環境社会配慮

付録-14　Laboratory Analysis Results
(Reference for Section 9.2.2.3 and 9.2.2.4)

(1) Water Quality in the Rain Seaon (October 2016)

GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
Lot No. E1 ,ThilawaSEZ Zone A, Yangon Region, the Union of Myanmar
Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201611006
Revision No. : 1
Report Date : 4 November, 2016
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago Bridge
Sample Description
Sample Name : BW-1
Sample No. : W-1610094
Waste Profile No. : -

Sampling Date : 20 October, 2016
Sampling By : Customer
Sample Received Date : 20 October, 2016

No.	Parameter	Method	Unit	Result	LOQ
1	Temperature	Instrument Analysis Method	°C	20.4	0
2	pH	APHA 4500 H^+ B(Electrometric Method)	-	6.9	-
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	452.00	0
4	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	3.02	0
5	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	2.01	0
6	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	3.7	0.7
7	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	30000	2
8	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	1.9	0
9	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.412	0.05
10	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
11	Turbidity	APHA 2120C (Spectrophotometric Method)	NTU	400.64	0
12	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.01	0

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 21st edition

Analysis By :

Ni Ni Aye Lwin
Assistant supervisor

LAB
GEM

Approved By :

Tomoya Suzuki
Director

GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
Lot No. E1 ,ThilawaSEZ Zone A, Yangon Region, the Union of Myanmar
Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201611007
Revision No. : 1
Report Date : 4 November, 2016
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago Bridge
Sample Description
Sample Name : BW-2
Sample No. : W-1610095
Waste Profile No. : -

Sampling Date : 20 October, 2016
Sampling By : Customer
Sample Received Date : 20 October, 2016

No.	Parameter	Method	Unit	Result	LOQ
1	Temperature	Instrument Analysis Method	°C	20.9	0
2	pH	APHA 4500 H^+ B(Electrometric Method)	-	6.8	-
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	872.00	0
4	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	2.50	0
5	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	2.68	0
6	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	4.3	0.7
7	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	90000	2
8	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	2.3	0
9	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.360	0.05
10	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
11	Turbidity	APHA 2120C (Spectrophotometric Method)	NTU	392.91	0
12	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.01	0

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 21st edition

Analysis By :
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GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
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Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201611008
Revision No. : 1
Report Date : 4 November, 2016
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago Bridge
Sample Description
Sample Name : BW-3
Sample No. : W-1610096
Waste Profile No. : -

Sampling Date : 20 October, 2016
Sampling By : Customer
Sample Received Date : 20 October, 2016

No.	Parameter	Method	Unit	Result	LOQ
1	Temperature	Instrument Analysis Method	°C	21.0	0
2	pH	APHA 4500 H^+ B(Electrometric Method)	-	6.8	-
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	436.00	0
4	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	1.87	0
5	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	2.80	0
6	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	5.7	0.7
7	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	50000	2
8	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	2.6	0
9	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.516	0.05
10	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
11	Turbidity	APHA 2120C (Spectrophotometric Method)	NTU	353.29	0
12	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.01	0

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 21st edition

Analysis By :
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GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
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Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201611009
Revision No. : 1
Report Date : 4 November, 2016
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago Bridge
Sample Description
Sample Name : BW-4
Sample No. : W-1610097
Waste Profile No. : -

Sampling Date : 20 October, 2016
Sampling By : Customer
Sample Received Date : 20 October, 2016

No.	Parameter	Method	Unit	Result	LOQ
1	Temperature	Instrument Analysis Method	°C	21.2	0
2	pH	APHA 4500 H^+ B(Electrometric Method)	-	6.9	-
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	494.00	0
4	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	2.86	0
5	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	1.94	0
6	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	1.6	0.7
7	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	30000	2
8	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	2.1	0
9	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.412	0.05
10	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
11	Turbidity	APHA 2120C (Spectrophotometric Method)	NTU	347.40	0
12	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.01	0

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 21st edition

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Report No. : GEM-LAB-201611010
Revision No. : 1
Report Date : 4 November, 2016
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago Bridge
Sample Description
Sample Name : BW-6
Sample No. : W-1610098
Waste Profile No. : -

Sampling Date : 20 October, 2016
Sampling By : Customer
Sample Received Date : 20 October, 2016

No.	Parameter	Method	Unit	Result	LOQ
1	Temperature	Instrument Analysis Method	°C	21.2	0
2	pH	APHA 4500 H^+ B(Electrometric Method)	-	6.9	-
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	652.00	0
4	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	2.05	0
5	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	2.25	0
6	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	1.0	0.7
7	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	90000	2
8	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	2.3	0
9	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.544	0.05
10	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
11	Turbidity	APHA 2120C (Spectrophotometric Method)	NTU	382.10	0
12	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.01	0

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 21st edition

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Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

M1016 023

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	Ramboll - Environ
Nature of Water	BW - 1
Location	Yangon Township
Date and Time of collection	21.10.2016
Date and Time of arrival at Laboratory	21.10.2016
Date and Time of commencing examination	21.10.2016
Date and Time of completing	22.10.2016

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	36	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	14	CFU/100ml	Not detected
pH	6.9		6.5 - 8.5
Turbidity	420	NTU	5 NTU
Colour (True)	150	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Unsatisfactory for drinking purpose.

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr. Chemist
ISO TECH Laboratory

Approved by

Signature:

Name: Soe Thit
B.E (Civil) 1980,
Technical Officer
ISO TECH Laboratory

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E (Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.
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M1016 024

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	Ramboll - Environ
Nature of Water	BW - 2
Location	Yangon Township
Date and Time of collection	21.10.2016
Date and Time of arrival at Laboratory	21.10.2016
Date and Time of commencing examination	21.10.2016
Date and Time of completing	22.10.2016

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	28	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	12	CFU/100ml	Not detected
pH	7.2		6.5 - 8.5
Turbidity	468	NTU	5 NTU
Colour (True)	170	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Unsatisfactory for drinking purpose.

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Zaw Hein Oo
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Signature:

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M1016 025

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client: Ramboll - Environ

Nature of Water: BW - 3

Location: Yangon Township

Date and Time of collection: 21.10.2016

Date and Time of arrival at Laboratory: 21.10.2016

Date and Time of commencing examination: 21.10.2016

Date and Time of completing: 22.10.2016

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	40	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	24	CFU/100ml	Not detected
pH	7.3		6.5 - 8.5
Turbidity	535	NTU	5 NTU
Colour (True)	180	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Unsatisfactory for drinking purpose.

: This certificate is issued only for the receipt of the test sample.

: < - Less than

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Signature:

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Signature:

Name: Soe Thit
B.E (Civil) 1980
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ISO TECH Laboratory

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TRACE CERTIFIED

ISO 9001:2008 Cert. No.688283

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 1

M1016 026

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client: Ramboll - Environ

Nature of Water: BW - 4

Location: Yangon Township

Date and Time of collection: 21.10.2016

Date and Time of arrival at Laboratory: 21.10.2016

Date and Time of commencing examination: 21.10.2016

Date and Time of completing: 22.10.2016

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	100	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	60	CFU/100ml	Not detected
pH	7.4		6.5 - 8.5
Turbidity	370	NTU	5 NTU
Colour (True)	120	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Unsatisfactory for drinking purpose.

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Zaw Hein Oo
B.Sc (Chemistry)
Sr. Chemist
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Signature:

Name: Soe Thit
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ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
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M1016 027

WATER QUALITY TEST (MICROBIOLOGY) RESULTS FORM

Client	Ramboll - Environ
Nature of Water	BW - 6
Location	Yangon Township
Date and Time of collection	21.10.2016
Date and Time of arrival at Laboratory	21.10.2016
Date and Time of commencing examination	21.10.2016
Date and Time of completing	22.10.2016

Results of Water Analysis

			WHO Drinking Water Guideline (Geneva - 1993)
Total Coliform Count	180	CFU/100ml	Not detected
Thermotolerant (fecal) Coliform Count	80	CFU/100ml	Not detected
pH	7.4		6.5 - 8.5
Turbidity	459	NTU	5 NTU
Colour (True)	170	TCU	15 TCU
Free Chlorine	Nil	mg/l	
Total Chlorine	Nil	mg/l	

Remark : Unsatisfactory for drinking purpose.

: This certificate is issued only for the receipt of the test sample.

: < - Less than

Tested by

Signature:

Name: Zaw Hein Oo
~~B.Sc (Chemistry)~~
Sr. Chemist
ISO TECH Laboratory

Approved by

Signature:

Name: Soe Thit
~~B.E (Civil) 1980,~~
Technical Officer
ISO TECH Laboratory

(2) Water Quality in the Dry Seaon (February 2017)

GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
Lot No. E1 ,ThilawaSEZ Zone A, Yangon Region, the Union of Myanmar
Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201702117
Revision No. : 1
Report Date : 27 February, 2017
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago River Bridge Project
Sample Description
Sample Name : BSW-1
Sample No. : W-1702048
Waste Profile No. : -

Sampling Date : 6 February, 2017
Sampling By : Customer
Sample Received Date : 7 February, 2017

No.	Parameter	Method	Unit	Result	LOQ
1	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.50	0.00
2	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	7.42	0.00
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	2600.00	-
4	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	4.72	0.00
5	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	24.0	0.7
6	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	9.2	0.0
7	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	1.440	0.050
8	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	13.80	3.1
9	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	35000	1.8
10	Escherichia Coli	APHA 9221 F Escherichia Coli Procedure Using Fluorogenic Substrate	MPN/100ml	17.0	1.8

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 22nd edition

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Analysis By :
Ni Ni Aye Lwin
Assistant supervisor

Approved By :
Tomoya Suzuki
Director

GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
Lot No. E1 ,ThilawaSEZ Zone A, Yangon Region, the Union of Myanmar
Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201702118
Revision No. : 1
Report Date : 27 February, 2017
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago River Bridge Project
Sample Description
Sample Name : BSW-2
Sample No. : W-1702049
Waste Profile No. : -

Sampling Date : 6 February, 2017
Sampling By : Customer
Sample Received Date : 7 February, 2017

No.	Parameter	Method	Unit	Result	LOQ
1	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.50	0.00
2	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	7.06	0.00
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	950.00	_
4	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	2.88	0.00
5	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	7.6	0.7
6	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	5.6	0.0
7	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.602	0.050
8	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
9	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	>160000	1.8
10	Escherichia Coli	APHA 9221 F Escherichia Coli Procedure Using Fluorogenic Substrate	MPN/100ml	94.00	1.8

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 22nd edition

Analysis By :
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Approved By :
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Director

GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
Lot No. E1 ,ThilawaSEZ Zone A, Yangon Region, the Union of Myanmar
Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201702119
Revision No. : 1
Report Date : 27 February, 2017
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago River Bridge Project
Sample Description
Sample Name : BSW-3
Sample No. : W-1702050
Waste Profile No. : -

Sampling Date : 6 February, 2017
Sampling By : Customer
Sample Received Date : 7 February, 2017

No.	Parameter	Method	Unit	Result	LOQ
1	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.44	0.00
2	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	7.97	0.00
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	4056.00	_
4	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	4.09	0.00
5	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	20.0	0.7
6	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	0.9	0.0
7	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.378	0.050
8	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	7.00	3.1
9	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	160000	1.8
10	Escherichia Coli	APHA 9221 F Escherichia Coli Procedure Using Fluorogenic Substrate	MPN/100ml	24.0	1.8

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 22nd edition

Analysis By :
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Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201702120
Revision No. : 1
Report Date : 27 February, 2017
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago River Bridge Project
Sample Description
Sample Name : BSW-4
Sample No. : W-1702051
Waste Profile No. : -

Sampling Date : 6 February, 2017
Sampling By : Customer
Sample Received Date : 7 February, 2017

No.	Parameter	Method	Unit	Result	LOQ
1	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.40	0.00
2	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	6.86	0.00
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	1008.00	-
4	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	4.62	0.00
5	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	2.9	0.7
6	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	2.9	0.0
7	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.596	0.050
8	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
9	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	35000	1.8
10	Escherichia Coli	APHA 9221 F Escherichia Coli Procedure Using Fluorogenic Substrate	MPN/100ml	17.0	1.8

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 22nd edition

Analysis By :
Ni Ni Aye Lwin
Assistant supervisor

Approved By :
Tomoya Suzuki
Director

GOLDEN DOWA ECO-SYSTEM MYANMAR CO., LTD.
Lot No. E1 ,ThilawaSEZ Zone A, Yangon Region, the Union of Myanmar
Tel:01-2309051/ 09 796935149

Report No. : GEM-LAB-201702121
Revision No. : 1
Report Date : 27 February, 2017
Application No. : 0029-C001

Analysis Report

Client Name : Ramboll-Environ
Address : 4th floor, Building 17th, MICT Park, Hlaing University Campus, Yangon
Project Name : Bago River Bridge Project
Sample Description
Sample Name : BSW-6
Sample No. : W-1702052
Waste Profile No. : -

Sampling Date : 6 February, 2017
Sampling By : Customer
Sample Received Date : 7 February, 2017

No.	Parameter	Method	Unit	Result	LOQ
1	Salinity	APHA 2520 B (Electrical Conductivity Method)	%	0.39	0.00
2	Dissolved Oxygen (DO)	APHA 4500 O G(Membrane Electrode Method)	mg/l	7.06	0.00
3	Total Suspended Solid (SS)	APHA 2540D (Dry at 103-105'C Method)	mg/l	2292.00	-
4	BOD(5)	HACH Method 10099 (Respirometric Method)	mg/l	6.78	0.00
5	COD(Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	18.0	0.7
6	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	5.0	0.0
7	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	0.820	0.050
8	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	6.57	3.1
9	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	92000	1.8
10	Escherichia Coli	APHA 9221 F Escherichia Coli Procedure Using Fluorogenic Substrate	MPN/100ml	4.0	1.8

Remark : LOQ - Limit of Quantitation
APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 22nd edition

Analysis By :
Ni Ni Aye Lwin
Assistant supervisor

LAB GEM

Approved By :
Tomoya Suzuki
Director

(3) Sediment

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Sediment

RESULT

Sample No.		1221/16-17
Job No.		J-2323
Sample Marked.		SED-1
Lead as Pb	(ppm)	60.90
Chromium as Cr	(ppm)	180.52
Cadmium as Cd	(ppm)	3.57
Copper as Cu	(ppm)	36.10
Zinc as Zn	(ppm)	211.27
Arsenic as As	(%)	N.D
Moisture	(%)	61.13

N.D= Not Detected

Not a certificate of conformance
စံချိန်စံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14-3-17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Sediment

RESULT

Sample No.		1222/16-17
Job No.		J-2324
Sample Marked.		SED-2
Lead as Pb	(ppm)	66.29
Chromium as Cr	(ppm)	204.47
Cadmium as Cd	(ppm)	3.79
Copper as Cu	(ppm)	38.94
Zinc as Zn	(ppm)	281.55
Arsenic as As	(%)	N.D
Moisture	(%)	80.35

N.D= Not Detected

Not a certificate of conformance
စံမှီန်စံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14-3-17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Sediment

RESULT

Sample No.		1223/16-17
Job No.		J-2325
Sample Marked.		SED-3
Lead as Pb	(ppm)	46.58
Chromium as Cr	(ppm)	176.13
Cadmium as Cd	(ppm)	2.60
Copper as Cu	(ppm)	21.19
Zinc as Zn	(ppm)	129.75
Arsenic as As	(%)	N.D
Moisture	(%)	36.05

N.D= Not Detected

Not a certificate of conformance
စံချိန်စံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14-3-17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Sediment

RESULT

Sample No.		1224/16-17
Job No.		J-2326
Sample Marked.		SED-4
Lead as Pb	(ppm)	64.29
Chromium as Cr	(ppm)	267.86
Cadmium as Cd	(ppm)	4.56
Copper as Cu	(ppm)	44.64
Zinc as Zn	(ppm)	305.56
Arsenic as As	(%)	N.D
Moisture	(%)	86.93

N.D= Not Detected

Not a certificate of conformance
စံမှီန်စံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Checked by: Dr. Khin Aye Tue

Daw Htike Htike Oo

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14.3.17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Sediment

RESULT

Sample No.		1225/16-17
Job No.		J-2327
Sample Marked.		SED-5
Lead as Pb	(ppm)	30.93
Chromium as Cr	(ppm)	135.08
Cadmium as Cd	(ppm)	1.76
Copper as Cu	(ppm)	6.26
Zinc as Zn	(ppm)	40.92
Arsenic as As	(%)	N.D
Moisture	(%)	13.82

N.D= Not Detected

Not a certificate of conformance
စံမှီနှံစည္ဆန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14.3.17

(4) Soil

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Soil

RESULT

Sample No.		1220/16-17
Job No.		J-2322
Sample Marked.		S-5
Lead as Pb	(ppm)	89.42
Chromium as Cr	(ppm)	687.41
Cadmium as Cd	(ppm)	3.35
Copper as Cu	(ppm)	28.36
Zinc as Zn	(ppm)	386.05
Manganese as Mn	(%)	0.10
Iron as Fe	(%)	3.94
Arsenic as As	(%)	N.D
pH Value		8.21

N.D= Not Detected

Not a certificate of conformance
စံမှီန်စံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14.3.17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Soil

RESULT

Sample No.		1216/16-17
Job No.		J-2318
Sample Marked.		S-1
Lead as Pb	(ppm)	42.74
Chromium as Cr	(ppm)	174.83
Cadmium as Cd	(ppm)	2.53
Copper as Cu	(ppm)	10.49
Zinc as Zn	(ppm)	123.54
Manganese as Mn	(%)	0.09
Iron as Fe	(%)	2.72
Arsenic as As	(%)	N.D
pH Value		7.23

N.D= Not Detected

Not a certificate of conformance
စံမျိုးစံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14.3.17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Soil

RESULT

Sample No.		1217/16-17
Job No.		J-2319
Sample Marked.		S-2
Lead as Pb	(ppm)	54.71
Chromium as Cr	(ppm)	445.99
Cadmium as Cd	(ppm)	4.16
Copper as Cu	(ppm)	24.58
Zinc as Zn	(ppm)	259.66
Manganese as Mn	(%)	0.17
Iron as Fe	(%)	3.96
Arsenic as As	(%)	N.D
pH Value		7.02

N.D= Not Detected

Not a certificate of conformance
စံမျိုးစံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14-3-17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Soil

RESULT

Sample No.		1218/16-17
Job No.		J-2320
Sample Marked.		S-3
Lead as Pb	(ppm)	54.11
Chromium as Cr	(ppm)	613.02
Cadmium as Cd	(ppm)	3.00
Copper as Cu	(ppm)	32.35
Zinc as Zn	(ppm)	299.52
Manganese as Mn	(%)	0.14
Iron as Fe	(%)	5.33
Arsenic as As	(%)	N.D
pH Value		7.10

N.D= Not Detected

Not a certificate of conformance
စံမှီန်စံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14.3.17

Analysis Report

THE GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
DEPARTMENT OF RESEARCH AND INNOVATION
No.(6) KABA AYE PAGODA ROAD, YANGON

Reference: Environ Myanmar Company Limited

Sample: Soil

RESULT

Sample No.		1219/16-17
Job No.		J-2321
Sample Marked.		S-4
Lead as Pb	(ppm)	37.02
Chromium as Cr	(ppm)	736.49
Cadmium as Cd	(ppm)	2.97
Copper as Cu	(ppm)	27.57
Zinc as Zn	(ppm)	306.87
Manganese as Mn	(%)	0.15
Iron as Fe	(%)	4.29
Arsenic as As	(%)	N.D
pH Value		6.54

N.D= Not Detected

Not a certificate of conformance
စံမှီန်စံညွှန်းကိုက်ညီကြောင်းထောက်ခံချက်မဟုတ်ပါ

Method/ Equipment used: Arthur I Vogel, F.A.A.S, Indian Standard

Tested by: Daw Khin Thida Myo

Daw Htike Htike Oo

Checked by: Dr. Khin Aye Tue

Technical Director: U Win Khaing Moe

Our Reference: 1002

Date: 14-3-17

Green Myanmar

Environmental Services Co., Ltd

No.115, Kanaung Min Thar Gyi Road, Industrial Zone (1), Hlaing Thar Yar Industrial City, Yangon, Myanmar

Tel: 01-685572, 01-685571, 09-5081451, 09-5122448 E-mail: gmescompany@gmail.com

SOIL QUALITY TEST RESULTS

Name of Client : Ramboll Environ

Person to whom results should be sent

Name: Ramboll Environ

Address:

Collected By:

Date of Collection:

Date of Arrival at Lab: 22.2.2017

Condition of Sample:

Date of commending examination: 22.2 ~ 10.3.2017

Date of Issue of result: 10.3.2017

RESULTS OF SOIL ANALYSIS

Sr. No.	Item	Unit	Analysis Value
	Soil Sample 1		
1.	Specific gravity	-	1.314
2.	Oil & Grease	ppm	ND
	Soil Sample 2		
1.	Specific gravity	-	1.926
2.	Oil & Grease	ppm	413
	Soil Sample 3		
1.	Specific gravity	-	1.203
2.	Oil & Grease	ppm	ND

ND – Non Detected

Analyzed By	Checked By	Approved By
10.3.2017		
DawWintPhyuHtway	Daw Cherry Thwin	U MyoMyint
Technician (Laboratory)	Manager (Laborabory)	Director (Laboratory)

Green Myanmar

Environmental Services Co., Ltd

No.115, Kanaung Min Thar Gyi Road, Industrial Zone (1), Hlaing Thar Yar Industrial City, Yangon, Myanmar

Tel: 01-685572, 01-685571, 09-5081451, 09-5122448 E-mail: gmescompany@gmail.com

SOIL QUALITY TEST RESULTS

Name of Client : Ramboll Environ

Person to whom results should be sent

Name: Ramboll Environ

Address:

Collected By:

Date of Collection:

Date of Arrival at Lab: 22.2.2017

Condition of Sample:

Date of commending examination: 22.2 ~ 10.3.2017

Date of Issue of result: 10.3.2017

RESULTS OF SOIL ANALYSIS

Sr. No.	Item	Unit	Analysis Value
	Soil Sample 4		
1.	Specific gravity	-	1.752
2.	Oil & Grease	ppm	153
	Soil Sample 6		
1.	Specific gravity	-	2.191
2.	Oil & Grease	ppm	547

Analyzed By	Checked By	Approved By
10.3.2017		
DawWintPhyuHtway	Daw Cherry Thwin	U MyoMyint
Technician (Laboratory)	Manager (Laborabory)	Director (Laboratory)

環境社会配慮

付録-15　List of Flora and Fauna in the Project Area (Reference for Section 9.2.2.5)

* Information source of all table is JICA Study Team.
** Area numbers in Table A-3 are corresponding to Figures 9.2.3 and 9.2.4 in the Main Report.

Table A-1 List of Project Affected Trees at Bridge Portion

No.	Family Name	Scientific Name	Vanicular Name	Affected No.
1	Mimosaceae	Acacia auriculiformis A. Cunn.	Malaysia Padauk	633
2	Fabaceae	Albizia procera (Roxb.) Benth.	Sit	50
3	Meliaceae	Azadirachta indica A. Juss.	Tama	1
4	Caesalpiniaceae	Bauhinia purpurea L.	Swedaw	3
5	Bombaceae	Bombax ceiba L.	Let-pan	13
6	Arecaceae	Borassus flabellifer L.	Htan	3
7	Casuarinaceae	Casuarina equisetifolia Forst.	Pinle-kabwe	25
8	Arecaceae	Cocos nucifera L.	Ohn-pin	6
9	Caesalpiniaceae	Delonix regia (Bojer ex Hook.) Raf.	Sein pan	13
10	Poaceae	Dendrocalamus longispathus Kurz	Wa-net	31
11	Ebenaceae	Diospyros discolor Willd.	Kadiba	4
12	Myrtaceae	Eucalyptus camaldulensis	Eucalyptus	1
13	Moraceae	Ficus glomerata Roxb.	Ye Thaphan	1
14	Moraceae	Ficus religiosa L.	Nyaung	4
15	Moraceae	Ficus rumphii Blume	Nyaung	4
16	Lythraceae	Lagerstroemia speciosa (L.)	Pyinma	3
17	Lythraceae	Lagerstroemia speciosa (L.) Pers.	Pyinma	16
18	Anacardiaceae	Lannea coromandelica (Houtt.) Merr.	Kalar Gwe/Taung Gwe	8
19	Mimosaceae	Leucaena leucocephala (Lam.) De Wit	Baw-sa-gaing	7
20	Anacardiaceae	Mangifera indica L.	Thayet	7
21	Sapotaceae	Mimusops elengi L.	Khaye	11
22	Moringaceae	Moringa oleifera Lam.	Dantalon	3
23	Tiliaceae	Muntingia calabura L.	Thakyar	1
24	Pinaceae	Pinus longifolia Roxb. Ex lamb.	Htin-shuu	2
25	Mimosaceae	Pithecellobium dulce (Roxb) Benth.	Kala-magyi	9
26	Annonaceae	Polyathia longifolia (Lam.) Benth.& Hook.f.	Ye-tama	36
27	Fabaceae	Pterocarpus indicus Willd.	Padauk	6
28	Strelitziaceae	Ravenala madagascariensis Gmel.	Htan-ngatpyaw	2
29	Mimosaceae	Samanea saman (Jacq.) Merr.	Kokko	121
30	Dipterocarpaceae	Shorea robusta	Ingyin	1
31	Sonneratiaceae	Sonneratia caseolaris (L.) Engl.	Lamu	122
32	Moraceae	Streblus asper Lour.	Sae-yoe/Okhne	3
33	Meliaceae	Swietenia macrophylla King	Mahogani	15
34	Myrtaceae	Syzygium cumini (L.) Skeels	Thabye	1
35	Verbenaceae	Tectona grandis L.f.	Kyun	50
36	Combretaceae	Terminalia catappa	Banda	37
37	Rhamnaceae	Ziziphus jujuba Lam.	Zee	4

Table A-2 List of Project Affected Trees at Intersection Area

No.	Scientific Name	Family Name	Vanicular/ Common Name	Affected No.
1	Acacia auriculiformis A. Cunn.	Mimosaceae	Malaysia Padauk	48
2	Areca catechu	Arecaceae	Kwun	2
3	Bauhinia monandra Kurz	Caesalpiniaceae	Swedaw	11
4	Borassus flabellifer L.	Arecaceae	Htan	1
5	Cassia fistula L.	Fabaceae	Ngu	3
6	Casuarina equisetifolia Forst.	Casuarinaceae	Pinle-kabwe	7
7	Ceiba pentandra (L.) Gaertn.	Bombacaceae	Le-moh-pin	4
8	Cephalandra indica (Wight & Arn.) Naud.	Cucurbitaceae	Kinmon	1
9	Cocos nucifera L.	Arecaceae	Ohn-pin	9
10	Delonix regia (Bojer ex Hook.) Raf.	Caesalpiniaceae	Sein pan	140
11	Diospyros discolor Willd.	Ebenaceae	Kadiba	1
12	Erythrina sp.	Fabaceae	Kathit	16
13	Eucalyptus camaldulensis	Myrtaceae	Eucalyptus	39
14	Ficus benghalensis L.	Moraceae	Nyaung Mote Sate	3
15	Ficus glomerata Roxb.	Moraceae	Ye Thaphan	3
16	Ficus religiosa L.	Moraceae	Nyaung	10
17	Lagerstroemia speciosa (L.) Pers.	Lythraceae	Pyinma	7
18	Leucaena leucocephala (Lam.) De Wit	Mimosaceae	Baw-sa-gaing	10
19	Mangifera indica L.	Anacardiaceae	Thayet	6
20	Mimusops elengi L.	Sapotaceae	Khaye	10
21	Moringa oleifera Lam.	Moringaceae	Dantalon	1
22	Nauclea orientalis L.	Rubiaceae	Ma-u	6
23	Pithecellobium dulce (Roxb) Benth.	Mimosaceae	Kala-magyi	4
24	Polyathia longifolia (Lam.) Benth.& Hook.f.	Annonaceae	Ye-tama	68
25	Pterocarpus indicus Willd.	Fabaceae	Padauk	23
26	Samanea saman (Jacq.) Merr.	Mimosaceae	Kokko	96
27	Streblus asper Lour.	Moraceae	Sae-yoe	2
28	Swietenia macrophylla King	Meliaceae	Mahogani	31
29	Syzygium cumini (L.) Skeels	Myrtaceae	Thabye	1
30	Tamarindus indica L.	Caesalpiniaceae	Magyi	1
31	Tectona grandis L.f.	Verbenaceae	Kyun	9
32	Terminalia catappa	Combretaceae	Banda	14
33	Ziziphus jujuba Lam.	Rhamnaceae	Zee	1

Source: JICA Study Team

Table A-3 Detailed information of Project Affected Trees

(1) Area No. 1 (Candidate Site for Temporary Construction Yard) in Thaketa Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	47	59.5	96	13	28.77	*Samanea saman (Jacq.) Merr.*	9.3	1.1	v	◦
2	16	47	59.55	96	13	28.45	*Erythrina sp.*	8.1	0.3	r	Δ
3	16	47	59.62	96	13	28.51	*Erythrina sp.*	7.5	0.3	v	Δ
4	16	47	59.83	96	13	28.4	*Erythrina sp.*	4.4	0.3	v	Δ
5	16	48	0.14	96	13	28.35	*Erythrina sp.*	4.6	0.3	v	Δ
6	16	48	0.04	96	13	28.15	*Erythrina sp.*	4.2	0.4	v	Δ
7	16	47	59.72	96	13	27.77	*Ficus benghalensis L.*	6.1	1.3	r	◦
8	16	48	0.07	96	13	27.59	*Mimusops elengi L.*	3	0.2	r	Δ
9	16	48	1	96	13	27.92	*Erythrina sp.*	6.1	0.2	r	Δ
10	16	48	1.01	96	13	27.91	*Erythrina sp.*	6.1	0.2	r	Δ
11	16	48	1.05	96	13	28.05	*Erythrina sp.*	6.1	0.4	v	Δ
12	16	48	1.1	96	13	27.78	*Erythrina sp.*	7.2	0.8	v	◦
13	16	48	1.03	96	13	28.18	*Erythrina sp.*	6.2	0.4	v	Δ
14	16	48	1.2	96	13	28.18	*Erythrina sp.*	6.2	0.3	v	Δ
15	16	48	1.42	96	13	28.42	*Erythrina sp.*	6.3	0.4	v	Δ
16	16	48	1.39	96	13	27.76	*Erythrina sp.*	6.3	0.3	r	Δ
17	16	48	1.42	96	13	27.14	*Erythrina sp.*	6.3	0.3	v	Δ
18	16	48	1.6	96	13	27.24	*Ziziphus jujuba Lam.*	4.1	0.1	r	Δ
19	16	48	1.77	96	13	27.28	*Pterocarpus indicus Willd.*	7.1	0.3	v	Δ
20	16	48	2.54	96	13	27.25	*Samanea saman (Jacq.) Merr.*	9.4	0.9	v	Δ
21	16	48	2.39	96	13	27.64	*Samanea saman (Jacq.) Merr.*	6.1	0.3	v	Δ
22	16	48	2.26	96	13	27.67	*Cocos nucifera L.*	9.4	0.4	up/palm	Δ
23	16	48	2.85	96	13	27.76	*Cocos nucifera L.*	10.2	0.3	up/palm	Δ
24	16	48	2.94	96	13	27.98	*Ficus religiosa L.*	9.6	0.7	v	Δ
25	16	48	2.94	96	13	27.98	*Ficus religiosa L.*	9.6	0.7	v	Δ
26	16	48	2.94	96	13	27.98	*Ficus religiosa L.*	9.6	0.7	v	Δ
27	16	48	3.18	96	13	27.84	*Cocos nucifera L.*	9.7	0.3	up/palm	Δ
28	16	48	3.9	96	13	27.6	*Samanea saman (Jacq.) Merr.*	9.7	0.4	v	Δ
29	16	48	3.71	96	13	27.87	*Cocos nucifera L.*	9.9	0.3	up/palm	Δ
30	16	48	3.71	96	13	27.87	*Terminalia catappa*	9.7	0.2	p	Δ
31	16	48	3.92	96	13	28.58	*Samanea saman (Jacq.) Merr.*	6.2	0.5	v	Δ
32	16	48	3.51	96	13	30.46	*Moringa oleifera Lam.*	4.6	0.2	v	Δ
33	16	48	3.53	96	13	30.48	*Samanea saman (Jacq.) Merr.*	4.8	0.3	v	Δ
34	16	48	3.88	96	13	30.68	*Tamarindus indica L.*	6.2	0.2	v	Δ
35	16	48	3.84	96	13	30.72	*Samanea saman (Jacq.) Merr.*	6.2	0.3	v	Δ
36	16	48	3.92	96	13	30.89	*Samanea saman (Jacq.) Merr.*	9.1	0.4	v	Δ
37	16	48	3.95	96	13	30.84	*Terminalia catappa*	8.9	0.2	p	Δ
38	16	48	3.99	96	13	30.81	*Samanea saman (Jacq.) Merr.*	6.1	0.3	v	Δ
39	16	48	3.47	96	13	31.07	*Samanea saman (Jacq.) Merr.*	10.3	1.0	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
40	16	48	3.41	96	13	31.75	*Swietenia macrophylla King*	6.2	0.3	c	Δ
41	16	48	3.14	96	13	31.72	*Acacia auriculiformis A. Cunn.*	9.8	0.4	v	Δ
42	16	48	3.08	96	13	31.62	*Swietenia macrophylla King*	6.2	0.3	c	Δ
43	16	48	2.79	96	13	31.58	*Swietenia macrophylla King*	9.7	0.4	c	Δ
44	16	48	2.91	96	13	31.61	*Swietenia macrophylla King*	6.1	0.1	c	Δ
45	16	48	2.95	96	13	31.7	*Lagerstroemia speciosa (L.) Pers.*	6.2	0.1	v	Δ
46	16	48	2.88	96	13	31.69	*Swietenia macrophylla King*	6.2	0.1	c	Δ
47	16	48	2.9	96	13	31.55	*Swietenia macrophylla King*	8.3	0.4	c	Δ
48	16	48	2.67	96	13	31.37	*Lagerstroemia speciosa (L.) Pers.*	6.1	0.2	v	Δ
49	16	48	2.48	96	13	31.4	*Lagerstroemia speciosa (L.) Pers.*	3.1	0.2	v	Δ
50	16	48	2.3	96	13	31.47	*Swietenia macrophylla King*	7.1	0.4	c	Δ
51	16	48	2.35	96	13	31.31	*Lagerstroemia speciosa (L.) Pers.*	3.2	0.2	v	Δ
52	16	48	2.45	96	13	31.13	*Swietenia macrophylla King*	6.1	0.3	c	Δ
53	16	48	2.09	96	13	31.31	*Swietenia macrophylla King*	6.1	0.4	c	Δ
54	16	48	1.91	96	13	31.18	*Swietenia macrophylla King*	6.3	0.3	c	Δ
55	16	48	1.74	96	13	31.13	*Acacia auriculiformis A. Cunn.*	6.7	0.4	v	Δ
56	16	48	1.68	96	13	30.95	*Swietenia macrophylla King*	4.8	0.3	c	Δ
57	16	48	1.54	96	13	30.78	*Acacia auriculiformis A. Cunn.*	4.4	0.4	v	Δ
58	16	48	1.45	96	13	30.88	*Swietenia macrophylla King*	6.1	0.3	c	Δ
59	16	48	1.45	96	13	30.85	*Lagerstroemia speciosa (L.) Pers.*	4.8	0.2	v	Δ
60	16	48	3.28	96	13	29.21	*Ceiba pentandra (L.) Gaertn.*	7.4	0.4	p	Δ
61	16	48	3	96	13	29.42	*Streblus asper Lour.*	9.1	0.4	r	Δ
62	16	48	3.09	96	13	29.6	*Samanea saman (Jacq.) Merr.*	9.4	0.6	v	Δ
63	16	48	3.14	96	13	29.73	*Samanea saman (Jacq.) Merr.*	9.4	0.5	v	Δ
64	16	48	3.2	96	13	29.66	*Cocos nucifera L.*	9.4	0.3	up/palm	Δ
65	16	48	3.19	96	13	29.24	*Mangifera indica L.*	6.2	0.3	r	Δ
66	16	48	2.77	96	13	29.25	*Ceiba pentandra (L.) Gaertn.*	8.1	0.3	p	Δ
67	16	48	2.68	96	13	29.6	*Cocos nucifera L.*	9.8	0.4	up/palm	Δ
68	16	48	2.64	96	13	29.83	*Ficus benghalensis L.*	10.2	1.3	v	Δ
69	16	48	2.47	96	13	29.42	*Cocos nucifera L.*	9.1	0.1	up/palm	Δ
70	16	48	1.92	96	13	28.96	*Ficus glomerata Roxb.*	6.1	0.2	v	Δ
71	16	48	1.97	96	13	28.54	*Cocos nucifera L.*	8.1	0.3	up/palm	Δ
72	16	48	2.01	96	13	28.51	*Ceiba pentandra (L.) Gaertn.*	8.2	0.3	p	Δ
73	16	48	2.22	96	13	28.59	*Mangifera indica L.*	7.3	0.3	r	Δ
74	16	48	2.01	96	13	28.29	*Samanea saman (Jacq.) Merr.*	9.2	0.7	v	Δ
75	16	48	1.78	96	13	28.46	*Samanea saman (Jacq.) Merr.*	9.2	0.4	v	Δ
76	16	48	3.02	96	13	28.82	*Nauclea orientalis L.*	8.3	0.2	v	Δ
77	16	48	3.71	96	13	26.56	*Samanea saman (Jacq.) Merr.*	12.2	1.1	r	◦
78	16	48	3.84	96	13	26.72	*Terminalia catappa*	8.4	0.2	p	Δ
79	16	48	3.84	96	13	26.72	*Terminalia catappa*	8.4	0.1	o	Δ
80	16	48	3.84	96	13	26.72	*Terminalia catappa*	8.4	0.1	p	Δ
81	16	48	3.56	96	13	26.68	*Mangifera indica L.*	6.5	0.2	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
82	16	48	0.34	96	13	29.6	*Swietenia macrophylla King*	6.9	0.4	c	Δ
83	16	48	0.2	96	13	29.44	*Swietenia macrophylla King*	7.1	0.4	c	Δ
84	16	48	0.09	96	13	29.36	*Swietenia macrophylla King*	6.1	0.3	c	Δ
85	16	48	2.21	96	13	26.7	*Casurina equisetifolia Forst.*	6.1	0.5	p	Δ
86	16	48	3.76	96	13	27.58	*Syzygiumcumini (L.) Skeels*	7.4	0.2	r	Δ
87	16	48	3.3	96	13	30.84	*Termanalia catappa*	5.8	0.1	r	Δ
88	16	48	3.18	96	13	30.96	*Pithecellobium dulce (Roxb.) Benth.*	7.8	0.4	r	Δ
89	16	48	0.01	96	13	29.28	*Swietenia macrophylla King*	7.4	0.4	c	Δ
90	16	48	0.06	96	13	29.31	*Swietenia macrophylla King*	6.2	0.3	c	Δ

Note (This is common for all tables from Area No. 1 to Area No.9)
1: Shape of tree. V – V-shaped, C – Columnar, P – Pyramidal, O – Oval, R- Round, W-Weeping

2: ○ means good/health, Δ means living, × means death.

(2) Area No. 2 (Candidate Site for Temporary Construction Yard) in Thaketa Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	47	59.85	96	13	29.29	*Swietenia macrophylla King*	7.5	0.3	c	Δ
2	16	47	59.72	96	13	29.19	*Swietenia macrophylla King*	7.3	0.3	o	Δ
3	16	47	59.61	96	13	28.94	*Swietenia macrophylla King*	6.4	0.2	c	Δ
4	16	47	59.22	96	13	28.42	*Delonix regia (Bojer ex Hook.) Raf.*	7.1	0.3	v	Δ
5	16	47	59.18	96	13	28.36	*Ficus benghalensis L.*	6.3	0.2	r	Δ
6	16	47	58.59	96	13	27.93	*Swietenia macrophylla King*	4.6	0.3	c	Δ
7	16	47	58.69	96	13	27.93	*Erythrina sp.*	7.5	0.3	v	Δ
8	16	47	58.64	96	13	27.92	*Erythrina sp.*	7.2	0.2	r	Δ
9	16	47	58.53	96	13	27.9	*Samanea saman (Jacq.) Merr.*	9.3	0.8	v	Δ
10	16	47	58.27	96	13	27.66	*Acacia auriculiformis A. Cunn.*	9.7	0.4	v	Δ
11	16	47	58.24	96	13	27.68	*Acacia auriculiformis A. Cunn.*	7.9	0.4	v	Δ
12	16	47	57.89	96	13	27.36	*Swietenia macrophylla King*	6.2	0.3	c	Δ
13	16	47	57.85	96	13	27.38	*Swietenia macrophylla King*	6.3	0.2	c	Δ
14	16	47	57.49	96	13	27.08	*Acacia auriculiformis A. Cunn.*	9.7	0.5	v	Δ
15	16	47	57.5	96	13	26.98	*Acacia auriculiformis A. Cunn.*	9.6	0.5	v	Δ
16	16	47	57.36	96	13	26.97	*Acacia auriculiformis A. Cunn.*	9.1	0.3	v	Δ
17	16	48	0.38	96	13	25.68	*Samanea saman (Jacq.) Merr.*	6.8	0.4	v	Δ
18	16	48	0.4	96	13	25.84	*Samanea saman (Jacq.) Merr.*	9.1	0.8	v	Δ
19	16	48	0.93	96	13	25.95	*Ficus religiosa L.*	6.4	0.7	v	Δ
20	16	48	0.93	96	13	25.83	*Leucaena leucocephala (Lam.) De Wit*	6.1	0.2	v	Δ
21	16	48	1.02	96	13	25.96	*Acacia auriculiformis A. Cunn.*	10.2	0.3	r	Δ
22	16	48	1.08	96	13	26.45	*Cocos nucifera L.*	9.1	0.3	up/palm	Δ

23	16	48	1.56	96	13	26.3	*Samanea saman (Jacq.) Merr.*	7.9	0.3	v	Δ
24	16	48	1.66	96	13	26.4	*Ficus religiosa L.*	7.8	0.4	v	Δ

