

GOVERNMENT OF NEPAL  
MINISTRY OF EDUCATION

PREPARATORY SURVEY REPORT  
ON  
THE PROJECT FOR BASIC EDUCATION  
IMPROVEMENT IN SUPPORT OF SCHOOL  
SECTOR REFORM PROGRAM  
IN  
NEPAL

November 2011

JAPAN INTERNATIONAL COOPERATION AGENCY

FUKUWATARI & ARCHITECTURAL CONSULTANTS LTD.  
SAVE THE CHILDREN JAPAN



## Preface

The Japan International Cooperation Agency (JICA) decided to conduct the preparatory survey and entrusted it to Fukuwatari & Architectural Consultants and Save the Children Japan.

The survey team held a series of discussions with officials concerned of the Government of Nepal, and conducted field investigations. As a result of further studies in Japan, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of Nepal for their close cooperation extended to the survey team.

November 2011

Nobuko Kayashima  
Director General  
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# Summary

## 1. Background and Contents of the Project

In response to The World Education Forum on Education for All (EFA) in Dakar in 2000, the Government of Nepal launched its National Plan of Action for achieving the EFA goals by 2015. As a result of this, the School Sector Reform Program (SSRP: 2009-2015) is currently being implemented, aiming at achieving a net enrolment ratio of 99% by the year 2015. The Government plans to provide free basic education, and has extended the period of compulsory education from five years to eight years. This extension requires 55,344 additional classrooms nationwide, creating a big gap with the total demand for classrooms.

Over the past decade, the Government of Nepal has been promoting decentralization policies. An example of this is in the education sector, where District Education Offices (DEOs) and local communities have more influence than before in the school management, including important tasks such as teacher recruitment. However, capacities of DEOs and School Management Committees (SMCs) need to be further developed, in order for them to operate and manage their schools in the most effective manner.

The Government of Nepal thus made a request to the Government of Japan for grant aid assistance to procure construction materials for classroom building. The Government also made a request as to capacity development of DEOs and SMCs.

In response, JICA sent a survey team to Nepal from 14 March to 20 April 2011. During the survey period, the requests and the priorities were confirmed as follows:

### 1) Procurement of Materials and Equipment

(First Priority)

- ① Construction materials for Classrooms
- ② Furniture for Classrooms

(Second Priority)

- ③ Construction Materials for Toilets
- ④ Construction Materials for Water Supply Facilities

### 2) Technical Assistance

- Capacity development of DEO staff and SMC members as to School Improvement Plan (SIP) development and participatory school construction
- Capacity development of teachers aiming at improvement of education quality

### 3) Target Districts

- Candidates for Target Districts are as the following:  
Sunsari, Sarlahi, Dhading, Mahottari, Dhanusha, Nawalparasi, Banke and Kailali

## 2. Results of the Study and Contents of the Project

The survey team thus held the necessary discussions with the concerned officials of The Government of Nepal, and collected their information accordingly. Upon return in Japan, the team examined appropriateness and effectiveness of the Project, reviewed and selected target districts, and worked out basic designs for the project, and compiled the results in the draft Preparatory Survey Report.

Following on from this, from the 11 to 23 September 2011, the JICA sent the study team once again to Nepal, this time for the purpose of explaining the draft report to the Government of Nepal. The team and the government thereby discussed the contents of the draft report, and concluded the outline design as stated below.

### (Target Districts)

The eight target districts are divided into two groups based on: whether the district has previous education project experience of similar type; and whether a local NGO with similar project experience exists. Those districts that do not meet either criterion belong to Group 1 (G1), whereas those, which meet both belong to Group 2 (G2)..

-Sunsari, Sarlahi, Dhading fall under G1

-Mahottari, Dhanusha, Nawalparasi, Banke and Kailali fall under G2.

In the G1 districts, the project will target district-level education officers such as School Supervisors (SSs), Resource Persons (RPs), and DEO staff members. In addition to the district-level training in the G2 districts, the establishment of a Resource Centre (RC) that will provide school-level training involving SMCs and community members, will similarly be carried out. This training will include community mobilization in the run-up to the classroom construction, workshops on participatory development of SIP for SMC and PTA members, and lower grade teacher training in Child-Friendly Teaching and Active Teaching Learning (ATL) methods.

### (Components of the Project)

1) Procurement of Materials and equipment

① Construction materials for Classrooms

② Furniture for Classrooms

2) Technical Assistance

③ Capacity development of SMC members (planning and implementation of School Improvement Plan (SIP), participatory school construction, etc.)

④ Capacity development of teachers for providing quality education

### (Volume of the Project)

The volume of the Project was assessed in detail as shown in the table below:

**Numbers of Proposed Facilities in Each District**

	District	Classroom Block Terai Type	Classroom Block Hill Type	Furniture (Long Desk & Bench Set)	Furniture for Lower Grade* (Round Table)
Group-1	Sunsari	50	0	1,400	0
	Sarlahi	50	0	1,400	0
	Dhading	0	50	1,400	0
Group-2	Dhanusha	40	0		800
	Mahottari	40	0		800
	Nawalparasi	40	0		800
	Banke	40	0		800
	Kailali	40	0		800
	Total	300	50	4,200	4,000

\*Carpet Flooring is to be included

### Total Quantities of Materials Procured under the Grant Aid

No.	Materials		Unit	Furniture (Lower grade)
1	Bricks	1 <sup>st</sup> Class chimney brick	Pcs	9,090,000
2	Cement	Ordinary Portland Cement	50kg Bag	57,650
3	Reinforcement	10/12 mm dia ribbed bar	kg	120,950
		4.75 mm dia steel bar	kg	22,100
		Binding wire	kg	1,700
4	MS frames (40x40x4 with 2 Coats of Enamel Paint)	Door frames	m <sup>2</sup>	2,940
		Window frames with grills	m <sup>2</sup>	5,103
5	Wooden shutters	Door shutters (1.1x2.1)	Pcs	700
		Door shutters (0.9x2.1)	Pcs	700
		Window shutters(0.4x1.3)	Pcs	8,400
6	Painting on shutters/Partition	One coat primer	ℓ	1,750
		Two coats of enamel paint	ℓ	3,500
7	Truss complete set including posts	Terai Type	Set	300
		Hill Type	Set	50
8	water proof cement paint	Red	kg	13,200
9	water proof cement paint	White	kg	24,800
10	CGI sheets	26 gauge (0.50 mm)	m	88,519.5
11	GI sheets	26 gauge (0.50 mm)	m <sup>2</sup>	3,071
12	Translucent sheets	(T2mm) Corrugated	m	11,575
13	J-hook	7.5mm	Pcs	193,550
		Small	Pcs	91,350
	Bolt & nut	galvanized	set	13,600
14	Tower bolt	100mm	Pcs	16,800
		150mm	Pcs	2,800
15	Handles	100x25mm	Pcs	11,200
16	Sliding bar locking set	250mm	Pcs	700
17	Screws	25mm	Pcs	245,000
		30mm	Pcs	35,000
18	Steel hooks for windows		Pcs	8,400
19	Plywood for partition	T9mm	m <sup>2</sup>	4,165
20	Donation board		Pcs	350
21	Long Bench	Plywood Top with Steel Frame	Pcs	4,200
22	Long Desk	Plywood Top with Steel Frame	Pcs	4,200
23	Round Table	φ66cmxH30cm	Pcs	4,000
24	Carpet	W200cm	m	8,400

### (Standard Designs of the Facilities)

The standard designs of the facilities that are employed by the Project originally belong to the Department of Education (DOE). The classroom blocks are composed of a steel frame with brick/stone non-load-bearing walls, with minor changes made, as it proved necessary. The floor areas of the facilities are, as shown in the table below:

**Floor Areas of the Buildings**

Plan Type	Seat		Calculation	Add in ratio	Construction Work Area (sq.m)	Total Floor Area (sq.m)
Terai Classroom Building	80	Classroom	14.4×6.25	1.0	106.6	90.0
		Corridor	14.4×1.5	0.5		
		Ramp, stair	15.9×1.1	0.333		
Hill Classroom Building	80	Classroom	16×5.025	1.0	98.5	80.4
		Corridor	16×1.5	0.5		
		Ramp, stair	16.8×1.1	0.333		

**Floor Areas in Each District**

	Floor Area /Block	Classroom Block Terai		Classroom Block Hill		Total (sq.m)
		No. of Blocks	Floor Area (sq.m)	No. of Blocks	Floor Area (sq.m)	
		90.00		80.40		
	District					
Group-1	Sunsari	50	4,500	0	0	4,500
	Sarlahi	50	4,500	0	0	4,500
	Dhading	0	0	50	4,020	4,020
Group-2	Dhanusha	40	3,600	0	0	3,600
	Mahottari	40	3,600	0	0	3,600
	Nawalparasi	40	3,600	0	0	3,600
	Banke	40	3,600	0	0	3,600
	Kailali	40	3,600	0	0	3,600
	Total	300	27,000	50	4,020	31,020

### 3. Time Schedule and Cost for the Project

- (1) In each specific target district, upon the preparation of the final list of target schools, the consultant for procurement of materials will start the necessary preparations, which will be followed by conducting the specific procedures, and finally making the procurement contract with a supplier(s) by Japan International Cooperation System (JICS). Overall, this stage will take 10 months in total.
- (2) It will then take 13 months for the procurement and delivery of materials by the supplier, including mobilization beforehand, and the final payment upon completion, as well as for the supervision of such works.
- (3) Accordingly, it will take 4.3 months for the procurement consultant to carry out the confirmation survey on the facilities constructed.
- (4) Finally, technical assistance activities will last for 33 months in total.



#### 4. Cost for the Project to be borne by the Nepalese side

Government of Nepal	SMCs	Total
143.5	81.4	224.9
(166.9)	(94.7)	(261.6)

Million NRs (Million JYen)

#### 5. Project Effect and Recommendations

##### 1) Relevance to SSRP

The SSRP aims at achieving the EFA goals by the year 2015, through expansion of basic education services. This project is expected to contribute to these goals.

##### 2) Beneficiaries

The main beneficiaries of the project will be pupils and students in the target districts, previously listed. The residents in the areas of the target schools will equally benefit, from having their local schools strengthened and improved.

##### 3) Addressing Discrepancy

In Nepal, institutionalized forms of private education are increasingly offered alongside formal schooling. This project aims at addressing discrepancies, by incorporating those children and parents who are suffering from poverty, or who live in marginalized areas, through provision and improvement of free public education.

##### 4) Operation and Maintenance

It is expected that an appropriate operation and maintenance system for classrooms and facilities will be established at each target school, through capacity development of SMC members, and subsequently, through enhancing ownership among residents in target school areas. It is also expected that District Education Office (DEO) give subsidies for operation and maintenance of schools as scheduled, and that the subsidies are spent accordingly.

##### 5) Social and Environmental Assessment

The objective is to create no social or environmentally negative impacts, caused by the implementation of the project.

##### 6) Project Effect

It is expected that following effects will be brought about by the project:

###### Quantitative Aspects

When all the classrooms are complete as planned, there will be 34,500<sup>1</sup> new places at school.

###### Qualitative Aspects

The objective is that the capacity of district level-education officers will be strengthened in the target districts, overall. In the districts of Group-2, on top of the capacity of district level-education

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<sup>1</sup> SSRP sets the target student/classroom ratio as 40. However, the number of new places are calculated based on the tentative ratio, i.e. 45 in Dhading (Hilly region) x 100 classrooms, and 45 in the other 7 districts (Terai region) x 600 classrooms to be constructed.

officers, the capacity of school management of SMC members will be enhanced. In target schools in the Group-2 districts, it is expected that a child-friendly learning environment will be created, through the provision of facilities, including round tables and carpets as well as in-service training of teachers.

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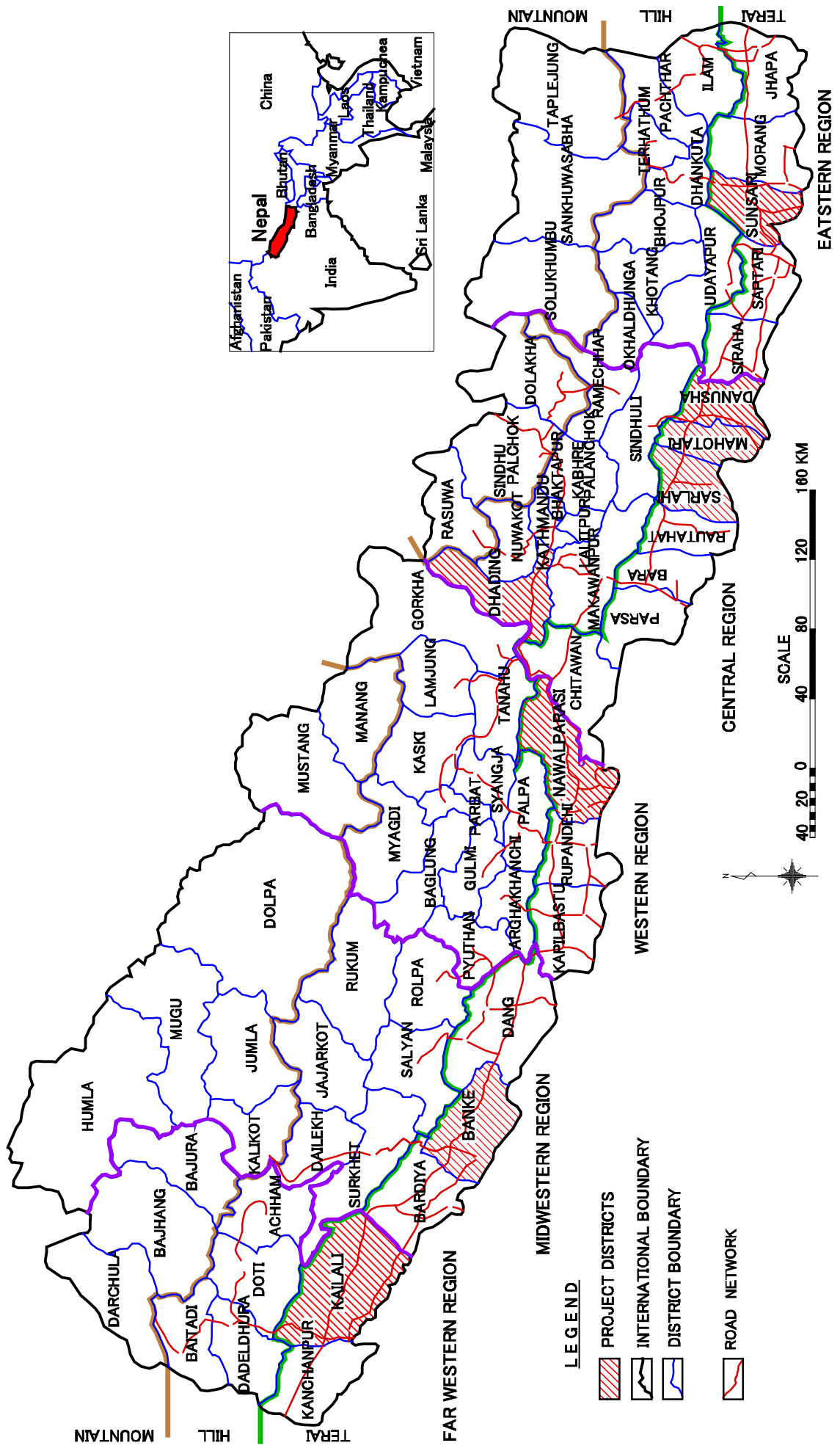
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# Location of The Project Districts

Sunsari, Dhanusha, Mahottari, Sarlahi, Dhading, Nawalparasi, Banke, Kailali





## Perspectives



CLASSROOM BUILDING, TERAJ TYPE



CLASSROOM BUILDING, HILL TYPE





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## Abbreviations

AA	Agent Agreement
ADB	Asian Development Bank
ASIP	Annual Strategy & Implementation Plan
BPEP	Basic and Primary Education Programmed I, II
DEO	District Education Office (Officer)
DOE	Department of Education
EFA	Education for All Programmed
EMIS	Education Management Information System
G1	Group 1
G2	Group 2
GER	Gross Enrolment Ratio
JICS	Japan International Cooperation System
MOF	Ministry of Finance
MOE	Ministry of Education
NER	Net Enrolment Ratio
NGO	Non Governmental Organization
PNGO	Partner NGO
PSS	Physical Services Section
RC	Resource Centre
RP	Resource Person
SIP	School Improvement Plan
SISM	Support for Improvement of Primary School Management
SLC	School Leaving Certificate
SMC	School Management Committee
SPIP	School Physical Improvement Plan
SS	School Supervisor
SSR(P)	School Sector Reform (Plan / Program)
SWAPs	Sector-wide Approaches
UNDP	United Nations Development Programmed
UNICEF	United Nations Children's Fund
VDC	Village Development Committee



# CHAPTER 1 BACKGROUND OF THE PROJECT

## 1-1 Background of the Request

### 1-1-1 Background of the Project

#### Background

Over the past decade, progress has been made in increasing the access of children to primary and secondary education, as shown in Table below. This is suggested by the attainment of NER of 93.7% at the primary level and 63.2% at the lower secondary in 2009. The increase in net enrolment is, however, very marginal at an annual average of only one to two per cent between 2004 and 2009. This slow increment highlights the challenges for achieving the EFA goal of universal completion of primary/basic education by the year 2015.

Table 1-1 : Key Education Indicators from 2004 to 2009

	'04	'05	'06	'07	'08	'09
Early childhood Education (ECD) Enrolment Rate (children aged 3-4)	39.4	69.9	41.4	60.2	63.4	66.2
Primary Gross Enrolment Rate (GER)	130.7	145.4	138.8	138.5	142.8	141.4
Primary Net Enrolment Rate (NER)	84.2	86.8	87.4	89.1	91.9	93.7
Lower Secondary Gross Enrolment Rate (GER)	80.3	76.0	71.5	78.8	80.1	88.7
Lower Secondary Net Enrolment Rate (NER)	43.9	46.5	52.3	52.9	57.3	63.2
Teacher-student Ratio (primary)	--	--	47	38	33	32
Teacher-student Ratio (secondary)	--	--	49	52	40	40

Source: Ministry of Education Department of Education (2010) School Level Educational Statistics of Nepal Consolidated Report

Schools in Nepal generally follow the principle of school-based management that assigns school management functions to the respective School Management Committee (SMC) with accountability to stakeholders such as local bodies including the village development committee (VDC), municipality and district development committee (DDC). These bodies are entrusted with a lump sum budget with guidelines on utilization of its major share on social sectors such as education, health, drinking water and sanitation. Planning activities are based on information gained from the annual school census under the biannual "Flash reporting system" conducted twice a year

#### School Sector Reform Plan (SSRP)

In line with the medium and long term objectives of the Education for All National Plan of Action (2001-2015), the government prepared a comprehensive school sector reform program for implementation from 2009 to 2015. This program is called School Sector Reform Plan (SSRP).

SSRP aims at integrating primary and lower secondary education, improving quality and relevance of education, ensuring inclusive participation, decentralizing education management and mobilizing resources from local governments, communities, NGOs, civil society organizations and the private sector. In view of the fundamental principles of the Interim Constitution of Nepal, the rights-based approach to basic education is also adopted to ensure that every child has the right to quality basic education. In SSRP, the emphasis is placed on school-based management that is accountable to parents and children

#### Development Partner Interventions

Japan has been supporting physical infrastructure development in Nepali primary schools since 1994, procuring building materials for 8,760 classrooms nationwide. Japan has also carried out a non-formal education project, Community-based Alternative Schooling, from 2004 to 2009. Recently, Japan has completed its technical cooperation for another project, Support for the

Improvement of Primary School Management in Nepal (SISM) in 2011. Since 2008, School nutrition project has been conducted in two districts in the country.

In recent years, the major contribution to education from development partners is targeted to the country's EFA program. The major pooling donors who have agreed to the "Joint Financing Arrangement" to support the Nepal's EFA Program include Australia, Denmark, Finland, Norway, United Kingdom (UK), the Asian Development Bank (ADB), European Commission (EC), the United Nations Children's Fund (UNICEF) the World Bank. Nepal was qualified to receive Fast Track Initiative (FTI) fund in 2009.

The aid from these donors is put into a joint pool and administered by Nepal's MOE. Contributions came to approximately 150 million US dollars in 2010/2011 which represents about 25%, a substantial proportion of the overall primary and basic education budget.

## 1-1-2 Outline of the Request for Grant Aid

Because of the constraint the country faces, the Government of Nepal made a request to the Government of Japan for grant aid assistance to finance procurement of construction materials to be used in school construction as well as of services for technical assistance to improve basic education.

