every other years	2.350	Requires painting and repair work
Toilet Tiles	430	1.100	Once every three years	510	Requires repair or replacement of broken tiles
Gutters	2.500	350	Once every six years	475	Requires repair or replacement of broken gutters
Fluorescent Lamps	700	230	Once every year	970	Replacement is required periodically
Electric Fee	300/month			3.600	
Water Fee	230/month			2.760	
Total				10.665	

In this plan, the budget for teaching staffs and the operation of school buildings, which will become necessary after completion of the construction of sixty-nine school buildings, will be covered by the previous budget of each administrative district.

Table 3-7 shows the budget allocation of each administrative district for the past six years, in which the budgets of Region VI, VII, and X for the fiscal year 1995 were 3.76 billion pesos, 2.34 billion pesos, and 2.02 billion pesos respectively. The average annual increase rates for the past five years were 12.3%, 15.3%, and 13.3% respectively. Table 3-8 shows the number of classrooms at the public elementary and secondary schools in the areas included in the plan, in which 35,981, 29,788, and 22,695 classrooms exist for each of the district mentioned above. The three class room building is given to each school and the number of classrooms will become 63, 78, and 66 respectively for each region. The increase rate against the existing classrooms will be 0.18%, 0.26%, and 0.29% respectively. These rates are relatively low compared with the increase rate of the budget allocation. From these reasons it is determined that there will be no problem with the operating ability of each region after the school buildings are turned over.

However, because of the financial restrictions in each school, a construction plan that poses minimum maintenance costs must be made. In order to improve the maintenance ability of the school, participation of local residents is indispensable. Incentives may increase their participation level.

Table 3-7 Transition of educational budget allocation in each (in peso)

Year	RegionVI		RegionVII		RegionX	
	Budgeted Amount	Increase Rate	Budgeted Amount	Increase Rate	Budgeted Amount	Increase Rate
1990	2,139,251	—	1,179,822	—	1,121,201	—
1991	2,026,110	-5.2%	1,214,752	+2.9%	1,105,239	-1.4%
1992	2,371,099	+17.0%	1,670,572	+37.5%	1,557,092	+40.8%
1993	2,862,151	+20.7%	1,811,187	+8.4%	1,700,164	+9.1%
1994	3,363,612	+17.5%	2,233,645	+23.3%	1,912,725	+12.5%
1995	3,761,034	+11.8%	2,344,795	+4.9%	2,022,691	+5.7%
Average Rate	—	+12.3%	—	+15.3%	—	+13.3%

Table 3-8 Increase ratio of classrooms included in this plan

	RegionVI	RegionVII	RegionX
Number of existing classrooms	35,991	29,788	22,695
Number of classrooms to be constructed	63	78	66
Increase rate	0.18%	0.26%	0.29%

CHAPTER 4. PROJECT EVALUATION AND RECOMMENDATION

THE HISTORY OF THE UNITED STATES

FROM 1776 TO 1876

BY JOHN P. HARRIS

VOLUME I

1776-1800

1800-1825

1825-1850

1850-1876

APPENDIX

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PREFACE

INTRODUCTION

CHAPTER I

CHAPTER II

CHAPTER III

CHAPTER IV

CHAPTER V

CHAPTER VI

CHAPTER VII

CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATIONS

The government of the Philippines has prioritized the improvement of the quality of education and educational facilities, and has made continuous efforts in laying the foundations for training human resources. However due to the financial situation, there is still a lack of educational facilities and equipment. In addition, due to the damages caused by natural disasters such as typhoons and the annual population increase, the lack of classrooms has become more impending. Thus the construction of school facilities is an important subject to the government of the Philippines.

4-1 Project Effect

The chronic lack of school facilities in the Republic of the Philippines is a serious problem. Old school facilities, damage to school facilities by natural disasters including typhoons, and the increase of eligible school children by about 3% a year, increases the need for classrooms, and this problem has become more serious. The Medium-Term National Development Plan (1993 to 1998) proposed by the National Economic and Development Authority (NEDA) stated that the fulfillment of school education is an important subject which will lead to the development of human resources in the Philippines. Thus the problem arises of how to fulfill the education needs of the country while contuing to promote industry and economic growth.

Implementation of the construction of school buildings in this plan is considered indispensable for achieving the goal of educational plans of the Philippines and plays a significant role in promoting national development. Constructing school facilities under the plan will greatly contribute to the improvement of education by relieving the insufficient school facilities and providing the opportunity of education to more children. The maintenance of school buildings will continue under the current fund procurement system. The plan has sufficient aptness as the grant aid project of Japan and it is expected to be implemented without difficulty under the grant aid system.

4-2 Recommendation

The ability to implement this plan with grant aid cooperation is already confirmed. In addition to the great effects expected from this plan, the plan

can simultaneously contribute to the improvement of educational situations. However, if the following problems can be improved or resolved, this plan will be implemented in more smoothly and effectively.

(1) Secure implementation of the the Philippine side

This plan is implemented by the dual efforts of Japan and the Philippines. It relies upon the prompt preparation of land prior to construction in a short period of time.

A working schedule will foster an efficient and cooperative working relationship between the two countries' teams.

(2) Proper maintenance of facilities after completion

The school facilities to be constructed by this plan are examined so that maintenance will be extremely easy. For example, the cleaning of classroom gutters and the building of a rest room as a part of the students education.

(3) Securing a sufficient number of teachers

Although the number of classrooms for each school will increase after the completion of facilities, the increase of classes will not be possible unless teachers are added at the same time. Securing new teachers is necessary for students to reap benefit from this plan. The cooperation of each school and DECS is mandatory, too.

APPENDICES

APPENDICES

1. Member list of the survey team
2. Survey schedule
3. List of party concerned in the recipient country
4. Minutes of discussion
5. Cost estimation borne by the recipient country
6. Transition of the selection of schools

APPENDIX 1 MEMBER LIST OF THE SURVEY TEAM

Basic study team (March 1 through April 10, 1995)

<u>Name</u>	<u>Assignment</u>	<u>Affiliation</u>
Senichi Kimura	Leader	Deputy Director, Second Basic Design Study Division, and Design Department Japan International Cooperation Agency
Nobuhiko Hanazato	Project Coordinator	Second Basic Design Study Division, Grant Aid Study and Design Department Japan International Cooperation Agency
Takenobu Mohri	Project Manager of the Consultants	Mohri, Architect & Associates Inc.
Nobuhiro Mohri	Site Surveyor CUM Facilities and Construction Planner I	Mohri, Architect & Associates Inc.
Seiichi Yukutomi	Site Surveyor CUM Facilities and Construction Planner II	Mohri, Architect & Associates Inc.
Masaru Hino	Site Surveyor III	Mohri, Architect & Associates Inc.
Nozomu Imabayashi	Quantity Surveyor	Mohri, Architect & Associates Inc.

Basic design study draft report explanation team.

(May 21 through May 30, 1995)

Senichi Kimura	Leader	Deputy Director, Second Basic Design Study Division, and Design Department Japan International Cooperation Agency
Takenobu Mohri	Project Manager of the Consultants	Mohri, Architect & Associates Inc.
Nobuhiro Mohri (support)	Site Surveyor CUM Facilities and Construction Planner I	Mohri, Architect & Associates Inc.