(3) Area No. 3 (Construction Site for Widening Thanlyin Chin Kat Road) in Thaketa Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	48	4.6	96	13	31.56	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.2	0.2	c	Δ
2	16	48	4.6	96	13	31.06	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.5	0.1	c	Δ
3	16	48	4.75	96	13	30.94	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.8	0.2	c	Δ
4	16	48	5.22	96	13	30.7	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	8.3	0.2	c	Δ
5	16	48	5.35	96	13	30.59	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.7	0.1	c	Δ
6	16	48	6.19	96	13	29.81	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.9	0.2	c	Δ
7	16	48	4.75	96	13	30.94	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.4	v	Δ
8	16	48	4.84	96	13	30.82	*Samanea saman (Jacq.) Merr.*	9.2	1.3	v	Δ
9	16	48	5.25	96	13	30.67	*Samanea saman (Jacq.) Merr.*	9.3	0.6	v	Δ
10	16	48	6.33	96	13	29.72	*Samanea saman (Jacq.) Merr.*	12.2	0.6	v	Δ
11	16	48	5.49	96	13	30.54	*Pterocarpus indicus Willd.*	9.1	0.5	v	Δ
12	16	48	5.61	96	13	30.35	*Pterocarpus indicus Willd.*	9.4	0.6	v	Δ
13	16	48	5.73	96	13	30.23	*Pterocarpus indicus Willd.*	9.7	0.7	v	Δ
14	16	48	5.8	96	13	30.26	*Terminalia catappa*	9.5	0.3	p	Δ
15	16	48	6.31	96	13	29.65	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.4	0.2	c	Δ
16	16	48	6.53	96	13	29.53	*Pithecellobium dulce (Roxb) Benth.*	9.6	1.0	r	Δ
17	16	48	6.66	96	13	29.36	*Tectona grandis L.f.*	10.3	0.3	r	Δ
18	16	48	6.8	96	13	29.04	*Tectona grandis L.f.*	9.2	0.2	r	Δ
19	16	48	6.62	96	13	29.36	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.3	r	Δ
20	16	48	6.77	96	13	29.24	*Terminalia catappa*	7.4	0.2	p	Δ
21	16	48	6.8	96	13	29.13	*Terminalia catappa*	11.6	0.3	r	Δ
22	16	48	6.79	96	13	29	*Delonix regia (Bojer ex Hook.) Raf.*	7.8	0.3	v	Δ
23	16	48	6.75	96	13	29.04	*Tectona grandis L.f.*	9.1	0.3	r	Δ
24	16	48	6.99	96	13	29	*Tectona grandis L.f.*	8.2	0.3	o	Δ
25	16	48	6.93	96	13	28.79	*Cephalandra indica (Wight & Arn.) Naud.*	1.9	0.2	o	x
26	16	48	6.98	96	13	28.76	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.7	0.2	c	Δ
27	16	48	6.82	96	13	28.82	*Samanea saman (Jacq.) Merr.*	10.1	0.3	v	Δ
28	16	48	6.97	96	13	28.75	*Mangifera indica L.*	7.1	0.1	r	Δ
29	16	48	6.99	96	13	28.69	*Delonix regia (Bojer ex Hook.) Raf.*	8.3	0.3	v	Δ
30	16	48	7.29	96	13	28.57	*Delonix regia (Bojer ex Hook.) Raf.*	8.3	0.3	v	Δ
31	16	48	7.46	96	13	28.35	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.3	o	Δ
32	16	48	7.56	96	13	28.51	*Delonix regia (Bojer ex Hook.) Raf.*	9.8	0.3	v	Δ
33	16	48	7.44	96	13	28.57	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.2	c	Δ
34	16	48	7.48	96	13	28.39	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.8	0.1	c	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
35	16	48	7.51	96	13	28.4	*Samanea saman (Jacq.) Merr.*	7.4	0.3	v	Δ
36	16	48	7.68	96	13	28.05	*Delonix regia (Bojer ex Hook.) Raf.*	9.9	0.3	v	Δ
37	16	48	7.79	96	13	28.04	*Delonix regia (Bojer ex Hook.) Raf.*	9.7	0.3	v	Δ
38	16	48	8.09	96	13	27.57	*Delonix regia (Bojer ex Hook.) Raf.*	9	0.4	v	Δ
39	16	48	8.01	96	13	27.61	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.2	c	Δ
40	16	48	8.2	96	13	27.5	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.8	0.1	c	Δ
41	16	48	8.64	96	13	26.96	*Samanea saman (Jacq.) Merr.*	7.2	0.2	v	Δ
42	16	48	8.71	96	13	26.94	*Samanea saman (Jacq.) Merr.*	7.1	0.2	v	Δ
43	16	48	8.6	96	13	26.97	*Samanea saman (Jacq.) Merr.*	7	0.3	r	Δ
44	16	48	8.6	96	13	26	*Samanea saman (Jacq.) Merr.*	8.1	0.4	v	Δ
45	16	48	8.62	96	13	27.01	*Samanea saman (Jacq.) Merr.*	8	0.3	v	Δ
46	16	48	8.57	96	13	26.98	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.1	0.2	c	Δ
47	16	48	8.73	96	13	26.55	*Samanea saman (Jacq.) Merr.*	9.3	0.3	v	Δ
48	16	48	8.91	96	13	16.16	*Acacia auriculiformis A. Cunn.*	6.1	0.2	r	Δ
49	16	48	8.9	96	13	26.23	*Samanea saman (Jacq.) Merr.*	9.2	0.3	v	Δ
50	16	48	8.86	96	13	26.38	*Casuarina equisetifolia Forst.*	10.4	0.7	p	◦
51	16	48	9.24	96	13	26.15	*Delonix regia (Bojer ex Hook.) Raf.*	10.2	0.4	v	Δ
52	16	48	9.28	96	13	26.07	*Delonix regia (Bojer ex Hook.) Raf.*	10.2	0.3	v	Δ
53	16	48	9.61	96	13	25.74	*Delonix regia (Bojer ex Hook.) Raf.*	9.8	0.3	r	Δ
54	16	48	9.61	96	13	25.64	*Delonix regia (Bojer ex Hook.) Raf.*	9.6	0.4	v	Δ
55	16	48	9.66	96	13	25.55	*Delonix regia (Bojer ex Hook.) Raf.*	9.7	0.7	v	◦
56	16	48	10.69	96	13	24.04	*Samanea saman (Jacq.) Merr.*	10.1	0.4	v	Δ
57	16	48	11.18	96	13	23.73	*Samanea saman (Jacq.) Merr.*	10.2	1.0	v	◦
58	16	48	11.24	96	13	23.7	*Delonix regia (Bojer ex Hook.) Raf.*	7.8	0.3	r	Δ
59	16	48	11.22	96	13	23.78	*Delonix regia (Bojer ex Hook.) Raf.*	7.5	0.2	v	Δ
60	16	48	11.42	96	13	23.5	*Samanea saman (Jacq.) Merr.*	10.1	1.0	v	◦
61	16	48	11.43	96	13	23.41	*Eucalyptus camaldulensis*	11.3	0.7	w	◦
62	16	48	11.47	96	13	23.44	*Delonix regia (Bojer ex Hook.) Raf.*	9.6	0.3	v	Δ
63	16	48	11.56	96	13	23.27	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.2	v	Δ
64	16	48	11.84	96	13	22.76	*Pterocarpus indicus Willd.*	7.1	0.4	r	Δ
65	16	48	11.78	96	13	22.82	*Eucalyptus camaldulensis*	13.6	0.8	w	Δ
66	16	48	11.81	96	13	22.84	*Samanea saman (Jacq.) Merr.*	9.8	1.0	v	◦
67	16	48	12.1	96	13	22.55	*Delonix regia (Bojer ex Hook.) Raf.*	10.3	0.3	r	Δ
68	16	48	12.45	96	13	22.01	*Delonix regia (Bojer ex Hook.) Raf.*	10.8	1.2	v	◦
69	16	48	12.5	96	13	22.06	*Acacia auriculiformis A. Cunn.*	9.6	0.4	v	Δ
70	16	48	12.28	96	13	22.69	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.6	0.2	c	Δ
71	16	48	12.55	96	13	21.85	*Mimusops elengi L.*	7.3	0.3	r	Δ
72	16	48	12.47	96	13	21.79	*Eucalyptus camaldulensis*	11.1	0.4	w	Δ
73	16	48	12.77	96	13	21.56	*Acacia auriculiformis A. Cunn.*	9.2	0.3	v	Δ
74	16	48	12.81	96	13	21.65	*Samanea saman (Jacq.) Merr.*	8.4	0.5	v	◦
75	16	48	12.98	96	13	21.5	*Delonix regia (Bojer ex Hook.) Raf.*	9.7	0.7	v	◦

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
76	16	48	13.27	96	13	21.01	*Delonix regia (Bojer ex Hook.) Raf.*	9.1	0.6	v	Δ
77	16	48	13.36	96	13	21.1	*Acacia auriculiformis A. Cunn.*	6.9	0.2	r	Δ
78	16	48	13.13	96	13	20.29	*Mimusops elengi L.*	7.1	0.3	r	Δ
79	16	48	13.34	96	13	20.79	*Acacia auriculiformis A. Cunn.*	7.9	0.3	r	Δ
80	16	48	13.48	96	13	20.66	*Delonix regia (Bojer ex Hook.) Raf.*	8.1	0.3	o	Δ
81	16	48	13.49	96	13	20.64	*Delonix regia (Bojer ex Hook.) Raf.*	8.3	1.1	v	Δ
82	16	48	13.6	96	13	20.58	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.2	0.2	c	Δ
83	16	48	13.76	96	13	20.12	*Mimusops elengi L.*	6.7	0.3	r	Δ
84	16	48	20.09	96	13	20.09	*Delonix regia (Bojer ex Hook.) Raf.*	8.4	0.4	v	Δ
85	16	48	14.28	96	13	19.81	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.1	c	Δ
86	16	48	14.28	96	13	19.72	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.4	v	Δ
87	16	48	14.31	96	13	19.69	*Eucalyptus camaldulensis*	9.5	0.5	w	Δ
88	16	48	14.71	96	13	19.2	*Delonix regia (Bojer ex Hook.) Raf.*	9.1	0.4	v	Δ
89	16	48	14.7	96	13	19.21	*Eucalyptus camaldulensis*	10.2	0.5	w	◦
90	16	48	14.76	96	13	19.15	*Eucalyptus camaldulensis*	10.4	0.4	w	Δ
91	16	48	14.76	96	13	19.16	*Delonix regia (Bojer ex Hook.) Raf.*	7.6	0.6	v	◦
92	16	48	14.84	96	13	19.17	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.1	c	Δ
93	16	48	15.2	96	13	18.54	*Eucalyptus camaldulensis*	12.4	0.5	w	◦
94	16	48	15.33	96	13	18.47	*Delonix regia (Bojer ex Hook.) Raf.*	7.8	1.1	v	◦
95	16	48	15.36	96	13	18.42	*Eucalyptus camaldulensis*	12.1	0.3	w	Δ
96	16	48	15.43	96	13	18.33	*Delonix regia (Bojer ex Hook.) Raf.*	6.9	0.4	v	Δ
99	16	48	15.44	96	13	18.27	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.6	v	Δ
98	16	48	15.46	96	13	18.32	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.1	0.1	c	Δ
99	16	48	15.82	96	13	17.93	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.5	0.2	c	Δ
100	16	48	16.22	96	13	17.32	*Delonix regia (Bojer ex Hook.) Raf.*	6.1	0.3	r	Δ
101	16	48	16.21	96	13	17.31	*Eucalyptus camaldulensis*	11.6	0.4	w	Δ
102	16	48	16.21	96	13	17.28	*Eucalyptus camaldulensis*	12.9	0.6	w	Δ
103	16	48	16.18	96	13	17.27	*Delonix regia (Bojer ex Hook.) Raf.*	9.2	0.6	v	Δ
104	16	48	16.32	96	13	17.17	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.3	v	Δ
105	16	48	16.62	96	13	17.01	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.7	0.1	c	Δ
106	16	48	16.66	96	13	16.8	*Delonix regia (Bojer ex Hook.) Raf.*	10.3	0.4	v	Δ
107	16	48	16.7	96	13	16.69	*Acacia auriculiformis A. Cunn.*	6.1	0.8	r	◦
108	16	48	16.86	96	13	16.68	*Delonix regia (Bojer ex Hook.) Raf.*	4.4	0.3	r	Δ
109	16	48	16.81	96	13	16.67	*Acacia auriculiformis A. Cunn.*	7.4	0.7	v	◦
110	16	48	16.99	96	13	16.5	*Eucalyptus camaldulensis*	13.1	0.4	w	Δ
111	16	48	17.02	96	13	16.56	*Delonix regia (Bojer ex Hook.) Raf.*	9.2	0.6	v	Δ
112	16	48	17.01	96	13	16.2	*Eucalyptus camaldulensis*	12.9	0.7	w	◦
113	16	48	17.16	96	13	16.17	*Delonix regia (Bojer ex Hook.) Raf.*	11.6	0.3	v	◦
114	16	48	17.24	96	13	16.13	*Delonix regia (Bojer ex Hook.) Raf.*	9.2	0.4	v	◦
115	16	48	17.52	96	13	15.9	*Eucalyptus camaldulensis*	10.8	0.4	w	◦

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
116	16	48	17.6	96	13	15.79	*Acacia auriculiformis A. Cunn.*	7.9	0.7	v	Δ
117	16	48	17.64	96	13	15.73	*Delonix regia (Bojer ex Hook.) Raf.*	10.2	0.7	v	◦
118	16	48	17.77	96	13	15.53	*Delonix regia (Bojer ex Hook.) Raf.*	8.1	1.3	v	◦
119	16	48	17.84	96	13	15.42	*Eucalyptus camaldulensis*	8.1	0.7	w	◦
120	16	48	17.9	96	13	15.36	*Delonix regia (Bojer ex Hook.) Raf.*	7.8	0.3	o	x
121	16	48	17.91	96	13	15.31	*Delonix regia (Bojer ex Hook.) Raf.*	6.1	0.3	o	Δ
122	16	48	18.07	96	13	15.12	*Delonix regia (Bojer ex Hook.) Raf.*	12.1	0.6	v	◦
123	16	48	18.23	96	13	14.92	*Delonix regia (Bojer ex Hook.) Raf.*	4.4	0.3	v	Δ
124	16	48	18.03	96	13	15.18	*Swietenia macrophylla King*	12.7	0.8	c	◦
125	16	48	18.03	96	13	15.13	*Acacia auriculiformis A. Cunn.*	9.6	0.6	v	x
126	16	48	22.91	96	13	8.52	*Acacia auriculiformis A. Cunn.*	9.2	0.4	v	Δ
127	16	48	22.93	96	13	8.57	*Swietenia macrophylla King*	4	0.2	c	Δ
128	16	48	22.88	96	13	8.64	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.7	0.2	c	Δ
129	16	48	22.86	96	13	8.7	*Acacia auriculiformis A. Cunn.*	7.9	0.3	r	Δ
130	16	48	22.77	96	13	8.99	*Delonix regia (Bojer ex Hook.) Raf.*	10.6	1.0	v	◦
131	16	48	22.73	96	13	9.16	*Delonix regia (Bojer ex Hook.) Raf.*	10.7	0.3	v	Δ
132	16	48	22.75	96	13	9.14	*Eucalyptus camaldulensis*	10.2	0.3	w	Δ
133	16	48	22.54	96	13	9.36	*Delonix regia (Bojer ex Hook.) Raf.*	12.3	0.6	o	◦
134	16	48	22.55	96	13	9.43	*Acacia auriculiformis A. Cunn.*	6.2	0.2	v	Δ
135	16	48	22.52	96	13	9.47	*Delonix regia (Bojer ex Hook.) Raf.*	8.3	0.3	v	Δ
136	16	48	22.43	96	13	9.43	*Eucalyptus camaldulensis*	9.4	0.4	w	Δ
137	16	48	22.43	96	13	9.48	*Swietenia macrophylla King*	8.3	0.3	c	Δ
138	16	48	22.54	96	13	9.49	*Delonix regia (Bojer ex Hook.) Raf.*	9.8	0.4	v	Δ
139	16	48	22.38	96	13	9.68	*Delonix regia (Bojer ex Hook.) Raf.*	9.8	0.3	v	Δ
140	16	48	22.25	96	13	9.7	*Delonix regia (Bojer ex Hook.) Raf.*	10.1	0.4	v	Δ
141	16	48	22.22	96	13	9.74	*Eucalyptus camaldulensis*	12.2	0.3	w	Δ
142	16	48	21.51	96	13	11.13	*Delonix regia (Bojer ex Hook.) Raf.*	10.4	0.3	o	Δ
143	16	48	21.5	96	13	11.16	*Swietenia macrophylla King*	10.9	0.4	c	◦
144	16	48	21.45	96	13	11.21	*Samanea saman (Jacq.) Merr.*	6.5	0.3	v	Δ
145	16	48	21.37	96	13	11.47	*Delonix regia (Bojer ex Hook.) Raf.*	10.4	0.3	v	Δ
146	16	48	20.95	96	13	11.82	*Samanea saman (Jacq.) Merr.*	10.2	0.3	v	Δ
147	16	48	20.52	96	13	12.22	*Delonix regia (Bojer ex Hook.) Raf.*	9.1	0.3	v	Δ
148	16	48	20.37	96	13	12.31	*Eucalyptus camaldulensis*	13.4	0.3	w	Δ
149	16	48	20.13	96	13	12.5	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.4	v	Δ
150	16	48	19.83	96	13	13.03	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.3	v	Δ
151	16	48	19.64	96	13	13.23	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.3	v	Δ
142	16	48	19.32	96	13	13.59	*Delonix regia (Bojer ex Hook.) Raf.*	9.3	0.4	v	Δ
153	16	48	19.06	96	13	14.05	*Delonix regia (Bojer ex Hook.) Raf.*	9.4	0.3	v	Δ
154	16	48	19	96	13	14.13	*Eucalyptus camaldulensis*	8.9	0.3	w	Δ
155	16	48	18.86	96	13	14.27	*Delonix regia (Bojer ex Hook.) Raf.*	9.6	0.3	v	Δ
156	16	48	18.78	96	13	14.29	*Acacia auriculiformis A. Cunn.*	9.8	0.4	v	Δ
157	16	48	3.86	96	13	32.82	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.4	0.2	c	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
158	16	48	3.99	96	13	32.39	*Acacia auriculiformis A. Cunn.*	9.2	0.2	v	Δ
159	16	48	4.39	96	13	32.29	*Samanea saman (Jacq.) Merr.*	9.2	0.6	r	◦
160	16	48	4.2	96	13	32.27	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.1	0.2	c	Δ
161	16	48	4.44	96	13	32.14	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.1	0.2	c	Δ
162	16	48	4.61	96	13	31.98	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.2	0.2	c	Δ
163	16	48	4.68	96	13	32.1	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.2	r	Δ
164	16	48	4.62	96	13	32.02	*Leucaena leucocephala (Lam.) De Wit*	6.4	0.2	c	Δ
165	16	48	4.75	96	13	31.75	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.2	0.2	c	Δ
166	16	48	5.05	96	13	31.7	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.2	0.2	c	Δ
167	16	48	5.26	96	13	31.49	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.4	0.2	c	Δ
168	16	48	5.4	96	13	31.42	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.7	0.2	c	Δ
169	16	48	5.53	96	13	31.47	*Delonix regia (Bojer ex Hook.) Raf.*	5.4	0.3	v	Δ
170	16	48	5.58	96	13	31.31	*Delonix regia (Bojer ex Hook.) Raf.*	5.4	0.2	v	Δ
171	16	48	5.69	96	13	31.3	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.6	0.1	c	Δ
172	16	48	5.57	96	13	31.26	*Delonix regia (Bojer ex Hook.) Raf.*	4.2	0.3	v	Δ
173	16	48	5.77	96	13	31.11	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.1	0.1	c	Δ
174	16	48	5.8	96	13	31.07	*Delonix regia (Bojer ex Hook.) Raf.*	6.5	0.3	v	Δ
175	16	48	5.94	96	13	31.06	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.2	0.1	c	Δ
176	16	48	6.13	96	13	30.85	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.2	0.1	c	Δ
177	16	48	6.19	96	13	30.86	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.3	v	Δ
178	16	48	6.19	96	13	30.73	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.2	c	Δ
179	16	48	6.22	96	13	30.82	*Delonix regia (Bojer ex Hook.) Raf.*	7.5	0.2	v	Δ
180	16	48	6.34	96	13	30.57	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	7.2	0.2	c	Δ
181	16	48	6.5	96	13	30.41	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.2	0.2	c	Δ
182	16	48	6.47	96	13	30.33	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.3	v	Δ
183	16	48	6.86	96	13	30.35	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.1	c	Δ
184	16	48	6.8	96	13	30.3	*Samanea saman (Jacq.) Merr.*	10.8	1.0	v	◦
185	16	48	6.89	96	13	30.41	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.6	0.2	c	Δ
186	16	48	7	96	13	30.07	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.4	0.2	c	Δ
187	16	48	7.1	96	13	29.82	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.2	v	Δ
188	16	48	7.1	96	13	29.78	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	7.4	0.3	c	Δ
189	16	48	7.24	96	13	29.89	*Delonix regia (Bojer ex Hook.) Raf.*	8.1	0.4	v	Δ
190	16	48	7.2	96	13	29.8	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	7.2	0.3	c	Δ
191	16	48	7.78	96	13	29.27	*Delonix regia (Bojer ex Hook.) Raf.*	9.2	0.5	v	Δ
192	16	48	7.95	96	13	29.02	*Samanea saman (Jacq.) Merr.*	10.4	0.9	v	◦

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
193	16	48	7.99	96	13	29.05	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.1	0.2	c	Δ
194	16	48	8.03	96	13	28.96	*Delonix regia (Bojer ex Hook.) Raf.*	10.4	0.4	o	Δ
195	16	48	8.15	96	13	28.82	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.2	0.2	c	Δ
196	16	48	8.11	96	13	28.84	*Delonix regia (Bojer ex Hook.) Raf.*	10.6	0.4	v	Δ
197	16	48	8.21	96	13	28.69	*Delonix regia (Bojer ex Hook.) Raf.*	10.2	0.4	v	Δ
198	16	48	8.33	96	13	28.62	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.3	0.2	c	Δ
199	16	48	8.36	96	13	28.42	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.2	v	Δ
200	16	48	8.31	96	13	28.48	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	7.2	0.2	c	Δ
201	16	48	8.49	96	13	28.32	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.2	v	Δ
202	16	48	8.45	96	13	28.34	*Ficus glomerata Roxb.*	11.1	0.3	v	Δ
203	16	48	8.42	96	13	28.35	*Ficus glomerata Roxb.*	11.1	0.3	v	Δ
204	16	48	8.61	96	13	28.32	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.2	0.2	c	Δ
205	16	48	8.59	96	13	28.29	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.2	v	Δ
206	16	48	8.74	96	13	27.95	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.1	c	Δ
207	16	48	8.68	96	13	27.94	*Delonix regia (Bojer ex Hook.) Raf.*	10.2	0.3	v	Δ
208	16	48	8.78	96	13	27.94	*Acacia auriculiformis A. Cunn.*	10.5	0.4	v	Δ
209	16	48	8.71	96	13	27.99	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.2	0.1	c	Δ
210	16	48	8.78	96	13	27.84	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	8.2	0.3	c	Δ
211	16	48	8.82	96	13	27.87	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.2	0.2	c	Δ
212	16	48	8.81	96	13	27.74	*Delonix regia (Bojer ex Hook.) Raf.*	8.6	0.3	v	Δ
213	16	48	8.93	96	13	27.56	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.2	0.2	c	Δ
214	16	48	8.88	96	13	27.53	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.2	v	Δ
215	16	48	8.9	96	13	27.63	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.2	v	Δ
216	16	48	9.4	96	13	27.26	*Acacia auriculiformis A. Cunn.*	10.4	0.5	v	◦
217	16	48	9.42	96	13	27.21	*Samanea saman (Jacq.) Merr.*	10.4	0.7	v	◦
218	16	48	9.61	96	13	27.04	*Delonix regia (Bojer ex Hook.) Raf.*	5.2	0.2	r	Δ
219	16	48	9.9	96	13	26.69	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.2	v	Δ
220	16	48	10.06	96	13	26.55	*Delonix regia (Bojer ex Hook.) Raf.*	7.5	0.4	v	Δ
221	16	48	10.09	96	13	26.17	*Delonix regia (Bojer ex Hook.) Raf.*	6.4	0.3	v	Δ
222	16	48	10.46	96	13	25.89	*Samanea saman (Jacq.) Merr.*	10.4	0.8	v	Δ
223	16	48	10.42	96	13	25.83	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.2	o	Δ
224	16	48	10.65	96	13	25.72	*Delonix regia (Bojer ex Hook.) Raf.*	5.8	0.2	o	Δ
225	16	48	10.79	96	13	25.44	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.4	v	Δ
226	16	48	11.1	96	13	25.04	*Leucaena leucocephala (Lam.) De Wit*	5.5	0.3	v	Δ
227	16	48	11.19	96	13	25.01	*Leucaena leucocephala (Lam.) De Wit*	7.5	0.2	v	Δ
228	16	48	11.24	96	13	24.9	*Mimusops elengi L.*	6.1	0.2	o	Δ
229	16	48	11.44	96	13	24.65	*Samanea saman (Jacq.) Merr.*	12.1	0.6	v	Δ
230	16	48	11.55	96	13	24.45	*Leucaena leucocephala (Lam.) De Wit*	8.2	0.3	c	Δ
231	16	48	11.69	96	13	24.29	*Delonix regia (Bojer ex Hook.) Raf.*	8.7	0.3	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
232	16	48	11.7	96	13	24.28	*Delonix regia (Bojer ex Hook.) Raf.*	9.1	0.3	v	Δ
233	16	48	11.85	96	13	24.17	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.2	0.1	c	Δ
234	16	48	11.83	96	13	24.08	*Leucaena leucocephala (Lam.) De Wit*	7.6	0.3	v	Δ
235	16	48	12.08	96	13	23.83	*Leucaena leucocephala (Lam.) De Wit*	4.6	0.2	v	Δ
236	16	48	12.09	96	13	23.81	*Eucalyptus camaldulensis*	9.8	0.3	w	Δ
237	16	48	12.21	96	13	23.8	*Samanea saman (Jacq.) Merr.*	8.9	0.3	v	Δ
238	16	48	12.26	96	13	23.72	*Streblus asper Lour.*	4.8	0.2	r	Δ
239	16	48	12.42	96	13	23.55	*Eucalyptus camaldulensis*	10.5	0.4	w	Δ
240	16	48	12.42	96	13	23.51	*Eucalyptus camaldulensis*	10.4	0.3	w	Δ
241	16	48	12.41	96	13	23.59	*Leucaena leucocephala (Lam.) De Wit*	6.5	0.3	v	Δ
242	16	48	12.43	96	13	23.46	*Eucalyptus camaldulensis*	10.2	0.4	w	Δ
243	16	48	12.5	96	13	23.44	*Leucaena leucocephala (Lam.) De Wit*	5.7	0.3	v	Δ
244	16	48	12.57	96	13	23.12	*Mimusops elengi L.*	8.2	0.3	r	Δ
245	16	48	12.76	96	13	23.11	*Eucalyptus camaldulensis*	10.5	0.5	w	Δ
246	16	48	12.8	96	13	23.08	*Delonix regia (Bojer ex Hook.) Raf.*	7.6	0.4	v	Δ
247	16	48	13.01	96	13	22.8	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.3	v	Δ
248	16	48	13.06	96	13	22.63	*Eucalyptus camaldulensis*	10.1	0.4	w	Δ
249	16	48	13.12	96	13	22.51	*Eucalyptus camaldulensis*	10.1	0.3	w	Δ
250	16	48	13.12	96	13	22.51	*Delonix regia (Bojer ex Hook.) Raf.*	6.1	0.3	v	Δ
251	16	48	13.44	96	13	22.27	*Eucalyptus camaldulensis*	10.1	0.4	w	Δ
252	16	48	13.23	96	13	22.4	*Delonix regia (Bojer ex Hook.) Raf.*	10.4	0.3	v	Δ
253	16	48	13.48	96	13	22.25	*Acacia auriculiformis A. Cunn.*	5.2	0.4	v	Δ
254	16	48	13.48	96	13	22.13	*Delonix regia (Bojer ex Hook.) Raf.*	10.2	0.4	v	Δ
255	16	48	13.58	96	13	22.01	*Delonix regia (Bojer ex Hook.) Raf.*	10.1	0.3	r	Δ
256	16	48	13.56	96	13	22.07	*Acacia auriculiformis A. Cunn.*	8.2	0.3	r	Δ
257	16	48	13.74	96	13	21.72	*Eucalyptus camaldulensis*	10.4	0.4	w	Δ
258	16	48	13.9	96	13	21.62	*Mimusops elengi L.*	6.6	0.3	r	Δ
259	16	48	13.9	96	13	21.63	*Delonix regia (Bojer ex Hook.) Raf.*	8.4	0.4	o	Δ
260	16	48	14	96	13	21.61	*Areca catechu*	7.5	0.2	palm	Δ
261	16	48	14.21	96	13	21.41	*Areca catechu*	7.4	0.2	palm	Δ
262	16	48	14.17	96	13	21.39	*Delonix regia (Bojer ex Hook.) Raf.*	7.8	0.3	v	Δ
263	16	48	14.2	96	13	21.12	*Delonix regia (Bojer ex Hook.) Raf.*	7.6	0.2	v	Δ
264	16	48	14.42	96	13	20	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.3	v	Δ
265	16	48	14.45	96	13	20.98	*Acacia auriculiformis A. Cunn.*	8.3	0.4	r	Δ
266	16	48	14.5	96	13	20.96	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.3	v	Δ
267	16	48	14.58	96	13	20.8	*Eucalyptus camaldulensis*	10.1	0.4	w	Δ
268	16	48	14.61	96	13	20.77	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.1	0.3	c	Δ
269	16	48	14.91	96	13	20.05	*Delonix regia (Bojer ex Hook.) Raf.*	11.1	0.4	r	Δ
270	16	48	15.27	96	13	19.86	*Delonix regia (Bojer ex Hook.) Raf.*	10	0.3	v	Δ
271	16	48	15.28	96	13	19.85	*Eucalyptus camaldulensis*	10.5	0.4	w	Δ
272	16	48	15.47	96	13	19.55	*Delonix regia (Bojer ex Hook.) Raf.*	10.5	0.3	v	Δ
273	16	48	15.46	96	13	19.53	*Polyathia longifolia (Lam.) Benth.&*	5.5	0.1	c	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
							Hook.f.				
274	16	48	15.96	96	13	19.13	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.3	v	Δ
275	16	48	16.01	96	13	19.07	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.3	v	Δ
276	16	48	15.93	96	13	19.15	*Eucalyptus camaldulensis*	8.4	0.3	w	Δ
277	16	48	16.13	96	13	18.86	*Delonix regia (Bojer ex Hook.) Raf.*	8.2	0.4	v	Δ
278	16	48	16.38	96	13	18.65	*Delonix regia (Bojer ex Hook.) Raf.*	8.3	0.3	v	Δ
279	16	48	16.9	96	13	17.97	*Eucalyptus camaldulensis*	9.4	0.3	w	Δ
280	16	48	16.98	96	13	17.94	*Delonix regia (Bojer ex Hook.) Raf.*	7.5	0.2	o	Δ
281	16	48	17.05	96	13	17.85	*Acacia auriculiformis A. Cunn.*	7.9	0.3	v	Δ
282	16	48	17	96	13	17.9	*Delonix regia (Bojer ex Hook.) Raf.*	7.5	0.4	v	Δ
283	16	48	17.06	96	13	17.89	*Eucalyptus camaldulensis*	10.4	0.4	w	Δ
284	16	48	17.2	96	13	17.58	*Acacia auriculiformis A. Cunn.*	7.5	0.3	v	Δ
285	16	48	17.25	96	13	17.66	*Delonix regia (Bojer ex Hook.) Raf.*	8.1	0.2	v	Δ
286	16	48	17.44	96	13	17.39	*Eucalyptus camaldulensis*	11.5	0.4	w	Δ
287	16	48	17.58	96	13	17.09	*Delonix regia (Bojer ex Hook.) Raf.*	7.6	0.3	v	Δ
288	16	48	17.61	96	13	17.04	*Mimusops elengi L.*	5.8	0.2	r	Δ
289	16	48	18.07	96	13	16.21	*Terminalia catappa*	9.3	0.2	p	Δ
290	16	48	18.23	96	13	16.14	*Delonix regia (Bojer ex Hook.) Raf.*	8.9	0.4	v	Δ
291	16	48	18.23	96	13	16.14	*Delonix regia (Bojer ex Hook.) Raf.*	8.9	0.3	v	Δ
292	16	48	18.27	96	13	16.01	*Mimusops elengi L.*	7.7	0.3	o	Δ
293	16	48	18.27	96	13	16.13	*Swietenia macrophylla King*	9.2	0.3	c	Δ
294	16	48	18.43	96	13	15.96	*Delonix regia (Bojer ex Hook.) Raf.*	9.2	0.6	v	Δ
295	16	48	18.41	96	13	15.92	*Eucalyptus camaldulensis*	10.3	0.4	w	Δ
296	16	48	18.41	96	13	15.98	*Delonix regia (Bojer ex Hook.) Raf.*	4.7	0.3	v	Δ
297	16	48	18.97	96	13	15.42	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.8	0.3	c	Δ
298	16	48	18.94	96	13	15.31	*Borassus flabellifer L.*	3.1	0.3	palm	Δ
299	16	48	18.96	96	13	15.34	*Acacia auriculiformis A. Cunn.*	5.6	0.4	v	Δ
300	16	48	19	96	13	15.36	*Acacia auriculiformis A. Cunn.*	6.8	0.2	v	Δ
301	16	48	18.99	96	13	15.41	*Delonix regia (Bojer ex Hook.) Raf.*	6.9	0.4	v	Δ
302	16	48	19.3	96	13	14.92	*Delonix regia (Bojer ex Hook.) Raf.*	6.7	0.3	v	Δ
303	16	48	19.29	96	13	14.9	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.8	0.2	c	Δ
304	16	48	19.42	96	13	14.72	*Delonix regia (Bojer ex Hook.) Raf.*	6.7	0.2	v	Δ
305	16	48	19.4	96	13	14.73	*Delonix regia (Bojer ex Hook.) Raf.*	7.1	0.4	o	Δ
306	16	48	23.32	96	13	9.7	*Samanea saman (Jacq.) Merr.*	6.4	0.6	v	Δ
307	16	48	23.05	96	13	10.13	*Delonix regia (Bojer ex Hook.) Raf.*	5.9	0.4	v	Δ
308	16	48	22.77	96	13	10.65	*Eucalyptus camaldulensis*	6.2	0.2	w	Δ
309	16	48	22.79	96	13	10.69	*Swietenia macrophylla King*	5.9	0.2	c	Δ
310	16	48	22.51	96	13	11.02	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.3	v	Δ
311	16	48	22.37	96	13	11.18	*Terminalia catappa*	6.2	0.2	p	Δ
312	16	48	22.06	96	13	11.53	*Ficus religiosa L.*	10.1	0.4	v	Δ
313	16	48	22.17	96	13	11.6	*Acacia auriculiformis A. Cunn.*	6.2	0.2	v	Δ
314	16	48	22.08	96	13	11.59	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.3	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
315	16	48	21.77	96	13	12.04	*Eucalyptus camaldulensis*	7.8	0.3	w	Δ
316	16	48	21.82	96	13	12.07	*Swietenia macrophylla King*	5.7	0.3	c	Δ
317	16	48	21.69	96	13	12.11	*Delonix regia (Bojer ex Hook.) Raf.*	5.7	0.2	v	Δ
318	16	48	21.68	96	13	12.09	*Acacia auriculiformis A. Cunn.*	5.7	0.3	v	Δ
319	16	48	22.66	96	13	12.08	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.6	0.2	c	Δ
320	16	48	21.08	96	13	12.79	*Swietenia macrophylla King*	6.1	0.3	c	Δ
321	16	48	21.07	96	13	12.86	*Delonix regia (Bojer ex Hook.) Raf.*	5.2	0.3	v	Δ
322	16	48	20.67	96	13	13.32	*Delonix regia (Bojer ex Hook.) Raf.*	7.7	0.3	v	Δ
323	16	48	20.6	96	13	13.41	*Mimusops elengi L.*	7.4	0.2	r	Δ
324	16	48	20.63	96	13	12.72	*Eucalyptus camaldulensis*	7.7	0.4	w	Δ
325	16	48	20.63	96	13	12.72	*Eucalyptus camaldulensis*	7.7	0.3	w	Δ

(4) Area No. 4 (Candidate Site for Temporary Construction Yard) in Thaketa Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	47	59.5	96	13	28.77	*Samanea saman (Jacq.) Merr.*	9.3	1.1	v	◦
2	16	47	59.55	96	13	28.45	*Erythrina sp.*	8.1	0.3	r	Δ
3	16	47	59.62	96	13	28.51	*Erythrina sp.*	7.5	0.3	v	Δ
4	16	47	59.83	96	13	28.4	*Erythrina sp.*	4.4	0.3	v	Δ
5	16	48	0.14	96	13	28.35	*Erythrina sp.*	4.6	0.3	v	Δ
6	16	48	0.04	96	13	28.15	*Erythrina sp.*	4.2	0.4	v	Δ
7	16	47	59.72	96	13	27.77	*Ficus benghalensis L.*	6.1	1.3	r	◦
8	16	48	0.07	96	13	27.59	*Mimusops elengi L.*	3	0.2	r	Δ
9	16	48	1	96	13	27.92	*Erythrina sp.*	6.1	0.2	r	Δ
10	16	48	1.01	96	13	27.91	*Erythrina sp.*	6.1	0.2	r	Δ
11	16	48	1.05	96	13	28.05	*Erythrina sp.*	6.1	0.4	v	Δ
12	16	48	1.1	96	13	27.78	*Erythrina sp.*	7.2	0.8	v	◦
13	16	48	1.03	96	13	28.18	*Erythrina sp.*	6.2	0.4	v	Δ
14	16	48	1.2	96	13	28.18	*Erythrina sp.*	6.2	0.3	v	Δ
15	16	48	1.42	96	13	28.42	*Erythrina sp.*	6.3	0.4	v	Δ
16	16	48	1.39	96	13	27.76	*Erythrina sp.*	6.3	0.3	r	Δ
17	16	48	1.42	96	13	27.14	*Erythrina sp.*	6.3	0.3	v	Δ
18	16	48	1.6	96	13	27.24	*Ziziphus jujuba Lam.*	4.1	0.1	r	Δ
19	16	48	1.77	96	13	27.28	*Pterocarpus indicus Willd.*	7.1	0.3	v	Δ
20	16	48	2.54	96	13	27.25	*Samanea saman (Jacq.) Merr.*	9.4	0.9	v	Δ
21	16	48	2.39	96	13	27.64	*Samanea saman (Jacq.) Merr.*	6.1	0.3	v	Δ
22	16	48	2.26	96	13	27.67	*Cocos nucifera L.*	9.4	0.4	up/palm	Δ
23	16	48	2.85	96	13	27.76	*Cocos nucifera L.*	10.2	0.3	up/palm	Δ
24	16	48	2.94	96	13	27.98	*Ficus religiosa L.*	9.6	0.7	v	Δ
25	16	48	2.94	96	13	27.98	*Ficus religiosa L.*	9.6	0.7	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
26	16	48	2.94	96	13	27.98	*Ficus religiosa L.*	9.6	0.7	v	Δ
27	16	48	3.18	96	13	27.84	*Cocos nucifera L.*	9.7	0.3	up/palm	Δ
28	16	48	3.9	96	13	27.6	*Samanea saman (Jacq.) Merr.*	9.7	0.4	v	Δ
29	16	48	3.71	96	13	27.87	*Cocos nucifera L.*	9.9	0.3	up/palm	Δ
30	16	48	3.71	96	13	27.87	*Terminalia catappa*	9.7	0.2	p	Δ
31	16	48	3.92	96	13	28.58	*Samanea saman (Jacq.) Merr.*	6.2	0.5	v	Δ
32	16	48	3.51	96	13	30.46	*Moringa oleifera Lam.*	4.6	0.2	v	Δ
33	16	48	3.53	96	13	30.48	*Samanea saman (Jacq.) Merr.*	4.8	0.3	v	Δ
34	16	48	3.88	96	13	30.68	*Tamarindus indica L.*	6.2	0.2	v	Δ
35	16	48	3.84	96	13	30.72	*Samanea saman (Jacq.) Merr.*	6.2	0.3	v	Δ
36	16	48	3.92	96	13	30.89	*Samanea saman (Jacq.) Merr.*	9.1	0.4	v	Δ
37	16	48	3.95	96	13	30.84	*Terminalia catappa*	8.9	0.2	p	Δ
38	16	48	3.99	96	13	30.81	*Samanea saman (Jacq.) Merr.*	6.1	0.3	v	Δ
39	16	48	3.47	96	13	31.07	*Samanea saman (Jacq.) Merr.*	10.3	1.0	v	Δ
40	16	48	3.41	96	13	31.75	*Swietenia macrophylla King*	6.2	0.3	c	Δ
41	16	48	3.14	96	13	31.72	*Acacia auriculiformis A. Cunn.*	9.8	0.4	v	Δ
42	16	48	3.08	96	13	31.62	*Swietenia macrophylla King*	6.2	0.3	c	Δ
43	16	48	2.79	96	13	31.58	*Swietenia macrophylla King*	9.7	0.4	c	Δ
44	16	48	2.91	96	13	31.61	*Swietenia macrophylla King*	6.1	0.1	c	Δ
45	16	48	2.95	96	13	31.7	*Lagerstroemia speciosa (L.) Pers.*	6.2	0.1	v	Δ
46	16	48	2.88	96	13	31.69	*Swietenia macrophylla King*	6.2	0.1	c	Δ
47	16	48	2.9	96	13	31.55	*Swietenia macrophylla King*	8.3	0.4	c	Δ
48	16	48	2.67	96	13	31.37	*Lagerstroemia speciosa (L.) Pers.*	6.1	0.2	v	Δ
49	16	48	2.48	96	13	31.4	*Lagerstroemia speciosa (L.) Pers.*	3.1	0.2	v	Δ
50	16	48	2.3	96	13	31.47	*Swietenia macrophylla King*	7.1	0.4	c	Δ
51	16	48	2.35	96	13	31.31	*Lagerstroemia speciosa (L.) Pers.*	3.2	0.2	v	Δ
52	16	48	2.45	96	13	31.13	*Swietenia macrophylla King*	6.1	0.3	c	Δ
53	16	48	2.09	96	13	31.31	*Swietenia macrophylla King*	6.1	0.4	c	Δ
54	16	48	1.91	96	13	31.18	*Swietenia macrophylla King*	6.3	0.3	c	Δ
55	16	48	1.74	96	13	31.13	*Acacia auriculiformis A. Cunn.*	6.7	0.4	v	Δ
56	16	48	1.68	96	13	30.95	*Swietenia macrophylla King*	4.8	0.3	c	Δ
57	16	48	1.54	96	13	30.78	*Acacia auriculiformis A. Cunn.*	4.4	0.4	v	Δ
58	16	48	1.45	96	13	30.88	*Swietenia macrophylla King*	6.1	0.3	c	Δ
59	16	48	1.45	96	13	30.85	*Lagerstroemia speciosa (L.) Pers.*	4.8	0.2	v	Δ
60	16	48	3.28	96	13	29.21	*Ceiba pentandra (L.) Gaertn.*	7.4	0.4	p	Δ
61	16	48	3	96	13	29.42	*Streblus asper Lour.*	9.1	0.4	r	Δ
62	16	48	3.09	96	13	29.6	*Samanea saman (Jacq.) Merr.*	9.4	0.6	v	Δ
63	16	48	3.14	96	13	29.73	*Samanea saman (Jacq.) Merr.*	9.4	0.5	v	Δ
64	16	48	3.2	96	13	29.66	*Cocos nucifera L.*	9.4	0.3	up/palm	Δ
65	16	48	3.19	96	13	29.24	*Mangifera indica L.*	6.2	0.3	r	Δ
66	16	48	2.77	96	13	29.25	*Ceiba pentandra (L.) Gaertn.*	8.1	0.3	p	Δ
67	16	48	2.68	96	13	29.6	*Cocos nucifera L.*	9.8	0.4	up/palm	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
68	16	48	2.64	96	13	29.83	*Ficus benghalensis L.*	10.2	1.3	v	Δ
69	16	48	2.47	96	13	29.42	*Cocos nucifera L.*	9.1	0.1	up/palm	Δ
70	16	48	1.92	96	13	28.96	*Ficus glomerata Roxb.*	6.1	0.2	v	Δ
71	16	48	1.97	96	13	28.54	*Cocos nucifera L.*	8.1	0.3	up/palm	Δ
72	16	48	2.01	96	13	28.51	*Ceiba pentandra (L.) Gaertn.*	8.2	0.3	p	Δ
73	16	48	2.22	96	13	28.59	*Mangifera indica L.*	7.3	0.3	r	Δ
74	16	48	2.01	96	13	28.29	*Samanea saman (Jacq.) Merr.*	9.2	0.7	v	Δ
75	16	48	1.78	96	13	28.46	*Samanea saman (Jacq.) Merr.*	9.2	0.4	v	Δ
76	16	48	3.02	96	13	28.82	*Nauclea orientalis L.*	8.3	0.2	v	Δ
77	16	48	3.71	96	13	26.56	*Samanea saman (Jacq.) Merr.*	12.2	1.1	r	◦
78	16	48	3.84	96	13	26.72	*Terminalia catappa*	8.4	0.2	p	Δ
79	16	48	3.84	96	13	26.72	*Terminalia catappa*	8.4	0.1	o	Δ
80	16	48	3.84	96	13	26.72	*Terminalia catappa*	8.4	0.1	p	Δ
81	16	48	3.56	96	13	26.68	*Mangifera indica L.*	6.5	0.2	r	Δ
82	16	48	0.34	96	13	29.6	*Swietenia macrophylla King*	6.9	0.4	c	Δ
83	16	48	0.2	96	13	29.44	*Swietenia macrophylla King*	7.1	0.4	c	Δ
84	16	48	0.09	96	13	29.36	*Swietenia macrophylla King*	6.1	0.3	c	Δ
85	16	48	2.21	96	13	26.7	*Casurina equisetifolia Forst.*	6.1	0.5	p	Δ
86	16	48	3.76	96	13	27.58	*Syzygiumcumini (L.) Skeels*	7.4	0.2	r	Δ
87	16	48	3.3	96	13	30.84	*Termanalia catappa*	5.8	0.1	r	Δ
88	16	48	3.18	96	13	30.96	*Pithecellobium dulce (Roxb.) Benth.*	7.8	0.4	r	Δ
89	16	48	0.01	96	13	29.28	*Swietenia macrophylla King*	7.4	0.4	c	Δ
90	16	48	0.06	96	13	29.31	*Swietenia macrophylla King*	6.2	0.3	c	Δ

