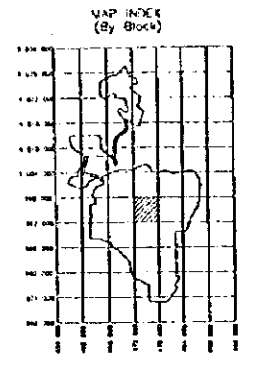




THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
 IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA  
 ADDIS ABABA  
 SHEET 992 472-E  
 SCALE 1:2000  
 CONTOUR INTERVAL 5.0 METERS



MAP INDEX (By Sheet)

A	B	C	D
E	F	G	H
I	J	K	L
M	N	O	P

992 472-E

Date of Issue: 20th March 1988  
 Reference: Addis Ababa (1:2000)  
 Project: Flood Control Project  
 Date: 1988

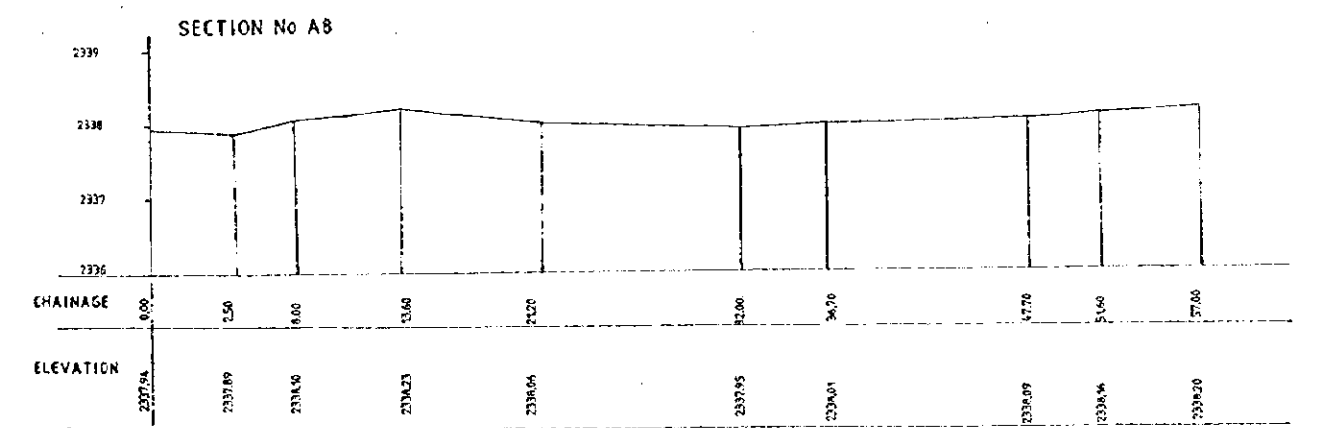
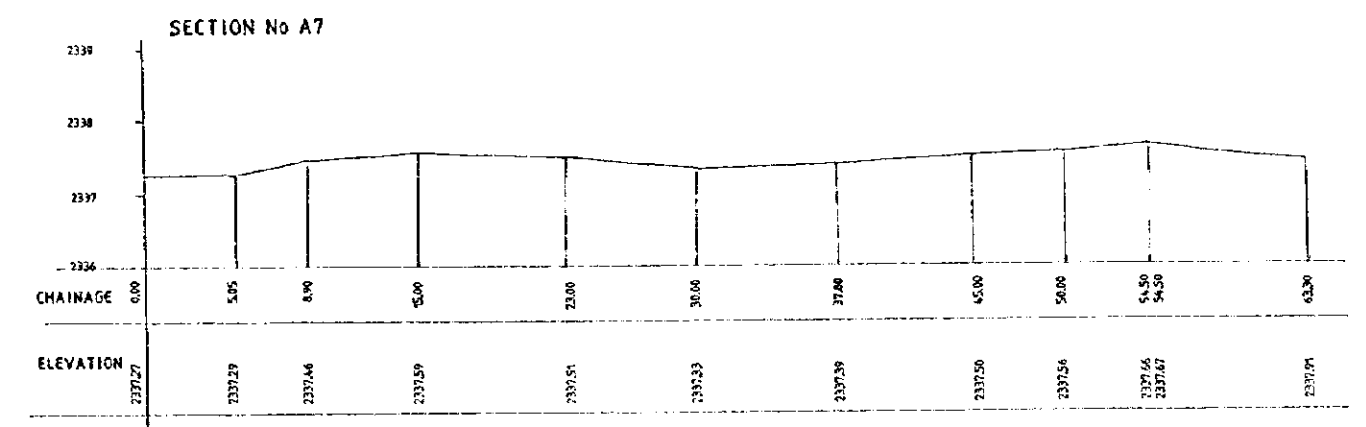
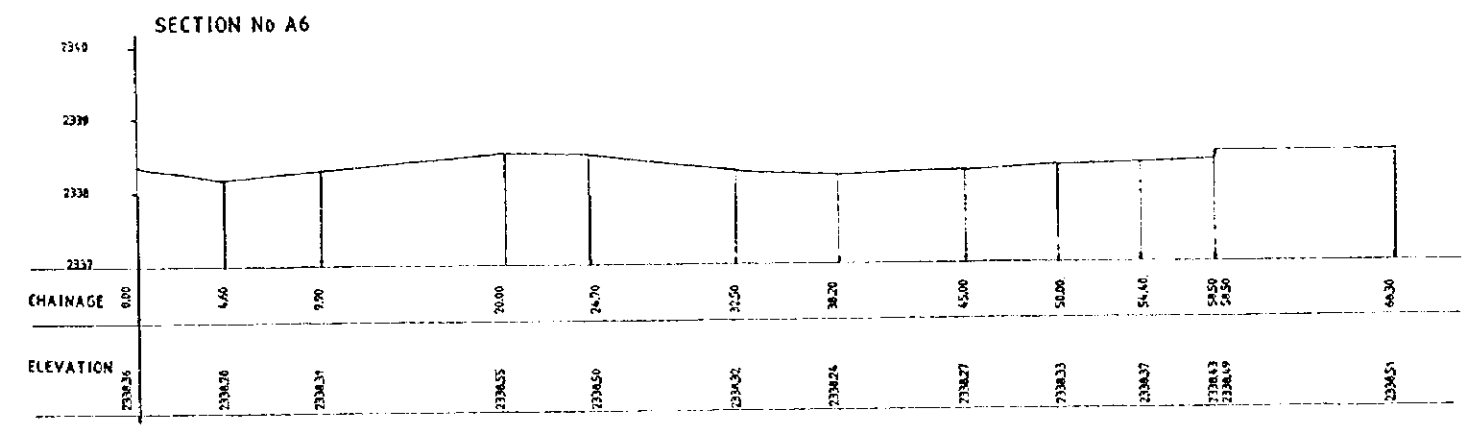
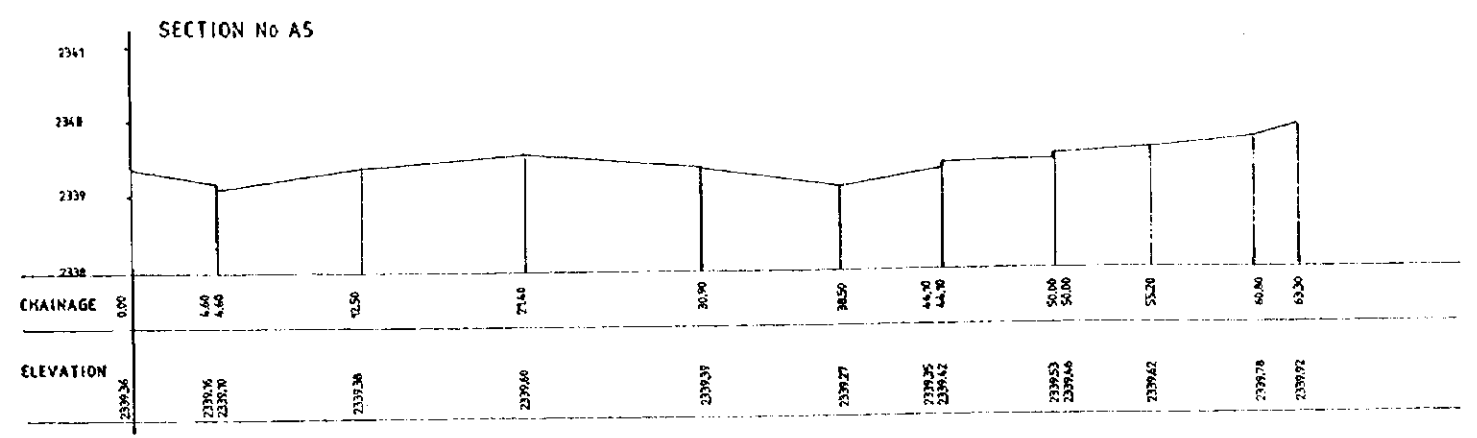
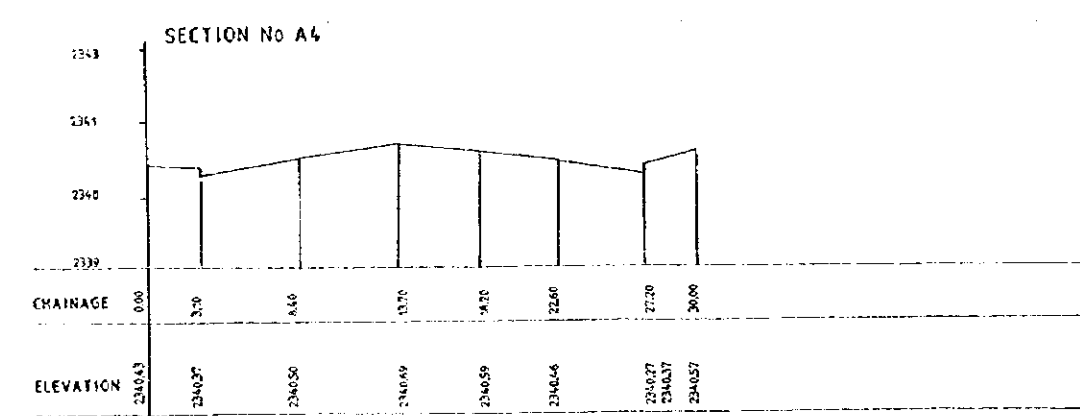
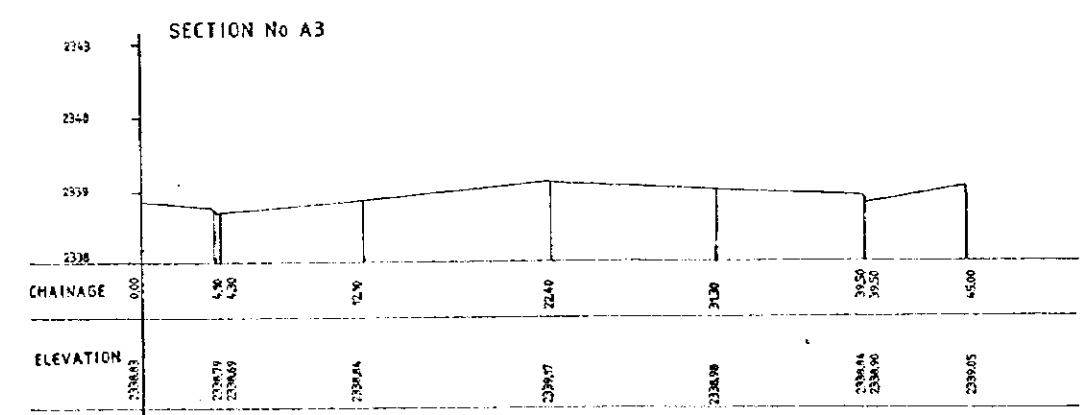
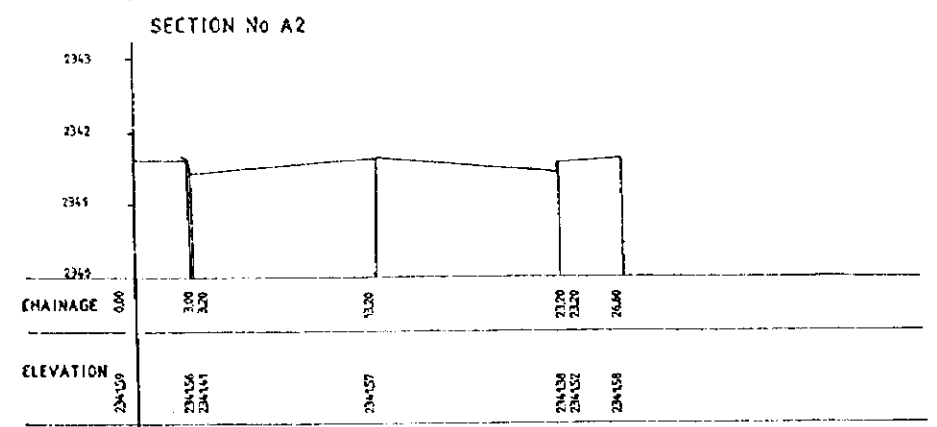
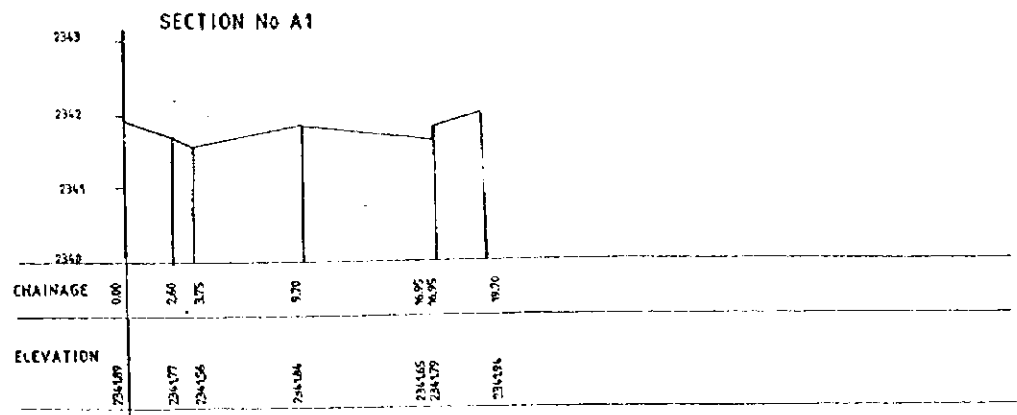
LEGEND