APPENDIX 2. SURVEY SCHEDULE

ITINERARY OF THE BASIC DESIGN STUDY TEAM

No	Date	Day	ITINERARY					
			JICA Leader SEIICHI KIMURA	JICA Project Coordinator NOBUHIKO HANAZATO	Team A Project manager TAKENORU MOHRI EDGARD SECO	Team B Site Surveyor NOBUHIRO MOHRI TITO ENCINAS	Team C Site Surveyor SEIICHI YUKUTOMI LINA DE LOS SANTOS	Team D Site Surveyor MASARU HIRAO JUFRE SUAREZ
1	3/1	Wed	Lv. NARITA 9:45 → Arr. MANILA 13:20					
2	2	Thu	Meeting with Philippine JICA Office, Embassy of Japanese, Courtesy Call to DECS and Meeting					
3	3	Fri	Meeting with DECS					
4	4	Sat	Lv. MANILA 8:00 → Arr. CEBU 9:10 Courtesy Call to DECS Regional Office, Inspection on Project Site	(CEBU)	Meeting with DECS	MANILA → CEBU S23, E42 (CEBU)		
5	5	Sun	Lv. CEBU 16:30 → Arr. MANILA 17:40		MANILA → BACOLOD (BACOLOD)	CEBU → MANILA		
6	6	Mon	Meeting with DECS					
7	7	Tue	Signing of Minutes of Discussions Report to Philippine JICA Office, Embassy of Japan		E1, S1, S2, S3 (BACOLOD)	Signing of Minutes of Discussions		
8	8	Wed	Lv. MANILA 14:45 → Arr. NARITA 19:40	Inspection on Project School Buildings in Region III (TRSBP V) Inspection on Project School Buildings in Quezon City (SEDP) MANILA 5:15 → PUERTO PRINCESA 6:25		S5, AE3, E8 (BACOLOD)	MANILA → TAGBILARAN Courtesy Call to DECSR (TAGBILARAN)	
9	9	Thu		Inspection on Project School Buildings (ERIP-1) and Science Equipment (SEP-2), PUERTO PRINCESA 19:25 → MANILA 20:35		S6, E5, AE2 (KABANKALAN)	Courtesy Call to DECSR E32, E33 (TAGBILARAN)	
10	10	Fri		Lv. MANILA 14:45 → Arr. NARITA 19:40	Data Collection	MANILA 4:55 → CEBU 6:05 AE34, E37, E38, E36 (CEBU)	Courtesy Call to DECSR E3, E9, S7 (BACOLOD)	AE33, AE32, E31, E35 (TAGBILARAN)
11	11	Sat		Data Collection		E41, E44, E45, S22 (CEBU)	AE5, Data Collection (BACOLOD)	AS32, S18, AE31, S19 (TAGBILARAN)
12	12	Sun		Data Collection	Data Analysis		Data Collection (BACOLOD)	Data Collection (TAGBILARAN)
13	13	Mon		Data Collection		S21, AE35, AS35, E39 (TOLEDO)	Courtesy Call to DECSR E11, S9, E6 (SAN CARLOS)	TAGBILARAN → CEBU (CEBU)
14	14	Tue		Meeting with DECS		E50, AS34, AS36 (TOLEDO)	Courtesy Call to DECSR S4, E2, E4 (BACOLOD)	CEBU → SURIGAO Courtesy Call to DECSR AE61 (SURIGAO)
15	15	Wed		Meeting with DECS	Bato → Tampi E43, S24 (DUMAGUETE)		BACOLOD → ILOILO DECSR (ILOILO)	S34, E57, S32, AE51 (BUTUAN)
16	16	Thu		Meeting with DECS	E47, AS39, E48, E49 (DUMAGUETE)		ILOILO → GUMARAS Courtesy Call to DECSR E12, E23, S14 (ILOILO)	Courtesy Call to DECSR E54, E55, S33, E56 (BUTUAN)
17	17	Fri		Meeting with DECS	E46, S25 (DUMAGUETE)		Courtesy Call to DECSR E22, E23, S14 (ILOILO)	Courtesy Call to DECSR E73, E71, AE85 (BUTUAN)
18	18	Sat		Data Collection	DUMAGUETE → MANILA		E21, AS23 (ILOILO)	AS81, E74, E72, S46 (BUTUAN)
19	19	Sun		Data Collection & Analysis	Data Analysis		ILOILO → CEBU Data Collection (CEBU)	Data Collection (BUTUAN)
20	20	Mon		Data Analysis of Other Donors	Data Analysis		CEBU → OZAMIS E62, S38, E59 (OZAMIS)	E53, E52 Courtesy Call to DECSR (CAGAYAN DE ORO)
21	21	Tue		Data Analysis of Other Donors	Data Analysis		AS63, S40, AS67, E61 (OZAMIS)	S39, E60, S43 (CAGAYAN DE ORO)
22	22	Wed		Data Analysis			TANGUB → TUBOD DECSR, AE75, AS79, E68 (MALAYBALAY)	E64, S42 Courtesy Call to DECSR (CAGAYAN DE ORO)
23	23	Thu		Data Collection & Analysis			E67, S44, S45, E69 (MALAYBALAY)	E65, E66 (CAGAYAN DE ORO)
24	24	Fri		Meeting with DECS			E70 CAGAYAN DE ORO → MANILA	S41, E63 (CAGAYAN DE ORO)
25	25	Sat		Data Collection & Analysis				CAGAYAN DE ORO → MANILA
26	26	Sun		Meeting among Team Members, Data Collection & Analysis				
27	27	Mon		Data Collection & Analysis				
28	28	Tue		Meeting with DECS				
29	29	Wed		Meeting with DECS, Report to Philippine JICA Office, Embassy of Japan				
30	30	Thu	Lv. MANILA 8:50 → Arr. NARITA 13:40	Meeting with DECS				
31	31	Fri		Data Collection				
32	4/1	Sat		Data Collection				
33	2	Sun		Data Collection				
34	3	Mon		Meeting with DECS				
35	4	Tue		Meeting with DECS				
36	5	Wed		Data Analysis	MANILA → NARITA	MANILA → MINDRO		
37	6	Thu		Meeting with DECS		Inspection on Project School Bldg. (ERIP-1)		
38	7	Fri		Meeting with DECS Report to JICA Office, Embassy of Japan		MINDRO → MANILA Report to JICA Office, Embassy of Japan		
39	8	Sat		Data Analysis		Data Analysis		
40	9	Sun		Data Analysis		Data Analysis		
41	10	Mon	Lv. MANILA 8:50 → Arr. NARITA 13:40				Lv. MANILA 8:50 → Arr. NARITA 13:40	

APPENDIX 3. LIST OF PARTY CONCERNED IN THE RECIPIENT COUNTRY

During the basic study's survey period, the study team interviewed the following personnel.

Personnel on the Philippine side.

DECS (Manila)

- | | |
|---------------------------------|---|
| 1. MR. RICARDO T. GLORIA | - Secretary |
| 2. MS. ERLINDA C. PEFIANCO | - Undersecretary |
| 3. MR. ANTONIO B. NACHURA | - Undersecretary |
| 4. MR. RAMON C. BACANI | - Asst. Secretary |
| 5. MR. ACHILLES B. DEL CALLAR | - Executive Director |
| 6. MS. AMELITA A. CRUZ | - Deputy Executive Director
EDPITAF |
| 7. MS. MARIA LOURDES DE VERA | - Project Dev't, Officer V,
OPS-PDED |
| 8. MS. CORAZON L. GALANG | - Chief, BEE |
| 9. MR. JESUS R. MATEO | - PDED, OPS |
| 10. MR. ALBERTO M. BANTUGAN | - PPD, PS |
| 11. MR. ROMEO SOTIO | - PDED, OPS |
| 12. MR. LUIS G. PURISIMA. JR. | - PFD, OPS |
| 13. MR. CELERINO B. CALINISAN | - PFD, OPS |
| 14. MR. MAR F. MAGDAY | - PFD, OPS/EPS |
| 15. MS. NORMA P. OLAYA | - BEE, DECS |
| 16. MS. AIDA E. BAUTISTA | - PFD, OPS |
| 17. MS. CANDY F. DE JUAN | - PFD, OPS |
| 18. MS. ROSALIE B. RAYMUNDO | - PFD, OPS |
| 19. MS. GRACELYN A. CRISOSTOMO | - PFD, OPS |
| 20. MS. MARIA AMPARO R. VENTURA | - BSE, SEPS II |
| 21. MS. A.B. AUSTRIA | - BSE, SEPS |
| 22. MR. ARMANDO A. GABRIEL | - EDPITAF, PMU |