In response, JICA sent a survey team to Nepal from 14 March to 20 April 2011, through which, the contents of the request and their priorities were confirmed as follows:

### (1) Contents of Initial Request in September 2010

The following components in 15 Districts

#### 1) Procurement of Materials and equipment

- Construction materials for 1500 classrooms in total, water supply facilities, toilets and furniture for classrooms
- Construction materials for rehabilitation of resource centers
- One 4-wheel drive vehicle for effective central program monitoring and 15 motorbikes
- Communication equipment (Fax and computer) and vehicles for transporting construction materials

#### 2) Technical Assistance

- Strengthening the capacity of School Management Committee (SMC) (planning and implementation of School Improvement Plan (SIP), participatory school construction, etc.)
- Strengthening the capacity of teachers for providing a quality education
- Capacity Building Program for DOE/PSS technical staff

### (2) Components Confirmed in the Discussions in April 2011

#### 1) Procurement of Materials and equipment

(First Priority)

- ① Construction materials for Classrooms
- ② Furniture for Classrooms

(Second Priority)

- ③ Construction Materials for Toilets
- ④ Construction Materials for Water Supply Facilities

#### 2) Technical Assistance

- Capacity development of SMC members (planning and implementation of School Improvement Plan (SIP), participatory school construction, etc.)
- Capacity development of teachers for providing quality education

## 1-2 Natural Conditions of the Project Site

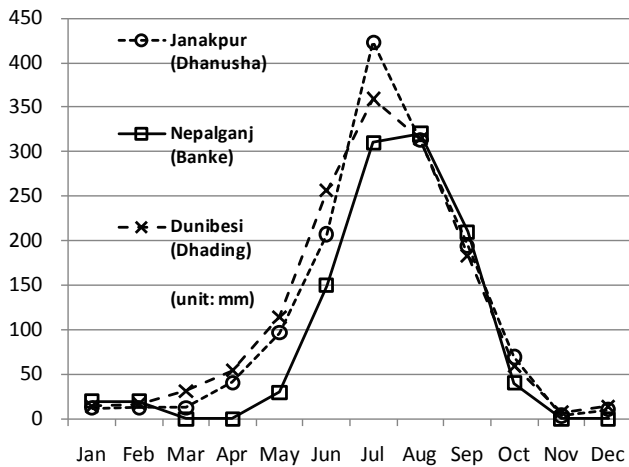
### (1) Topography

Nepal is a land-locked country, connected to the People's Republic of China at the northern border, and to the eastern, southern, and western borders, connected to India. The land extends overall 885 Km from east to west, and 145-241 Km north to south. The country is divided into three main geographical regions: The Terai Region, a southern lowland plain bordering India with a hot and humid climate, the Mountain Region, a sub-arctic climate in the northern mountainous land where the Himalayan Mountains are located, and the Hilly Region, a temperate climate in between the above two regions. Steep mountains occupy around 80% of the land area, and through the creation of the Himalayas, fault lines have been formed parallel to the axis of the mountains.

### (2) Climate

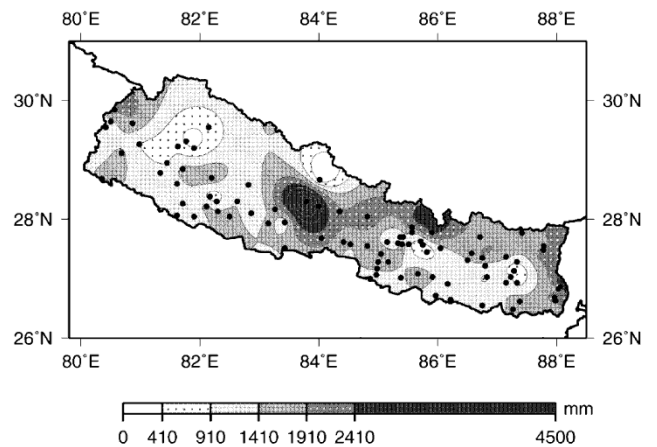
Nepal is situated on a piece of land that comprises of a large gap of altitudes, from as little as 100m in the Terai up to more than 8,000m in the Himalayas. This naturally provides the country with a large variety of climate classifications, ranging from cold mountainous areas in the Himalayas in the north, to the Sub-tropical areas in the southern Terai.

In the sub-tropical monsoon area, around 80% of the total annual precipitation falls in the rainy season in the period between June and September. The volumes differ from place to place and their influences very much depend on the topography, and the development and maintenance of the roads in each area. The Department of Hydrology & Meteorology (DHM) records the meteorological data in Nepal. The monthly and monsoon seasonal characteristics of precipitation are as shown in the figures below:



(Source: DHM 2009 data)

Figure 1-1: Monthly Precipitation



(Source: Characteristics of Daily Precipitation during the Monsoon Season in Nepal, Kayori Maeno, 2004)

Figure 1-2: Accumulated Precipitation in Monsoon Season

### (3) Earthquake

Because Nepal is located on the folded mountains, formed by the crashing forces of the Indian Plate and Eurasian Plate, it still keeps lifting up above sea level. Many earthquakes have been recorded, and every year they range from middle scale ones, to sometimes big scale ones like the earthquake recorded in 1989.

Nepal National Building Code (NNBC) provides the coefficients that are to be used in earthquake resistance design as shown in the figure below. The coefficients for the target districts of the Project are from 0.8 to 1.0.

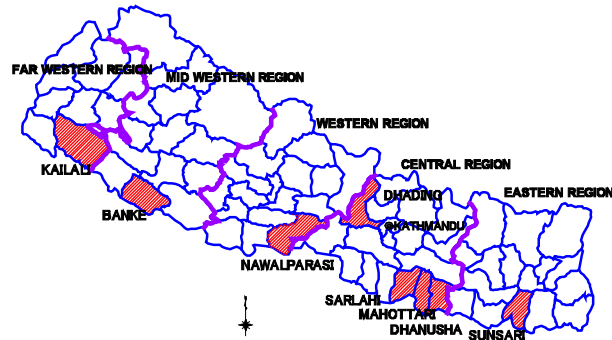


Figure 1-3: Regional Coefficients for Earthquake Resistance Design

### 1-3 Environmental and Social Considerations

In Nepal, the Environmental Protection Act (1996) and the Environmental Protection Rules (issued in 1997 and revised in 1999) comprise the laws and regulations that concern environmental control. More specifically, when planning the physical facilities for building schools, the National Environmental Guidelines for School Improvement and Facility Management in Nepal (2004) are to be followed. Thus, the DOE follows this when preparing the standard designs for the physical facilities of schools. According to the Environmental Management Framework (EMF) for SSRP (May 2009) formed by the Ministry of Education, the construction of the physical facilities for schools will have a very limited impact to the environment, and there will be no need to do IEE and/or EIA, although the schools are to consider EMF in preparing their SPIP. For this particular project, where new buildings are constructed in already existing school sites, no environmental problem is therefore expected.

It is expected that a number of Dalit children and children with an economically disadvantaged background are enrolled at the target schools. In carrying out the project, INGOs with extensive experience in incorporating the poor, and in enhancing participation of such groups will take initiatives in encouraging district-level education officers, and for SMC/PTA members to become aware of the problems that disadvantaged groups face.



## CHAPTER 2 CONTENTS OF THE PROJECT

### 2-1 Basic Concept of the Project

#### 2-1-1 Overall Goals and Project Objectives

In August 2009, the Government of Nepal launched the School Sector Reform Program (SSRP) on which all the ongoing educational policies are based. One of the core issues set out in the SSRP is to expand the period of basic education from five to eight years, combining five years of the primary education with the three years of lower secondary education. Background to this decision lies on the recognition that increasing access to secondary education is becoming more important, as the net enrolment ratio for primary education has risen rapidly in recent years (93.7% as of 2009/10). The most recent government statistics show that the gross secondary education enrolment was 88.7% and the net enrolment was 63.2% in 2010.

This poses a challenge for the Government with regard to the number of classrooms and the teachers to be added at the basic education. The main goals of the SSRP are to improve access to basic education, and enhancing the quality of basic education. In line with these goals, this project sets out its goal and objective accordingly:

**Project Goal:**

Improving the quality of basic education in the target districts

**Project Objective:**

Improving school management and the learning environment for basic education in the target districts

#### 2-1-2 Project Outline

In order to achieve the objectives stated above, a total of 700 classrooms will be constructed in the eight districts listed below. The project will follow the School Physical Improvement Plan (SPIP) in each of the target districts. The construction will involve the local community with the guidance and supervision from the Government of Nepal; meanwhile construction materials and furniture will be procured under Japan's Grant Aid.

The eight districts will be divided into two groups based on whether the district has previous project experience regarding education; and whether a local NGO with similar project experience exists. Those districts that do not meet both criteria belong to Group 1 (G1), whereas those that meet both criteria belong to Group 2 (G2).

- Sunsari, Sarlahi, Dhading fall under G1
- Mahottari, Dhanusha, Nawalparasi, Banke and Kailali fall under G2.

In the G1 districts, the project will target district-level education officers, including School Supervisors (SSs), Resource Persons (RPs), and DEO staff members. In the G2 districts, in addition to the district-level training, the Resource Centre (RC) and the school-level training, involving SMCs and community members, will be carried out. The training will include community mobilization in the run-up to the classroom construction, workshops on participatory development of SIP for SMC and PTA members, and lower grade teacher training in Child-Friendly Teaching and Active Teaching Learning (ATL) methods.

## 2-2 Outline Design of the Japanese Assistance

### 2-2-1 Design Policy

#### 2-2-1-1 Basic Policy

##### (1) Selection of Target Districts

During the first field survey period in March and April 2011, the DOE and the JICA study team selected the eight districts as candidate districts. The selection followed the procedure below:

- 1) Out of 75 districts in the country, the districts, which are extremely difficult to access, were excluded from the selection. The districts, to which it is difficult to deliver building materials due to severe topography or security reasons were also excluded. (38/75 districts left.)
- 2) In order to keep the balance of regional distribution of Japan's assistance, the districts that have received Japan's Grant Aid under EFA (During the Years of 2003~2008) were excluded with two exceptions:
  - (1) Districts in the Far Western Region, which were relatively neglected in previous projects.
  - (2) Districts that were the target of SISM (Support for Improvement of Primary School Management) Project for the sake of synergy effects, with a Japanese technical assistance project.
- 3) Districts where the construction demands of classrooms for G1-10 or G1-8 exceeds 500 were excluded. (47/75 districts left.)
- 4) Districts where the number of students per classroom in G1-10 or G1-8 exceeds 40 were excluded. (35/75 districts left.)

As shown in Table 2-1, the districts that fulfill all the conditions of 1) to 4) stated above are shown below, as recorded in the minutes of discussion.

Table 2-1: Candidate Districts confirmed in the M/D

No.	District	Topography	Region
6	Sunsari	Terai	Eastern
17	Dhanusha	Terai	Central
18	Mahottari	Terai	Central
19	Sarlahi	Terai	Central
30	Dhading	Hill	Central
48	Nawalparasi	Terai	Western
57	Banke	Terai	Mid-Western
71	Kailali	Terai	Far-Western

Table 2-2: Selection of Target Districts

Dist. Code	District Name	Accessi- bility	District not covered by Japan's Grant Aid in support of EFA (2005-2008)	Sinergy of SISM or Regional Balance	Demand more than 500 classrooms		Student/ Classroom Ratio more than 40			Target District	
					(Schools GI-G10)	(Schools GI-G8)		(Schools GI-G10)	(Schools GI-G8)		
1	TAPLEJUNG		○			270	190	○	34	46	
2	PANCHTHAR		○		○	578	417		26	34	
3	ILAM	○	○		○	778	557		22	29	
4	JHAPA	○	○			492	292	○	37	58	
5	MORANG	○	○			266	201	○	64	104	
6	SUNSARI	○	○		○	755	518	○	42	66	○
7	DHANKUTA	○	○			448	263		19	28	
8	TERHATHUM		○			359	267		22	29	
9	SANKHUWASABHA		○			402	318		19	24	
10	BHOJPUR		○			467	306		19	28	
11	SOLUKHUMBU		○			309	223		22	29	
12	OKHALDHUNGA		○		○	539	389		27	37	
13	KHOTANG		○			228	160		25	35	
14	UDA YAPUR	○	○			473	322	○	38	56	
15	SAPTARI					494	344	○	39	60	
16	SIRAHA		○		○	716	520	○	72	103	
17	DHANUSHA	○	○		○	811	486	○	60	92	○
18	MAHOTTARI	○	○		○	766	533	○	67	113	○
19	SARLAHI	○	○		○	1,049	780	○	64	97	○
20	SINDHULI	○				415	301	○	64	86	
21	RAMECHHAP		○		○	999	736		26	34	
22	DOLAKHA		○		○	825	587		22	32	
23	SINDHUPALCHOK	○			○	1,130	768		25	36	
24	KA VREPALANCHOK	○			○	1,264	903		21	31	
25	LALITPUR	○				424	229		22	40	
26	BHAKTAPUR	○	○			224	130		15	22	
27	KATHMANDU	○	○			215	60	○	50	188	
28	NUWAKOT	○			○	908	639		22	31	
29	RASUWA	○	○	○SISM		235	174		17	24	
30	DHADING	○		○SISM	○	574	409	○	52	59	○
31	MAKWANPUR	○			○	1,011	770	○	29	40	
32	RAUTAHAT		○		○	947	707	○	96	144	
33	BARA				○	1,098	845	○	82	130	
34	PARSA		○		○	947	706	○	66	97	
35	CHITWAN	○	○		○	640	368		25	39	
36	GORKHA	○			○	928	639		22	31	
37	LAMJUNG	○	○		○	513	289		19	27	
38	TANAHU	○	○		○	887	621		18	24	
39	SYANGJA	○			○	543	336		21	30	
40	KASKI	○				484	233		18	28	
41	MANANG		○			40	24		3	4	
42	MUSTANG		○			24	5		5	10	
43	MYAGDI		○			388	241		15	20	
44	PARBAT		○		○	661	433		17	24	
45	BAGLUNG	○			○	904	609		23	32	

Dist. Code	District Name	Accessi bility	District not covered by Japan's Grant Aid in support of EFA (2005-2008)	Sinergy of SISM or Regional Balance	Demand more than 500 classrooms		Student/ Classroom Ratio more than 40		Target District		
					(Schools G1-G10)	(Schools G1-G8)	(Schools G1-G10)	(Schools G1-G8)			
46	GULMI	○			○	903	591	27	35		
47	PALPA	○			○	758	496	22	32		
48	<b>Nawalparasi</b>	○	○		○	1,155	774	○	40	61	○
49	RUPANDEHI	○			○	848	562	○	42	75	
50	KAPILBASTU	○			○	1,073	852	○	48	72	
51	ARGHAKHANCHI	○	○			404	298	○	50	58	
52	PYUTHAN		○		○	1,115	890		24	32	
53	ROLPA		○		○	729	595		30	38	
54	RUKUM		○			3	3	○	3825	3523	
55	SALYAN		○		○	836	680		28	33	
56	DANG	○			○	876	579	○	36	52	
57	<b>Banke</b>	○	○		○	760	570	○	46	71	○
58	BARDIYA	○			○	602	427	○	45	68	
59	SURKHET	○			○	1,095	828	○	34	44	
60	DAILEKH		○			403	282	○	38	48	
61	JAJARKOT		○		○	878	730	○	37	43	
62	DOLPA		○			247	197		13	15	
63	JUMLA		○			115	97	○	34	50	
64	KALIKOT		○		○	543	417	○	37	45	
65	MUGU		○			367	305		22	26	
66	HUMLA		○			311	236		26	35	
67	BAJURA		○		○	678	500	○	30	40	
68	BAJHANG		○		○	930	707		27	39	
69	ACHHAM		○		○	1,207	875	○	48	68	
70	DOTI		○		○	1,066	772		24	36	
71	<b>Kailali</b>	○		○Balance	○	1,190	807	○	49	76	○
72	<b>Kanchanpur</b>	○	○	○Balance		171	91	○	165	374	
73	DADEL DHURA				○	583	410		24	35	
74	BAITADI		○		○	933	648	○	39	57	
75	DARCHULA		○		○	742	572		20	26	
	<b>Total</b>	<b>38</b>	<b>53</b>	<b>4</b>	<b>47</b>	<b>48,949</b>	<b>34,639</b>	<b>35</b>	<b>35</b>	<b>50</b>	

\*Demands of Classrooms, Student/Classroom Ratios are based on School Physical Information Details, School Type: Government Supported (Including Religious), Flash II 2066/067

The eight (8) candidate districts were examined upon return in Japan, using the data that was collected during the study period, and were confirmed to be the appropriate target districts for the project.

## (2) Selection Criteria for Target Schools

The selection for the target schools for each group, will be done in the following manner:

G 1 (Sunsari, Sarlahi, Dhading): The Government of Nepal will prepare a long list of target schools within the time period of two months, after the exchange of notes is signed. This list should be finalized, at the latest four months before the expected date of tender notice for the procurement of construction materials. The DOE will select the target schools, while preparations are being made for the construction materials.

G2 (Mahottari, Dhanusha, Nawalparasi, Banke and Kailali): The Government of Nepal will, in coordination with the International and Partner NGO teams, prepare a long list of target schools within two months after the exchange of notes is signed. The list should be made at latest four months before the expected date of tender notice for the procurement of construction materials.

Target schools in the G2 districts will be selected, based on the results of the baseline survey that

will be conducted at the initial stage of the project. The DOE will choose the schools in consultation with the DEO, SS/RP and the material procurement consultant team. In addition to the government criteria, the following points will be considered in selecting the schools for this project:

- ◆ Where the student-classroom ratio is considerably high;
- ◆ Where the number of out-of-school children is high in the VDC;
- ◆ Where the number of students in the past three years has remained stable;
- ◆ Where the school had not received government or NGO assistance in classroom construction for the past two years;
- ◆ Where the SMC and PTA are established; and lastly
- ◆ Where the school will consent to the construction conditions.

As a limitation, if target schools are geographically dispersed in the district, the effectiveness and efficiency of the project might be reduced. This point will be taken into account in the school selection.

(3) Components to be covered by the Project

From the discussions held between the DOE and the Survey Team during Field Survey II in September 2011, the following components would be covered by the Project:

**Procurement of Materials:**

- Major construction materials for classrooms
- Classroom furniture

**Technical Assistance:**

- Capacity building of DEO staff and SMCs for the development of School Improvement Plan (SIP) and participatory school construction
- Capacity building of teachers for improving quality of education

(4) Numbers of facilities in each school site to be covered by the Project

1) Classroom building

The number of classrooms at the project site shall be determined based on the physical survey, carried out by the DEO and on the capacities of communities for participating in construction. In principle, only one classroom block with two classrooms is to be constructed at each school, while in some special cases, two classroom blocks, (four classrooms) may be constructed.

2) Furniture for classrooms

In general, three-seated benches and desks that conform to the standard designs of DOE will be provided for the classrooms constructed. On the other hand, in accordance with the policy of the Government of Nepal for planning school facilities and also with the contents of the technical assistance, a combination of carpet flooring and four-seated round low tables will be provided, instead of benches and desks to lower grade classrooms, in order to create child-friendly learning environments.

The quantity of furniture to be provided in each classroom is as follows:

(Classroom in General): 40 students /classroom 14 Sets (Long Desk and Bench)

(Lower Grade Classroom): 40 students /classroom 10 Sets (Round Tables + Carpet)

3) Toilets and water supply facilities

Schools are required to have toilets and water supply facilities, in order to provide an appropriate sanitary environment for children, as well as for the purpose of health education. However, according to SSRP, these facilities may not have to be constructed together with classrooms. In the

case of Japan's Grant Assistance Project, classrooms and sanitary facilities are constructed side by side. In Nepal, there is an on-going SSR sub-program, consisting of a pool fund to construct a large number of water supply and sanitation facilities throughout the country. This program covers the target districts of this project. Hence, upon the selection of the target schools of the project, the Nepalese side will conduct a survey as to the necessity of water supply and sanitation facilities of each target school, in order to allocate such facilities by the pool fund, according to the degree of necessity. The tentatively estimated numbers and costs for such facilities are shown in the table below:

Table 2-3: Facilities to be covered by the Nepalese side

	District	Proposed number of schools by SSRP(2010/2011)		Number of schools in the district G1-G12 (b)	Sanitary facility construction ratio (c)=a/b	Number of Target schools (d)	Estimated Demands of Sanitary Facilities in Target schools of the Project (e)=c x d	Cost by GoN (NRs.200,000 /site) (NRs.)
		*Proposed Number of Sanitary Facilities (a)	Proposed Number of Classroom blocks					
Group -1	Sunsari	120	57	482	24.9%	50	12	2,400,000
	Sarlahi	108	58	432	25.0%	50	13	2,600,000
	Dhading	142	57	568	25.0%	50	13	2,600,000
Group -2	Dhanusha	79	43	316	25.0%	40	10	2,000,000
	Mahottari	77	44	306	25.2%	40	10	2,000,000
	Nawalparasi	114	58	507	22.5%	40	9	1,800,000
	Banke	75	38	303	24.8%	40	10	2,000,000
	Kailali	126	65	508	24.8%	40	10	2,000,000
Total		841	420	3,422	24.6%	350	87	17,400,000

## (5) Number of Facilities in Each District

### 1) Demand and Management Capacity for Constructing Classrooms

The volume of classroom construction in each target district will be determined based on the demand for classroom construction, and on the construction management capacity of the Nepalese side itself. In the case of the Group 2 districts, it will also depend on the number of schools, which the capacity development team is able to manage.