Proposed Road	---	A
Existing Road	---	B
Proposed Footpath	---	C
Existing Footpath	---	D
Proposed Drainage	---	E
Existing Drainage	---	F
Proposed Sewerage	---	G
Existing Sewerage	---	H
Proposed Water Supply	---	I
Existing Water Supply	---	J
Proposed Electricity	---	K
Existing Electricity	---	L
Proposed Telephone	---	M
Existing Telephone	---	N
Proposed Gas	---	O
Existing Gas	---	P
Proposed Cable	---	Q
Existing Cable	---	R
Proposed Railway	---	S
Existing Railway	---	T
Proposed Canal	---	U
Existing Canal	---	V
Proposed Dam	---	W
Existing Dam	---	X
Proposed Bridge	---	Y
Existing Bridge	---	Z
Proposed Tunnel	---	AA
Existing Tunnel	---	AB
Proposed Viaduct	---	AC
Existing Viaduct	---	AD
Proposed Overpass	---	AE
Existing Overpass	---	AF
Proposed Underpass	---	AG
Existing Underpass	---	AH
Proposed Culvert	---	AI
Existing Culvert	---	AJ
Proposed Embankment	---	AK
Existing Embankment	---	AL
Proposed Cut	---	AM
Existing Cut	---	AN
Proposed Trench	---	AO
Existing Trench	---	AP
Proposed Wall	---	AQ
Existing Wall	---	AR
Proposed Fence	---	AS
Existing Fence	---	AT
Proposed Gate	---	AU
Existing Gate	---	AV
Proposed Lock	---	AW
Existing Lock	---	AX
Proposed Dam	---	AY
Existing Dam	---	AZ
Proposed Canal	---	BA
Existing Canal	---	BB
Proposed Dam	---	BC
Existing Dam	---	BD
Proposed Canal	---	BE
Existing Canal	---	BF
Proposed Dam	---	BG
Existing Dam	---	BH
Proposed Canal	---	BI
Existing Canal	---	BJ
Proposed Dam	---	BK
Existing Dam	---	BL
Proposed Canal	---	BM
Existing Canal	---	BN
Proposed Dam	---	BO
Existing Dam	---	BP
Proposed Canal	---	BQ
Existing Canal	---	BR
Proposed Dam	---	BS
Existing Dam	---	BT
Proposed Canal	---	BU
Existing Canal	---	BV
Proposed Dam	---	BW
Existing Dam	---	BX
Proposed Canal	---	BY
Existing Canal	---	BZ
Proposed Dam	---	CA
Existing Dam	---	CB
Proposed Canal	---	CC
Existing Canal	---	CD
Proposed Dam	---	CE
Existing Dam	---	CF
Proposed Canal	---	CG
Existing Canal	---	CH
Proposed Dam	---	CI
Existing Dam	---	CJ
Proposed Canal	---	CK
Existing Canal	---	CL
Proposed Dam	---	CM
Existing Dam	---	CN
Proposed Canal	---	CO
Existing Canal	---	CP
Proposed Dam	---	CQ
Existing Dam	---	CR
Proposed Canal	---	CS
Existing Canal	---	CT
Proposed Dam	---	CU
Existing Dam	---	CV
Proposed Canal	---	CU
Existing Canal	---	CV
Proposed Dam	---	CU
Existing Dam	---	CV
Proposed Canal	---	CU
Existing Canal	---	CV

THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
 IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 REGION 14 ADMINISTRATION  
 DRAWING NO. RD-LM-02  
 LOCATION OF ROAD CROSS SECTION (2/3)