(5) Area No. 5 (Approach Road, Bridge and Temporary Construction Yard) in Thaketa Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	48	1.26	96	13	31.55	*Lagerstroemia speciosa (L.) Pers.*	4.3	0.2	v	Δ
2	16	48	1.29	96	13	31.7	*Lagerstroemia speciosa (L.) Pers.*	4.4	0.1	v	Δ
3	16	48	1.49	96	13	31.78	*Lagerstroemia speciosa (L.) Pers.*	4.3	0.2	v	Δ
4	16	48	1.43	96	13	31.74	*Swietenia macrophylla King*	6.1	0.4	c	Δ
5	16	48	1.54	96	13	31.77	*Swietenia macrophylla King*	4.4	0.3	c	Δ
6	16	48	1.55	96	13	31.85	*Swietenia macrophylla King*	4.4	0.2	c	Δ
7	16	48	1.55	96	13	31.9	*Swietenia macrophylla King*	4.3	0.3	c	Δ
8	16	48	1.37	96	13	31.89	*Lagerstroemia speciosa (L.) Pers.*	4.4	0.2	o	Δ
9	16	48	1.54	96	13	31.91	*Lagerstroemia speciosa (L.) Pers.*	4.3	0.2	v	Δ
10	16	48	1.53	96	13	31.92	*Lagerstroemia speciosa (L.) Pers.*	3.5	0.1	v	Δ
11	16	48	1.7	96	13	32.04	*Lagerstroemia speciosa (L.) Pers.*	4.4	0.2	o	Δ
12	16	48	1.71	96	13	32.02	*Lagerstroemia speciosa (L.) Pers.*	4.5	0.2	o	Δ
13	16	48	1.72	96	13	32	*Lagerstroemia speciosa (L.) Pers.*	4.3	0.2	v	Δ
14	16	48	1.58	96	13	32.08	*Lagerstroemia speciosa (L.) Pers.*	4.5	0.2	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
15	16	48	1.87	96	13	32.31	*Lagerstroemia speciosa (L.) Pers.*	4.3	0.2	v	Δ
16	16	48	1.82	96	13	32.42	*Lagerstroemia speciosa (L.) Pers.*	3.2	0.1	r	Δ
17	16	48	1.82	96	13	32.42	*Lagerstroemia speciosa (L.) Pers.*	3.2	0.1	v	Δ
18	16	48	2	96	13	32.24	*Samanea saman (Jacq.) Merr.*	6.2	0.3	v	Δ
19	16	48	1.98	96	13	32.32	*Samanea saman (Jacq.) Merr.*	5.8	0.3	v	Δ
20	16	48	1.84	96	13	32.61	*Lagerstroemia speciosa (L.) Pers.*	6.1	0.2	v	Δ
21	16	48	1.34	96	13	32	*Samanea saman (Jacq.) Merr.*	6.1	0.3	v	Δ
22	16	48	1.17	96	13	33.04	*Cocos nucifera L.*	5.7	0.3	up/palm	Δ
23	16	48	1.1	96	13	32.99	*Mangifera indica L.*	6.1	0.3	r	Δ
24	16	48	1.06	96	13	33.99	*Pterocarpus indicus Willd.*	4.5	0.2	v	Δ
25	16	48	0.94	96	13	33.12	*Casuarina equisetifolia Forst.*	9.8	0.6	p	◦
26	16	48	0.86	96	13	33.37	*Casuarina equisetifolia Forst.*	9.9	0.7	p	◦
27	16	48	0.66	96	13	33.15	*Pterocarpus indicus Willd.*	7.1	0.2	v	Δ
28	16	48	0.77	96	13	33.19	*Terminalia catappa*	9.8	0.4	p	Δ
29	16	48	0.8	96	13	33.27	*Samanea saman (Jacq.) Merr.*	7.3	0.3	r	Δ
30	16	48	0.41	96	13	33.46	*Samanea saman (Jacq.) Merr.*	9.5	1.2	v	◦
31	16	48	0.45	96	13	33.46	*Mangifera indica L.*	5.9	0.2	r	Δ
32	16	47	59.99	96	13	33.98	*Borassus flabellifer L.*	2.2	0.3	palm	Δ
33	16	47	59.91	96	13	34.12	*Samanea saman (Jacq.) Merr.*	9.1	0.4	v	◦
34	16	47	59.38	96	13	34.11	*Samanea saman (Jacq.) Merr.*	9.3	0.9	v	◦
35	16	47	59.44	96	13	34.6	*Samanea saman (Jacq.) Merr.*	5.9	0.1	v	Δ
36	16	47	59.4	96	13	34.51	*Moringa oleifera Lam.*	6.1	0.3	v	Δ
37	16	47	59.46	96	13	34.6	*Pithecellobium dulce (Roxb) Benth.*	6.2	0.2	r	Δ
38	16	47	59.4	96	13	35.05	*Moringa oleifera Lam.*	6.2	0.3	v	Δ
39	16	47	59.16	96	13	35.15	*Acacia auriculiformis A. Cunn.*	9.2	0.3	v	Δ
40	16	47	59.03	96	13	35.36	*Acacia auriculiformis A. Cunn.*	9.3	0.5	v	Δ
41	16	47	59.04	96	13	35.44	*Acacia auriculiformis A. Cunn.*	7.4	0.2	v	Δ
42	16	47	58.88	96	13	35.52	*Terminalia catappa*	9.1	0.3	p	Δ
43	16	47	58.73	96	13	35.94	*Acacia auriculiformis A. Cunn.*	9.4	0.3	v	Δ
44	16	47	59.62	96	13	37.18	*Samanea saman (Jacq.) Merr.*	5.2	0.3	v	Δ
45	16	47	59.69	96	13	37.17	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.2	0.1	c	Δ
46	16	48	1.04	96	13	31.32	*Swietenia macrophylla King*	5.4	0.3	c	Δ
47	16	48	0.99	96	13	31.36	*Lagerstroemia speciosa (L.) Pers.*	5.5	0.2	v	Δ
48	16	48	0.99	96	13	31.36	*Lagerstroemia speciosa (L.) Pers.*	5.5	0.1	o	Δ
49	16	48	0.95	96	13	31.29	*Swietenia macrophylla King*	6.6	0.3	c	Δ
50	16	48	0.95	96	13	31.3	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.5	0.3	c	Δ
51	16	48	0.35	96	13	31.46	*Mangifera indica L.*	5.4	0.3	r	Δ
52	16	48	56.13	96	13	34.75	*Acacia auriculiformis A. Cunn.*	8.7	0.6	v	◦
53	16	48	56.13	96	13	34.75	*Acacia auriculiformis A. Cunn.*	8.7	0.4	v	◦
54	16	48	55.44	96	13	35.26	*Acacia auriculiformis A. Cunn.*	8.7	0.7	v	◦
55	16	48	54.72	96	13	35.45	*Acacia auriculiformis A. Cunn.*	6.8	0.6	r	◦
56	16	48	53.98	96	13	37.6	*Ficus religiosa L.*	12.2	1.3	v	◦

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
57	16	48	53.96	96	13	37.57	*Ficus religiosa L.*	14.2	1.3	v	◦
58	16	47	52.71	96	13	36.52	*Terminalia catappa*	14.2	0.3	r	Δ
59	16	47	52.77	96	13	36.46	*Terminalia catappa*	14.2	0.4	p	◦
60	16	47	50.57	96	13	37.81	*Delonix regia (Bojer ex Hook.) Raf.*	6.9	0.3	v	Δ
61	16	47	50.33	96	13	37.91	*Bombax ceiba L.*	12.4	0.5	v	◦
62	16	48	55.44	96	13	35.26	*Acacia auriculiformis A. Cunn.*	8.7	0.6	v	Δ
63	16	47	50.37	96	13	37.91	*Casuarina equisetifolia Forst.*	24.2	0.4	p	Δ
64	16	47	46.15	96	13	40.92	*Sonneratia caseolaris (L.) Engl.*	7.9	0.3	v	Δ
65	16	47	46.2	96	13	41.04	*Sonneratia caseolaris (L.) Engl.*	8.2	0.3	v	Δ
66	16	47	46.54	96	13	41.31	*Sonneratia caseolaris (L.) Engl.*	8.2	0.2	v	Δ
67	16	47	46.82	96	13	41.73	*Sonneratia caseolaris (L.) Engl.*	7.4	0.2	v	Δ
68	16	47	47.43	96	13	42.34	*Sonneratia caseolaris (L.) Engl.*	6.4	0.4	v	◦
69	16	47	49.8	96	13	42.32	*Samanea saman (Jacq.) Merr.*	10.5	0.6	v	◦
70	16	47	50.75	96	13	42.75	*Acacia auriculiformis A. Cunn.*	9.5	0.6	v	Δ
71	16	47	51.65	96	13	42.54	*Acacia auriculiformis A. Cunn.*	7.9	0.3	v	Δ
72	16	47	52.38	96	13	41.9	*Acacia auriculiformis A. Cunn.*	6.4	0.6	r	◦
73	16	47	54.42	96	13	40.08	*Mangifera indica L.*	5.9	0.3	r	Δ
74	16	47	54.46	96	13	40.02	*Bombax ceiba L.*	7.2	0.2	o	Δ
75	16	47	54.47	96	13	40.09	*Delonix regia (Bojer ex Hook.) Raf.*	6.3	0.1	v	Δ
76	16	47	55.66	96	13	39.06	*Samanea saman (Jacq.) Merr.*	6.7	0.6	v	◦
77	16	47	50.55	96	13	39.35	*Ziziphus jujuba Lam.*	6.7	0.2	o	Δ
78	16	47	55.72	96	13	40.13	*Acacia auriculiformis A. Cunn.*	5.2	0.2	r	Δ
79	16	47	55.75	96	13	40.13	*Acacia auriculiformis A. Cunn.*	5.2	0.3	r	Δ
80	16	47	56.47	96	13	39.27	*Acacia auriculiformis A. Cunn.*	5.2	0.3	v	Δ

(6) Area No. 6 (Candidate Site for Temporary Construction Yard) in Thaketa Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	47	54.97	96	13	42.44	*Lannea coromandelica (Houtt.) Merr.*	8.2	0.2	r	Δ
2	16	47	54.52	96	13	42.2	*Acacia auriculiformis A. Cunn.*	10.4	0.5	v	◦
3	16	47	54.63	96	13	42.15	*Acacia auriculiformis A. Cunn.*	10.2	0.5	v	◦
4	16	47	54.37	96	13	42.28	*Acacia auriculiformis A. Cunn.*	10.4	0.4	v	Δ
5	16	48	54.15	96	13	42.45	*Acacia auriculiformis A. Cunn.*	10.7	0.7	r	◦
6	16	48	54.02	96	13	43.13	*Samanea saman (Jacq.) Merr.*	7.9	1.1	v	◦
7	16	47	53.95	96	13	43.18	*Leucaena leucocephala (Lam.) De Wit*	4.2	0.3	c	x
8	16	48	53.9	96	13	43.38	*Albizia procera (Roxb.) Benth.*	12.2	0.4	v	Δ
9	16	48	53.86	96	13	43.41	*Albizia procera (Roxb.) Benth.*	9.2	0.3	v	Δ
10	16	48	53.85	96	13	43.38	*Albizia procera (Roxb.) Benth.*	11.9	0.4	v	Δ
11	16	48	53.68	96	13	43.14	*Acacia auriculiformis A. Cunn.*	11.4	0.6	r	Δ
12	16	48	53.67	96	13	43.2	*Acacia auriculiformis A. Cunn.*	9.8	0.4	r	Δ
13	16	48	53.36	96	13	43.52	*Albizia procera (Roxb.) Benth.*	7.1	0.2	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
14	16	48	53.37	96	13	43.52	*Albizia procera (Roxb.) Benth.*	6.1	0.2	v	Δ
15	16	48	53.39	96	13	43.52	*Samanea saman (Jacq.) Merr.*	6.3	0.4	v	Δ
16	16	48	52.78	96	13	43.51	*Acacia auriculiformis A. Cunn.*	11.7	0.5	v	◦
17	16	48	52.94	96	13	43.52	*Cocos nucifera L.*	10.6	0.1	up/palm	Δ
18	16	47	56.28	96	13	45.91	*Samanea saman (Jacq.) Merr.*	7.5	0.4	v	Δ
19	16	47	56.23	96	13	45.43	*Samanea saman (Jacq.) Merr.*	6.2	0.6	v	Δ
20	16	47	55.82	96	13	45.11	*Samanea saman (Jacq.) Merr.*	7.5	0.7	v	Δ
21	16	47	55.95	96	13	45.16	*Sonneratia caseolaris (L.) Engl.*	10.9	0.4	v	Δ
22	16	47	55.56	96	13	46.41	*Sonneratia caseolaris (L.) Engl.*	9.7	0.7	r	Δ
23	16	47	55.64	96	13	46.47	*Sonneratia caseolaris (L.) Engl.*	8.7	0.4	r	Δ
24	16	47	57.25	96	13	44.26	*Sonneratia caseolaris (L.) Engl.*	10.2	0.4	v	Δ
25	16	47	55.19	96	13	46.77	*Sonneratia caseolaris (L.) Engl.*	9.8	0.4	v	Δ
26	16	47	55.19	96	13	46.75	*Sonneratia caseolaris (L.) Engl.*	6.9	0.3	v	Δ
27	16	47	57.29	96	13	44.26	*Acacia auriculiformis A. Cunn.*	10.6	0.5	r	Δ
28	16	47	57.39	96	13	44.27	*Acacia auriculiformis A. Cunn.*	10.4	0.4	r	Δ
29	16	47	56.93	96	13	44.46	*Acacia auriculiformis A. Cunn.*	11.2	0.4	r	Δ
30	16	47	56.93	96	13	44.46	*Acacia auriculiformis A. Cunn.*	11.2	0.3	r	Δ
31	16	47	55.45	96	13	47.08	*Sonneratia caseolaris (L.) Engl.*	8.5	0.3	v	Δ
32	16	47	55.41	96	13	47.07	*Sonneratia caseolaris (L.) Engl.*	9.6	0.7	v	Δ
33	16	47	54.91	96	13	47.66	*Sonneratia caseolaris (L.) Engl.*	12.3	0.7	r	Δ
34	16	47	54.91	96	13	47.66	*Sonneratia caseolaris (L.) Engl.*	12.3	0.3	v	Δ
35	16	47	55.65	96	13	47.56	*Ziziphus jujuba Lam.*	6.1	0.2	o	Δ
36	16	47	55.36	96	13	47.78	*Terminalia catappa*	9.1	0.2	p	Δ
37	16	47	50.87	96	13	44.15	*Leucaena leucocephala (Lam.) De Wit*	11.2	0.1	c	Δ
38	16	47	50.72	96	13	44.26	*Leucaena leucocephala (Lam.) De Wit*	9.8	0.1	c	Δ
39	16	47	50.65	96	13	44.3	*Ficus glomerata Roxb.*	9.8	0.2	v	Δ
40	16	47	50.47	96	13	44.55	*Acacia auriculiformis A. Cunn.*	7.8	0.1	v	Δ
41	16	47	52.19	96	13	43.26	*Ficus religiosa L.*	1.32	0.4	v	Δ
42	16	47	53.41	96	13	45.04	*Sonneratia caseolaris (L.) Engl.*	6.2	0.4	r	Δ
43	16	47	52.98	96	13	45.01	*Sonneratia caseolaris (L.) Engl.*	10.3	0.8	v	Δ
44	16	47	52.92	96	13	44.85	*Sonneratia caseolaris (L.) Engl.*	10.2	0.6	v	Δ
45	16	47	52.08	96	13	45.07	*Sonneratia caseolaris (L.) Engl.*	6.7	0.4	v	Δ
46	16	47	51.72	96	13	45.7	*Sonneratia caseolaris (L.) Engl.*	6.3	0.4	v	Δ
47	16	47	51.55	96	13	45.37	*Sonneratia caseolaris (L.) Engl.*	9.2	0.6	v	Δ
48	16	47	51.22	96	13	45.73	*Sonneratia caseolaris (L.) Engl.*	10.9	0.7	v	Δ
49	16	47	50.47	96	13	45.65	*Sonneratia caseolaris (L.) Engl.*	10.7	0.7	r	Δ
50	16	47	49.33	96	13	44.93	*Sonneratia caseolaris (L.) Engl.*	11.2	0.4	r	Δ
51	16	47	49.54	96	13	45.43	*Sonneratia caseolaris (L.) Engl.*	11.3	0.5	r	Δ
52	16	47	49.46	96	13	44.93	*Sonneratia caseolaris (L.) Engl.*	10.9	0.3	r	Δ
53	16	47	49.33	96	13	45.56	*Sonneratia caseolaris (L.) Engl.*	10.1	0.7	r	Δ
54	16	47	50.56	96	13	45.65	*Sonneratia caseolaris (L.) Engl.*	6.3	0.1	v	Δ
55	16	47	49.8	96	13	46.55	*Sonneratia caseolaris (L.) Engl.*	10.4	0.3	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
56	16	47	49.16	96	13	47.1	*Sonneratia caseolaris (L.) Engl.*	6.7	0.3	v	Δ
57	16	47	49.18	96	13	46.41	*Sonneratia caseolaris (L.) Engl.*	6.5	0.1	v	Δ
58	16	47	52.86	96	13	45.54	*Lannea coromandelica (Houtt.) Merr.*	10.6	0.5	r	Δ
59	16	47	49.44	96	13	45.54	*Sonneratia caseolaris (L.) Engl.*	6.5	0.1	v	Δ
60	16	47	49.05	96	13	46.72	*Sonneratia caseolaris (L.) Engl.*	6.4	0.2	v	Δ
61	16	47	49.14	96	13	46.52	*Sonneratia caseolaris (L.) Engl.*	7.1	0.4	r	Δ

(7) Area No. 7 (Candidate Site for Temporary Construction Yard) in Thaketa Township

Sr No	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	47	48.49	96	13	46.26	*Sonneratia caseolaris (L.) Engl.*	6.7	0.1	v	Δ
2	16	47	48.43	96	13	46.3	*Sonneratia caseolaris (L.) Engl.*	3	0.1	o	Δ
3	16	47	48.48	96	13	46.36	*Sonneratia caseolaris (L.) Engl.*	10.6	0.3	r	Δ
4	16	47	48.73	96	13	46.31	*Sonneratia caseolaris (L.) Engl.*	4.3	0.1	v	Δ
5	16	47	48.83	96	13	46.43	*Sonneratia caseolaris (L.) Engl.*	5	0.1	v	Δ
6	16	47	48.78	96	13	46.61	*Sonneratia caseolaris (L.) Engl.*	10.4	0.3	r	Δ
7	16	47	48.82	96	13	46.26	*Sonneratia caseolaris (L.) Engl.*	6.1	0.1	v	Δ
8	16	47	48.91	96	13	46.37	*Sonneratia caseolaris (L.) Engl.*	7.2	0.2	v	Δ
9	16	47	49.11	96	13	46.35	*Sonneratia caseolaris (L.) Engl.*	11.8	0.3	r	Δ
10	16	47	48.98	96	13	46.23	*Sonneratia caseolaris (L.) Engl.*	11.6	0.4	r	Δ
11	16	47	48.82	96	13	46.61	*Sonneratia caseolaris (L.) Engl.*	9.1	0.3	o	Δ
12	16	47	48.76	96	13	46.78	*Sonneratia caseolaris (L.) Engl.*	6	0.2	v	Δ
13	16	47	48.95	96	13	46.64	*Sonneratia caseolaris (L.) Engl.*	7.2	0.2	v	Δ
14	16	47	48.95	96	13	46.84	*Sonneratia caseolaris (L.) Engl.*	6.2	0.2	v	Δ
15	16	47	49.11	96	13	46.85	*Sonneratia caseolaris (L.) Engl.*	9.8	0.2	r	Δ
16	16	47	49.04	96	13	46.92	*Sonneratia caseolaris (L.) Engl.*	4.2	0.1	v	Δ
17	16	47	49.01	96	13	47.01	*Sonneratia caseolaris (L.) Engl.*	6.3	0.2	v	Δ
18	16	47	48.75	96	13	47.25	*Sonneratia caseolaris (L.) Engl.*	5.1	0.3	c	Δ
19	16	47	49.44	96	13	47.69	*Sonneratia caseolaris (L.) Engl.*	7.3	0.4	v	Δ
20	16	47	49.46	96	13	47.71	*Sonneratia caseolaris (L.) Engl.*	7.4	0.1	r	Δ
21	16	47	48.95	96	13	46.64	*Sonneratia caseolaris (L.) Engl.*	7.2	0.2	v	Δ
22	16	47	49.11	96	13	46.85	*Sonneratia caseolaris (L.) Engl.*	9.8	0.2	v	Δ
23	16	47	48.75	96	13	47.25	*Sonneratia caseolaris (L.) Engl.*	5.1	0.2	v	Δ
24	16	47	49.44	96	13	47.69	*Sonneratia caseolaris (L.) Engl.*	7.3	0.2	v	Δ
25	16	47	49.47	96	13	47.68	*Sonneratia caseolaris (L.) Engl.*	7.6	0.2	v	Δ
26	16	47	49.59	96	13	47.76	*Sonneratia caseolaris (L.) Engl.*	6.5	0.4	v	Δ
27	16	47	49.67	96	13	47.78	*Sonneratia caseolaris (L.) Engl.*	7.4	0.2	r	Δ
28	16	47	49.63	96	13	47.62	*Sonneratia caseolaris (L.) Engl.*	5.4	0.1	r	Δ
29	16	47	49.32	96	13	47.49	*Sonneratia caseolaris (L.) Engl.*	4.4	0.2	o	Δ
30	16	47	49.32	96	13	47.33	*Sonneratia caseolaris (L.) Engl.*	7.1	0.2	v	Δ
31	16	47	49.23	96	13	47.27	*Sonneratia caseolaris (L.) Engl.*	7.4	0.3	v	Δ
32	16	47	49.33	96	13	47.05	*Sonneratia caseolaris (L.) Engl.*	7.1	0.2	v	Δ

Sr No	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
33	16	47	49.33	96	13	47.05	*Sonneratia caseolaris (L.) Engl.*	7.1	0.2	r	Δ
34	16	47	49.33	96	13	47.05	*Sonneratia caseolaris (L.) Engl.*	7.1	0.1	v	Δ
35	16	47	49.23	96	13	47.27	*Sonneratia caseolaris (L.) Engl.*	7.4	0.2	v	Δ
36	16	47	46.05	96	13	47.28	*Sonneratia caseolaris (L.) Engl.*	4.1	0.2	o	Δ
37	16	47	49.24	96	13	46.76	*Sonneratia caseolaris (L.) Engl.*	4.5	0.2	v	Δ
38	16	47	49.28	96	13	46.78	*Sonneratia caseolaris (L.) Engl.*	5.2	0.2	v	Δ
39	16	47	53.21	96	13	44.28	*Sonneratia caseolaris (L.) Engl.*	4.3	0.2	v	Δ
40	16	47	53.21	96	13	48.36	*Sonneratia caseolaris (L.) Engl.*	4.3	0.2	v	Δ
41	16	47	63	96	13	48.02	*Sonneratia caseolaris (L.) Engl.*	4.5	0.2	v	Δ
42	16	47	78.53	96	13	73.49	*Sonneratia caseolaris (L.) Engl.*	4.6	0.1	v	Δ
43	16	47	53.21	96	13	44.28	*Sonneratia caseolaris (L.) Engl.*	4.3	0.1	v	Δ
44	16	47	53.21	96	13	43.86	*Sonneratia caseolaris (L.) Engl.*	4.3	0.1	v	Δ
45	16	47	54.43	96	13	45.11	*Sonneratia caseolaris (L.) Engl.*	9.8	0.8	r	◦
46	16	47	54.51	96	13	45.19	*Sonneratia caseolaris (L.) Engl.*	8.5	0.4	r	Δ
47	16	47	54.5	96	13	45.14	*Ficus religiosa L.*	7.1	0.1	v	Δ
48	16	47	54.16	96	13	45.13	*Sonneratia caseolaris (L.) Engl.*	4.1	0.3	v	Δ
49	16	47	54.58	96	13	45.63	*Sonneratia caseolaris (L.) Engl.*	6.1	0.2	v	Δ
50	16	47	54.55	96	13	45.65	*Samanea saman (Jacq.) Merr.*	6.8	0.2	r	Δ
51	16	48	54.95	96	13	44.61	*Sonneratia caseolaris (L.) Engl.*	5.6	0.2	v	Δ
52	16	48	54.9	96	13	44.54	*Sonneratia caseolaris (L.) Engl.*	6.7	0.2	v	Δ
53	16	48	53.84	96	13	45.04	*Sonneratia caseolaris (L.) Engl.*	4.6	0.2	v	Δ
54	16	48	54.92	96	13	44.56	*Sonneratia caseolaris (L.) Engl.*	11.1	0.3	v	Δ
55	16	48	54.93	96	13	44.58	*Sonneratia caseolaris (L.) Engl.*	8.1	0.3	v	Δ
56	16	48	54.95	96	13	44.59	*Samanea saman (Jacq.) Merr.*	6.8	0.4	o	Δ
57	16	48	58.98	96	13	51.56	*Acacia auriculiformis A. Cunn.*	9.1	0.3	v	Δ

(8) Area No. 8 (Main Carriageway, On-ramp (permanent) and Construction Yard (temporary)) in Thanlyin Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	46	48.46	96	14	20.95	*Acacia auriculiformis A. Cunn.*	8.2	0.1	v	Δ
2	16	46	48.73	96	14	20.73	*Acacia auriculiformis A. Cunn.*	8.2	0.3	r	Δ
3	16	46	48.87	96	14	20.81	*Lagerstroemia speciosa (L.)*	5.2	0.1	v	Δ
4	16	46	49.06	96	14	20.83	*Delonix regia (Bojer ex Hook.) Raf.*	8.5	0.3	v	Δ
5	16	46	49.12	96	14	20.72	*Borassus flabellifer L.*	3	0.3	palm	Δ
6	16	46	49.33	96	14	20.57	*Borassus flabellifer L.*	2	0.2	palm	Δ
7	16	46	49.46	96	14	20.47	*Acacia auriculiformis A. Cunn.*	5	0.3	o	Δ
8	16	46	49.03	96	14	20.35	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	8.3	0.3	c	Δ
9	16	46	49.46	96	14	19.95	*Cocos nucifera L.*	9.4	0.4	up/palm	Δ
10	16	46	50.1	96	14	19.58	*Samanea saman (Jacq.) Merr.*	9.2	1.0	v	Δ
11	16	46	50.08	96	14	19.31	*Samanea saman (Jacq.) Merr.*	6.5	0.4	v	Δ
12	16	46	50.84	96	14	19.89	*Acacia auriculiformis A. Cunn.*	6.2	0.3	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
13	16	46	51.5	96	14	19.62	*Pithecellobium dulce (Roxb) Benth.*	5	0.5	r	Δ
14	16	46	51.52	96	14	19.14	*Acacia auriculiformis A. Cunn.*	7.8	0.4	v	Δ
15	16	46	51.56	96	14	20.17	*Ficus rumphii Blume*	7.7	0.9	v	Δ
16	16	46	51.82	96	14	18.31	*Samanea saman (Jacq.) Merr.*	9	0.7	v	Δ
17	16	46	52.01	96	14	18.5	*Ziziphus jujuba Lam.*	5.7	0.2	r	Δ
18	16	46	51.75	96	14	18.19	*Pinus longifolia Roxb. Ex lamb.*	12.5	0.6	r	Δ
19	16	46	51.99	96	14	17.98	*Swietenia macrophylla King*	7.1	0.4	c	Δ
20	16	46	52.07	96	14	17.96	*Terminalia catappa*	7.1	0.4	p	Δ
21	16	46	51.9	96	14	18.01	*Samanea saman (Jacq.) Merr.*	6	0.2	v	Δ
22	16	46	51.22	96	14	18.56	*Pinus longifolia Roxb. Ex lamb.*	12	0.5	r	Δ
23	16	46	51.19	96	14	18.7	*Mangifera indica L.*	7.1	0.2	r	Δ
24	16	46	50.83	96	14	19.06	*Pithecellobium dulce (Roxb) Benth.*	5.7	0.2	r	Δ
25	16	46	52.48	96	14	17.85	*Samanea saman (Jacq.) Merr.*	8.1	0.3	v	Δ
26	16	46	52.92	96	14	17.92	*Acacia auriculiformis A. Cunn.*	6.1	0.2	v	Δ
27	16	46	52.9	96	14	18.15	*Albizia procera (Roxb.) Benth.*	7.2	0.3	v	Δ
28	16	46	52.99	96	14	18.04	*Samanea saman (Jacq.) Merr.*	7.1	0.3	v	Δ
29	16	46	52.9	96	14	18.2	*Samanea saman (Jacq.) Merr.*	4	0.1	v	Δ
30	16	46	53.27	96	14	18.07	*Albizia procera (Roxb.) Benth.*	4.5	0.1	v	Δ
31	16	46	53.04	96	14	17.36	*Samanea saman (Jacq.) Merr.*	4	0.1	v	Δ
32	16	46	52.87	96	14	17.96	*Albizia procera (Roxb.) Benth.*	6.5	0.2	c	Δ
33	16	46	53.33	96	14	17.11	*Albizia procera (Roxb.) Benth.*	8.2	0.2	c	Δ
34	16	46	53.52	96	14	16.92	*Samanea saman (Jacq.) Merr.*	6.3	0.2	r	Δ
35	16	46	53.68	96	14	16.67	*Albizia procera (Roxb.) Benth.*	7.4	0.2	v	Δ
36	16	46	53.63	96	14	16.65	*Albizia procera (Roxb.) Benth.*	8.3	0.2	v	Δ
37	16	46	53.7	96	14	16.53	*Albizia procera (Roxb.) Benth.*	8.3	0.2	v	Δ
38	16	46	53.58	96	14	16.34	*Sonneratia caseolaris (L.) Engl.*	9.2	0.2	v	Δ
39	16	46	53.93	96	14	16.46	*Leucaena leucocephala (Lam.) De Wit*	6	0.2	c	Δ
40	16	46	54.25	96	14	16.6	*Ficus rumphii Blume*	10.2	0.7	v	Δ
41	16	46	54.37	96	14	16.51	*Leucaena leucocephala (Lam.) De Wit*	7.2	0.2	c	x
42	16	46	54.73	96	14	16.37	*Ficus rumphii Blume*	10.4	1.1	v	Δ
43	16	46	54.53	96	14	16.11	*Samanea saman (Jacq.) Merr.*	9.5	0.3	v	Δ
44	16	46	54.33	96	14	16.17	*Samanea saman (Jacq.) Merr.*	9.4	0.3	v	Δ
45	16	46	54.91	96	14	15.86	*Samanea saman (Jacq.) Merr.*	9.5	0.7	v	Δ
46	16	46	55.04	96	14	15.96	*Samanea saman (Jacq.) Merr.*	9.3	0.5	v	Δ
47	16	46	55.22	96	14	16.26	*Lannea coromandelica (Houtt.) Merr.*	6.2	0.3	r	Δ
48	16	46	55.14	96	14	16.32	*Samanea saman (Jacq.) Merr.*	6.9	0.2	v	Δ
49	16	46	55.46	96	14	16.58	*Pithecellobium dulce (Roxb) Benth.*	10.3	0.4	r	Δ
50	16	46	55.15	96	14	16.94	*Samanea saman (Jacq.) Merr.*	9.1	0.5	v	Δ
51	16	46	55.56	96	14	16.35	*Samanea saman (Jacq.) Merr.*	9.1	0.5	v	Δ
52	16	46	55.56	96	14	16.16	*Lannea coromandelica (Houtt.) Merr.*	9	0.3	r	Δ
53	16	46	55.82	96	14	16.06	*Samanea saman (Jacq.) Merr.*	9.1	0.3	v	Δ
54	16	47	0.43	96	14	13.16	*Sonneratia caseolaris (L.) Engl.*	8.4	1.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
55	16	47	0.5	96	14	13.34	*Sonneratia caseolaris (L.) Engl.*	8.4	0.6	r	Δ
56	16	46	55.6	96	14	15.98	*Samanea saman (Jacq.) Merr.*	9.2	0.6	v	◦
57	16	46	55.89	96	14	15.7	*Samanea saman (Jacq.) Merr.*	6.5	0.3	v	Δ
58	16	46	55.98	96	14	15.99	*Samanea saman (Jacq.) Merr.*	9.1	0.4	v	Δ
59	16	46	56.08	96	14	16.2	*Pithecellobium dulce (Roxb) Benth.*	4	0.3	v	x
60	16	46	56.55	96	14	16.03	*Samanea saman (Jacq.) Merr.*	6.3	0.5	r	◦
61	16	46	56.39	96	14	16.1	*Lannea coromandelica (Houtt.) Merr.*	6.4	0.4	v	◦
62	16	46	56.82	96	14	15.66	*Albizia procera (Roxb.) Benth.*	12.2	0.3	v	Δ
63	16	46	56.75	96	14	15.73	*Albizia procera (Roxb.) Benth.*	12	0.3	v	Δ
64	16	46	57.05	96	14	15.7	*Albizia procera (Roxb.) Benth.*	12	0.3	c	Δ
65	16	46	57.02	96	14	15.7	*Albizia procera (Roxb.) Benth.*	12	0.3	c	Δ
66	16	46	57.04	96	14	15.6	*Albizia procera (Roxb.) Benth.*	12	0.3	v	Δ
67	16	46	57.06	96	14	15.61	*Albizia procera (Roxb.) Benth.*	4.1	0.3	v	x
68	16	46	57.2	96	14	15.49	*Bombax ceiba L.*	7.2	0.1	o	Δ
69	16	46	57.26	96	14	15.44	*Bombax ceiba L.*	4	0.1	o	Δ
70	16	46	57.36	96	14	15.29	*Albizia procera (Roxb.) Benth.*	6.1	0.2	v	Δ
71	16	46	57.36	96	14	15.31	*Albizia procera (Roxb.) Benth.*	6.3	0.3	v	Δ
72	16	46	57.62	96	14	15.18	*Bombax ceiba L.*	4.4	0.2	o	Δ
73	166	46	58.16	96	14	14.96	*Albizia procera (Roxb.) Benth.*	12.2	0.3	v	Δ
74	16	46	58.06	96	14	14.66	*Albizia procera (Roxb.) Benth.*	12.2	0.3	v	x
75	16	46	57.99	96	14	14.49	*Samanea saman (Jacq.) Merr.*	9.5	0.5	r	◦
76	16	46	57.96	96	14	14.47	*Albizia procera (Roxb.) Benth.*	12	0.4	r	Δ
77	16	46	57.91	96	14	14.52	*Samanea saman (Jacq.) Merr.*	9.5	0.5	v	Δ
78	16	46	58.15	96	14	14.87	*Lannea coromandelica (Houtt.) Merr.*	7.2	0.2	r	Δ
79	16	46	58.41	96	14	14.93	*Samanea saman (Jacq.) Merr.*	7.5	0.5	v	Δ
80	16	46	58.49	96	14	14.49	*Samanea saman (Jacq.) Merr.*	7.2	0.4	v	Δ
81	16	46	58.54	96	14	14.16	*Albizia procera (Roxb.) Benth.*	7.4	0.3	v	Δ
82	16	46	56.04	96	14	14.38	*Samanea saman (Jacq.) Merr.*	6.8	0.3	v	Δ
83	16	46	59.15	96	14	14.38	*Albizia procera (Roxb.) Benth.*	7	0.2	v	Δ
84	16	46	59.3	96	14	14.42	*Albizia procera (Roxb.) Benth.*	7.3	0.3	v	Δ
85	16	46	59.49	96	14	14.05	*Samanea saman (Jacq.) Merr.*	8.2	0.4	v	Δ
86	16	46	59.37	96	14	13.85	*Albizia procera (Roxb.) Benth.*	9.2	0.4	c	Δ
87	16	46	59.6	96	14	14.06	*Samanea saman (Jacq.) Merr.*	7.2	0.3	v	Δ
88	16	46	59.65	96	14	13.86	*Samanea saman (Jacq.) Merr.*	6.8	0.3	v	Δ
89	16	46	59.8	96	14	13.71	*Samanea saman (Jacq.) Merr.*	6.3	0.3	v	Δ
90	16	46	59.88	96	14	13.57	*Samanea saman (Jacq.) Merr.*	6.1	0.3	v	Δ
91	16	46	59.73	96	14	13.75	*Samanea saman (Jacq.) Merr.*	4	0.2	v	Δ
92	16	46	59.02	96	14	13.75	*Samanea saman (Jacq.) Merr.*	6.3	0.3	v	Δ
93	16	46	58.75	96	14	13.71	*Albizia procera (Roxb.) Benth.*	9.1	0.3	v	Δ
94	16	46	58.65	96	14	13.5	*Samanea saman (Jacq.) Merr.*	9	0.4	v	Δ
95	16	46	58.57	96	14	13.33	*Samanea saman (Jacq.) Merr.*	6.1	0.3	r	Δ
96	16	46	58.36	96	14	13.7	*Samanea saman (Jacq.) Merr.*	7.2	0.3	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
97	16	46	58.38	96	14	13.6	*Samanea saman (Jacq.) Merr.*	7.2	0.2	v	Δ
98	16	45	58.28	96	14	13.67	*Samanea saman (Jacq.) Merr.*	3	0.2	v	Δ
99	16	46	58.29	96	14	13.87	*Albizia procera (Roxb.) Benth.*	7.2	0.2	v	Δ
100	16	46	58.26	96	14	13.85	*Albizia procera (Roxb.) Benth.*	8.2	0.2	v	Δ
101	16	46	58.33	96	14	13.97	*Eucalyptus camaldulensis*	6.8	0.1	w	Δ
102	16	46	58.33	96	14	14.03	*Samanea saman (Jacq.) Merr.*	6.5	0.2	v	Δ
103	16	46	58.15	96	14	13.98	*Sonneratia caseolaris (L.) Engl.*	9	0.4	v	Δ
104	16	46	59.95	96	14	13.38	*Sonneratia caseolaris (L.) Engl.*	9.2	0.5	v	Δ
105	16	47	0.02	96	14	13.49	*Sonneratia caseolaris (L.) Engl.*	5	0.3	v	Δ
106	16	47	0.9	96	14	12.69	*Sonneratia caseolaris (L.) Engl.*	6.2	0.3	v	Δ
107	16	47	0.91	96	14	12.44	*Sonneratia caseolaris (L.) Engl.*	6.3	0.3	r	Δ
108	16	47	0.88	96	14	12.36	*Sonneratia caseolaris (L.) Engl.*	5.2	0.2	v	Δ
109	16	47	0.93	96	14	11.81	*Sonneratia caseolaris (L.) Engl.*	6.2	0.2	v	Δ
110	16	47	1.45	96	14	12.1	*Sonneratia caseolaris (L.) Engl.*	6.5	0.4	r	Δ
111	16	47	1.64	96	14	12.62	*Sonneratia caseolaris (L.) Engl.*	7.3	0.5	r	◦
112	14	47	1.52	96	14	12.82	*Sonneratia caseolaris (L.) Engl.*	7.2	0.3	v	Δ
113	16	47	2	96	14	12.22	*Sonneratia caseolaris (L.) Engl.*	7.3	0.4	v	Δ
114	16	47	2.16	96	14	11.53	*Sonneratia caseolaris (L.) Engl.*	7	0.1	v	Δ
115	16	47	2.63	96	14	11.66	*Sonneratia caseolaris (L.) Engl.*	6.3	0.2	v	Δ
116	16	47	2.67	96	14	11.55	*Sonneratia caseolaris (L.) Engl.*	4.5	0.3	v	Δ
117	16	47	2.54	96	14	11.68	*Sonneratia caseolaris (L.) Engl.*	7.4	0.3	v	Δ
118	16	47	2.49	96	14	11.6	*Sonneratia caseolaris (L.) Engl.*	7.4	0.2	v	Δ
119	16	46	52.16	96	14	17.42	*Terminalia catappa*	9.8	0.3	p	Δ
120	16	46	52.44	96	14	17.38	*Samanea saman (Jacq.) Merr.*	7	0.4	v	◦
121	16	46	52.14	96	14	17.6	*Ficus rumphii Blume*	7.1	0.4	v	Δ
122	16	46	52.06	96	14	17.69	*Mimusops elengi L.*	6	0.2	r	Δ
123	16	46	51.82	96	14	17.59	*Terminalia catappa*	10.2	0.3	p	Δ
124	16	46	51.68	96	14	17.6	*Acacia auriculiformis A. Cunn.*	5	0.3	v	Δ
125	16	46	51.62	96	14	17.62	*Pithecellobium dulce (Roxb) Benth.*	6	0.1	r	Δ
126	16	46	51.54	96	14	17.6	*Swietenia macrophylla King*	6.3	0.3	c	Δ
127	16	46	51.44	96	14	17.66	*Terminalia catappa*	6.7	0.2	p	Δ
128	16	46	51.12	96	14	17.7	*Ravenala madagascariensis Gmel.*	6.1	0.2	v	Δ
129	16	46	51.11	96	14	17.61	*Casuarina equisetifolia Forst.*	3.4	0.3	p	Δ
130	16	46	52.1	96	14	16.13	*Samanea saman (Jacq.) Merr.*	9.8	1.0	v	◦
131	16	46	52.26	96	14	16.43	*Diospyros discolor Willd.*	6.2	0.3	p	Δ
132	16	46	53.71	96	14	16.1	*Diospyros discolor Willd.*	5	0.4	p	Δ
133	16	46	53.04	96	14	16.01	*Diospyros discolor Willd.*	5.8	0.2	r	Δ
134	16	46	53.25	96	14	15.76	*Diospyros discolor Willd.*	5.8	0.2	p	Δ
135	16	46	53.28	96	14	15.11	*Shorea robusta*	6.7	0.3	r	Δ
136	16	46	53.29	96	14	14.99	*Terminalia catappa*	7.1	0.2	p	Δ
137	16	46	54.38	96	14	14.09	*Terminalia catappa*	7.1	1.6	p	Δ
138	16	46	53.88	96	14	14.59	*Terminalia catappa*	6.1	0.3	p	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
139	16	46	54.15	96	14	14.14	*Dendrocalamus longispathus Kurz*	5	0.0	c	Δ
140	16	46	54.38	96	14	14.09	*Terminalia catappa*	6	0.4	p	Δ
141	16	46	54.59	96	14	13.88	*Terminalia catappa*	10.5	0.4	o	Δ
142	16	46	55.71	96	14	12.92	*Terminalia catappa*	6	0.2	o	Δ
143	16	46	55.9	96	14	12.71	*Terminalia catappa*	6.9	0.3	p	Δ
144	16	46	57.26	96	14	11.56	*Pterocarpus indicus Willd.*	7.1	0.4	v	◦
145	16	46	57.48	96	14	11.29	*Bombax ceiba L.*	6.1	0.3	v	Δ
146	16	46	57.78	96	14	11.13	*Bombax ceiba L.*	4	0.3	v	Δ
147	16	46	58.04	96	14	10.77	*Bombax ceiba L.*	12.2	0.6	v	Δ
148	16	46	58.07	96	14	10.58	*Pterocarpus indicus Willd.*	10.2	0.4	v	Δ
149	16	46	58.48	96	14	10.27	*Terminalia catappa*	3	0.2	p	Δ
150	16	46	58.65	96	14	9.91	*Pterocarpus indicus Willd.*	4	0.2	v	Δ
151	16	46	57.73	96	14	12	*Albizia procera (Roxb.) Benth.*	14	0.5	v	◦
142	16	46	57.65	96	14	11.97	*Azadirachta indica A. Juss.*	4.3	0.1	o	Δ
153	16	46	57.7	96	14	12.19	*Sonneratia caseolaris (L.) Engl.*	6.2	0.2	v	Δ
154	16	47	2.81	96	14	15.66	*Sonneratia caseolaris (L.) Engl.*	6.5	0.1	v	Δ
155	16	46	57.08	96	14	12.6	*Samanea saman (Jacq.) Merr.*	4.2	0.2	v	Δ
156	16	46	57.06	96	14	12.63	*Acacia auriculiformis A. Cunn.*	9.1	0.4	v	Δ
157	16	46	56.65	96	14	12.96	*Delonix regia (Bojer ex Hook.) Raf.*	6.2	0.4	v	Δ
158	16	46	56.46	96	14	13.15	*Pithecellobium dulce (Roxb) Benth.*	7.2	0.3	r	Δ
159	16	46	56.38	96	14	13.24	*Delonix regia (Bojer ex Hook.) Raf.*	9.8	0.4	v	Δ
160	16	46	56.15	96	14	13.49	*Delonix regia (Bojer ex Hook.) Raf.*	6.8	0.4	v	Δ
161	16	46	55.74	96	14	13.72	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.4	r	Δ
162	16	46	55.5	96	14	13.97	*Albizia procera (Roxb.) Benth.*	13.2	0.4	v	Δ
163	16	46	55.37	96	14	14.22	*Albizia procera (Roxb.) Benth.*	7.5	0.2	v	Δ
164	16	46	55.14	96	14	14.35	*Albizia procera (Roxb.) Benth.*	13.3	0.4	v	Δ
165	16	46	54.92	96	14	14.49	*Albizia procera (Roxb.) Benth.*	13.3	0.4	r	Δ
166	16	46	54.77	96	14	14.62	*Albizia procera (Roxb.) Benth.*	13.3	0.5	v	◦
167	16	46	54.45	96	14	14.84	*Bauhinia purpurea L.*	6.1	0.3	v	Δ
168	16	46	54.29	96	14	14	*Albizia procera (Roxb.) Benth.*	13.3	0.4	v	◦
169	16	46	54.08	96	14	15.19	*Cocos nucifera L.*	6.2	0.3	up/palm	Δ
170	16	46	54.08	96	14	15.31	*Bauhinia purpurea L.*	6.3	0.2	r	x
171	16	46	53.99	96	14	15.43	*Albizia procera (Roxb.) Benth.*	6.5	0.2	v	Δ
172	16	46	53.81	96	14	15.48	*Bauhinia purpurea L.*	6.1	0.2	r	Δ
173	16	46	51.14	96	14	17.7	*Casuarina equisetifolia Forst.*	3.5	0.2	p	Δ
174	16	46	51.11	96	14	17.75	*Cocos nucifera L.*	6.6	0.3	up/palm	Δ
175	16	46	51.13	96	14	17.92	*Swietenia macrophylla King*	7.2	0.2	c	Δ
176	16	46	51.1	96	14	16.51	*Terminalia catappa*	6.2	0.2	p	Δ
177	16	46	50.64	96	14	17.18	*Samanea saman (Jacq.) Merr.*	6.7	0.4	v	Δ
178	16	46	50.55	96	14	17.28	*Samanea saman (Jacq.) Merr.*	6.7	0.4	v	Δ
179	16	46	51.02	96	14	17.24	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ
180	16	46	50.9	96	14	17.9	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
181	16	46	50.93	96	14	17.89	*Swietenia macrophylla King*	7.1	0.3	c	Δ
182	16	46	50.74	96	14	17.94	*Casuarina equisetifolia Forst.*	3.2	0.2	v	x
183	16	46	50.74	96	14	18.12	*Swietenia macrophylla King*	8.1	0.4	c	Δ
184	16	46	50.65	96	14	18.08	*Casuarina equisetifolia Forst.*	3.1	0.3	v	Δ
185	16	46	50.56	96	14	18.3	*Swietenia macrophylla King*	7.8	0.4	c	Δ
186	16	46	50.47	96	14	18.31	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ
187	16	46	50.37	96	14	18.46	*Swietenia macrophylla King*	7.5	0.1	c	Δ
188	16	46	50.33	96	14	18.32	*Casuarina equisetifolia Forst.*	3.4	0.4	v	Δ
189	16	46	50.08	96	14	18.53	*Casuarina equisetifolia Forst.*	3.2	0.4	v	Δ
190	16	46	49.91	96	14	18.67	*Casuarina equisetifolia Forst.*	3.2	0.2	p	Δ
191	16	46	49.98	96	14	18.78	*Acacia auriculiformis A. Cunn.*	10.1	0.3	r	Δ
192	16	46	49.74	96	14	19.07	*Acacia auriculiformis A. Cunn.*	10	0.3	r	Δ
193	16	46	49.77	96	14	18.85	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ
194	16	46	49.66	96	14	18.85	*Casuarina equisetifolia Forst.*	3.1	0.3	p	Δ
195	16	46	49.57	96	14	18	*Samanea saman (Jacq.) Merr.*	7.2	0.5	v	Δ
196	16	46	49.59	96	14	19.02	*Casuarina equisetifolia Forst.*	3.1	0.4	v	Δ
197	16	46	49.49	96	14	19.08	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ
198	16	46	49.37	96	14	19.14	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ
199	16	46	49.25	96	14	19.19	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ
200	16	46	49.44	96	14	19.16	*Swietenia macrophylla King*	3.1	0.2	c	Δ
201	16	46	49.11	96	14	19.3	*Casuarina equisetifolia Forst.*	3.2	0.4	p	Δ
202	16	47	3.08	96	14	15.3	*Sonneratia caseolaris (L.) Engl.*	7.3	0.3	v	Δ
203	16	46	48.87	96	14	19.44	*Casuarina equisetifolia Forst.*	3.2	0.3	p	Δ
204	16	46	49.09	96	14	19.51	*Swietenia macrophylla King*	7.4	0.3	c	Δ
205	16	46	48.74	96	14	19.18	*Terminalia catappa*	6.2	0.2	p	Δ
206	16	46	48.89	96	14	19.63	*Ravenala madagascariensis Gmel.*	6.3	0.2	v	Δ
207	16	46	48.72	96	14	20.04	*Terminalia catappa*	9.4	0.3	r	Δ
208	16	46	48.62	96	14	19.98	*Mangifera indica L.*	4.5	0.2	r	Δ
209	16	46	48.51	96	14	19.96	*Casuarina equisetifolia Forst.*	3.4	0.3	v	Δ
210	16	46	48.16	96	14	19.98	*Casuarina equisetifolia Forst.*	3.2	0.2	v	Δ
211	16	46	48.16	96	14	20.06	*Mimusops elengi L.*	3.3	0.3	r	Δ
212	16	46	48.07	96	14	20.22	*Casuarina equisetifolia Forst.*	3.3	0.3	v	Δ
213	16	46	47.99	96	14	20.28	*Casuarina equisetifolia Forst.*	6.4	0.3	v	Δ
214	16	46	47.96	96	14	20.42	*Mimusops elengi L.*	6	0.3	r	Δ
215	16	46	47.72	96	14	20.73	*Mimusops elengi L.*	3.2	0.2	o	Δ
216	16	46	47.43	96	14	21.02	*Mimusops elengi L.*	3.6	0.1	r	Δ
217	16	46	47.22	96	14	21.36	*Mimusops elengi L.*	3.6	0.2	r	Δ
218	16	46	47.02	96	14	21.67	*Mimusops elengi L.*	3.6	0.2	r	Δ
219	16	46	46.76	96	14	21.94	*Mimusops elengi L.*	3	0.1	o	Δ
220	16	46	46.5	96	14	22.32	*Mimusops elengi L.*	3.2	0.2	o	Δ
221	16	46	46.04	96	14	21.6	*Muntingia calabura L.*	4.1	0.2	c	Δ
222	16	46	46.49	96	14	21.23	*Delonix regia (Bojer ex Hook.) Raf.*	7.2	0.4	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
223	16	46	47.22	96	14	20.15	*Samanea saman (Jacq.) Merr.*	6.4	0.4	r	Δ
224	16	46	47.72	96	14	19.63	*Mimusops elengi L.*	6.1	0.2	r	Δ
225	16	46	48.47	96	14	19.09	*Pterocarpus indicus Willd.*	7.8	0.5	v	Δ
226	16	46	48.65	96	14	18.91	*Moringa oleifera Lam.*	4.4	0.2	v	Δ
227	16	46	47.89	96	14	22.78	*Tectona grandis L.f.*	9.8	0.3	r	Δ
228	16	46	47.87	96	14	22.69	*Tectona grandis L.f.*	9.8	0.2	r	Δ
229	16	46	47.91	96	14	22.54	*Tectona grandis L.f.*	9.4	0.3	r	Δ
230	16	46	47.9	96	14	22.51	*Tectona grandis L.f.*	9.4	0.3	r	Δ
231	16	46	47.98	96	14	22.42	*Tectona grandis L.f.*	9.4	0.3	r	Δ
232	16	46	48.09	96	14	22.3	*Tectona grandis L.f.*	9.3	0.3	r	Δ
233	16	46	48.1	96	14	22.52	*Tectona grandis L.f.*	7.8	0.1	r	Δ
234	16	46	48.14	96	14	22.55	*Tectona grandis L.f.*	7.7	0.2	r	Δ
235	16	46	48.28	96	14	22.09	*Tectona grandis L.f.*	7.2	0.3	o	Δ
236	16	46	48.29	96	14	22.06	*Tectona grandis L.f.*	7.2	0.2	o	Δ
237	16	46	48.37	96	14	21.93	*Tectona grandis L.f.*	7.4	0.3	r	Δ
238	16	46	48.46	96	14	21.81	*Tectona grandis L.f.*	6.1	0.1	r	Δ
239	16	46	48.09	96	14	22.28	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.4	0.1	c	Δ
240	16	46	48.23	96	14	22.47	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	7.6	0.1	c	Δ
241	16	46	48.21	96	14	22.2	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.4	0.1	c	Δ
242	16	46	48.33	96	14	21.96	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4	0.1	c	Δ
243	16	46	48.38	96	14	21.92	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.1	c	Δ
244	16	46	48.5	96	14	21.82	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4	0.1	c	Δ
245	16	46	48.53	96	14	21.78	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.1	c	Δ
246	16	46	48.55	96	14	21.8	*Tectona grandis L.f.*	7	0.2	r	Δ
247	16	46	48.54	96	14	21.7	*Delonix regia (Bojer ex Hook.) Raf.*	6.9	0.3	v	Δ
248	16	46	48.73	96	14	21.46	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4	0.1	c	Δ
249	16	46	48.72	96	14	21.46	*Tectona grandis L.f.*	7.3	0.3	r	Δ
250	16	46	48.76	96	14	21.33	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.4	0.1	c	Δ
251	16	46	48.88	96	14	21.29	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.3	0.1	c	Δ
252	16	46	49.04	96	14	21.27	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	7.3	0.1	c	Δ
253	16	46	48.75	96	14	21.33	*Mangifera indica L.*	4.4	0.1	r	Δ
254	16	46	48.91	96	14	21.28	*Tectona grandis L.f.*	7.3	0.3	r	Δ
255	16	46	49.08	96	14	21.27	*Tectona grandis L.f.*	7.3	0.2	o	Δ
256	16	46	49.19	96	14	21.22	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.1	c	Δ
257	16	46	49.21	96	14	21.21	*Tectona grandis L.f.*	7.2	0.3	r	Δ
258	16	46	49.31	96	14	21.26	*Tectona grandis L.f.*	7.4	0.2	r	Δ
259	16	46	49.45	96	14	21.19	*Tectona grandis L.f.*	7.3	0.2	r	Δ
260	16	46	49.74	96	14	20.99	*Tectona grandis L.f.*	7	0.3	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
261	16	46	49.84	96	14	21.1	*Tectona grandis L.f.*	6.2	0.1	r	Δ
262	16	46	49.36	96	14	21.18	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.5	0.1	c	Δ
263	16	46	49.51	96	14	21.04	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.3	0.1	c	Δ
264	16	46	49.71	96	14	21.15	*Tectona grandis L.f.*	6.2	0.1	r	Δ
265	16	46	49.93	96	14	20.88	*Tectona grandis L.f.*	7.2	0.2	r	Δ
266	16	46	50.15	96	14	20.76	*Tectona grandis L.f.*	7.1	0.2	r	Δ
267	16	46	50.41	96	14	20.47	*Tectona grandis L.f.*	7	0.2	r	Δ
268	16	46	50.39	96	14	20.55	*Tectona grandis L.f.*	7	0.2	r	Δ
269	16	46	50.53	96	14	20.51	*Tectona grandis L.f.*	7.1	0.2	r	Δ
270	16	46	50.74	96	14	20.57	*Tectona grandis L.f.*	7.1	0.1	r	Δ
271	16	46	50.27	96	14	20.63	*Delonix regia (Bojer ex Hook.) Raf.*	6.5	0.3	v	Δ
272	16	46	50.69	96	14	20.7	*Acacia auriculiformis A. Cunn.*	7.1	0.2	v	Δ
273	16	46	50.72	96	14	20.52	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
274	16	46	48.39	96	14	23.83	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
275	16	46	50.96	96	14	20.46	*Albizia procera (Roxb.) Benth.*	7.2	0.2	v	Δ
276	16	46	51.16	96	14	20.31	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.2	0.1	c	Δ
277	16	46	51.77	96	14	20.04	*Delonix regia (Bojer ex Hook.) Raf.*	5	0.2	r	Δ
278	16	46	51.89	96	14	20.01	*Syzygium cumini (L.) Skeels*	6.8	0.3	r	Δ
279	16	46	48.69	96	14	23.8	*Leucaena leucocephala (Lam.) De Wit*	6.5	0.2	v	Δ
280	16	46	48.87	96	14	24.02	*Acacia auriculiformis A. Cunn.*	6.8	0.3	v	Δ
281	16	46	49.03	96	14	24.02	*Acacia auriculiformis A. Cunn.*	6.8	0.3	r	Δ
282	16	46	50.87	96	14	23.05	*Acacia auriculiformis A. Cunn.*	6.1	0.3	v	Δ
283	16	46	49.33	96	14	23.83	*Samanea saman (Jacq.) Merr.*	7.2	0.2	v	Δ
284	16	46	51.12	96	14	22.76	*Samanea saman (Jacq.) Merr.*	5	0.3	v	Δ
285	16	46	49.7	96	14	23.87	*Pithecellobium dulce (Roxb) Benth.*	7.3	0.5	r	Δ
286	16	46	50.12	96	14	23.79	*Pithecellobium dulce (Roxb) Benth.*	6.1	0.2	r	Δ
287	16	46	50.26	96	14	23.66	*Bombax ceiba L.*	6.1	0.3	v	Δ
288	16	46	51.36	96	14	22.43	*Acacia auriculiformis A. Cunn.*	7.3	0.4	r	Δ
289	16	46	51.54	96	14	22.24	*Acacia auriculiformis A. Cunn.*	7.3	0.2	v	Δ
290	16	46	51.61	96	14	22.04	*Acacia auriculiformis A. Cunn.*	7.5	0.3	v	Δ
291	16	46	52.15	96	14	21.63	*Acacia auriculiformis A. Cunn.*	6.8	0.3	v	Δ
292	16	46	52.01	96	14	21.5	*Acacia auriculiformis A. Cunn.*	7.2	0.3	v	Δ
293	16	46	52.36	96	14	21.19	*Acacia auriculiformis A. Cunn.*	7.2	0.5	v	Δ
294	16	46	51.94	96	14	21.73	*Bombax ceiba L.*	6.1	0.1	o	Δ
295	16	46	52.65	96	14	20.84	*Samanea saman (Jacq.) Merr.*	6.2	0.3	v	Δ
296	16	46	51.56	96	14	20.84	*Acacia auriculiformis A. Cunn.*	7.2	0.4	r	Δ
297	16	46	51.3	96	14	21.5	*Acacia auriculiformis A. Cunn.*	7.4	0.2	o	Δ
298	16	46	51.34	96	14	21.31	*Terminalia catappa*	7.4	0.3	p	Δ
299	16	46	51.11	96	14	21.77	*Leucaena leucocephala (Lam.) De Wit*	7.8	0.3	v	Δ
300	16	46	51.04	96	14	21.85	*Samanea saman (Jacq.) Merr.*	7.7	0.3	v	Δ
301	16	46	51.03	96	14	21.71	*Tectona grandis L.f.*	6.2	0.2	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
302	16	46	50.98	96	14	21.96	*Tectona grandis L.f.*	7.2	0.2	r	Δ
303	16	46	50.93	96	14	21.95	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	7.2	0.2	c	Δ
304	16	46	50.95	96	14	22.03	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	9.2	0.2	c	Δ
305	16	46	50.86	96	14	22.05	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	9.6	0.1	c	Δ
306	16	46	50.95	96	14	21.54	*Acacia auriculiformis A. Cunn.*	9.2	0.2	v	Δ
307	16	46	50.73	96	14	22.22	*Tectona grandis L.f.*	9.9	0.3	r	Δ
308	16	46	50.48	96	14	22.57	*Tectona grandis L.f.*	7.1	0.2	r	Δ
309	16	46	50.37	96	14	22.57	*Tectona grandis L.f.*	7	0.2	r	Δ
310	16	46	50.31	96	14	22.67	*Tectona grandis L.f.*	8.2	0.3	r	Δ
311	16	46	50.28	96	14	22.64	*Tectona grandis L.f.*	8.1	0.2	r	Δ
312	16	46	50.4	96	14	22.87	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.5	0.2	c	Δ
313	16	46	50.31	96	14	22.86	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.1	c	Δ
314	16	46	49.98	96	14	23.19	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.1	c	Δ
315	16	46	49.92	96	14	23.25	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.2	0.2	c	Δ
316	16	46	50.39	96	14	22.07	*Tectona grandis L.f.*	6.5	0.1	r	Δ
317	16	46	50.38	96	14	22.8	*Tectona grandis L.f.*	6	0.2	r	Δ
318	16	46	50.05	96	14	23.25	*Tectona grandis L.f.*	2.1	0.1	r	Δ
319	16	46	49.97	96	14	23.12	*Tectona grandis L.f.*	6.3	0.1	r	Δ
320	16	46	49.67	96	14	23.34	*Tectona grandis L.f.*	7.1	0.1	r	Δ
321	16	46	49.56	96	14	23.27	*Tectona grandis L.f.*	7.2	0.2	r	Δ
322	16	46	49.42	96	14	23.32	*Tectona grandis L.f.*	7.2	0.2	r	Δ
323	16	46	49.81	96	14	23.38	*Samanea saman (Jacq.) Merr.*	1.5	0.1	v	Δ
324	16	46	49.7	96	14	23.39	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.8	0.1	c	Δ
325	16	46	49.81	96	14	23.37	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.4	0.1	c	Δ
326	16	46	49.32	96	14	23.21	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.1	0.3	c	Δ
327	16	46	48.9	96	14	23.31	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.1	c	Δ
328	16	46	48.81	96	14	23.34	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.2	c	Δ
329	16	46	48.74	96	14	23.56	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.1	c	Δ
330	16	46	48.77	96	14	23.54	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	9.2	0.3	c	Δ
331	16	46	48.64	96	14	23.45	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	5.8	0.1	c	Δ
332	16	46	50.4	96	14	22.87	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	3.5	0.2	c	Δ
333	16	46	49.55	96	14	23.33	*Tectona grandis L.f.*	7.3	0.1	r	Δ
334	16	46	49.32	96	14	23.48	*Tectona grandis L.f.*	8	0.3	o	Δ
335	16	46	49.04	96	14	23.31	*Tectona grandis L.f.*	7.5	0.2	r	Δ
336	16	46	48.87	96	14	23.32	*Tectona grandis L.f.*	7.8	0.2	r	Δ
337	16	46	49.57	96	14	23.48	*Delonix regia (Bojer ex Hook.) Raf.*	7.3	0.3	v	Δ
338	16	46	49.03	96	14	23.62	*Samanea saman (Jacq.) Merr.*	7.1	0.4	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
339	16	46	48.94	96	14	23.58	*Delonix regia (Bojer ex Hook.) Raf.*	7.4	0.4	o	Δ
340	16	46	50.39	96	14	22.87	*Tectona grandis L.f.*	6.5	0.1	r	Δ
341	16	46	50.38	96	14	22.86	*Tectona grandis L.f.*	6.1	0.2	r	Δ
342	16	46	50.05	96	14	23.25	*Tectona grandis L.f.*	2.1	0.1	r	x
343	16	46	49.97	96	14	23.12	*Tectona grandis L.f.*	6.3	0.2	r	Δ
344	16	46	50.31	96	14	22.86	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	6.1	0.1	c	Δ
345	16	46	49.98	96	14	23.19	*Polyathia longifolia (Lam.) Benth.& Hook.f.*	4.1	0.1	c	Δ
346	16	46	49.54	96	14	25	*Samanea saman (Jacq.) Merr.*	6.2	0.2	v	Δ
347	16	46	51.65	96	14	22.83	*Sonneratia caseolaris (L.) Engl.*	6.2	0.7	v	◦
348	16	46	51.23	96	14	23.93	*Sonneratia caseolaris (L.) Engl.*	9.4	0.4	r	Δ
349	16	46	51.42	96	14	23.89	*Sonneratia caseolaris (L.) Engl.*	9.3	0.3	r	Δ
350	16	46	53.43	96	14	20.31	*Samanea saman (Jacq.) Merr.*	4.6	0.2	v	Δ
351	16	46	53.22	96	14	20.9	*Sonneratia caseolaris (L.) Engl.*	7.3	0.2	v	Δ
352	16	46	53.42	96	14	21.13	*Sonneratia caseolaris (L.) Engl.*	7.2	0.3	v	Δ
353	16	46	53.15	96	14	21.35	*Sonneratia caseolaris (L.) Engl.*	7.4	0.3	v	Δ
354	16	46	52.81	96	14	21.74	*Sonneratia caseolaris (L.) Engl.*	6.9	0.4	v	Δ
355	16	46	55.23	96	14	19.67	*Samanea saman (Jacq.) Merr.*	6.3	0.4	v	Δ
356	16	46	55.55	96	14	19.64	*Samanea saman (Jacq.) Merr.*	6.2	0.2	r	Δ
357	16	46	55.6	96	14	19.57	*Samanea saman (Jacq.) Merr.*	5.6	0.2	v	Δ
358	16	46	55.52	96	14	19.77	*Samanea saman (Jacq.) Merr.*	6.3	0.2	v	Δ
359	16	46	55.41	96	14	19.4	*Samanea saman (Jacq.) Merr.*	4.7	0.2	v	Δ
360	16	46	55.76	96	14	19.18	*Samanea saman (Jacq.) Merr.*	5.2	0.7	v	Δ
361	16	46	53.61	96	14	20.44	*Samanea saman (Jacq.) Merr.*	7.1	0.9	v	◦
362	16	46	56.8	96	14	18.57	*Samanea saman (Jacq.) Merr.*	7.4	0.8	v	◦
363	16	46	53.61	96	14	20.48	*Samanea saman (Jacq.) Merr.*	7.3	1.3	r	◦
364	16	46	57	96	14	18.31	*Samanea saman (Jacq.) Merr.*	7.4	0.6	v	Δ
365	16	46	57.27	96	14	18.14	*Samanea saman (Jacq.) Merr.*	7.4	0.5	v	Δ
366	16	46	57.66	96	14	18.28	*Samanea saman (Jacq.) Merr.*	7.3	0.6	v	Δ
367	16	46	57.65	96	14	17.97	*Samanea saman (Jacq.) Merr.*	7.3	0.3	v	Δ
368	16	46	56.8	96	14	17.86	*Bombax ceiba L.*	6.4	0.2	o	Δ
369	16	46	57.99	96	14	17.75	*Samanea saman (Jacq.) Merr.*	7.4	0.8	v	Δ
370	16	46	58.68	96	14	16.61	*Samanea saman (Jacq.) Merr.*	5.1	0.4	v	Δ
371	16	46	58.08	96	14	17.27	*Samanea saman (Jacq.) Merr.*	7.3	0.4	v	Δ
372	16	46	58.7	96	14	16.59	*Samanea saman (Jacq.) Merr.*	5.1	0.2	v	Δ
373	16	46	58.34	96	14	17.46	*Sonneratia caseolaris (L.) Engl.*	4.7	0.2	v	Δ
374	16	46	59.04	96	14	16.37	*Samanea saman (Jacq.) Merr.*	5.1	0.3	v	Δ
375	16	46	59.2	96	14	16.83	*Streblus asper Lour.*	4.6	0.2	r	Δ
376	16	46	59.44	96	14	16.83	*Streblus asper Lour.*	5.1	0.1	r	Δ
377	16	46	59.48	96	14	16.88	*Streblus asper Lour.*	5.1	0.1	r	Δ
378	16	46	59.5	96	14	17	*Samanea saman (Jacq.) Merr.*	5.2	0.3	v	Δ
379	16	46	59.72	96	14	16.9	*Lannea coromandelica (Houtt.) Merr.*	6.8	0.1	v	Δ
380	16	46	59.64	96	14	16.89	*Lannea coromandelica (Houtt.) Merr.*	6.9	0.2	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
381	16	46	59.78	96	14	17.28	*Sonneratia caseolaris (L.) Engl.*	7.4	0.4	r	Δ
382	16	47	0.03	96	14	17.32	*Sonneratia caseolaris (L.) Engl.*	7.2	0.4	v	Δ
383	16	46	59.69	96	14	16.91	*Sonneratia caseolaris (L.) Engl.*	7.2	0.4	v	Δ
384	16	46	59.65	96	14	16.6	*Samanea saman (Jacq.) Merr.*	7.1	0.5	v	Δ
385	16	46	59	96	14	16.84	*Samanea saman (Jacq.) Merr.*	7.1	0.4	v	Δ
386	16	46	59.88	96	14	16.01	*Samanea saman (Jacq.) Merr.*	7	0.2	v	Δ
387	16	46	59.9	96	14	15.8	*Samanea saman (Jacq.) Merr.*	6.1	0.3	v	Δ
388	16	46	59.92	96	14	15.9	*Samanea saman (Jacq.) Merr.*	5.9	0.1	v	Δ
389	16	46	59.98	96	14	16	*Samanea saman (Jacq.) Merr.*	6.1	0.2	v	Δ
390	16	47	0.23	96	14	15.88	*Samanea saman (Jacq.) Merr.*	6.2	0.2	v	Δ
391	16	47	0.33	96	14	15.8	*Samanea saman (Jacq.) Merr.*	6.3	0.2	v	Δ
392	16	47	0.62	96	14	15.52	*Samanea saman (Jacq.) Merr.*	4.6	0.2	v	Δ
393	16	47	0.75	96	14	15.23	*Samanea saman (Jacq.) Merr.*	4.4	0.5	v	Δ
394	16	47	2.76	96	14	15.08	*Sonneratia caseolaris (L.) Engl.*	7.3	0.4	r	Δ
395	16	47	2.88	96	14	15.47	*Sonneratia caseolaris (L.) Engl.*	6.9	0.4	r	Δ