The average number of classrooms per district, constructed by the pool fund in the last three years, was 140 in the Terai, 99 in the Hill, and 52 in the Mountain region. The number of target schools in Dhading (a Hill district) under the last phase of the school construction project that was funded by the Japan's Grant Aid was 50 schools (100 classrooms), which was found to be nearly the upper limit of the volume in the district.

From a capacity development's perspective, if the number of schools to be targeted in the G2 districts were too large, it would be difficult to provide meaningful technical assistance. It is therefore estimated that about 40 schools will be a manageable number, in order for the NGOs to implement the capacity development component of the project.

On the other hand, since capacity development activities in the G1 districts are limited to district-level education officers, a larger number of schools could be targeted for construction. This leads to the conclusion that the volume of the classroom construction for each of the three districts in G1 will be 50 schools (100 classrooms), meanwhile for each of the five districts in the G2 will be 40 schools (80 classrooms).

If there is any surplus or shortage of the fund for the execution of the construction of the volume stated above, the numbers agreed upon will be reviewed and revised accordingly. In such cases, consultations will be made among DOE, the procurement team, and the NGOs.

The numbers of facilities proposed for each of the target districts are as shown in Table 2-4

Table 2-4: Numbers of Proposed Facilities in Each District

	District	Classroom Block Terai Type	Classroom Block Hill Type	Furniture (Long Desk & Bench Set)	Furniture for Low Grade* (Round Table)
Group-1	Sunsari	50	0	1,400	0
	Sarlahi	50	0	1,400	0
	Dhading	0	50	1,400	0
Group-2	Dhanusha	40	0		800
	Mahottari	40	0		800
	Nawalparasi	40	0		800
	Banke	40	0		800
	Kailali	40	0		800
	Total	300	50	4,200	4,000

\*Carpet Flooring is to be included

## (6) Materials to Be Covered by The Project

### 1) Construction Materials

The major construction materials to be procured by the Project to be utilized for the construction of classrooms include:

- ① Roofing (CGI sheet, including furnishing metal and training by the supplier)
- ② Roof truss & Steel post (steel pipe, including furnishing metal and training by the supplier)
- ③ Cement
- ④ Reinforcement bar
- ⑤ Doors & windows frame (steel)
- ⑥ Doors & windows shutter (wood)
- ⑦ Furnishing metal for doors & windows
- ⑧ Paint
- ⑨ Translucent plastic sheet
- ⑩ Brick

### 2) Classroom Furniture

Three-seated benches and desks - the standard design of furniture of the DOE, or round tables for four students and floor carpets will be provided for the classrooms. The quantity of furniture to be provided in each classroom, is illustrated below:

Table 2-5: Quantities of Furniture per Classroom

Classroom Plan Type	Students Accommodation*	Long Desk & Bench Set/Room (General classroom)	Round Table Set /Room (For lower grade classes)
Terai Type	40	14	10
Hill Type	40	14	-

\* Standard number of students/classroom to be accommodated by MOE

## **2-2-1-2 Consideration of the Natural Conditions**

### **(1) Topography**

The DOE made a variety of standard designs for classroom buildings for each of the regions: Terai, Hill, and Mountain regions. Under the project, the eight target districts were selected, among which seven are located in the Terai, and one is located in the Hill region. The design for the classroom building, consisting of two classrooms for each of these two regions, will be selected respectively.

For building walls, brick masonry walls are generally used in the Terai district, because bricks are easily available from the local chimneys, located all over the Terai area. Meanwhile natural stone masonry walls are often used in the Hill and Mountain districts, as stones are relatively easy to collect in these areas. As per SSRP, communities in the hill districts, with some financial support from the Government of Nepal, are expected to collect the stones by themselves. Exceptionally, in some hill districts where bricks and/or concrete blocks are more easily available than stones, DOE will accept the use of bricks and/or concrete blocks instead of stones.

### **(2) Precipitation and Hot Climate**

During the rainy season, which usually stretches from June to September, in all the districts of the various regions, measures should be taken against heavy rainfall, which is sometimes also accompanied by strong winds.

Schools should not be built in hazardous locations. In front of a classroom, a terrace with an extended roof overhang is thereby designed to accommodate students when it is raining. Moreover, a translucent sheet is to be arranged at the opening of the top of the walls to prevent rain from blowing into a classroom, without intercepting natural light.

The temperature reaches very high degrees during the summer in Terai. Therefore, the ceiling of the classroom is designed to be high enough to mitigate the effects of heat. Furthermore, some detailed design drawings for a false ceiling will be provided so that the communities may install it as per necessity.

### **(3) Wind Load**

The design wind load is to comply with the Indian Code IS 875 Part 3. Considering the highest wind speed shown in the wind map is 55 m/s, the wind pressure works out to be approximately 2kN/m<sup>2</sup>.

### **(4) Earthquake**

Among DOE's Standard Designs for classroom block under SSRP which correspond to a variety of structures such as timber frame, masonry wall, reinforced concrete, etc., the one that was applied in the previous project under Japan's Grant Aid was of a steel frame structure capable of supporting the light-weight roof covered with CGI sheets even in case masonry walls are collapsed. The design has advantages not only for the earthquake resistance but also for securing natural light and ventilation as well as for reducing the total cost and for easy transportation of materials and easy construction work. Hence, the same type of the standard design will be applied in this project.

### **(5) Natural Lighting and Ventilation**

By introducing a steel-frame structure as in the case of DOE standard design of classroom block, the building can more easily receive as much natural light and ventilation as necessary. The ratio of the total area of the openings to the classroom area ensures more than 20%. To prevent the intrusion of children as well as excessive ventilation in winter, the gap between the translucent sheets and the roof shall be modified to be less than the standard design in size by enlarging the translucent sheets.



### **2-2-1-3 Consideration of Social Conditions**

As the target districts include many areas that are economically challenged, facilities are designed in order to use local materials and local construction methods so that the communities can easily and economically construct and maintain the buildings.

The DOE has adopted the policy of enrolling disabled students at all schools in the country. The policy now is to design all classrooms to accommodate disabled students, with one of the classroom doors widened and a ramp added to the classroom block. In this project, the design of the classrooms will follow this policy. The physical facilities of the schools are designed in line with the policies of the Government of Nepal.

### **2-2-1-4 Consideration of Local Conditions of Building Construction/Procurement of Materials**

The Nepal National Building Code (NNBC) was authorized in 1997 and partially revised in 2003. Thus, the school facilities by SSRP are guided and constructed according to NNBC structural standards and other codes. The standard design of the facilities under the project also follows NNBC wherever practical and needed.

The structures of the classroom buildings are designed to meet the following structural code:

- IS code No. 875: for all types of loading
- IS code No. 800: for steel structure

The following software is used for the structural analysis:

- STAAD Pro 2001 Indian version, Research Engineers Pvt. Ltd.

### **2-2-1-5 Consideration of Using Local Consultants and Suppliers**

As a crucial component to the construction work, community participation is emphasized. The maximum use of local methods of construction, materials, and manpower is therefore given very high priority, and the standard designs of the facilities have been prepared according to these considerations. To obtain an appropriate quality, as well as to secure their timely delivery, materials will be procured under the control of a supplier at the central level. When procuring materials and supervising the procurement of materials, local consultants and suppliers will be used to the maximum, thus achieving low costs for the entire project.

### **2-2-1-6 Consideration of Maintenance of Facilities**

The operation and maintenance of the facilities that are covered by the project are to be done by the communities. In this respect, the maximum use of local methods of construction and materials will bring the best outcomes for the project. Similarly, use of sophisticated equipment, which might result in high operating and maintenance costs, is therefore not recommended.

### **2-2-1-7 Consideration of Grade of Facilities**

The grade and quality of the facilities that will be employed by the project will be determined by what can be constructed by the local communities and that they can be appropriately used as schools.

### **2-2-1-8 Consideration of Time Schedule**

When assessing the time schedule of the project, the following points are important to keep in mind:

- 1) It is necessary for the Government of Nepal, in consultation with the consultant for the

technical assistance, to prepare a list of target schools by the time when the consultant for the procurement of materials starts the work for preparing the tender.

- 2) Delivery of materials to the schools is to be completed before the rainy season (June to September), when the transportation of materials and construction work may be impractical in many areas.
- 3) The materials are to be delivered continuously, step by step, in close coordination with the progress of the construction work, organized by the communities, in order for big quantities of materials not to be stocked at the depots. For the sake of convenience in making payments, based on the experience of the previous grant aid projects, it would be appropriate to divide the entire delivery of materials in four stages, as shown in Table 2-6.
- 4) The community-based school construction is expected to be finalized in most of the school sites by next rainy season. The consultant will then undertake the confirmation survey for the constructed facilities after the rainy season.
- 5) The construction work will be executed according to the Annual Strategy Implementation Plan of SSRP that will be prepared in March 2013. To secure a sufficient period of time for the technical assistance it is therefore advisable that the Exchange of Notes between the two countries be done in February 2012, if not before.

Table 2-6: Materials to be delivered in each of the delivery categories

	Construction work	Materials to be delivered
First Delivery	Land Preparation, staking out, excavation, foundation, steel structure erection, roofing	Bricks, Cement, Steel Post, Steel Truss, CGI sheets, fittings
Second Delivery	Masonry Installation of Door & Window Frames	Bricks, Cement, Re-bars, Door & Window Frames
Third Delivery	Rendering, painting, Installation of doors & windows	Bricks, Cement, Door & window shutters, translucent sheet, Paints fittings
Fourth Delivery	Finishing works	Door & window shutters, translucent sheet, Paints fittings, Furniture

## 2-2-2 Basic Plan

### 2-2-2-1 Facilities

#### (1) DOE's Standard Design of the Facilities

The DOE has a variety of standard designs for classroom buildings under SSRP as shown in Table 2-7. Communities can choose one of these designs considering various conditions such as cost, local industries, topography, and technical capacity. Among the standard designs, there is a type with a steel-frame structure that was applied to the Projects under Japan's Grant Aid with some minor modifications. Through the implementation of the Grant Aid Projects, it has been found that the applied designs were working quite well in terms of safety, cost, ease of transportation, and ease of construction.

Therefore, the same types of standard design will be applied with some very minor improvements as stated below:

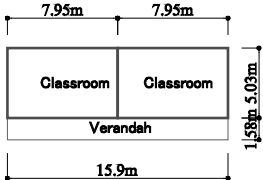
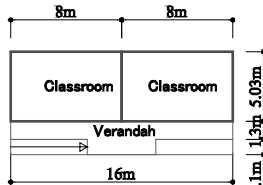
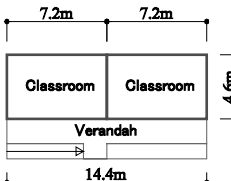
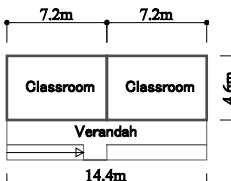
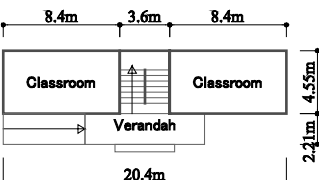
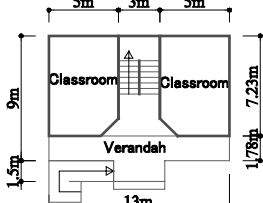
- a) Reduce sound transmission through the partition between classrooms by applying double layers of plywood boards instead of CGI sheets.
- b) Adjust the space above the walls so that children cannot pass through.
- c) Add horizontal member(s) to window grills.
- d) Demonstrate details how to install a false ceiling under the roof if the communities want to do so with the funding from the Nepalese side.

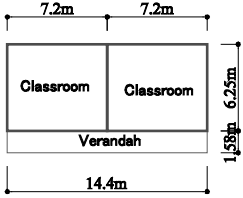
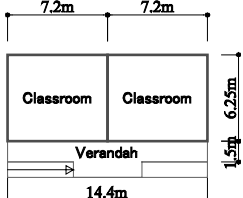
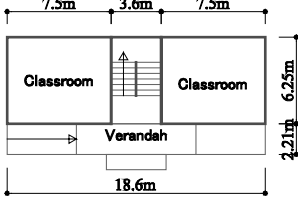
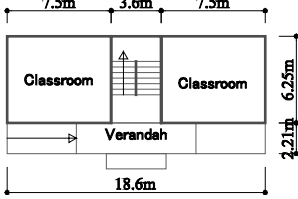
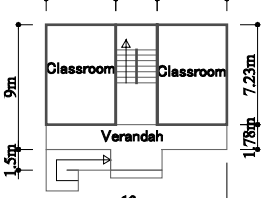
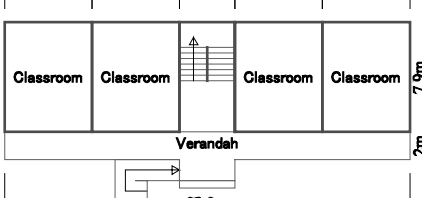
(2) Standard Designs of Classroom Furniture

The furniture for general classrooms is to be a combination of long desks and long benches that are made of plywood plates on top of steel frames. The designs are similar to those of the DOE standard design but with some improved steel frames will be used to make them more durable.

In G2 schools, where school-level capacity development will be conducted, a combination of round low tables and floor carpets will be provided. This will create a child-friendly environment, and it will enable the children to sit directly on the floor as well.

Table 2-7: Standard Designs of Classroom Buildings by DOE

Plan Type	Topography Structure & No. of Classrooms	Specifications	Area Room Size (LxB/ sqm.)	No. of Students per Room
	<p>Hill / Mountain Stone Masonry 1 Story 2 Classrooms (JGA Project Plan Type under BPEP-II)</p>	<p>Stone masonry in mud mortar + concrete band Steel Truss CGI Sheet Roof Steel Door &amp; Window Frame</p>	<p>79.9sqm. L7.500 B4.575 34.313 sqm.</p>	<p>40</p>
	<p>Hill / Mountain Stone Masonry 1 Story 2 Classrooms (JGA Project Plan Type under EFA)</p>	<p>Stone masonry in mud mortar + concrete band Steel Truss CGI Sheet Roof Steel D&amp;W Frame</p>	<p>80.4sqm. L7.600 B4.625 35.15 sqm.</p>	<p>40</p>
	<p>Hill / Mountain Stone Masonry 1 Story 2 Classrooms</p>	<p>Stone masonry in mud mortar + concrete band Wooden Truss CGI Sheet or PVC Sheet Roof Wooden D&amp;W Frame</p>	<p>66.2sqm. L6.800 B4.200 28.560 sqm.</p>	<p>40</p>
	<p>Hill / Mountain Stone Masonry 1 Story 2 Classrooms</p>	<p>Stone masonry in mud mortar + wooden band Wooden Truss CGI Sheet Roof Wooden D&amp;W Frame</p>	<p>66.2sqm. L6.800 B4.200 28.560 sqm.</p>	<p>40</p>
	<p>Hill / Mountain Brick/Stone Masonry 2 Stories 4/8 Classrooms</p>	<p>Load bearing brick/ Stone masonry in cement mortar + concrete band Steel Truss RCC Slab (CGI Sheet above stairs) Wooden D&amp;W Frame</p>	<p>185.6sqm. L8.025 B4.175 33.504</p>	<p>40</p>
	<p>Urban Area Reinforced Concrete 2 Stories 4 Classrooms</p>	<p>Brick/ Stone masonry in cement mortar &amp; RCC column RCC Slab (Roof top verandah ) Wooden D&amp;W Frame</p>	<p>187.9sqm. L7,000 B4.750 33.250sqm.</p>	<p>40</p>

Plan Type	Topography Structure & No. of Classrooms	Specifications	Area Room Size (LxB/ sqm.)	No. of Students per Room
	<p>Terai Brick Masonry 1 Story 2 Classrooms (JGA Project Plan Type under BPEP-II)</p>	<p>Brick in cement mortar + concrete band Steel Truss CGI Sheet or PVC Sheet Roof Steel D&amp;W Frame</p>	<p>90.0sqm. L6.950 B6.000 41.700 sqm.</p>	<p>40</p>
	<p>Steel Post &amp; Truss 1 Story 2 Classrooms (JGA Project Plan Type under EFA)</p>	<p>Brick in cement mortar + concrete band Steel Truss CGI Sheet Roof Steel D&amp;W Frame</p>	<p>90.0sqm. L6.950 B6.000 41.700 sqm.</p>	<p>40</p>
	<p>Terai Brick Masonry 2 Stories 4 Classrooms</p>	<p>Load bearing brick in cement mortar + concrete band Steel Truss RCC Slab &amp; CGI Sheet Roof Wooden D&amp;W Frame</p>	<p>232.3sqm. L7.125 B5.875 41.859 sqm.</p>	<p>40</p>
	<p>Terai Brick Masonry 2 Stories 4 Classrooms</p>	<p>Load bearing brick in cement mortar + concrete band RCC Slab (Roof top verandah) Wooden D&amp;W Frame</p>	<p>232.3sqm. L7.125 B5.875 41.859 sqm.</p>	<p>40</p>
	<p>Terai / Urban Area Reinforced Concrete 2 Stories 4 Classrooms</p>	<p>Brick masonry in cement mortar &amp; RCC column RCC Slab (Roof top verandah ) Wooden D&amp;W Frame</p>	<p>187.9sqm. L7,000 B4.750 33.250 sqm.</p>	<p>40</p>
	<p>Terai / Urban Area Reinforced Concrete 2 Stories 8 Classrooms</p>	<p>Brick masonry in cement mortar &amp; RCC column RCC Slab (Roof top verandah ) Wooden D&amp;W Frame</p>	<p>461.4sqm. L7.650 B6.050 46.283 sqm.</p>	<p>40</p>

### (3) Floor Areas and Descriptions of Proposed Facilities

The floor areas are calculated according to the method prescribed in the Building Law of Japan, namely the plan sizes are measured at the centerlines of the walls. Half of the area of the terrace/external corridor, and 30% of the area of the ramp are included in the construction work floor area.

Table 2-8: Floor areas of the buildings

Plan Type	Seat		Calculation	Add in ratio	Construction Work Area (sq.m)	Total Floor Area (sq.m)
Terai Classroom Building	80	Classroom	14.4×6.25	1.0	106.6	90.0
		Corridor	14.4×1.5	0.5		
		Ramp, Stair	15.9×1.1	0.333		
Hill Classroom. Building	80	Classroom	16×5.025	1.0	98.5	80.4
		Corridor	16×1.5	0.5		
		Ramp, Stair	16.8×1.1	0.333		

Table 2-9: Floor areas in each district

	Floor Area /Block	Classroom Block Terai		Classroom Block Hill		Total (sq.m)
		No. of Blocks	Floor Area (sq.m)	No. of Blocks	Floor Area (sq.m)	
Group-1	Sunsari	50	4,500	0	0	4,500
	Sarlahi	50	4,500	0	0	4,500
	Dhading	0	0	50	4,020	4,020
Group-2	Dhanusha	40	3,600	0	0	3,600
	Mahottari	40	3,600	0	0	3,600
	Nawalparasi	40	3,600	0	0	3,600
	Banke	40	3,600	0	0	3,600
	Kailali	40	3,600	0	0	3,600
Total		300	27,000	50	4,020	31,020

Table 2-10: Structure and finish schedule

<b>Classrooms (Terai Type)</b>	
<b>(Structure)</b>	
(Main Structure)	Single Story, (Steel Frame Structure)
(Post /Roof)	MS Tubular Post & Truss
(Foundation)	Column Brick Footing, Continuous Brick Footing
<b>(External)</b>	
(Roof)	26 Gauge-CGI sheet
(Wall)	Brick Masonry, Waterproof Painting
(Corridor Floor)	Cement Plaster Finish
<b>(Internal)</b>	
(Floor)	Cement Plaster Finish
(Wall)	Cement Plaster, Waterproof Painting
(Opening)	Hardwood Framed Plywood Panel for Doors/ Window Shutters, Enamel Paint MS Door/ Window Frames, Enamel Paint
(Blackboard)	Cement Plaster, Paint
(Ceiling)	MS Tubular Truss Exposed (It is possible to add a false ceiling funded by the Nepalese side)

<b>Classrooms (Hill Type)</b>	
<b>(Structure)</b>	
(Main Structure)	Single Story, (Steel Frame Structure)
(Roof/Post)	MS Tubular Post & Truss
(Foundation)	Column Stone Footing, Continuous Stone Footing
<b>(External)</b>	
(Roof)	26 Gauge-CGI sheet
(Wall)	Stone Masonry with Mud Mortar, Cement Mortar Pointing
(Corridor Floor)	Cement Plaster Finish
<b>(Internal)</b>	
(Floor)	Cement Plaster Finish
(Wall)	Cement Plaster, Waterproof Painting
(Opening)	Hardwood Framed Plywood Panel for Doors/ Window Shutters, Enamel Paint MS Door/ Window Frames, Enamel Paint
(Blackboard)	Cement Plaster, Paint
(Ceiling)	MS Tubular Truss Exposed (It is possible to add a false ceiling, funded by the Nepalese side)

## 2-2-2-2 Material Planning

### 1) List of materials

The unit quantities of materials necessary for each block of the facilities are shown in Table 2-11.