Region VI (DECS regional office)

- | | |
|--------------------------------------|----------------------------------|
| 1. MR. SERVILIANO C. DE LA CRUZ. JR. | - Regional Director |
| 2. MR. JOSE D. DEZA | - Educ. Supervisor |
| 3. MR. ARTHUR S. JUADA | - Asst. School Div. Supt. DECSDO |
| 4. MR. NERIO D. OSANO | - Asst. School Div. Supt. DECSDO |
| 5. MS. SINCERIDAD B. DELGADO | - Sch. Div. Supt., DECSDO |
| 6. MR. JESUS LAZO TABERDO | - Sch. Div. Supt., DECSDO |
| 7. MR. MILAGROS S. GONZALES | - Asst. Sch. Div. Supt., DECSDO |
| 8. MR. EUTIQUIO A. QUITON | - Sch. Div. Supt., DECSDO |
| 9. MR. TEODOSIO M. BORRES | - DECSDO |
| 10. MR. NORMAN O. BIADCO | - DECSDO |
| 11. MR. JACINTO B. RIGOR | - Educ. Supv. I, DECS |

- | | |
|-----------------------------|------------------------------|
| 12. MS. TERESITA G. DAYOT | - Sch. Div. Supt., DECSDO |
| 13. MR. JOB DE GUZMAN | - Educ. Supv. I, DECS |
| 14. MR. ANTONIO G. ALIRON | - Adm. Officer III, DECSDO |
| 15. MR. HERMINTO D. SALAZAR | - Schools Div. Supt., DECSDO |
| 16. MR. ROBERTO C. PASTRANA | - Educ. Supv. I, DECSDO |
| 17. MR. BANY D. SARABIA | - Educ. Supv. I, DECSDO |

Region VII (DECS Regional Office)

- | | |
|---------------------------|-----------------------------------|
| 1. MS. JANE PABORDA | - Div. Supt., DECSDO |
| 2. DR. METODIO GAPASIN | - Div. Supt., DECSDO |
| 3. MR. JUN NACUA | - Physical Coordinator, DECSDO |
| 4. MR. ILDEFONSO TAN | - Phys. Faci. Coordinator, DECS |
| 5. MR. MARCELO N. VIGONTE | - Educ. Supv. I, DECSDO |
| 6. MS. CERINA C. BOLOS | - Sch. Div. Supt., DECSDO |
| 7. MS. LOURDES A. BOLO | - Sch. District Supv., DECSDO |
| 8. MR. EDUARDO ALCANTARA | - Phys. Faci. Coordinator, DECSDO |

Region X (DECS Regional Office)

- | | |
|------------------------------------|---------------------------------|
| 1. MR. DIAMAR P. KADON | - Regional Director, DECSRO X |
| 2. MR. ERNESTO T. LOREA | - Sch. Div. Supy., DECSDO |
| 3. MR. DOMINGO V. SAMSON | - Asst. Sch. Div. Supt., DECSDO |
| 4. MS. ELLENITA D. TUMALA-MARTINEZ | - Sch. Div. Supt., DECSDO |
| 5. MS. CLARA D. ALMENDRALEJO | - Asst. Sch. Div., DECSDO |
| 6. MS. BEATRIZ G. OMay | - Asst. Sch. Div., DECSDO |
| 7. MR. FLAVIANO A. GARSYTA | - Sch. Div. Supt., DECSDO |
| 8. MR. NERIO O. CUPIN | - Asst. Supt., DECSDO |
| 9. MR. ALFONSO S. CASTOR | - Educ. Supv., II, DECSDO |
| 10. MR. RODOLFO ALEGADO | - Educ. Supv., I, DECSDO |
| 11. MR. MANUEL G. MAGTOPA | - Sch. Div. Supt., DECSDO |
| 12. MS. LOURDES C. PABOYO | - Asst. Sch. Div. Supt., DECSDO |

Personnel on the Japanese side

Japan Embassy in Manila

Mr. Koji Yashima	- First Secretary
------------------	-------------------

JICA Manila office

- | | |
|---------------------------|-------------------------------------|
| 1. MR. AKIHIKO HASHIMOTO | - Resident Representative |
| 2. MR. SATOSHI MACHIDA | - Deputy Resident Representative |
| 3. MR. NOBUYUKI KOBAYASHI | - Assistant Resident Representative |

APPENDIX 4. MINUTES OF DISCUSSION

Minutes of Discussion
on
the Basic Design Study
on
the Project for the Improvement of the Educational Facilities
(Phase III)
in
the Republic of the Philippines

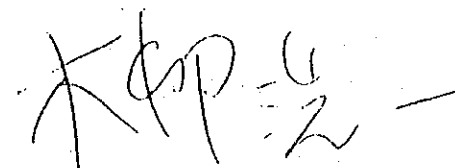
In response to a request from the Government of the Republic of the Philippines, the Government of Japan has decided to conduct a Basic Design Study on the Project for the Improvement of the Educational Facilities (Phase III), (hereinafter referred to as "the Project"), and entrusted the study to Japan International Cooperation Agency (JICA).

JICA sent to the Philippines a Basic Design Study Team headed by Mr. SENICHI KIMURA, Deputy Director, Second Basic Design Study Division, Grant Aid Department, JICA, and is scheduled to stay in the country from March 1 to April 10, 1995.

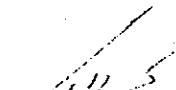
The team held discussions with concerned officials of the Government of the Philippines and conducted a field study survey at the study area.

As a result of discussions and field survey, both parties confirmed the main items described on the attached sheets.

Manila, March 7, 1995



MR. SENICHI KIMURA
Leader
Basic Design Study Team
JICA



DR. ERLINDA C. PEFIANCO
Undersecretary
Department of Education,
Culture and Sports
Republic of the Philippines

ATTACHMENT

1. OBJECTIVE OF THE PROJECT

The objective of the Project is to improve elementary and secondary educational facilities and basic equipment in order to improve the quality and access to formal and non-formal education.

2. PROJECT IMPLEMENTING AGENCY

The responsible agency is the Department of Education, Culture and Sports (DECS), and the implementing agency is the Educational Development Projects Implementing Task Force (EDPITAF).

3. PROPOSED SITE FOR THE STUDY

Both sides have agreed that,

- a) The survey will cover the sites shown in Annex-1 to collect various data and information required for the analysis and assessment of the project contents.
- b) Should problems be envisaged such as security, accessibility, etc. in the proposed study area prior to the survey, the field survey in the particular site (s) might be cancelled accordingly.
- c) The final sites covered by the Project will be discussed in the meetings held upon the dispatch of the Draft Basic Design Explanation Mission.

4. MAJOR ITEMS REQUESTED BY THE PHILIPPINE SIDE

As a result of the series of discussions, the items listed in Annex-2 are finally requested by the Philippine side. However, the items to be covered by the Project will be finalized on the basis of further studies.

5. JAPANESE GRANT AID PROGRAM

The Philippine side has understood the system of Japanese Grant Aid Program explained in Annex-3.

