JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

LOCAL GOVERNMENT ENGINEERING DEPARTMENT MINISTRY OF LOCAL GOVERNMENT RURAL DEVELOPMENT AND COOPERATIVES. THE PEOPLE'S REPUBLIC OF BANGLADESH

# BASIC DESIGN STUDY REPORT ON THE PROJECT FOR THE CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTERS (II) IN THE PEOPLE'S REPUBLIC OF BANGLADESH

APPENDIX 6 RESULTS OF SITE CONDITIONS SURVEY APPENDIX 7 RESULTS OF NATURAL CONDITIONS SURVEY

JUNE, 1994

JAPAN ENGINEERING CONSULTANTS CO., LTD.



No.

282/8 JICA LIBRARY 1121660[3] 国際協力事業団

28218

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

LOCAL GOVERNMENT ENGINEERING DEPARTMENT, MINISTRY OF LOCAL GOVERNMENT, RURAL DEVELOPMENT AND COOPERATIVES, THE PEOPLE'S REPUBLIC OF BANGLADESH

# BASIC DESIGN STUDY REPORT ON

THE PROJECT FOR THE CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTERS (II)
IN

THE PEOPLE'S REPUBLIC OF BANGLADESH

(APPENDIX 6 RESULTS OF SITE CONDITIONS SURVEY APPENDIX 7 RESULTS OF NATURAL CONDITIONS SURVEY)

JUNE, 1994

JAPAN ENGINEERING CONSULTANTS CO., LTD.

## **CONTENTS**

Appendix 6	Results of Site Conditions SurveyA	.6-1
Appendix 7	Results of Natural Conditions SurveyA	7-1
7.1	Topographic Survey	7-1
7.2	Geological SurveyA	7-33
	7.2.1 Locations of Boring Holes	7-35
	7.2.2 Boring Log	7-51
	7.2.3 Assumed Geological SectionsA	7-81
	7.2.4 Summary of Laboratory Tests	7-97
	7.2.5 Grain Size Distribution	7-109
	7.2.6 Unconfined Compression Tests	7-131

# APPENDIX 6

# RESULTS OF SITE CONDITIONS SURVEY

#### APPENDIX 6 RESULTS OF SITE CONDITIONS SURVEY

#### (1) Site Conditoins Survey

The Government of Bangladesh has proposed a total of 50 candidate sites for the Project (II). The ministries concerned in Japan involved in the Project (II) examined and discussed the extent of the request and concluded that, in view of the likely implementation period for a Japanese grant aid project, the geographical distribution of the requested sites and the available period to complete the Basic Design Study, the selection of 23 sites located in the Chittagong and Cox's Bazar Districts, both of which are in the HRA, would be appropriate. A site survey would be conducted at these 23 sites with a view to selecting upto 15 priority sites and a natural conditions survey, etc. would then be conducted for these priority sites as part of the basic design for the planned facilities.

In short, 23 sites located in the Chittagong and Cox's Bazar Districts were selected (see Table A-7-1) out of the originally requested 50 sites for the survey to confirm the site conditions.

The site conditions survey was conducted at the 23 selected sites. In view of the fact that all the selected sites were primary school premises run by the government, the survey tried to identify the following details.

#### Locational Conditions

- · Site access
- · Land ownership
- · Site area

#### ② Items Related to School Education

- State of building(s)
- · Number of pupils and teachers
- · State of drop-out
- Available educational fittings
- · Auxiliary facilities
- Maintenance system

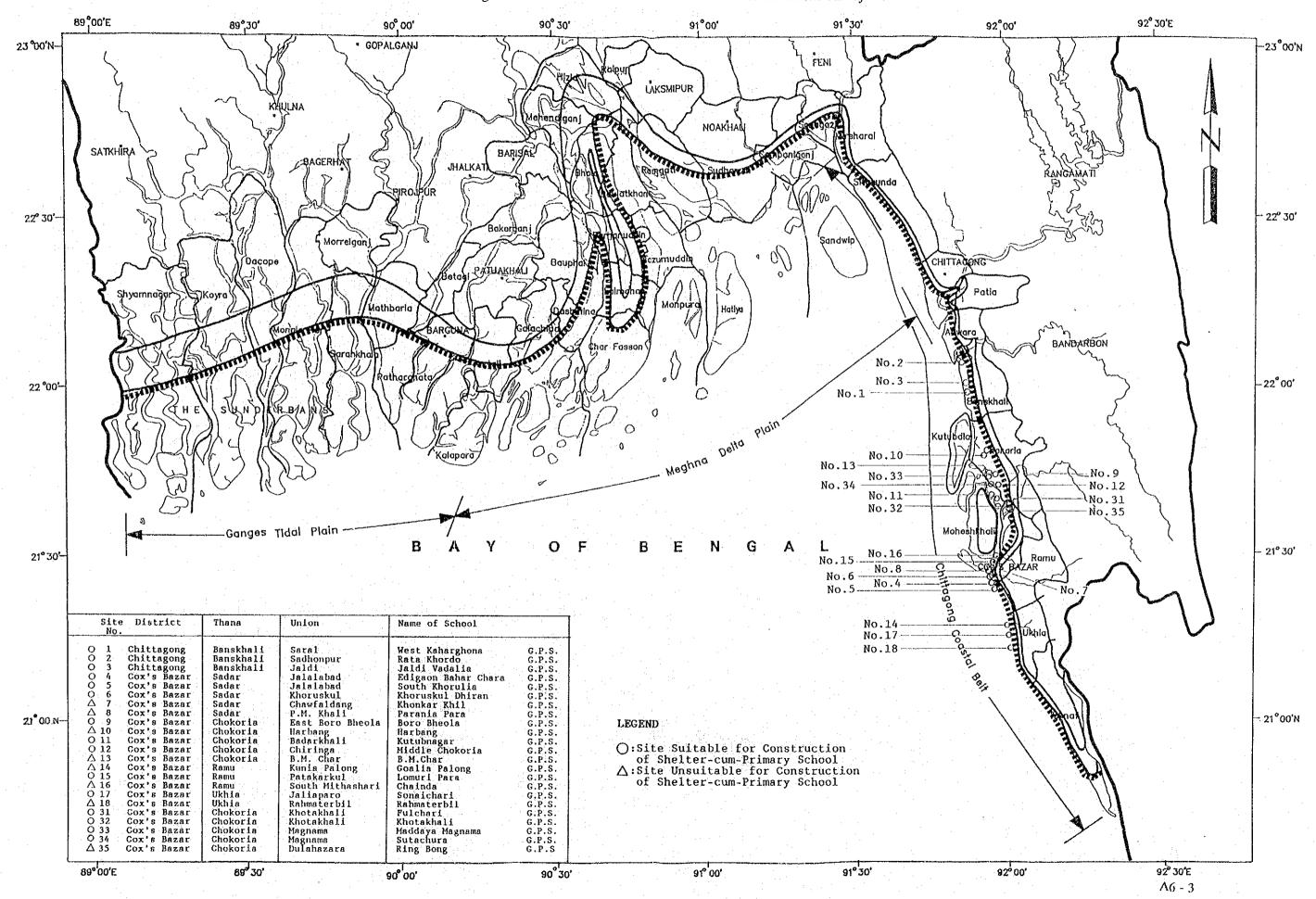
#### 3 Items Related to Cyclones

· Population within a 1.5 km radius

- Distance to nearest cyclone shelter
- Actual cyclone damage in the past (number of casualties, damage to housing, damage to farming and storm surge height, etc.)
- · Cyclone warning system in the neighbourhood
- Availability of killa(s) in the neighbourhood

The findings of the site conditions survey at each site are shown in the following check lists, photographs, etc.

Fig. A-7-1 Locations of 23 Sites Selected for Site Conditions Survey



#### SITE SURVEY CHECK LIST

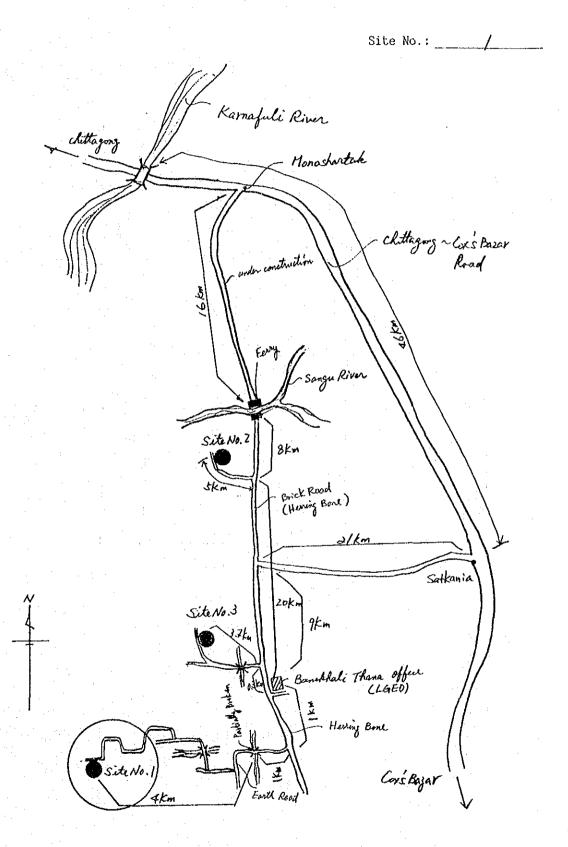
(Date: 1994/ / /27) 1. Site No. 2. Name of School: West Kahargona G.P.S. 3. Site Location : District; dittagons Thana ; Banikhali Village: West Kaharsona 4 Interviewee : Name Mr. Mon Mohan Barua Head Master of School 5. Accessibility 1) Nearest Station, Port, Main Road: Chitagony ~ Coxó Distance: 2) Road Conditions - Kind of Pavement: Carth, Gravel, Asphalt, Concrete, (Bad) - Condition of Pavement: Good, Not so good, - Road Width : Brick: 18~3 - Passable Vehicle: Motor cycle, Rikisha, Sedan, Geep, Truck( - Necessity for Repair of Road: (es, No, - Necessity for Repair of Bridges or Culverts: (es, No, 6. Conditions of School 1) Name of Landowner Government 2) Area of School Site: /299 m (including Playground of : / no(s) (Floor Area; 2 p m × p m= 22 5 6 m²) 3) School Building : (RC) Grick, 4) Type of Building Wooden 5) Building Conditions: Good, Not so good, (Bad) (27 years after built) 6) Layout of Building : Class Room / nos ( Teacher's Room; no(s)4 m) Other no(s)( n × m) 7) Number of Pupils : 204 nos (Single education, (Two shift education) (Class-1; fo nos, Class-2; 60 nos, Class-3;2) nos) (Class-4; 19 nos, Class-5; 16 nos) nos, Class-2; nos, Class-3; nos 8) Number of Drop-out : Class-1; ·Class=4; nos, Class-5; nos, 15 pupils 9) Reasons of Drop-out : 1) Economic , @ Googti other 1 Income increase, @ schools (Hadrista), 3 10) Measures for 9) 11) Number of Teachers 12) Auxiliary Facilities: Well (Yes, No, if yes, Depth of Well; with pump or not ) . Toilet (Yes, No) if yes, common or separate ) Electricity (Yes, No, ) ), Chair( 13) Material of Furniture: Desk( Wood Locker ( 14) Number of School Aged Children 594 within School Attendance Area: nos (Radius; / 🛷