Table 2-11: Quantities of Materials Per Block

No.	Materials		Unit	Classroom Block		Furniture (Ordinary)	Furniture (Lower grade)
				Terai	Hill		
1	Bricks	1 <sup>st</sup> Class chimney brick	Pcs	30,300			
2	Cement	Ordinary Portland Cement	50kg Bag	169	139		
3	Reinforcement	10/12 mm dia ribbed bar	kg	361	253		
		4.75 mm dia steel bar	kg	58	94		
		Binding wire	kg	5	4		
4	MS frames (40x40x4 with 2 Coats of Enamel Paint)	Door frames	m <sup>2</sup>	8.4	8.4		
		Window frames with grills	m <sup>2</sup>	14.58	14.58		
5	Wooden shutters	Door shutters (1.1x2.1)	Pcs	2	2		
		Door shutters (0.9x2.1)	Pcs	2	2		
		Window shutters(0.4x1.3)	Pcs	24	24		
6	Painting on shutters/Partition	One coat primer	ℓ	5	5		
		Two coats of enamel paint	ℓ	10	10		
7	Truss complete set including posts	Terai Type	Set	1			
		Hill Type	Set		1		
8	Water proof cement paint	Red	kg	44			
9	Water proof cement paint	White	kg	71	70		
10	CGI sheets	26 gauge (0.50 mm)	m	253.70	248.19		
11	GI sheets	26 gauge (0.50 mm)	m <sup>2</sup>	8.67	9.40		
12	Translucent sheets	(T2mm) Corrugated	m	31.50	42.50		
13	J-hook	7.5mm	Pcs	543	613		
		Small	Pcs	260	267		
	Bolt & nut	Galvanized	set	40	32		
14	Tower bolt	100mm	Pcs	48	48		
		150mm	Pcs	8	8		
15	Handles	100x25mm	Pcs	32	32		
16	Sliding bar locking set	250mm	Pcs	2	2		
17	Screws	25mm	Pcs	700	700		
		30mm	Pcs	100	100		
18	Steel hooks for windows		Pcs	24	24		
19	Plywood for partition	T9mm	m <sup>2</sup>	12.22	10.10		
20	Donation board		Pcs	1	1		
21	Long Bench	Plywood Top with Steel Frame	Pcs			28	
22	Long Desk	Plywood Top with Steel Frame	Pcs			28	
23	Round Table	φ66cmxH30cm	Pcs				20
24	Carpet	W200cm	m				42

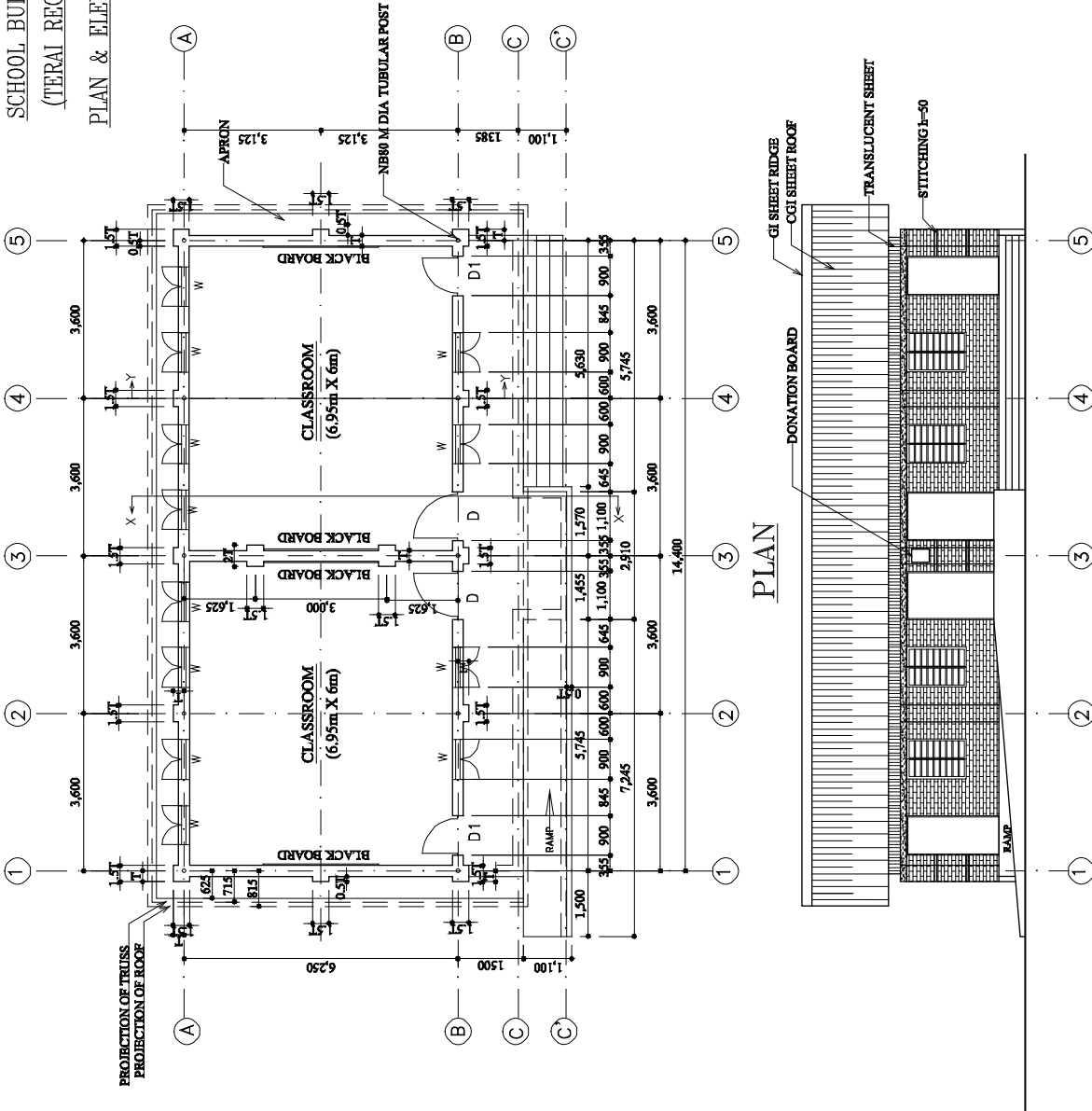
\*Furniture for ordinary classrooms is 14 sets of long bench and desk per room, furniture for lower grade classrooms is 10 round tables with floor carpet per room



### **2-2-2-3 Outline Design Drawings**

- 1 Classroom Building(Terai) Plan & Elevation
- 2 Classroom Building(Terai) Elevation
- 3 Classroom Building(Terai) Section at the Door
- 4 Classroom Building(Terai) Section at the Post
- 5 Classroom Building(Terai) Roof Structure Plan
- 6 Classroom Building(Hill) Plan & Elevation
- 7 Classroom Building(Hill) Elevation
- 8 Classroom Building(Hill) Section at the Door
- 9 Classroom Building(Hill) Section at the Post
- 10 Classroom Building(Hill) Roof Structure Plan
- 11 Classroom Furniture Details (Long Desk & Bench)
- 12 Classroom Furniture Details (Round Table)

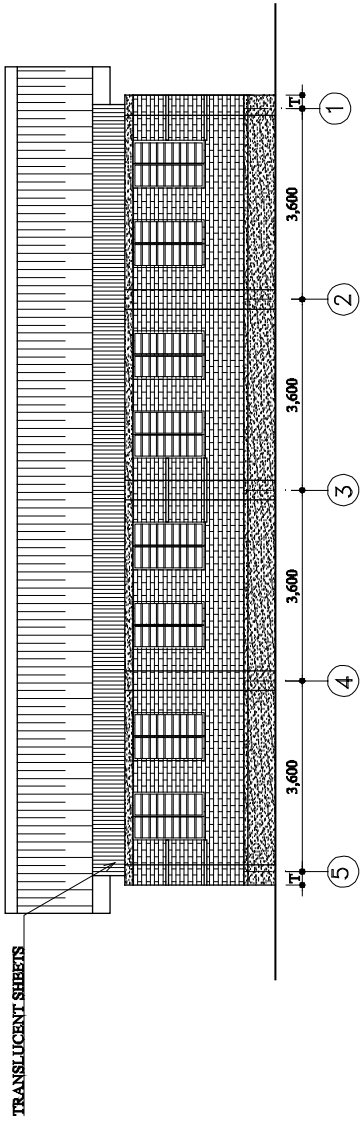
SCHOOL BUILDING  
(TERAI REGION)  
PLAN & ELEVATION



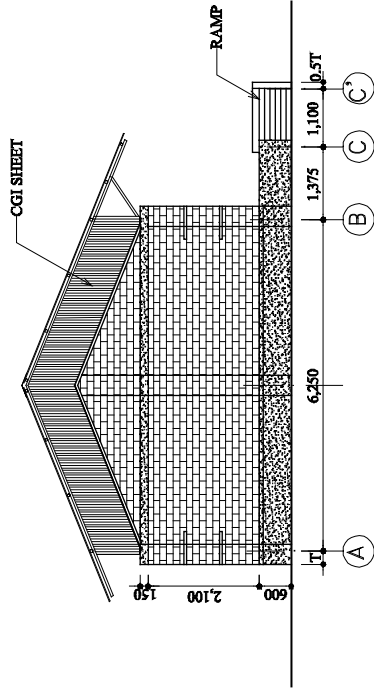
FRONT ELEVATION

1 Classroom Building(Terai) Plan & Elevation

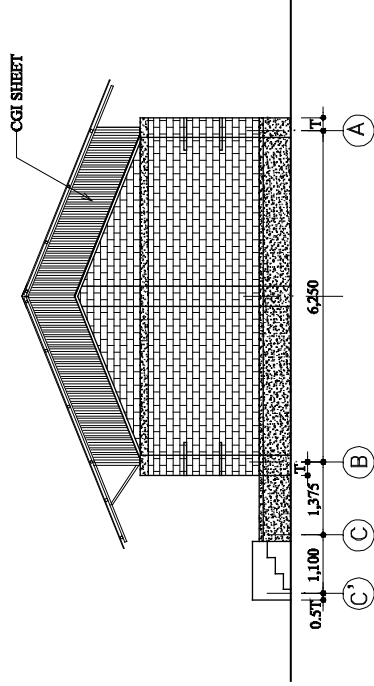
SCHOOL BUILDING  
(TERAI REGION)  
BACK & SIDE  
ELEVATIONS



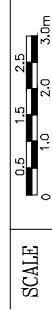
BACK ELEVATION



SIDE ELEVATION



SIDE ELEVATION

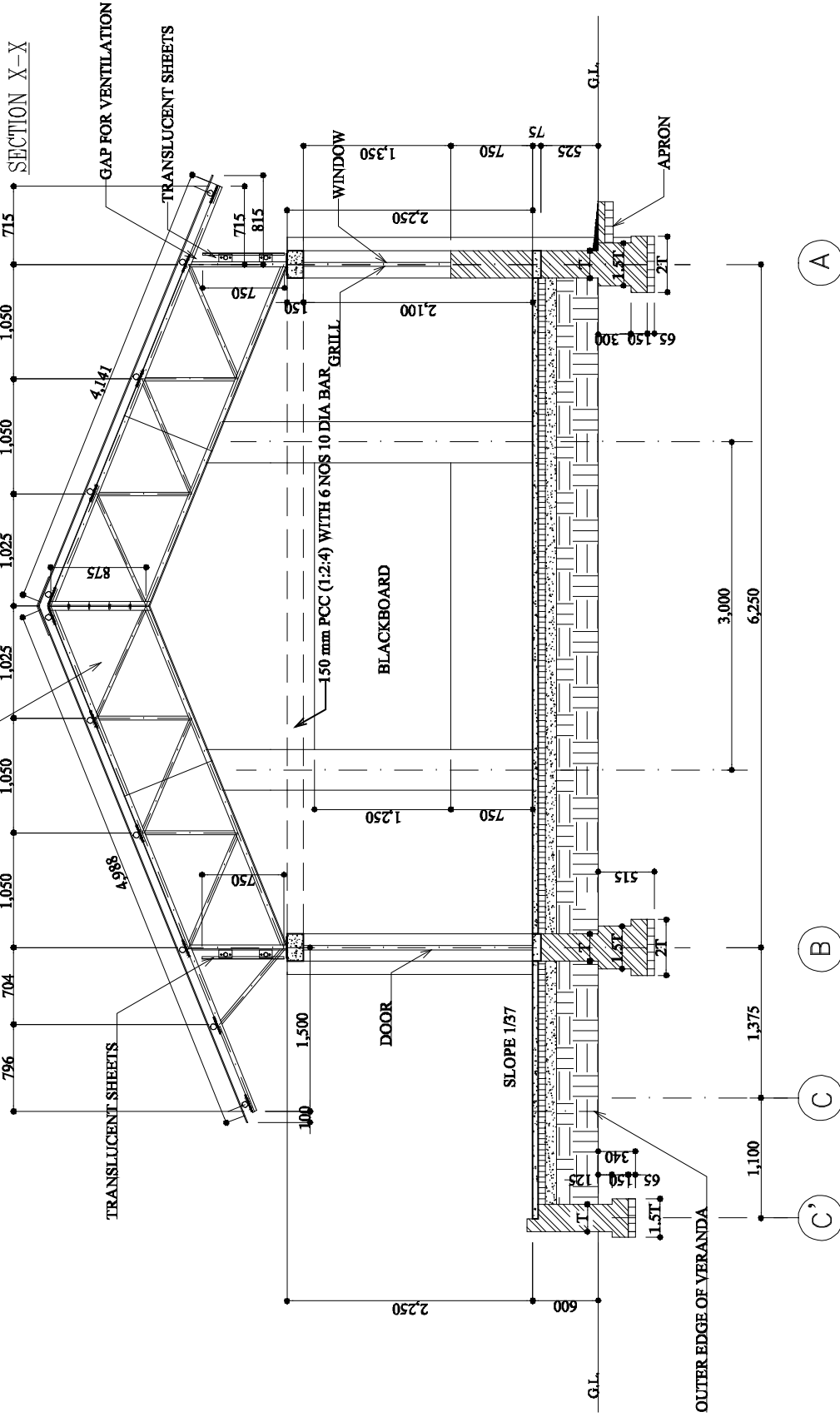


2 Classroom Building(Terai) Elevation

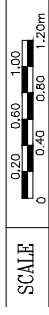
SCHOOL BUILDING  
(TERAI REGION)

SECTION X-X

PARTITION BETWEEN CLASSROOMS; PLYWOOD(9mm)-BOTH SIDES

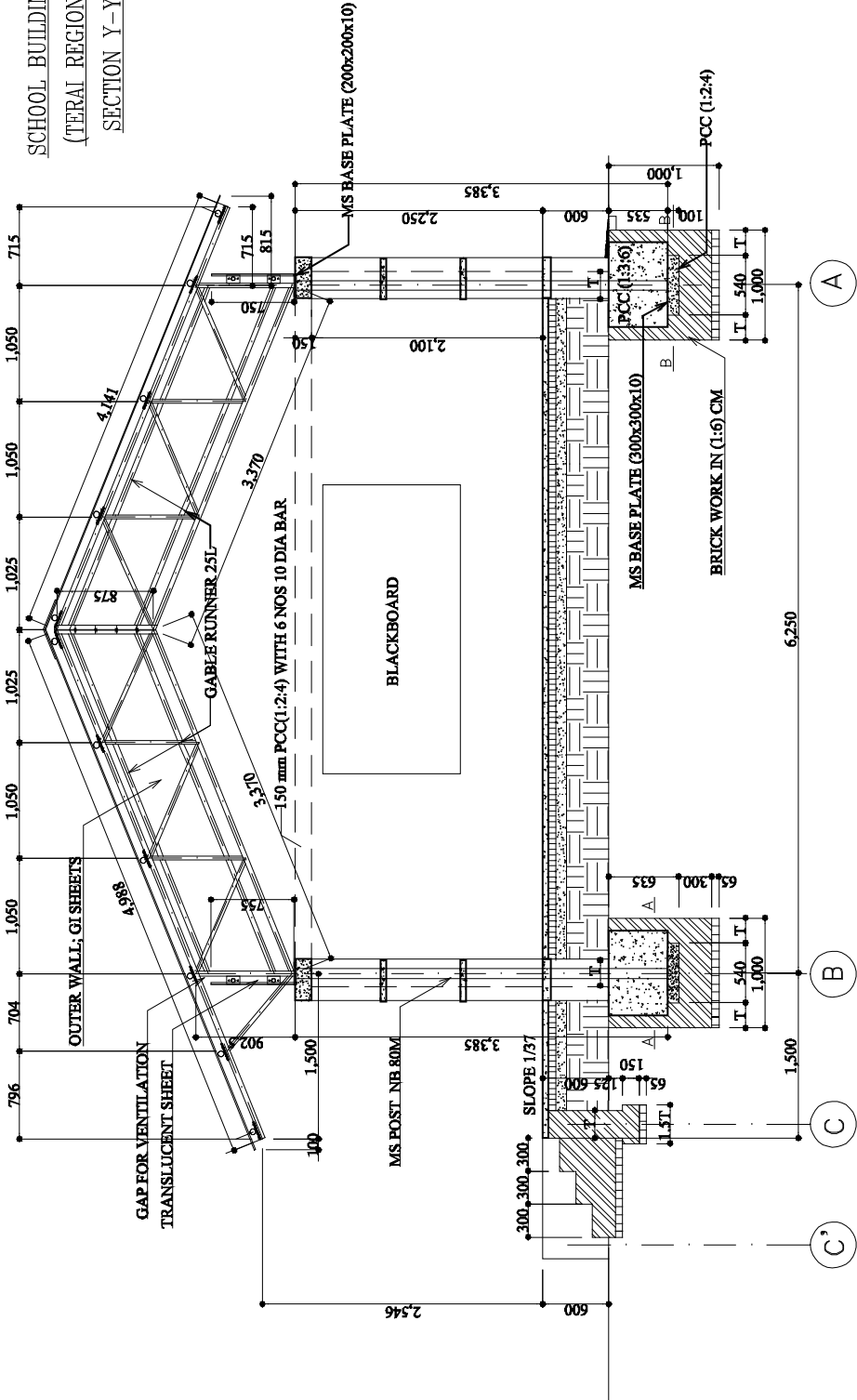


SECTION AT X-X

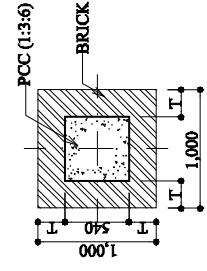


3 Classroom Building(Terai) Section at the Door

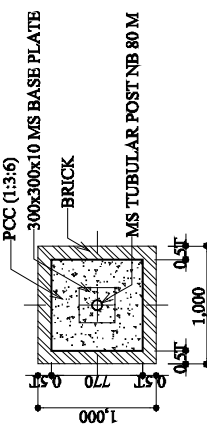
SCHOOL BUILDING  
(TERAI REGION)  
SECTION Y-Y