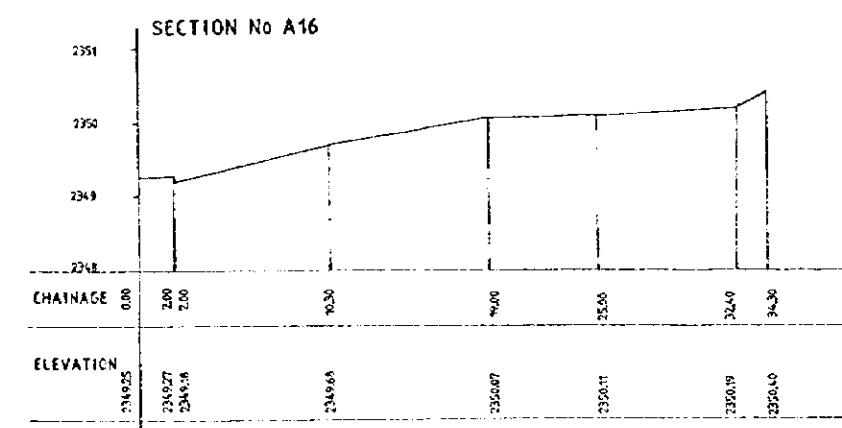
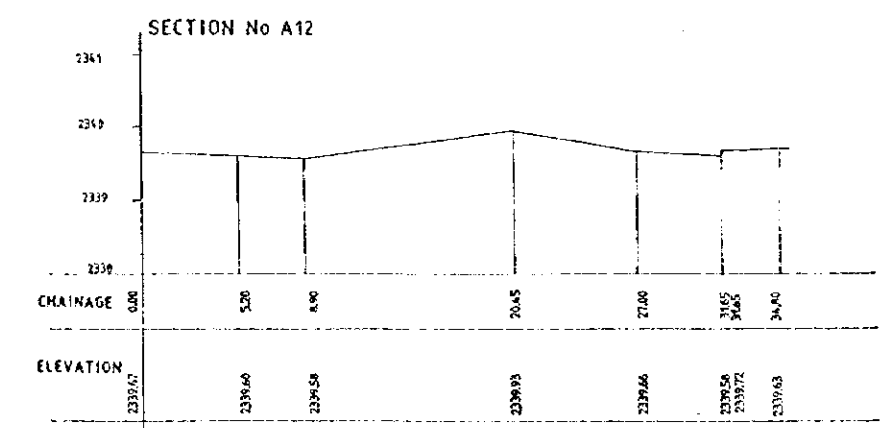
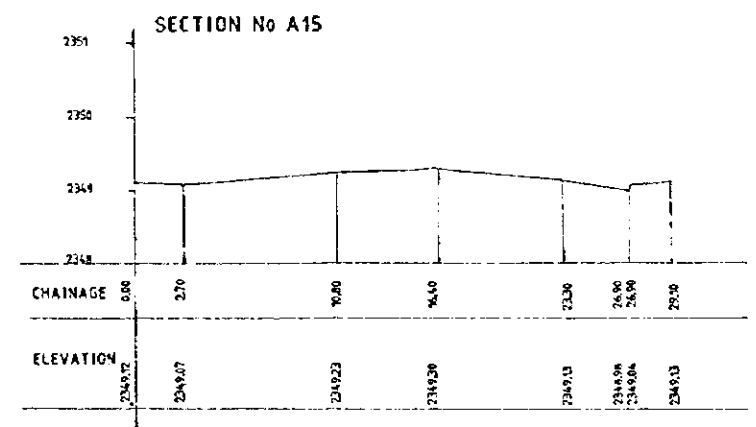
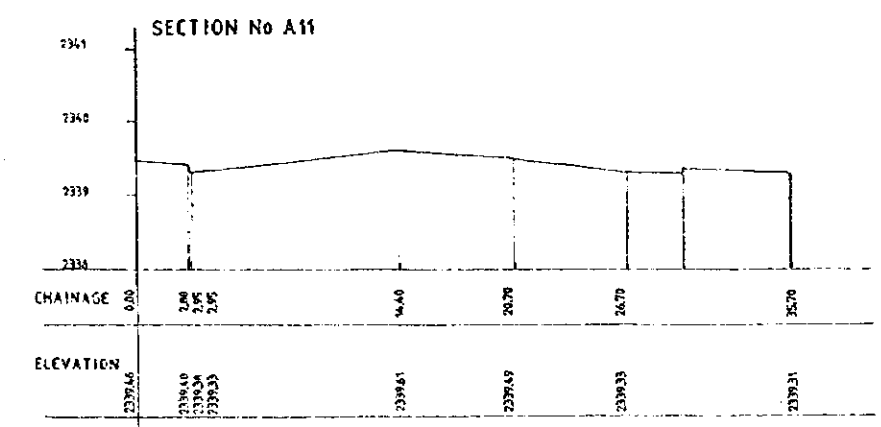
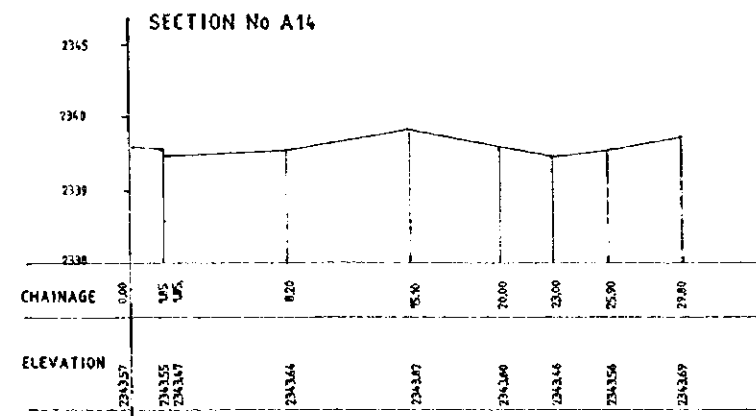
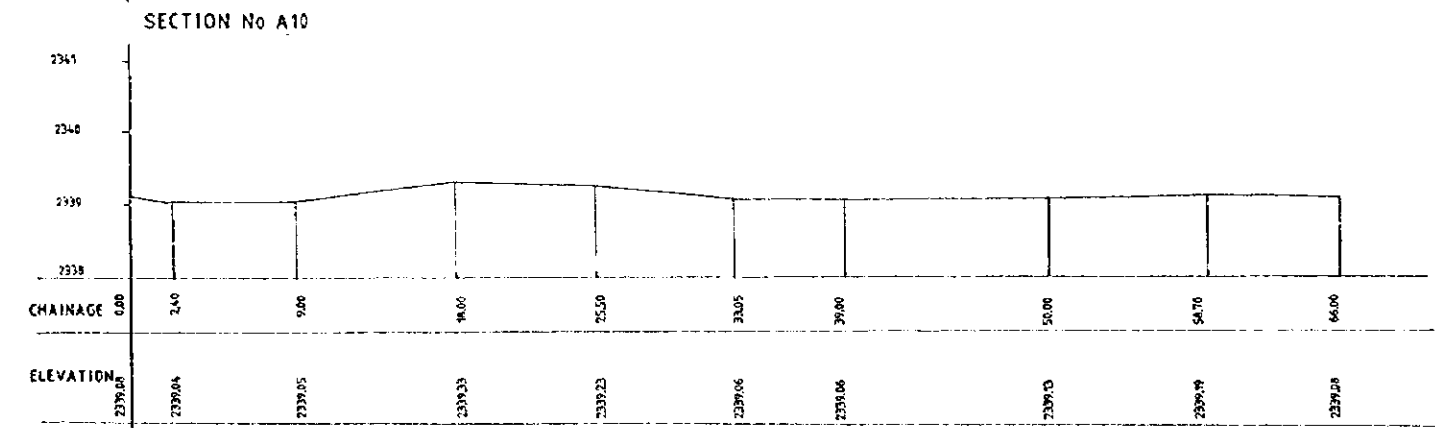
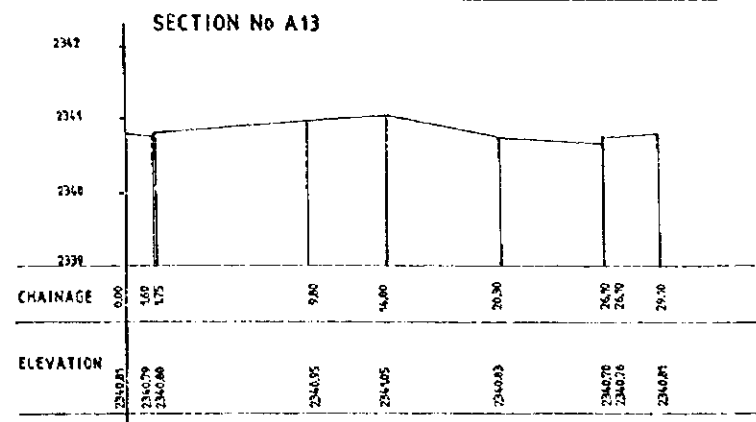
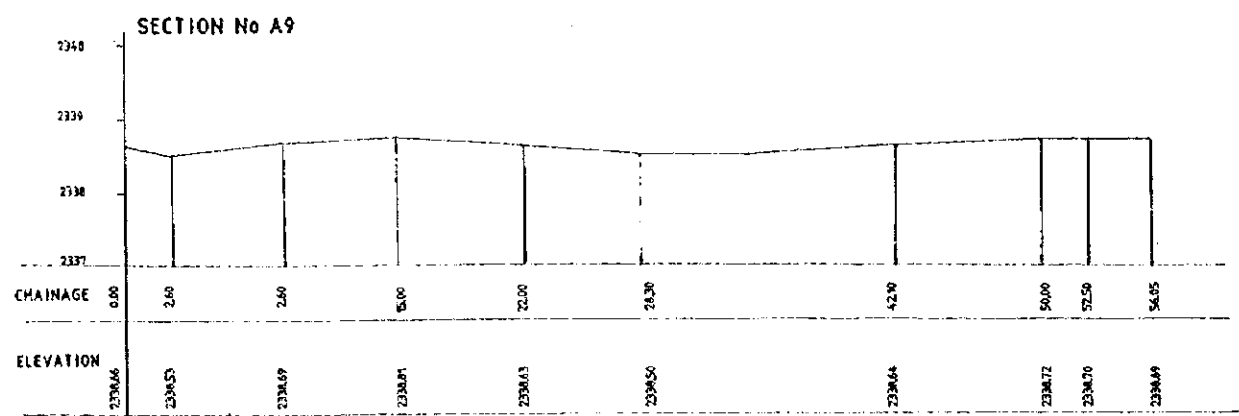
THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
 IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

JAPAN INTERNATIONAL COOPERATION AGENCY  
 REGION 14 ADMINISTRATION

SCALE  
 H=1:200  
 V=1:50

DRAWING NO.  
 RD-CS-01

ROAD CROSS SECTION (1/7)