Thoug cracks on the cells, wallo and adless.  15) Maintenance of Building: Place; Roof (Leaking of rain2). Piller (Exfoliate of concrete?), Wall (Color bainting?), Temforce of concrete?), Wall (Color bainting?),
Window (Window door fitting?),
Method: Name of organization. Organizational ノムアク
unit for maintenance (H.Q., District, though thank
Thana or school), Procedure for repair
(Requesting, Patrol by engineer=when)
7. Surrounding Conditions
1) Population within 1.5km Radius: 5,000 nos
2) Distance to Neighbouring
Primary School : / O km
3) Distance to Neighbouring
Cyclone shelter : - km Non-spisting
4) Neighbouring Killa : Distance from the School; m *
Own-existing Size(Top); m× m, Height; m  Progress Ratio; %
5) Topographic Conditions Nearby:
(Obstruction for School Attendance (no objection regarding accuse to the shifter or Evacuation at Cyclone Time)
6) Neighbouring Warning System : Warning organization;
for Cyclone Measure of warning; Nathan
for Cyclone Measure of warning; With Kind of signal;
7) Max. Damage by Cuyclo : Death Toll; 2000 nos du ti no sheller
Houses Brokened; nos(1005/2)
Damage of Crops; ha (/oo/) (Surge Height 6 o m)
(Surge Height 6.0 m)
8. Number of Livestock within 1.5km Radius
Can, shap goat: around 20,000 nor

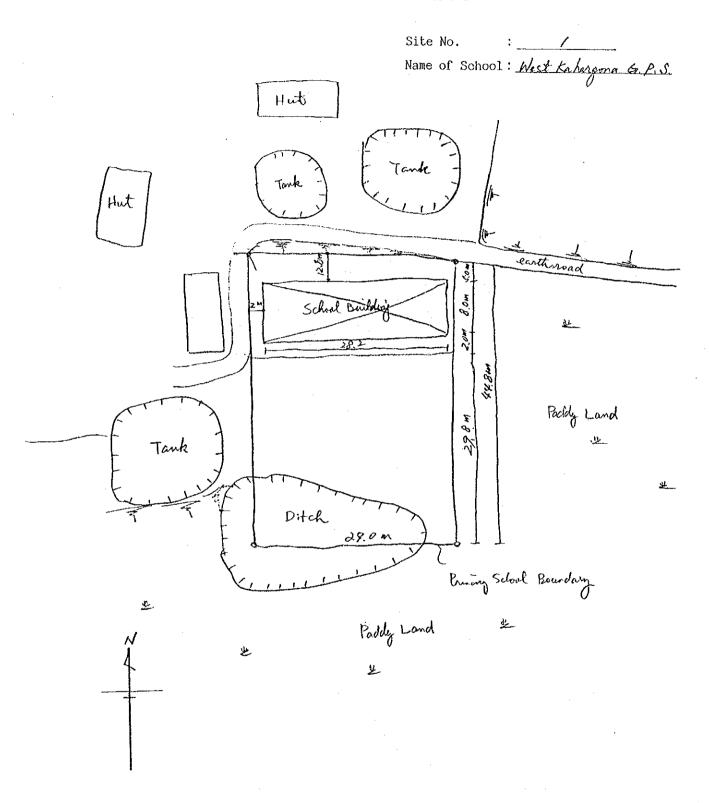
8. Other Remarks

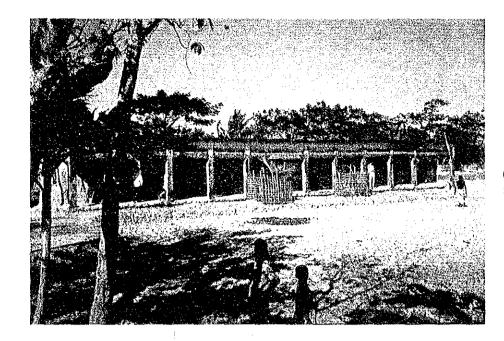
School building has been severely deleriorated.

### Location Map of the Site

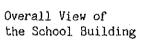


#### Sketch of the Site





Overall View of the School Site



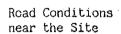




Current Conditions of A Classroom



Current Conditions near the Site (including topographic features)





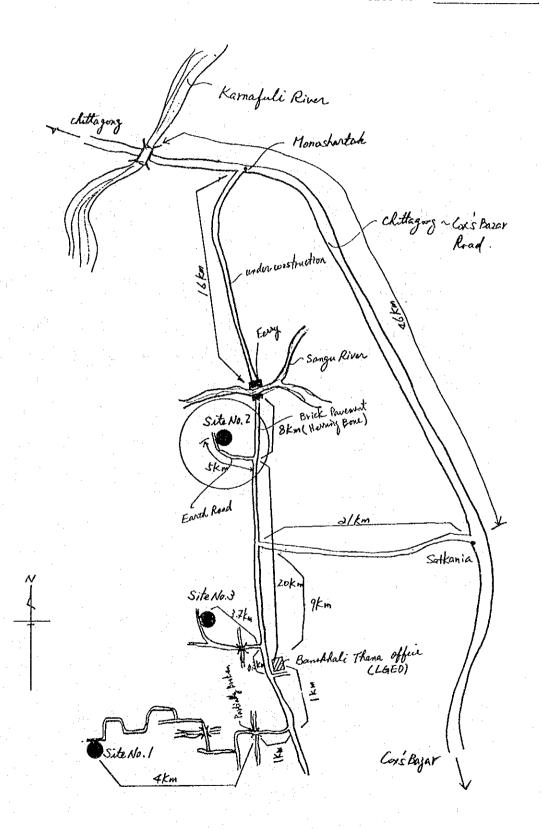
#### SITE SURVEY CHECK LIST

(Date: 1994/ / /マヌ) 1. Site No. ✓ 2. Name of School: Rata Khordo 6. P.S. 3. Site Location : District; chittagong Thana : Bonskhali Village; Rata Khords G Sadhonpur Village ; Mr. Habibullah Chawdhurg 4. Interviewee : Name UP chairman 5. Accessibility 1) Nearest Station, Port, Main Road: Chillips, A Coxo.
2) Road Conditions

Bajan Road. Distance: - Kind of Pavement: Earth, Gravel, Brick) Asphalt, - Condition of Payement: Good, Not so good, Bad, - Road Width : Earl 3nd in - Passable Vehicle: Motor cycle, Rikisha, Sedan, Jeep, Tryck( \_\_\_\_ton) - Necessity for Repair of Road: Yes, (No.) - Necessity for Repair of Bridges or Culverts: Yes, (No. 6. Conditions of School 1) Name of Landowner : Government 2) Area of School Site: 1580 m (including Playground of 290 m) : / no(s) (Floor Area; 15.4 m × 6.35 m= 97.8 m²) 3) School Building 4) Type of Building : RC, Brick, Wooden 5) Building Conditions : Good, Not so good, (Bad) ( /o years after built) 6) Layout of Building : Class Room nos ( m × m) Teacher's Room; no(s)(m) m × Other . no(s): 200 nos (Single education, (Two shift education)) 7) Number of Pupils (Class-1; fo nos, Class-2; fo nos, Class-3; 47 nos) (Class-4; 32 nos, Class-5; 20 nos) 8) Number of Drop-out : Class-1; nos, Class-2; nos, Class-3; nos 12 pupillo Class-4; nos, Class-5; 1 Economic 9) Reasons of Drop-out : ( Poverty) 1 Create jobs for parants Hother To parents 10) Measures for 9) 11) Number of Teachers nos : 4 12) Auxiliary Facilities: Well ( Yes, (Ng), if yes, Depth of Well; with pump or not ) Toilet ( Yes, (Ng), if yes, common or separate ) Electricity (Yes, No, ) 13) Material of Furniture: Desk( ), Chair( Locker ( None 14) Number of School Aged Children 600 nos (Radius; within School Attendance Area:

Foot-blew off by 1991 cycline.
15) Maintenance of Building: Place; Roof(Leaking of rain?), Piller(Exfoliate,
Almost abandoned buildy of concrete?), Wall (Color painting?),
Window (Window door fitting?),
Method; Name of organization, Organizational
(no maniference at all. unit for maintenance (H-Q., District,
Thana or school), Procedure for repair
The classes are guest to pupils (Requesting, Patrol by engineer=when)  7. Surrounding Conditions
1) Population within 1.5km Radius: 7,000 nos
2) Distance to Neighbouring
Primary School : 3 km
3) Distance to Neighbouring
Cyclone shelter : /, 0 km
4) Neighbouring Killa: Distance from the School; Cron-ediating
Cron-whoting Size(Top); m× m, Height; m
Progress Ratio;
5) Topographic Conditions Nearby :
(Obstruction for School Attendance
or Evacuation at Cyclone Time) (Nothing especially
6) Neighbouring Warning System : Warning organization;
for Cyclone Measure of warning; mother
Kind of signal;
7) Max. Damage by Cuyclo : Death Toll; 300 nos
Houses Brokened; nos 100/_)
Damage of Crops; — ha (10%)
(Surge Height (3 m)
8. Number of Livestock within 1.5km Radius
Livestoch: Cow, Shay Goat! -500 nos.
8. Other Remarks
The existing primary school buildy has been Identoryed by 1991 cycline
The existing primary school buildy has been Identoryed by 1991 cycline and pupils are officed to take lessons on the playoround.
VV .