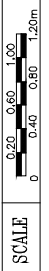
SECTION AT Y-Y



B-B



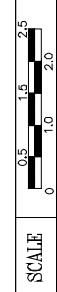
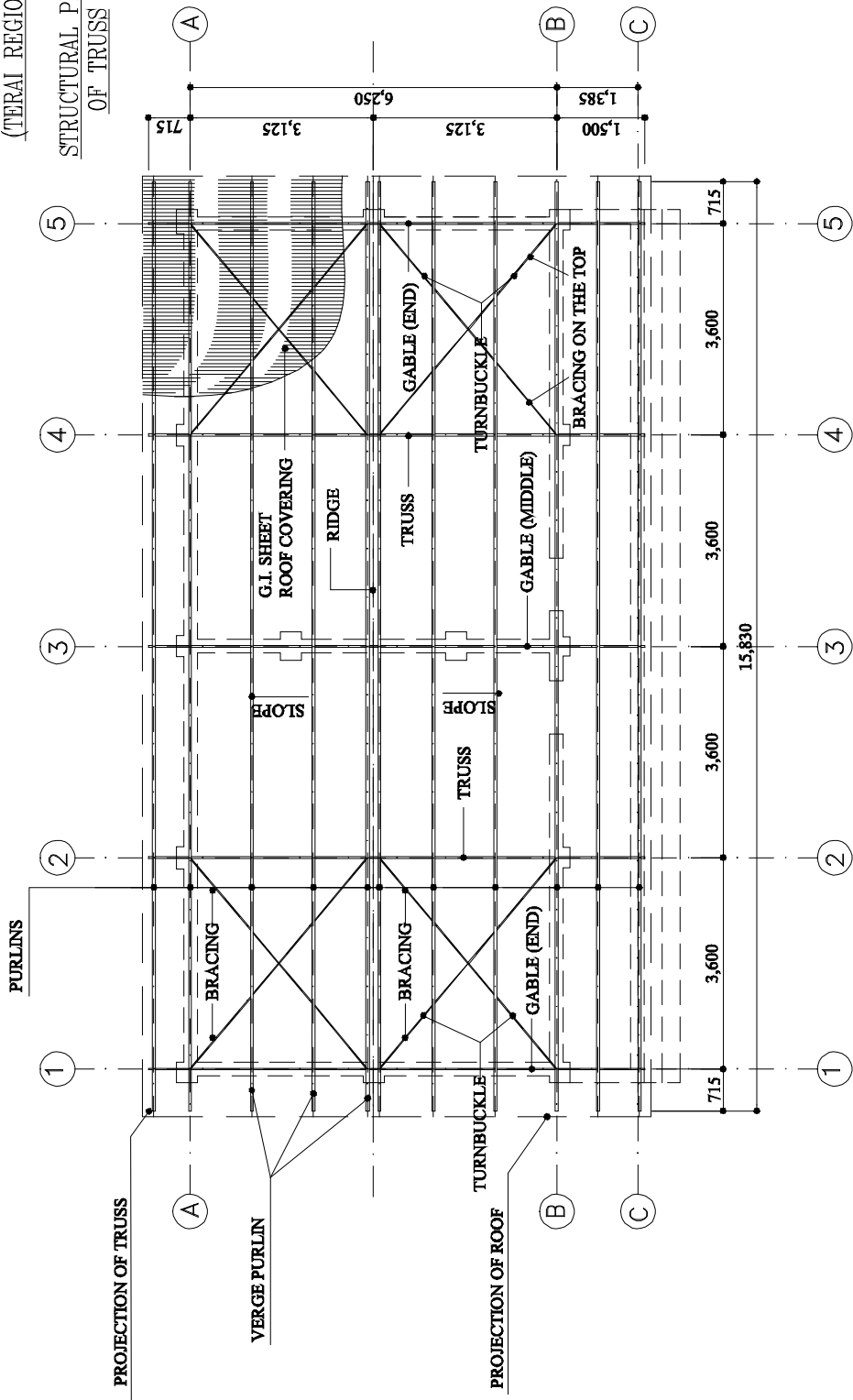
A-A



4 Classroom Building(Terai) Section at the Post

SCHOOL BUILDING  
(TERAI REGION)

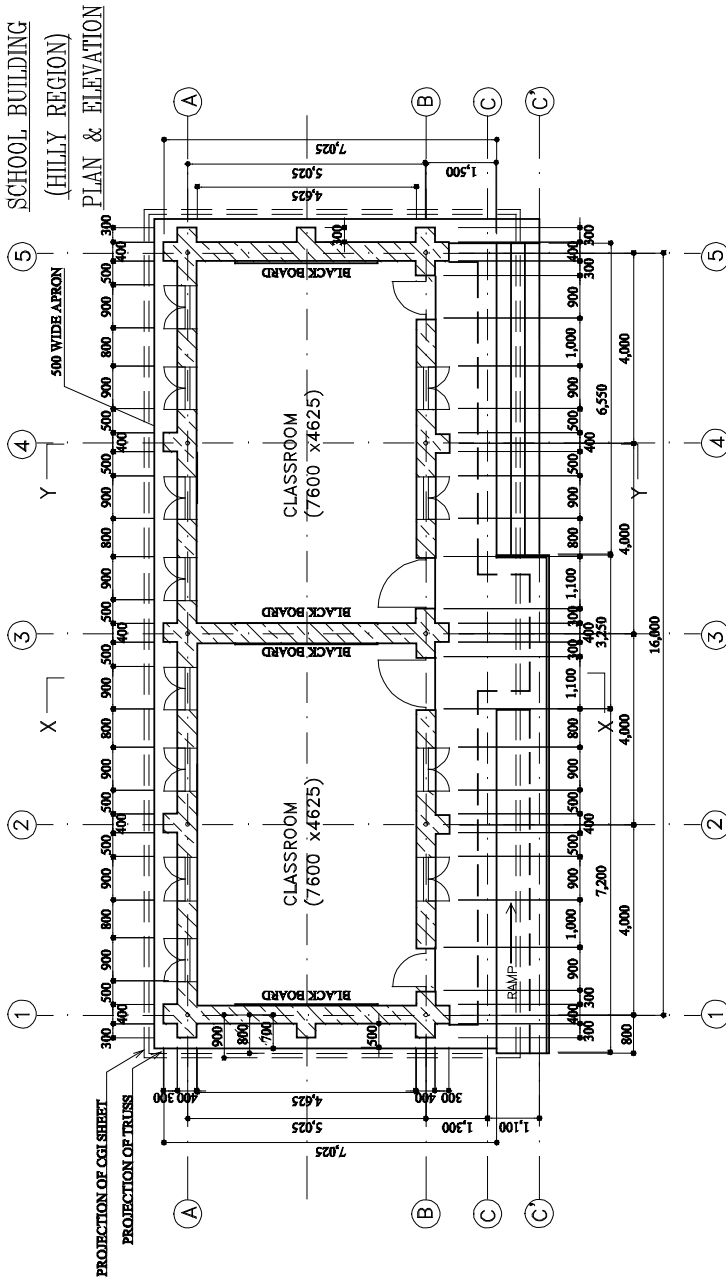
STRUCTURAL PLAN  
OF TRUSS



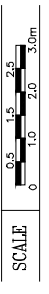
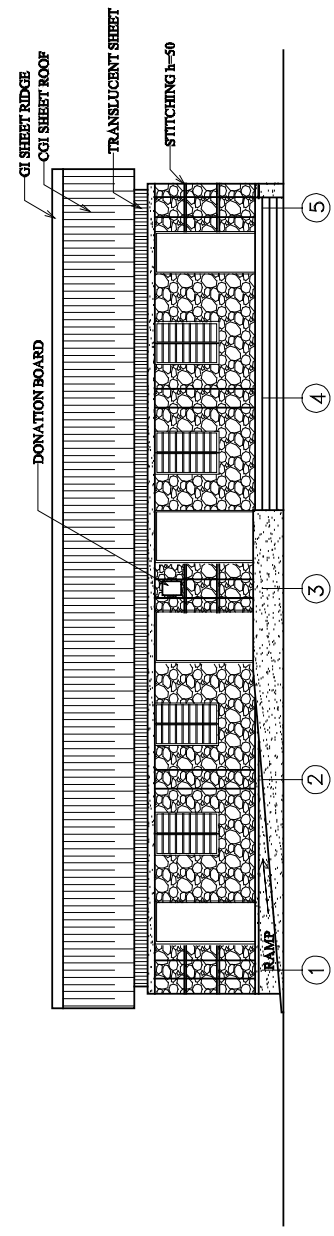
ROOF PLAN

5 Classroom Building(Terai) Roof Structure Plan

SCHOOL BUILDING  
(HILLY REGION)  
PLAN & ELEVATION



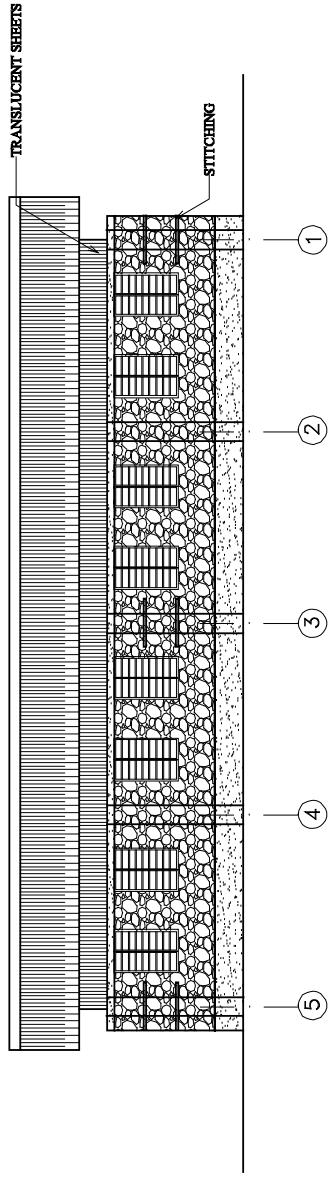
PLAN



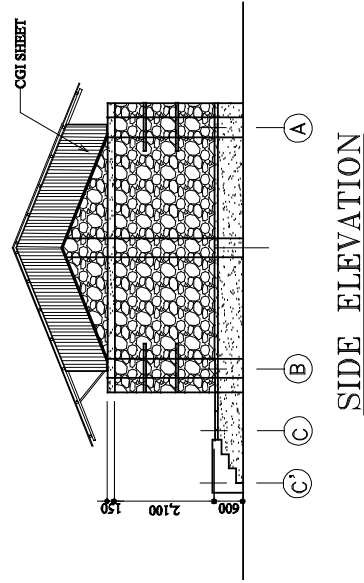
FRONT ELEVATION

6 Classroom Building(Hill) Plan & Elevation

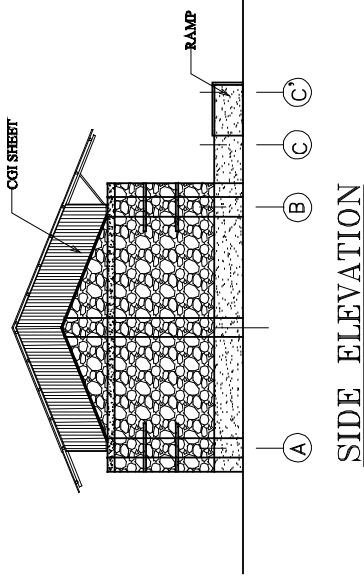
SCHOOL BUILDING  
(HILLY REGION)  
ELEVATION



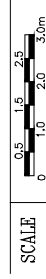
BACK ELEVATION



SIDE ELEVATION



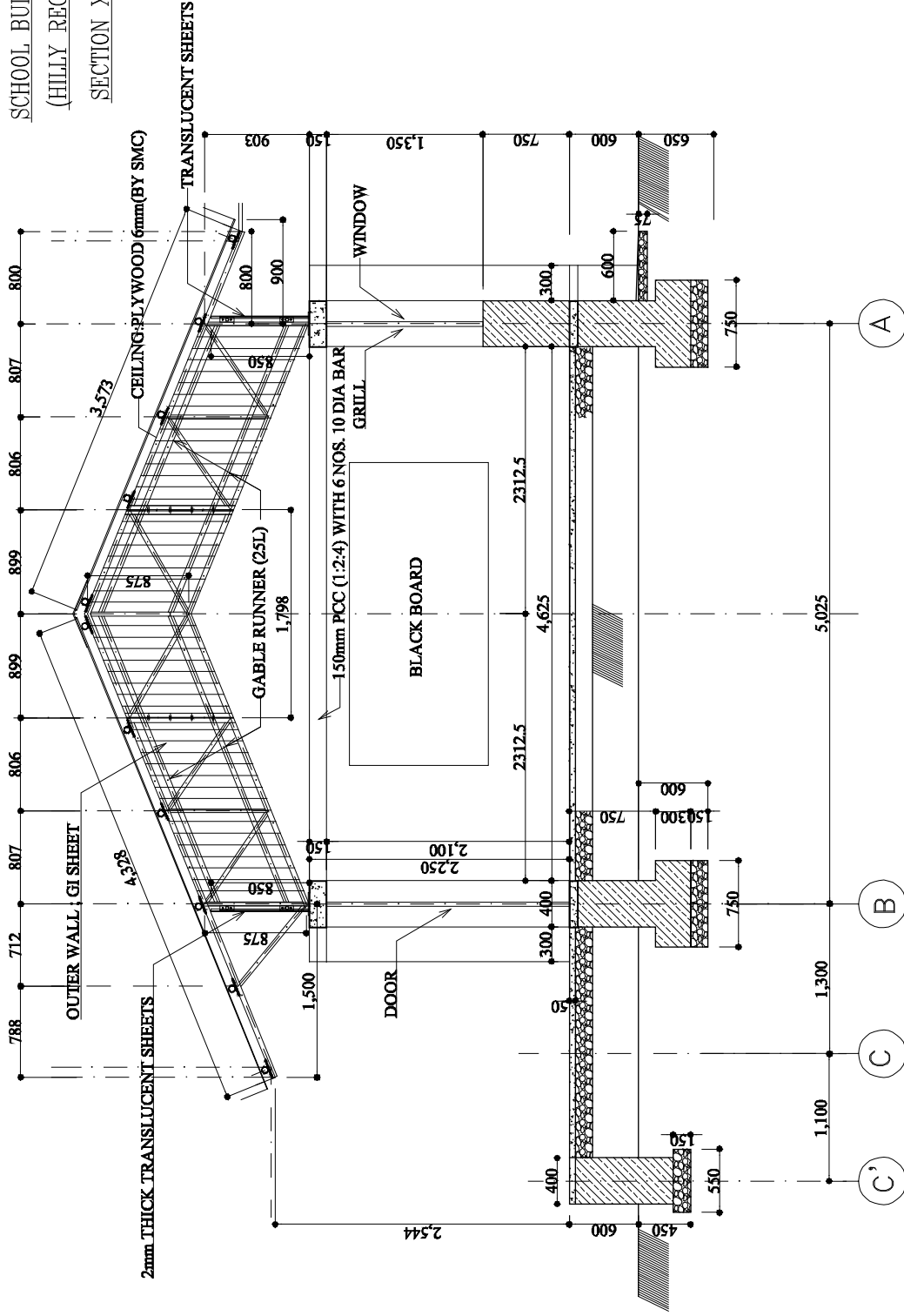
SIDE ELEVATION



7 Classroom Building(Hill) Elevation



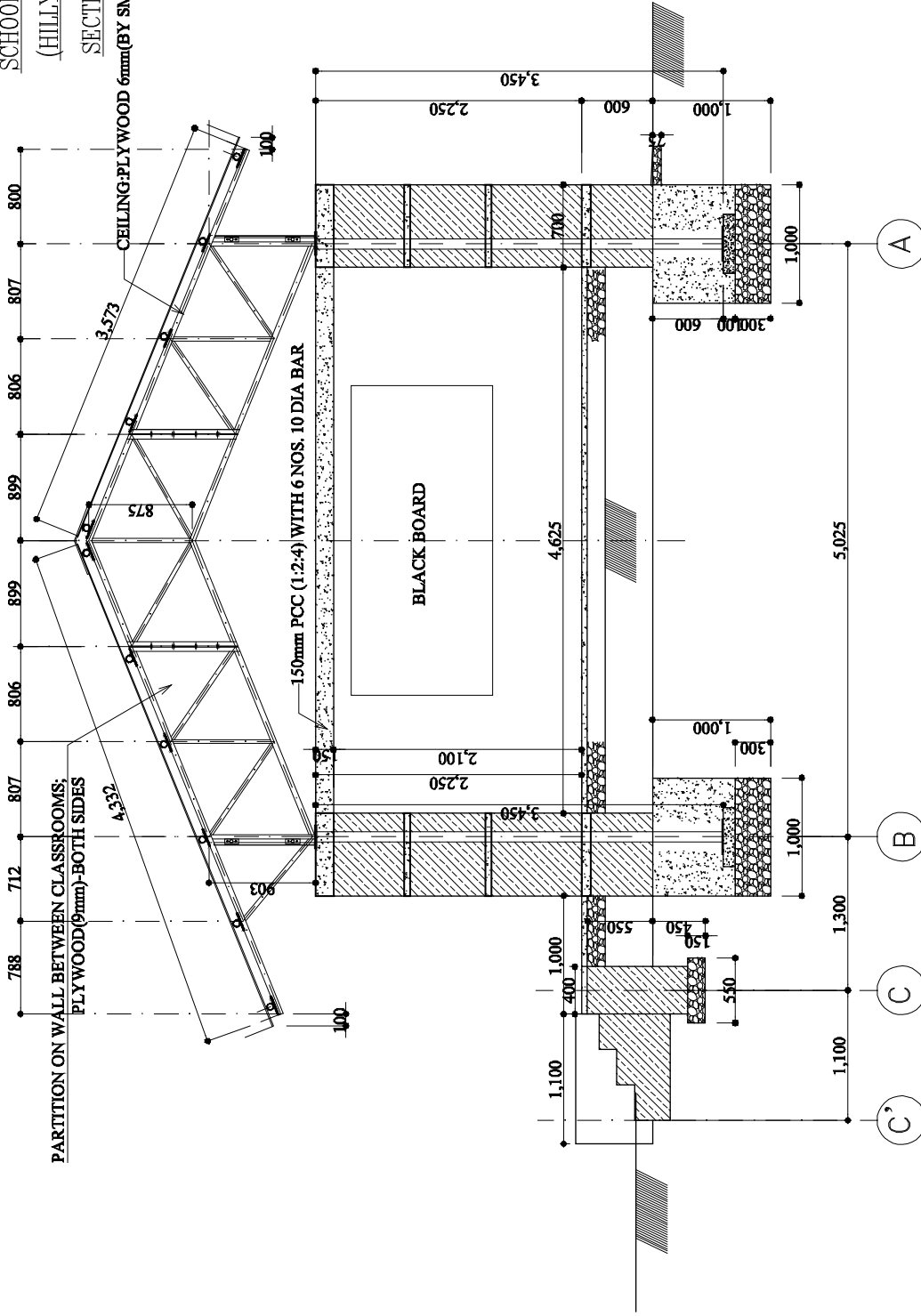
SCHOOL BUILDING  
(HILLY REGION)  
SECTION X-X