(9) Area No. 9 (Candidate Site for Construction Yard) in Thanlyin Township

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
1	16	46	59.14	96	14	8.85	*Samanea saman (Jacq.) Merr.*	6	0.4	v	Δ
2	16	47	0.17	96	14	8.17	*Acacia auriculiformis A. Cunn.*	6	0.1	v	Δ
3	16	46	59.23	96	14	8.45	*Cocos nucifera L.*	5.3	0.3	up/palm	Δ
4	16	46	59.94	96	14	8.29	*Terminalia catappa*	9	0.3	o	Δ
5	16	46	59.24	96	14	8.36	*Samanea saman (Jacq.) Merr.*	6.6	0.4	v	Δ
6	16	46	59.81	96	14	8.24	*Samanea saman (Jacq.) Merr.*	6.6	0.3	v	Δ
7	16	46	59.81	96	14	8.24	*Samanea saman (Jacq.) Merr.*	6.6	0.3	v	Δ
8	16	46	59.96	96	14	8.35	*Samanea saman (Jacq.) Merr.*	9	0.3	v	Δ
9	16	47	0.36	96	14	7.93	*Samanea saman (Jacq.) Merr.*	6.5	0.6	v	Δ
10	16	47	0.63	96	14	7.71	*Acacia auriculiformis A. Cunn.*	5	0.1	v	Δ
11	16	47	1.09	96	14	7.61	*Samanea saman (Jacq.) Merr.*	4.7	0.4	v	Δ
12	16	47	1.25	96	14	7.56	*Samanea saman (Jacq.) Merr.*	6.2	0.2	v	Δ
13	16	47	1.21	96	14	6.94	*Samanea saman (Jacq.) Merr.*	5.6	0.4	v	Δ
14	16	47	1.21	96	14	6.94	*Samanea saman (Jacq.) Merr.*	5.6	0.2	v	Δ
15	16	47	1.2	96	14	6.7	*Terminalia catappa*	8.8	0.2	o	Δ
16	16	46	58.64	96	14	3.31	*Acacia auriculiformis A. Cunn.*	6.7	0.1	v	Δ
17	16	47	0.54	96	14	7.19	*Acacia auriculiformis A. Cunn.*	5.6	0.1	v	Δ
18	16	46	59.93	96	14	7.77	*Acacia auriculiformis A. Cunn.*	6.5	0.4	v	Δ
19	16	46	59.63	96	14	7.93	*Acacia auriculiformis A. Cunn.*	4.5	0.2	v	Δ
20	16	46	59.03	96	14	8.25	*Acacia auriculiformis A. Cunn.*	6.5	0.1	v	Δ
21	16	46	58.76	96	14	8.1	*Acacia auriculiformis A. Cunn.*	5.2	0.2	v	Δ
22	16	46	58.81	96	14	8.04	*Acacia auriculiformis A. Cunn.*	7.5	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
23	16	46	59.39	96	14	7.85	*Acacia auriculiformis A. Cunn.*	7.5	0.1	v	Δ
24	16	46	59.4	96	14	7.29	*Acacia auriculiformis A. Cunn.*	7.5	0.3	v	Δ
25	16	46	59.87	96	14	6.71	*Samanea saman (Jacq.) Merr.*	8.5	0.3	v	Δ
26	16	47	0.27	96	14	6.79	*Acacia auriculiformis A. Cunn.*	7.3	0.2	v	Δ
27	16	47	1.09	96	14	6.19	*Terminalia catappa*	7.5	0.1	p	Δ
28	16	47	0.98	96	14	5.95	*Terminalia catappa*	7.3	0.2	p	Δ
29	16	47	0.92	96	14	5.62	*Terminalia catappa*	8.8	0.3	o	Δ
30	16	47	0.81	96	14	5.31	*Terminalia catappa*	9	0.2	p	Δ
31	16	47	0.65	96	14	5.11	*Samanea saman (Jacq.) Merr.*	8.9	0.4	v	Δ
32	16	47	0.62	96	14	4.98	*Terminalia catappa*	7.5	0.2	p	Δ
33	16	47	0.59	96	14	4.89	*Acacia auriculiformis A. Cunn.*	8.8	0.2	v	Δ
34	16	47	0.55	96	14	4.71	*Acacia auriculiformis A. Cunn.*	9.2	0.3	v	Δ
35	16	47	0.55	96	14	4.58	*Acacia auriculiformis A. Cunn.*	9.2	0.2	v	Δ
36	16	47	0.52	96	14	4.55	*Acacia auriculiformis A. Cunn.*	7.5	0.3	v	Δ
37	16	47	0.46	96	14	4.36	*Terminalia catappa*	6.3	0.3	p	Δ
38	16	47	0.26	96	14	3.72	*Terminalia catappa*	6.5	0.3	p	Δ
39	16	47	0.1	96	14	3.3	*Acacia auriculiformis A. Cunn.*	8.8	0.3	v	Δ
40	16	46	58.7	96	14	3.26	*Acacia auriculiformis A. Cunn.*	6.7	0.1	v	Δ
41	16	46	59.95	96	14	2.93	*Terminalia catappa*	7.2	0.2	p	Δ
42	16	46	59.88	96	14	2.49	*Terminalia catappa*	6.2	0.3	o	Δ
43	16	46	59.76	96	14	2.15	*Terminalia catappa*	7.5	0.2	p	Δ
44	16	46	59.61	96	14	1.89	*Samanea saman (Jacq.) Merr.*	6.5	0.4	c	Δ
45	16	46	59.48	96	14	1.47	*Terminalia catappa*	7.2	0.2	p	Δ
46	16	46	59.41	96	14	1.1	*Samanea saman (Jacq.) Merr.*	8.2	0.4	v	Δ
47	16	46	59.28	96	14	0.81	*Terminalia catappa*	8.7	0.2	p	Δ
48	16	46	59.15	96	14	0.45	*Terminalia catappa*	8.5	0.2	p	Δ
49	16	46	59.06	96	14	0.08	*Acacia auriculiformis A. Cunn.*	5.5	0.3	v	Δ
50	16	46	59.08	96	14	0.05	*Samanea saman (Jacq.) Merr.*	8.2	0.4	v	Δ
51	16	46	58.9	96	13	59.8	*Terminalia catappa*	8.4	0.2	p	Δ
52	16	46	58.79	96	13	59.42	*Samanea saman (Jacq.) Merr.*	6.5	0.3	v	Δ
53	16	46	58.73	96	13	59.22	*Samanea saman (Jacq.) Merr.*	6.5	0.5	v	Δ
54	16	46	58.39	96	13	58.57	*Samanea saman (Jacq.) Merr.*	5.2	0.5	c	Δ
55	16	47	0.67	96	14	5.82	*Acacia auriculiformis A. Cunn.*	6.3	0.1	v	Δ
56	16	47	59.97	96	14	6.26	*Albizia procera (Roxb.) Benth.*	7.2	0.3	v	Δ
57	16	46	59.8	96	14	6.22	*Albizia procera (Roxb.) Benth.*	5.2	0.2	v	Δ
58	16	46	59.77	96	14	6.48	*Albizia procera (Roxb.) Benth.*	8.8	0.4	v	Δ
59	16	46	56.29	96	14	6.55	*Acacia auriculiformis A. Cunn.*	5.3	0.1	v	Δ
60	16	46	56.36	96	14	6.8	*Albizia procera (Roxb.) Benth.*	8.8	0.2	v	Δ
61	16	46	58.66	96	14	7.16	*Albizia procera (Roxb.) Benth.*	6.3	0.3	v	Δ
62	16	46	58.82	96	14	6.82	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
63	16	46	58.36	96	14	6.58	*Samanea saman (Jacq.) Merr.*	7.4	0.4	o	Δ
64	16	46	58.55	96	14	6.42	*Bombax ceiba L.*	8.8	0.3	o	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
65	16	46	58.49	96	14	3.52	*Acacia auriculiformis A. Cunn.*	4.6	0.2	v	Δ
66	16	46	58.37	96	14	6.14	*Acacia auriculiformis A. Cunn.*	6.2	0.3	c	Δ
67	16	46	58.2	96	14	3.94	*Acacia auriculiformis A. Cunn.*	4.4	0.1	v	Δ
68	16	47	0.29	96	14	4.9	*Acacia auriculiformis A. Cunn.*	6.2	0.1	v	Δ
69	16	47	0.12	96	14	5.81	*Lagerstroemia speciosa (L.)*	4.7	0.2	o	Δ
70	16	46	59.88	96	14	6.15	*Samanea saman (Jacq.) Merr.*	8.5	0.4	v	Δ
71	16	47	0.28	96	14	5.04	*Acacia auriculiformis A. Cunn.*	4.7	0.1	v	Δ
72	16	47	0.25	96	14	5.1	*Acacia auriculiformis A. Cunn.*	4.8	0.1	v	Δ
73	16	46	59.59	96	14	5.12	*Acacia auriculiformis A. Cunn.*	4.4	0.1	v	Δ
74	16	46	58.84	96	14	5.2	*Albizia procera (Roxb.) Benth.*	8.4	0.2	c	Δ
75	16	46	58.95	96	14	3.12	*Acacia auriculiformis A. Cunn.*	7.1	0.3	o	Δ
76	16	46	58.8	96	14	3.3	*Acacia auriculiformis A. Cunn.*	4.1	0.2	v	Δ
77	16	46	58.1	96	14	5.06	*Acacia auriculiformis A. Cunn.*	6.2	0.2	c	Δ
78	16	46	58.95	96	14	2.97	*Albizia procera (Roxb.) Benth.*	6.8	0.2	v	Δ
79	16	46	57.69	96	14	5.13	*Acacia auriculiformis A. Cunn.*	6.2	0.1	c	Δ
80	16	46	57.67	96	14	4.75	*Acacia auriculiformis A. Cunn.*	4.3	0.1	v	Δ
81	16	46	57.37	96	14	4.44	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
82	16	46	58.22	96	14	4.44	*Mimusops elengi L.*	4	0.1	r	Δ
83	16	46	58.14	96	14	4.18	*Acacia auriculiformis A. Cunn.*	3	0.1	v	Δ
84	16	46	8.29	96	14	4.16	*Acacia auriculiformis A. Cunn.*	4.1	0.1	v	Δ
85	16	46	58.2	96	14	3.43	*Acacia auriculiformis A. Cunn.*	9.4	0.1	v	Δ
86	16	46	58.44	96	14	4	*Acacia auriculiformis A. Cunn.*	4.1	0.1	v	Δ
87	16	46	58.63	96	14	3.95	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
88	16	46	58.86	96	14	3.99	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
89	16	46	59.64	96	14	3.95	*Acacia auriculiformis A. Cunn.*	4.1	0.1	v	Δ
90	16	46	59.66	96	14	4.09	*Acacia auriculiformis A. Cunn.*	4.1	0.1	v	Δ
91	16	46	59.8	96	14	4.06	*Acacia auriculiformis A. Cunn.*	4.1	0.1	v	Δ
92	16	46	59.97	96	14	4.05	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
93	16	47	0.14	96	14	4.44	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
94	16	47	0.01	96	14	4.47	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
95	16	46	59.9	96	14	3.84	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
96	16	46	59.85	96	14	3.86	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
97	16	46	59.86	96	14	3.75	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
98	16	46	59.74	96	14	3.62	*Acacia auriculiformis A. Cunn.*	5.4	0.1	v	Δ
99	16	46	58.97	96	14	2.94	*Acacia auriculiformis A. Cunn.*	5.1	0.1	v	Δ
100	16	46	59.62	96	14	3.66	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
101	16	46	59.55	96	14	3.58	*Albizia procera (Roxb.) Benth.*	4.5	0.3	c	Δ
102	16	46	59.5	96	14	3.57	*Acacia auriculiformis A. Cunn.*	4.5	0.1	v	Δ
103	16	46	59.44	96	14	3.52	*Acacia auriculiformis A. Cunn.*	5.2	0.1	v	Δ
104	16	46	59.61	96	14	3.83	*Acacia auriculiformis A. Cunn.*	4.4	0.1	v	Δ
105	16	46	59.76	96	14	3.47	*Acacia auriculiformis A. Cunn.*	7.5	0.1	c	Δ
106	16	46	59.68	96	14	3.42	*Acacia auriculiformis A. Cunn.*	6.5	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
107	16	46	59.62	96	14	3.26	*Acacia auriculiformis A. Cunn.*	6.5	0.1	v	Δ
108	16	46	59.4	96	14	2.55	*Acacia auriculiformis A. Cunn.*	6.4	0.2	v	Δ
109	16	46	59.52	96	14	2.47	*Acacia auriculiformis A. Cunn.*	4.4	0.1	v	Δ
110	16	46	59.46	96	14	2.46	*Acacia auriculiformis A. Cunn.*	4.6	0.1	v	Δ
111	16	46	57.47	96	14	3.9	*Acacia auriculiformis A. Cunn.*	4.6	0.1	v	Δ
112	16	46	58.74	96	14	1.71	*Ziziphus jujuba Lam.*	3.4	0.1	o	Δ
113	16	46	58.73	96	14	1.79	*Acacia auriculiformis A. Cunn.*	4.5	0.1	v	Δ
114	16	46	58.64	96	14	1.73	*Acacia auriculiformis A. Cunn.*	4.4	0.2	v	Δ
115	16	46	58.59	96	14	1.72	*Acacia auriculiformis A. Cunn.*	4.4	0.2	v	Δ
116	16	46	58.56	96	14	1.79	*Acacia auriculiformis A. Cunn.*	4.4	0.3	v	Δ
117	16	46	58.46	96	14	1.78	*Acacia auriculiformis A. Cunn.*	4.4	0.3	v	Δ
118	16	46	58.28	96	14	3.38	*Acacia auriculiformis A. Cunn.*	8.2	0.1	v	Δ
119	16	46	58.37	96	14	1.86	*Acacia auriculiformis A. Cunn.*	4.4	0.3	v	Δ
120	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
121	16	46	58.65	96	14	2	*Acacia auriculiformis A. Cunn.*	6.2	0.1	v	Δ
122	16	46	58.61	96	14	2.11	*Acacia auriculiformis A. Cunn.*	6.2	0.1	v	Δ
123	16	46	58.68	96	14	2.13	*Acacia auriculiformis A. Cunn.*	6.5	0.1	v	Δ
124	16	46	58.72	96	14	2.1	*Acacia auriculiformis A. Cunn.*	6.5	0.1	v	Δ
125	16	46	58.57	96	14	2.13	*Acacia auriculiformis A. Cunn.*	6.4	0.1	v	Δ
126	16	46	58.51	96	14	2.19	*Acacia auriculiformis A. Cunn.*	6.5	0.1	v	Δ
127	16	46	58.46	96	14	2.16	*Acacia auriculiformis A. Cunn.*	6.5	0.1	v	Δ
128	16	46	58.44	96	14	2.16	*Acacia auriculiformis A. Cunn.*	6.4	0.1	v	Δ
129	16	46	58.64	96	14	1.66	*Acacia auriculiformis A. Cunn.*	6.4	0.1	v	Δ
130	16	46	59.29	96	14	1.42	*Acacia auriculiformis A. Cunn.*	8.2	0.3	c	Δ
131	16	46	58.95	96	14	0.92	*Acacia auriculiformis A. Cunn.*	8.2	0.2	c	Δ
132	16	46	58.74	96	14	1.1	*Acacia auriculiformis A. Cunn.*	7.4	0.2	v	Δ
133	16	46	58.6	96	14	0.84	*Acacia auriculiformis A. Cunn.*	7.5	0.3	v	Δ
134	16	46	58.6	96	14	0.89	*Acacia auriculiformis A. Cunn.*	4.2	0.2	v	Δ
135	16	46	57.55	96	13	59.32	*Acacia auriculiformis A. Cunn.*	4.5	0.1	v	Δ
136	16	46	57.66	96	13	59.33	*Bombax ceiba L.*	4.2	0.2	o	Δ
137	16	46	57.57	96	13	59.03	*Acacia auriculiformis A. Cunn.*	4.1	0.1	v	Δ
138	16	46	57.24	96	13	58.97	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
139	16	46	57.19	96	13	58.99	*Acacia auriculiformis A. Cunn.*	4.4	0.1	v	Δ
140	16	46	57.22	96	13	58.81	*Acacia auriculiformis A. Cunn.*	4.4	0.1	v	Δ
141	16	46	56.39	96	13	58.9	*Albizia procera (Roxb.) Benth.*	10.2	0.4	v	Δ
142	16	46	56.62	96	13	59.6	*Acacia auriculiformis A. Cunn.*	5.5	0.4	v	Δ
143	16	46	56.41	96	13	59.67	*Acacia auriculiformis A. Cunn.*	5.5	0.3	v	Δ
144	16	46	56.49	96	14	0.02	*Acacia auriculiformis A. Cunn.*	7.2	0.3	v	Δ
145	16	46	55.52	96	14	0.17	*Acacia auriculiformis A. Cunn.*	7.8	0.3	v	Δ
146	16	46	56.91	96	14	0.41	*Acacia auriculiformis A. Cunn.*	6.8	0.3	v	Δ
147	16	46	57.23	96	14	0.6	*Albizia procera (Roxb.) Benth.*	8.2	0.3	v	Δ
148	16	46	57.91	96	14	0.8	*Lagerstroemia speciosa (L.)*	4	0.1	o	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
149	16	46	57.39	96	14	1.32	*Acacia auriculiformis A. Cunn.*	5	0.1	v	Δ
150	16	46	57.27	96	14	1.36	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
151	16	46	57.01	96	14	1.34	*Acacia auriculiformis A. Cunn.*	4.1	0.2	v	Δ
152	16	46	58	96	14	2.4	*Acacia auriculiformis A. Cunn.*	7.2	0.3	v	Δ
153	16	46	58.34	96	14	2.78	*Acacia auriculiformis A. Cunn.*	8.8	0.3	v	Δ
154	16	46	58.16	96	14	3.23	*Albizia procera (Roxb.) Benth.*	8.8	0.3	v	Δ
155	16	46	58.46	96	14	3.34	*Acacia auriculiformis A. Cunn.*	5.2	0.2	v	Δ
156	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
157	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
158	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
159	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
160	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
161	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
162	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
163	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
164	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
165	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
166	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
167	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
168	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
169	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
170	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
171	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
172	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
173	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
174	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
175	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
176	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
177	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
178	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
179	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
180	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
181	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
182	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
183	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
184	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
185	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
186	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
187	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
188	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
189	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
190	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
191	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
192	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
193	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
194	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
195	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
196	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
197	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
198	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
199	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
200	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
201	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
202	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
203	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
204	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
205	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
206	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
207	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
208	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
209	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
210	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
211	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
212	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
213	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
214	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
215	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
216	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
217	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
218	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
219	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
220	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
221	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
222	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
223	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
224	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
225	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
226	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
227	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
228	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
229	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
230	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
231	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
232	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
233	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
234	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
235	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
236	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
237	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
238	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
239	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
240	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
241	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
242	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
243	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
244	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
245	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
246	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
247	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
248	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
249	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
250	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
251	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
252	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
253	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
254	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
255	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
256	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
257	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
258	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
259	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
260	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
261	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
262	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
263	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
264	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
265	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
266	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
267	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
268	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
269	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
270	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
271	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
272	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
273	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
274	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
275	16	47	0.89	96	14	6.78	*Acacia auriculiformis A. Cunn.*	6.2	0.3	v	Δ
276	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
277	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
278	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
279	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
280	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
281	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
282	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
283	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
284	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
285	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
286	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
287	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
288	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
289	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
290	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
291	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
292	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
293	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
294	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
295	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
296	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
297	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
298	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
299	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
300	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
301	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
302	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
303	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
304	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
305	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
306	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
307	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
308	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
309	16	47	0.13	96	14	3.18	*Acacia auriculiformis A. Cunn.*	6.4	0.3	v	Δ
310	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
311	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
312	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
313	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
314	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
315	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
316	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
317	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
318	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
319	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
320	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
321	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
322	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
323	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
324	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
325	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
326	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
327	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
328	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
329	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
330	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
331	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
332	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
333	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
334	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
335	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
336	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
337	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
338	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
339	16	46	58.5	96	14	6.38	*Acacia auriculiformis A. Cunn.*	8.9	0.4	v	Δ
340	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
341	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
342	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
343	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
344	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
345	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
346	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
347	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
348	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
349	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
350	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
351	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
352	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
353	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
354	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
355	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
356	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
357	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
358	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
359	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
360	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
361	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
362	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
363	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
364	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
365	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
366	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
367	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
368	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
369	16	46	58.78	96	14	5.76	*Dendrocalamus longispathus Kurz*	6.3	0.1	r	Δ
370	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
371	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
372	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
373	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
374	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
375	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
376	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
377	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
378	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
379	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
380	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
381	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
382	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
383	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
384	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
385	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
386	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
387	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
388	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
389	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
390	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
391	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
392	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
393	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
394	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
395	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
396	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
397	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
398	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
399	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
400	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
401	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
402	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
403	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
404	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
405	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
406	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
407	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
408	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
409	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
410	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
411	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
412	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
413	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
414	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
415	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
416	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
417	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
418	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
419	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
420	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
421	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
422	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
423	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
424	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
425	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
426	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
427	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
428	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
429	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
430	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
431	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
432	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
433	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
434	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
435	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
436	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
437	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
438	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
439	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
440	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
441	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
442	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
443	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
444	16	46	58.36	96	14	4.01	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
445	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
446	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
447	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
448	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
449	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
450	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
451	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
452	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
453	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
454	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
455	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
456	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
457	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
458	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
459	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
460	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
461	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
462	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
463	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
464	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
465	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
466	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
467	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
468	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
469	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
470	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
471	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
472	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
473	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
474	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
475	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
476	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
477	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
478	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
479	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
480	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
481	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
482	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
483	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
484	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
485	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
486	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
487	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
488	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
489	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
490	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
491	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
492	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
493	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
494	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
495	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
496	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
497	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
498	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
499	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
500	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
501	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
502	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
503	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
504	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
505	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
506	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
507	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
508	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
509	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
510	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
511	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
512	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
513	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
514	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
515	16	46	58.98	96	14	1.91	*Acacia auriculiformis A. Cunn.*	4.2	0.1	v	Δ
516	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
517	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
518	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
519	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
520	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
521	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
522	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
523	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
524	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
525	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
526	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
527	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
528	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
529	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
530	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
531	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
532	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
533	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
534	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
535	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
536	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
537	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
538	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
539	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
540	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
541	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
542	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
543	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
544	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
545	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
546	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
547	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
548	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
549	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
550	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
551	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
552	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
553	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
554	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
555	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
556	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
557	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
558	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
559	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
560	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
561	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
562	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
563	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
564	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
565	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
566	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
567	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
568	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
569	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
570	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
571	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
572	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
573	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
574	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
575	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
576	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
577	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
578	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
579	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
580	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
581	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
582	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
583	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
584	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
585	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
586	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
587	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
588	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
589	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
590	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
591	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
592	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
593	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
594	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
595	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
596	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
597	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
598	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
599	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
600	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
601	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
602	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
603	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
604	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
605	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
606	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
607	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
608	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
609	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
610	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
611	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
612	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
613	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
614	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
615	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
616	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
617	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
618	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
619	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
620	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
621	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
622	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
623	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
624	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
625	16	46	58.37	96	14	1.81	*Acacia auriculiformis A. Cunn.*	3.4	0.1	v	Δ
626	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
627	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
628	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
629	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
630	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
631	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
632	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
633	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
634	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
635	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
636	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
637	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
638	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
639	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
640	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
641	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
642	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
643	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
644	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
645	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
646	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
647	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
648	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
649	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
650	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
651	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
652	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ

Sr No.	Coordination X			Coordination Y			Species of Trees	Height (m)	Diameter at Breast Height (m)	Shape of Tree	Living Condition
	De.	Mi.	Se.	De.	Mi.	Se.					
653	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
654	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
655	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
656	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
657	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
658	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
659	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
660	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
661	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
662	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
663	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ
664	16	46	58.53	96	14	1.92	*Acacia auriculiformis A. Cunn.*	3.2	0.1	v	Δ