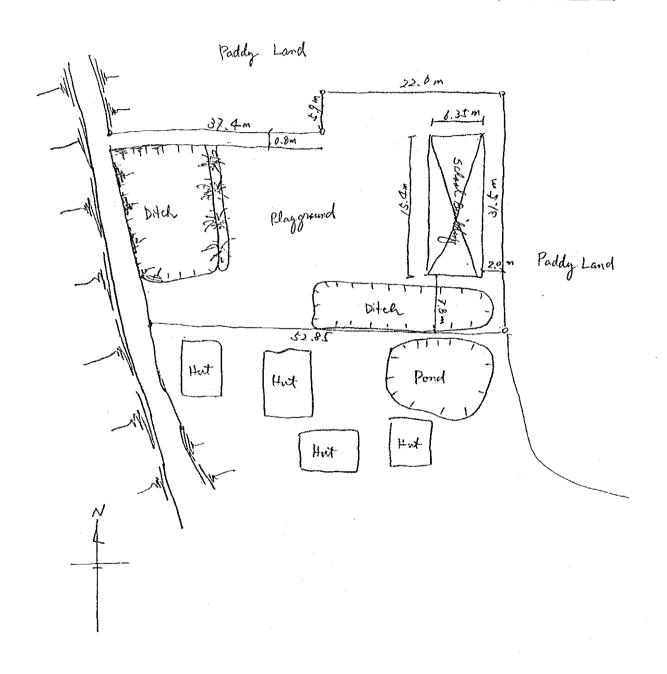
Site No.: \_\_\_\_2

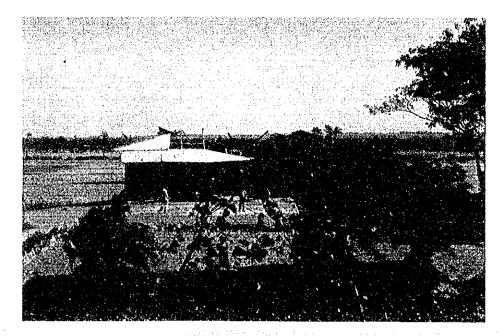


## Sketch of the Site

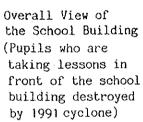
Site No. : 2

Name of School: Rata Khondo G.P.S.





Overall View of the School Site







Current Conditions of A Classroom



Current Conditions near the Site (including topographic features)



Road Conditions near the Site

#### SITE SURVEY CHECK LIST

(Date: 1994/ / /ュス) 1. Site No. く 2. Name of School: Taldi Vadalia G.P.S. Thana ; Bosckhali 3. Site Location : District; Chillegory Village; Valdi Vadala Union : Mr. Bir Mohan Barua 4. Interviewee : Name 5. Accessibility 1) Nearest Station, Port, Main Read: Chillagray ~ Colo Distance: Pazar Road 2) Road Conditions - Kind of Pavement: Earth, Gravel, Grick, Asphalt, Concrete, - Condition of Pavement: Good, Not so good, - Road Width: きょうへろ 5 m - Passable Vehicle: Motor cycle, Rikisha, Sedan, Geep, Truck( - Necessity for Repair of Road: (Yes, No, - Necessity for Repair of Bridges or Culverts: Yes, No. 6. Conditions of School : Government 1) Name of Landowner 2) Area of School Site: //00 m² (including Playground of /90 m²) : / no(s) (Floor Area; 22.85 m ×7.65 m= /748 m) 3) School Building 4) Type of Building : RC, (Brick, Wooden 5) Building Conditions : Good, Not so good, Bad ( of years after built) / nos ( 6) Layout of Building : Class Room Teacher's Room; no(s)(n) no(s)(0ther m) : 320 nos (Single education, (Two shift education) 7) Number of Pupils (Class-1; /oo nos, Class-2; 90 nos, Class-3; Conos) (Class-4; ff nos, Class-5; / nos) 8) Number of Drop-out : Class-1; nos, Class-2; nos, Class-3; --- nos O no-drop-out Class-4; \_\_\_nos; Class-5; 9) Reasons of Drop-out: 1) Mone 10) Measures for 9) : ① none. 11) Number of Teachers : J nos 12) Auxiliary Facilities: Well (Yes, No) if yes, Depth of Well; with pump or not ) Toilet ( Yes, No ) if yes, common or separate ) Electricity (Yes, 10, ) Wood 13) Material of Furniture: Desk( ), Chair( Wood Locker( 14) Number of School Aged Children 600 nos (Radius; 😞 0 km) within School Attendance Area:

	15)	Maintenance of Building: Place; Roof (Leaking of rain?), Piller (Exfoliate; rusted of concrete?), Wall (Color painting?),; mandamed neally window woor fitting?),
		of concrete?). Wall (Color painting?); mandamed nearly
		Windows Window Goor Litting?
		Method; Name of organization, Organizational LGED
		unit for maintenance (H.Q., District, What Heng
		Thand or school), Procedure for repair
		(Requesting) Patrol by engineer=when)
7.	Sur	rounding Conditions by School Management Committee
	1)	Population within 1.5km Radius: A.000 nos
	2)	Distance to Neighbouring
		Primary School : 3.0 km
	3):	Distance to Neighbouring
		Cyclone shelter : 3.0 km
	4)	Neighbouring Killa: Distance from the School;
		Progress Ratio; % m, Height; m
	5)	Topographic Conditions Nearby:
		(Obstruction for School Attendance Plant Land
		or Evacuation at Cyclone Time) no objection
	6)	Neighbouring Warning System : Warning organization;
		for Cyclone Measure of warning;
		Kind of signal;
-	7)	Max. Damage by Cuyclo : Death Toll; 300 nos 2019/
		Houses Brokened; Foo nos
		Damage of Crops; ha (coo)
		(Surge Height メケー m)
8.	Numb	per of Livestock within 1.5km Radius
	*	Cow, goal, step: 2,000 165.
8.	Othe	er Remarks

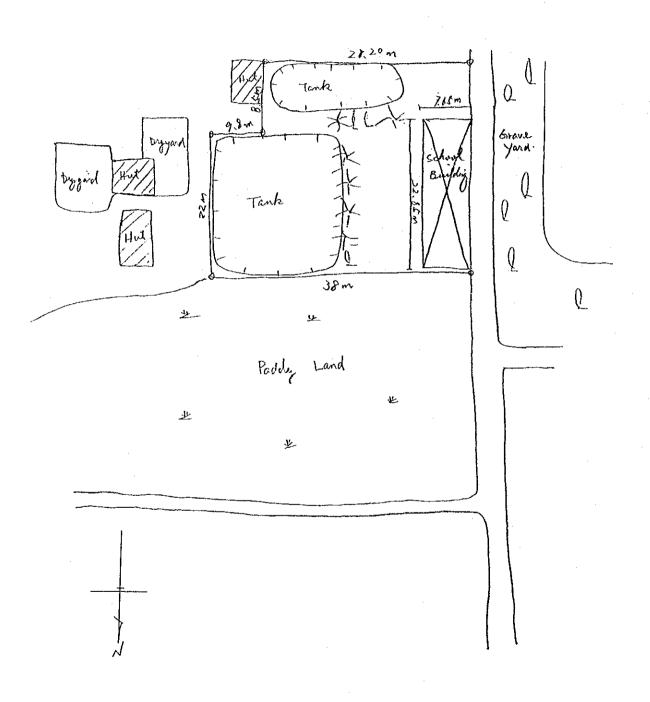
## Location Map of the Site

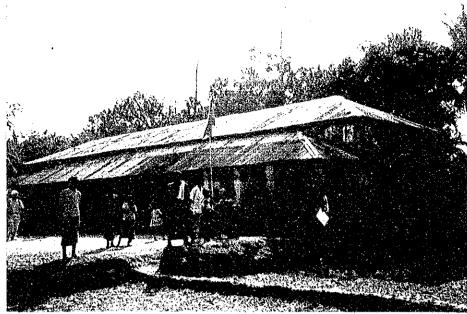
Site No.: \_\_\_\_\_ Karnafuli River Monachertak Site No. Z Salkania SiteNo.3 9km Site No. 1

#### Sketch of the Site

Site No. : 3

Name of School: Jaldi Vadalin 6. P.S

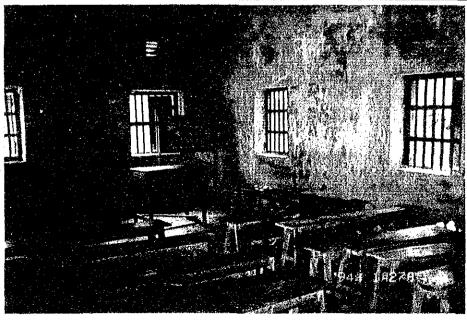




Overall View of the School Site



Overall View of the School Building



Current Conditions of A Classroom



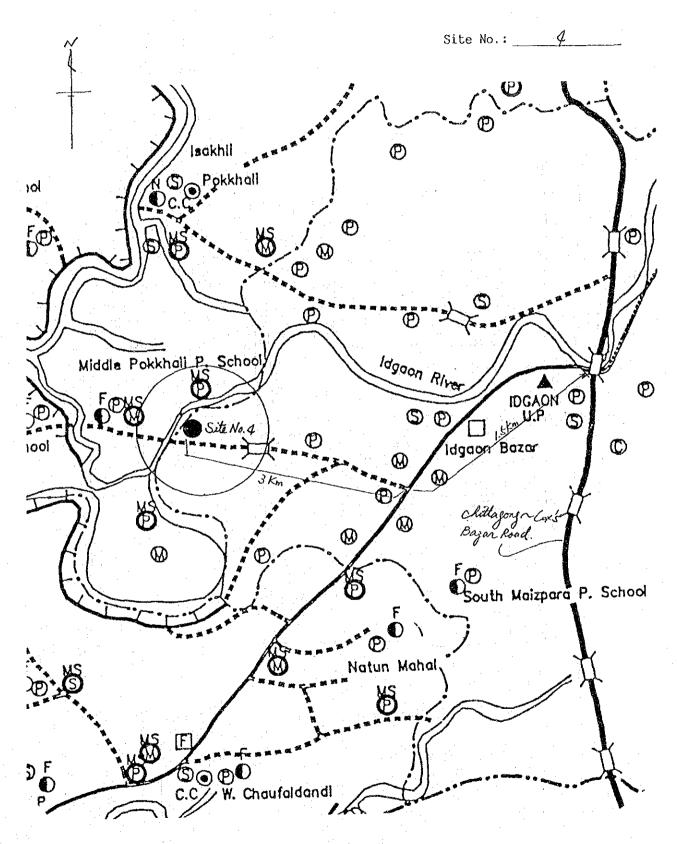
Current Conditions near the Site (including topographic features)