SECTION AT X - X

8 Classroom Building(Hill) Section at the Door

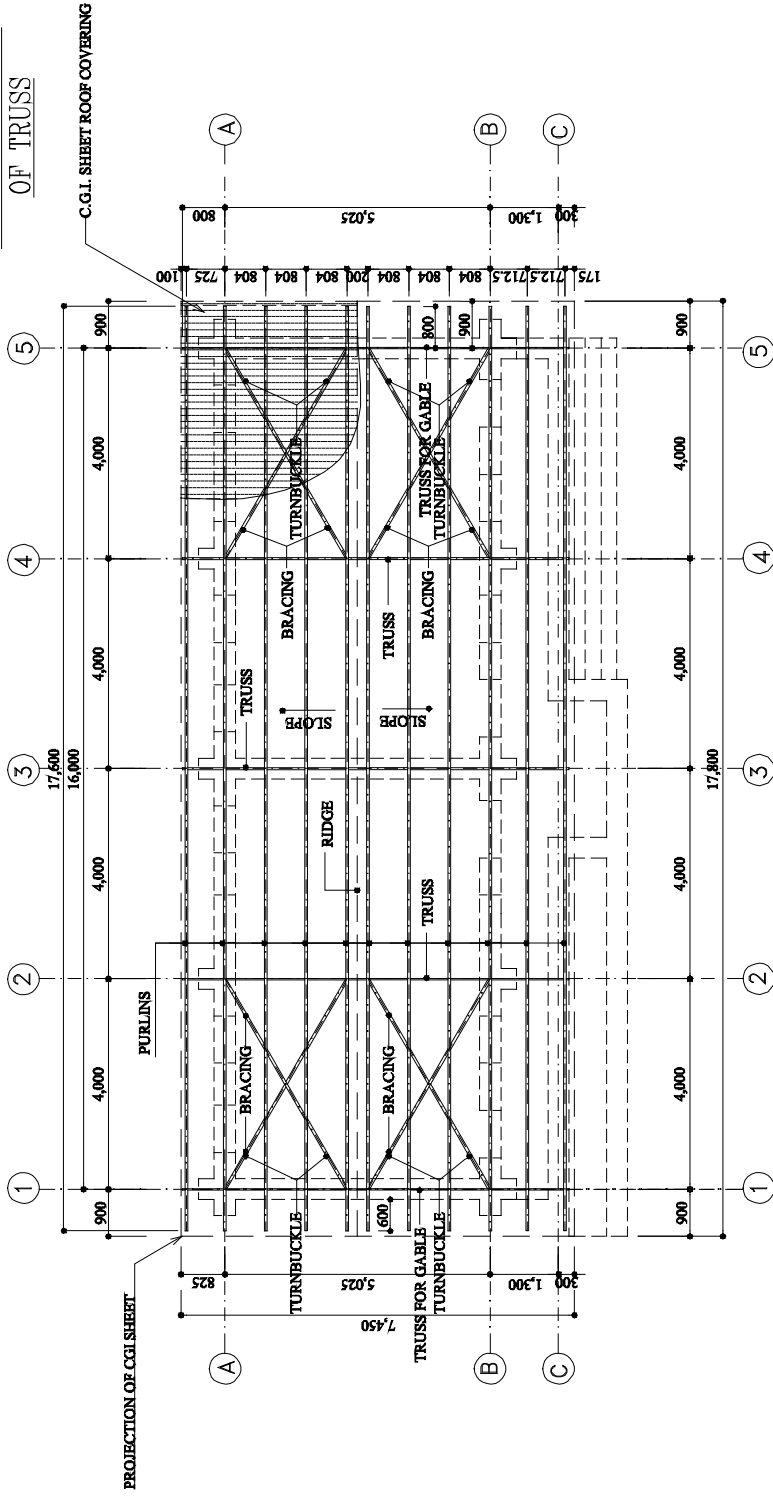
SCHOOL BUILDING  
 (HILLY REGION)  
 SECTION Y-Y  
 CEILING-PLYWOOD 6mm(BY SMC)



SECTION AT Y - Y

9 Classroom Building(Hill) Section at the Post

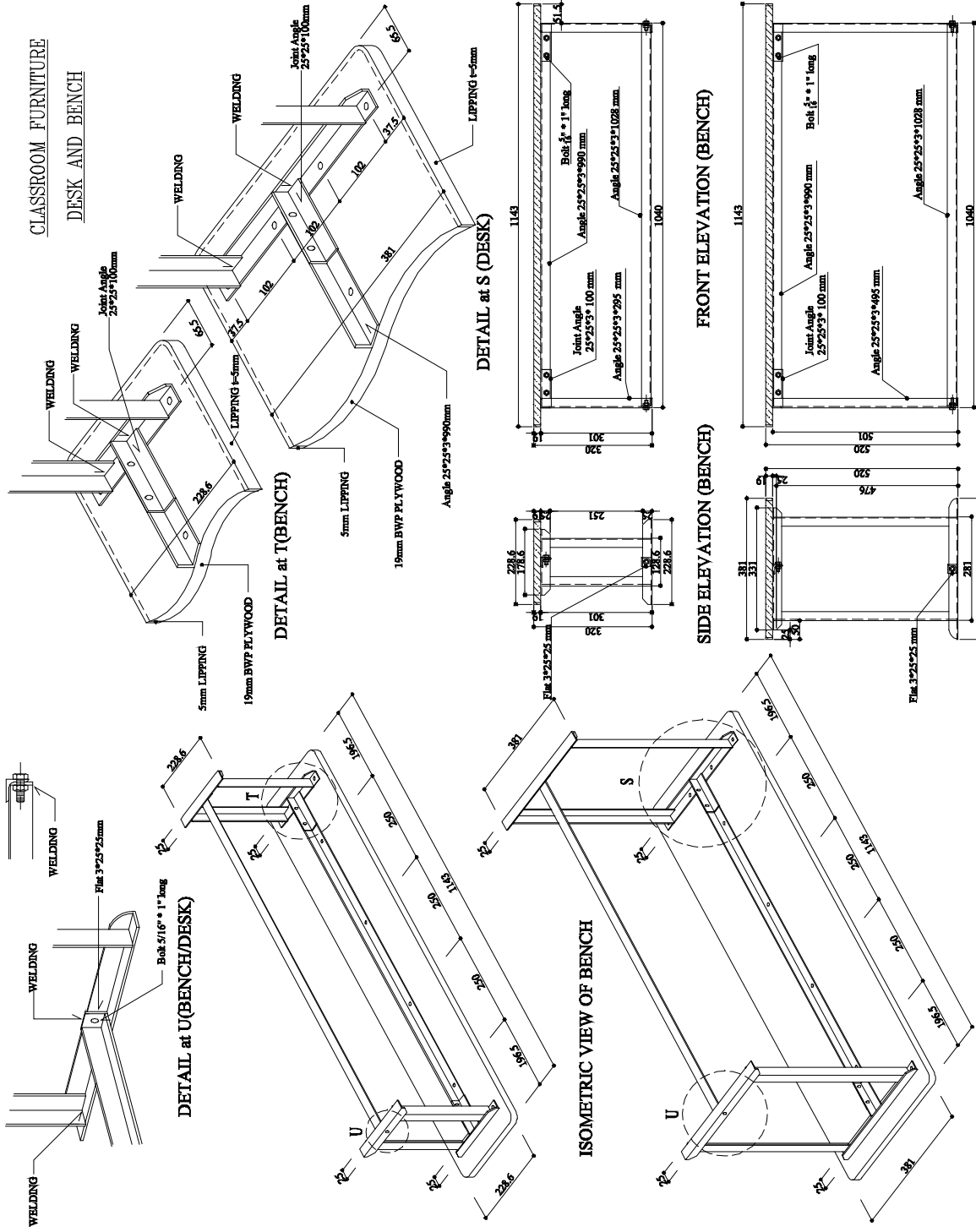
SCHOOL BUILDING  
(HILLY REGION)  
STRUCTURAL PLAN  
OF TRUSS



ROOF PLAN

10 Classroom Building(Hill) Roof Structure Plan

CLASSROOM FURNITURE  
DESK AND BENCH



ISOMETRIC VIEW OF DESK

ISOMETRIC VIEW OF BENCH

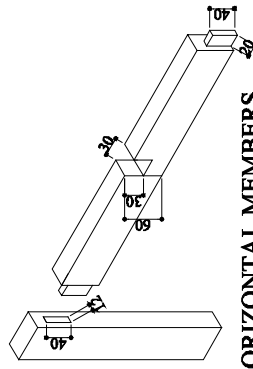
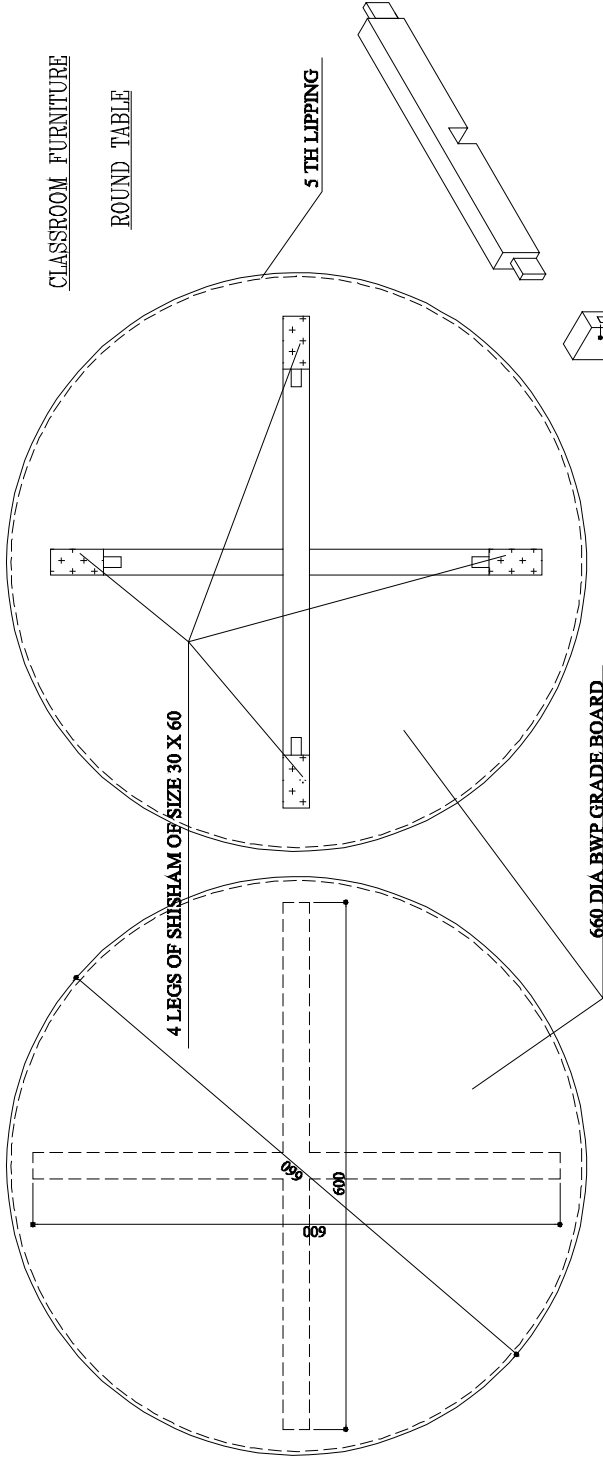
FRONT ELEVATION (DESK)

FRONT ELEVATION (BENCH)

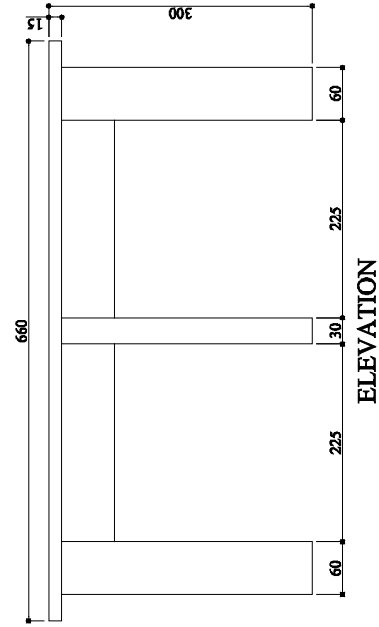
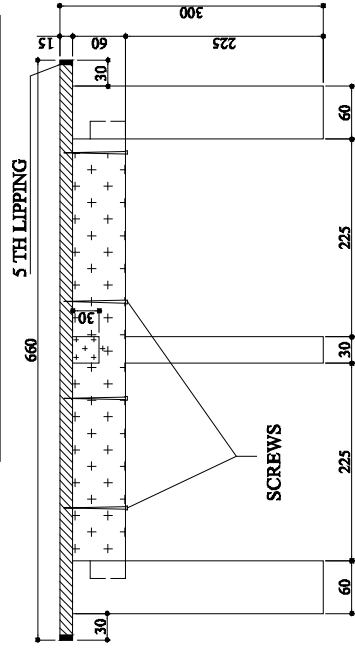
11 Classroom Furniture Details (Long Desk & Bench)

CLASSROOM FURNITURE

ROUND TABLE



LEGS WITH HORIZONTAL MEMBERS



12 Classroom Furniture Details (Round Table)

## 2-2-3 Implementation Plan

### 2-2-3-1 Implementation Policy

#### (1) Procedure for Japan's Grant Aid

The project will be examined based on the contents of this preparatory survey report by the concerned government bodies of Japan to obtain approval of the cabinet. Thereafter, the two governments will sign an Exchange of Notes (E/N), and the project will then be executed according to the scheme of Japan's Grant Aid for Community Empowerment. Based on the E/N, JICA and the Government of Nepal are to sign the Grant Agreement (G/A) and according to the scheme of Grant Aid for Community Empowerment, Japan International Cooperation System (JICS) and the Government of Nepal will sign the Agent Agreement (A/A), in order for the JICS to control the entire procurement for the project, including procurement of materials and services for technical assistance.

For the procurement of construction materials, JICS will make an agreement with the Japanese consultant for providing services in preparation of tender, in assisting the execution of tender, and in the supervision of procurement of materials.

The completion of the services and/or procurement of materials is to be certified by the DOE at the recommendation of the consultant.

#### (2) Executing Agency at Nepalese Side

After the Ministry of Finance will take the procedures related to the Exchange of Notes and other bilateral arrangements further, the DOE, under the MOE, will execute the project and the Director General of DOE will then take the full responsibility for implementing the project. The DOE will make the A/A with JICS, who, on behalf of the DOE, will make agreements and contracts for procuring products and services for the project.

The DOE is responsible for conducting the procedures for exemption of taxes and other levies, such as issuing necessary letters through MOE and to MOF. The MOF will then issue the necessary notices to the concerned taxation offices.

Under the direction and guidance of DOE/PSS, in each target district the District Education Officer (DEO) is responsible for carrying out the physical surveys of schools, for taking the necessary procedures with the communities further, for supervising the construction, for receiving the materials from the supplier, and finally, for keeping and delivering the materials to the schools. The DEO will also be responsible for managing logistics support for the delivery of materials to local communities.

District engineers/ sub-engineers, who are to be recruited and posted by the DOE/DEO, may act on behalf of the DEO regarding the procedures stated above, depending on the situation around each construction site.

Construction work will be carried out by the Nepalese side within the framework of the Construction of Schools by Community Participation under School Sector Reform Plan 2009-2015. The local communities, generally referred to as School Management Committees (SMC), are to enter into construction contracts with the DEO.

#### (3) Procurement Agent (JICS)

JICS will sign a consulting agreement with a Japanese consultant regarding the preparation and execution of tender, supervision of procurement of materials, and confirmation survey on the facilities constructed. The consultant will assist JICS in conducting technical work in the preparation and execution of tender, and in the procurement of materials.

A project manager/ technical manager will visit Nepal from time to time on an ad-hoc basis and will visit the construction sites, carry out discussions in Nepal, and sign the contracts etc.

Up until the end of the tendering stage, an assistant manager will be in charge of the tendering documentation, which will be posted in Tokyo. In addition to this, all throughout the period of the execution of the project, an assistant manager will be in charge of the contract and fund

management, and this person will be posted in Tokyo. He/she will handle the affairs regarding consulting agreements, procurement contract(s), fund management, periodical reporting, as well as communication with and support to the local concerned organizations in Nepal.

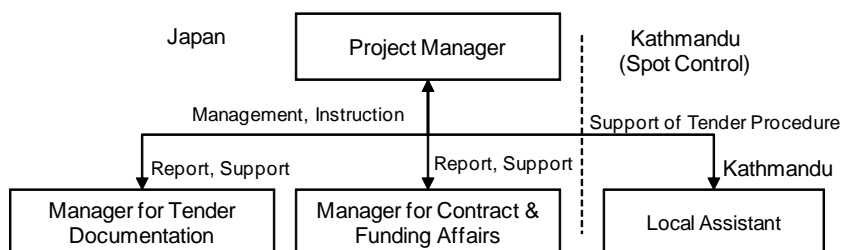


Figure 2-1: Organization of Procurement Agent

#### (4) Project Implementation Management Committee

When the Exchange of Notes (E/N) is signed between the two governments, a Project Implementation Management Committee will then be established in Kathmandu, in order to deal with the fundamental matters that regard the implementation of the project. The Committee will be chaired by the Director General of DOE, and participants will be 1) DOE and JICA Nepal Office as members, 2) JICS, the Consultant for Procurement of Materials and the Consultant for Technical Assistance as advisers, and 3) The embassy of Japan as an observer. The Committee will deal with the various matters regarding the implementation of the project, including the discussion and decisions to be made on the following matters:

- Adjustment of volume and/or target of the project within the estimated project cost at the comparison between the Outline Design and Detailed Design.
- Approval of significant design alterations (volume and/or target of the project)
- Use of surplus money

Furthermore, for the purpose of progress monitoring and information sharing as to the capacity development component, the Joint Coordination Committee will furthermore be established. The details are described in 2-2-3-7 (2) 7).

#### (5) Japanese Consultant

The consultants who participated in the preparatory survey will then make consulting agreements with JICS. In the case of the consultant for material procurement, it is to provide services for preparing and assisting the tender, for supervising the procurement of construction materials and for carrying out the confirmation survey on the facilities constructed, and in the case of the International NGO, to provide services for technical assistance in strengthening the capacity of district-level education officers by providing training in capacity enhancement of SMCs and in child-friendly methods.

#### (6) Supplier

Procurement and delivery to the depot centers of the materials covered by the Grant Aid (bricks should be delivered to each school site) shall be executed by the supplier(s), who will be selected through tender that is to be conducted in Nepal but is open to international candidates. The contract will be made at the lowest bid tendered.

#### (7) Use of Local Consultants and Local Contractors

Because the facilities are to be constructed with local materials and construction methods, and also the selection of the contractor will be by the tender placed locally in Nepal, local technical manpower, consultants, and contractors for procurement should be fully used through all the stages from tendering, procurement, to the confirmation survey of the constructed facilities, thus

contributing to reduction of the entire project cost.

### 2-2-3-2 Implementation Conditions

#### (1) Lot Slicing for Procurement Contract

The following types of slicing the procurement lots are considered

1. Procurement in a single lot
2. Procurement in several lots on different kind of materials, such as cement, brick, steel etc.
3. Procurement in several lots on the different areas such as in various districts

The comparison of the types is shown in Table 2-12.

Table 2-12: Comparison of lots slicing

	1. Single lot	2. Several lots on materials	3. Several lots on areas
1)Eligible bidders	Major traders Major Construction Companies Major steel manufactures	Major & middle class traders Major & middle class Construction Companies Major steel manufactures	Major & middle class traders Major & middle class Construction Companies Major steel manufactures
2)Competition	○	△	◎
3)Management Cost	◎	X	△
4)Coordination with project management by the Government of Nepal	◎	X	△
5)Coordination with Construction Program	◎	X	△
6)Quality Control of Materials	◎	○	○
Overall	◎	X	△

In conclusion, type-1 (Single lot) will be applied.

#### (2) Tendering System

Since all the materials for the project are expected to be procured in local markets, the Standard Bidding Document for Procurement of Goods by Public Procurement Monitoring Office (PPMO) will be applied, and it is open for foreign enterprises as well. On the other hand, since the deliveries of the materials will be carried out in a large coherent volume and will dispersed at many sites over a wider area, the supplier must have enough capacities to achieve such complicated tasks. Therefore, the tender will be done in two steps; first, pre-qualification of candidates with the criteria such as value of firm's assets, business experience, availability of fund, etc., and then, inviting the pre-qualified candidates to the competitive tender.

#### (3) Material Depot Centers

Material depot centers where the construction materials procured by the Japanese side are to be delivered to the Nepalese side are tentatively planned to be located at the various district centers. These centers will be reviewed while tender is being prepared.

-All depot centers need to be accessible by truck.

-The final locations of the depot centers will be clearly shown on a map with the locations of



schools and clusters in charge, and the map should similarly be submitted to the Japanese side.

-The bricks shall be delivered to the construction sites in the Terai districts according to the following conditions:

The cost of transporting bricks from the brick factory to the construction site will be borne by the supplier up to either a distance equal to the distance between the depot and the factory or a maximum distance of 20 km, whichever is greater. The Government of Nepal will fund any additional transportation cost.

#### (4) Storage of Materials at Depot Centers

In each target district, the DOE will prepare depot centers that have necessary facilities such as warehouses for cement, fittings, paints, etc as well as stockyards for steel structural members and reinforcement bars, etc.

#### (5) Transportation of Materials from Depot Centers to Construction Sites

Materials are to be transported from depot centers to each construction site by communities either on truck, wagon, donkey, or porter depending on the situation. While the DOE is to support part of the transportation cost, the communities will fund the deficits. The materials shall be delivered in suitable sizes and packages for the transportation in each target district.

#### (6) Storage of Materials at Construction Sites

Care should be taken to synchronize the deliveries of materials with the construction program, so that the materials are not stored at the depots and construction sites for an excessive amount of time. To achieve this, the deliveries will be carried out continuously almost through the entire period of construction by the communities, and each of the Client, Consultant and Supplier has to establish an office at the centers of the target districts to accommodate their representative(s) to handle the deliveries.