Table A-4 List of Terrestrial Plant Species in Bago River Bridge Area

No.	Scientific Name	Family Name	Vanicular Name	Habit*
1	*Acacia auriculiformis* A. Cunn.	Mimosaceae	Malaysia-padauk	ST
2	*Acacia megaladena* Desv.	Mimosaceae	Subok	ST
3	*Achyranthes aspera* L.	Amaranthaceae	Kyet-mauk-pyan, Kyet-mauk-sue-pyan, Naukpo	H
4	*Acmella calva* (DC.) R.K. Jansen	Asteraceae	Shadon-po, Sein-nagat	H
5	*Aeschynomene indica* L.	Fabaceae	Nay-bin	H
6	*Ageratum conyzoides* L.	Asteraceae	Khwe-thay-pan	H
7	*Allamanda cathartica* L.	Apocynaceae	Shwewa pan	Cl, Cr
8	*Alternanthera nodiflora* R. Br.	Amaranthaceae	Kanaphaw	H
9	*Alternanthera sessilis* (L.) R. Br.	Amaranthaceae	Pazun-sar	H
10	*Amaranthus spinosus* L.	Amaranthaceae	Hin-nu-nwe-subauk	H
11	*Ammannia baccifera* L.	Lythraceae	-	S
12	*Ammannia* sp.	Lythraceae	-	H
13	*Annona squamosa* L.	Annonaceae	Awza	ST
14	*Axonopus compressus* (Sw.) P. Beauv.	Poaceae	-	G
15	*Bauhinia purpurea* L.	Caesalpiniaceae	Swedaw	ST
16	*Bauhinia* sp.	Caesalpiniaceae	Swedaw	ST
17	*Blumea hieracifolia* (D. Don) DC.	Asteraceae	-	H
18	*Blumea* sp.	Asteraceae	Kadu	S
19	*Bombax ceiba* L.	Bombacaceae	Let-pan	T
20	*Borassus flabellifer* L.	Arecaceae	Htan	T
21	*Bougainvillea spectabilis* Willd.	Nyctaginaceae	Sekku pan	S, Cl
22	*Bridelia* sp.	Euphorbiaceae	Seik-chay	ST
23	*Caesalpinia pulcherrima* (L.) Sw.	Caesalpiniaceae	Seinban-gale	S
24	*Canavalia* sp.	Fabaceae	-	Cl, Cr
25	*Capparis tenera* Dalzell	Capparaceae	Alo-lay	S
26	*Carica papaya* L.	Caricaceae	Thin baw	ST
27	*Cassia alata* L.	Caesalpiniaceae	Pwe-se-mezali	T
28	*Cassia fistula* L.	Caesalpiniaceae	Ngu	T
29	*Casuarina equisetifolia* Forst.	Casuarinaceae	Pinle-kabwe	T
30	*Ceiba pentandra* (L.) Gaertn.	Bombacaceae	Hmo Pin	T
31	*Centratherum punctatum*	Asteraceae	-	H
32	*Cephalandra indica* Naud.	Cucurbitaceae	Kinmon	Cl, Cr
33	*Chloris barbata* Sw.	Poaceae	Myet-kha	
34	*Chromolaena odorata* (L.) R. M. King & H. Robinson	Asteraceae	Bizat	S
35	*Cleome burmanii* Wight & Arn	Capparaceae	Taw hingala	H
36	*Clitoria macrophylla* Wall.	Fabaceae	Taw-pe	Cl, Cr
37	*Cocos nucifera* L.	Arecaceae	Ohn-pin	T

No.	Scientific Name	Family Name	Vanicular Name	Habit*
38	*Codiaeum variegatum* (L.) Blume	Euphorbiaceae	Ywet-hla	S
39	*Coix lacryma-jobi* L.	Poaceae	Kyeik	G
40	*Colocasia esculenta* (L.) Schott	Araceae	Pein	H
41	*Commelina diffusa* Burm. F.	Commelinaceae	Myet kyut	H
42	*Commelina* sp.	Commelinaceae	Wet-kyut	H
43	*Corchorus* sp.	Tiliaceae	Taw-pilaw	S
44	*Cordia dichotoma* Forst.	Boraginaceae	Thanat	T
45	*Cordyline fruticosa* (L.) A. Chev.	Agavaceae	Zaw-ma	S
46	*Costus speciosus* Sm.	Costaceae	Phalan taung hmwe	H
47	*Crotalaria retusa* L.	Fabaceae	Taw-peiksan	H
48	*Cyperus iria* L.	Cyperaceae	-	G
49	*Cyperus* sp. (1)	Cyperaceae	-	G
50	*Cyperus* sp. (2)	Cyperaceae	-	G
51	*Delonix regia* (Bojer ex Hook.) Raf.	Caesalpiniaceae	Sein pan	T
52	*Desmodium triflorum* (L.) DC.	Fabaceae	Pe yaing	H
53	*Dichanthium caricosum* (L.) A. Camus	Poaceae	Myet-kha, Padaw	G
54	*Digitaria* sp.	Poaceae	-	G
55	*Diospyros discolor* Willd.	Ebenaceae	Kadiba	T
56	*Dracaena fragrans* (L.) Ker Gawl.	Dracaenaceae	Zawgi taunghway	S
57	*Echinochloa* sp.	Poaceae	-	G
58	*Eclipta alba* (L.) Hassk.	Asteraceae	Kyeik-hman	H
59	*Eleusine indica* L.	Poaceae	Sinngo-myet	G
60	*Erythrina* sp.	Fabaceae	Kathit	T
61	*Euphorbia hirta* L.	Euphorbiaceae	Kywekyaung hmin say	H
62	*Ficus glomerata* Roxb.	Moraceae	Ye thaphan	T
63	*Ficus hispida* L. f.	Moraceae	Kha-aung	ST
64	*Ficus benghalensis* (L.)	Moraceae	Nyaung Mote Sate	T
65	*Ficus rumphii* Blume	Moraceae	Nyaung	T
66	*Flemingia* sp.	Fabaceae	Kye-mi	S
67	*Flueggea leucopyrus* Willd.	Euphorbiaceae	Chinya-pyu, Kon-chinya	S
68	*Gardenia jasminoides* Ellis	Rubiaceae	Zizawa	S
69	*Hedyotis corymbosa* (L.) Lam	Rubiaceae	-	H
70	*Heliotropium indicum* L.	Boraginaceae	Sin-hnamaung-gyi	H
71	*Hibiscus rosa-sinensis* L.	Malvaceae	Khaung yan	S
72	*Hygrophila phlomoides* Nees	Acanthaceae	Migyaung kunbat	H
73	*Hyptis rhomboidea* Marts & Gal	Lamiaceae	-	S
74	*Ipomoea aquatica* Forssk.	Convolvulaceae	Kazun-ywet	Cl, Cr
75	*Ipomoea pilosa*Sweet.	Convolvulaceae	Kone-kazun-lay	Cl
76	*Ipomoea sagittata* Poir	Convolvulaceae	Kone-kazun	Cl
77	*Ipomoea* sp.	Convolvulaceae	-	Cl

No.	Scientific Name	Family Name	Vanicular Name	Habit*
78	*Ischaemum rugosum* Salisb.	Poaceae	-	G
79	*Ixora* sp.	Rubiaceae	Ponna-yeik	S
80	*Jatropha curcas* L.	Euphorbiaceae	Chan-siyo-kyetsu	ST
81	*Justicia gendarussa* Burm. f.	Acanthaceae	Pha-wa-net	S
82	*Kyllinga monocephala* Rottb.	Cyperaceae	-	G
83	*Lagerstroemia speciosa* (L.) Pers.	Lythraceae	Pyinma	T
84	*Lannea coromandelica (Houtt.) Merr.*	Anacardiaceae	Kalar-Gwe/Taung Gwe	T
85	*Leucaena leucocephala* (Lam.) De Wit	Mimosaceae	Baw-sa-gaing	T
86	*Lindernia crustacea* F. Muell.	Scorphulariaceae	-	H
87	*Ludwigia prostrata* Roxb.	Onagraceae	Lay-hnin	S
88	*Mangifera indica* L.	Anacardiaceae	Tha-yet	T
89	*Mariscus compactus* (Retz.) Druce	Cyperaceae	-	G
90	*Melochia corchorifolia* L.	Sterculiaceae	Pilaw-akyi	S
91	*Merremia gemella* (Burm. f.) Hallier f.	Convolvulaceae	-	Cl, Cr
92	*Mikania micrantha* HBK	Asteraceae	Bizat-new, Yokekhama-shokehtwe	Cl, Cr
93	*Mimosa pudica* L.	Mimosaceae	Hti-ka-yone	H
94	*Mimosa rubicaulis* Lam.	Mimosaceae	Biat-hli-ka-yone	H
95	*Mimusops elengi* L.	Sapotaceae	Khaye	T
96	*Morinda citrifolia* L.	Rubiaceae	Yeyo	ST
97	*Moringa oleifera* Lam.	Moringaceae	Dantalon	T
98	*Mucuna pruriens* (L.) DC.	Fabaceae	Khwe-la-ya	Cl, Cr
99	*Muntingia calabura* L.	Tiliaceae	Tha gya thi	ST
100	*Nauclea* sp.	Rubiaceae	Ma-u	T
101	*Nerium oleander* L.	Apocynaceae	Nwethagee	S
102	*Operculina turpethum* (L.) Silva Manso	Convolvulaceae	Kyahin-bin	Cl, Cr
103	*Passiflora foetida* L.	Passifloraceae	Taw-suka	Cl
104	*Pedilanthus latifolius* Millsp. & Britton	Euphorbiaceae	Gongaman	H
105	*Pennisetum pedicellatum* Trin.	Poaceae	Bottle-brush	G
106	*Phaulopsis parviflora* Willd	Acanthaceae	-	H
107	*Phyllanthus reticulatus* Poir.	Euphorbiaceae	Ye-chiya	S
108	*Phyllanthus urinaria* L.	Euphorbiaceae	Mye-zi-phyu	H
109	*Physalis minima* L.	Solanaceae	Bauk-pin	H
110	*Pithecellobium dulce* (Roxb) Benth.	Mimosaceae	Kala-magyi	T
111	*Plumeria obtusa* L.	Apocynaceae	Akyaw	ST
112	*Plumeria rubra* L.	Apocynaceae	Tayoke-saga	ST
113	*Polyathia longifolia* (Lam.) Benth.& Hook.f.	Annonaceae	Ye-tama	T
114	*Polygonum* sp.	Polygonaceae	-	S

No.	Scientific Name	Family Name	Vanicular Name	Habit*
115	*Psidium guajava* L.	Myrtaceae	Malaka	ST
116	*Pterocarpus indicus* Willd.	Fabaceae	Padauk	T
117	*Ravenala madagascariensis* Gmel.	Strelitziaceae	Htan-ngatpyaw	
118	*Samanea saman* (Jacq.) Merr.	Mimosaceae	Kokko	T
119	*Scirpus* sp.	Cyperaceae	-	G
120	*Scoparia dulcis* L.	Scorphulariaceae	Darna-thu-kha	H
121	*Senna siamea* (Lam.) Irwin & Barneby	Caesalpiniaceae	Mazali	T
122	*Sida acuta* Burm. f.	Malvaceae	Wet-chay-pane	S
123	*Solanum indicum* L.	Solanaceae	Khayan-kazaw	S
124	*Sphaeranthus indicus* L.	Asteraceae	Mwe soke	H
125	*Streblus asper* Lour.	Moraceae	Saeyoe	T
126	*Swietenia macrophylla* King	Meliaceae	Mahogani	T
127	*Synedrella nodiflora* (L.) Gaertn.	Asteraceae	Bizat-hpo	H
128	*Syngonium podophyllum* Schott	Araceae	-	H
129	*Tamarindus indica* L.	Caesalpiniaceae	Magyi	T
130	*Tectona grandis* L. f.	Verbenaceae	Kyun	T
131	*Terminalia catappa* L.	Combretaceae	Banda	T
132	*Tridax procumbens* L.	Asteraceae	Hmwezok-negya	H
133	*Urena lobata* L.	Malvaceae	Katsene	S
134	*Vernonia cinerea* Less.	Asteraceae	Kadu-pyan	H
135	*Vigna marina* (Burm.) Merr.	Fabaceae	Pe-dalat-yaing	Cl, Cr
136	*Ziziphus jujuba* Lam.	Rhamnaceae	Zee	ST

* T- Tree, Cr- Creeper, ST- Small Tree, Cl- Climber, S- Shrub, G- Grass, H- Herb

Table A-5 List of Identified Animal Species 1 - Bird Species in and around the Intersection Area

Scientific Name	Family	Local Name	Status*	Wet Season			Dry Season		
				Sight	Field sign	Type of field sign	Sight	Field sign	Type of field sign
Corvus macrorhynchos levaillanti	Corvidae	taw kyi-gan	LC 2012	Y			Y		
Corvus splendens insolens	Corvidae	kyi-gan	LC 2012	Y			Y		
Cissa chinensis chinensis	Corvidae	u-yen	LC 2012	Y			Y		
Garrulax leucolophus belangeri	Leiothrichidae	*wa-yaung-hnget gaung-byu*	LC 2013	Y			Y		
Alcippe poioicephala fusca.	Timaliidae		LC 2012	Y			Y		
Alophoixus flaveolus	Pycnonotidae	gong-gyeng	LC 2012	Y					
Pycnonotus dispar flaviventris	Pycnonotidae	But-pin-ni	COL	Y					
Hypsipetes leucocephalus	Pycnonotidae		LC 2012	Y					
Copsychus saularis saularis.	Muscicapidae	tha-beik-lwe	LC 2012	Y			Y		
Lanius cristatus cristatus.	Laniidae	hnget da-zat or wa-yon hnget	LC 2012	Y			Y		
Dicrurus macrocercus cathoecus	Dicruridae	lin-mi-zwe	LC 2012				Y		
Cisticola juncidis cursitans	Cisticolidae		LC 2014	Y			Y		
Acridotheres tristis tristis.	Sturnidae		LC 2012	Y			Y		
Ploceus manyar peguensis.	Ploceidae		LC 2012	Y			Y		
Lonchura atricapilla	Estrildidae		LC 2012	Y			Y		
Ploceus hypoxanthus hymenaicus.	Ploceidae		NT 2013	Y			Y		
Lonchura punctulata lineoventer.	Estrildidae		LC 2012	Y			Y		
Amandava amandava flavidiventris.	Estrildidae		LC 2012	Y			Y		
Passer montanus malaccensis.	Passeridae		LC 2015	Y	Y	nest	Y		
Passer domesticus indicus.	Passeridae		LC 2015	Y			Y		
Hirundo rustica gutturalis	Hirundinidae		LC 2012	Y					
Hirundo smithii filifera	Hirundinidae		LC 2012	Y					
Motacilla alba leucopsis	Motacillidae	mi-nyaung-hnget	LC 2014	Y					
Motacilla flava macronyx	Motacillidae	mi-nyaung-hnget	LC 2013	Y					

Scientific Name	Family	Local Name	Status*	Wet Season			Dry Season		
				Sight	Field sign	Type of field sign	Sight	Field sign	Type of field sign
Anthus hodgsoni kodgsoni	Motacillidae		LC 2012	Y			Y		
Anthus rufulus	Motacillidae		LC 2012		Y	nest			
Psittacula eupatria avensis	Psittacidae	kyet-taw or kyet-paung-ka	NT 2014	Y			Y		
Psittacula krameri borealis	Psittacidae	kyegyok	LC 2012	Y			Y		
Psittacula roseata roseate	Psittacidae	kye-tama	NT 2013	Y			Y		
Psittacula himalayana finschi	Psittacidae	kye-kala	LC 2012	Y			Y		
Psittacula alexandri fasciata	Psittacidae	kalama kyet-tu-ywe	NT 2013	Y			Y		
Loriculus vernalis vernalis	Psittacidae	kye-tha-ta	LC 2012	Y			Y		
Coracias benghalensis affinis	Coraciidae	hnget-hka	LC 2014	Y			Y		
Alcedo atthis bengalensis	Alcedinidae		LC 2012	Y			Y		
Halcyon smyrnensis perpulchra	Alcedinidae		LC 2015	Y			Y		
Falco peregrinus peregrinator	Falconidae		LC 2015	Y					
Haliastur indus indus	Accipitridae	sun-gaug-byu	LC 2012	Y			Y		
Spilopelia chinensis	Columbidae	gyo-le-byauk	LC 2014	Y					

Table A-6 List of Identified Animal Species 2 - Bird Species in and around the Intersection Area

Sr. No	Scientific Name	Common name	Family	Remark
1	*Euploea core godartii*	Crow	Danaidae	Common
2	*Danaus chrysippus*	Plain Tiger	Danaidae	Very Common
3	*Danaus genutia*	Common Tiger or Striped Tiger	Danaidae	Very Common
4	*Catopsilia pomona*	Emigrant	Peridae	Very Common
5	*Appias lyncida vasava*	Chocolates Albatross	Peridae	Common
6	*Ixias pyrene verna*	Whight Orange Tip	Pieridae	Common
7	*Catopsilia pyranthe pyranthe*	Mottled Emigrant	Pieridae	Common
8	*Catopsilia scylla comelius*	Orange Emigrant	Pieridae	Common
9	*Appias lyncida vasava*	Chocolates Albatross	Peridae	Common
10	*Hebomoia glaucippe*	Great Orange Tip	Pieridae	Common
11	*Eurema hecabe*	Common Grass Yellow	Pieridae	Very Common
12	*Leptosia nina nina*	Psyche	Peridae	Common
13	*Cathosia cyane euanthes*	Leopard Lacewing	Nyamphalidae	Common
14	*Hypolimnas misippus*	Danaid Eggfly	Nyamphalidae	Common
15	*Argyronome laodice*	Pallas's Fritillary	Nyamphalidae	Common
16	*Jamides cunilda nisanca*	Jamides	Lycaenidae	Common

Table A-7 List of Identified Animal Species 3 - Amphibian Species in and around the Intersection Area

No.	Common Name	Scientific Name	Family	Local Name	Status*	Rainy Season			Dry Season		
						Sight	Field sign	Type of field sign	Sight	Field sign	Type of field sign
1	Common tree frog	*Polypedates leucomystax*	Rhacophoridae	phar-pyan	LC 2016	Y			Y		
2	-	*Duttaphrynus cr ocus*	Bufonidae	phar-kyone-nyin	Dd 2004	Y			Y		
3	Asian Common toad	*Duttaphrynus melanostictus*	Bufonidae	phar-pyote	LC 2016	Y			Y		

Table A-8 List of Identified Animal Species 4-Reptile Species in and around the Intersection Area

Sr. No.	Scientific name	Common name	Family	IUCN, 2009	Source
1	*Ptyas korros*	Indo-chinese rat snake	Colubridae	Least Concern	Interview
2	*Ptyas mucosa*	Indian rat snake	Colubridae	Least Concern	Interview
3	*Xenochrophis piscator*	Checkered keelback	Colubridae	Least Concern	Interview
4	*Eutropis carinatus*	Common skink	Scincidae	Least Concern	Observed
5	*Calotes versicolor*	Garden fence lizard	Agamidae	Least Concern	Observed
6	*Calotes emma*	Tree dwelling lizard	Agamidae	Least Concern	Observed

Table A-9 List of Identified Animal Species 5 - Fish Species in and around the Intersection Area

No.	Common Name	Scientific Name	Family	Local Name	Status*	Rainy Season			Dry Season		
						Sight	Field sign	Type of field sign	Sight	Field sign	Type of field sign
1	Tilapia	*Tilapia nilotica*	Cichlidae		LC 2010 *	Y			Y		
2	Bighead carp	*Hypophthalmicht hys nobilis*	Cyprinidae	Gaun-gyi-nga-kjin	Dd 2012 *	Y			Y		
3	Three spot gourami	*Trichopodus trich opterus*	Osphronemi dae	Tlanee spot gowrami	LC 2012	Y			Y		
4	Common carp	*Cyprinus carpio*	Cyprinidae	Jaun-soun-nga-kjin	V 2008 *	Y			Y		
5	Barramundi or Asian sea bass	*Lates calcarifer*	Latidae	Ka-ka-ti	COL *	Y			Y		
6	Two-barbel pipe fish	*Syngnathoides biaculeatus*	Syngnathida e	Mi-chaung-thwar-kyar-thoe	Dd 2008	Y					
7	Grass carp	*Ctenopharyngodo n idella*	Cyprinidae	Mje-sa-nya-kjin	COL *	Y			Y		

No.	Common Name	Scientific Name	Family	Local Name	Status*	Rainy Season			Dry Season		
						Sight	Field sign	Type of field sign	Sight	Field sign	Type of field sign
8	Gold spotted grenadier anchov	*Coilia dussumieri*	Engraulidae	Myi-tan-thwe	COL	Y					
9	Striped cat fish	*Pangasius sutchi*	Pangasiidae	Nga-dan	E 2011	Y					
10	Scorpion cat fish	*Heteropneustes fossilis*	Heteropneustidae	Nga-gyee	LC 2010	Y					
11	Commerson's sole	*Synaptura commersonii*	Soleidae	Nga-hpa-joun	COL	Y			Y		
12	Carplet Mola	*Amblypharyngodon mola*	Cyprinidae	Nga-hpan-ma	LC 2010	Y			Y		
13	Broadhead Catfish	*Clarias macrocephalus*	Clariidae	Nga-khu	NT 2011	Y			Y		
14	Walking catfish	*Clarias batrachus*	Clariidae	Nga-khu	LC 2011	Y					
15	African catfish	*Clarias gariepinus*	Clariidae	Nga-khu	LC 2014	Y					
16	Tongue sole	*Cynoglossus semifasciatus*	Cynoglosiidae	Nga-khwei-sha	COL *	Y			Y		
17	Labeo rohita	*Labeo rohita*	Cyprinidae	Nga-mji-chin	LC 2010 *	Y			Y		
18	Yellow catfish	*Hemibagrus nemurus*	Bagridae	Nga-moung-ma	LC 2012						
19	Carp	*Labeo nandina*	Cyprinidae	Nga-oun-toun	NT 2010 *	Y			Y		
20	Climbing perch	*Anabas testudineus*	Anabantidae	Nga-pya-ma	Dd 2010	Y			Y		
21	Striped snake head	*Channa striata*	Channidae	Nga-yant	LC 2010	Y			Y		
22	Dwarf cat fish	*Corydoras hastatus*	Bagridae	Nga-zin-yaing	COL	Y					
23	Siamese glassfish	*Parambassis siamensis*	Ambassidae	Nga-zin-zud	LC 2012	Y			Y		
24	Silver carp	*Hypophthalmichthys molitrix*	Cyprinidae	Ngwe-jaun-nga-kjin	NT 2011	Y					
25	Red tilapia	*Oreochromis Niloticus*	Cichlidae	Shwei-ni	COL	Y			Y		
26	Tilapia	*Oreochromis mossambicus*	Cichlidae	Tilapia	NT 2007 *	Y			Y		
27	Narrow-barred spanish mackerel	*Scomberomorus commerson*	Scombridae	Bee-zin	NT 2011	Y					
27	Bluespot grey mullet	*Valamugil seheli*	Mugilidae	Ka-ba-lu	COL *	Y			Y		
28	Golden toothless trevally	*Gnathanodon speciosus*	Carangidae	Ka-la-ngu	COL	Y			Y		
40	Yellow grouper	*Epinephelus awoara*	Epinephelidae	Kyauk-nga	Dd 2006	Y			Y		
66	Areolated grouper	*Epinephelus areolatus*	Epinephelidae	Kyauk-nga	LC 2008	Y			Y		

No.	Common Name	Scientific Name	Family	Local Name	Status*	Rainy Season			Dry Season		
						Sight	Field sign	Type of field sign	Sight	Field sign	Type of field sign
67	Bleeker's grouper	*Epinephelus bleekeri*	Epinephelidae	Kyauk-nga	NT 2008	Y			Y		
68	Yellow tail scad	*Atule mate*	Carangidae	Mee-war	COL	Y			Y		
69	Yellow stripe trevally	*Selaroides leptolepis*	Carangidae	Myet-san-kyei	COL	Y					
70	Big eye scad	*Selar crumenophthalmus*	Carangidae	Myet-san-kyei	LC 2015	Y			Y		
71	Emperor red snapper	*Lutjanus sebae*	Lutjanidae	Nga-ba-yin	COL	Y			Y		
72	Longfin mojarra	*Pentaprion longimanus*	Gerreidae	Nga-bei-phyu	LC 2016	Y					
73	Largehead hairtail	*Trichiurus lepturus*	Trichiuridae	Nga-da-gon	LC 2015	Y			Y		
74	Dorab wolfherring	*Chirocentrus dorab*	Chirocentridae	Nga-dalwe	COL	Y			Y		
75	Toothed ponyfish	*Gazza minuta*	Leiognathidae	Nga-dinn-garr	LC 2012	Y			Y		
76	Gold-striped sardinella	*Sardinella gibbosa*	Clupeidae	Nga-kone-nyo	COL	Y			Y		
77	Silver pomfret	*Pampus argenteus*	Stromateidae	Nga-moke-phyu	COL	Y			Y		
78	Cmmerson's anchovy	*Stolephorus commersonii*	Engraulidae	Nga-ni-tu	COL	Y			Y		
79	Lidian anchovy	*Stolephorus indicus*	Engraulidae	Nga-ni-tu	COL	Y			Y		
80	John's snapper	*Lutjanus johni*	Lutjanidae	Nga-pa-ni	COL	Y			Y		
82	Trumpeter siliago	*Sillago maculata*	Silaginidae	Nga-pulway	COL	Y			Y		
83	Shortfin lizard fish	*Saurida micropectoralis*	Synodontidae	Nga-pulway	COL	Y			Y		
84	Brushtooth lizard fish	*Saurida undosquamis*	Synodontidae	Nga-pulway	COL	Y					
85	Silver sillago	*Sillago sihama*	Silaginidae		COL	Y			Y		
86	Mojarra	*Mojarra sp.*		Nga-se-ooe		Y			Y		
87	Yellow pike-conger	*Congresox talabon*	Muraenisocidae	Nga-shwe	COL	Y					
88	False trevally	*Lactarius lactarius*	Lactariidae	Nga-tee	COL	Y					
89	Milk fish	*Chanos chanos*	Chanidae	Nga-tein	COL	Y			Y		
90	Pointed sweeplip	*Plectorhynchus pictus*	Haemulidae	Nga-wet-sut	COL	Y					
91	Starry emperor	*Lethrinus nebulosus*	Lethrinidae	Nga-wet-sut	COL	Y					
92	Grey largedeye bream	*Gymnocranius griseus*	Lethrinidae	Nga-wet-sut	COL	Y					
96	Giant catfish	*Arius thalassinus*	Ariidae	Nga-yaung	COL	Y					

No.	Common Name	Scientific Name	Family	Local Name	Status*	Rainy Season			Dry Season		
						Sight	Field sign	Type of field sign	Sight	Field sign	Type of field sign
97	Elongated ilisha(Hilsa)	*Ilisha elongata*	Pristigasteridae	Nga-zin-byar	COL*	Y			Y		
98	Big-eyed ilisha (Hilsa)	*Ilisha megaloptera*	Pristigasteridae	Nga-zin-byarr	COL*				Y		
99	Hilsa	*Tenualosa ilisha, Family:*	Clupeidae		COL*				Y		
100	Rosy Jewfish	*Otolithes ruber,*	Sciaenidae		COL*				Y		

Table A-10 Benthos species recorded in and around the Intersection Area

Sr. No	Species	Common Name	Family	Status
1	*Ocypoda routandas*	Crab	Ocypodidae	Common
2	*Scarteloas tenius*	Slender mudskipper	Gobiidae	Common
3	*Leptocarpus fluminicola*	Delta prawn	Palaemonidae	Common

環境社会配慮

付録-16　Provisional Environmental and Social Monitoring Forms

(Reference for Section 9.2.3.2)

ENVIRONMENTAL AND SOCIAL MONITORING FORM

Environmental and Social Monitoring Form shall be submitted to Authorities as a part of an attachment to Progress Report once at Pre-construction phase and once in every four months during Construction Phase, and once a year during Operation Phase.

(1) Project Phase

☐Pre-Construction Phase ☐Construction Phase ☐Operation Phase

(2) Social Environment

Monitoring Items	Monitoring Results	Countermeasures	Condition after Applying Countermeasures

Any Other Remarkable Issues/Remarks

(3) Natural Environment

Monitoring Items	Monitoring Results	Countermeasures	Condition after Applying Countermeasures

Any Other Remarkable Issues/Remarks

(4) Pollution

1) Air Quality

- Measurement Results

Location	Items	Unit	Measured Value (Mean)	Measured Value (Max)	National Standard	Target Value to be applied	Measured Date	Method	Note

- Any complaints from surrounding communities:

Location	Complaint	Countermeasures	Conditions after applying countermeasures

2) Water Quality

- Measurement Results

Location	Items	Unit	Measured Value (Mean)	Measured Value (Max)	National Standard	Target Value to be applied	Measured Date	Method	Note

- Any complaints from surrounding communities:

Location	Complaint	Countermeasures	Conditions after applying countermeasures

3) Noise

- Measurement Results

Location	Items	Unit	Measured Value (Mean)	Measured Value (Max)	National Standard	Target Value to be applied	Measured Date	Method	Note

- Any complaints from surrounding communities:

Location	Complaint	Countermeasures	Conditions after applying countermeasures

4) Waste

Type of Waste	Amount	Unit	Generated from	Waste Management Activities	Note

➢ Any complaints from surrounding communities:

Location	Complaint	Countermeasures	Conditions after applying countermeasures

(5) Health and Safety

Monitoring Items	Monitoring Results	Countermeasures	Condition after Applying Countermeasures

Any Other Remarkable Issues/Remarks

(6) Emergency Risk

Monitoring Items	Monitoring Results	Countermeasures	Condition after Applying Countermeasures

Any Other Remarkable Issues/Remarks

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付録-17　Gap Analysis on Environmental Regulations and Check List for Environmental and Social Considerations

Gap Analysis between JICA Guidelines and Myanmar EIA Related Regulations

No large change in the legislation in the country from the time of Supplemental F/S. Gap analysis between JICA Guidelines for Environmental and Social Considerations (April 2010) and EIA related regulations in Myanmar is summarized in the table below.

Table Gap analysis between JICA Guideline (April 2010) and EIA related Legislation in Myanmar

Items	JICA Guidelines (April 2010)	Environmental Legislation in Myanmar	The measure to be held in the current project
1. Underlying Principles	1. The earliest possible environmental assessment to incorporate the avoidance/minimization /mitigation of the impact into the project plan. 2. Quantitative and qualitative analysis covering social and environment harmonizing economic, financial, institutional, social and technical analysis. 3. Provision of alternatives and mitigation measures in consideration. EIA report for the large adverse impact. 4. Organizing a committee of experts for the particularly large adverse impacts).	Article 3 of the EIA Procedure stipulates that all Projects and Project expansions which have the potential to cause adverse impacts, are required to undertake IEE or EIA or to develop an EMP to obtain an ECC. Article 58 of the EIA Procedure stipulates that EIA investigation shall also include an analysis of Alternatives. Such analysis shall include a description of each Alternative, and an assessment and comparison of the Adverse Impacts, required mitigation measures and Residual Impacts of the Alternatives while there is no line which stipulates the timing of the above implementation.	There is no large gap in between.
2. Examination of Measures	1. Examination of the multiple alternatives to avoid, minimize mitigate of the impact). 2. Preparation of appropriate follow up plans and systems such as monitoring plans and environmental management plans.	As mentioned above, Article 58 of the EIA Procedure stipulates that EIA investigation shall also include an analysis of Alternatives. Article 63 of the EIA Procedure stipulates that the project proponent is responsible to prepare EIA report which contains Impact and Risk Assessment and Mitigation Measures. Article 36 of the EIA Procedure stipulates necessity of EMP with implementation budget in IEE report. Article 63(8) of the Procedure stipulates that EMP, Monitoring Plans, mitigation measures and overall budget for implementation of the EMP is necessary in IEE report.	There is no large gap in between.
3. Scope of Impacts to Be Assessed	1. Impacts on human health and safety, as well as on the natural environment, transmitted through air, water, soil, waste, accidents, water usage, climate change, ecosystems, fauna and flora, including trans-boundary or global scale impacts. 2. Examining derivative, secondary, and cumulative impacts indivisible from the project.	1. Article 63(6) of the EIA Procedure stipulates that (I) identification and assessment of potential Environmental Impacts including (i) physical, biological, social, socioeconomic, health, cultural, and visual impacts; (ii) potential impacts on climate change such as greenhouse gas emissions and loss of carbon sinks or stocks; and (iii) identification of impacts of climate change on the Project based on available climate change predictions from designated national authorities or international scientific research bodies, (II) Identification and assessment of the likelihood and severity of natural and industrial hazards relevant to the Project are necessary in EIA report.	There is no particular large gap in between.

		However, social impacts, local economy, social institution and social infrastructures are not determined. Article 63 (7) of the EIA Procedure stipulates that the project proponent is responsible to prepare EIA report which contains Cumulative Impact Assessment.	
4. Compliance with Laws, Standards, and Plans	1. Compliance with Laws, Standards, Policies and Plans. 2. Avoidance of the protected and conservation area of natural or cultural heritage designated by laws and ordinances.	Article 28 of The Environmental Conservation Law prescribes that "No one shall, without prior permission, operate business, work-site or factory, and workshop which is required to obtain prior permission under this Law" Article 29 of the law stipulates that "No one shall violate any prohibition contained in the rules, notifications, orders, directives, and procedures issued under this Law." Article 25 of EIA Procedure stipulates that an EIA is required in all cases where the Project will be located in or will have foreseeable adverse effects on any legally protected national, regional or state area defining 12 types of the protected areas.	There is principally no particular large gap in between for legal compliance and avoidance of the legally protected areas. However, the government of Myanmar is still setting the environmental standards and some parameter such as environmental water quality should be referred the standards in international organization/other donor countries such as WHO and Japanese.
5. Social Acceptability	1. Adequate social coordination for their acceptance. In case of the large impact, sufficient consultation with local stakeholders via information disclosure at early stage to be incorporated into project plan. 2. Consideration of the vulnerable people	Article 36 (g) of the EIA procedures stipulates that public consultation and public participation processes, recommendations received from the public, and the Project Proponent's written responses to comments received during that process is necessary in IEE report. Article 50 of the EIA Procedure stipulates that as part of the Scoping, the Project Proponent shall ensure that the following public consultation and participation process. a) information disclosure, b) arrange the required complement of consultation meetings with stakeholders including potential PAPs. Article 52 of the EIA Procedure stipulates about required contents for EIA investigations and Article 63 (9) of the EIA Procedure stipulates that the project proponent is responsible for the preparation of EIA report which contains 9.0 Public Consultation and Disclosure.	There is no large gap in between regarding the social acceptability through public consultation and also consideration of the vulnerable people.
6. Ecosystem and Biota	1. Avoidance of the degradation of the natural resource 2. Avoidance of the illegal logging	The Environmental Conservation Law prescribes that relevant government departments/ organizations shall carry out conservation, management, beneficial use, sustainable use and enhancement of regional cooperation of environmental natural resources. Article 40 of the Forest Law (1992) prescribed that cause of any damage to reserved forest and its environment is prohibited and will be punished. Article 36 of The Protection of Wildlife and Conservation of Natural Areas Law prescribed that cause of any damage to protected areas is prohibited and will be punished.	There is no particular large gap in between.

7. Involuntary Resettlement	1. Avoidance and minimization of the involuntary resettlement 2. Sufficient compensation to PAPs with timely manner 3. Appropriate participation of PAPs throughout the planning, implementation and monitoring of the RAPs with the appropriate grievance mechanisms 4. At large scale involuntary resettlement, advance information disclosure to the PAPs should be made with the understandable way covering the elements in the World Bank Safeguard Policy, OP 4.12, Annex A.)	Although the details of actions are not provided, Article 7 of the EIA Procedure clearly describes that projects that involve involuntary resettlement or which may potentially have an adverse impact on indigenous people shall comply with specific procedures separately issued by the responsible ministries. Prior to the issuance of any such specific procedures, all such projects shall adhere to international good practice (as accepted by international financial institutions including the World Bank Group and Asian Development Bank) on involuntary resettlement and indigenous peoples. Article 36 (g), 50, 52, 63(9) of the EIA Procedures describe that stakeholders including PAPs are invited as appropriate to provide comments and suggestions on the IEE/EIA/EMP reports. However, it does not describe resettlement action plan. Article 102 of the EIA Procedure stipulates that a project proponent shall bear full legal and financial responsibility for: PAPs until they have achieved socio-economic stability to restore. Article 3 of the Land Acquisition Act (1894) stipulates that a person who has rights on the land would be entitled to claim compensation if the land was acquired under this Act and Article 5A provides claim the objection for the land acquisition within thirty (30) days of the notification. Also, Article 23 of the Land Acquisition Act provides compensation for the assets of PAPs. Article 64 of the Farmland Rules 2012 stipulates the compensation in farmland acquisition for the interest of the state or public.	There is no large Gap in between. Although no laws were specifically mentioned about the requirement of resettlement action plans for large-scale involuntary resettlement, the General Administration Department (GAD) of the Ministry of Home Affairs (MOHA) explained that the Land Acquisition and Resettlement Action Plan (LARAP) will be required for large-scale developments and GAD will approve it. (hearing as of January 2013 by JICA Supplemental F/S Team). The Project prepared Abbreviated Resettlement Action Plan (A-RAP).
8. Indigenous Peoples	1. Avoidance and minimizing impacts to indigenous people 2. Respect for Indigenous people's right obtaining their consent in a process of free, prior and informed consultation 3. Adequate measure to the adverse impact for indigenous people as Indigenous Peoples Plan with understandable way covering the elements of the World Bank Safeguard Policy, OP4.10, Annex B.	As mentioned above, Article 7 of the EIA procedure describes that an international good practice will be adhered when the projects involve Indigenous People as well as resettlement.	There is no large gap in between.
9. Monitoring	1. Adequate monitoring of the predicted mitigation measures and occurrence of unforeseeable situation. 2. Feasible monitoring plan at planning 3. Available monitoring process to local project stakeholders 4. Resolving problems through an occasion of the discussion and	Article 100 of the EIA Procedure stipulates that a project proponent shall incorporate all relevant environmental commitments and requirements set forth in the EIA Report. Article 106 of the EIA Procedure stipulates that a project proponent shall engage in continuous, proactive and comprehensive self-monitoring of a	There is no large gap in between.

	examination in public with the sufficient stakeholder's participation	project compliance with applicable laws, the rules and standards. Article 110 of the EIA Procedure stipulates that within ten (10) days of completing a monitoring report as contemplated in Article 108 and Article 109 in accordance with the EMP schedule, a project proponent shall make such report publicly available on the project's website, at public meeting places and at project offices.	

Source: JICA Study Team based on Guidelines for Environmental and Social Considerations (2010) and EIA procedure (2015) in Myanmar

Confirmation on Environmental and Social Considerations for the Proposed Project by JICA Environmental Checklist

Table Field Confirmation of JICA Checklist for bridge and road construction (updated at B/D and D/D stages in 2017)

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations
1. Permits and Explanation	(1) EIA and Environmental permits	(a) Have EIA reports been already prepared in official process?	N	- In Myanmar, the Environmental Impact Assessment (EIA) Procedure was promulgated in Dec, 2015. The EIA Procedure stipulates the process of environmental impact assessment study in detail and determines type of environmental impact assessment study (EIA/IEE/EMP) according to size of each project. - Environmental Compliance Certificate (ECC) is an approval document of EIA/IEE/EMP report. The procedure of getting ECC is as follow: i. At first, the project proponent shall submit project proposal documents to the Ministry of Natural Resources and Environmental Conservation (MONREC) which decides type of Environmental Impact Assessment (EIA or IEE or EMP) to be required for the project, ii. EIA/IEE/EMP report should be prepared by a third party and the project proponent submits the result of corresponding report to MONREC. iii. MONREC approves the report submitted and issues ECC with conditions, iv. The project proponent obtains an investment license by showing ECC. - Scoping Report for the Project was prepared and submitted in July 2017 from MOC to MONREC according to instruction from MONREC. In parallel, EIA report was prepared by updating information obtained at F/S and Supplemental F/S. EIA report was also submitted from MOC to MONREC in November 2017.
		(b) Have EIA reports been approved by authorities of the host country's government?	N	In July 2017, MOC submitted Scoping Report for the Project to MONREC. After that, EIA report for the Project was submitted from MOC to MONREC in November 2017. The Project is in the process of obtaining ECC from MONREC as of December 2017.
		(c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?	N	Ditto
		(d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	N	Besides ECC, tree cutting may require a permission from the city and regional authorities such as Yangon City Development Committee (YCDC) and Forest Department in Thanlyin Township. Facilitation between MOC and YCDC or Forest Dept. in Thanlyin Township is in process.

	(2) Explanation to the Public	(a) Have contents of the project and the potential impacts been adequately explained to the local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the local stakeholders?	Y	- Stakeholder meetings on the Project were held during F/S and Supplemental F/S. In these meetings, project outline and potential impact were explained stakeholders including local residents. Through questions and answers, understanding of the Project by stakeholders appeared to be enhanced. - In addition to the above stakeholder meetings MOC held a public consultation meeting targeting PAPs in November 2016 to explain relocation issues to be caused by the Project.
		(b) Have the comments from the stakeholders (such as local residents) been reflected to the project design?	Y	The comments were reflected to design of bridge, intersection improvement and approach roads, and plan of countermeasures for construction work were compiled in the Environmental Management Plan in EIA report.
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	Y	In order to minimize the environmental impacts, following alternatives were examined for the bridge. 1) Comparison among three options of river crossing routes. 2) Comparison of bridge site locations upstream and downstream side toward existing Thanlyin Bridge. 3) Comparison with zero option. Also, for the intersection, 1) Comparison of flyover structures and 2) Comparison with zero option were examined.
2. Pollution Control	(1) Air Quality	(a) Is there a possibility that air pollutants emitted from the project related sources, such as vehicles traffic will affect ambient air quality? Does ambient air quality comply with the country's air quality standards? Are any mitigation measures taken?	Y	1) As of May 2017, ambient air quality standards are not established in Myanmar. But air emission guidelines was set up in National Environmental (Emission) Quality Guidelines (EQG) (2015). 2) According to air quality measurements, most of observed values of air pollutants are rather lower level, but values in the PM10 and PM2.5 are exceeded and some temporally air pollution, especially related to the dust at the construction may be associated. The following countermeasures are taken to mitigate the pollution. - Sprinkling water around earth work area and preservation area such as residence, religious buildings and cultural heritage buildings. - Efficient operation of construction vehicles and machines to minimize the amount of discharged air pollutants by prohibiting idling of machine. - Avoidance of intensive operation of construction machinery. - Regular inspection and maintenance of construction equipment, machines and vehicles. - Educating construction workers for the prevention or minimization of air pollutants generation. - Monitoring of air quality during construction.
		(b) If air quality already exceed country's standards near the route, is there a possibility that the project will make air pollution worse?	Y	According to air quality measurements, most of observed values of air pollutants are rather lower level, but values in the PM10 and PM2.5 are exceeded and some temporally air pollution at the construction may be associated. Improvement of traffic congestion will result in a smoother traffic condition through the construction of a flyover in Thaketa Township. Thus, reduction in emission of air pollutants is expected due to decrease in idling time. On the other hand, improvement of traffic congestion may increase the number of vehicle movement, resulting in an increase in emission load of air pollutants in future.

	(2) Water Quality	(a) Is there a possibility that soil runoff from the bare lands resulting from earthmoving activities, such as cutting and filling will cause water quality degradation in downstream water areas?	N	No particularly serious water quality degradation is anticipated by soil runoff with adequate countermeasure at the construction because the site is at topographically flat area.
		(b) Is there a possibility that surface runoff from roads will contaminate water sources, such as groundwater?	N	Surface runoff from roads is currently discharged by drainage, and the Project will improve the currant drainage and install new drainage for the area where drainage is not existed. Thus, surface runoff from roads is not newly occurred by the Project. Therefore, there will not be new or additional impact to water source to be caused through surface runoff by the Project.
		(c) Do effluents from various facilities, such as stations and parking areas/service areas comply with the country's effluent standards and ambient water quality standards? Is there a possibility that the effluents will cause areas that do not comply with the country's ambient water quality standards?	Y	The effluent from the permanent facilities related to the operation of the new bridge and temporal facilities such as worker's camp should comply with the National Environmental (Emission) Quality Guidelines (EQG) (2015).
	(3) Noise and Vibration	(a) Do noise and vibrations from vehicle and train traffic comply with the country's standards?	Y	The noise and vibration generated from the construction work should be complied with the standards. 1) EQG Myanmar was promulgated in Dec, 2015. During construction, operation and maintenance of the project, the noise and vibration due to the project should comply with the noise level guideline. Vibration standards from vehicle and train traffic are not established in Myanmar. However, according to the actual measurement result, measurement values of noise near the access roads are within the range of the environmental standard of Japan and WHO Guidelines. The noise and vibration generated from the construction work should be complied with the standards. 2) Increase in generation of noise and vibration due to increase in traffic volume is expected. Thus, following measures will be prepared: (i) Preventive measures for noise pollution (avoiding abuse of horn, good maintenance of vehicles, regulation of over-loading. (ii) Noise monitoring along roads., (iii) consideration of avoidance of the nighttime high noise works.
		(b) Do low frequency sound from the vehicle and train traffic comply with the country's standards?	Y	There is no standard for low frequency sound in Myanmar, and impact of low frequency sound by the Project is considered as low. Measures to reduce generation of low frequency sound is incorporated in the project plan and mitigation measures.
	(4) Waste	(a) Are wastes generated from the project facilities, such as parking areas/service areas, properly treated and disposed of in accordance with the country's regulations?	N	Waste from project activities, domestic waste from the worker's camp and industrial waste from the construction should be treated country's regulation such as National Environmental Quality (Emission) Guidelines (2015).
		(b) In the case of that large volumes of excavated/dredged materials are generated, are the excavated/dredged materials properly treated and disposed of in accordance with the country's standards?	Y	According to construction plan, considerable volume of excavated/ dredged materials are expected to generate from construction work of bridge section. The excavated material will be utilized as much as possible at the site to reduce the amount of the soil transportation to be minimized its impact.

	(6) Odor	(a) Are there any odor sources? Are adequate odor control measures taken?	Y	Related to the construction of the bridge foundations and piers, some disturbance of the bottom sediment is likely occurred. Preventive construction method to reduce scattering river mud from dredging work such as Steel Pipe Sheet Pile Foundation shall be applied.
3 Natural Environment	(1) Protected Areas	(a) Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	N	There are no protected areas in and around the project area.
	(2) Ecosystem and biota	(a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?	N	There are neither primeval forests nor tropical rain forests. As minor disturbance to the natural environment, some riverbank vegetation which includes mangrove species are distributed near bridge site although it is small scale.
		(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?	N	No endangered endemic species at the site has been identified. (b) – (c), 1) In the project site there are following two plant species which categorized as threatened plant species in IUCN Red List. (i) *Delonix regia* (Bojer ex Hook) Raf.- Seinban tree and (ii) *Swieteniamacrophylla* King – Mahogany tree 2) However, both species are sub-categorized as vulnerable ones, which means in the condition of less threatened than critically endangered or endangered species in the Red List. In fact two tree species are planted and found commonly at parks, greenery area and along the roads in Yangon City. 3) According to instruction from Forest Department, MOECAF (former MONREC), removal and/or relocation or replanting trees including these two species, at first to submit application letter including data of tree species, location and numbers of trees, to the Department for obtaining permission.
		(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?	Y	
		(d) Are adequate protection measures taken to prevent impacts, such as disruption of migration routes, habitat fragmentation, and traffic accident of wildlife and livestock?	Y	
		(e) Is there a possibility that installation of bridge and access roads will cause impacts, such as destruction of forest, poaching, desertification, reduction in wetland areas, and disturbance of ecosystems due to introduction of exotic (non-native invasive) species and pests? Are adequate measures for preventing such impacts considered?	N	There are neither natural forest nor remarkable wetland. Desertification is unlikely considering located in tropical monsoon area. In addition, project area is urbanized and developed area and some exotic species have already been introduced.
		(f) In cases where the project site is located at undeveloped areas, is there a possibility that the new development will result in extensive loss of natural environments?	N	
	(3) Hydrology	(a) Is there a possibility that hydrologic changes due to the installation of structures will adversely affect surface water and groundwater flows?	Y	There is some anxiety of river scouring at the bridge site. Scour action will be especially strong during rainy season. In order to avoid or minimize a scouring, preventive measures against souring such as Steel Pipe Sheet Pile Foundation is applied in the project plan as one of the optimal solution for deep-water construction and anti-scouring properties. So, impact to hydrologic change is considered as low. The monitoring of scoring after the construction also shall be implemented.
		(b) Is there a possibility that alteration of topographic features and installation of structures, such as tunnels will adversely affect surface water and groundwater flows?	Y	There is a possibility that bridge piers may change somewhat the flow of the Bago River. However, span length is sufficiently secured as a route of inland transportation by water. The impacts for the flow are assumed to be minor.