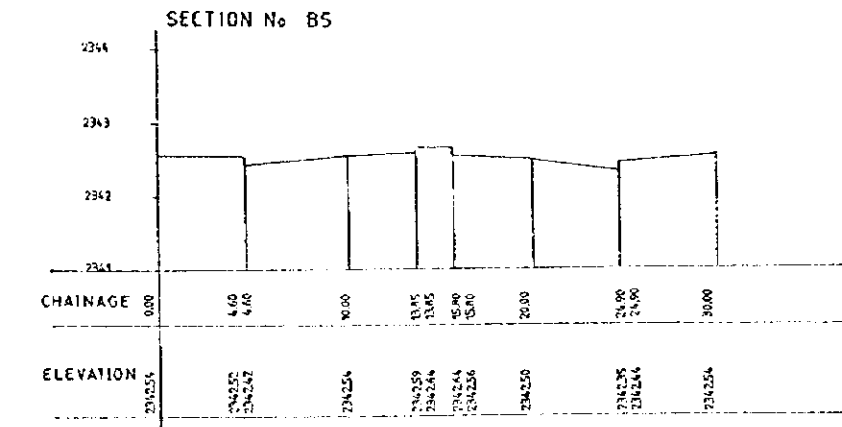
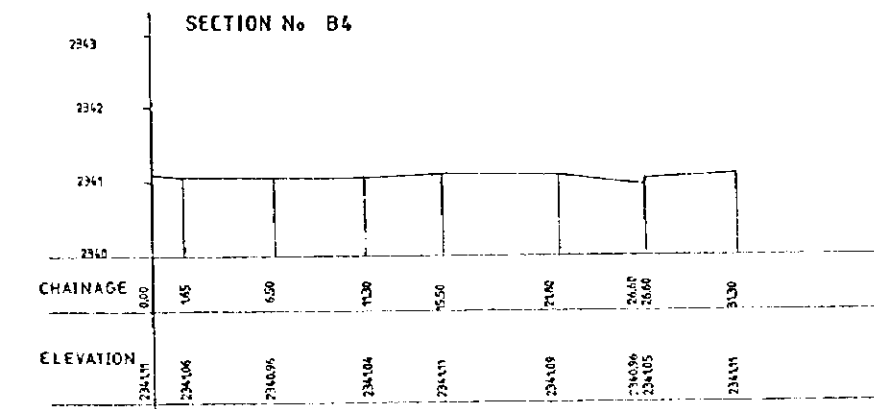
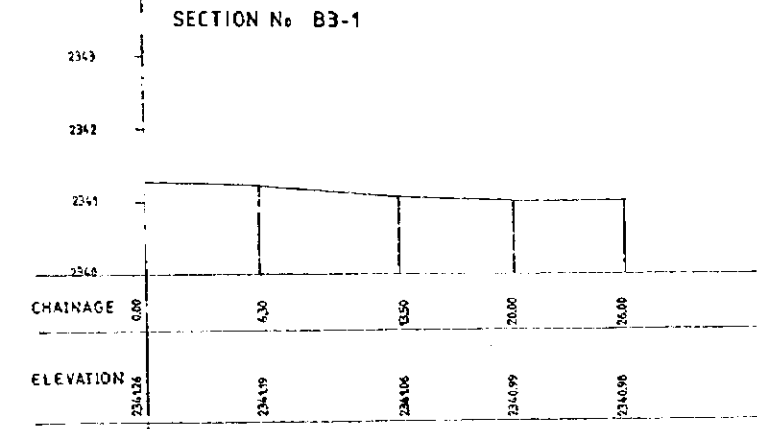
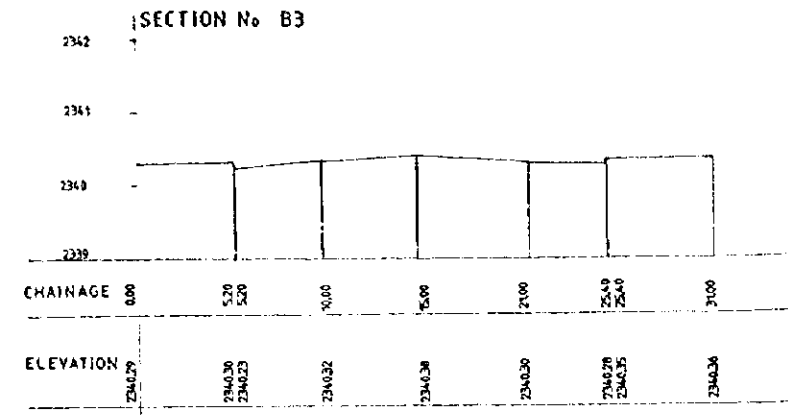
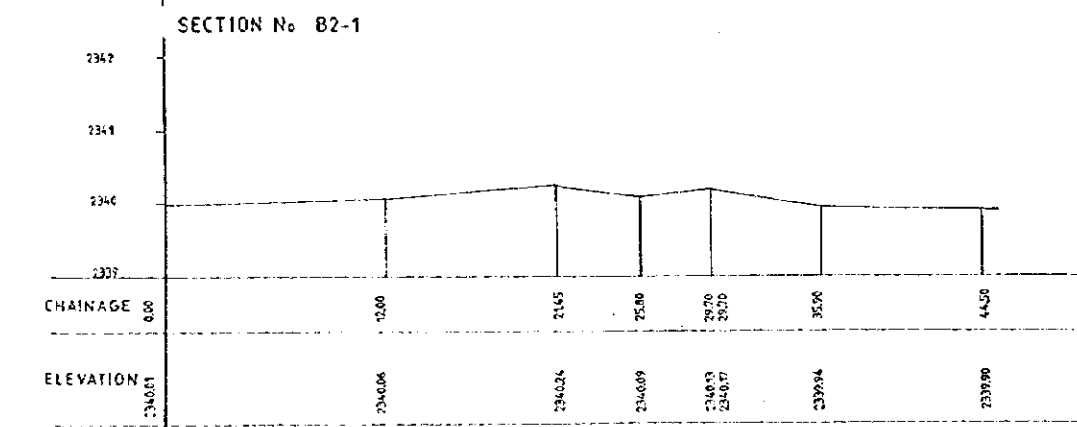
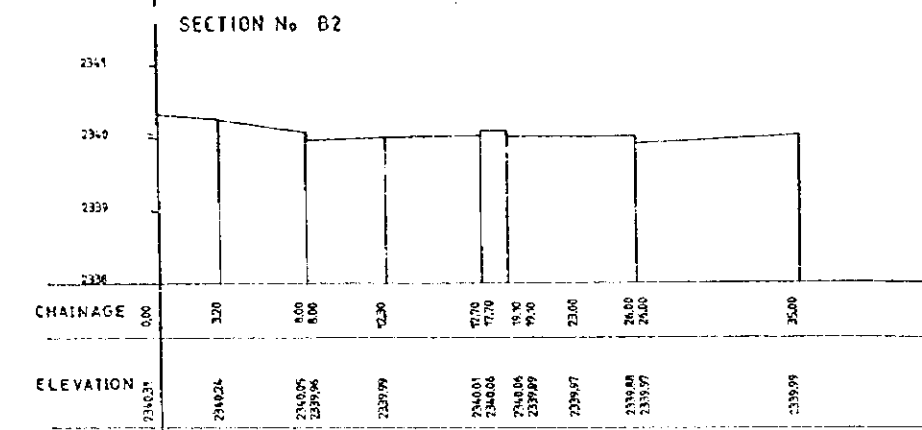
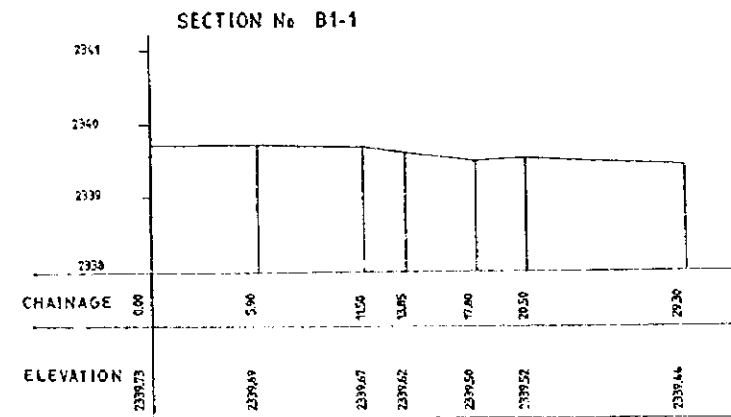
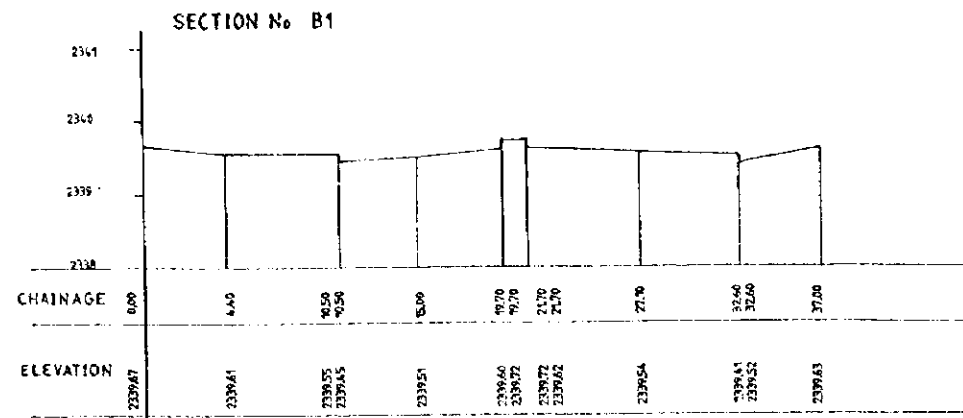
THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

JAPAN INTERNATIONAL COOPERATION AGENCY  
REGION 14 ADMINISTRATION

SCALE  
H = 1:200  
V = 1:50

DRAWING NO.  
RD-CS-02

ROAD CROSS SECTION (2/7)