#### (7) Solution of Problems

In case a problem arises regarding the procurement of materials, such a problem will be solved by DOE's initiative in consultation with the Consultant and/or the Supplier. Even in case the problem is connected with the SMC, for instance, some excess costs will be imposed, regarding the transportation of bricks from the chimney to school sites. The Supplier should not deal with such a problem directly with the SMC, but should claim the matter to the DOE, and the Consultant for the settlement of it.

### **2-2-3-3 Scope of Works**

The project will thus be implemented in cooperation with the Government of Japan, the Government of Nepal, and the communities concerned, in accordance with the Grant Aid System for Community Empowerment of Japan. The scope of the works covered by each of the parties is as follows:

#### (1) Works to be covered by the Japanese Side

The Japanese Procurement Agent (JICS), a Japanese Consultant and a Supplier(s) will do the work listed in respectively, a), b) and c) below.

##### a) Works to be done by JICS

- Overall Management of Tendering and Contract
- Overall Management of Procurement

##### b) Works to be done by the Consultant

- Preparation and assistance of tender

In coordination with the government of Nepal, confirming the final list of target schools, depots of materials, distribution of materials to depots, project management plan, etc.

- Assistance of Tendering Procedure
- Assist JICS in carrying out the tendering and making the procurement contract(s) for the project
- Inspection and approval of shop drawings and samples
- Guidance to the Supplier on procurement plan and program
- Attendance to the progress meetings on the procurement to be conducted by the DOE
- Assistance in making payment regarding the procurement contract
- Inspection of the materials under procurement
- Confirmation survey after completion of facilities

c) Works to be done by the Supplier

- Preparation and submission for approval of shop drawings and samples
- Preparation and submission for approval of procurement plan and program
- Attendance to the progress meetings on the procurement to be conducted by the DOE
- Inspection of the materials under procurement
- Provision of training on the erection of steel frame structure and roofing
- Procurement of materials
- Transportation of materials to depot centers and delivery thereof

(2) Works to be covered by the Government of Nepal

DOE/PSS and its local staff members together with DEOs shall do the following works:

- Preparation of long lists of the Final Target Schools (for group 2 districts, in consultation with the Consultant for Technical Assistance)
- Making construction contracts with SMCs
- Installation of depots
- Receipt and storing of materials at depots, and preparing progress reports.
- Provision of funds for communities for transporting materials to sites
- Provision of funds to communities for skilled labor and collection of local materials
- Supervision, technical advice, and monitoring of the construction work by communities
- Guidance to communities on maintenance of facilities
- Issuances of certificates of completion for consulting services and deliveries of materials
- Submission of a report to the Japanese side on the completion of the Project

(3) Works to be covered by the Communities

SMCs of the target schools are to do the following works:

- Discussion with the DOE on standard design of facilities applied
- Making construction contract with the DEO
- Receipt of materials at the depot, transportation to site, and storage
- Collection of local materials and procurement of un-skilled labor
- Construction of facilities
- Maintenance of facilities

#### **2-2-3-4 Management and Supervision of Procurement of Materials**

In case the Project is implemented under Japan's Grant Aid for Community Empowerment, the Japanese consultant, on the basis of the consulting agreement with JICS, will supervise the work for procurement of materials up to their delivery at the depot centers. Then, the DOE in collaboration

with DEOs will supervise and monitor the storage and local transportation of the materials to the sites, and the construction work by the communities as well. Furthermore, to confirm how the materials have been fully utilized, the consultant for procurement will carry out follow-up surveys on the constructed facilities after completion.

### (1) Japanese Consultant

While the head office in Japan will be responsible for controlling overall project implementation, the engineers posted in each target district will handle routine works.

A chief local supervisor posted in the Kathmandu office will, together with his/her assistants, be responsible for controlling all local staff members of the consultant, and for coordinating with the supplier as well as with the DOE. The Project Manager (Engineer 1) posted in Tokyo and/or his assistant (Engineer 2) will visit the sites from time to time to attend meetings, inspections and give overall guidance. The head office in Japan will have a technical staff member for conducting communications with and support to the local office in Kathmandu.

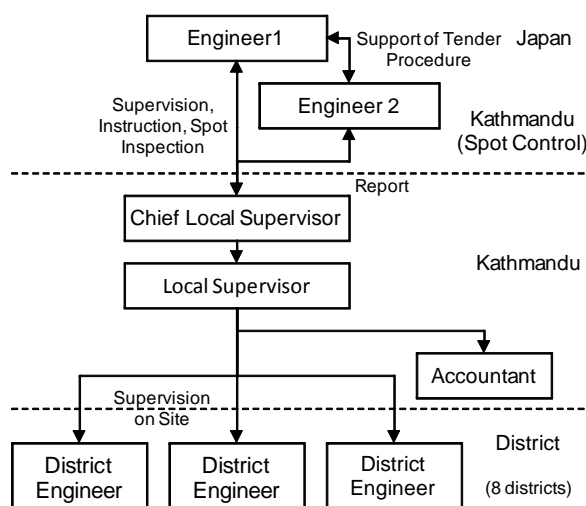


Figure 2-2: Organization of Japanese Consultant

### (2) Supplier

While the head office in Kathmandu will be responsible for controlling overall project implementation, local procurement manager(s) posted in each target district will handle the daily routine work.

The head of the Kathmandu office and his/her assistants will be responsible for controlling all local staff members of the supplier. The head office in Kathmandu will also administer procurement staff when conducting communication and support to the local office in the districts. The head and his assistants will visit the factories and sites from time to time for inspections, and for giving guidance as per necessity.

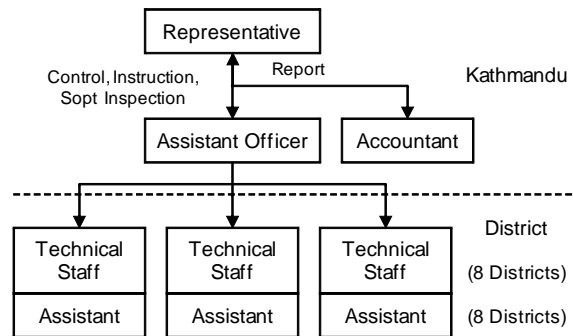


Figure 2-3: Organization of Supplier

### (3) Nepalese Side

While the DOE will be responsible for controlling overall project implementation, sub-engineers posted in each of the project clusters will handle the daily routine work, supported by DEO for clerical procedures, and by District Engineers for technical matters. The district engineers will report to the DOE.

The DOE shall report the progress of the project through monthly meetings attended by DEO, Consultant, Supplier, and JICA Nepal Office. The DOE shall also prepare and present to the Government of Japan reports on how the materials provided under the project have been used as follows:

- a) Preparation of Tender Stage
  - a-1) List of target schools together with the selection criteria and the report on making construction contracts with SMCs
  - a-2) List of depots with location maps
- b) Material Procurement Stage
  - b-1) List of the target schools for confirmation
  - b-2) Monthly reports on receipt of construction materials at the depot centers.
  - b-3) Monthly reports on delivery of construction materials to the schools.
  - b-4) Monthly reports on progress of construction work at schools
- c) Upon Project Completion
  - c-1) Report on completion of construction of the facilities within three (3) months from the completion of the construction with a list of schools, facilities constructed, completion dates, copies of completion certificates, etc.

The management organization for the Project is shown in Figure 2-4

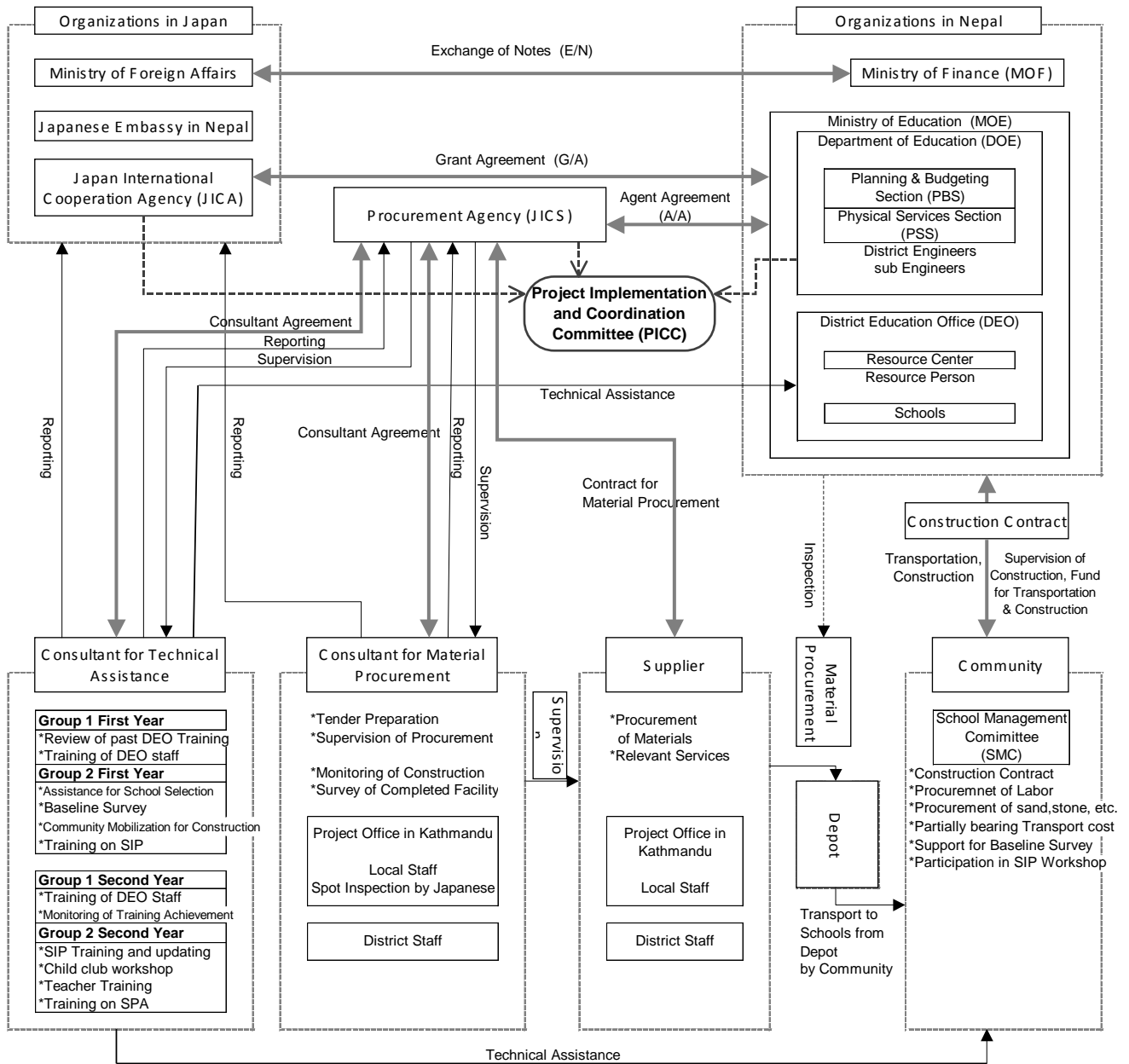


Figure 2-4: Organization for Implementing the Project

### **2-2-3-5 Quality Control Plan**

To ensure the delivery of materials of an appropriate quality and standard, inspections will be done at the point of delivery or at the factory where materials are produced or manufactured. The quality of materials will be checked as illustrated in the Guidelines for Quality Inspection by the consultant.

#### **(1) Types of Activity during Inspection**

The quality inspection for construction materials generally involves one or more of the following activities.

1. Dimension Check
2. Weight Check
3. Visual Check
4. Chemical Test
5. Physical Test

#### **(2) Location of Sampling and Inspection**

Inspections involving activities 1 to 3 stated above will be carried out at the depot or the factory. An inspection that requires chemical analysis or physical testing and, which is not possible at the sampling site, may be done in laboratories, following the standard methods. For major items such as CGI sheets, MS trusses, MS window/door frames, and door/window shutters sampling may be done for both raw materials and finished products at the factory. However, sampling at the depot will be done only for finished products.

#### **(3) Inspection Team**

In addition to the routine sampling tests by the engineers posted in each target district, an inspection team that consists of an engineer from the DOE and/or an engineer from the Consultant and an engineer from the Supplier will carry out the inspections of major items.

#### **(4) Reporting Format**

An appropriate reporting format will be applied throughout the project.

#### **(5) Conformity of Materials Inspected**

The test results are checked in accordance with the specifications of the contract document. Then, a brief statement of the test results will be recorded, whether or not they conform to the given specifications and drawings.

#### **(6) Approval of Materials Inspected**

An approval/rejection note for the consignment of materials either at the depots or at the factory, based on the test result, is issued to the supplier. The authority to issue an approval/rejection note will be delegated to the joint inspection team.

The quality of the construction materials will be maintained as shown below:

Table 2-13: Items for Inspection

	Construction Materials	Check items
1	Bricks	a) Brick Chimney Selection Supplier will jointly collect sample bricks from various chimneys and lab-test and request for chimney approval for supplying bricks. b) Bricks will be checked in ad hoc basis at delivery sites and if necessary, samples will be collected and tested
2	Cement	a) Quality certificate from factory b) Random lab testing of samples if deemed necessary
3	Reinforcement bar	a) Test certificate from factory b) Random lab testing of samples if deemed necessary
4	Fabricated doors/windows frames	a) Factory inspection of lot before materials are dispatched b) Random samples will be checked at the depot centers
5	Fabricated doors/windows shutters	a) Factory inspection of lot before materials are dispatched b) Random samples will be checked at the depot centers
6	Fabricated truss	a) Factory inspection of lot before materials are dispatched b) Random samples will be checked at the depot centers
7	Paints, enamel/cement	a) Quality certificate from factory. b) Random inspection in depot centers – also check packing
8	Plain & Corrugated GI sheets and Corrugated Translucent sheets	a) Factory inspection of lot before materials are dispatched b) Random samples will be checked at the depot centers
9	Donation Board	a) Factory inspection of lot before materials are dispatched b) Random samples will be checked
10	Fabricated Plywood Partition at middle wall	a) Factory inspection of lot before materials are dispatched b) Random samples will be checked at the depot centers
11	Others, hardware fixtures, nuts and bolts, screws, nails etc.	a) Quality certificate from factory. b) Random inspection in depot centers – also check packing
12	Furniture	a) Factory inspection of lot before materials are dispatched b) Random samples will be checked at the depot centers

### 2-2-3-6 Procurement Plan

#### (1) Procurement Contract

The Procurement Contract will be given to a contractor(s) selected by the tender placed in Nepal. It is to be noted that the tender is open for foreign candidates as well.

#### (2) Place of Procurement

All materials are initially expected to be obtained locally in Nepal, but may similarly be procured in Japan or in a third country.

## 2-2-3-7 Technical Assistance Plan

### (1) Background

In Nepal, after the promulgation of the Local Self-Governance Act in 1998, the decentralization of education administration started in 2001 when the parliament amended the Education Act. This Act embraces the provision entitled 'school management responsibility can be taken' with the clarification that SMCs can take on the management responsibility of state schools, by signing a formal agreement with the DEOs. On top of delegating the authority to make regular administrative and managerial decisions, the Act provided DEOs and SMCs with other major responsibilities. This included appointing head teachers, appointing teachers for new teacher quota, concluding agreement with groups and NGOs for the benefit of the school, social mobilization for sending children to school, resource mobilization, and so forth.

However, most DEOs and particularly SMCs need support in bearing these responsibilities to perform various school-related activities. At the moment the government, alongside with development donors, is under pressure to achieve the EFA and MDG goals, particularly to increase the number of classrooms to accommodate all the children. Two major lessons are drawn from International NGOs' grassroots level activities in the field of basic education:

- Operation and maintenance of classrooms work better when teachers, SMC members, and parents have a chance to share their views on the objectives and purposes of these rooms prior to the construction;
- When schools are selected by DEOs for classroom construction, teachers, parents and SMC members do not feel the same ownership. Therefore, it is needed to strengthen DEO staff's planning capacity of schools and classrooms so that the existing, limited resources are fully utilized, by selecting schools that especially need new classrooms.

### (2) Outline of Technical Assistance

#### 1) Goals and outcomes

Project goals, target, and outcomes are set out as the following.

**Project Goal:** Quality of basic education is improved in the target districts.

**Project Target:** School management and the learning environment for basic education are improved in the target districts.

#### 2) Expected outcomes:

- 1) District-level education officers' capacity to support school management is strengthened.
- 2) A child-friendly learning environment is established in the target schools (physical aspect of learning).
- 3) School governance capacity of SMC/PTA is improved in the target schools.
- 4) Teachers' capacity is strengthened in the target schools.

#### 3) Major activities

- To strengthen the capacity of district-level education officers by providing training on child-friendly techniques so that they will be better able to support SMCs in an effective and sustainable manner;
- To raise community members' awareness on the importance of participatory development of the School Improvement Plan (SIP) and of overall school governance in relation to the classroom construction; and lastly,



- To improve the quality of education especially for lower grades children (G1 to G3) through teacher training in child-friendly teaching and Active Teaching Learning (ATL) methods.

#### 4) Target districts

The project will be carried out in the districts of Sunsari, Sarlahi, Dhading, Mahottari, Dhanusha, Nawalparasi, Banke and Kailali. These districts will be divided into two groups based on the following criteria:

- The district with previous experience of education projects of similar type;
- The availability of a local NGO with similar education project experience.

Those districts that do not meet both criteria belong to Group 1 (G1), whereas those that meet both belong to Group 2 (G2).

**【Group 1】** Sunsari, Sarlahi, Dhading

**【Group 2】** Mahottari, Dhanusha, Nawalparasi, Banke and Kailali

In the G 1 districts, the project will target district-level education officers: School Supervisors (SSs), Resource Persons (RPs), and DEO officers.

In the G 2 districts, in addition to the district-level training, Resource Centre (RC) and school-level training, involving SMC and community members will be targeted for training. The training will include community mobilization in the run-up to the classroom construction, workshops on participatory development of SIP for SMC and PTA members, and lower grade teacher training in Child-Friendly Teaching and Active Teaching Learning (ATL) techniques.

In the G 1 districts, the training will start in the first year. The participants are expected to support communities in their classroom construction, drawing on what they learnt from the series of trainings. In the G 2 districts, the training both at the district and the school levels will start in the first year. The classroom construction will start in the second year in all the districts.

Target schools in the G 2 districts will be selected based on the results of the baseline survey that will be conducted at the initial stage of the project. The schools will be chosen in consultation with the DEO, SS/RP and the material procurement consultant team.

#### 5) Outcome and project activities

The table below summarizes the planned activities according to the project outcomes described above.

Table 2-14: Summary of Activities for Technical Assistance

<p><b>Outcome 1:</b> District-level education officers' capacity to support school management will be strengthened. (Group 1 &amp; Group 2)</p>	<ul style="list-style-type: none"> <li>◆ Review of capacity development projects conducted in the past and development of the training plan for this project.</li> <li>◆ Training for SSs, RPs and DEO officers concerning SIP, SMC and child-friendly pedagogy.</li> <li>◆ Follow-up of training activities.</li> </ul>
<p><b>Outcome 2:</b> Child-friendly learning environment is established in target schools. (Group 2)</p>	<ul style="list-style-type: none"> <li>◆ Baseline study [1] for target school selection &amp; Selection of target schools.</li> <li>◆ Baseline study [2] for gathering data concerning monitoring indicators at selected schools.</li> <li>◆ SIP training for SMC/PTA members by SS/RP.</li> <li>◆ Classroom construction: preparation and supervision by SMC/PTA members.</li> <li>◆ Resource mobilization for classroom construction by SMC/PTA members and head teachers.</li> <li>◆ Child-friendly equipment (tables and carpets) for lower grade classrooms.</li> </ul>
<p><b>Outcome 3:</b> School governance capacity of SMC/PTA is improved in target schools. (Group 2)</p>	<ul style="list-style-type: none"> <li>◆ Formation of SMCs and PTAs (at target schools where such groups do not exist.)</li> <li>◆ Provision of trainings to SMC &amp; PTA members as to SIP participatory formulation, SSA, Social audit.</li> <li>◆ SIP workshop at schools.</li> <li>◆ Regular updates of SIP by SMC/PTA.</li> <li>◆ Child Club workshop at RC and follow up by SS/RP.</li> <li>◆ Exposure visit to other districts by teachers and SMC/PTA members.</li> </ul>
<p><b>Output 4:</b> Teachers' capacity is strengthened in target schools. (Group 2)</p>	<ul style="list-style-type: none"> <li>◆ Teacher trainings on child-friendly and child-centered education.</li> <li>◆ Student Assessment System (SAS) training.</li> <li>◆ Exposure visit to model schools for teachers and SMC members.</li> </ul>

## 6) Stakeholders

The main project actor in the Group 1 districts is the DEO. In carrying out its activities, the DOE, the INGO, and the PNGO will provide joint support to the DEO. Monitoring and evaluation exercises will be conducted by DEO/DOE in collaboration with the INGO and the PNGO.