	(4) Topography and Geology	(a) Is there a soft ground on the route that may cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides, where needed?	Y	Some parts of the project include embankment and prevention of the slope failures are considered adequately.
		(b) Is there a possibility that civil works, such as cutting and filling will cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides?	N	It is considered that soil embankment works are performed properly without collapse. EIA report proposed adequate measures to prevent collapse or erosion with proper compaction and protection.
		(c) Is there a possibility that soil runoff will result from cut and fill areas, waste soil disposal sites, and borrow sites? Are adequate measures taken to prevent soil runoff?	Y	EIA report proposed proper measures to prevent soil runoff from fill areas and borrow sites.
E 4. Social Environment	(1) Resettlement	(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?	Y	1) All the Right of Way (ROW) for planned bridge and approach roads are public land and owned by government such as Myanmar Railway Authority, Ministry of Construction, YCDC and YRDC). There were households living in this area, and they are requested to be relocated. 2) In addition, encroachment of a few stalls and two small religious praying facilities on ROW was found. Therefore, the above structures are required to be relocated. 3) A-RAP was prepared in accordance with JICA Guidelines for Environmental and Social Considerations (April, 2010) by examining to minimize impact to be caused by the Project.
		(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?	Y	A public consultation meeting targeting PAPs was held, and the contents of compensation was explained to them.
		(c) Is the resettlement plan, including proper compensation, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?	Y	Appropriate contents on compensation and livelihood restoration were examined in A-RAP based on socioeconomic studies on resettlement.
		(d) Is the compensations going to be paid prior to the resettlement?	Y	Based on A-RAP, compensations will be paid prior to the resettlement.
		(e) Is the compensation policies prepared in document?	Y	Compensation policies was prepared in A-RAP document.
		(f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?	Y	A-RAP was updated based on the socio-economic study in the affected people, and it pays particular attention to vulnerable groups, although ethnic minorities and indigenous peoples are not found in the project area.
		(g) Are agreements with the affected people obtained prior to resettlement?	Y	The project information was disclosed in the stakeholder meeting and a public consultation meeting to the project affected households. No objection was raised during the meetings. Negotiation with each PAP will be done later, resettlement will be commenced after agreement is obtained.
		(h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?	Y	The organizational framework was developed and total cost for the resettlement related works was estimated in A-RAP. Proper implementation of the A-RAP shall be secured under the responsibility of MOC with enough capacity and budget.
		(i) Are any plans developed to monitor the impacts of resettlement?	Y	Internal monitoring is designated in A-RAP.

		(j) Is the grievance redress mechanism established?	Y	The grievance redress mechanism was developed in A-RAP document.
	(2) Living and Livelihood	(a) Where, bridges and access roads are newly installed, is there a possibility that the project will affect the existing means of transportation and the associated workers? Is there a possibility that the project will cause significant impacts, such as extensive alteration of existing land uses, changes in sources of livelihood, or unemployment? Are adequate measures considered for preventing these impacts?	Y	The positive impact of the project at the operation is expected in comparison with the current traffic condition. Improvement of traffic condition between Yangon City area, and Thanlyin Township and Thilawa SEZ will greatly enhance economic and industrial development of Greater Yangon as well as improvement of people's access to social services.
		(b) Is there a possibility that the project will adversely affect the living conditions of inhabitants other than the affected inhabitants? Are adequate measures considered to reduce the impacts, if necessary?	Y	Due to construction works of the Project, there is a possibility of temporary disturbance during the construction time to social infrastructure such as pagoda. Adequate measures were examined such as arrangement of pedestrian way as necessary.
		(c) Is there a possibility that diseases, including communicable diseases, such as HIV will be brought due to immigration of workers associated with the project? Are adequate considerations given to public health, if necessary?	Y	1) Road construction workers and truck drivers are considered as having high potential for the spread of sexually transmitted diseases (STDs) and HIV/AIDS due to their mobility. It was reported infection with HIV/AIDS and venereal disease at worker's camp during road construction stage in other developing countries. 2) (i) Education of and campaign of prevention and cure of HIV/AIDS to residents and construction workers. (ii) Monitoring of cases of HIV/AIDS before, during and after the construction stage, if necessary.
		(d) Is there a possibility that the project will adversely affect road traffic in the surrounding areas (e.g., by causing increases in traffic congestion and traffic accidents)?	N	The project is planned to improve the current traffic condition. Thus, the project may not cause adverse impacts to road traffic conditions in the surrounding area.
		(e) Is there a possibility that bridge and access roads will impede the movement of inhabitants?	N	1) Bago River Bridge is planned for passenger use and not for freight use. Therefore, traffic condition between Yangon City area and Thanlyin will be greatly improved. 2) Sidewalks with 2 m width will be installed in both side of bridge and approach roads. Thus, non-mechanized transport will be ensured. 3) Approach roads will be linked to existing road at grade and will not impede the movement of inhabitants.
		(f) Is there a possibility that bridge and access roads will cause a sun shading and radio interference?	N	Site of Bago River Bridge and approach roads are surrounded by Bago River and devastated governmental stock yards. At the site of the intersection improvement, some residents are living under the shade of existing tree. Thus, adverse impact on sunlight shading and radio frequency compare to the current condition is not expected.
	(3) Heritage	(a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage sites? Are adequate measures considered to protect these sites in accordance with the country's laws?	N	There are no legally protected cultural and heritage sites in and around the project area, although many religious facilities such as pagodas, temples, churches are distributed in Greater Yangon.

	(4) Landscape	Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?	Y	1) Existing bridge landscape in and around Bago River produced by Thanlyin Bridge will be somewhat changed by appearance of Bago River Bridge, which is planned to construct nearby at approximately 100m downstream of existing Thanlyin Bridge. Thus, the bridge was design to be a new attractive landmark in the area and to harmonize with the Thanlyin Bridge.
	(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples?	N	There is no ethnic minorities and indigenous peoples in the project area.
		(b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	-	
	(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project?	N	Mitigation measures to abide relevant regulations on labor, and occupational health and safety will be taken.
		(b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials?	Y	(i) Any worker and personnel who enter into construction sites have to bear safety shoes and hats for construction works. (ii) Site manager of the contractor must conduct morning assembly everyday by collecting all the laborers and give instructions to them on safety control of construction site and thoroughly conduct safety management of the site. (iii) In the construction site where heavy machines for construction are operated, intrusiveness except concerned parties should be banned. (iv) Consider safety handling and storage in airtight containers of hazardous and dangerous materials.
		(c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.?	Y	Preparation of environmental and safety management plan, and conducting education of traffic safety and public and occupational health to workers and staff are planned, and it should be monitored.
		(d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?	Y	In the project plan, measures to control security guards not to violate safety of project site and residents, is incorporated.
5. Others	(1) Impacts during Construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?	Y	The mitigation measures are compiled in the Environmental Management Plan to minimize negative impacts from the project.
		(b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts?	Y	1) Terrestrial ecosystem – No severe adverse impact is anticipated. Trees along the road side and riverbank are required to be removed and those removal should be obtained a permission from the local government authorities, Yangon City Development Committee(YCDC) for Thaketa side and Forest Dept. in Thanlyin Township for Thanlyin side.
		(c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?	Y	The mitigation measures are compiled in the Environmental Management Plan to minimize negative impacts from the project. The plan included the mitigation measure for the social environment and monitoring of those mitigation measures are proposed in the monitoring plan.

	(2) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?	Y	In the project plan, environmental monitoring program is incorporated especially in EIA report.
		(b) What are the items, methods and frequencies of the monitoring program?		In the environmental monitoring plan, items relating to expected negative impacts as well as necessary permissions are selected and indicator, methods and frequencies as well as responsible institutions are described in EIA report.
		(c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?	Y	The monitoring activities are described in EIA report under responsibility of the project proponent, MOC to comply with "The EIA Procedure (2015)" and JICA Guidelines for Environmental and Social Considerations (April, 2010).
		(d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?	Y	The EIA Procedure (2015) stipulates that the contents of monitoring report and frequency of submitting monitoring report to EIA competent authority MONREC; not less frequently than every six (6) months, as provided in a schedule in the EMP. In the project plan details of monitoring implementation and report system is proposed referring to the EIA Procedure (2015).
6 Note	Reference to Checklist of Other Sectors	(a) Where necessary, pertinent items described in the Roads, Railways and Forestry Projects checklist should also be checked (e.g., projects including large areas of deforestation).	N	Not necessary
		(b) Where necessary, pertinent items described in the Power Transmission and Distribution Lines checklist should also be checked (e.g., projects including installation of power transmission lines and/or electric distribution facilities).	Y	Relocation of electric power lines are necessary to carry out in the Project. Items described in Transmission and Distribution Lines Checklist was covered by this format.
	Note on Using Environmental Checklist	(a) If necessary, the impacts to transboundary or global issues should be confirmed (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).	N	Not necessary. As described in the report, the impacts from the project are expected to be mitigated through proposing measure and those do not involve transboundary or global issues.

Source: JICA Study Team

環境社会配慮

付録-18 Addition Consultation Meeting Minutes and Materials

(Reference for Section 9.3.4)

付録 4-1: Session 1 – MR’s Staff Apartment

Minute of Meeting, Section-1 (MR's Staff Apartment)

Name of Meeting	Consultation Meeting with MR staff Apartmemt PAHs
Date & Time	17 December 2016, (9:40AM – 10:10AM)
City & Place	Bridge Construction (Special 11), MOC compound, Tharketa Township,
Participants (MOC&JICA Study Team)	1) Chief Engineer (Civil), Dept. of Bridge, Ministry of Construction 2) Director (Civil), Dept. of Bridge, Ministry of Construction 3) Director (Civil), Dept. of Bridge, Ministry of Construction 4) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 5) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 6) Assistant Engineer, Dept. of Bridge, Ministry of Construction 7) Social Expert (International Expert),JICA Study Team (JST) 8) Social Expert (JST) 9) Junior Social Expert(JST) 10) Junior Environmental Expert (JST)
Participated PAHs	Total No. – 14
Handout	Outline of Environmental and Social Considerations for Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection (File Name: Sec.1_MR Staff Apartment)
Explanation by Director of MOC	- Firstly, the Director of MOC introduces Chief Engineer to the participants of the meeting that the Chief Engineer is the Leader of Project Management Unit (PMU) of Bago River Bridge (Thanlyin Bridge No.3) Construction Project. - One of the ministers from YRG will represent as the chairman of the compensation committee for Bago River Bridge Project, and the Chief Engineer will be assigned as the secretary. - After that, the Director briefly explained about the project description, and possible impact on natural and social environment.
Explanation by Chief Engineer of MOC	- Bago River Bridge (Thanlyin Bridge No.3) Construction Project is going to be implemented by the Ministry of Construction under Japanese ODA Loan. - The purpose of the today meeting is to explain about the compensation content to the people who are living in MR's staff apartments locating in the project area by following the JICA Guidelines for Environmental and Social Considerations (the JICA Guidelines). - MOC will provide the appropriate compensation for MR's staff by following the instruction of YRG and the JICA Guidelines, and based on the decision made by the compensation committee. The framework of compensation is mentioned in the handout. - Implementing this project will be contributed to the country development, therefore, MOC would like to request the participants to support the project to be successful.
Question and Answer Section	• **Q-1) Participant, Worker from MR** - She is now living in MR's apartment. If it is necessary to move from the MR's apartment, she would like to know the moving date beforehand as she needs to submit a letter to the MR office to apply a new apartment. • **Q-2) Participant, Corporal from MR, Kwema-Thilawa-East University portion of railway)** - There are 6 rooms in the MR's Police Apartment. Among 6 rooms, one is police office room, 2 rooms are living by the owners and the remaining 3 rooms are leased unofficially from MR's staff. - However, the room owners and renters have willing to move from the MR's staff apartment at the necessary time if that apartment is affected by the projects. - The ownership and leasing conditions of the MR's Police Staff Apartment and MR's staff apartments are as follows- - <u>MR's Police Staff Apartment</u> - 1) Room 1, Owner/Renter - 2) Room 2, Owner/Renter - 3) Room 3, Owner/Renter - 4) Room 4, Owner - 5) Room 5, Owner - 6) Room 6, Police Office <u>MR Staff Apartment</u>

	- 1) Owner- **Worker** (Line 1/Room 1- have renter also) - 2) Owner- **Worker** (Line 1/ Room-2) - 3) Owner- **Staff**, (Line 1/ Room 3) - 4) Empty Room (Line 1/ Room 4) - 5) Owner- **Junior Staff**, (Line 1/ Room 5) • **Q-3) Participant, Renter** - He is a renter of MR's apartment. He would like to know that there is any consideration for renters. **<u>Answer:</u> Chief Engineer and Director of DOB, MOC** - MOC will discuss with MR officers for the MR's staff apartments which are included in the project area for the convenience of the people living in an MR staff apartment. - When MOC makes discussion with MR Officers, MOC will not mention about the renting condition of the MR's staff apartment. - MOC will inform the moving date when it is fixed. - For the renter issues, the apartment owners should solve by themselves.

Outline of Environmental and Social Considerations for

Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection

1. Project Outline

Traffic volume of passenger and cargo between Yangon and the Thilawa area is increasing these days in accordance with development of Thilawa Special Economic Zone (SEZ). Accordingly, traffic congestion around the Thanlyin No. 1 Bridge area is serious in daily basis. With the purpose of solving traffic congestion and improving traffic flow in Thanlyin and Thaketa areas, Department of Bridge, MOC plans to construct the Bago River Bridge (Thanlyin No.3 Bridge) and to improve the intersection.

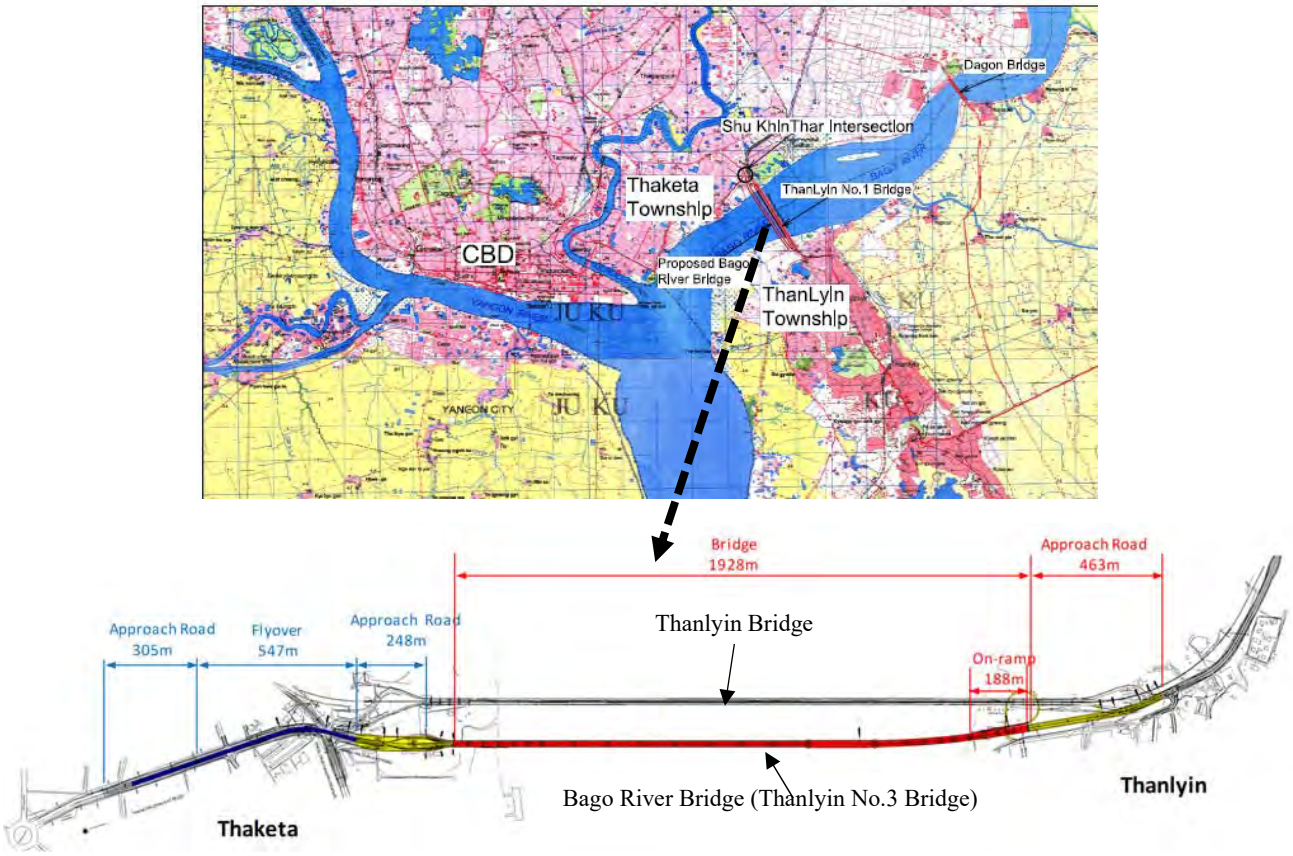
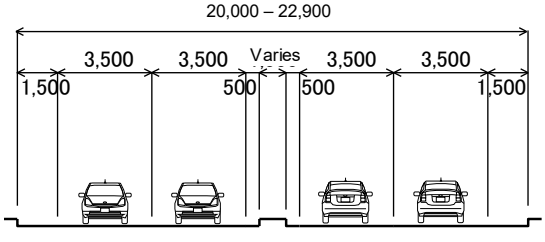
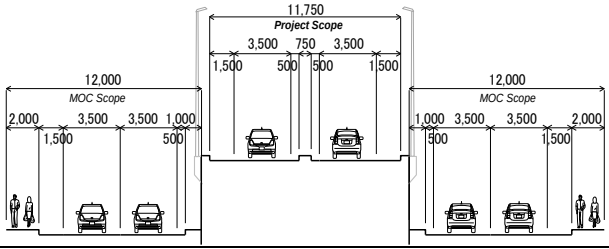


Figure-1 Location and Layout of the Project

Table-1 Typical Cross Section

	
Bridge	**Intersection**

2. Environmental and Social Considerations

Major possible environmental and social impact before and during construction and operation.

Parameter	Stage	Potential Impacts	Proposed Mitigation Measures	Monitoring
Pollution	Construction	- Possibility to temporary degrade air and water quality due to earth works - Possibility to increase noise and vibration due to construction activities	- Use construction vehicles and machines with sufficient emission exhaust control - Treat wastewater according to YCDC regulations - Arrange silt trap to avoid direct discharge of surface runoff	- Visual observation of air quality, noise & vibration (daily) - Sampling & analysis of selected parameters of air quality (3 times a year) - Checking complain
	Operation	- Possibility to degrade air quality due to increase of traffic - Possibility to increase noise and vibration due to increase of traffic	- Monitor air quality, noise and vibration - Apply preventive measures (e.g. avoiding horns, good maintenance of vehicles, regulation of overloading)	- Sampling & analysis of selected parameters of air quality (2 times a year) - Checking sound level (3 times a year)
Social Environment	Before Construction	- Land acquisition of private land and involuntary resettlement	- Holding consultation with concerned people in timely manner and providing appropriate compensation before relocation	- Planning stage (at the latest commencement of construction works)
	Construction	- Disturb accessibility to local social infrastructure such as religious places	- Inform construction activities and schedule to the surrounding communities and relevant authorities in advance - Arrange traffic signal and watchman according to the situation	- Confirming records of complain (any times as requested)
	Operation	- Possibility to change river flow due to piers to be installed	- Consider location of piers	- Confirming the situation to relevant authorities

3. Compensation Policy

(1) Cut-off Date

The Cut-off Date is the date to determine eligibility for compensation and assistance. Generally, the Cut-off Date is the date when census begins. Persons who occupy the project area after the Cut-off Date will not be eligible for resettlement assistance. The Cut-off Date for construction of the Bagor River Bridge (Thanlyin No.3 Bridge) and improvement of the intersection is announced as **March 1, 2016**, the date of initial investigation on land acquisition and relocation at the field.

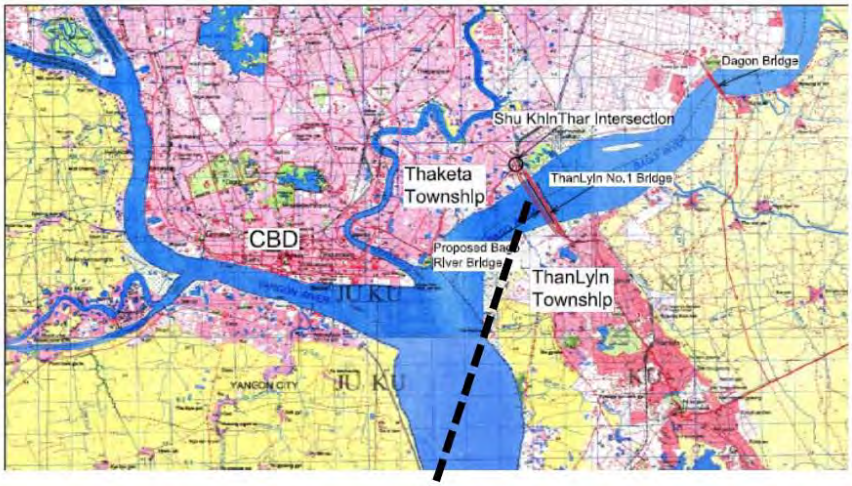
(2) Compensation Policy for MR Staff Apartment

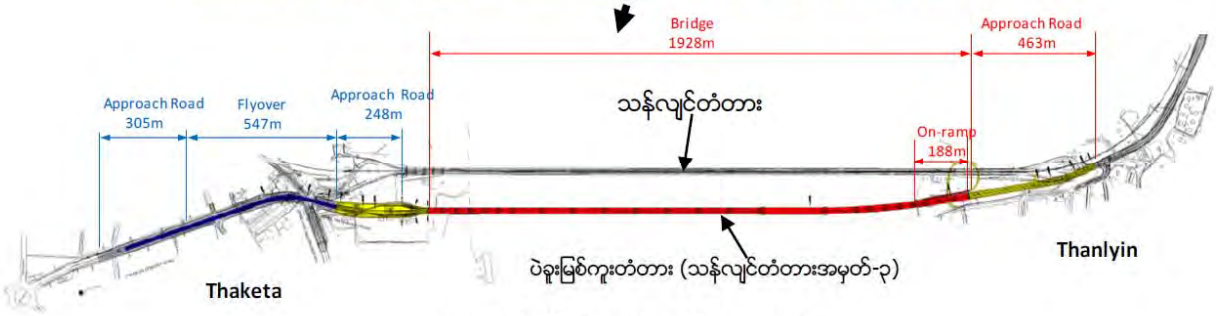
Type of Losses/ Category of Assistance	Application	Entitled Person	Assistance Policy
23 m^2 MR staff's apartments	located within ROW of widening of Thanlyin Chin Kat Road in Thaketa Township for improvement at intersections project	People living in those apartments at the time of Cut-off date	▪ Provide substitute living structure, AND ▪ Cash assistance for moving

ပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများတိုးတက်ရေးစီမံကိန်း၏ ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားထားမှုများ

၁) စီမံကိန်းအကြောင်းအရာ

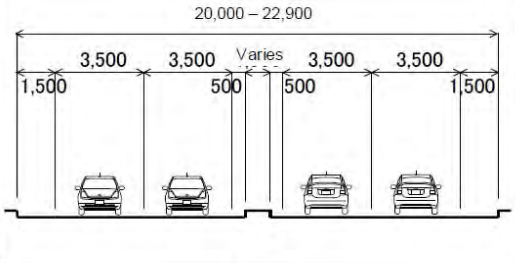
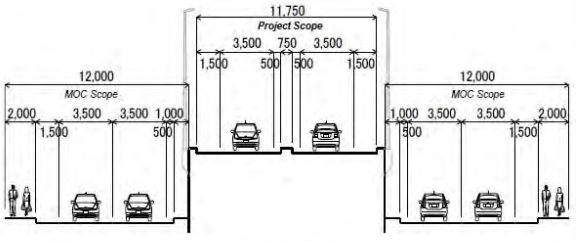
ယခုအချိန်၌ သီလဝါအထူးစီးပွားရေးဇုန် ဖွံ့ဖြိုးတိုးတက်လာမှုကြောင့် သီလဝါနှင့် ရန်ကုန်ဒရိုင်ယာအကြား ကုန်စည်စီးဆင်းမှုနှင့် ခရီးသွားလာမှုပမာဏ တိုးတက်လျက်ရှိပါသည်။ သို့ဖြစ်ပါ၍ သန်လျင်တံတားအမှတ် (၁) အနီးတွင် နေ့စဉ်ယာဉ်ကြော ပိတ်ဆို့မှုများ ဖြစ်ပေါ်လျက်ရှိပါသည်။ သန်လျင်နှင့် သာကေတ ဒရိုင်ယာများ၌ ယာဉ်ကြောပိတ်ဆို့မှု ဖြေရှင်းရန် နှင့် ခရီးသွားလာမှု ပိုမိုအဆင်ပြေစေရန်အတွက် ဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ တံတားဦးစီးဌာန အနေဖြင့် ပဲခူးမြစ်ကူးတံတား(သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများ တိုးတက်ရေး စီမံကိန်းအား အကောင်အထည်ဖော် ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။





ပုံ ၁ - စီမံကိန်းပုံစံနှင့်တည်နေရာပြပုံ

ဇယား ၁- ကန့်လန့်ဖြတ်ပိုင်းပြပုံ

	
တံတား	လမ်းဆုံ

၁

၂) ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားမှုများ

တည်ဆောက်ရေးလုပ်ငန်းများ မစတင်မီ၊ ဆောက်လုပ်ချိန် နှင့် လုပ်ငန်းလည်ပတ်ချိန်တွင် အဓိက သက်ရောက်နိုင်ခြေ ရှိသော ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ အချက်များ-

သတ်မှတ်ချက်	အဆင့်	ဖြစ်ပေါ်လာနိုင်သည့်ထိခိုက်မှု	လျော့ပါးသက်သာစေမည့်နည်းလမ်း	စောင့်ကြည့်စစ်ဆေးခြင်း
ညစ်ညမ်းမှု	ဆောက်လုပ်ခြင်း	- မြေသားလုပ်ငန်းများကြောင့် လေ နှင့် ရေ အရည်အသွေး ယာယီနိမ့်ကျမှုဖြစ်ပေါ်နိုင်ခြင်း။ - ဆောက်လုပ်ရေးလုပ်ငန်းများကြောင့် ဆူညံသံနှင့် တုန်ခါမှုများတိုးလာနိုင်ခြင်း။	- ဆောက်လုပ်ရေးလုပ်ငန်းများ၌ မီးခိုးထုတ်လွှတ်မှုသက်သာစေသည့် ယာဉ်ယန္တရား များ အသုံးပြု၍ ထိန်းချုပ်ခြင်း။ - ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ၏ ရေဆိုးသန့်စင်မှု စည်းမျဉ်း အတိုင်း သန့်စင်ခြင်း။ - မြစ်ချောင်းများသို့တိုက်ရိုက် မစွန့်ပစ်ဘဲ အနည်အနှစ်များ စစ်ထုတ်ပြီးမှ စွန့်ပစ်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှု များအား အမြင်ဖြင့် နေ့စဉ် စစ်ဆေး ခြင်း။ - စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာစစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် သုံးကြိမ်) - တိုင်ကြားချက်များအား စစ်ဆေးခြင်း။
	လုပ်ငန်းလည်ပတ်ခြင်း	- ယာဉ်သွားလာမှု တိုးလာခြင်းကြောင့် လေအရည်အသွေး နိမ့်ကျမှု ဖြစ်ပေါ်လာနိုင်ခြင်း။ - ယာဉ်သွားလာမှုတိုးလာခြင်းကြောင့် ဆူညံသံနှင့် တုန်ခါမှု တိုးလာနိုင်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှုအား စောင့်ကြည့် စစ်ဆေး ခြင်း။ - ကြိုတင် တားဆီး ကာကွယ်မှုများ ပြုလုပ်ခြင်း။ (ဥပမာ- ဟွန်းသံ တားမြစ်ခြင်း၊ယာဉ်များအား ကောင်းမွန်စွာ ပြုပြင် ထိန်းသိမ်းခြင်း နှင့် ဝန်ပို တင်ဆောင်မှုအား စည်းကမ်း သတ်မှတ်ခြင်း။)	- စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာ စစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် နှစ်ကြိမ်) - အသံဖြစ်ပေါ်မှု အဆင့် အား စစ်ဆေးခြင်း (တစ်နှစ်လျှင် ၃ ကြိမ်)
လူမှုဝန်းကျင်	ဆောက်လုပ်ရေးလုပ်ငန်း မစတင်မီ	- ပုဂ္ဂလိကပိုင်မြေသိမ်းယူခြင်း နှင့် နေရာရွှေ့ပြောင်းခြင်း။	- သက်ဆိုင်ရာ ပုဂ္ဂိုလ်များအား အချိန်နှင့်တပြေးညီ ဆွေးနွေးပွဲများ ပြုလုပ်ခြင်းပြီး၊ နေရာမရွှေ့ပြောင်းမီ သင့်တော်သောလျော်ကြေးပေး အပ်ခြင်း။	- စီမံကိန်း အစီအစဉ် ရေးဆွဲခြင်းအဆင့်၌ (အနည်းဆုံး ဆောက်လုပ်ရေး လုပ်ငန်း မစတင်မီ။)
	ဆောက်လုပ်ခြင်း	-လူမှုရေးဆိုင်ရာ အဆောက်အဦများဖြစ်သည့် ဘာသာရေး ဆိုင်ရာ နေရာများသို့ သွားလာရာတွင် အနောင့်အယှက် ဖြစ်ပေါ် နိုင် ခြင်း။	- ဆောက်လုပ်ရေး လုပ်ငန်း ဆောင်ရွက်မည့် လုပ်ငန်းစဉ်နှင့် အချိန်ဇယားအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာများ နှင့် ပတ်ဝန်းကျင်၌ နေထိုင်သူ များအား ကြိုတင် အကြောင်း ကြား အသိပေးခြင်း။ - အခြေအနေအရ လိုအပ်ပါက ယာဉ်အချက်ပြစနစ် နှင့် စောင့်ကြည့် ရန် လူစီစဉ် ထားရှိခြင်း။	- တိုင်ကြားမှု မှတ်တမ်းအား အတည်ပြုခြင်း။ (တောင်းခံလာသည့် အကြိမ်တိုင်း)
	လုပ်ငန်းလည်ပတ်ခြင်း	- တံတားအောက်ခံတိုင်များ တပ်ဆင်ခြင်းကြောင့် မြစ်ရေစီးဆင်းမှု အခြေအနေ ပြောင်းလဲမှု ဖြစ်ပေါ်နိုင်ခြင်း။	- တံတားအောက်ခံတိုင်များ ထားရှိမည့် တည်နေရာအား ထည့်သွင်း စဉ်းစားခြင်း။	- ၎င်း အခြေအနေအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာ နှင့် အတည်ပြုမှု ရယူခြင်း။

၃) လျော်ကြေးဆိုင်ရာ မူဝါဒ

(၁) အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ

အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲဆိုသည်မှာ- စီမံကိန်းမှပေးအပ်မည့် လျော်ကြေးနှင့်ထောက်ပံ့မှုအား ခံစားပိုင်ခွင့် ရှိ/မရှိကို ဆုံးဖြတ်သည့်နေ့စွဲ ဖြစ်ပါသည်။ ယေဘုယျအားဖြင့် စစ်တမ်းကောက်ယူမှု စတင်သည့်နေ့အား အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲအဖြစ် သတ်မှတ်ပါသည်။ စီမံကိန်းဇရိယာအတွင်းသို့ အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ နောက်ပိုင်းမှ ဝင်ရောက်လာသူများအနေဖြင့် နေရာရွှေ့ပြောင်းမှုနှင့် စပ်လျဉ်း၍ မည့်သည့်ထောက်ပံ့မှုကိုမှ အကျုံးဝင်ရရှိမည်မဟုတ်ပါ။ စီမံကိန်းအနေဖြင့် မြေယာသိမ်းယူမှုနှင့် ရွှေ့ပြောင်းရေး လုပ်ငန်းများ ဆောင်ရွက်နိုင်ရန် ကနဦးစစ်ဆေးလေ့လာမှုများပြုလုပ်သည့် **မတ်လ (၁) ရက်၊ ၂၀၁၆ ခုနှစ်** အား ဤပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတား အမှတ် (၃)) တည်ဆောက်ရေးနှင့် လမ်းဆုံနေရာများတိုးတက်ရေး စီမံကိန်း၏အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ အဖြစ် သတ်မှတ်ပါသည်။

(၂) မြန်မာ့ မီးရထားပိုင် ဝန်ထမ်းလိုင်းခန်းများ အတွက် လျော်ကြေးမူဝါဒ

ဆုံးရှုံးမှုပုံစံ / ထောက်ပံ့ပေးမည့် အမျိုးအစား	သက်ဆိုင်မှု	ခံစားခွင့်ရှိသည့် ပုဂ္ဂိုလ်	ထောက်ပံ့ပေးမည့် မူဝါဒ
၂၃ စတုရန်းမီတာ ရှိသော မြန်မာ့မီးရထားပိုင် ဝန်ထမ်းလိုင်းခန်းများ	သာကေတမြို့နယ်အတွင်းရှိ လမ်းဆုံနေရာများတိုးတက်ရေး စီမံကိန်း၌ ပါဝင်သော သန်လျင်ချဉ်းကပ်လမ်းတိုးချဲ့လုပ်ဆောင်မည့် လမ်းနယ် အတွင်း၌ တည်ရှိနေခြင်း။	အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ၌ **၎င်း** ဝန်ထမ်းလိုင်းခန်းများတွင် နေထိုင် သူများ။	▪ နေထိုင်ရန်အဆောက်အဦ အစားထိုးစီစဉ်ပေးခြင်း နှင့် ▪ နေရာရွှေ့ပြောင်းရန် ငွေသား ကူညီပံ့ပိုးပေးခြင်း။

付録 4-2: Session 2- Structures on Government Land

Minute of Meeting, Section-2 (Structures on Government Land)

Name of Meeting	Consultation Meeting with Structures on Government Land
Date & Time	17 December 2016, (10:20 AM– 10:45AM)
City & Place	Bridge Construction (Special 11), MOC compound, Tharketa Township,
Participants **(MOC&JICA Study Team)**	1) Chief Engineer (Civil), Dept. of Bridge, Ministry of Construction 2) Director (Civil), Dept. of Bridge, Ministry of Construction 3) Director (Civil), Dept. of Bridge, Ministry of Construction 4) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 5) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 6) Assistant Engineer, Dept. of Bridge, Ministry of Construction 7) Social Expert (International Expert),JICA Study Team (JST) 8) Social Expert (JST) 9) Junior Social Expert(JST) 10) Junior Environmental Expert (JST)
Participated PAH	Total No. - 17
Handout	Outline of Environmental and Social Considerations for Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection (File Name: Sec.2_Living Structure (Intersection))
Explanation by **Chief Engineer of MOC**	- Bago River Bridge (Thanlyin Bridge No.3) Construction Project is going to be implemented by Ministriy of Construction under Japanese ODA Loan. - The purpose of today meeting is to explain the compensation content to the people who are living in government land with structures in the project area by following the JICA Guidelines. - Participants who are living near Yandanar Junction might be affected due to the construction of the flyover as a part of Bago River Bridge projects. In that case, those affected people need to move from the project affected area. - The compensation will be considered only for the people who are recorded in the survey list conducted in March 1, 2016. The framework of compensation is mentioned in the handout. - The people who are encroaching to the project area after March 1, 2016 will not be entitled for the compensation. - The compensation amount is not decided yet. - MOC will provide the appropriate compensation for the structure and other assets by following the instruction of YRG and JICA Guidelines, and based on the decision made by the compensation committee. - The compensation for land will not be considered for the land owned by the government. - Implementing this project will be contributed to the country development, therefore, MOC would like to request to the participants to support the project to be successful.
Explanation by Director of MOC	- Firstly, the Director of MOC introduces Chief Engineer to the participants of the meeting that the Chief Engineer is the Leader of Project Management Unit (PMU) of Bago River Bridge (Thanlyin Bridge No.3) Construction Project. - One of the ministers from YRG will represent as the chairman of the compensation committee for Bago River Bridge Project, and the Chief Engineer will be assigned as the secretary. - After that, the Director briefly explained about the project description, possible impact to natural and social environment. - Finally, he concluded that the local people will get more job opportunities due to the implementation of the project.
Question and Answer Section	• **Q-1) Participant** - It is convenient if the relocation place is available. In addition, it would also be convenient if the moving cost is supported. **<u>Answer:</u> Chief Engineer and Director of DOB, MOC** - In Yangon, the place for the relocation site is not sufficient. MOC side has difficulty to answer whether YRG can arrange the relocation place or not. - As MOC side has the difficulties for arranging the relocation site, MOC cannot

	promise to provide the relocation place. - However, based on the JICA Guidelines, MOC will provide the compensation for the structures and other assets. - The compensation amount will be decided by the compensation committee by following the instruction of Yangon Regional Government and the JICA Guideline. - MOC will negotiate to get the best solution as much as possible.

Outline of Environmental and Social Considerations for

Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection

1. Project Outline

Traffic volume of passenger and cargo between Yangon and the Thilawa area is increasing these days in accordance with development of Thilawa Special Economic Zone (SEZ). Accordingly, traffic congestion around the Thanlyin No. 1 Bridge area is serious in daily basis. With the purpose of solving traffic congestion and improving traffic flow in Thanlyin and Thaketa areas, Department of Bridge, MOC plans to construct the Bago River Bridge (Thanlyin No.3 Bridge) and to improve the intersection.

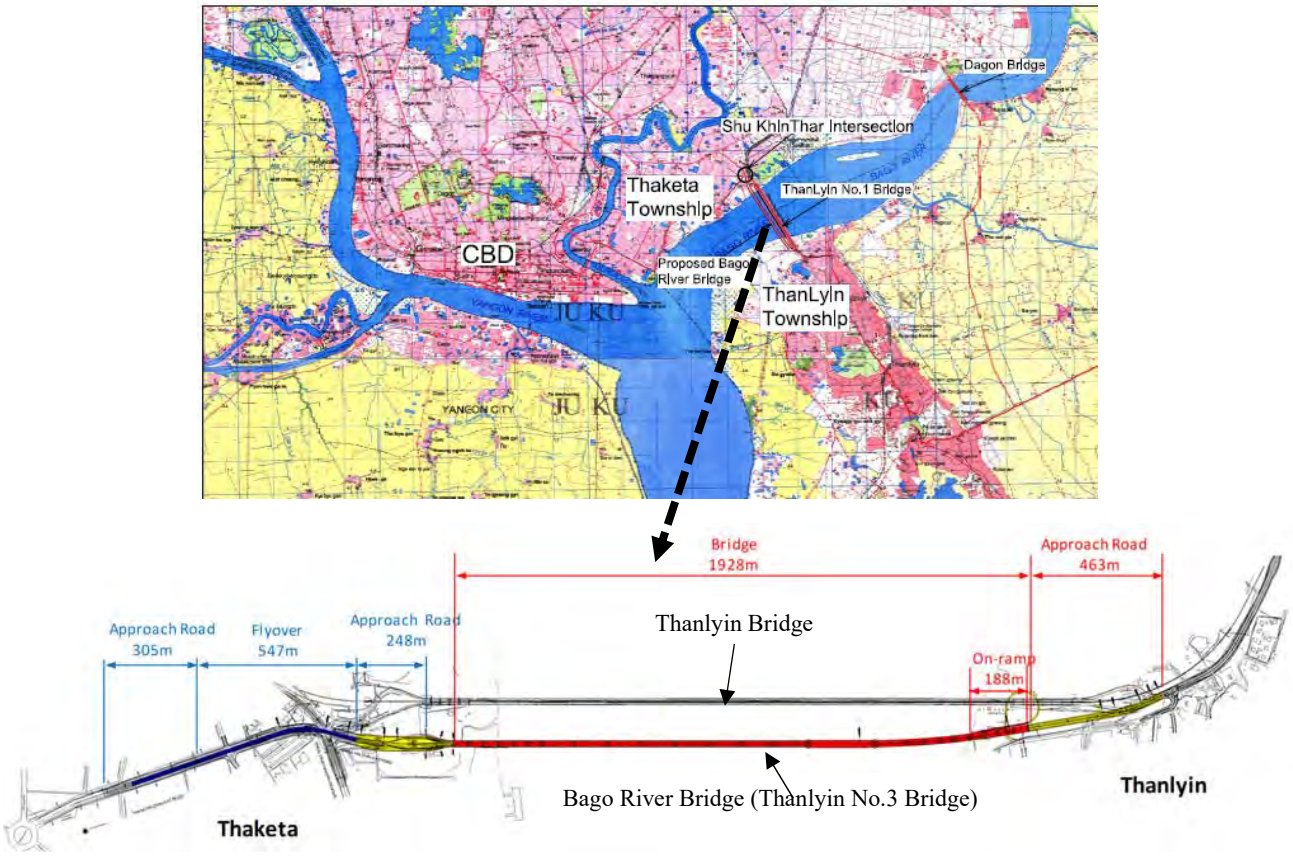
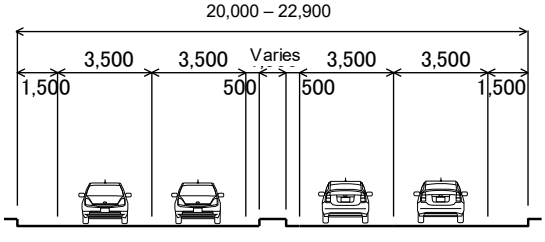
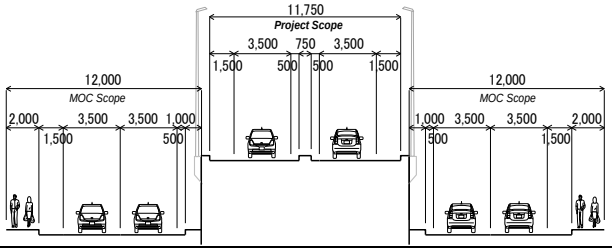


Figure-1 Location and Layout of the Project

Table-1 Typical Cross Section

	
Bridge	**Intersection**

2. Environmental and Social Considerations

Major possible environmental and social impact before and during construction and operation.

Parameter	Stage	Potential Impacts	Proposed Mitigation Measures	Monitoring
Pollution	Construction	- Possibility to temporary degrade air and water quality due to earth works - Possibility to increase noise and vibration due to construction activities	- Use construction vehicles and machines with sufficient emission exhaust control - Treat wastewater according to YCDC regulations - Arrange silt trap to avoid direct discharge of surface runoff	- Visual observation of air quality, noise & vibration (daily) - Sampling & analysis of selected parameters of air quality (3 times a year) - Checking complain
	Operation	- Possibility to degrade air quality due to increase of traffic - Possibility to increase noise and vibration due to increase of traffic	- Monitor air quality, noise and vibration - Apply preventive measures (e.g. avoiding horns, good maintenance of vehicles, regulation of overloading)	- Sampling & analysis of selected parameters of air quality (2 times a year) - Checking sound level (3 times a year)
Social Environment	Before Construction	- Land acquisition of private land and involuntary resettlement	- Holding consultation with concerned people in timely manner and providing appropriate compensation before relocation	- Planning stage (at the latest commencement of construction works)
	Construction	- Disturb accessibility to local social infrastructure such as religious places	- Inform construction activities and schedule to the surrounding communities and relevant authorities in advance - Arrange traffic signal and watchman according to the situation	- Confirming records of complain (any times as requested)
	Operation	- Possibility to change river flow due to piers to be installed	- Consider location of piers	- Confirming the situation to relevant authorities

3. Compensation Policy

(3) Cut-off Date

The Cut-off Date is the date to determine eligibility for compensation and assistance. Generally, the Cut-off Date is the date when census begins. Persons who occupy the project area after the Cut-off Date will not be eligible for resettlement assistance. The Cut-off Date for construction of the Bagor River Bridge (Thanlyin No.3 Bridge) and improvement of the intersection is announced as **March 1, 2016**, the date of initial investigation on land acquisition and relocation at the field.