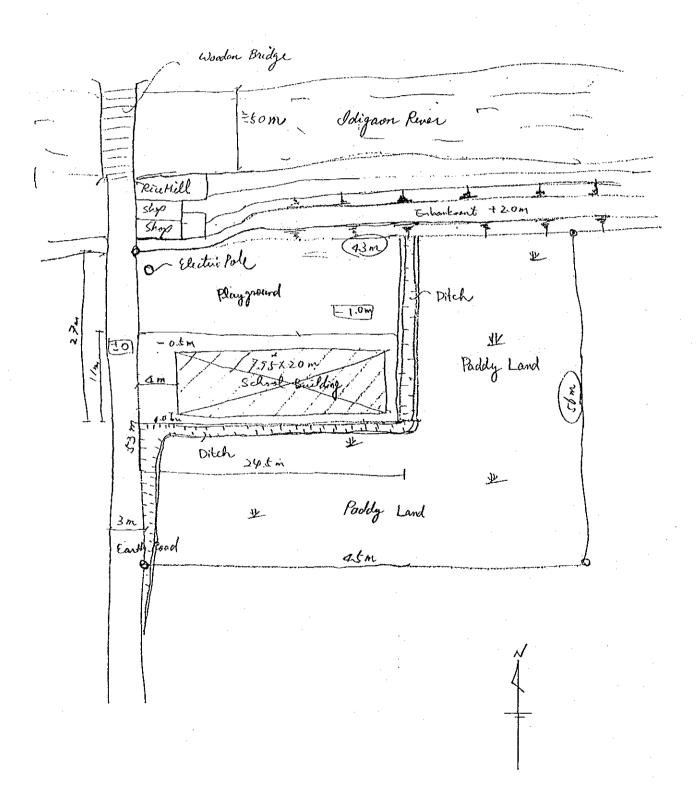
Road Conditions near the Site

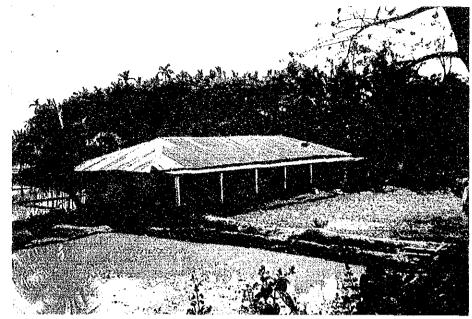
(Date: 1994/ / / よる) 1. Site No. 4 2. Name of School: Edigaon Bahar Chara G.P.S. Thana ; Sadar 3. Site Location: District; Cox's Bajar Village; Bahan Chara : Jalalahad Union : Mr. Nazin Ahamad, Head Master of School. : Name 4. Interviewee 5. Accessibility 1) Nearest Station, Port, (Main Road): Distance: 2) Road Conditions Chittagory - Cox's Bazar Road. Asphalt, - Kind of Pavement: (Earth) Gravel, Brick, Concrete, - Condition of Pavement: Good, Not so good, (Bad) - Road Width: 2.8 m (narrowet) - Passable Vehicle: Motor cycle, Rikisha, Sedan, Jeep Truck( - Necessity for Repair of Road: (Yes) No. - Necessity for Repair of Bridges or Culverts: Yes, (No) 6. Conditions of School Government 1) Name of Landowner 2) Area of School Site: 2400 m (including Playground of 340 / no(s) (Floor Area; 天然 m × 20 m= 159 3) School Building : 4) Type of Building : RC, (Brick) Wooden 5) Building Conditions: Good, Not so good, (Bad) ( 6) years after built) 6) Layout of Building : Class Room nos ( 4. Teacher's Room; no(s)(m) 0ther no(s)(m ) : 388 nos (Single education, Two shift education) 7) Number of Pupils (Class-1; 208 nos, Class-2; &6 nos, Class-3;48 nos) (Class-4; 40 nos, Class-5; 36 nos) 8) Number of Drop-out : Class-1; nos, Class-2; nos, Class-3; nos Drop-out ratio: 20% nos, Class-5; <u>Class 4; </u> 1) Poverty 9) Reasons of Drop-out: 10) Measures for 9) nos 11) Number of Teachers 6. 12) Auxiliary Facilities: Well (Yes, No. if yes, Depth of Well; with pump or not ) Toilet (Yes, (No), if yes, common or separate) Electricity (Yes, No.) 13) Material of Furniture: Desk( ), Chair( Locker( I only one in Teachers room. 14) Number of School Aged Children 750 nos (Radius; / 5 km) within School Attendance Area:

	Almost all throof has been maken. Any expoliatation 15) Maintenance of Building: Place; Roof (beaking of rain?), Piller (Extoliate appealing)
	of concrete?), Walfice Painted, Internally pesseng of
	Window (Window debrifftling!),
	Mothad, Name of angenization Organizational LAFD
	unit for maintenance (H.Q., District, Commented
	Thana or school), Procedure for repair
	(Requesting, Patrol by engineer=when)
7	Surrounding Conditions by Charl Margaret Commettee
١.	1) Population within 1.5km Radius: 9.000 nos
	2) Distance to Neighbouring
	Primary School : ≥ km
	3) Distance to Neighbouring  Cyclone shelter: 3 km
	Cyclone shelter : 3. km 4) Neighbouring Killa : Distance from the School;
	Sizo(Ton): mX m Height: m
	Non-existing Progress Ratio; %
	5) Topographic Conditions Nearby:
	(Obstruction for School Attendance Idegan River next to the school site
	or Evacuation at Cyclone Time) flood and the raing reason.  6) Neighbouring Warning System : Warning organization; BDRCS
	for Cyclone Measure of warning; Loudenealers, Radios
	Kind of signal; Over Level by 7, BDRCS volunters
	7) Max. Damage by Cuyclo : Death Toll; 200 ashes in for warning from Cox's Bazar.
	Houses Brokened; /000 nos
	Damage of Crops; /ov ha
	(Surge Height ょ、ケー m)
8.	Number of Livestock within 1.5km Radius
	- Caw: 2,000
	-Goat: 3.000 -Sheps: -
8.	Other Remarks
	The site is located at the low land next
	to the Idigaon River.
	There's norther tall buildings nor hilly areas for
	en quation.



Name of School: Edigaon Dahar chara 6.P.S.

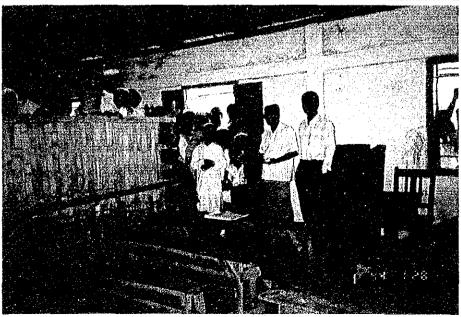




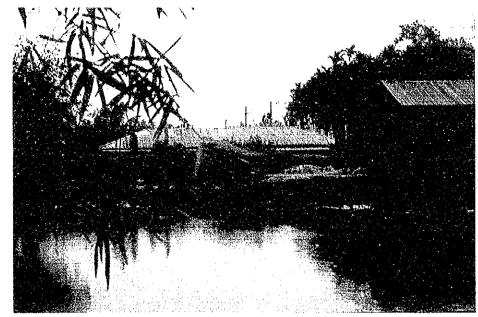
Overall View of the School Site



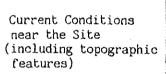
View of the School Building



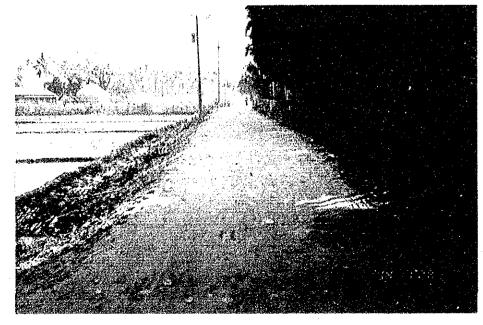
Current Conditions of A Classroom



Current Conditions near the Site (including topographic features)