6. NECESSARY MEASURES TO BE TAKEN BY THE PHILIPPINES SIDE

The Government of the Republic of the Philippines will take necessary measures described in Annex-4 for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

7. FURTHER SCHEDULE OF THE STUDY

- 1) The team will proceed to further studies in the Philippines until April 10, 1995.
- 2) Based on the results, JICA will prepare a Draft Basic Design and dispatch a team in the middle of May, 1995 in order to explain and confirm on the contents.
- 3) Upon acceptance of the Draft Basic Design by the Philippine side, JICA will complete the Basic Design Report and forward it to the Philippine side by September, 1995.



THE PROJECT FOR THE IMPROVEMENT OF EDUCATIONAL FACILITIES
EFIP - Phase III
LIST OF PROPOSED RECIPIENT SCHOOLS

ELEMENTARY SCHOOLS			
REGION VI			
SCH. NO.	NAME OF SCHOOL	MUNICIPALITY	PROVINCE
E - 1	M.R. ARANETA ELEM. SCHOOL	Bago City	Bago City
E - 2	CUDCUD ELEM. SCHOOL	San Carlos City	San Carlos City
E - 3	TAPI ELEM. SCHOOL	Kabankalan	Negros Occidental
E - 4	R. MAGSAYSAY ELEM. SCHOOL	Sagay	Negros Occidental
E - 5	ALIM ELEM. SCHOOL	Hinoba-an	Negros Occidental
E - 6	RICKY ELEM. SCHOOL	Sagay	Negros Occidental
E - 7	D.J. RODRIGUEZ ELEM. SCHOOL	Tallsay	Negros Occidental
E - 8	GARGATO ELEM. SCHOOL	Hinigaran	Negros Occidental
AE - 2	BACUYANGAN ELEM. SCHOOL	Hinoba-an	Negros Occidental
AE - 3	CABACUNGAN ELEM. SCHOOL	La Castellana	Negros Occidental
AE - 5	RITA LOVINO ELEM. SCHOOL	E.B. Magalona	Negros Occidental
E - 9	GUINHALARAN ELEM. SCHOOL	Silay City	Silay City
E - 10	MANDALAGAN ELEM. SCHOOL	Bacolod City	Bacolod City
E - 11	ANDRES BONIFACIO ELEM. SCHOOL	Cadiz City	Cadiz City
E - 12	DOLORES ELEM. SCHOOL	Nueva Valencia	Guimaras
E - 21	D.A. SALAZAR JR. ELEM. SCHOOL	San Jose	Antique
E - 22	BELISON CENTRAL SCHOOL	Bellson	Antique
E - 23	BULWANGAN ELEM. SCHOOL	Bulwangan	Antique
SECONDARY SCHOOLS			
REGION VI			
SCH. NO.	NAME OF SCHOOL	MUNICIPALITY	PROVINCE
S - 1	R. TORRES NAT'L. HIGH SCHOOL (MALINGIN EXT.)	Bago City	Bago City
S - 2	DONA H.S. BENEDICTO NHS (SN. MIGUEL EXT.)	La Carlota City	La Carlota City
S - 3	DONA H.S. BENEDICTO NHS (LA GRANJA EXT.)	La Carlota City	La Carlota City
S - 4	J. LEDESMA NAT'L. HIGH SCHOOL	San Carlos City	San Carlos City
S - 5	LA CASTELLANA NAT'L HIGH SCHOOL	La Castellana	Negros Occidental
S - 6	HIMAMAYLAN NAT'L. HIGH SCHOOL	Himamaylan	Negros Occidental
S - 7	DONA M. LOPEZ NAT'L HIGH SCHOOL (CAPT. RAMON EXT.)	Silay City	Silay City
S - 8	MRRP NAT'L. HIGH SCHOOL	Bacolod City	Bacolod City
S - 9	MABINI MEM'L. SCHOOL	Cadiz City	Cadiz City
S - 10	T.V. CANJA-STA. TERESA NAT'L. HS	Jordan	Guimaras
AS - 10	LININGWAN NAT'L. HIGH SCHOOL	Jordan	Guimaras
S - 14	PIS-ANAN NAT'L. HIGH SCHOOL	Sibalom	Antique
AS - 23	SAN ROQUE ESPELETA NAT'L. HIGH SCHOOL	Anini-y	Antique

THE PROJECT FOR THE IMPROVEMENT OF EDUCATIONAL FACILITIES

EFIP - Phase III

LIST OF PROPOSED RECIPIENT SCHOOLS

ELEMENTARY SCHOOLS			
REGION VII			
SCH. NO.	NAME OF SCHOOL	MUNICIPALITY	PROVINCE
AE - 31	COGON ELEM. SCHOOL	Tagbilaran City	Bohol
AE - 32	UBAY CENTRAL SCHOOL	Ubay	Bohol
AE - 33	PILAR ELEM. SCHOOL	Pilar	Bohol
E - 31	SAN PASCUAL ELEM. SCHOOL	Ubay	Bohol
E - 32	CARMEN CENTRAL SCHOOL	Carmen	Bohol
E - 33	TALIBON CENTRAL SCHOOL	Talibon	Bohol
E - 35	TUGAS ELEM. SCHOOL	Candijay	Bohol
E - 36	TABUNOC CENTRAL SCHOOL	Talisay	Cebu
E - 37	LIPATA CENTRAL SCHOOL	Minglanilla-II	Cebu
E - 38	LANGTAD ELEM. SCHOOL	Naga-II	Cebu
E - 39	NAILON ELEM. SCHOOL	Bogo	Cebu
E - 34	NAGA I CENTRAL SCHOOL	Bogo	Cebu
AE - 35	TUBURAN CENTRAL SCHOOL	Tuburan	Cebu
E - 41	GUADALUPE ELEM. SCHOOL	Cebu City	Cebu City
E - 42	TALAMBAN ELEM. SCHOOL	Cebu City	Cebu City
E - 43	CALINDAGAN ELEM. SCHOOL	Dumaguete City	Dumaguete City
E - 44	MACTAN ELEM. SCHOOL	Lapu-Lapu City	Lapu-Lapu City
E - 45	BASAK ELEM. SCHOOL	Lapu-Lapu City	Lapu-Lapu City
E - 46	DCCT MEM. SCHOOL	Mabinay	Negros Oriental
E - 47	MALABUHAN ELEM. SCHOOL	Siaton	Negros Oriental
E - 48	BANGA CENTRAL SCHOOL	Bayawan	Negros Oriental
E - 49	STA. CATALINA CENTRAL SCHOOL	Sta. Catalina	Negros Oriental
E - 50	TOLEDO SOUTH CITY CENTRAL SCHOOL	Toledo City	Toledo City
SECONDARY SCHOOLS			
REGION VII			
SCH. NO.	NAME OF SCHOOL	MUNICIPALITY	PROVINCE
S - 18	MANGA NAT'L. HIGH SCHOOL	Tagbilaran City	Bohol
S - 19	TABALONG NAT'L. HIGH SCHOOL	Dauls	Bohol
S - 32	INABANGA NAT'L. HIGH SCHOOL	Inabanga	Bohol
S - 21	CARMEN NAT'L. HIGH SCHOOL	Carmen	Cebu
AS - 34	MANTALUGAON NAT'L. HIGH SCHOOL	Barili	Cebu
AS - 35	STA. LUCIA NAT'L. HIGH SCHOOL	Asturias	Cebu
AS - 36	COGON NAT'L. HIGH SCHOOL	Dumanjug	Cebu
S - 22	RAMON DUTERTE MEM. NATIONAL HIGH SCHOOL	Cebu City	Cebu City
S - 23	MARIGONDON NAT'L. HIGH SCHOOL	Lapu-Lapu City	Lapu-Lapu City
S - 24	TAMPI NAT'L. HIGH SCHOOL	San Jose	Negros Oriental
S - 25	TAMBO COMPREHENSIVE HIGH SCHOOL	Ayungon	Negros Oriental
AS - 39	SIATON COMPREHENSIVE HIGH SCHOOL	Siaton	Negros Oriental
S - 29	DON A. SORIANO HIGH SCHOOL	Toledo City	Toledo City
S - 30	MANDAUE CITY COMPREHENSIVE NAT'L. HIGH SCHOOL	Mandaue City	Mandaue City