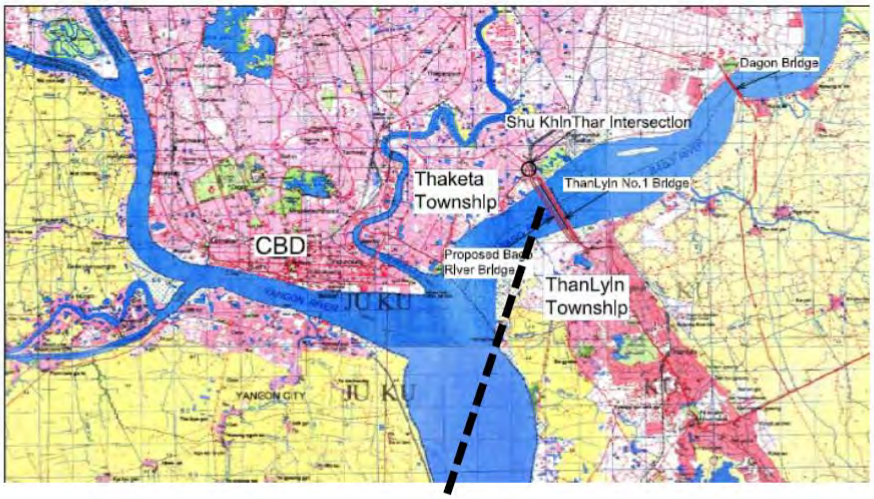
(4) Compensation Policy for Living Structure

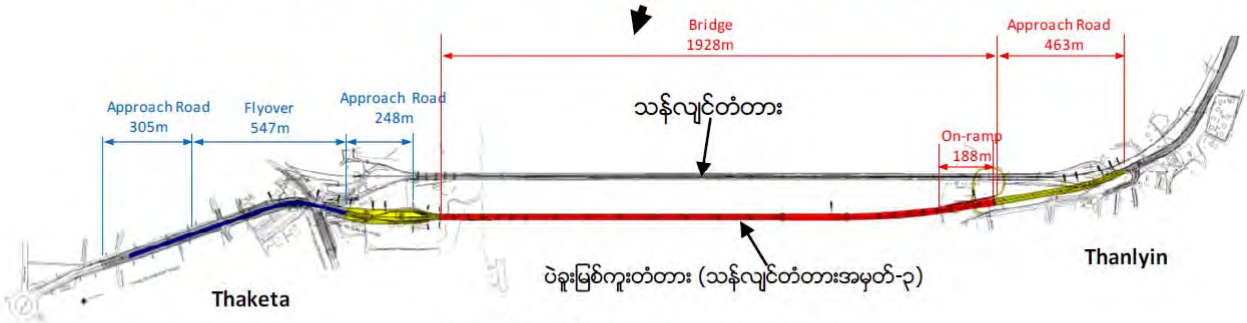
Type of Losses/ Category of Assistance	Application	Entitled Person	Assistance Policy
Houses made of bamboo and wood on Government Land	located within ROW of widening of Thanlyin Chin Kat Road in Thaketa Township for improvement at intersections project	People living in those houses at the time of Cut-off Date	- Compensation loss of assets, structures and facilities based on replacement cost, AND - Provide compensation for land acquisition by replacement cost in the case that the land belongs not to Government but to Private Owner

ပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများတိုးတက်ရေးစီမံကိန်း၏ ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားထားမှုများ

၁) စီမံကိန်းအကြောင်းအရာ

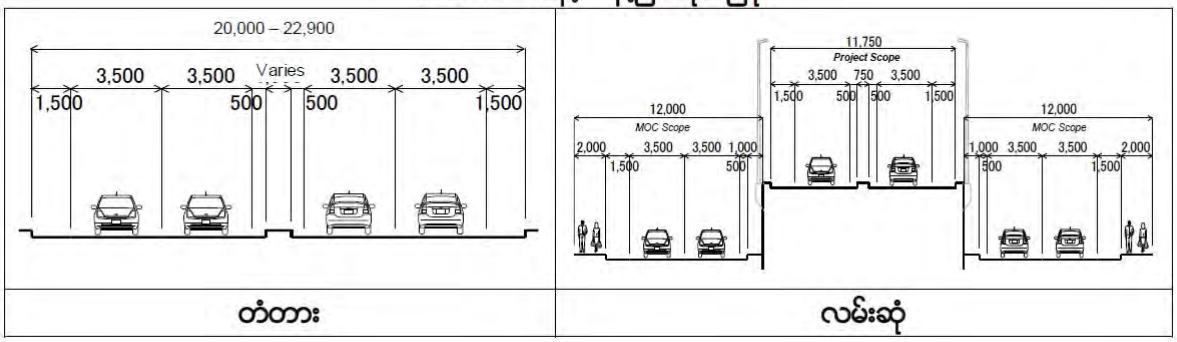
ယခုအချိန်၌ သီလဝါအထူးစီးပွားရေးဇုန် ဖွံ့ဖြိုးတိုးတက်လာမှုကြောင့် သီလဝါနှင့် ရန်ကုန်ဧရိယာအကြား ကုန်စည်စီးဆင်းမှုနှင့် ခရီးသွားလာမှုပမာဏ တိုးတက်လျက်ရှိပါသည်။ သို့ဖြစ်ပါ၍ သန်လျင်တံတားအမှတ် (၁) အနီးတွင် နေ့စဉ် ယာဉ်ကြော ပိတ်ဆို့မှုများ ဖြစ်ပေါ်လျက်ရှိပါသည်။ သန်လျင်နှင့် သာကေတ ဧရိယာများ၌ ယာဉ်ကြောပိတ်ဆို့မှု ဖြေရှင်းရန် နှင့် ခရီးသွားလာမှု ပိုမိုအဆင်ပြေစေရန်အတွက် ဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ တံတားဦးစီးဌာန အနေဖြင့် ပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများ တိုးတက်ရေး စီမံကိန်းအား အကောင်အထည်ဖော် ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။





ပုံ ၁ - စီမံကိန်းပုံစံနှင့်တည်နေရာပြပုံ

ဇယား ၁- ကန့်လန့်ဖြတ်ပိုင်းပြပုံ



တံတား	လမ်းဆုံ

၁

၂) ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားမှုများ

တည်ဆောက်ရေးလုပ်ငန်းများ မစတင်မီ၊ ဆောက်လုပ်ချိန် နှင့် လုပ်ငန်းလည်ပတ်ချိန်တွင် အဓိက သက်ရောက်နိုင်ခြေ ရှိသော ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ အချက်များ-

သတ်မှတ်ချက်	အဆင့်	ဖြစ်ပေါ်လာနိုင်သည့်ထိခိုက်မှု	လျော့ပါးသက်သာစေမည့်နည်းလမ်း	စောင့်ကြည့်စစ်ဆေးခြင်း
ညစ်ညမ်းမှု	ဆောက်လုပ်ခြင်း	- မြေသားလုပ်ငန်းများကြောင့် လေ နှင့် ရေ အရည်အသွေး ယာယီနိမ့်ကျမှုဖြစ်ပေါ်နိုင်ခြင်း။ - ဆောက်လုပ်ရေးလုပ်ငန်းများကြောင့် ဆူညံသံနှင့် တုန်ခါမှုများတိုးလာနိုင်ခြင်း။	- ဆောက်လုပ်ရေးလုပ်ငန်းများ၌ မီးခိုးထုတ်လွှတ်မှုသက်သာစေသည့် ယာဉ်ယန္တရား များ အသုံးပြု၍ ထိန်းချုပ်ခြင်း။ - ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ၏ ရေဆိုးသန့်စင်မှု စည်းမျဉ်း အတိုင်း သန့်စင်ခြင်း။ - မြစ်ချောင်းများသို့တိုက်ရိုက် မစွန့်ပစ်ဘဲ အနည်အနှစ်များ စစ်ထုတ်ပြီးမှ စွန့်ပစ်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှု များအား အမြင်ဖြင့် နေ့စဉ် စစ်ဆေး ခြင်း။ - စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာစစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် သုံးကြိမ်) - တိုင်ကြားချက်များအား စစ်ဆေးခြင်း။
	လုပ်ငန်းလည်ပတ်ခြင်း	- ယာဉ်သွားလာမှု တိုးလာခြင်းကြောင့် လေအရည်အသွေး နိမ့်ကျမှု ဖြစ်ပေါ်လာနိုင်ခြင်း။ - ယာဉ်သွားလာမှုတိုးလာခြင်းကြောင့် ဆူညံသံနှင့် တုန်ခါမှု တိုးလာနိုင်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှုအား စောင့်ကြည့် စစ်ဆေး ခြင်း။ - ကြိုတင် တားဆီး ကာကွယ်မှုများ ပြုလုပ်ခြင်း။ (ဥပမာ- ဟွန်းသံ တားမြစ်ခြင်း၊ယာဉ်များအား ကောင်းမွန်စွာ ပြုပြင် ထိန်းသိမ်းခြင်း နှင့် ဝန်ပို တင်ဆောင်မှုအား စည်းကမ်း သတ်မှတ်ခြင်း။)	- စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာ စစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် နှစ်ကြိမ်) - အသံဖြစ်ပေါ်မှု အဆင့် အား စစ်ဆေးခြင်း (တစ်နှစ်လျှင် ၃ ကြိမ်)
လူမှုဝန်းကျင်	ဆောက်လုပ်ရေးလုပ်ငန်း မစတင်မီ	- ပုဂ္ဂလိကပိုင်မြေသိမ်းယူခြင်း နှင့် နေရာရွှေ့ပြောင်းခြင်း။	- သက်ဆိုင်ရာ ပုဂ္ဂိုလ်များအား အချိန်နှင့်တပြေးညီ ဆွေးနွေးပွဲများ ပြုလုပ်ခြင်းပြီး၊ နေရာမရွှေ့ပြောင်းမီ သင့်တော်သောလျော်ကြေးပေး အပ်ခြင်း။	- စီမံကိန်း အစီအစဉ် ရေးဆွဲခြင်းအဆင့်၌ (အနည်းဆုံး ဆောက်လုပ်ရေး လုပ်ငန်း မစတင်မီ။)
	ဆောက်လုပ်ခြင်း	-လူမှုရေးဆိုင်ရာ အဆောက်အဦများဖြစ်သည့် ဘာသာရေးဆိုင်ရာ နေရာများသို့ သွားလာရာတွင် အနှောင့်အယှက် ဖြစ်ပေါ် နိုင် ခြင်း။	- ဆောက်လုပ်ရေး လုပ်ငန်း ဆောင်ရွက်မည့် လုပ်ငန်းစဉ်နှင့် အချိန်ဇယားအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာများ နှင့် ပတ်ဝန်းကျင်၌ နေထိုင်သူ များအား ကြိုတင် အကြောင်း ကြား အသိပေးခြင်း။ - အခြေအနေအရ လိုအပ်ပါက ယာဉ်အချက်ပြစနစ် နှင့် စောင့်ကြည့် ရန်လူ စီစဉ် ထားရှိခြင်း။	- တိုင်ကြားမှု မှတ်တမ်းအား အတည်ပြုခြင်း။ (တောင်းခံလာသည့် အကြိမ်တိုင်း)
	လုပ်ငန်းလည်ပတ်ခြင်း	- တံတားအောက်ခံတိုင်များ တပ်ဆင်ခြင်းကြောင့် မြစ်ရေစီးဆင်းမှု အခြေအနေ ပြောင်းလဲမှု ဖြစ်ပေါ်နိုင်ခြင်း။	- တံတားအောက်ခံတိုင်များ ထားရှိမည့် တည်နေရာအား ထည့်သွင်း စဉ်းစားခြင်း။	- ၎င်း အခြေအနေအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာ နှင့် အတည်ပြုမှု ရယူခြင်း။

၃) လျော်ကြေးဆိုင်ရာ မူဝါဒ

(၁) အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ

အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲဆိုသည်မှာ- စီမံကိန်းမှပေးအပ်မည့် လျော်ကြေးနှင့်ထောက်ပံ့မှုအား ခံစားပိုင်ခွင့် ရှိ/မရှိကို ဆုံးဖြတ်သည့်နေ့စွဲ ဖြစ်ပါသည်။ ယေဘုယျအားဖြင့် စစ်တမ်းကောက်ယူမှု စတင်သည့်နေ့အား အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲအဖြစ် သတ်မှတ်ပါသည်။ စီမံကိန်းဇရိယာအတွင်းသို့ အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ နောက်ပိုင်းမှ ဝင်ရောက်လာသူများအနေဖြင့် နေရာရွှေ့ပြောင်းမှုနှင့် စပ်လျဉ်း၍ မည့်သည့်ထောက်ပံ့မှုကိုမှ အကျုံးဝင်ရရှိမည်မဟုတ်ပါ။ စီမံကိန်းအနေဖြင့် မြေယာသိမ်းယူမှုနှင့် ရွှေ့ပြောင်းရေး လုပ်ငန်းများ ဆောင်ရွက်နိုင်ရန် ကနဦးစစ်ဆေးလေ့လာမှုများပြုလုပ်သည့် **မတ်လ (၁) ရက်၊ ၂၀၁၆ ခုနှစ်** အား ဤပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတား အမှတ် (၃)) တည်ဆောက်ရေးနှင့် လမ်းဆုံနေရာများတိုးတက်ရေး စီမံကိန်း၏အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ အဖြစ် သတ်မှတ်ပါသည်။

(၂) လူနေထိုင်မှုရှိသည့် အဆောက်အဦများ အတွက် လျော်ကြေးမူဝါဒ

ဆုံးရှုံးမှုပုံစံ / ထောက်ပံ့ပေးမည့် အမျိုးအစား	သက်ဆိုင်မှု	ခံစားခွင့်ရှိသည့် ပုဂ္ဂိုလ်	ထောက်ပံ့ပေးမည့် မူဝါဒ
အစိုးရပိုင်မြေပေါ်တွင် ဝါးနှင့်သစ်သားတို့ဖြင့် ဆောက်လုပ်ထားသော အိမ်များ	သာကေတမြို့နယ်အတွင်းရှိ လမ်းဆုံနေရာများတိုးတက်ရေး စီမံကိန်း၌ ပါဝင်သော သန်လျင်ချဉ်းကပ် လမ်းတိုးချဲ့လုပ်ဆောင်မည့် လမ်းနယ် အတွင်း၌ တည်ရှိနေခြင်း။	အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ၌ **၎င်း** အိမ်များတွင် နေထိုင်သူများ။	• ပိုင်ဆိုင်မှု၊ အဆောက်အဦ နှင့် အခြားပိုင်ဆိုင်မှုများ ဆုံးရှုံးခြင်း အတွက် အပြည့်အဝ လျော်ကြေး ပေးအပ်ခြင်း။ နှင့် • အစိုးရပိုင်မြေမဟုတ်ဘဲ ပုဂ္ဂလိက ပိုင်မြေဖြစ်ပါက မြေလျော်ကြေး ပေးခြင်း။

付録 4-3: Session 3- Private Fence, Tea Shop, Hair Saloon and Beer Shoop

Minute of Meeting, Section-3 (Private Fence, Tea Shop, Hair Saloon and Beer Shop)

Name of Meeting	Consultation Meeting with Private Fence, Tea Shop, Beer Shop and Hair Saloon
Date & Time	17 December 2016 - 11:00 AM– 11:15AM for Private Fence, Tea Shop and Beer Shop - 11:30 AM– 11:40AM for Hair Saloon
City & Place	Bridge Construction (Special 11), MOC compound, Tharketa Township,
Participants (MOC&JICA Study Team)	1) Chief Engineer (Civil), Dept. of Bridge, Ministry of Construction 2) Director (Civil), Dept. of Bridge, Ministry of Construction 3) Director (Civil), Dept. of Bridge, Ministry of Construction 4) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 5) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 6) Assistant Engineer, Dept. of Bridge, Ministry of Construction 7) Social Expert (International Expert),JICA Study Team (JST) 8) Social Expert (JST) 9) Junior Social Expert(JST) 10) Junior Environmental Expert (JST)
Participated PAH	Total No.- 3 in the session of 11:00 to 11:15 (Private Fence, Tea Shop and Beer Shop) Total No.- 1 in the session of 11:30 to 11:40 (Hair Saloon)
Handout	Outline of Environmental and Social Considerations for Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection (File Name: Sec.3_Fixed Stall, Tea Shop & Hair Saloon)
Explanation by Chief Engineer of MOC	- Bago River Bridge (Thanlyin Bridge No.3) Construction Project is going to be implemented by the Ministry of Construction under Japanese ODA Loan. - The purpose of today meeting is to explain the compensation content to the owner of private fence, hair saloon, tea shop and beer shop in the project area by following the JICA Guidelines. - As the fence, teashop, hair saloon and beer shop might be affected due to the Bago River Bridge projects. In that case, the owners of those facilities need to move out from the project affected area. - MOC will provide the appropriate compensation for the facilities by following the instruction of YRG and the JICA Guidelines, and based on the decision made by the compensation committee. The framework of compensation is mentioned in the handout. - Implementing this project will be contributed to the country development, therefore, MOC would like to request to the participants to support the project to be successful.
Explanation by Director of MOC	- Firstly, the Director of MOC introduces Chief Engineer to the participants of the meeting that the Chief Engineer is the Leader of Project Management Unit (PMU) of Bago River Bridge (Thanlyin Bridge No.3) Construction Project. - One of the ministers from YRG will represent as the chairman of the compensation committee for Bago River Bridge Project, and the Chief Engineer will be assigned as the secretary. - After that, the Director briefly explained about the project description, possible impact to natural and social environment. - Finally, he concluded that the local people will get more job opportunities due to the implementation of the project.
Question and Answer Section	• **Q-1)Tea Shop Owner** - Up to which area or distance, the tea shop needs to move in order to avoid impact by the project. **<u>Answer:</u> Chief Engineer and Director of DOB, MOC** - For the time being, MOC side cannot mention up to which area or distance, the tea shop should be moved. - However, MOC will inform beforehand to the tea shop owner when MOC exactly knows that condition after detailed measurement.
	• **Q-2) Hair Saloon Owner** - Hair Saloon Owner's wife said that doing business in the current place more than 12 years. Therefore, she is applying for the grant of the currently using place. For the moment, approval of the grant has not been received yet. - Even if she receives the grant for the shop, she has willing to move if the shop

	locates in the project affected area. - However, it will be more convenient if the relocation place is near the current business place. - She would like to request MOC to consider the best solution as much as possible. **<u>Answer:</u> Chief Engineer and Director of DOB, MOC** - The structure is located within the road Right of Way area owned by the government. - MOC will provide the compensation based on the type of structures. - The compensation amount will be decided by the compensation committee by following the JICA Guidelines and the instruction of the Yangon Region Government. - The affected area cannot be defined clearly at this moment. However, MOC will inform when the detailed measurement is finished. - The compensation committee is composed of one minister from Yangon Region Government, Parliament representative, Tharketa Township Administrator, YCDC and many other related government departments.

Outline of Environmental and Social Considerations for

Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection

1. Project Outline

Traffic volume of passenger and cargo between Yangon and the Thilawa area is increasing these days in accordance with development of Thilawa Special Economic Zone (SEZ). Accordingly, traffic congestion around the Thanlyin No. 1 Bridge area is serious in daily basis. With the purpose of solving traffic congestion and improving traffic flow in Thanlyin and Thaketa areas, Department of Bridge, MOC plans to construct the Bago River Bridge (Thanlyin No.3 Bridge) and to improve the intersection.

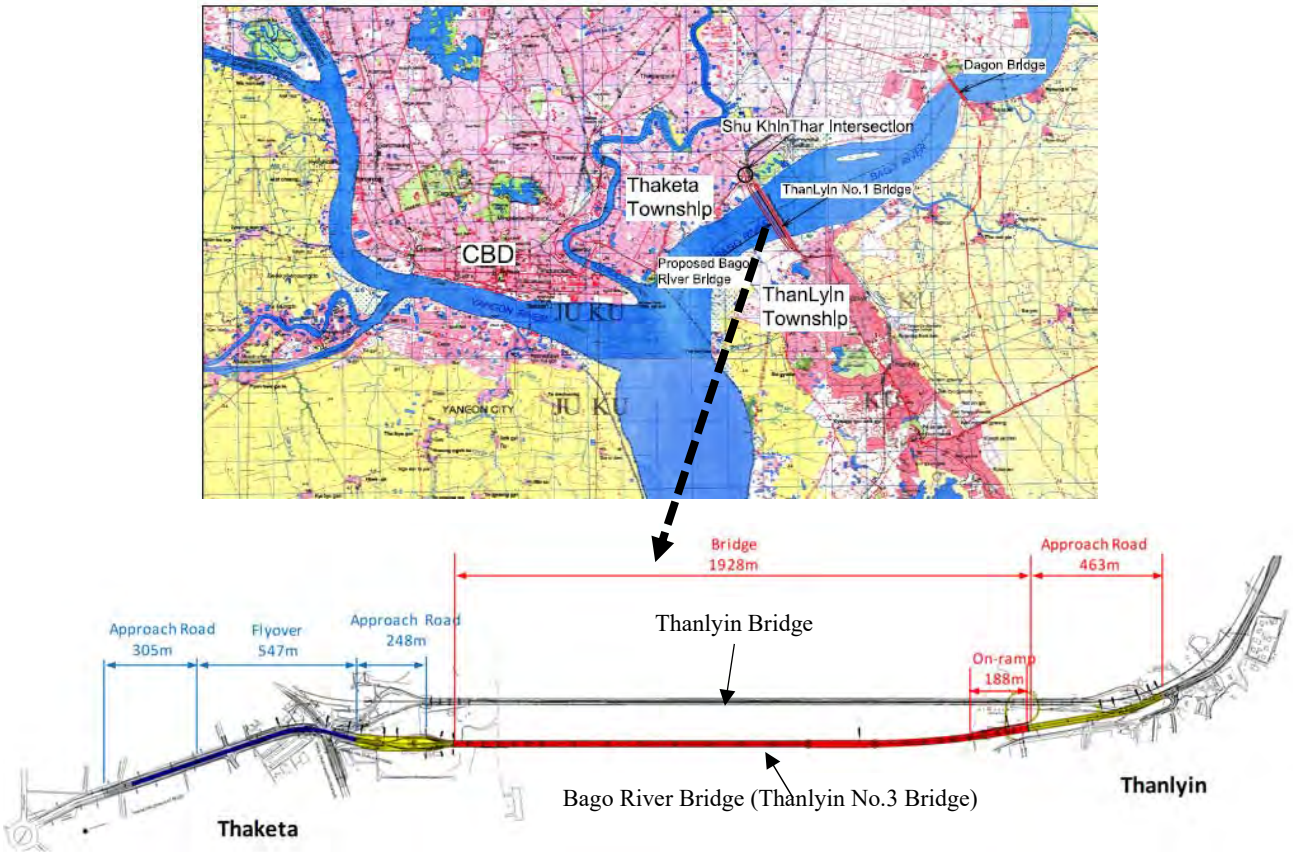
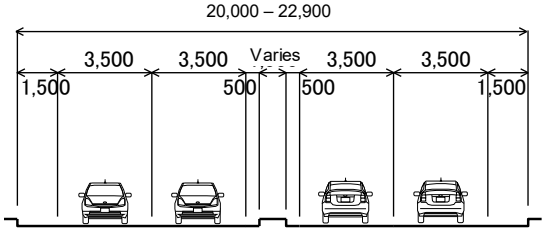
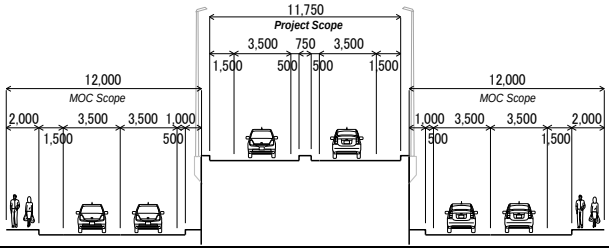


Figure-1 Location and Layout of the Project

Table-1 Typical Cross Section

	
Bridge	**Intersection**

2. Environmental and Social Considerations

Major possible environmental and social impact before and during construction and operation.

Parameter	Stage	Potential Impacts	Proposed Mitigation Measures	Monitoring
Pollution	Construction	- Possibility to temporary degrade air and water quality due to earth works - Possibility to increase noise and vibration due to construction activities	- Use construction vehicles and machines with sufficient emission exhaust control - Treat wastewater according to YCDC regulations - Arrange silt trap to avoid direct discharge of surface runoff	- Visual observation of air quality, noise & vibration (daily) - Sampling & analysis of selected parameters of air quality (3 times a year) - Checking complain
	Operation	- Possibility to degrade air quality due to increase of traffic - Possibility to increase noise and vibration due to increase of traffic	- Monitor air quality, noise and vibration - Apply preventive measures (e.g. avoiding horns, good maintenance of vehicles, regulation of overloading)	- Sampling & analysis of selected parameters of air quality (2 times a year) - Checking sound level (3 times a year)
Social Environment	Before Construction	- Land acquisition of private land and involuntary resettlement	- Holding consultation with concerned people in timely manner and providing appropriate compensation before relocation	- Planning stage (at the latest commencement of construction works)
	Construction	- Disturb accessibility to local social infrastructure such as religious places	- Inform construction activities and schedule to the surrounding communities and relevant authorities in advance - Arrange traffic signal and watchman according to the situation	- Confirming records of complain (any times as requested)
	Operation	- Possibility to change river flow due to piers to be installed	- Consider location of piers	- Confirming the situation to relevant authorities

3. Compensation Policy

(5) Cut-off Date

The Cut-off Date is the date to determine eligibility for compensation and assistance. Generally, the Cut-off Date is the date when census begins. Persons who occupy the project area after the Cut-off Date will not be eligible for resettlement assistance. The Cut-off Date for construction of the Bagor River Bridge (Thanlyin No.3 Bridge) and improvement of the intersection is announced as **March 1, 2016**, the date of initial investigation on land acquisition and relocation at the field.

(6) Compensation Policy for Fence for House, Tea Shop and Hair Salon

Type of Losses/ Category of Assistance	Application	Entitled Person	Assistance Policy
1) Fences and structures such as Tea shop and Hair Saloon	located within ROW of construction of widening of roads in Thaketa Township	Legal Owners of respective structure	Reconstruction of fence and structures at necessary setback distance if land for setback is available
2) Compensation for temporary stop of business for Tea shop and Hair Saloon in 1)	located within ROW of construction of widening of roads in Thaketa Township	Owners of these shops in 1)	Compensation for those days when they cannot do their business during destruction and reconstruction of their shops

Outline of Environmental and Social Considerations for

Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection

1. Project Outline

Traffic volume of passenger and cargo between Yangon and the Thilawa area is increasing these days in accordance with development of Thilawa Special Economic Zone (SEZ). Accordingly, traffic congestion around the Thanlyin No. 1 Bridge area is serious in daily basis. With the purpose of solving traffic congestion and improving traffic flow in Thanlyin and Thaketa areas, Department of Bridge, MOC plans to construct the Bago River Bridge (Thanlyin No.3 Bridge) and to improve the intersection.

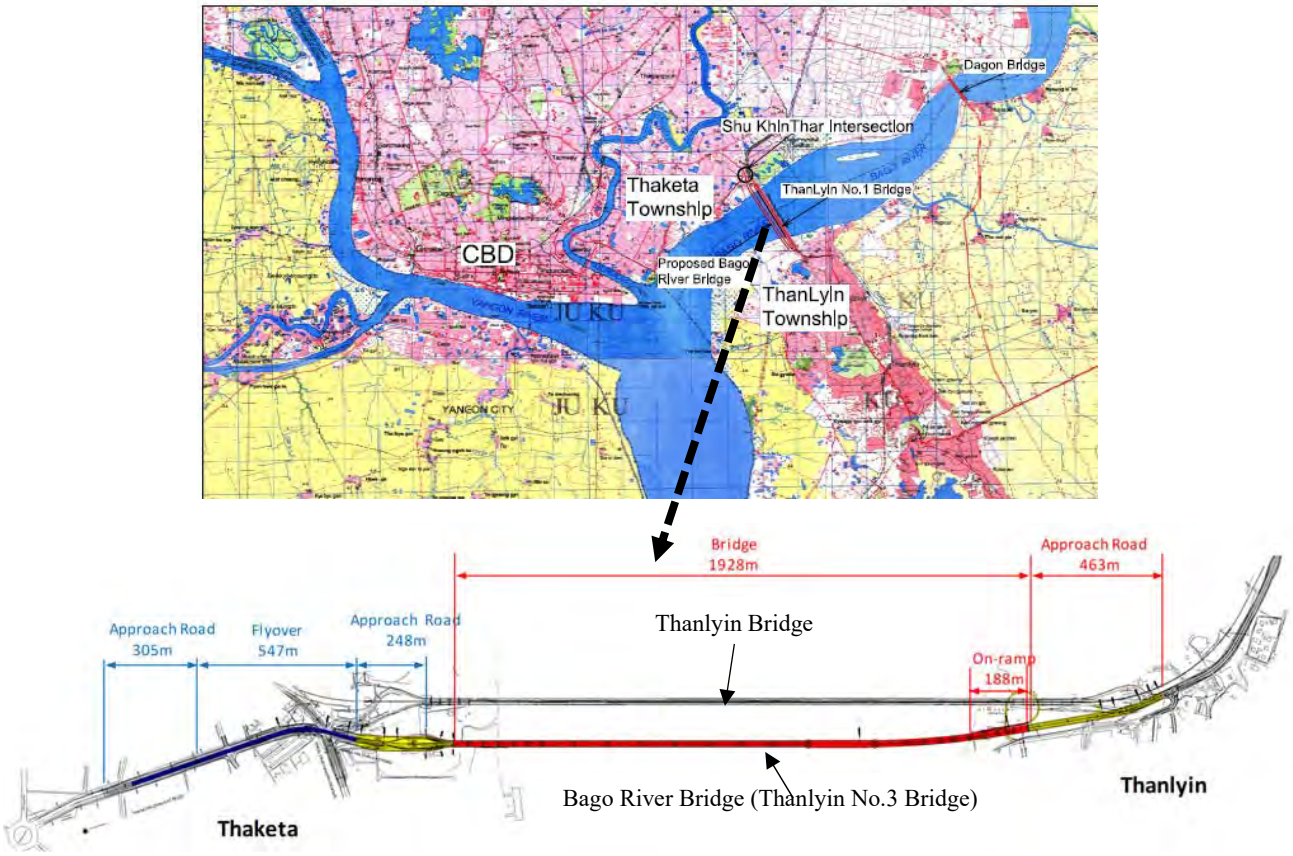
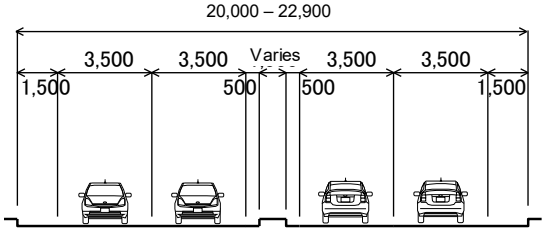
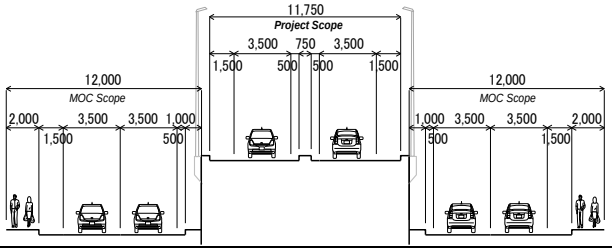


Figure-1 Location and Layout of the Project

Table-1 Typical Cross Section

	
Bridge	**Intersection**

2. Environmental and Social Considerations

Major possible environmental and social impact before and during construction and operation.

Parameter	Stage	Potential Impacts	Proposed Mitigation Measures	Monitoring
Pollution	Construction	- Possibility to temporary degrade air and water quality due to earth works - Possibility to increase noise and vibration due to construction activities	- Use construction vehicles and machines with sufficient emission exhaust control - Treat wastewater according to YCDC regulations - Arrange silt trap to avoid direct discharge of surface runoff	- Visual observation of air quality, noise & vibration (daily) - Sampling & analysis of selected parameters of air quality (3 times a year) - Checking complain
	Operation	- Possibility to degrade air quality due to increase of traffic - Possibility to increase noise and vibration due to increase of traffic	- Monitor air quality, noise and vibration - Apply preventive measures (e.g. avoiding horns, good maintenance of vehicles, regulation of overloading)	- Sampling & analysis of selected parameters of air quality (2 times a year) - Checking sound level (3 times a year)
Social Environment	Before Construction	- Land acquisition of private land and involuntary resettlement	- Holding consultation with concerned people in timely manner and providing appropriate compensation before relocation	- Planning stage (at the latest commencement of construction works)
	Construction	- Disturb accessibility to local social infrastructure such as religious places	- Inform construction activities and schedule to the surrounding communities and relevant authorities in advance - Arrange traffic signal and watchman according to the situation	- Confirming records of complain (any times as requested)
	Operation	- Possibility to change river flow due to piers to be installed	- Consider location of piers	- Confirming the situation to relevant authorities

3. Compensation Policy

(7) Cut-off Date

The Cut-off Date is the date to determine eligibility for compensation and assistance. Generally, the Cut-off Date is the date when census begins. Persons who occupy the project area after the Cut-off Date will not be eligible for resettlement assistance. The Cut-off Date for construction of the Bagor River Bridge (Thanlyin No.3 Bridge) and improvement of the intersection is announced as **March 1, 2016**, the date of initial investigation on land acquisition and relocation at the field.

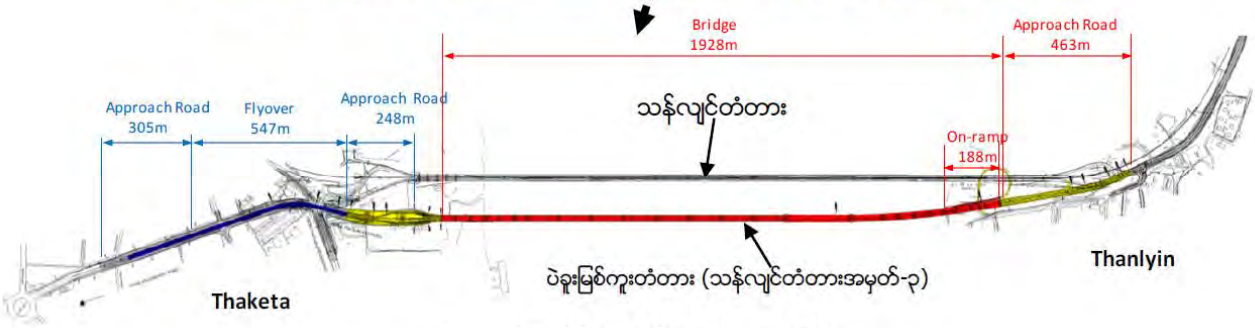
(8) Compensation Policy for Fixed Stalls

Type of Losses/ Category of Assistance	Application	Entitled Person	Assistance Policy
1) A stall with a fixed asset (50 ft× 30 ft)	located within ROW of construction of widening of roads	Owner of the stall	Compensation loss of assets, structures and facilities based on replacement cost if the asset is confirmed as fixed (i.e. not easily reassemble) with relevant parties including the stall owner
2) Compensation for temporary stop of business for a stall with a fixed asset in 1)	located within ROW of construction of widening of roads	Owner of a stall with a fixed asset in 1)	Compensation for those days when it cannot do their business during destruction and reconstruction of its shops

ပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများတိုးတက်ရေးစီမံကိန်း၏ ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားထားမှုများ

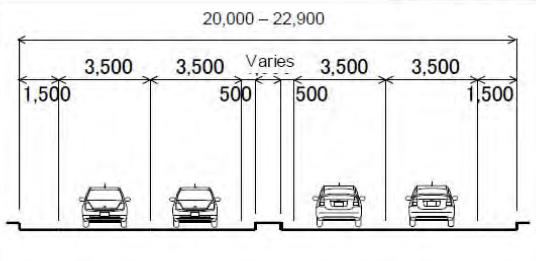
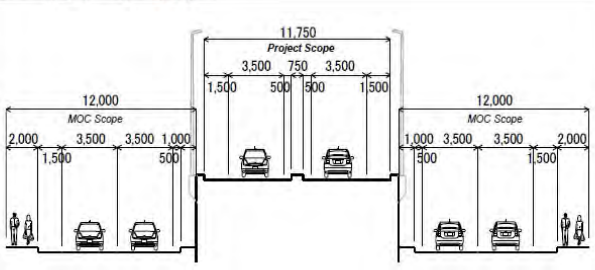
၁) စီမံကိန်းအကြောင်းအရာ

ယခုအချိန်၌ သီလဝါအထူးစီးပွားရေးဇုန် ဖွံ့ဖြိုးတိုးတက်လာမှုကြောင့် သီလဝါနှင့် ရန်ကုန်ဧရိယာအကြား ကုန်စည်စီးဆင်းမှုနှင့် ခရီးသွားလာမှုပမာဏ တိုးတက်လျက်ရှိပါသည်။ သို့ဖြစ်ပါ၍ သန်လျင်တံတားအမှတ် (၁) အနီးတွင် နေ့စဉ်ယာဉ်ကြော ပိတ်ဆို့မှုများ ဖြစ်ပေါ်လျက်ရှိပါသည်။ သန်လျင်နှင့် သာကေတ ဧရိယာများ၌ ယာဉ်ကြောပိတ်ဆို့မှု ဖြေရှင်းရန် နှင့် ခရီးသွားလာမှု ပိုမိုအဆင်ပြေစေရန်အတွက် ဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ တံတားဦးစီးဌာန အနေဖြင့် ပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများ တိုးတက်ရေး စီမံကိန်းအား အကောင်အထည်ဖော် ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။



ပုံ ၁ - စီမံကိန်းပုံစံနှင့်တည်နေရာပြပုံ

ဇယား ၁- ကန့်လန့်ဖြတ်ပိုင်းပြပုံ

	
တံတား	လမ်းဆုံ

၂) ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားမှုများ

တည်ဆောက်ရေးလုပ်ငန်းများ မစတင်မီ၊ ဆောက်လုပ်ချိန် နှင့် လုပ်ငန်းလည်ပတ်ချိန်တွင် အဓိက သက်ရောက်နိုင်ခြေ ရှိသော ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ အချက်များ-

သတ်မှတ်ချက်	အဆင့်	ဖြစ်ပေါ်လာနိုင်သည့်ထိခိုက်မှု	လျော့ပါးသက်သာစေမည့်နည်းလမ်း	စောင့်ကြည့်စစ်ဆေးခြင်း
ညစ်ညမ်းမှု	ဆောက်လုပ်ခြင်း	- မြေသားလုပ်ငန်းများကြောင့် လေ နှင့် ရေ အရည်အသွေး ယာယီနိမ့်ကျမှုဖြစ်ပေါ်နိုင်ခြင်း။ - ဆောက်လုပ်ရေးလုပ်ငန်းများကြောင့် ဆူညံသံနှင့် တုန်ခါမှုများတိုးလာနိုင်ခြင်း။	- ဆောက်လုပ်ရေးလုပ်ငန်းများ၌ မီးခိုးထုတ်လွှတ်မှုသက်သာစေသည့် ယာဉ်ယန္တရားများ အသုံးပြု၍ ထိန်းချုပ်ခြင်း။ - ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ၏ ရေဆိုးသန့်စင်မှု စည်းမျဉ်း အတိုင်း သန့်စင်ခြင်း။ - မြစ်ချောင်းများသို့တိုက်ရိုက် မစွန့်ပစ်ဘဲ အနည်အနှစ်များ စစ်ထုတ်ပြီးမှ စွန့်ပစ်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှု များအား အမြင်ဖြင့် နေ့စဉ် စစ်ဆေး ခြင်း။ - စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာစစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် သုံးကြိမ်) - တိုင်ကြားချက်များအား စစ်ဆေးခြင်း။
	လုပ်ငန်းလည်ပတ်ခြင်း	- ယာဉ်သွားလာမှု တိုးလာခြင်းကြောင့် လေအရည်အသွေး နိမ့်ကျမှု ဖြစ်ပေါ်လာနိုင်ခြင်း။ - ယာဉ်သွားလာမှုတိုးလာခြင်းကြောင့် ဆူညံသံနှင့် တုန်ခါမှု တိုးလာနိုင်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှုအား စောင့်ကြည့် စစ်ဆေးခြင်း။ - ကြိုတင် တားဆီး ကာကွယ်မှုများ ပြုလုပ်ခြင်း။ (ဥပမာ- ဟွန်းသံ တားမြစ်ခြင်း၊ယာဉ်များအား ကောင်းမွန်စွာ ပြုပြင် ထိန်းသိမ်းခြင်း နှင့် ဝန်ပို တင်ဆောင်မှုအား စည်းကမ်း သတ်မှတ်ခြင်း။)	- စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာ စစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် နှစ်ကြိမ်) - အသံဖြစ်ပေါ်မှု အဆင့် အား စစ်ဆေးခြင်း (တစ်နှစ်လျှင် ၃ ကြိမ်)
လူမှုဝန်းကျင်	ဆောက်လုပ်ရေးလုပ်ငန်း မစတင်မီ	- ပဂ္ဂလိကပိုင်မြေသိမ်းယူခြင်း နှင့် နေရာရွှေ့ပြောင်းခြင်း။	- သက်ဆိုင်ရာ ပုဂ္ဂိုလ်များအား အချိန်နှင့်တပြေးညီ ဆွေးနွေးပွဲများ ပြုလုပ်ခြင်းပြီး၊ နေရာမရွှေ့ပြောင်းမီ သင့်တော်သောလျော်ကြေးပေး အပ်ခြင်း။	- စီမံကိန်း အစီအစဉ် ရေးဆွဲခြင်းအဆင့်၌ (အနည်းဆုံး ဆောက်လုပ်ရေး လုပ်ငန်း မစတင်မီ။)
	ဆောက်လုပ်ခြင်း	-လူမှုရေးဆိုင်ရာ အဆောက်အဦများဖြစ်သည့် ဘာသာရေးဆိုင်ရာ နေရာများသို့ သွားလာရာတွင် အနှောင့်အယှက် ဖြစ်ပေါ် နိုင် ခြင်း။	- ဆောက်လုပ်ရေး လုပ်ငန်းဆောင်ရွက်မည့် လုပ်ငန်းစဉ်နှင့် အချိန်ဇယားအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာများ နှင့် ပတ်ဝန်းကျင်၌ နေထိုင်သူ များအား ကြိုတင် အကြောင်း ကြား အသိပေးခြင်း။ - အခြေအနေအရ လိုအပ်ပါက ယာဉ်အချက်ပြစနစ် နှင့် စောင့်ကြည့် ရန် လူစီစဉ် ထားရှိခြင်း။	- တိုင်ကြားမှု မှတ်တမ်းအား အတည်ပြုခြင်း။ (တောင်းခံလာသည့် အကြိမ်တိုင်း)
	လုပ်ငန်းလည်ပတ်ခြင်း	- တံတားအောက်ခံတိုင်များ တပ်ဆင်ခြင်းကြောင့် မြစ်ရေစီးဆင်းမှု အခြေအနေ ပြောင်းလဲမှု ဖြစ်ပေါ်နိုင်ခြင်း။	- တံတားအောက်ခံတိုင်များ ထားရှိမည့် တည်နေရာအား ထည့်သွင်း စဉ်းစားခြင်း။	- ၎င်း အခြေအနေအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာ နှင့် အတည်ပြုမှု ရယူခြင်း။

၃) လျော်ကြေးဆိုင်ရာ မူဝါဒ

(၁) အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ

အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲဆိုသည်မှာ- စီမံကိန်းမှပေးအပ်မည့် လျော်ကြေးနှင့်ထောက်ပံ့မှုအား ခံစားပိုင်ခွင့် ရှိ/မရှိကို ဆုံးဖြတ်သည့်နေ့စွဲ ဖြစ်ပါသည်။ ယေဘုယျအားဖြင့် စစ်တမ်းကောက်ယူမှု စတင်သည့်နေ့အား အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲအဖြစ် သတ်မှတ်ပါသည်။ စီမံကိန်းဇရိယာအတွင်းသို့ အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ နောက်ပိုင်းမှ ဝင်ရောက်လာသူများအနေဖြင့် နေရာရွှေ့ပြောင်းမှုနှင့် စပ်လျဉ်း၍ မည့်သည့်ထောက်ပံ့မှုကိုမှ အကျုံးဝင်ရရှိမည်မဟုတ်ပါ။ စီမံကိန်းအနေဖြင့် မြေယာသိမ်းယူမှုနှင့် ရွှေ့ပြောင်းရေး လုပ်ငန်းများ ဆောင်ရွက်နိုင်ရန် ကနဦးစစ်ဆေးလေ့လာမှုများပြုလုပ်သည့် **မတ်လ (၁) ရက်၊ ၂၀၁၆ ခုနှစ်** အား ဤပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတား အမှတ် (၃)) တည်ဆောက်ရေးနှင့် လမ်းဆုံနေရာများတိုးတက်ရေး စီမံကိန်း၏အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ အဖြစ် သတ်မှတ်ပါသည်။

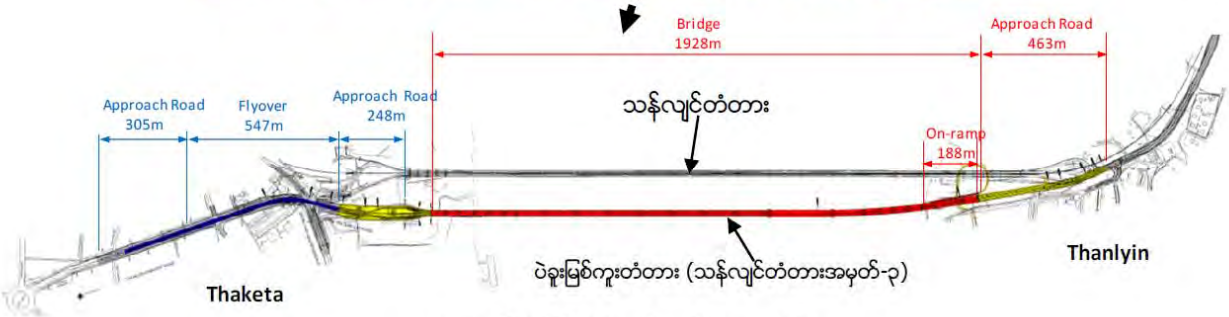
(၂) နေအိမ်ခြံစည်းရိုး၊ လက်ဘက်ရည်ဆိုင်နှင့် ဆံသဆိုင်အတွက် လျော်ကြေးမူဝါဒ