Road Conditions near the Site

(Date: 1994/ / /27) 1. Site No. 5 2. Name of School: South Khoruka G.P.S. 3. Site Location: District; Cox's Bazar Thana ; Jalalabad Village; South Khorulia Union Affiliation; 4. Interviewee : Name Villager Accessibility 1) Nearest Station, Port, Main Road: Chettagong Distance: Coxs Bazar Road Road Conditions - Kind of Pavement: Earth, Gravel, Asphalt, - Condition of Pavement: Good) Not so good, Bad. - Road Width : 2.0 - Passable Vehicle: Motor cycle, Rikisha, Sedan, Jeep, (ruck) - Necessity for Repair of Road: Yes, (ON) - Necessity for Repair of Bridges or Culverts: Yes, (No.) 6. Conditions of School 1) Name of Landowner Government owned 2) Area of School Site: 3273.6 m² (including Playground of //20 m²) / no(s) (Floor Area; ag8 m×スメ m=ン/スケ ㎡) 3) School Building 4) Type of Building : RC, Brick) Wooden 5) Building Conditions : Good Not so good, Bad ( 7% years after built) 6) Layout of Building ٠. ان nos ( : Class Room Teacher's Room; no(s)(m) Other (Storage); no(s)(m) : \$20 nos (Single education, (Two shift education) 7) Number of Pupils (Class-1; //Cnos, Class-2;/20 nos, Class-3;9/Cnos) (Class-4; Z8 nos, Class-5; 5≥nos) 8) Number of Drop-out : Class-1; /o nos, Class-2; / Tnos, Class-3; /6nos Class-4; / nos, Class-5; /o nos, 9) Reasons of Drop-out: 1) Economic , @ Access Trouble, 3 1 Motivationety, 2 10) Measures for 9) 4 nos (Male: 4, Female: 0) 11) Number of Teachers : 12) Auxiliary Facilities: Well (Yes, No, if yes, Depth of Well; with (pump) or not ) Toilet ( (es) No, if yes, common or separate ) Electricity (Yes, (No.)) 13) Material of Furniture: Desk( ), Chair( Wood Wood Locker( 14) Number of School Aged Children 1,769 nos (Radius; /6 within School Attendance Area:

Monut, ow baky, No exfoliatelies

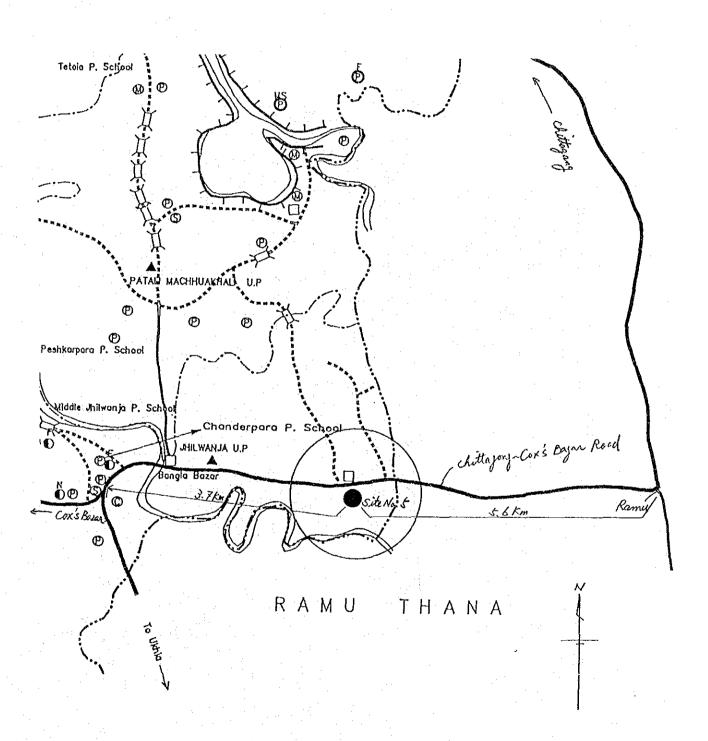
15) Maintenance of Building: Place; Roof (Leaking of rath?), Piller (Exfoliate

of concrete?), Wall (Color painling?), Window Window door fitting?), Method; Name of organization, Organizational - FD unit for maintenance (H.Q., District, Thana or school), Procedure for repair (Requesting, Patrol by engineer=when) by revenue budget of 60B. 7. Surrounding Conditions 1) Population within 1.5km Radius: 4,500 nos 2) Distance to Neighbouring Primary School km 3) Distance to Neighbouring km ( situated at other thana .) Cyclone shelter 1 4) Neighbouring Killa : Distance from the School; Size(Top); m. Height; non-existing Progress Ratio; 5) Topographic Conditions Nearby: (Obstruction for School Attendance 15% of the told pyrile cross the trunk or Evacuation at Cyclone Time) : Warning organization; BDRCS 6) Neighbouring Warning System Measure of warning; by loudspeakers
Kind of signal; Level 1~10, Level 8 or more for
Death Toll; 60 nos wacuation for Cyclone 7) Max. Damage by Cuyclone : Death Toll; 60 (in 1991) Houses Brokened; nos (60% ~ 70%) Damage of Crops; ha (100%) (Surge Height ≥,6 8. Number of Livestock within 1.5km Radius (1991) - Cow: 4/Amerhold (lost 3)
- Sheep } 2/Lourshold (lost 50%) 8. Other Remarks

Relatively well-maintained.

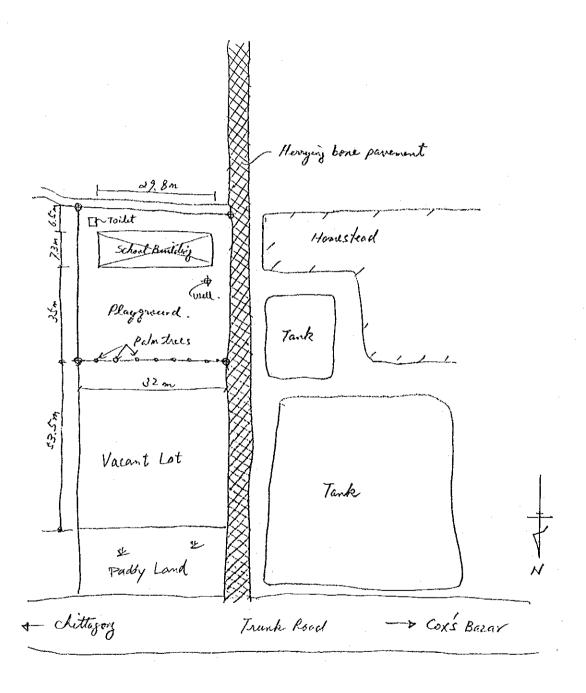
# Location Map of the Site

Site No.:



Site No. : \_\_\_\_\_

Name of School: South Khorulia G. P.S.

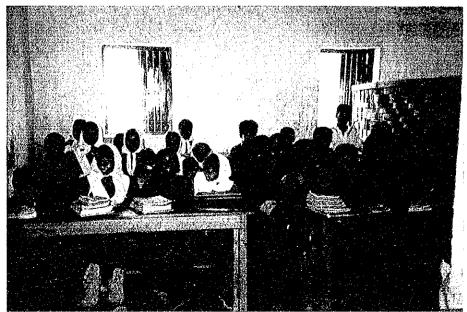




Overall View of the School Site



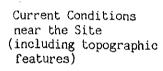
View of the School Building



Current Conditions of A Classroom



Auxiliary Facilities of the School Building







Road Conditions near the Site

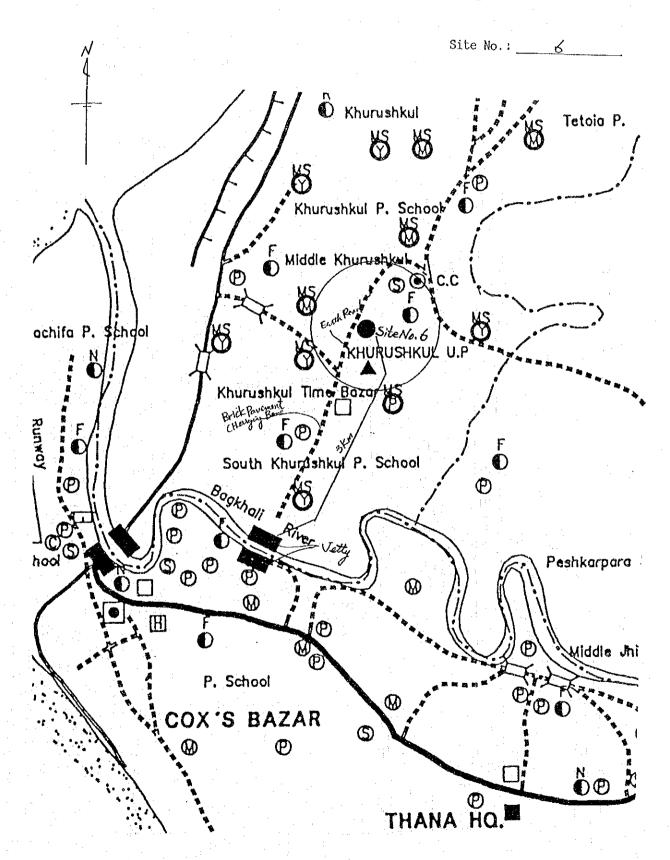
(Date: 1994/ / /28)

```
1. Site No. 6
2. Name of School: Khoruskul Dhiran G.P.S.
                                             Thana ;
3. Site Location: District; Cox's Bajan
                                             Village; Khoruskul Dhiran
                  Union
                          Khoruskul
                          : Mr. Hari Pada Rudra
4. Interviewee
                            Head Master of School
5. Accessibility
   1) Nearest Station, Port, Main Road: Bogkhali River
                                                        Distance:
   2) Road Conditions
      - Kind of Pavement: Earth)
                                                     Asphalt,
                                  Gravel, (Brick)
                                                                Concrete.
      - Condition of Pavement: Good,
                                      Not so good,
                                                    (Bag)
      - Road Width:
                        Ŷ
      - Passable Vehicle: Notor cycle, Rikisha, Sedan, Jeep, Truck(
                                                                         ton)
      - Necessity for Repair of Road: (Yes,
                                             No,
      - Necessity for Repair of Bridges or Culverts: Yes, (No.)
6. Conditions of School
                              Government
   1) Name of Landowner
                            3,300 m (including Playground of 2,700
   2) Area of School Site:
                      : / no(s) (Floor Area; 25 m × 8 m= 200 m²)
   3) School Building
                         : RC, Brick
                                          Wooden
   4) Type of Building
   5) Building Conditions: Good, Not so good, Bad ( - years after built)
                                                          2.5
                                                 nos (
   6) Layout of Building : Class Room
                                         ; £
                                                 no(s)(
                                                         (
                           Teacher's Room; /
                                                               _{\text{M}} \times
                           Other (Well Room);
                                                 no(s)(
                                                          3.5
                          : Af/ nos (Single education Two shift education)
   7) Number of Pupils
                            (Class-1;270nos, Class-2;22, Fnos, Class-3;/Anos)
                            (Class-4; 96 nos, Class-5; 80 nos)
   8) Number of Drop-out : Class-1; nos, Class-2;
                                                        nos, Class-3; nos-
      Drop-out Ratio
                           Class=4; nos, Class-5;
                                                        nos,
   9) Reasons of Drop-out: 1 Poverty
                                                           ,(3)
                            1 Income Invest 2
                                                           ,③
  10) Measures for 9)
  11) Number of Teachers :
                              6 nos
  12) Auxiliary Facilities: Well (で) No, if yes, Depth of Well; みば m
                                    with pump or not and-order.
                            Toilet (Yes, No, if yes, common or (separate)
                            Electricity (Yes, No.)
                                                ), Chair(
  13) Material of Furniture: Desk(
                                    Wood
                                                  ) one only in Teachers Room
                             Locker(
                                       Steel
  14) Number of School Aged Children
                                             nos (Radius; پان km)
       within School Attendance Area:
```