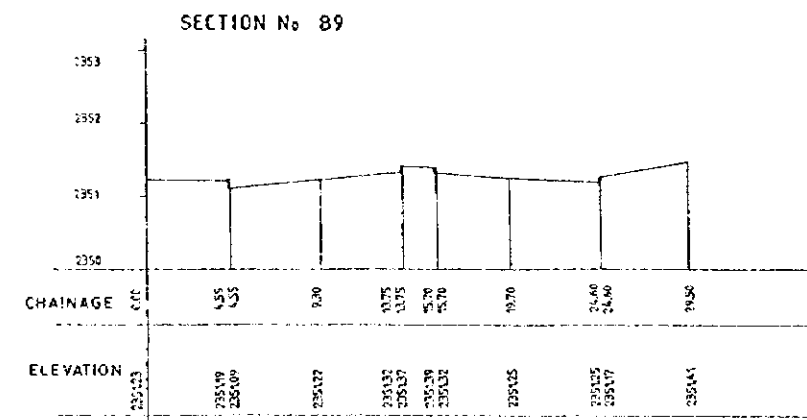
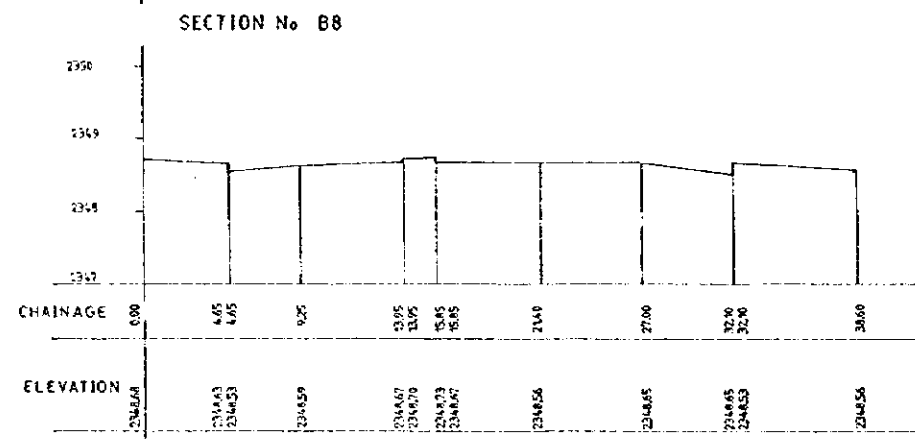
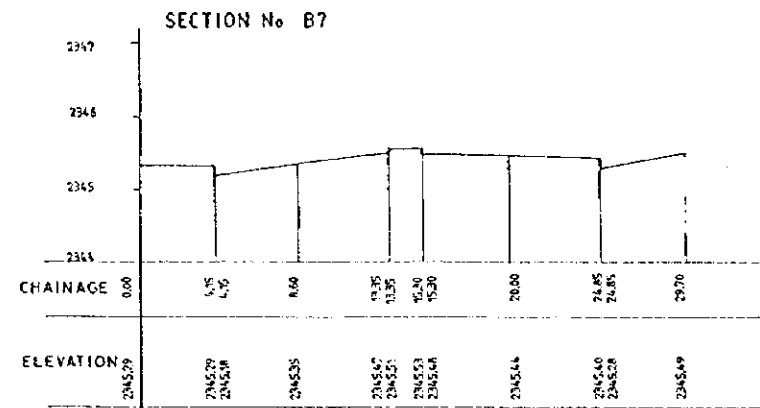
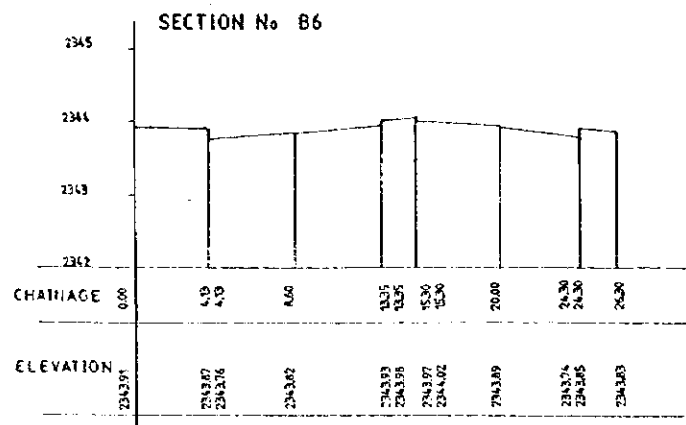
THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

JAPAN INTERNATIONAL COOPERATION AGENCY  
REGION 14 ADMINISTRATION

SCALE  
H = 1:200  
V = 1:50

DRAWING NO.  
RD-CS-03

ROAD CROSS SECTION (3/7)



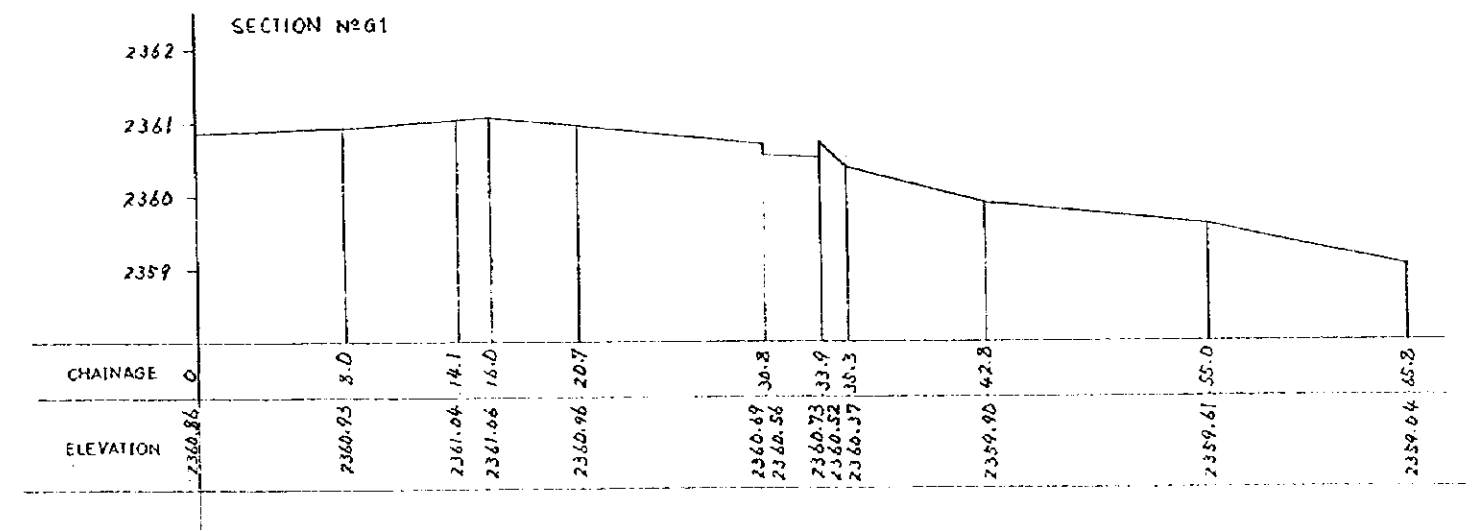
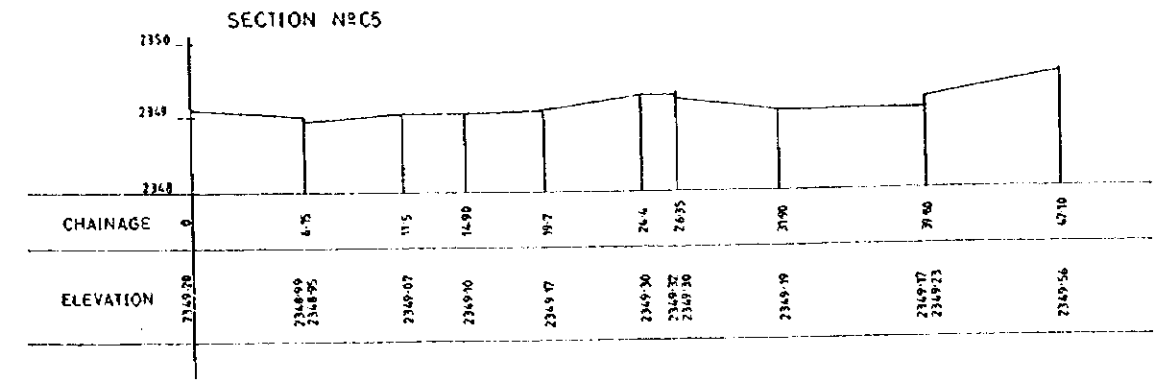
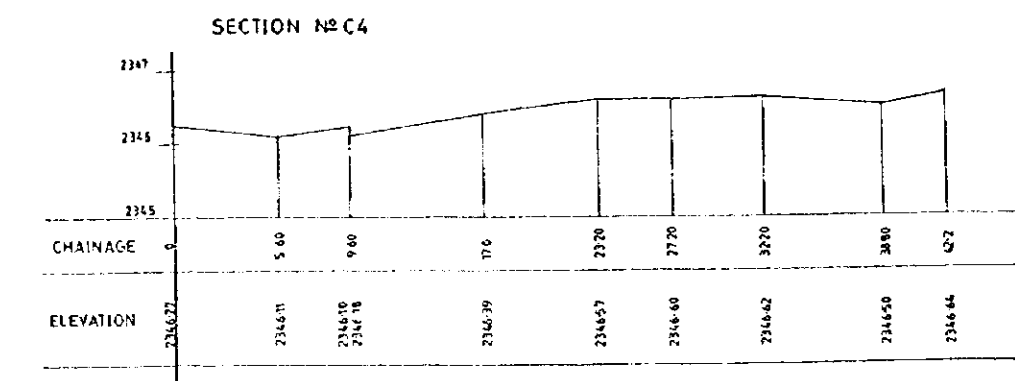
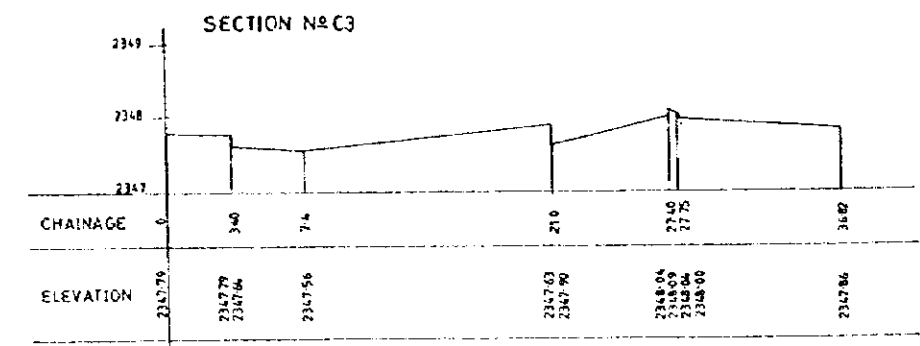
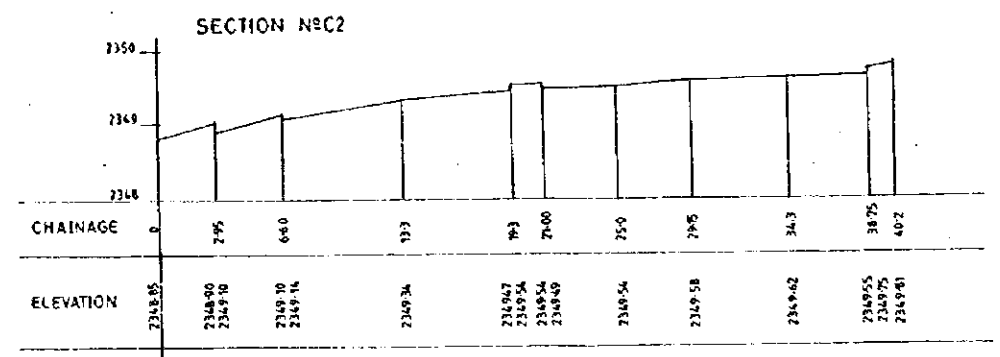
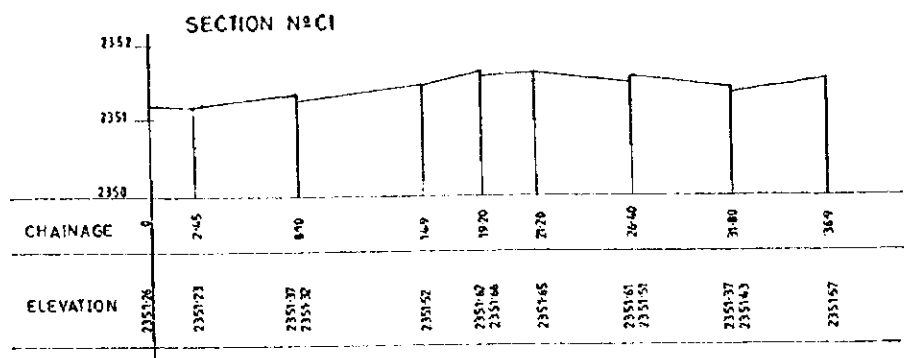
THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