THE PROJECT FOR THE IMPROVEMENT OF EDUCATIONAL FACILITIES

EFIP - Phase III

LIST OF PROPOSED RECIPIENT SCHOOLS

ELEMENTARY SCHOOLS			
REGION X			
SCH. NO.	NAME OF SCHOOL	MUNICIPALITY	PROVINCE
E - 52	BUENAVISTA EAST CENTRAL SCHOOL	Buenavista	Agusan del Norte
E - 53	CABADBARAN NORTH CENTRAL SCHOOL	Cabadbaran	Agusan del Norte
AE - 51	SANTIAGO CENTRAL ELEM. SCHOOL	Santiago	Agusan del Norte
E - 54	ONG YIU CENTRAL ELEM. SCHOOL	Butuan City	Butuan City
E - 55	OBRERO ELEM. SCHOOL	Butuan City	Butuan City
E - 56	SAN MATEO ELEM. SCHOOL (ANNEX)	Butuan City	Butuan City
E - 57	M. ESPINA MEM'L. ELEM. SCHOOL	Surigao City	Surigao City
AE - 61	QUEZON ELEM. SCHOOL	Surigao City	Surigao City
E - 59	BAYBAY ELEM. SCHOOL	Ozamiz City	Ozamiz City
E - 60	SAN JUAN ELEM. SCHOOL	Gingoog City	Gingoog City
E - 61	TABOC ELEM. SCHOOL ANNEX	Oroquieta City	Misamis Occidental
E - 62	BAGUMBANG ELEM. SCHOOL	Bonifacio	Misamis Occidental
E - 63	LAPASAN EAST CITY CENTRAL SCHOOL	Cagayan de Oro City	Cagayan de Oro City
E - 64	BALINGASAG CENTRAL SCHOOL	Balingasag	Misamis Oriental
E - 65	ALUBIJID CENTRAL SCHOOL	Alubijid	Misamis Oriental
E - 66	MANTICAO CENTRAL SCHOOL	Manticao	Misamis Oriental
E - 67	VALENCIA CENTRAL SCHOOL	Valencia	Bukidnon
E - 68	MALAYBALAY CENTRAL SCHOOL	Malaybalay	Bukidnon
E - 69	MARAMAG CENTRAL SCHOOL	Maramag	Bukidnon
AE - 75	DAMILAG ELEM. SCHOOL	Manolo Fortich	Bukidnon
E - 70	KISOLON CENTRAL SCHOOL	Sumilao	Bukidnon
E - 71	TRENTO CENTRAL ELEMENTARY SCHOOL	Trento	Agusan del Sur
E - 72	EAST PROSPERIDAD CENTRAL ELEMENTARY SCHOOL	Prosperidad	Agusan del Sur
E - 73	STA. JOSEFA CENTRAL SCHOOL	Sta. Josefa	Agusan del Sur
E - 74	BAYUGAN CENTRAL ELEMENTARY SCHOOL	Bayugan	Agusan del Sur
AE - 85	BONIFACIO ELEM. SCHOOL	Rosario	Agusan del Sur
SECONDARY SCHOOLS			
REGION X			
SCH. NO.	NAME OF SCHOOL	MUNICIPALITY	PROVINCE
S - 32	JABONGA NAT'L. HIGH SCHOOL	Jabonga	Agusan del Norte
AS - 81	SIBAGAT NAT'L. HIGH SCHOOL	Sibagat	Agusan del Sur
S - 46	LAPINIGAN NAT'L. HIGH SCHOOL	San Francisco	Agusan del Sur
S - 40	CALAMBA NAT'L. HIGH SCHOOL	Calamba	Misamis Occidental
AS - 63	MISAMIS OCCIDENTAL NAT'L. HIGH SCHOOL	Oroquieta City	Misamis Occidental
AS - 67	SENOTE NAT'L. HIGH SCHOOL	Oroquieta City	Misamis Occidental
S - 42	TAGOLOAN NAT'L. HIGH SCHOOL	Tagoloan	Misamis Oriental
S - 43	PORTULIN NAT'L. HIGH SCHOOL	Medina	Misamis Oriental
S - 44	KALILANGAN NAT'L. HIGH SCHOOL	Kallilangan	Bukidnon
S - 45	KITAOTAO NAT'L. HIGH SCHOOL	Kitaotao	Bukidnon
AS - 70	IMPASUGONG COMPREHENSIVE HIGH SCHOOL	Impasugong	Bukidnon
S - 33	LIBERTAD NAT'L. HIGH SCHOOL	Butuan City	Butuan City
S - 34	SAN JUAN NAT'L. HIGH SCHOOL	Surigao City	Surigao City
S - 38	LABINAY NAT'L. HIGH SCHOOL	Ozamiz City	Ozamiz City
S - 39	GINGOOG CITY NAT'L. HIGH SCHOOL	Gingoog City	Gingoog City
S - 41	BAYABAS NAT'L. HIGH SCHOOL	Cagayan de Oro City	Cagayan de Oro City

THE MAJOR ITEMS INCLUDED IN THE PROJECT

1. Buildings

(1) Elementary School

Classrooms
Toilets

(2) Secondary School

Classrooms
Science Laboratories
Toilets

NOTE: Both parties have agreed that the toilet will be constructed in the same manner as in Phase II.

2. Furniture

(1) Elementary School

- Pupil's desks, chairs and side shelves
- Teacher's desks, chairs and storage cabinets
- Blackboards and bulletin board

(2) Secondary School

- Pupil's desks, chairs and side shelves
- Teacher's desks, chairs and storage cabinets
- Tables, stools and workbenches for science laboratory
- Blackboards and bulletin board



NOTE: According to DECS Memorandum No. 38, S. 1995 dated February 6, 1995, DECS is in the position to support the government thrust of conserving and caring for the environment, and in line with House Resolution No. 98 of December 6, 1994, to discourage the use of wood for school buildings and desks.

Both parties have agreed that the use of environmental friendly materials would be taken into account for the school buildings and furnitures.

3. Basic Science Equipment for Secondary School Science Laboratory.

NOTE: The Team has agreed to review the science equipment provided under this project.



Japan's Grant Aid Scheme

1. Grant Aid Procedures

- 1) Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using a Japanese consulting firm.

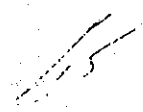
Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

- 1) Contents of the study
The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study as follows:



- a) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- d) Preparation of a Basic Design of the Project.
- e) Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For such implementation of the study, JICA uses a registered consultant firm. JICA selects a firm based on proposals submitted by interested firms. The selected firm carries out a Basic Design Study and writes a report, based upon the terms of reference set by JICA.

The consulting firm used for the Study is recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid program provides recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of material as such.



- 2) Exchange of Notes (E/N)
Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.
- 3) "The period of the Grant Aid is extended" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the notes, concluding contracts with a consultant firm and a contractor and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

- 4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely, consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese corporations controlled by persons of Japanese nationality.)

- 5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese tax payers.

- 6) Undertakings required of the Government of the recipient country in the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

- (1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to the commencement of the construction.
- (2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- (3) To secure buildings prior to the procurement in case the installation of the equipment.



- (4) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
 - (5) To exempt Japanese nationals from custom duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
 - (6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.
- 7) "Proper Use"
The recipient country is required to maintain and use the facilities constructed and equipments purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.
 - 8) "Re-Export"
The products purchased under the Grant Aid should not be re-exported from the recipient country
 - 9) Banking Arrangements (B/A)
 - a) The Government of the recipient country or its designated authority should open an account in the name of the government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.
 - b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the government of the recipient country or its designated authority.