In the Group 2 districts, the DEO will play a similar role. Those SSs and RPs who receive district-level training will organize workshops for SMC and PTA members sent from the schools for which they are responsible. SMC and PTA members who participate in the RC workshops will go back to their own schools to hold workshops on classroom construction and SIP. INGO/PNGO team will support both SSs/RPs and SMC/PTA members in conducting their workshops.

It is expected that the district-level and the RC-level training will be mutually reflective; SSs and RPs will practice what they have learned at the district-level training. The issues and problems that may arise when organizing the RC-level training, will be discussed at the district-level training, specifically at the RC-level and school-level workshops.

The relations between those who will be engaged with the project are visualized below:

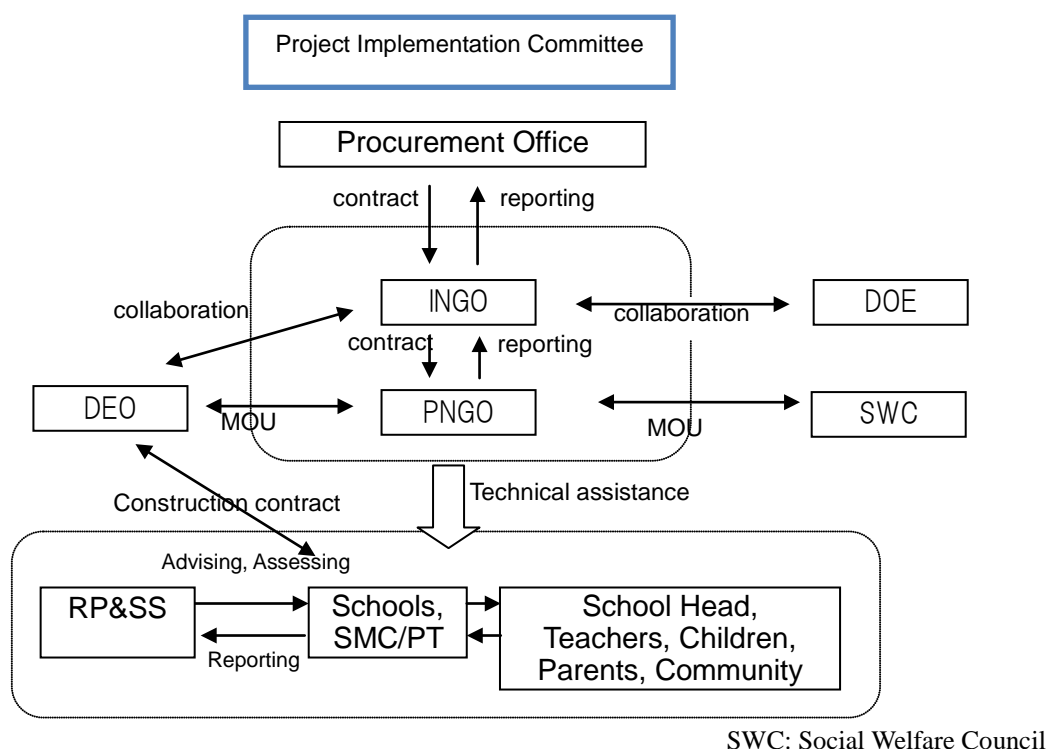


Figure 2-5: Technical assistance stakeholders

## 7) Joint Coordination Committee (JCC)

The Joint Coordination Committee will be held every six months for the purpose of sharing information among the stakeholders. These meetings will concern the progress of the technical assistance activities, and especially the trainings that will take place at the district and school levels. The issues and challenges that might arise during the implementation period will be discussed at these committee meetings. JICA Nepal, Program and Budget Section and Physical Service Section (PSS) of DOE, and the International NGO will participate in the committee as members, whereas JICS, the procurement consultant team, and the Embassy of Japan will act as observers.

## 8) Procurement

Following the government's regulation, the INGO will work through the national NGOs (i.e. PNGO) that are active at the district, school and grass-root levels. The INGO is expected to select PNGOs. It will therefore be desirable to select PNGOs that have the capacity to provide appropriate advice to communities regarding classroom construction, as well as giving advice on what skills are needed in providing support to community mobilization. Those NGOs, which have worked for other Japanese projects in the past, or those, that have provided technical support for classroom building, using the pool-fund, will be given priority.

## 9) Deliverables

### (1) Written materials

- Workshop material for district-level training is needed. This will be prepared drawing on the existing materials used in similar projects in the country.
- A baseline survey report is required

- An end-line survey report is required
- (2) Monthly reports to JICS, bi-annual reports (both in English)
- (3) Booklets on education project in Nepal (2 titles)
- Provisional title: Lessons learnt from capacity building of district-level educators
  - Provisional title: Empowering community members for quality education
- 10) Cost to be shared by the Nepalese government
- Monitoring cost (transportation, allowance and accommodation fee) for counterparts

### **2-2-3-8 Implementation Schedule**

In case the Project is executed by the Grant Aid for Community Empowerment, the Japanese side will take the following procedures:

- 1) JICA and Government of Nepal sign the Grant Agreement (G/A)
- 2) JICS and Government of Nepal sign the Agent Agreement (A/A)
- 3) JICS and the Consultants sign the Consulting Agreements
- 4) The consultant reviews contents of the project based on the final list of the target schools prepared by the Government of Nepal
- 5) Selection of Supplier through tendering with its approval of the Government of Nepal
- 6) JICS and the Supplier sign the Procurement Contract
- 7) Procurement of construction materials and delivery to the Government of Nepal
- 8) The consultant carries out a confirmation survey after the completion of the construction of the facilities by the Nepalese side.

(1) Upon the preparation of the final list of target schools, the consultant for procurement of materials will start the preparation for tender, which will be followed by tendering procedure and making the procurement contract by JICS. This stage will take 10 months in total.

(2) It will then take 13 months for the procurement and delivery of materials by the supplier, including mobilization beforehand, and the final payment upon completion, as well as for the supervision of such works.

(3) It will take 4.3 months for the procurement consultant to carry out the confirmation survey on the facilities constructed.

(4) It will take 33 months for the technical assistance.

The overall schedule of the process is shown in Table 2-15.

Table 2-15: Implementation Schedule (Japanese Side)

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33					
Preparation & Tender Procedure		Identification of Target Schools & Depots																																				
		Adjustment of Tender Document																																				
		Finalization & Approval of Tender Document																																				
		Submission of Prequalification Document																																				
		Evaluation of Prequalification																																				
		Tender Period																																				
		Tender Opening, Evaluation, Contracting																																				
		Preparation & Manufacturing																																				
		Procurement & Delivery																																				
	Supervision of Material Procurement		Supervision of Material Procurement																																			
		Preparation																																				
Confirmation Survey		Site Survey																																				
		Data Analysis & Report																																				
Technical Assistance		Capacity Building of Education Officers at District Level																																				
		33 months																																				
		Establishment of Child friendly Environment																																				
		Capacity Building of SMC/PTA on School Governance																																				
	Capacity Building of Teachers																																					

## 2-3 Obligations of Recipient Country

The following measures need to be taken by the Nepalese side especially by the DOE:

- 1) Conduct the necessary surveys for finalizing the selection of the target schools, prepare a list of target schools and number of the facilities therein according to the criteria of the Nepalese side, and according to the conditions stated in this report. Then, submit the list to the Japanese side within two months after the Exchange of Notes between the two governments or four months before the scheduled date of calling tender, whichever comes first. When preparing the list, ensure that the list satisfies the selection criteria and the limit numbers stated in this report and obtain the agreement of the consultant for the technical assistance.
- 2) Ensure proper construction management including appointments of engineers, sub-engineers, and depot managers in order to ensure that efficient management of the project will be realized, including technical guidance to communities, supervision, and monitoring of construction
- 3) Before initiating the construction, negotiate and make agreements with the communities concerned on construction works under the project.
- 4) Bear the cost of skilled labor and local transportation of materials necessary for the construction of the primary schools.
- 5) Generate and encourage community participation including the supply of unskilled labor, local building materials, and local transportation.
- 6) Provide proper depots in the concerned project area.
  - The number of the depot centers is tentatively estimated to an average of two per district.
  - Depots are to be accessible by trucks.
  - Depots will have a warehouse(s) that has a total floor area of around 1.5 sq.m per target school that it serves for.
  - Depots will have an open yard(s) that has a total floor area of around 30 sq/m per target school that it serves for.
  - Once the target schools are finally selected, the location of the depots will be decided upon accordingly.
- 7) Cover facilities other than those covered by the Japanese side including the following items:
  - - Rehabilitation of existing classroom buildings,
  - - Fencing for the school compound.
  - - Toilets
  - - Water supply facilities
- 8) If necessary, ensure prompt unloading and customs clearance of products purchased from outside Nepal under the Grant Aid
- 9) Exempt Japanese nationals from customs duties, internal taxes including VAT and fiscal levies, which may be imposed in Nepal with respect to supplies of products and services under the A/A with JICS and other agreements and contracts made by JICS for the project.

- 10) Accord Japanese nationals whose services may be required in connection with supplies of products and services under the A/A with JICS and other agreements and contracts made by JICS for the project, such facilities as may be necessary for their entry into Nepal and stay therein for the performance of their work.
- 11) If necessary, provide necessary permissions, licenses, and other authorizations for the implementation of the project.
- 12) Bear all expenses other than those to be borne by the Grant Aid within the scope of the project.
- 13) Ensure the constructed facilities are used properly for the planned purposes.
- 14) Present to the Government of Japan report(s) on how the materials provided under the project have been utilized as stated in 2-2-3-4 Management and Supervision of Procurement of Materials 3) Nepalese Side.
- 15) Ensure monitoring cost with regard to technical assistance activities (transportation, allowance and accommodation fee) for the counterparts.

## **2-4 Project Operation Plan**

### **2-4-1 Implementing Organization**

The responsible organization for the project is the Ministry of Education (MOE), and the implementing organization is the Department of Education (DOE). In particular, Physical Services Section (PSS) of the DOE is responsible for the material procurements, and the Program and Budget Section that is responsible for the technical assistance. These two sections will have the leading roles to play in implementing the project in close coordination with the District Education Officers/Offices (DEOs). At a district level, the DEOs are responsible for conducting physical surveys of schools, selecting the target schools, making construction contracts with communities, arranging management of the staff members, and issuing delivery certificates for materials and other related documents. The construction work will be carried out by the communities and supervised by three to five district sub-engineers. A district engineer, under the guidance of the PSS/DOE, will then head these where each sub-engineer will cover 4 to 15 school sites. Also, under the control of the district engineer, a depot keeper will be posted at each depot, which is to be established at one or several locations in the district. The manpower of PSS and each of the target districts is shown in Figure 2-6 and Table 2-16 respectively. The manpower can be reinforced as necessary at the implementation stage of the project.

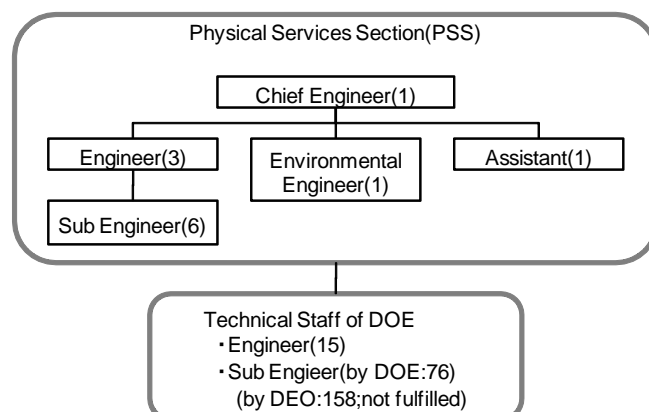


Figure 2-6: Organization of PSS

Table 2-16: Technical Staff in the Target Districts

District	Engineer	Sub-Engineer	Depot Keeper
Sunsari	1	5	2
Sarlahi	1	5	2
Dhading	1	5	2
Dhanusha	1	5	2
Mahottari	1	5	2
Nawalparasi	1	5	2
Banke	1	5	2
Kailali	1	5	2
8 districts Total	8	40	16

### 2-4-1-1 Maintenance of Facilities

The target schools for the project are limited to those that have already been established and authorized by the Government of Nepal, and where teachers are equally distributed and furthermore, where SMC is established for school management and maintenance activities. Therefore, the organization for the school maintenance system has already been prepared. The technical assistance, as a component to the improvement of SMCs, will confirm the organization and strengthen them if necessary. On the other hand, maintenance costs are not large, with the only expenses being for building maintenance, as most of the schools have no electricity on the compound. Consequently, it is assumed that there will be no serious challenges in maintaining the facilities to be constructed under the project, as they are designed to use as much local materials and construction resources as possible.

### 2-4-1-2 Teacher Deployment

In recent years, the Government has not increased the allocation of regular, permanent teachers, whereas the number of temporary teachers has experienced an increase. Those teachers who will be hired for newly built classrooms under the project are likely to be appointed on the Per Child Fund



(PCF) budget scheme. The allocation of teachers will be directly affected by the DEO's budget availability and the amount of resources that each school can mobilize. In the Group-1 districts, through the training workshops, the participants will be encouraged to allocate teachers adequately for the target schools. In the Group-2 districts, the teacher deployment will be included as part of the SIP development.

## 2-5 Project Cost Estimation

### 2-5-1 Initial Cost Estimation

The costs to be borne by Japan and Nepal are estimated, in accordance with the estimation conditions in (3) below.

#### (1) Costs to be borne by Nepalese Side

Table 2-17: Estimate of the Cost Borne by the Nepalese Side

Unit: Nepalese Rupee (Japanese Yen)

Description	Cost	Undertaking by
1. Preparation of Project, Recruitment of Engineers and Sub-engineers	10,270,260 (¥11,941,231)	DOE
2. Arrangement of Depots	8,736,000 (¥10,157,347)	DOE
3. Transportation of construction materials from depots to sites	5,500,000 (¥6,394,850)	DOE
4. Collection of Local Materials (stone, gravel, sand)	8,226,655 (¥9,565,132)	DOE
	42,810,185 (¥49,775,402)	SMC
5. Procurement of Labor and Construction Work	32,259,480 (¥37,508,097)	DOE
	37,882,020 (¥44,045,425)	SMC
6. Stationary, Motorbikes and Fuel for Supervision of Construction	1,856,000 (¥2,157,971)	DOE
7. Construction of False Ceiling	75,804,534 (¥88,137,931)	DOE
	746,966 (¥868,497)	SMC
8. Bank Service Fee	870,000 (¥1,011,549)	MOF
Sub Total	870,000 (¥1,011,549)	MOF
	142,652,929 (¥165,862,560)	DOE
	81,439,171 (¥94,689,324)	SMC
<b>Total</b>	<b>224,962,100 (¥261,563,433)</b>	

#### (2) Costs to be borne by Japan

This will be made public when the approval of the procurement contracts has occurred.

#### (3) Condition of Estimate

##### 1) The Period of Estimate

April 2011

2) Exchange Rate

US\$ 1= JPY 83.48

US\$ 1= NRs 71.7978

NRs. 1 = JPY 1.1627

3) Period of Project Implementation

The period of Detailed Design and Procurement required for the Project is shown in the Schedule of Works.

4) Others

The Project will be implemented under the scheme of Japan's Grant Aid for Community Empowerment. This cost estimate is provisional and will be examined further by the Government of Japan.

## 2-5-2 Operation and Maintenance Cost

Apart from the facilities constructed under the project, communities under the responsibility of SMCs are expected to operate and maintain all school facilities. For that purpose, SMCs are encouraged to prepare SIPs by themselves. The DOE annually provides each SMC with the fund of Rs.275/student in Terai districts, Rs. 300/student in Hill districts, and Rs.325/student in Mountain districts on condition that the purposes of expenditures are stated in the SIPs. Furthermore, the DOE provides each school with a management fund of Rs.11,000 (Rs. 13,000 for Secondary School, Rs. 21,000 for High School) mainly to cover teachers' salaries and rehabilitation of buildings. In addition, Rs.300/teacher will be provided for procuring educational materials. It is assumed that there will be no serious challenges in maintaining the facilities to be constructed under the project, with the funds stated above.

## **CHAPTER 3 PROJECT EVALUATION**

### **3-1 Preconditions**

- 1) When commencing the project, the DOE will firstly need to inform the DEOs of the all the target districts of the plan. The Group-1 districts will select 50 schools each following the schedule above. The Group-2 districts will need to carry out baseline surveys in collaboration with NGOs at the initial stage of the project.
- 2) As a prerequisite for the project implementation, the Nepalese side is expected to fulfill items specified in 3-2-4-3 Scope of Work (2) and (3).

### **3-2 Necessary Inputs by Recipient Countries**

- 1) DOE and DEO function as project implementers and operation and management are secured.
- 2) The budget is secured to cover those items to be funded by the Nepalese side, and it will, accordingly, be allocated to the target schools
- 3) The target schools can mobilize resources and budgeting when and if a gap appears between the subsidy given by the DEO and the necessary amount to put forward the plan.
- 4) At the target schools that do not have sanitary facilities, toilets and water facilities are constructed, funded by the pool fund of SSRP.

### **3-3 Important Assumptions**

- 1) No natural disaster will occur in the vicinity of target sites.
- 2) No major political or economic events will have a strong impact upon the Project.
- 3) No change will be made in the superior plans
- 4) No drastic change in number of students from the initial plan will occur (especially in the Group 1 Districts)

### **3-4 Project Evaluation**

#### **(1) Relevance**

It is appropriate to implement the project under Japan's Grant Aid Assistance, because the project will be relevant accordingly:

#### **① Contribution to SSRP**

The project will contribute to the SSRP, the present national plan for education development, which consequently will expand the basic education, in order to achieve the EFA goals by 2015.

#### **② Beneficiaries**

The direct beneficiaries of the Project are the target districts and the students in the target schools. It is also expected that the communities will enjoy indirect benefit through the improvement of

school management.

### ③ Correction of Social Gaps

As stated earlier, the provision of the education services by the private sector is expanding rapidly in Nepal. The project is to address the gaps by expanding the provision of education services by the public sector, and enhancing the poor communities and their children, in order for them to participate in the public schools, and to receive appropriate public education.

### ④ Operation and Maintenance

It is expected that school facilities, including classrooms will be operated and maintained properly due to the capacity development of the SMC and PTA, focusing on participatory development of School Improvement Plan (SIP). It is also expected that the budgets for target schools be given as scheduled so that the schools can maximize their available resources in operating and maintaining their classrooms.

### ⑤ Considerations to Environmental and Social Issues

No negative impacts to the environmental and social issues are expected throughout the implementation of the project.

## (2) Effectiveness

The effects that are expected through the implementation of the Project are as stated below:

### ① Quantitative Effects to Be Expected

The numbers of the additional students that can be newly accommodated in the proposed classrooms are calculated as shown below:

#### Group 1

Sunsari (Terai): 50 Blocks	100 Classrooms	Students/Class 50	Total 5,000
Sarlahi (Terai): 50 Blocks	100 Classrooms	Students/Class 50	Total 5,000
Dhading (Hill): 40 Blocks	100 Classrooms	Students/Class 45	Total 4,500

#### Group 2

Dhanusha (Terai): 40 Blocks	80 Classrooms	Students/Class 50	Total 4,000
Mahottari (Terai): 40 Blocks	80 Classrooms	Students/Class 50	Total 4,000
Nawalparasi (Terai): 40 Blocks	80 Classrooms	Students/Class 50	Total 4,000
Banke (Terai): 40 Blocks	80 Classrooms	Students/Class 50	Total 4,000
Kailali (Terai): 40 Blocks	80 Classrooms	Students/Class 50	Total 4,000

Upon completion of the construction of all the proposed classrooms, in total 34,500 students may

be newly accommodated to the schools, which will be especially effective in order to reduce the congestion of classrooms in the schools where number of students per classroom is very high.

Furthermore, it is expected that the project will contribute to reducing the dropout rates, especially for lower-grade students whose promotion rates are conventionally low. For target schools in the Group-2 districts, baseline surveys will be conducted at the beginning of the project so that proper monitoring exercises will be conducted throughout the project period.

## ② Qualitative Effects to Be Expected

Capacity of district level-education officers will be generally strengthened in the target districts. In the Group-2 districts, on top of the capacity of district level-education officers, school management capacity of SMC members will be enhanced. In target schools in the Group-2 districts, it is expected that a child-friendly learning environment will be created through the provision of facilities, including round tables and carpets as well as in-service training of teachers.