JAPAN INTERNATIONAL COOPERATION AGENCY  
REGION 14 ADMINISTRATION

SCALE  
H=1:200  
V=1:50

DRAWING NO.  
RD-CS-04

ROAD CROSS SECTION (4/7)



THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

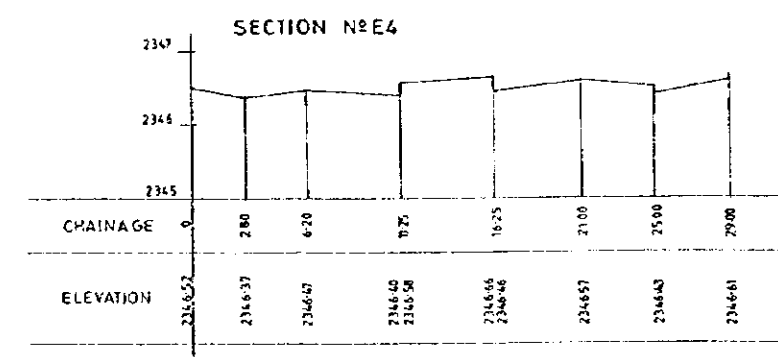
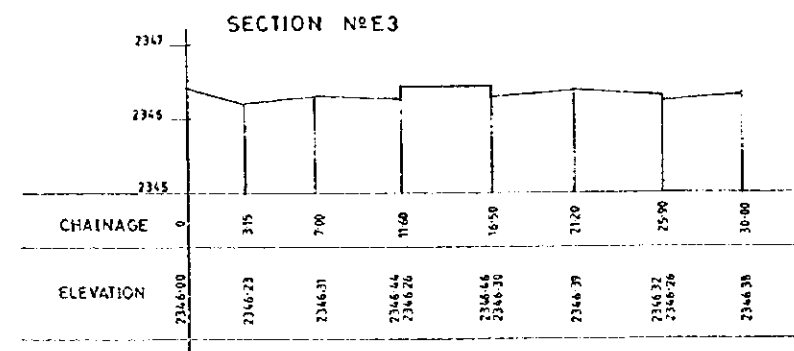
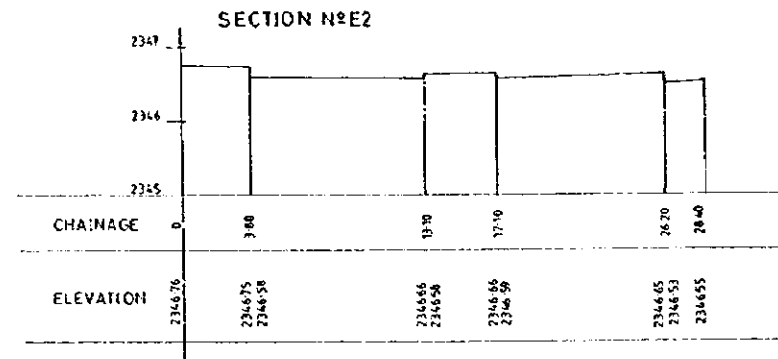
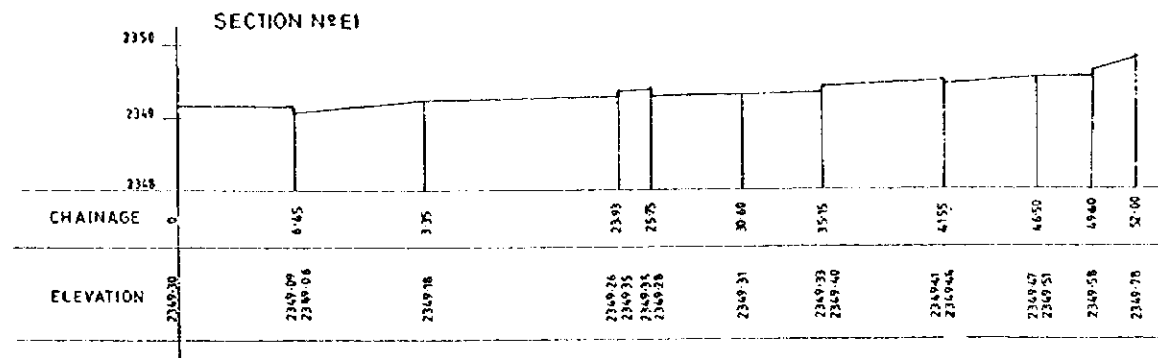
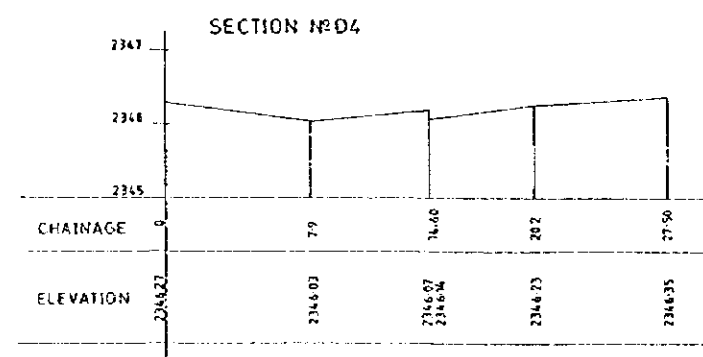
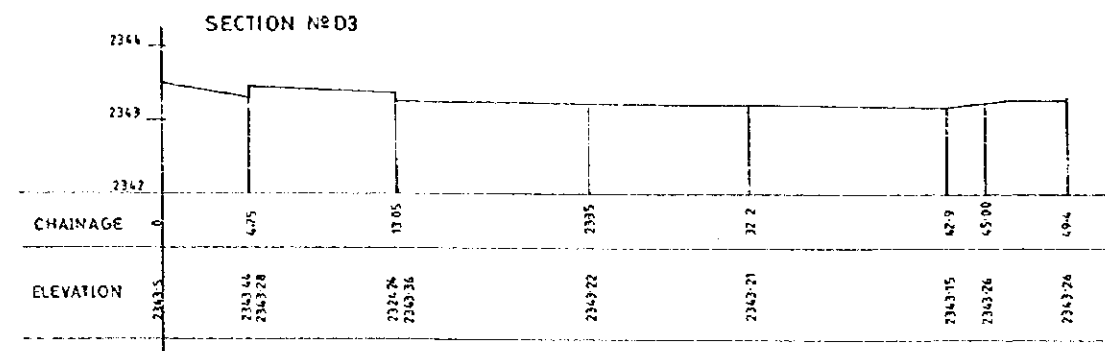
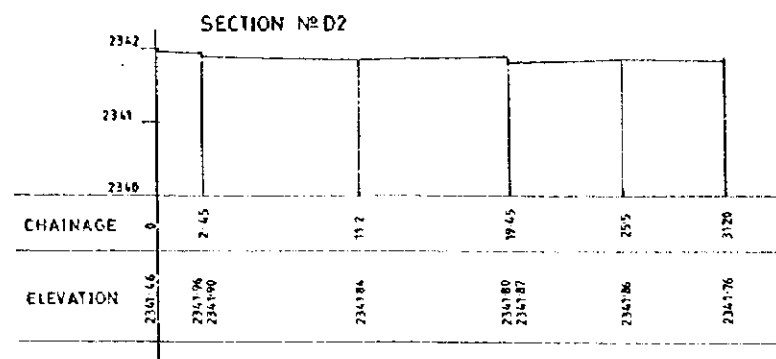
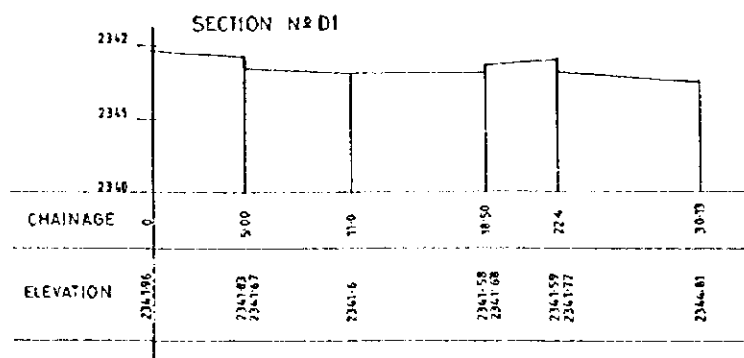
JAPAN INTERNATIONAL COOPERATION AGENCY  
REGION I ADMINISTRATION