ဆုံးရှုံးမှုပုံစံ / ထောက်ပံ့ပေးမည့် အမျိုးအစား	သက်ဆိုင်မှု	ခံစားခွင့်ရှိသည့် ပုဂ္ဂိုလ်	ထောက်ပံ့ပေးမည့် မူဝါဒ
၁) လက်ဘက်ရည်ဆိုင် နှင့် ဆံသဆိုင်များ၏ ခြံစည်းရိုး နှင့် အဆောက်အဦ	သာကေတမြို့နယ်အတွင်းရှိ လမ်းတိုးချဲ့ခြင်းလုပ်ငန်းများ လုပ်ဆောင်မည့် လမ်းနယ်အတွင်း တည်ရှိ နေခြင်း။	**ငှါး**အဆောက်အဦအား တရားဝင်ပိုင်ဆိုင်သောသူ ။	▪ နောက်ဘက်ဆုတ်ရန် မြေနေရာလွတ် ရှိပါက **ငှါးနေရာ၌** ခြံစည်းရိုး နှင့် အဆောက်အဦများ ပြန်လည် ဆောက်လုပ်ပေးခြင်း။
၂) အထက်ဖော်ပြပါ နံပါတ် (၁) ရှိ လက်ဘက်ရည်ဆိုင် နှင့် ဆံသဆိုင် လုပ်ငန်း ယာယီ ရပ်ဆိုင်းရမှုအတွက် လျော်ကြေးပေးအပ်ခြင်း။	သာကေတမြို့နယ်အတွင်းရှိ လမ်းတိုးချဲ့ခြင်းလုပ်ငန်းများ လုပ်ဆောင်မည့် လမ်းနယ်အတွင်း တည်ရှိ နေခြင်း။	အထက်ဖော်ပြပါ နံပါတ် (၁) ရှိ စျေးဆိုင်များ၏ ပိုင်ရှင်များ။	▪ **ငှါး**ဆိုင်များ ဖျက်သိမ်းခြင်း နှင့် ပြန်လည် တည်ဆောက်ခြင်း ကာလ အတွက် စီးပွားရေးလုပ်ငန်း မလုပ်ဆောင်နိုင်မှု အပေါ် လျော်ကြေး ပေးအပ်ခြင်း။

ပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများတိုးတက်ရေးစီမံကိန်း၏ ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားထားမှုများ

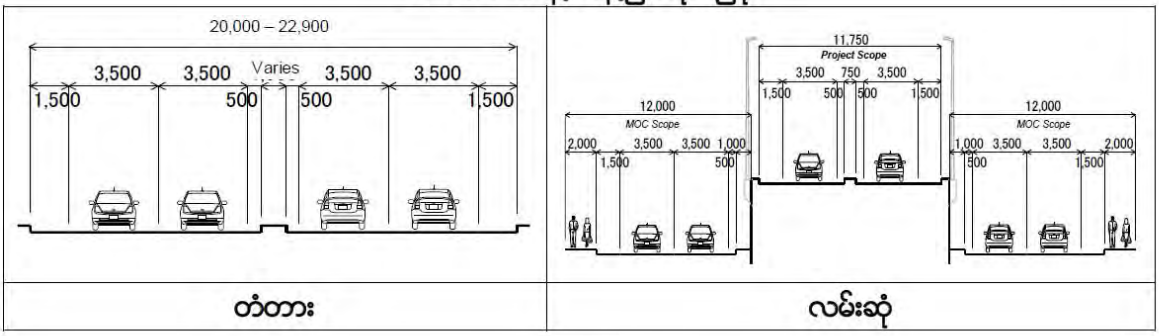
၁) စီမံကိန်းအကြောင်းအရာ

ယခုအချိန်၌ သီလဝါအထူးစီးပွားရေးဇုန် ဖွံ့ဖြိုးတိုးတက်လာမှုကြောင့် သီလဝါနှင့် ရန်ကုန်ဧရိယာအကြား ကုန်စည်စီးဆင်းမှုနှင့် ခရီးသွားလာမှုပမာဏ တိုးတက်လျက်ရှိပါသည်။ သို့ဖြစ်ပါ၍ သန်လျင်တံတားအမှတ် (၁) အနီးတွင် နေ့စဉ်ယာဉ်ကြော ပိတ်ဆို့မှုများ ဖြစ်ပေါ်လျက်ရှိပါသည်။ သန်လျင်နှင့် သာကေတ ဧရိယာများ၌ ယာဉ်ကြောပိတ်ဆို့မှု ဖြေရှင်းရန် နှင့် ခရီးသွားလာမှု ပိုမိုအဆင်ပြေစေရန်အတွက် ဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ တံတားဦးစီးဌာန အနေဖြင့် ပဲခူးမြစ်ကူးတံတား(သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများ တိုးတက်ရေး စီမံကိန်းအား အကောင်အထည်ဖော် ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။



ပုံ ၁ - စီမံကိန်းပုံစံနှင့်တည်နေရာပြပုံ

ဇယား ၁- ကန့်လန့်ဖြတ်ပိုင်းပြပုံ



တံတား	လမ်းဆုံ

၂) ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားမှုများ

တည်ဆောက်ရေးလုပ်ငန်းများ မစတင်မီ၊ ဆောက်လုပ်ချိန် နှင့် လုပ်ငန်းလည်ပတ်ချိန်တွင် အဓိက သက်ရောက်နိုင်ခြေ ရှိသော ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ အချက်များ-

သတ်မှတ်ချက်	အဆင့်	ဖြစ်ပေါ်လာနိုင်သည့်ထိခိုက်မှု	လျော့ပါးသက်သာစေမည့်နည်းလမ်း	စောင့်ကြည့်စစ်ဆေးခြင်း
ညစ်ညမ်းမှု	ဆောက်လုပ်ခြင်း	- မြေသားလုပ်ငန်းများကြောင့် လေ နှင့် ရေ အရည်အသွေး ယာယီနိမ့်ကျမှုဖြစ်ပေါ်နိုင်ခြင်း။ - ဆောက်လုပ်ရေးလုပ်ငန်းများကြောင့် ဆူညံသံနှင့် တုန်ခါမှုများတိုးလာနိုင်ခြင်း။	- ဆောက်လုပ်ရေးလုပ်ငန်းများ၌ မီးခိုးထုတ်လွှတ်မှုသက်သာစေသည့် ယာဉ်ယန္တရား များ အသုံးပြု၍ ထိန်းချုပ်ခြင်း။ - ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ၏ ရေဆိုးသန့်စင်မှု စည်းမျဉ်း အတိုင်း သန့်စင်ခြင်း။ - မြစ်ချောင်းများသို့တိုက်ရိုက် မစွန့်ပစ်ဘဲ အနည်အနှစ်များ စစ်ထုတ်ပြီးမှ စွန့်ပစ်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှု များအား အမြင်ဖြင့် နေ့စဉ် စစ်ဆေး ခြင်း။ - စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာစစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် သုံးကြိမ်) - တိုင်ကြားချက်များအား စစ်ဆေးခြင်း။
	လုပ်ငန်းလည်ပတ်ခြင်း	- ယာဉ်သွားလာမှု တိုးလာခြင်းကြောင့် လေအရည်အသွေး နိမ့်ကျမှု ဖြစ်ပေါ်လာနိုင်ခြင်း။ - ယာဉ်သွားလာမှုတိုးလာခြင်းကြောင့် ဆူညံသံနှင့် တုန်ခါမှု တိုးလာနိုင်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှုအား စောင့်ကြည့် စစ်ဆေး ခြင်း။ - ကြိုတင် တားဆီး ကာကွယ်မှုများ ပြုလုပ်ခြင်း။ (ဥပမာ- ဟွန်းသံ တားမြစ်ခြင်း၊ယာဉ်များအား ကောင်းမွန်စွာ ပြုပြင် ထိန်းသိမ်းခြင်း နှင့် ဝန်ပို တင်ဆောင်မှုအား စည်းကမ်း သတ်မှတ်ခြင်း။)	- စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာ စစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် နှစ်ကြိမ်) - အသံဖြစ်ပေါ်မှု အဆင့် အား စစ်ဆေးခြင်း (တစ်နှစ်လျှင် ၃ ကြိမ်)
လူမှုဝန်းကျင်	ဆောက်လုပ်ရေးလုပ်ငန်း မစတင်မီ	- ပုဂ္ဂလိကပိုင်မြေသိမ်းယူခြင်း နှင့် နေရာရွှေ့ပြောင်းခြင်း။	- သက်ဆိုင်ရာ ပုဂ္ဂိုလ်များအား အချိန်နှင့်တပြေးညီ ဆွေးနွေးပွဲများ ပြုလုပ်ခြင်းပြီး၊ နေရာမရွှေ့ပြောင်းမီ သင့်တော်သောလျော်ကြေးပေး အပ်ခြင်း။	- စီမံကိန်း အစီအစဉ် ရေးဆွဲခြင်းအဆင့်၌ (အနည်းဆုံး ဆောက်လုပ်ရေး လုပ်ငန်း မစတင်မီ။)
	ဆောက်လုပ်ခြင်း	-လူမှုရေးဆိုင်ရာ အဆောက်အဦများဖြစ်သည့် ဘာသာရေးဆိုင်ရာ နေရာများသို့ သွားလာရာတွင် အနှောင့်အယှက် ဖြစ်ပေါ် နိုင် ခြင်း။	- ဆောက်လုပ်ရေး လုပ်ငန်း ဆောင်ရွက်မည့် လုပ်ငန်းစဉ်နှင့် အချိန်ဇယားအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာများ နှင့် ပတ်ဝန်းကျင်၌ နေထိုင်သူ များအား ကြိုတင် အကြောင်း ကြား အသိပေးခြင်း။ - အခြေအနေအရ လိုအပ်ပါက ယာဉ် အချက်ပြစနစ် နှင့် စောင့်ကြည့် ရန် လူစီစဉ် ထားရှိခြင်း။	- တိုင်ကြားမှု မှတ်တမ်းအား အတည်ပြုခြင်း။ (တောင်းခံလာသည့် အကြိမ်တိုင်း)
	လုပ်ငန်းလည်ပတ်ခြင်း	- တံတားအောက်ခံတိုင်များ တပ်ဆင်ခြင်းကြောင့် မြစ်ရေစီးဆင်းမှု အခြေအနေ ပြောင်းလဲမှု ဖြစ်ပေါ်နိုင်ခြင်း။	- တံတားအောက်ခံတိုင်များ ထားရှိမည့် တည်နေရာအား ထည့်သွင်း စဉ်းစားခြင်း။	- ၎င်း အခြေအနေအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာ နှင့် အတည်ပြုမှု ရယူခြင်း။

၃) လျော်ကြေးဆိုင်ရာ မူဝါဒ

(၁) အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ

အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲဆိုသည်မှာ- စီမံကိန်းမှပေးအပ်မည့် လျော်ကြေးနှင့်ထောက်ပံ့မှုအား ခံစားပိုင်ခွင့် ရှိ/မရှိကို ဆုံးဖြတ်သည့်နေ့စွဲ ဖြစ်ပါသည်။ ယေဘုယျအားဖြင့် စစ်တမ်းကောက်ယူမှု စတင်သည့်နေ့အား အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲအဖြစ် သတ်မှတ်ပါသည်။ စီမံကိန်းဇရိယာအတွင်းသို့ အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ နောက်ပိုင်းမှ ဝင်ရောက်လာသူများအနေဖြင့် နေရာရွှေ့ပြောင်းမှုနှင့် စပ်လျဉ်း၍ မည့်သည့်ထောက်ပံ့မှုကိုမှ အကျုံးဝင်ရရှိမည်မဟုတ်ပါ။ စီမံကိန်းအနေဖြင့် မြေယာသိမ်းယူမှုနှင့် ရွှေ့ပြောင်းရေး လုပ်ငန်းများ ဆောင်ရွက်နိုင်ရန် ကနဦးစစ်ဆေးလေ့လာမှုများပြုလုပ်သည့် **မတ်လ (၁) ရက်၊ ၂၀၁၆ ခုနှစ်** အား ဤပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတား အမှတ် (၃)) တည်ဆောက်ရေးနှင့် လမ်းဆုံနေရာများတိုးတက်ရေး စီမံကိန်း၏အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ အဖြစ် သတ်မှတ်ပါသည်။

(၂) အခိုင်အခဲ့ဆောက်လုပ်ထားသော ဈေးဆိုင်များ အတွက် လျော်ကြေးမူဝါဒ

ဆုံးရှုံးမှုပုံစံ / ထောက်ပံ့ပေးမည့် အမျိုးအစား	သက်ဆိုင်မှု	ခံစားခွင့်ရှိသည့် ပုဂ္ဂိုလ်	ထောက်ပံ့ပေးမည့် မူဝါဒ
၁) အခိုင်အခဲ့ဆောက်လုပ်ထား သည့် ဈေးဆိုင်များ (၅၀ ပေ x ၃၀ ပေ)	လမ်းတိုးချဲ့တည်ဆောက်မည့် လမ်းနယ်နိမိတ် အတွင်း၌ တည်ရှိနေခြင်း။	ဈေးဆိုင်ပိုင်ရှင်။	- ဈေးဆိုင်ပိုင်ရှင် နှင့် အခြားသက်ဆိုင်ရာ အဖွဲ့အစည်းများ မှ အခိုင်အခဲ့တည်ဆောက်ထားသော ဈေးဆိုင် (အလွယ်တကူ တပ်ဆင်နိုင်သော ဈေးဆိုင် မဟုတ်) ဟု အတည်ပြု သတ်မှတ်ပါက ပိုင်ဆိုင်မှုနှင့် အဆောက်အဦ ဆုံးရှုံးမှုများ အတွက် အစားထိုးလျော်ကြေးပေးခြင်း။
၂) အထက်ဖော်ပြပါ နံပါတ် ၁ တွင်ပါရှိသော အခိုင်အခဲ့တည်ဆောက်ထားသော ဈေးဆိုင်များ၏ စီးပွားရေးလုပ်ငန်း ယာယီရပ်ဆိုင်းမှု အတွက် လျော်ကြေးပေးခြင်း။	လမ်းတိုးချဲ့တည်ဆောက်မည့် လမ်းနယ်နိမိတ် အတွင်း၌ တည်ရှိနေခြင်း။	အထက်ဖော်ပြပါ နံပါတ် ၁ တွင်ပါရှိသော အခိုင်အခဲ့တည်ဆောက်ထားသော ဈေးဆိုင်ပိုင်ရှင်များ။	- **ငှါးဈေးဆိုင်များ** ဖျက်သိမ်းခြင်း နှင့် ပြန်လည်ဆောက်လုပ်ခြင်းကြောင့် စီပွားရေးလုပ်ငန်း မလုပ်ဆောင်နိုင်သည့် နေ့ရက်များအတွက် လျော်ကြေးပေးခြင်း။

付録 4-4: Session 4 & 5- Owner of Temporary Stall (Group 1 & 2)

Minute of Meeting, Section-4 (Temporary Stall- 1st Group)

Name of Meeting	Consultation Meeting with the Owner of Temporary Stall
Date & Time	17 December 2016, (2:10 PM– 2:20PM)
City & Place	Bridge Construction (Special 11), MOC compound, Tharketa Township,
Participants (MOC&JICA Study Team)	1) Chief Engineer (Civil), Dept. of Bridge, Ministry of Construction 2) Director (Civil), Dept. of Bridge, Ministry of Construction 3) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 4) Assistant Engineer, Dept. of Bridge, Ministry of Construction 5) Social Expert (International Expert) 6) Social Expert (National) 7) Junior Social Expert (National) 8) Junior Environmental Expert (National)
Participated PAH	Total No. -18
Handout	Outline of Environmental and Social Considerations for Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection (File Name: Sec.4&5_Movable Stall)
Explanation by Director of MOC	- Firstly, the Director of MOC introduces Chief Engineer to the participants of the meeting that the Chief Engineer is the Leader of Project Management Unit (PMU) of Bago River Bridge (Thanlyin Bridge No.3) Construction Project. - One of the ministers from YRG will represent as the chairman of the compensation committee for Bago River Bridge Project, and the Chief Engineer will be assigned as the secretary. - After that, the Director briefly explained about the project description, possible impact to natural and social environment. - Finally, he concluded that the local people will get more job opportunities due to the implementation of the project.
Explanation by Chief Engineer of MOC	- The participants attending today meeting are the temporary stall owner. - The purpose of today meeting is to explain the compensation content to the owners of temporary stalls in the project area by following the JICA Guidelines. - The temporary stall in the project area will be affected due to the construction of the project. In that case, those affected temporary stalls need to move out from the project affected area. - The moving cost will be considered only for these temporary stall owners who are recorded in the survey list conducted in March 1, 2016. The framework of compensation is mentioned in the handout. - The temporary stalls opened in the project area after March 1, 2016 will not be entitled for the moving cost. - The amount of moving cost has not been decided yet. - MOC will provide the appropriate moving costs by following the JICA Guidelines and the instruction of YRG, and based on the decision made by the compensation committee. - When the compensation committee decides the moving cost amount, MOC will inform it to the temporary stall owner by organizing the meeting. - Implementing this project will be contributed to the country development, therefore, MOC would like to request to the participants to support the project to be successful.
Question and Answer Section	- No one raised questions in this section.

Minute of Meeting, Section-5 (Temporary Stall- 2nd Group)

Name of Meeting	Consultation Meeting with the Owner of Temporary Stall
Date & Time	17th December 2016, (3:05 PM– 3:20PM)
City & Place	Bridge Construction (Special 11), MOC compound, Tharketa Township,
Participants (MOC&JICA Study Team)	1) Chief Engineer (Civil), Dept. of Bridge, Ministry of Construction 2) Director (Civil), Dept. of Bridge, Ministry of Construction 3) Deputy Director (Civil), Dept. of Bridge, Ministry of Construction 4) Assistant Engineer, Dept. of Bridge, Ministry of Construction 5) Social Expert (International Expert) 6) Social Expert (National) 7) Junior Social Expert (National) 8) Junior Environmental Expert (National)
Participated PAH	Total No.- 19
Handout	Outline of Environmental and Social Considerations for Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection (File Name: Sec.4&5_Movable Stall)
Explanation by Director of MOC	- Firstly, the Director of MOC introduces Chief Engineer to the participants of the meeting that the Chief Engineer is the Leader of Project Management Unit (PMU) of Bago River Bridge (Thanlyin Bridge No.3) Construction Project. - One of the ministers from YRG will represent as the chairman of the compensation committee for Bago River Bridge Project, and the Chief Engineer will be assigned as the secretary. - After that, the Director briefly explained about the project description, possible impact to natural and social environment. - Finally, he concluded that the local people will get more job opportunities due to the implementation of the project.
Explanation by Chief Engineer of MOC	- The participants attending today meeting are the temporary stall owner. - The purpose of today meeting is to explain the compensation content to the owners of temporary stall in the project area by following the JICA Guidelines. - The temporary stall in the project area can be affected due to the construction of the project. In that case, those affected temporary stalls need to move out from the project affected area. - The moving cost will be considered only for these temporary stall owners who are recorded in the survey list conducted in March 1, 2016. The framework of compensation is mentioned in the handout. - The temporary stalls opened in the project area after March 1, 2016 will not be entitled for the moving cost. - The amount of moving cost has not been decided yet. - MOC will provide the appropriate moving costs by following the JICA Guidelines and the instruction of YRG, and based on the decision made by the compensation committee. - When the compensation committee decides the moving cost amount, MOC will inform it to the temporary stall owner by organizing the meeting. - Implementing this project will be contributed to the country development, therefore, MOC would like to request to the participants to support the project to be successful.
Question and Answer Section	**Q-1) Participant, Umbrella Repair Shop** - He would like to know whether the permanent living structure will be affected or not. - He would like to know the date he needs to move from the project affected area. **<u>Answer:</u> Chief Engineer and Director of DOB, MOC** - As the zero level of flyover will stop at before arriving to the 108 Yard Pagoda, the permanent living structure may not be affected due to the project. - The consultant is now conducting the detailed design study. - MOC side will inform beforehand the temporary stall owner about the moving date by organizing a meeting. - The compensation committee will provide the moving cost for the temporary stall owners who are included in the survey list conducted in March 1, 2016.

	- There is an improvement plan of Tharketa Roundabout to implement together with YCDC after the completion of the Bago River Bridge Project. **Q-2) Participant ,Betel Shop Owner** - His betel shop has official permission for business. If his shop is needed to move from the project area, he would like to get a recommendation letter from the project. **<u>Answer:</u> Chief Engineer and Director of DOB, MOC** - The project will provide the recommendation letter the betel shop owner requests. It will be no problem because there will be one officer from YCDC in the compensation committee.

Outline of Environmental and Social Considerations for Construction of the Bago River Bridge (Thanlyin No.3 Bridge) and Improvement of the Intersection

1. Project Outline

Traffic volume of passenger and cargo between Yangon and the Thilawa area is increasing these days in accordance with development of Thilawa Special Economic Zone (SEZ). Accordingly, traffic congestion around the Thanlyin No. 1 Bridge area is serious in daily basis. With the purpose of solving traffic congestion and improving traffic flow in Thanlyin and Thaketa areas, Department of Bridge, MOC plans to construct the Bago River Bridge (Thanlyin No.3 Bridge) and to improve the intersection.

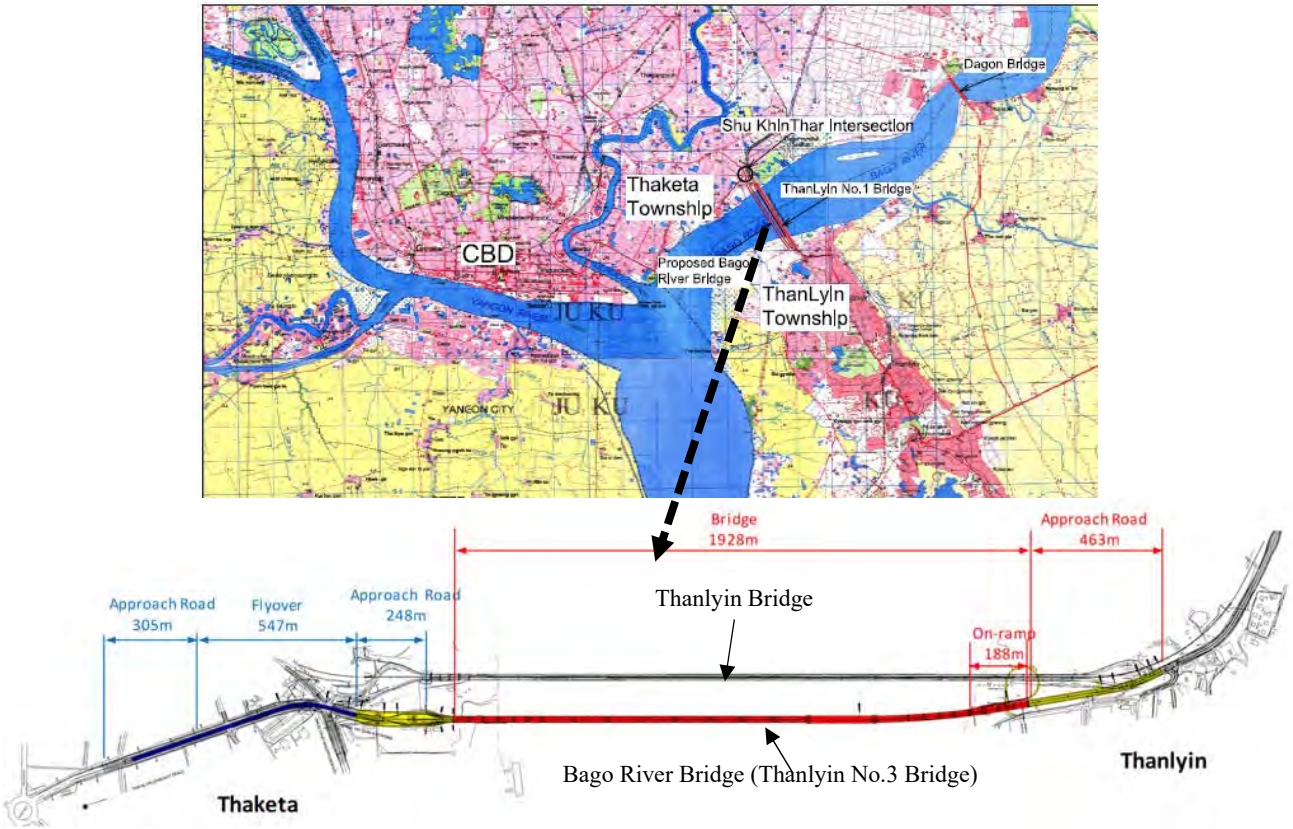
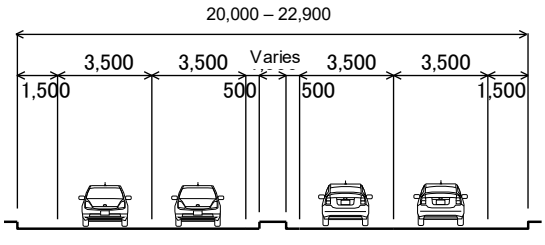
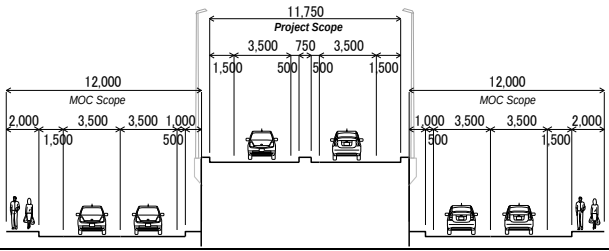


Figure-1 Location and Layout of the Project

Table-1 Typical Cross Section

	
Bridge	**Intersection**

2. Environmental and Social Considerations

Major possible environmental and social impact before and during construction and operation.

Parameter	Stage	Potential Impacts	Proposed Mitigation Measures	Monitoring
Pollution	Construction	- Possibility to temporary degrade air and water quality due to earth works - Possibility to increase noise and vibration due to construction activities	- Use construction vehicles and machines with sufficient emission exhaust control - Treat wastewater according to YCDC regulations - Arrange silt trap to avoid direct discharge of surface runoff	- Visual observation of air quality, noise & vibration (daily) - Sampling & analysis of selected parameters of air quality (3 times a year) - Checking complain
	Operation	- Possibility to degrade air quality due to increase of traffic - Possibility to increase noise and vibration due to increase of traffic	- Monitor air quality, noise and vibration - Apply preventive measures (e.g. avoiding horns, good maintenance of vehicles, regulation of overloading)	- Sampling & analysis of selected parameters of air quality (2 times a year) - Checking sound level (3 times a year)
Social Environment	Before Construction	- Land acquisition of private land and involuntary resettlement	- Holding consultation with concerned people in timely manner and providing appropriate compensation before relocation	- Planning stage (at the latest commencement of construction works)
	Construction	- Disturb accessibility to local social infrastructure such as religious places	- Inform construction activities and schedule to the surrounding communities and relevant authorities in advance - Arrange traffic signal and watchman according to the situation	- Confirming records of complain (any times as requested)
	Operation	- Possibility to change river flow due to piers to be installed	- Consider location of piers	- Confirming the situation to relevant authorities

3. Compensation Policy

(9) Cut-off Date

The Cut-off Date is the date to determine eligibility for compensation and assistance. Generally, the Cut-off Date is the date when census begins. Persons who occupy the project area after the Cut-off Date will not be eligible for resettlement assistance. The Cut-off Date for construction of the Bagor River Bridge (Thanlyin No.3 Bridge) and improvement of the intersection is announced as **March 1, 2016**, the date of initial investigation on land acquisition and relocation at the field.

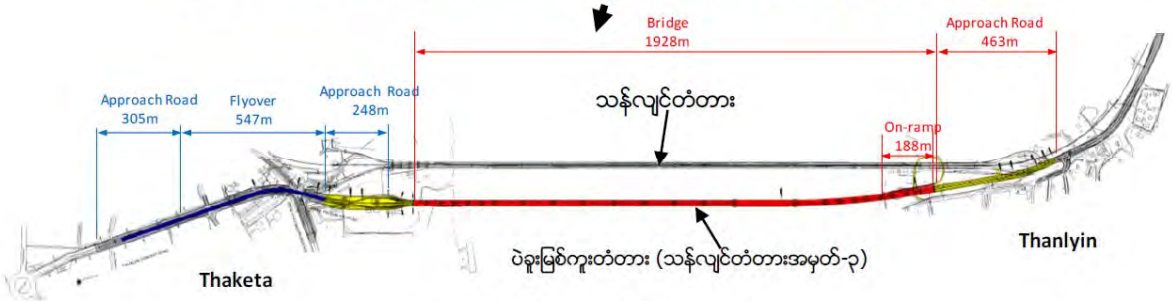
(10) Compensation Policy for Movable Stalls

Type of Losses/ Category of Assistance	Application	Entitled Person	Assistance Policy
Stalls easily reassemble	located within ROW	Owner of stalls	Cash assistance for moving

ပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများတိုးတက်ရေးစီမံကိန်း၏ ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားထားမှုများ

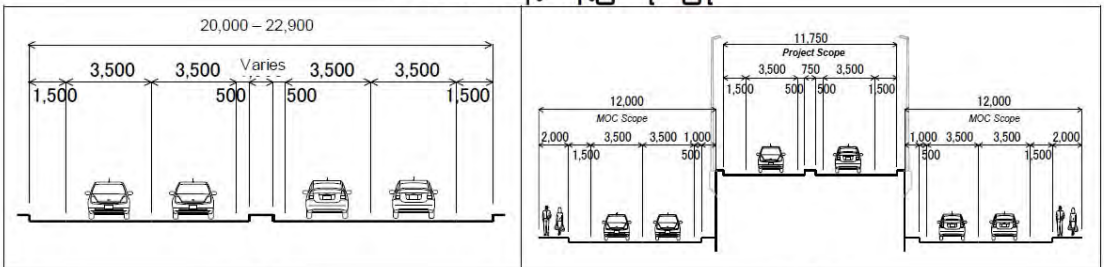
၁) စီမံကိန်းအကြောင်းအရာ

ယခုအချိန်၌ သီလဝါအထူးစီးပွားရေးဇုန် ဖွံ့ဖြိုးတိုးတက်လာမှုကြောင့် သီလဝါနှင့် ရန်ကုန်ဧရိယာအကြား ကုန်စည်စီးဆင်းမှုနှင့် ခရီးသွားလာမှုပမာဏ တိုးတက်လျက်ရှိပါသည်။ သို့ဖြစ်ပါ၍ သန်လျင်တံတားအမှတ် (၁) အနီးတွင် နေ့စဉ်ယာဉ်ကြော ပိတ်ဆို့မှုများ ဖြစ်ပေါ်လျက်ရှိပါသည်။ သန်လျင်နှင့် သာကေတ ဧရိယာများ၌ ယာဉ်ကြောပိတ်ဆို့မှု ဖြေရှင်းရန် နှင့် ခရီးသွားလာမှု ပိုမိုအဆင်ပြေစေရန်အတွက် ဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ တံတားဦးစီးဌာန အနေဖြင့် ပဲခူးမြစ်ကူးတံတား(သန်လျင်တံတားအမှတ်-၃) တည်ဆောက်ရေး နှင့် လမ်းဆုံနေရာများ တိုးတက်ရေး စီမံကိန်းအား အကောင်အထည်ဖော် ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။



ပုံ ၁ - စီမံကိန်းပုံစံနှင့်တည်နေရာပြပုံ

ဇယား ၁- ကန့်လန့်ဖြတ်ပိုင်းပြပုံ



၁

၂) ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ ထည့်သွင်းစဉ်းစားမှုများ

တည်ဆောက်ရေးလုပ်ငန်းများ မစတင်မီ၊ ဆောက်လုပ်ချိန် နှင့် လုပ်ငန်းလည်ပတ်ချိန်တွင် အဓိက သက်ရောက်နိုင်ခြေ ရှိသော ပတ်ဝန်းကျင်နှင့်လူမှုရေးဆိုင်ရာ အချက်များ-

သတ်မှတ်ချက်	အဆင့်	ဖြစ်ပေါ်လာနိုင်သည့်ထိခိုက်မှု	လျော့ပါးသက်သာစေမည့်နည်းလမ်း	စောင့်ကြည့်စစ်ဆေးခြင်း
ညစ်ညမ်းမှု	ဆောက်လုပ်ခြင်း	- မြေသားလုပ်ငန်းများကြောင့် လေ နှင့် ရေ အရည်အသွေး ယာယီနိမ့်ကျမှုဖြစ်ပေါ်နိုင်ခြင်း။ - ဆောက်လုပ်ရေးလုပ်ငန်းများကြောင့် ဆူညံသံနှင့် တုန်ခါမှုများတိုးလာနိုင်ခြင်း။	- ဆောက်လုပ်ရေးလုပ်ငန်းများ၌ မီးခိုးထုတ်လွှတ်မှုသက်သာစေသည့် ယာဉ်ယန္တရား များ အသုံးပြု၍ ထိန်းချုပ်ခြင်း။ - ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ၏ ရေဆိုးသန့်စင်မှု စည်းမျဉ်း အတိုင်း သန့်စင်ခြင်း။ - မြစ်ချောင်းများသို့တိုက်ရိုက် မစွန့်ပစ်ဘဲ အနည်အနှစ်များ စစ်ထုတ်ပြီးမှ စွန့်ပစ်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှု များအား အမြင်ဖြင့် နေ့စဉ် စစ်ဆေး ခြင်း။ - စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာစစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် သုံးကြိမ်) - တိုင်ကြားချက်များအား စစ်ဆေးခြင်း။
	လုပ်ငန်းလည်ပတ်ခြင်း	- ယာဉ်သွားလာမှု တိုးလာခြင်းကြောင့် လေအရည်အသွေး နိမ့်ကျမှု ဖြစ်ပေါ်လာနိုင်ခြင်း။ - ယာဉ်သွားလာမှုတိုးလာခြင်းကြောင့် ဆူညံသံနှင့် တုန်ခါမှု တိုးလာနိုင်ခြင်း။	- လေအရည်အသွေး၊ ဆူညံသံ နှင့် တုန်ခါမှုအား စောင့်ကြည့် စစ်ဆေး ခြင်း။ - ကြိုတင် တားဆီး ကာကွယ်မှုများ ပြုလုပ်ခြင်း။ (ဥပမာ- ဟွန်းသံ တားမြစ်ခြင်း၊ယာဉ်များအား ကောင်းမွန်စွာ ပြုပြင် ထိန်းသိမ်းခြင်း နှင့် ဝန်ပို တင်ဆောင်မှုအား စည်းကမ်း သတ်မှတ်ခြင်း။)	- စောင့်ကြည့်စစ်ဆေးရန် ရွေးချယ်ထားသော သတ်မှတ် ချက်များ အား နမူနာ ကောက်ယူခြင်း နှင့် ခွဲခြမ်းစိတ်ဖြာ စစ်ဆေးခြင်း။ (တစ်နှစ်လျှင် နှစ်ကြိမ်) - အသံဖြစ်ပေါ်မှု အဆင့် အား စစ်ဆေးခြင်း (တစ်နှစ်လျှင် ၃ ကြိမ်)
လူမှုဝန်းကျင်	ဆောက်လုပ်ရေးလုပ်ငန်း မစတင်မီ	- ပုဂ္ဂလိကပိုင်မြေသိမ်းယူခြင်း နှင့် နေရာရွှေ့ပြောင်းခြင်း။	- သက်ဆိုင်ရာ ပုဂ္ဂိုလ်များအား အချိန်နှင့်တပြေးညီ ဆွေးနွေးပွဲများ ပြုလုပ်ခြင်းပြီး၊ နေရာမရွှေ့ပြောင်းမီ သင့်တော်သောလျော်ကြေးပေး အပ်ခြင်း။	- စီမံကိန်း အစီအစဉ် ရေးဆွဲခြင်းအဆင့်၌ (အနည်းဆုံး ဆောက်လုပ်ရေး လုပ်ငန်း မစတင်မီ။)
	ဆောက်လုပ်ခြင်း	-လူမှုရေးဆိုင်ရာ အဆောက်အဦများဖြစ်သည့် ဘာသာရေးဆိုင်ရာ နေရာများသို့ သွားလာရာတွင် အနှောင့်အယှက် ဖြစ်ပေါ် နိုင် ခြင်း။	- ဆောက်လုပ်ရေး လုပ်ငန်း ဆောင်ရွက်မည့် လုပ်ငန်းစဉ်နှင့် အချိန်ဇယားအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာများ နှင့် ပတ်ဝန်းကျင်၌ နေထိုင်သူ များအား ကြိုတင် အကြောင်း ကြား အသိပေးခြင်း။ - အခြေအနေအရ လိုအပ်ပါက ယာဉ် အချက်ပြစနစ် နှင့် စောင့်ကြည့် ရန် လူစီစဉ် ထားရှိခြင်း။	- တိုင်ကြားမှု မှတ်တမ်းအား အတည်ပြုခြင်း။ (တောင်းခံလာသည့် အကြိမ်တိုင်း)
	လုပ်ငန်းလည်ပတ်ခြင်း	- တံတားအောက်ခံတိုင်များ တပ်ဆင်ခြင်းကြောင့် မြစ်ရေစီးဆင်းမှု အခြေအနေ ပြောင်းလဲမှု ဖြစ်ပေါ်နိုင်ခြင်း။	- တံတားအောက်ခံတိုင်များ ထားရှိမည့် တည်နေရာအား ထည့်သွင်း စဉ်းစားခြင်း။	- ၎င်း အခြေအနေအား သက်ဆိုင်ရာ ဌာန ဆိုင်ရာ နှင့် အတည်ပြုမှု ရယူခြင်း။

၃) လျော်ကြေးဆိုင်ရာ မူဝါဒ

(၁) အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ

အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲဆိုသည်မှာ- စီမံကိန်းမှပေးအပ်မည့် လျော်ကြေးနှင့်ထောက်ပံ့မှုအား ခံစားပိုင်ခွင့် ရှိ/မရှိကို ဆုံးဖြတ်သည့်နေ့စွဲ ဖြစ်ပါသည်။ ယေဘုယျအားဖြင့် စစ်တမ်းကောက်ယူမှု စတင်သည့်နေ့အား အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲအဖြစ် သတ်မှတ်ပါသည်။ စီမံကိန်းဒရိယာအတွင်းသို့ အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ နောက်ပိုင်းမှ ဝင်ရောက်လာသူများအနေဖြင့် နေရာရွှေ့ပြောင်းမှုနှင့် စပ်လျဉ်း၍ မည့်သည့်ထောက်ပံ့မှုကိုမှ အကျုံးဝင်ရရှိမည်မဟုတ်ပါ။ စီမံကိန်းအနေဖြင့် မြေယာသိမ်းယူမှုနှင့် ရွှေ့ပြောင်းရေး လုပ်ငန်းများ ဆောင်ရွက်နိုင်ရန် ကနဦးစစ်ဆေးလေ့လာမှုများပြုလုပ်သည့် **မတ်လ (၁) ရက်၊ ၂၀၁၆ ခုနှစ်** အား ဤပဲခူးမြစ်ကူးတံတား (သန်လျင်တံတား အမှတ် (၃)) တည်ဆောက်ရေးနှင့် လမ်းဆုံနေရာများတိုးတက်ရေး စီမံကိန်း၏အကျုံးဝင်သည့် နောက်ဆုံးရက်စွဲ အဖြစ် သတ်မှတ်ပါသည်။

(၂) ရွှေ့ပြောင်းရလွယ်ကူသော ဈေးဆိုင်များနှင့် ပတ်သက်သော လျော်ကြေးမူဝါဒ

ဆုံးရှုံးမှုပုံစံ / ထောက်ပံ့ပေးမည့် အမျိုးအစား	သက်ဆိုင်မှု	ခံစားခွင့်ရှိသည့် ပုဂ္ဂိုလ်	ထောက်ပံ့ပေးမည့် မူဝါဒ
အလွယ်တကူ ပြန်လည်တပ်ဆင်နိုင်သော ဈေးဆိုင်များ	လမ်းနယ်အတွင်း၌ တည်ရှိနေခြင်း။	ဈေးဆိုင်ပိုင်ရှင်။	▪ ရွှေ့ပြောင်းစရိတ်ထောက်ပံ့ပေးခြင်း။

広報

付録-19　Detailed Storyboard in Japanese

「バゴー橋建設事業」

ミャンマー連邦共和国

ミャンマー連邦共和国、旧首都ヤンゴン市。

ヤンゴン市はミャンマーの経済の中心地です。

近年、ミャンマー経済の発展と自動車輸入規制の緩和によって、ヤンゴン都市圏の車両台数は大きく増加しています。

その結果、人や物資の流通を支えるヤンゴンの交通網が過密状態となり、さらなる経済発展に伴い、状況がより悪化することが懸念されています。

ヤンゴン都市圏はヤンゴン川、バゴー川などの川に囲まれています。そこで、ヤンゴン都市圏と川をまたいだ地域を繋ぐことが、この地域の経済発展にとって重要な優先課題となっています。

バゴー川にかかるタンリン橋とダゴン橋は、大規模経済開発が予定されるティラワ経済特別区を含む、タンリン地区とヤンゴン中心部を結んでいます。

タンリン橋はヤンゴン都市部とティラワ経済特別区を繋ぐ最短ルートである一方、片側１車線・鉄道併用となっているため、交通容量が限られています。また、荷重制限があるため、大型トラックの通行が禁止されています。

ダゴン橋は片側３車線で交通容量が大きい一方､ヤンゴン都市部とティラワ経済特別区を結ぶ線から大きく迂回するためアクセスが悪く、理想的な立地とは言えません。

2013 年の調査報告によると、距離にして 18 キロメートル、時間にして 24 分のロスの発生が指摘されており、ミャンマーの経済発展に伴い、交通所要時間は更に長くなることが懸念されます。

毎日の通勤についてタンリン地区の住民に取材しました。

[タンリン地区住民への取材]

「私はヤンゴンに通勤しています。タンリンからヤンゴンまで、以前は 30 分でしたが、今は 45 分かかります。橋の上では、午前 7 時から 午前 9 時か 10 時頃まで激しい渋滞が発生します。さらに、午後の 5 時半から 8 時か 9 時までの渋滞は本当にひどいものです」。

→インタビューの声をそのまま生かし、テロップフォローとします。

新しい橋の建設を行わない場合、2025 年には川を横断するために 1 時間以上を要することになると予想されています。

タンリン橋の交通量がすでに交通容量を超えていること、老朽化の懸念が出ていることを踏まえ、新しい橋の一刻も早い建設が望まれていました。

そこで、第３の橋、「バゴー橋建設プロジェクト」が日本政府と協力して立ち上げられました。

（私たちは、）国内インフラの改善を担当している、ミャンマー建設省官僚の U KYAW LINN ~~さん~~氏に橋の交通状況についてインタビューを行いました。

[ミャンマー建設省への取材]

「バゴー川は、ヤンゴンからタンリン側に渡る際の大きな障害となっています。そのため、バゴー側に新しい橋を建設することを計画しています。これは、第３ヤンゴン-タンリン橋と呼ばれることになります」。

この橋が建設されると、タンリン側、特にティラワ経済特別区からヤンゴン中心部へ簡単にアクセスできるようになり、ヤンゴンの経済とミャンマーの経済発展に役立つことになります」。

→インタビューの声をそのまま生かし、テロップフォローとします。

では、ミャンマー連邦共和国、最初の経済特別区である、ティラワ経済特別区からの視点ではどうでしょうか？

[MJTD（ミャンマー・ジャパン・ティラワ・ディベロップメント社）への取材]

「計画中の橋は、ヤンゴンとティラワ経済特別区を結ぶ非常に重要なライフラインです。これは、ティラワ経済特別区の住民あるいはここで工場を経営する者にとって長く待ち望んだ橋なのです。現在、タンリン橋は 1 車線なので、ヤンゴンへの往復の際、ボトルネックとなっています。多くの人がヤンゴンに住んでいますし、橋の向こうに住んでいなくても、橋を渡ってヤンゴンに行く必要がある場合は多いのです。例えば、大使館、銀行、空港に行く時など、何をするにもこの橋を使います。

2 車線より多い、広い道路のついた橋を我々は長く待ち望んできました。これができれば、心の安らぎを持って橋を渡ることができます。私は橋の建設をとても楽しみにしています」。

→インタビューの声をそのまま生かし、テロップフォローとします。

新しい橋は主に 3 つの構造上の特徴があります。

1 つ目は 448 メートルの長さの斜張橋、

2 つ目は 1033 メートルの長さの鋼箱桁橋、そして、450 メートルの PC 箱桁橋です。

すべての部分を含めた全長は 2031 メートルになります。

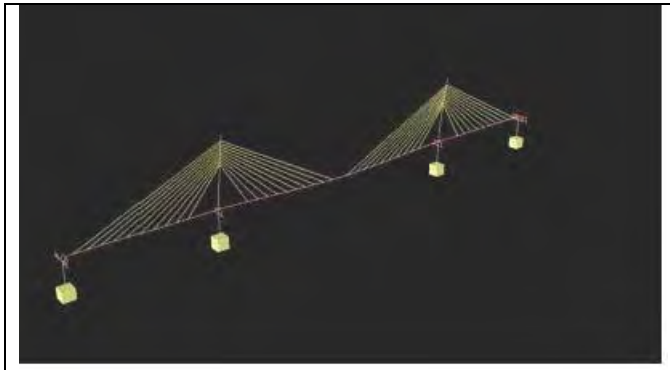
この橋は、ヤンゴン都市部とタンリン市を結ぶ 3 番目の橋として、タンリン橋の下流側に建設されます。

さらに、ヤンゴン都市部側には、2 つの交差点の上に新しい高架道路（フライオーバー）が建設されます。高架道路（フライオーバー）と河川橋の間には、交通量を制御するために料金所やオンランプが設置されます。

主航路に位置する斜張橋は船舶の安全な航行を確保するとともに、地域の景観の上でも重要なランドマークになります。この橋によって、荷重制限問題も解消され、トラックやトレーラーなどの大型車両も快適かつ安全に通行することができるようになります。

バゴー橋の開通後には渋滞が大幅に改善され、ピーク時にも10分程度で川を渡ることができる~~ことが~~と予想されています。

また、バゴー橋の建設には、日本のトップクラスの橋梁施工技術が採用されています。



バゴー橋の橋設計では、橋の長期的な安全性を担保するため、地震に対する非線形動的解析や暴風に対する風洞実験が実施されました。

バゴー橋建設事業は、交通・物流を活性化するとともに都市開発に大きく寄与し、ひいてはミャンマー連邦共和国全体の経済発展に貢献することが期待されています。

ミャンマー連邦共和国の（輝かしい）未来へ。