NECESSARY MEASURES TO BE TAKEN BY THE PHILIPPINE SIDE

The following necessary measures should be taken by the Government of the Republic of the Philippines on condition that the Grant Aid by the Government of Japan is extended to the Project:

- (1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to the commencement of the construction.
- (2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- (3) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- (4) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- (5) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.
- (6) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

- (7) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

APPENDIX 5. COST ESTIMATION BORNE BY THE RECIPIENT COUNTRY

School No.	Site Creation		Demolition of Existing Building	Electrical Work	Plumbing Work	Exterior Work		Construction of Access Road	Total
	New No	Old No				Fill	Cut		
E-01	E-1	42,838		60,000	18,174	11,935	36,792		169,739
E-02	E-3	42,838		60,000	18,174		36,792		157,804
E-03	E-5	42,838		60,000	11,631	11,935	36,792		163,196
E-04	E-6	42,838		60,000	11,631	11,935	36,792		163,196
E-05	E-8			58,800	60,000	11,631	11,935		179,158
E-06	AE-2	42,838		60,000	11,631	11,935	36,792		163,196
E-07	AE-3	42,838		60,000		11,935	36,792		151,565
E-08	E-9	42,838		60,000	11,631	11,935	36,792		163,196
E-09	E-10	42,838		60,000	18,174	11,935	36,792		169,739
E-10	E-11	42,838		60,000	18,174		36,792		157,804
E-11	E-21	42,838	8,400	60,000	11,631	11,935	36,792		171,596
S-01	S-1	51,580		60,000	18,174		42,206		171,961
S-02	S-2	51,580		60,000	11,631		42,206		165,418
S-03	S-4	51,580		60,000	18,174		42,206		171,961
S-04	S-5	51,580		60,000	11,631		42,206	26,280	191,698
S-05	S-6	51,580		60,000		11,935	42,206		165,722
S-06	S-7	51,580			18,474	11,935	42,206		124,196
S-07	S-8	51,580		60,000	11,631	11,935	42,206		177,353
S-08	S-9	51,580		60,000	11,631	11,935	42,206		177,353
S-09	S-14		21,971	60,000	11,631	11,935	42,206		147,743
S-10	AS-23	51,580		60,000	11,631		42,206		165,418
E-12	AE-33			15,200	60,000	11,631	36,792		123,623
E-13	E-31		37,891	60,000	18,174		36,792		152,857
E-14	E-33	42,838		60,000	11,631	11,935	36,792		163,196
E-15	E-35	42,838		60,000	18,174		36,792		157,804
E-16	E-37	42,838		60,000			36,792		139,630
E-17	E-38	42,838		60,000	18,174		36,792		157,804
E-18	E-39			6,800	60,000	11,631	11,935		127,158
E-19	AE-34	42,838		60,000			36,792		139,630
E-20	AE-35	42,838		60,000	18,174		36,792		157,804
E-21	E-41	42,838		60,000	18,174	11,935	36,792		169,739
E-22	E-42	42,838		60,000	18,174	11,935	36,792		169,739
E-23	E-44			58,800	60,000	11,631	36,792		167,223
E-24	E-45	42,838	4,800	60,000	11,631		36,792		156,061
E-25	E-46	42,838		60,000	18,174	11,935	36,792		169,739
E-26	E-47	42,838		60,000	11,631		36,792		151,261
E-27	E-48	42,838		60,000	18,174		36,792		157,804
S-11	S-19		21,971	60,000	11,631		42,206		135,808
S-12	AS-32	51,580		60,000	18,174		42,206	8,760	180,721
S-13	S-21	51,580		60,000	18,174		42,206		171,961
S-14	AS-34	51,580		6,480	60,000		42,206		160,267
S-15	AS-35	51,580		60,000			42,206		153,787
S-16	AS-36	51,580		60,000	18,174		42,206		171,961
S-17	S-22	51,580		60,000			42,206		153,787
S-18	S-23	51,580		60,000	18,174	11,935	42,206		183,896
S-19	AS-39	51,580		60,000	18,174	11,935	42,206		183,896
S-20	S-30	51,580		60,000	18,174		42,206		171,961
E-28	AE-51	43,838		60,000		11,935	36,792		152,565
E-29	E-54	43,838		60,000	18,174		36,792		158,804
E-30	E-55			32,400	60,000		36,792		129,192
E-31	E-65		11,367	60,000	18,174		36,792		126,333
E-32	E-67	43,838		60,000	18,174	11,935	36,792		170,739
E-33	E-68	43,838		1,500	60,000		36,792		142,130
E-34	E-69	43,838		60,000		11,935	36,792		152,565
E-35	AE-75	43,838		60,000		11,935	36,792		152,565
E-36	E-70	43,838		60,000			36,792		140,630
E-37	E-71	43,838		60,000	18,174		36,792		158,804
E-38	E-72	43,838		60,000			36,792		140,630
E-39	E-74	43,838		60,000	18,174		36,792		158,804
E-21	AS-81	51,580		60,000	18,174		42,206		171,961
E-22	S-46	103,160		60,000			42,206		205,367
E-23	S-40	51,580		60,000			42,206		153,787
E-24	AS-63	51,580		60,000	11,631		42,206		165,418
E-25	AS-67	51,580		60,000	11,631		42,206		165,418
E-26	S-42	51,580		60,000	11,631		42,206		165,418
E-27	S-45		56,479	60,000			42,206		158,686
E-28	AS-79	51,580		60,000			42,206		153,787
E-29	S-33	51,580		60,000	18,174		42,206		171,961
E-30	S-38	51,580		60,000			42,206		153,787
합계		2,825,063	149,679	193,180	4,080,000	765,054	2,999,455	35,040	11,047,471

APPENDIX 6. TRANSITION OF THE SELECTION OF SCHOOLS

Continuing from Phases 1 and 2 of the plan, the government of the Philippines selected 120 schools in the sixth, seventh, and tenth administrative districts out of 298 schools selected by the study team as the Phase 3 of the plan, and requested the grant aid from the government of Japan to construct school buildings for these schools. After much consideration, eighty schools were selected to be studied, from which the final number of schools to be included in the grant aid cooperation was reduced to about sixty. Furthermore, discussions were made based on the policy to exclude Mindanao island, which belongs to the tenth district, mainly for security reasons.

With regard to the reduction of the number of schools, it was explained that the decision was made from the Japanese Government's political judgment, which the Philippine side understood. However, the Philippine side strongly insisted that as many schools as possible be included through the reduction of costs. Based on the B/D study of this time, the government of Japan as agreed by the Philippine Government, proposed the selection of about eighty schools at first.

However, in the stage of actually reducing the number of schools, the Philippine side indicated strong resistance to the exclusion of Mindanao island belonging to the tenth administrative district. After discussion, it was decided that Mindanao island would be included providing there is no security problem.

In addition, with regard to the number of schools, the study team insisted to focus the areas by excluding other requested areas in order to maintain an efficient study and as a bargaining point for including Mindanao, but the Philippine side was concerned that a reduction in the number of schools studied, would mean a reduction in the final number of schools included in the cooperation project. In addition, the study team could not decide whether to exclude the high priority areas from the study. Furthermore, by considering that the efficiency would be lowered by including Mindanao island, which the team did not expect to study, 110 schools were selected. The study team was divided into three groups and site surveys were conducted from March 4 to March 25 (Refer to Table - 1).