No expoliatation. No exfoliation 15) Maintenance of Building: Place; Roof (Leaking of rain?), Piller (Exfoliate of-concrete?), Wall(Coldr painting?), Window(Window/door-fattling?), Dusty. unit for maintenance (H.Q., District, Ahana or school), Procedure for repair (Requesting, Patrol by engineer=when) 7. Surrounding Conditions 2~3 times / with 1) Population within 1.5km Radius: /foo! nos 2) Distance to Neighbouring Primary School 3) Distance to Neighbouring km Cyclone shelter 4) Neighbouring Killa : Distance from the School; Size(Top); Progress Ratio; Topographic Conditions Nearby: No Notherton for school attended although they as (Obstruction for School Attendance append over the pite.

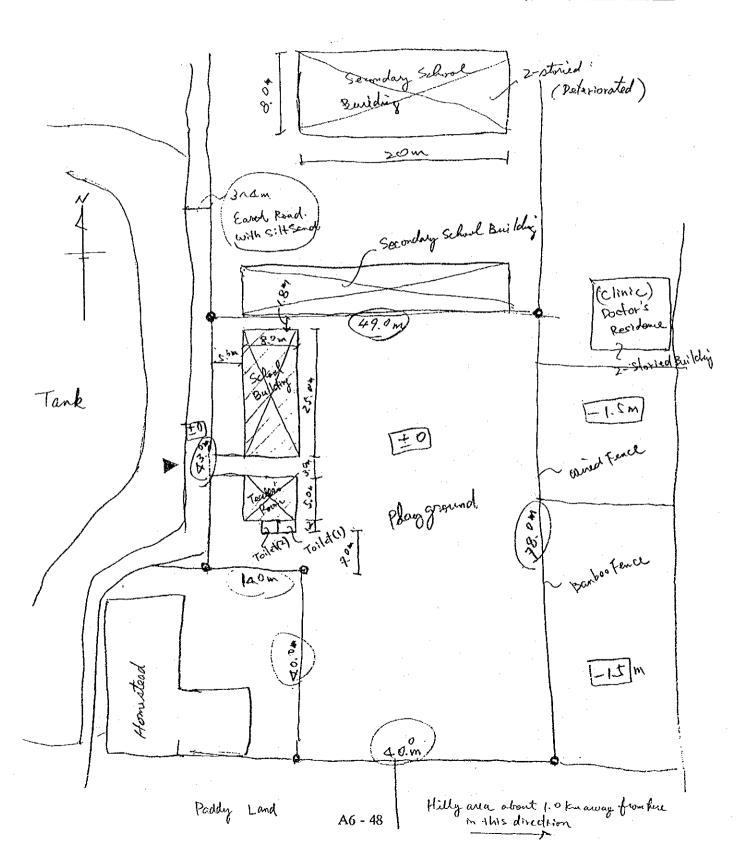
or Evacuation at Cyclone Time) 5) Topographic Conditions Nearby: or Evacuation at Cyclone Time) : Warning organization; BDRCS 6) Neighbouring Warning System Measure of warning; Loudspeaker/Siven for Cyclone Kind of signal; Flag 1, Flag 2, Flag 3 Death Toll; 15 nos 7) Max. Damage by Cuyclone Houses Brokened; 1000 nos Damage of Crops; — ha (Surge Height 8. Number of Livestock within 1.5km Radius Cow: 5,000 Gout . 8,000 8. Other Remarks 1. Hill area exists ofout 1 km east of the Site, but there is hindrance at the cyclone time due to the topographic conditions on which the above hell area reliable between the large rivers and evacues cannot reach there because of high tiell from the two rivers. 2. Although 2-story secondary school building exists, it has mut

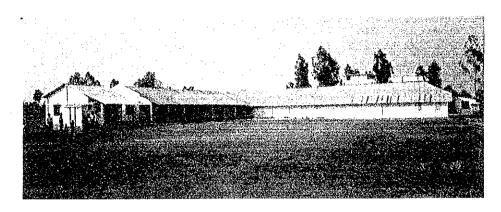
adequate sheltering capacity and has been so deteriorated.



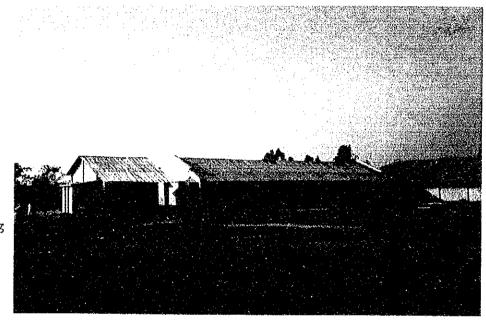
Site No. : \_\_\_\_\_ 6

Name of School: Khoruskul Dhiran G.P.S.

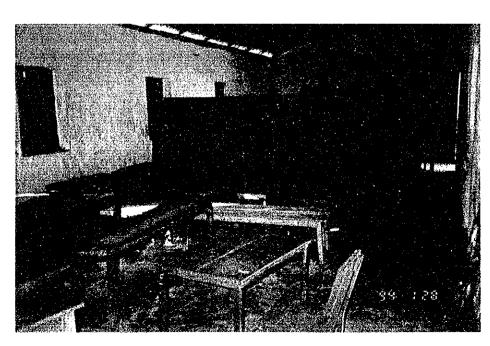




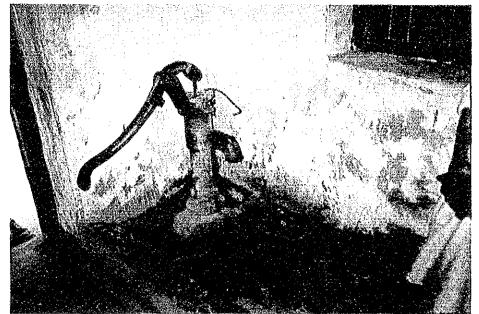
Overall View of the School Site



Overall View of the School Building



Current Conditions of A Classroom



Auxiliary Facilities of the School Building



Current Conditions near the Site (including topographic features)



Road Conditions near the Site

(Date: 1994/ / / スズ) 1. Site No. 7 2. Name of School: Khonkar Khil G.P.S. Thana ; Sadar 3. Site Location: District; Coxo Bazan : Chawfoldong Village; Khorker Khil Union : Mr. Md. Abtar Kamar, Head Master of School 4. Interviewee : Name Accessibility 1) Nearest Station, Port, Main Road: Chilagons a Coxs Distance: Bajar Road 2) Road Conditions - Kind of Pavement: Karth, Asphalt. Concrete, Gravel, Brick, Not so good, - Condition of Pavement: Good, Bad, - Road Width :  $\neq 4.0 \text{ m} (3.1+0.9)$ - Passable Vehicle: Motor cycle, Rikisha, Sedan) Jeep, Truck( - Necessity for Repair of Road: Yes, (No.) - Necessity for Repair of Bridges or Culverts: Yes, No. 6. Conditions of School 1) Name of Landowner Government 2) Area of School Site: 426 m (including Playground of -3) School Building : / no(s) (Floor Area; & b m × 23 m= 198 m) 4) Type of Building : RC, Brick, Wooden 5) Building Conditions: Good, Not so good, (Bad) ( 63 years after built) 6 nos ( 3./ m × 6.7 6) Layout of Building : Class Room ; no(s)(  $m \times m)$ Teacher's Room; / Other ; no(s)(: 582 nos (Single education, Two shift education) 7) Number of Pupils (Class-1;/83 nos, Class-2; 70 nos, Class-3;93 nos) (Class-4; 95 nos, Class-5; 72 nos) nos, Class-3; nos, Class-2; 8) Number of Drop-out : Class-1; Ratio = 10% Class-4; nos, Class-5; nos, 1 Poverty 9) Reasons of Drop-out : 1 Income encourse, @ 10) Measures for 9) 11) Number of Teachers : b nos12) Auxiliary Facilities: Well ( (es), No, if yes, Depth of Well; 600 m with fumb or not ) Toilet ( Yes, 10, if yes, common or separate ) Electricity (Yes, No) ), Chair( 13) Material of Furniture: Desk( Wood two only in Teacher's From. Locker( Stal 14) Number of School Aged Children

within School Attendance Area:

nos (Radius; 🔔

	almost runted Cracks on pullers 15) Maintenance of Building: Place; Roof (Leaking of rain?), Piller (Exformate  Period all protections
	of concrete?), Wall (Color painting?),
	Window Window door fitting?);
	Method: Name of organization, Organizational
	minor upain: Teachers unit for maintenance (H.Q., District,
	minor repair: Teachers  Unit for maintenance (H.Q., District,  Major repair: School Management  Committee Thana or school), Procedure for repair
7.	(MED, LGED have not involved) (Requesting, Patrol by engineer=when) Surrounding Conditions
	1) Population within 1.5km Radius: しょくり nos
	2) Distance to Neighbouring
	Primary School : 3 km
	3) Distance to Neighbouring
	Cyclone shelter : 3 km
	4) Neighbouring Killa: Distance from the School; m
	None-existing Progress-Ratio; mx m, Height; m just Progress-Ratio; however, there is an hill bedond
	5) Topographic Conditions Nearby: The sile which can be used as
	(Obstruction for School Attendance Canal, Law land exists
	6) Neighbouring Warning System : Warning organization; BDRCS.
	for Cyclone Measure of warning; Loudspeaker/Radio
	Kind of signal; Level 1210.
	7) Max. Damage by Cuyclo : Death Toll; 30 nos (74 1991)
	Houses Brokened; 162 nos (only kacha Types)
	Damage of Crops; — ha
	(Surge Height / g m)
8.	Number of Livestock within 1.5km Radius
8.	Other Remarks