After returning to Japan, the study team analyzed and arranged the 110 schools in order of site study and by taking into account approximate project costs. After excluding the thirty-five schools which could not be included in the plan, seventy-five schools were grouped as follows: fifty-four schools had no problems from the point of necessity or the conditions of construction, nine schools had some problems that could be solved, six schools had unfavorable conditions, and six schools where it was necessary to obtain the signed memoranda on the land acquisition. The study team discussed several options on how to reduce the number of schools.

* As the outline of the options, the following proposals were suggested in the order listed below and discussed.

- 1) The nine schools having some problems which may be solved will be technically re-examined.
- 2) Six schools in Antique of Panay island and in Guimaras island, which belong to the sixth administrative district and have problems on the economy of construction or on work period will be excluded from the plan. By doing so, the number of schools will be increased as much as possible within the budget.
- 3) Although the schools in the above mentioned two administrative districts will be included in the plan, six schools which failed to submit the signed memoranda on the land acquisition were excluded from the plan to maintain the budget.
- 4) A proposal consisting of several combinations of the above mentioned 1) to 3) will be agreed within the range of the budget.

* From the result of discussions, the problems of nine schools were found to be technically solved, and these schools were included in the plan (Refer to Table - 2.)

* From the result of discussions, the Philippine side agreed to exclude Guimaras island mentioned in 2). However, with regard to Antique, which receives support from Social Reform Agenda, the Philippine side strongly insisted that this area be included in the plan. Therefore three schools out of four having favorable

conditions were included in the plan. Then discussions were made on how to handle the schools that have not submitted the signed memoranda on land acquisition (Refer to Table - 3.)

- * Partly because of the DECS insistence, of the Philippine side, the deadline for the submission of signed memoranda on land acquisition was postponed to 3:00 p.m. on May 23.

The Philippine side urged the said schools to submit the signed memoranda again. As a result, one school submitted the necessary signed memoranda and they was included in the plan (Refer to Table - 4.)

- * In addition, the Philippine side requested that two schools out of thirty-five schools which were clearly excluded, to be reconsidered. After reconfirmation and discussion, they were included. One school out of these two was requested to submit a signed memorandum on the site condition, and the signed memorandum was immediately sent to us by FAX (Refer to Table - 5.)

From the results mentioned above, both parties agreed to include a total of sixty-nine schools.

Table-1 Candidate School which were Site Surveyed as requested by The Government of The Philippines

School No.	Name of School	Location
ELEMENTARY SCHOOLS		
REGION VI		
E- 01.	M. R. Araneta Elementary School	: Bago City, Bago City
E- 02.	Cudcud Elementary School	: San Carlos City, San Carlos City
E- 03.	Tapi Elementary School	: Kabankalan, Negros Occidental
E- 04.	R. Magsaysay Elementary School	: Sagay, Negros Occidental
E- 05.	Alim Elementary School	: Hinoba-an, Negros Occidental
E- 06.	Ricky Elementary School	: Sagay, Negros Occidental
E- 07.	D. J. Rodriguez Elementary School	: Talisay, Negros Occidental
E- 08.	Gargato Elementary School	: Hinigaran, Negros Occidental
AE- 2.	Bacuyangan Elementary School	: Hinoba-an, Negros Occidental
AE- 3.	Cabacungan Elementary School	: La Castellana, Negros Occidental
AE- 5.	Rita Lovino Elementary School	: E. B. Magalona, Negros Occidental
E- 09.	Guinhalaran Elementary School	: Silay City, Silay City
E- 10.	Mandalagan Elementary School	: Bacolod City, Bacolod City
E- 11.	Andres Bonifacio Elementary School	: Cadiz City, Cadiz City
E- 12.	Dolores Elementary School	: Nueva Valencia, Guimaras
E- 21.	D. A. Salazar Jr. Elementary School	: San Jose, Antique
E- 22.	Belison Central School	: Belison, Antique
E- 23.	Bulwangan Elementary School	: Bulwangan, Antique
REGION VII		
AE-31.	Cogon Elementary School	: Tagbilaran City, Bohol
AE-32.	Ubay Central School	: Ubay, Bohol
AE-33.	Pilar Elementary School	: Pilar, Bohol
E- 31.	San Pascual Elementary School	: Ubay, Bohol
E- 32.	Carmen Central School	: Carmen, Bohol
E- 33.	Talibon Central School	: Talibon, Bohol
E- 35.	Tugas Elementary School	: Candijay, Bohol
E- 36.	Tabunoc Central School	: Talisay, Cebu
E- 37.	Lipata Central School	: Minglanilla, Cebu
E- 38.	Langtad Elementary School	: Naga, Cebu
E- 39.	Nailon Elementary School	: Bogo, Cebu
AE-34.	Naga I Central School	: Naga, Cebu
AE-35.	Tuburan Central School	: Tuburan, Cebu
E- 41.	Guadalupe Elementary School	: Cebu City, Cebu City
E- 42.	Talamban Elementary School	: Cebu City, Cebu City
E- 43.	Calindagan Elementary School	: Dumaguete City, Dumaguete City
E- 44.	Mactan Elementary School	: Lapu-Lapu City, Lapu-Lapu City
E- 45.	Basak Elementary School	: Lapu-Lapu City, Lapu-Lapu City
E- 46.	DCCT Memorial School	: Mabinay, Negros Oriental
E- 47.	Malabuan Elementary School	: Siaton, Negros Oriental
E- 48.	Banga Central School	: Bayawan, Negros Oriental
E- 49.	Sta. Catalina Central School	: Sta. Catalina, Negros Oriental
E- 50.	Toledo South City Central School	: Toledo City, Toledo City

School No.	Name of School	Location
REGION X		
E- 52.	Buenavista East Central Schoolhood	: Buenavista Agusan del Norte
E- 53.	Cabadbaran North Central School	: Cabadbaran, Agusan del Norte
AE-51.	Santiago Central Elementary School	: Santiago, Agusan del Norte
E- 54.	Ong Yiu Central Elementary School	: Butuan City, Butuan City
E- 55.	Obrero Elementary School	: Butuan City, Butuan City
E- 56.	San Mateo Elementary School	: Butuan City, Butuan City
E- 57.	M. Espina Memorial Elementary School	: Surigao City, Surigao City
E- 65.	Alubijid Central School	: Alubijid, Misamis Oriental
AE-61.	Quezon Elementary School	: Surigao City, Surigao City
E- 59.	Baybay Elementary School	: Ozamiz City, Ozamiz City
E- 60.	San Juan Elementary School	: Gingoog City, Gingoog City
E- 61.	Taboc Elementary School	: Oroquieta City, Misamis Occidental
E- 62.	Bagumbang Elementary School	: Bonifacio, Misamis Occidental
E- 63.	Lapasan East City Central School	: Cagayan de Oro City, Cagayan de Oro City
E- 64.	Balingasag Central School	: Balingasag, Misamis Oriental
E- 65.	Alubijid Central School	: Alubijid, Misamis Oriental
E- 66.	Manticao Central School	: Manticao, Misamis Oriental
E- 67.	Valencia Central School	: Valencia, Bukidnon
E- 68.	Malaybalay Central School	: Malaybalay, Bukidnon
E- 69.	Maramag Central School	: Maramag, Bukidnon
AE-75.	Damilag Elementary School	: Manolo Fortich, Bukidnon
E- 70.	Kisolon Central School	: Sumilao, Bukidnon
E- 71.	Trento Central Elementary School	: Trento, Agusan del Sur
E- 72.	East Prosperidad Central Elementary School	: Prosperidad, Agusan del Sur
E- 73.	Sta. Josefa Central School	: Sta. Josefa, Agusan del Sur
E- 74.	Bayugan Central Elementary School	: Bayugan, Agusan del Sur
AE-85.	Bonifacio Elementary School	: Rosario, Agusan del Sur
SECONDARY SCHOOLS		
REGION VI		
S- 01.	R. Torres National High School	: Malingin, Bago City
S- 02.	Dona H.S. Benedicto National High School	: San Miguel, La Carlota City
S- 03.	Dona H.S. Benedicto National High School	: La Granja, La Carlota City
S- 04.	J. Ledesma National High School	: San Carlos City, San Carlos City
S- 05.	La Castellana National High School	: La Castellana, Negros Occidental
S- 06.	Himamaylan National High School	: Himamaylan, Negros Occidental
S- 07.	Dona. M. Lopez National High School	: Capt. Ramon, Silay City
S- 08.	MRRP National High School	: Bacolod City, Bacolod City
S- 09.	Mabini Memorial School	: Cadiz City, Cadiz City
S- 10.	T.V. Canja-Sta. Teresa National High School	: Jordan, Guimaras
AS-10.	Liningwan National High School	: Jordan, Guimaras
S- 14.	Pis-anan National High School	: Sibalom, Antique
AS-23.	San Roque-Espeleta National High School	: Anini-y, Antique