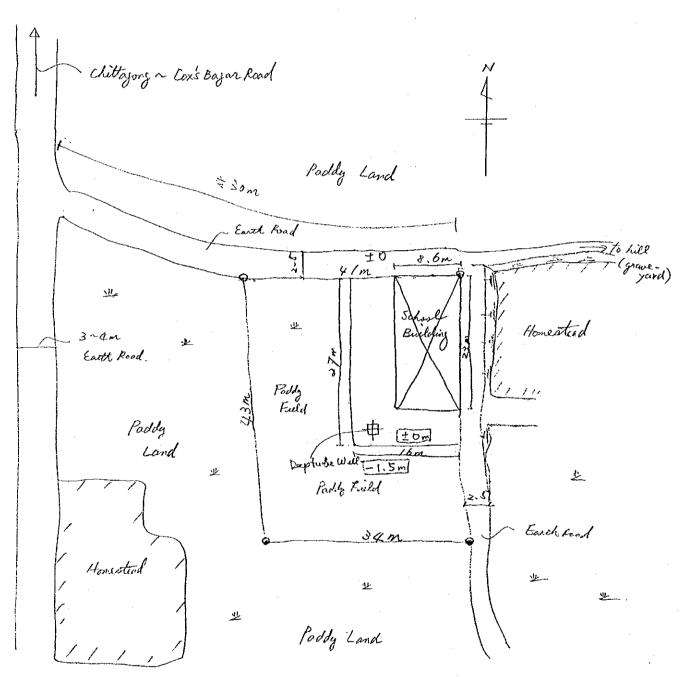
Easy to ceracuate to the hilly mean behind the site,

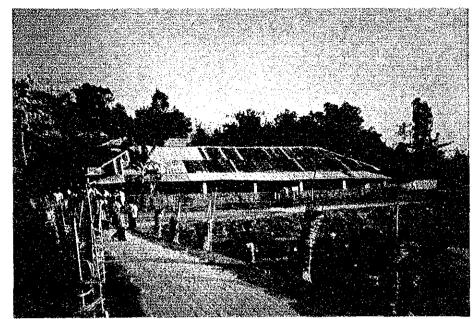
## Location Map of the Site

Site No.: \_\_\_\_\_ 7 To Chittagony Idgaon Bridge Idigaon Rever Brisk forement hering bone Earth Road. Paddy Field Im Earth road Site No.7 B.M.P. hill (Grove yard) Ramu Junction To Cox's Bazar

Site No. : 7

Name of School: Khankar Khil G.P.S





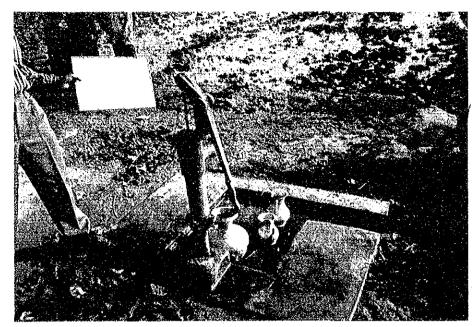
Overall View of the School Site



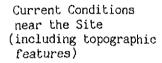
View of the School Building



Current Conditions of A Classroom



Auxiliary Facilities of the School Building







Road Conditions near the Site

(Date: 1994/ 1 /≥7) 1. Site No. 82. Name of School: Parania Para G.P.S. 3. Site Location: District; Corb Bayan Thana : Sadar : P.M. Khali Village; Parania Para Union ; Mr. Shahid Wah Khan 4. Interviewee : Name Head Haster of School 5. Accessibility 1) Nearest Station, Port, Main Road: chittagong a Codo Distance: 2.9 2) Road Conditions Asphalt, ·Concrete, - Kind of Pavement: Carth, Gravel; Brick, Bad, (partially) Not so good, - Condition of Pavement: Good, - Road Width: 20 - Passable Vehicle: Motor cycle, Rikisha, Sedan, (Leep, Truck( \_\_ ton) - Necessity for Repair of Road: (Yes) No. - Necessity for Repair of Bridges or Culverts: Yes, No. 6. Conditions of School Government 1) Name of Landowner 2) Area of School Site: /Jo3 m (including Playground of 670 / no(s) (Floor Area;  $/Am \times 7 = /26 m$ ) 3) School Building 4) Type of Building Brick, Wooden 5) Building Conditions: Good, Not so good, Bad ( 26 years after built) 6) Layout of Building : Class Room / nos ( / no(s)( m) Teacher's Room; m × m) no(s)Other : 403 nos (Single education, Two shift education) 7) Number of Pupils (Class-1;/40nos, Class-2; A8nos, Class-3; Zunos) (Class-4; & nos, Class-5; 39 nos) : Class-1; A/ nos, Class-2; // nos, Class-3; /Jnos 8) Number of Drop-out Class-4;/2 nos, Class-5;// nos, 9) Reasons of Drop-out : 1 Economic 1) Motivation to 10) Measures for 9) 4 nos 11) Number of Teachers 12) Auxiliary Facilities: Well (Yes, No/if yes, Depth of Well; with pump or not ) Toilet ( (es,) No, if yes, domnon or separate ) Electricity ( Yes, No.) ), Chair( 13) Material of Furniture: Desk( Stell (1) (ong is Tarchers' Room) Locker( 14) Number of School Aged Children

within School Attendance Area:

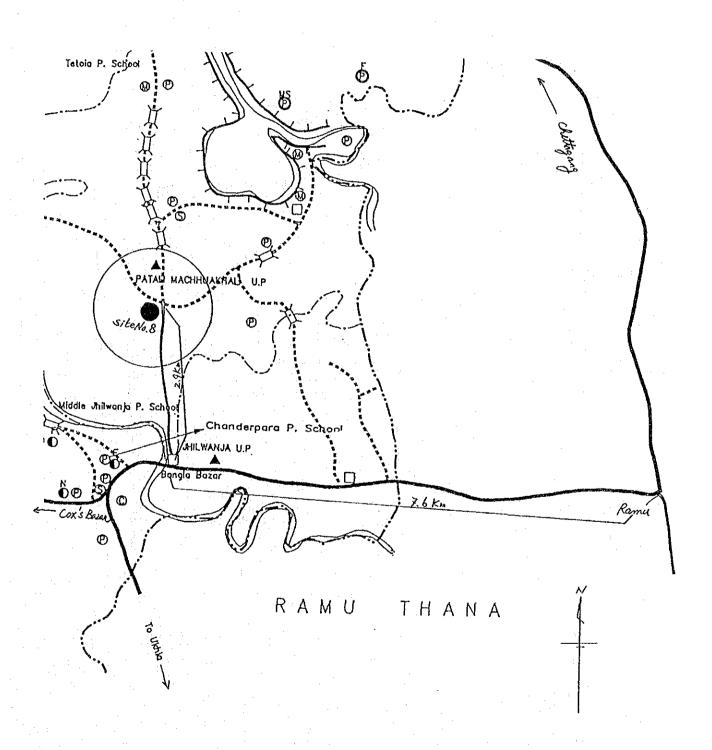
465 nos (Radius; ) km)

	15) Maintenance of Building: Place; Roof (Leaking of rain?), Piller (Exfoliate of concrete?), Wall (Color painting?),
	of concrete?). Wall(Color painting?).
	Window(Window door fitting?),
	Method; Name of organization, Organizational LGED,
	Method; Name of organization, Organizational (GED), white the state of the maintenance (H.Q., District, Community).
	Thana or school), Procedure for repair
7.	Surrounding Conditions ky School Management Committee
	(Requesting, Patrol by engineer=when)  Surrounding Conditions  1) Population within 1.5km Radius: 7,000 nos (1.500 familio)
	2) Distance to Neighbouring
	Primary School : 3 km
	3) Distance to Neighbouring
	Cyclone shelter : 3 km (Sandi Fund)  4) Neighbouring Killa: Distance from the School: m
	4) Neighbouring Killa : Distance from the School; m
	Size(Top); mx m, Height; m
	Chon-efstry Progress Ratio; &
	5) Topographic Conditions Nearby:
	(Obstruction for School Attendance Road is inundated diving the naving school .
	or Evacuation at Cyclone Time)
	6) Neighbouring Warning System : Warning organization; BDRCS
	for Cyclone Measure of warning: Megaphone on fruit
	7) Max. Damage by Cuyclo : Death Toll; 60 nos(20) 1963
	Houses Brokened; nos ( > ° )
	Damage of Crops; — ha (/.)
	(Surge Height 2.5 m)
8.	Number of Livestock within 1.5km Radius
	Com : 2000 nos.
	Coat sheep: 4,000 no
8.	Other Remarks

ple construction with for a new yelone shelter-cum-privary petral has been commenced in the same premises.