School No.	Name of School	Location
REGION VII		
S- 18.	Manga National High School	: Tagbilaran City, Bohol
S- 19.	Tabalong National High School	: Dausi, Bohol
AS-32.	Inabanga National High School	: Inabanga, Bohol
S- 21.	Carmen National High School	: Carmen, Cebu
AS-34.	Mantalongon National High School	: Barili, Cebu
AS-35.	Sta. Lucia National High School	: Asturias, Cebu
AS-36.	Cogon National High School	: Dumanjug, Cebu
S- 22.	Ramon Duterte Municipal High School	: Cebu City, Cebu City
S- 23.	Marigondon National High School	: Lapu-Lapu City, Lapu-Lapu City
S- 24.	Tampi National High School	: San Jose, Negros Oriental
S- 25.	Tambo Comprehensive High School	: Ayungon, Negros Oriental
AS-39.	Siaton Comprehensive High School	: Siaton, Negros Oriental
S- 29.	Dona A. Soriano High School	: Toledo City, Toledo City
S- 30.	Mandaue City National High School	: Mandaue City, Mandaue City
REGION X		
S- 32.	Jabonga Nat'l High School	: Jabonga City, Jabonga City
AS-81.	Sibagat Nat'l High School	: Sibagat, Agusan del Sur
S- 46.	Lapinigan Nat'l High School	: San Francisco, Agusan del Sur
S- 40.	Calamba Nat'l High School	: Calamba, Misamis Occidental
AS-63.	Misamis Occidental Nat'l High School	: Oroquieta City, Misamis Occidental
AS-67.	Senote Nat'l High School	: Oroquieta City, Misamis Occidental
S- 42.	Tagoloan Nat'l High School	: Tagoloan, Misamis Oriental
S- 43.	Portulin Nat'l High School	: Medina, Misamis Oriental
S- 44.	Kalilangan Nat'l High School	: Kalilangan, Bukidnon
S- 45.	Kitao-ao Nat'l High School	: Kitao-ao, Bukidnon
AS-79.	Impasugong Comprehensive High School	: Impasugong, Bukidnon
S- 33.	Libertad Nat'l High School	: Butuan City, Butuan City
S- 34.	San Juan Nat'l High School	: Surigao City, Surigao City
S- 38.	Labinay Nat'l High School	: Ozamiz City, Ozamiz City
S- 39.	Gingoog City Nat'l High School	: Gingoog City, Gingoog City
S- 41.	Bayabas Nat'l High School	: Cagayan de Oro City, Cagayan de Oro City

Table-2 Candidate Schools with Minimal Site Problems that were Resolved After a Thorough Evaluation

Recipient School	School No.	School Name	Problem(s)	Solution
Recipient School	AE - 34	Naga I Central School	There is no space necessary for the construction, and the principle was not present when study was made. In addition, no confirmation could be obtained whether a part of the playground can be used.	Confirmation to use a part of playground as the construction site was obtained from the principle.
Recipient School	S - 5	La Castellana Nat'l. High School	A part of the privately owned access road is narrow and the transportation of construction equipment is impossible.	A certificate was submitted to rent an access road via the transportation of construction equipment is possible during the construction period.
Recipient School	E - 6	Ricky Elementary School	Because the construction site is located in the playground, confirmation to secure a playground somewhere else is necessary.	It was found that the playground can be secured somewhere else.
Recipient School	E - 3	Tapi Elementary School	Securing the water necessary for the construction site might be difficult.	It was found that the water could be secured from the neighbor (200m).
Recipient School	AS - 67	Senote Nat'l. High School	Securing the water necessary for the construction site might be difficult.	It was found that the problem could be handled by carrying the water from the elementary school 200m from the site.
Recipient School	S - 42	Tagoloan Nat'l. High School	Unless the temporary school building is removed, the space necessary for construction cannot be secured.	By considering the number of insufficient classrooms (50.3), it was approved that the temporary school building could be removed.
Recipient School	E - 68	Malaybalay Central School	Because the construction site is located on a sloped land, an enormous amount of land development work is necessary.	It was found possible to minimize the development and secure the necessary space for construction.
Recipient School	S - 19	Tabalong Nat'l. High School	Because the construction site is made of base rocks, there is a concern that they may cause problems.	It was found that the base rocks do not present problems.
Recipient School	E - 44	Mactan Elementary School	Because the construction site is made of base rocks, there is a concern that they may cause problems.	It was found that the base rocks do not present problems.

Table-3 Status of Candidate Schools Located in Antique and Guimaras Island

	School No.	Name of School	Location	No. of Classroom Shortage	Remarks
Non recipient	S -10	T. V. Canja-Sta. Teresa National High School	Guimaras	7.55	School located on a small island.
Recipient	S -14	Pis-anan National High School	Antique	7.4	
Recipient	AS-23	San Roque-Espeleta National High School	Antique	7.25	
Recipient	E -21	D. A. Salazar Jr. Elementary School	Antique	4.325	
Project Schools with some problems and/or Obstacles					
Non recipient	AS-10	Lingnan National High School	Guimaras	7.40	It would be difficult to secure water for construction during dry season.
Non recipient	E -22	Belison Central School	Antique	2.525	No classroom shortage exists.

Table-4 Status of Project Schools Requiring Land Ownership or Legitimate Land Lease Certificate to Qualify

	School No.	Name of School	Problem	Reason
Recipient	AS-81	Sibagat Nat'l High School	Necessary to obtain the signed memorandum on the land acquisition.	Subaited memorandum.
Non recipient	S - 3	Dona H. S. Benedicto National High School	Necessary to obtain the signed memorandum on the land acquisition.	-
Non recipient	E -49	Sta. Catalina Central School	Necessary to obtain the signed memorandum on the land acquisition.	-
Non recipient	S -24	Tampi National High School	Necessary to obtain the signed memorandum on the land acquisition.	-
Non recipient	E -63	Lapasas East City Central School	Necessary to obtain the signed memorandum on the land acquisition.	-
Non recipient	AE-85	Bonifacio Elementary School	Necessary to obtain the signed memorandum on the land	-

Table-5

	School No.	Name of School	Reason(s)
Recipient	S - 2	Dona H.S. Benedicto National High School	Because the construction site is made of base rocks and huge rocks are buried, ground leveling and foundation mean enormous costs. a special basic design was needed to include this school in the plan. Although this plan has a uniform design, it was found that the problem could be solved with a slight change of design at the site.
Recipient	AS-35	Sta. Lucia National High School (Annex)	Most of the site is marshy, and it was first determined that there was no other space for the playground which would be used as the construction site. However because it was confirmed that the existing playground could be used as the construction site and the playground could be moved to marshy land, this school was included in the plan. Moving the playground to the marshy land causes no technical problem.

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