## Location Map of the Site

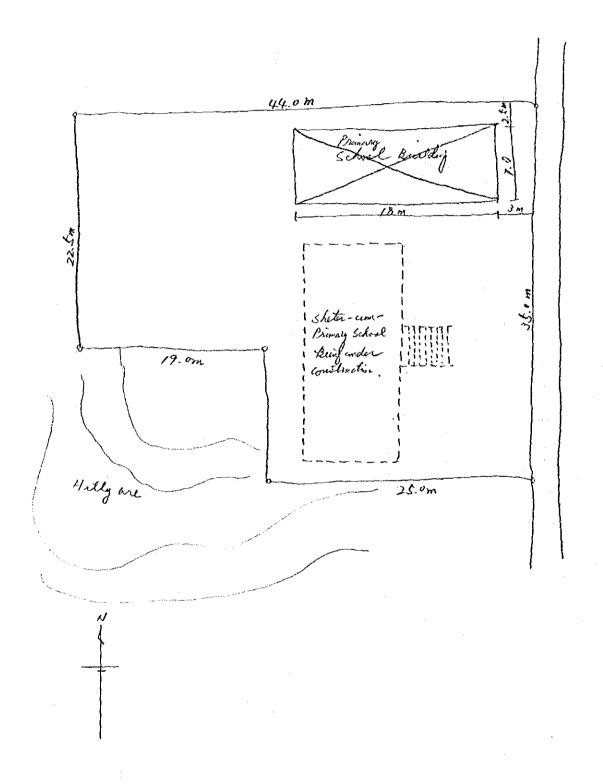
Site No.: 8

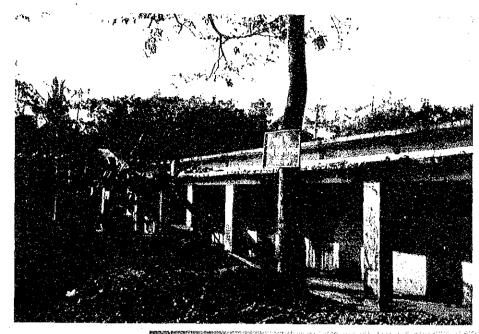


# Sketch of the Site

Site No. : 8

Name of School: Pasana Pasa G.P.S.

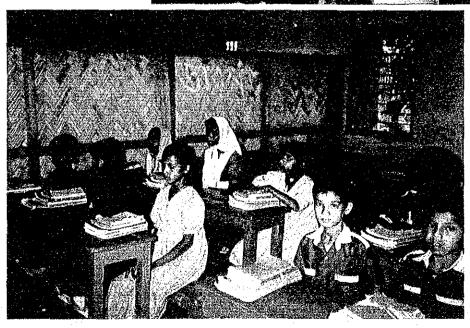




View of the School Building



View of the School Building



Current Conditions of A Classroom



View of the Cyclone Shelter-cum-Primary School Being Constructed



Road Conditions near the Site

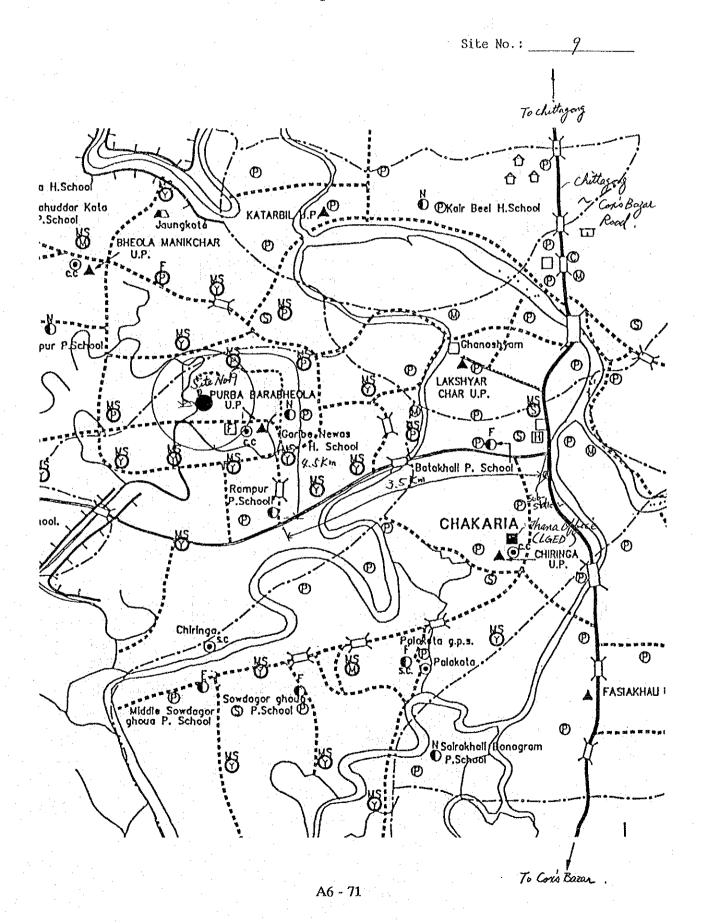
#### SITE SURVEY CHECK LIST

(Date: 1994// /30) 1. Site No. 9 2. Name of School: Boro Bheola G.S.P. 3. Site Location: District; Coxo Bazar Thana ; Chehoria ; East Boro Bleda Village; East Boro Bheola Union 4. Interviewee : Name ; Mr. Anisul Mastrfa Head Master of School Accessibility 1) Nearest Station, Port, Main Road: Chillegeny a Coro Distance: km Boyan Road 2) Road Conditions Gravel \_\_ (Brick) Asphalt, - Kind of Pavement: Earth, - Condition of Pavement: Good, Not so good, (Bad) - Road Width . E.J. J M Earth Road Width: 2.0m - Passable Vehicle: Motor cycle, Rikisha, Sedan, (Jeep.) Truck( - Necessity for Repair of Road: Yes, No, - Necessity for Repair of Bridges or Culverts: (Yes), No, 6. Conditions of School Widening. 1) Name of Landowner Government P8/3 m (including Playground of 145.7 2) Area of School Site: / no(s) (Floor Area; /5-4 m × 5.6 m= 26.2 m²) 3) School Building 4) Type of Building : RC, Brick, Wooden (Bambon) 5) Building Conditions : Good, Not so good, Bad ( 70 years after built) 6) Layout of Building : Class Room nos ( m) ; 1 m) Teacher's Room; no(s)(m ) m × no(s)(r: 308 nos (Single education, (Two shift education) 7) Number of Pupils (Class-1;/60 nos, Class-2; 4₺ nos, Class-3;40 nos) (Class-4; U) nos, Class-5; 23 nos) : Class-1; t nos, Class-2; \( \) nos, Class-3; / nos 8) Number of Drop-out Class-4; / nos, Class-5; O nos, 1 Economic , 2 9) Reasons of Drop-out: 10) Measures for 9) 1 Income Investe 2 6 nos 11) Number of Teachers 12) Auxiliary Facilities: Well ( (es.) No, if yes, Depth of Well; / m with (pump or not) Its condition is migood. Toilet (Yes, 10) if yes, common or separate ) Electricity (Yes, No)) 13) Material of Furniture: Desk( ), Chair( Wood Locker( 14) Number of School Aged Children nos (Radius; within School Attendance Area: 40%

Leakase wood
15) Maintenance of Building: Place; Roof Leaking of raih?), Piller (Exfoliate
of eoncrete?), Wall (Color painting?), Window (Window door fitting?),
Window(Window door Fitting?),
Method; Name of organization, Organizational LGED
unit for maintenance (H.Q., District, Education
(Thana or school), Procedure for repair
(Requesting, Patrol by engineer-when)
(Requesting, Patrol by engineer=when) 7. Surrounding Conditions
1) Population within 1.5km Radius: 7,000 nos (1,710 faily)
2) Distance to Neighbouring
Primary School : 2.0 km
3) Distance to Neighbouring
Cyclone shelter : 4.0 km (Caritas)
4) Neighbouring Killa : Distance from the School; m
Size(Top); m× m, Height; <u>n</u>
Non-existing Progress Ratio; &
5) Topographic Conditions Nearby: Here is a enighter concl by the site.
(Obstruction for School Attendance Road condition is not good an raing nearon
(Obstruction for School Attendance Road condition is not good in raing manon or Evacuation at Cyclone Time) A stream is flowing in front of the Site.
6) Neighbouring Warning System : Warning organization; BORCS.
for Cyclone Measure of warning; (ouch measure )
Kind of signal; Levelnio & street
for Cyclone  Measure of warning; Condepender or fort  Kind of signal; Condepender or fort  7) Max. Damage by Cuyclo  Death Toll; 58 nos due to no retter
Houses Brokened; /171 nos (90%)
Damage of Crops; ha (100%)
(Surge Height '3.6 m)
8. Number of Livestock within 1.5km Radius
Cows ! 2,000
Greats: 3,000
8. Other Remarks

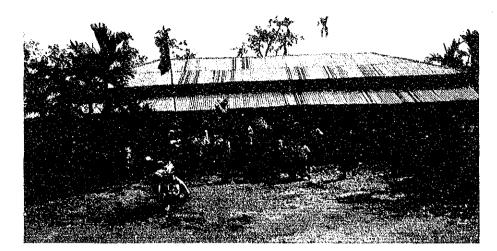
One of the school building was destroyed by 1991 Cyclone. and since them it has not been used.

#### Location Map of the Site

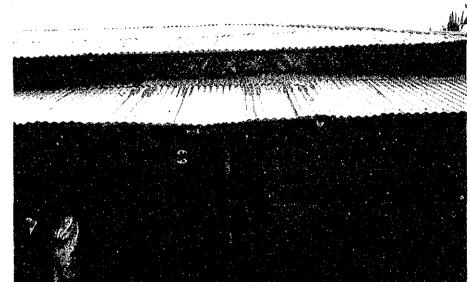


### Sketch of the Site

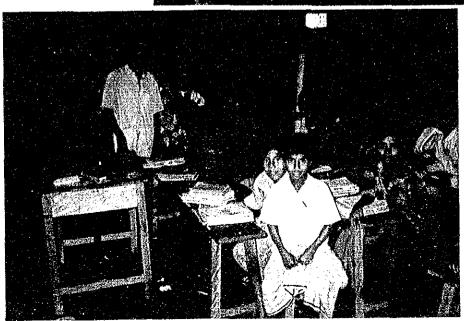
	Site No. : 9  Name of School: Boro Bheda 6.	ς. <i>Ρ</i>
	School Building School Brokendown by 1991 Gold	. **
	School Building & Tude Wall  1.5 m, 9.2 m 113m 15.4 m  1.6	
Hert Fred	Playreard n	Formstead
	John tree	
	J J J J J J J J J J J J J J J J J J J	N N N
M.	Orrigation Canal	



Overall View of the School Site



View of the School Building



Current Conditions of A Classroom