SCALE  
H = 1:200  
V = 1:50

DRAWING NO.  
RD-CS-05

ROAD CROSS SECTION (5/7)



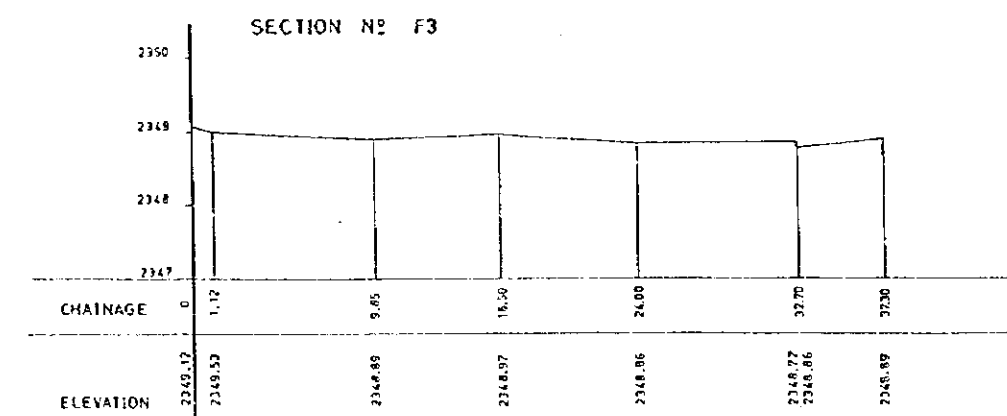
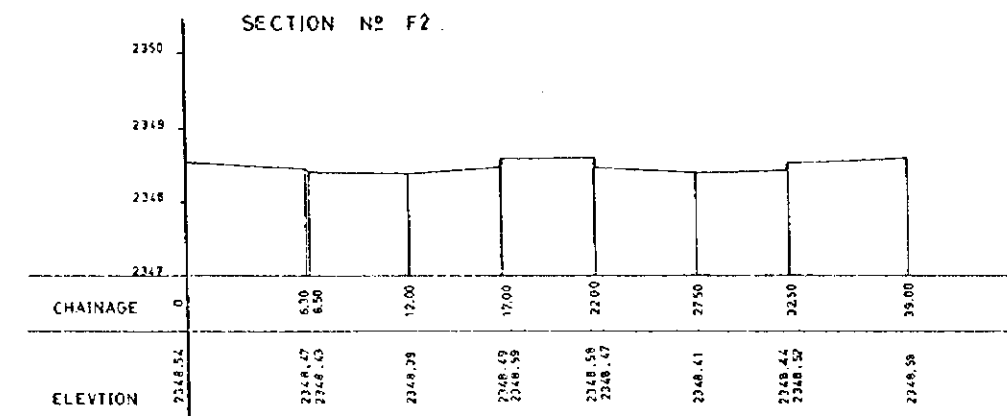
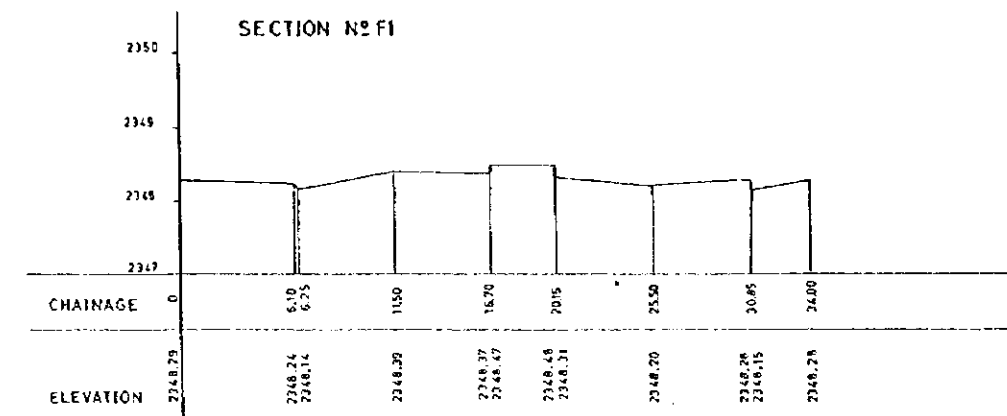
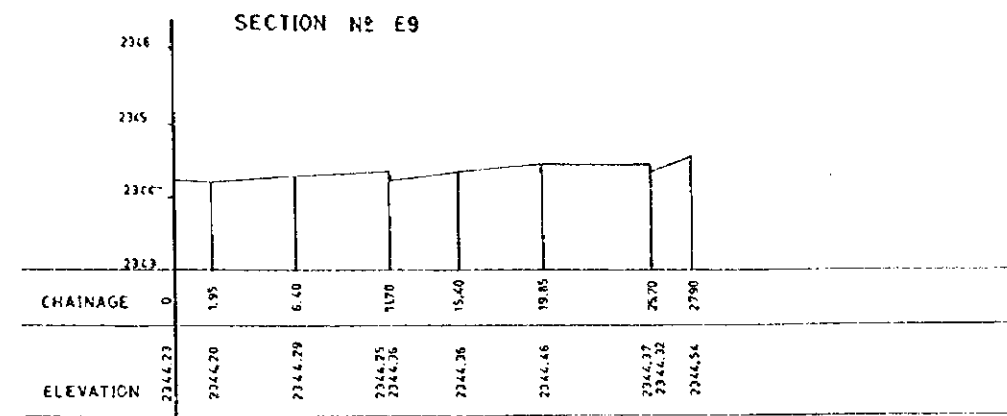
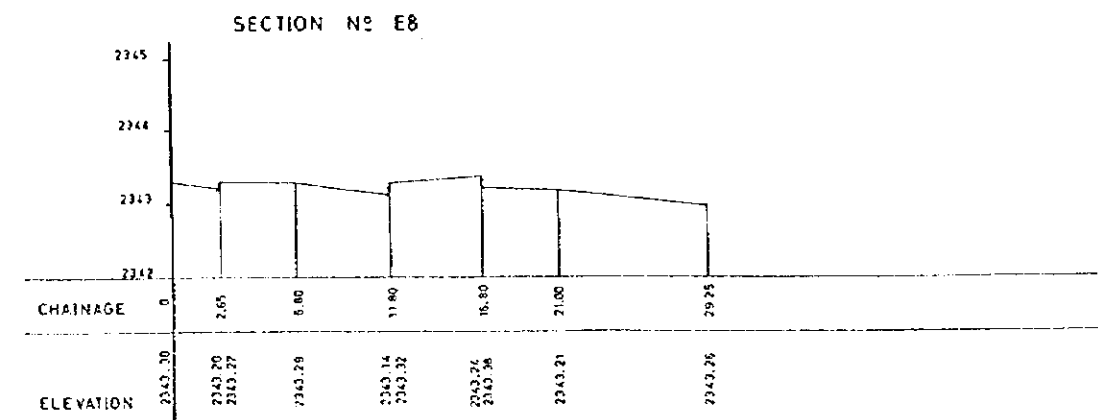
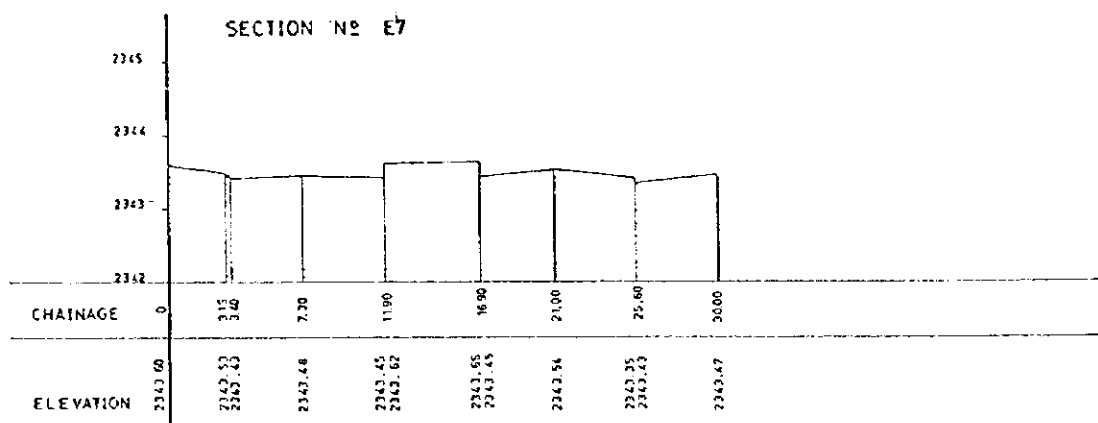
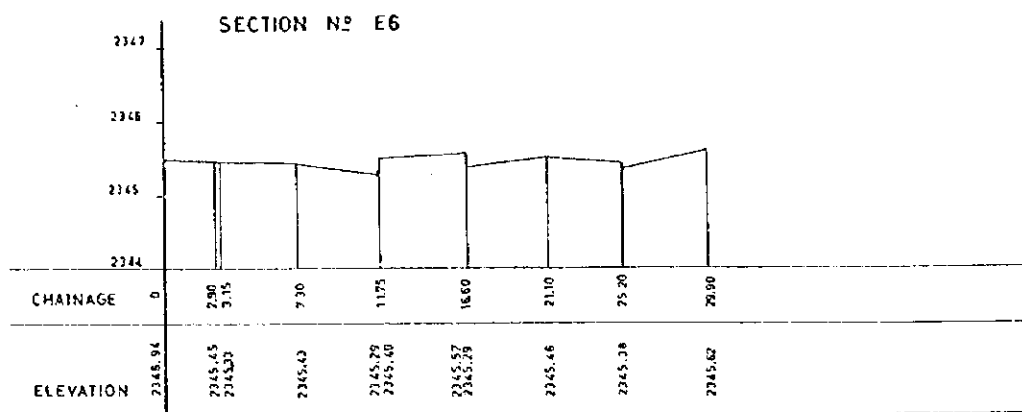
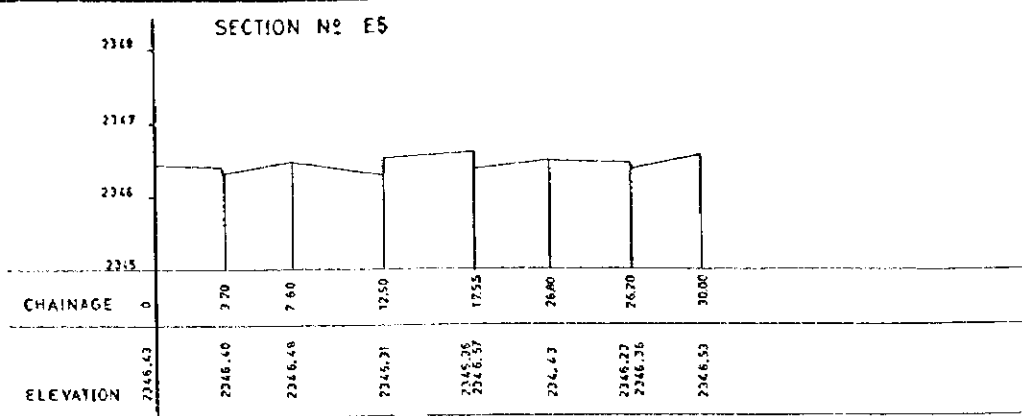


THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

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DRAWING NO. RD-CS-06	ROAD CROSS SECTION ( 6/7 )
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SCALE  
H = 1 : 200  
V = 1 : 50



THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

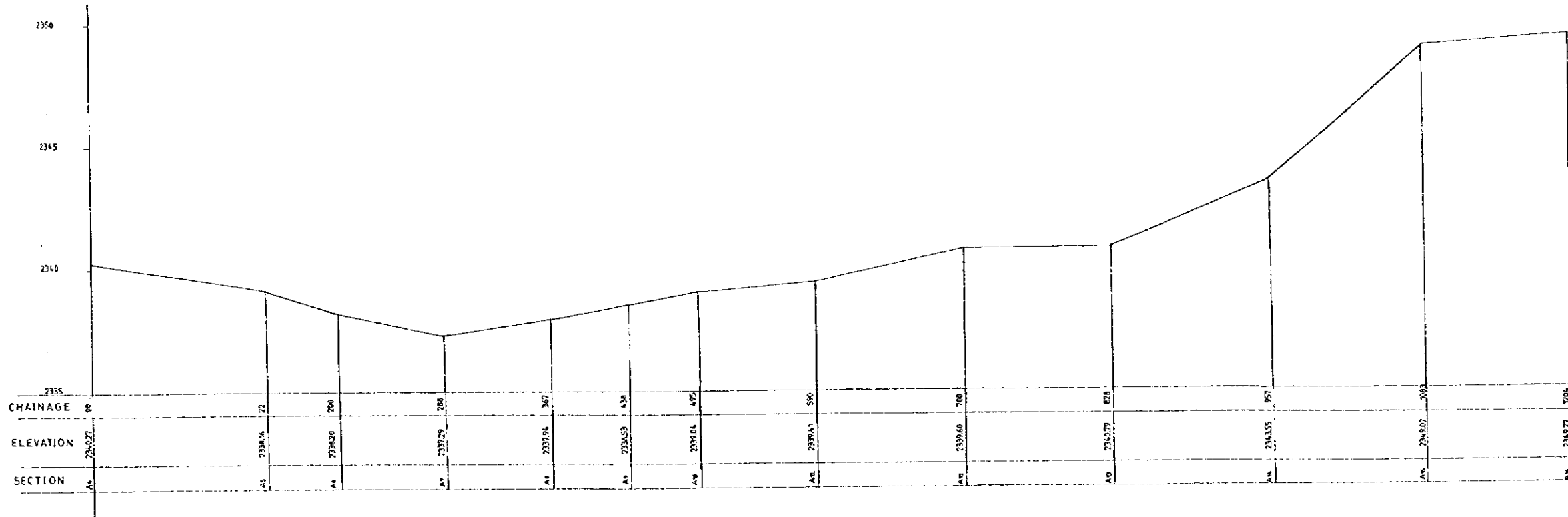
JAPAN INTERNATIONAL COOPERATION AGENCY  
REGION 14 ADMINISTRATION

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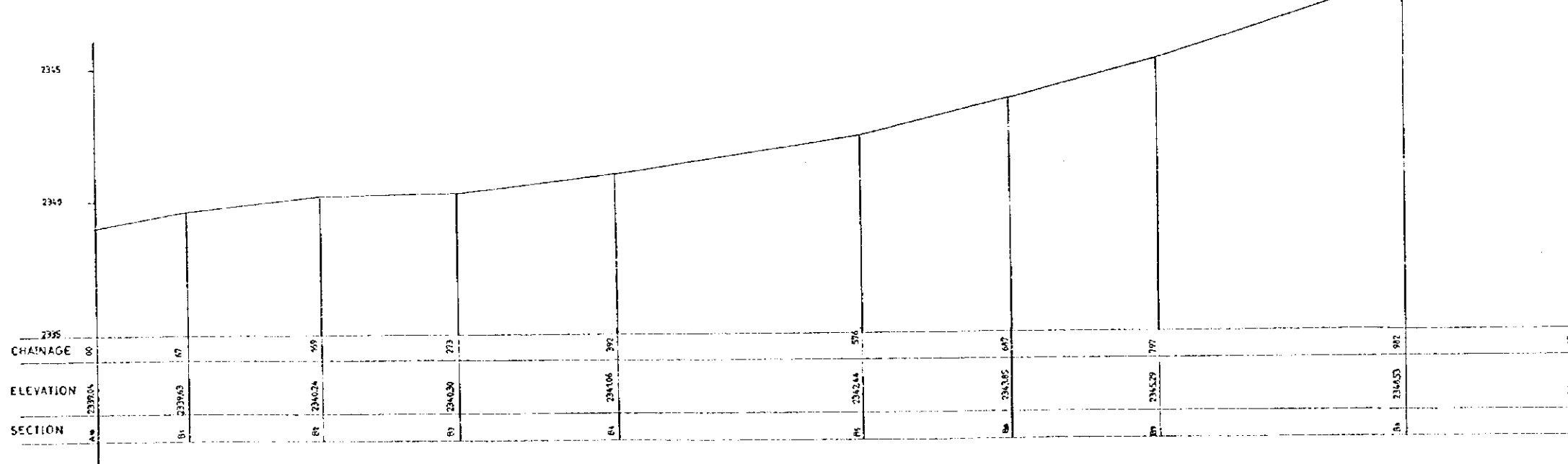
DRAWING NO.  
RD-CS-07

ROAD CROSS SECTION (7/7)

PROFILE SECTION A4 - A16



PROFILE SECTION A10 - B9



THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

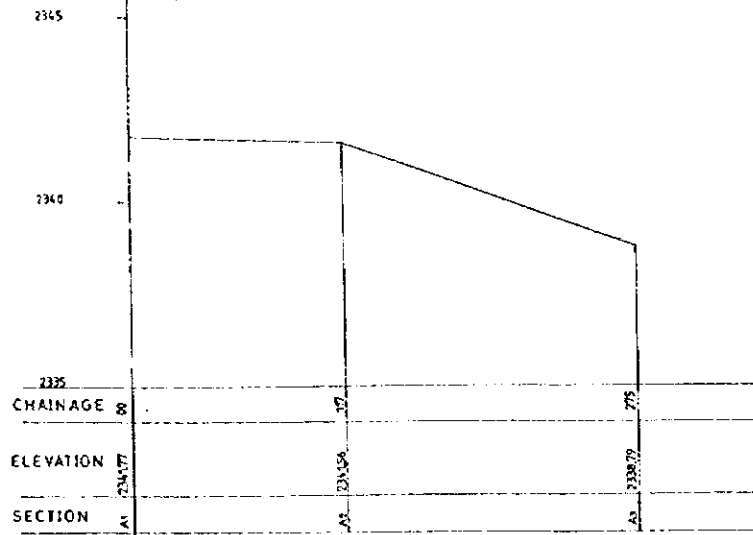
JAPAN INTERNATIONAL COOPERATION AGENCY  
REGION 14 ADMINISTRATION

SCALE  
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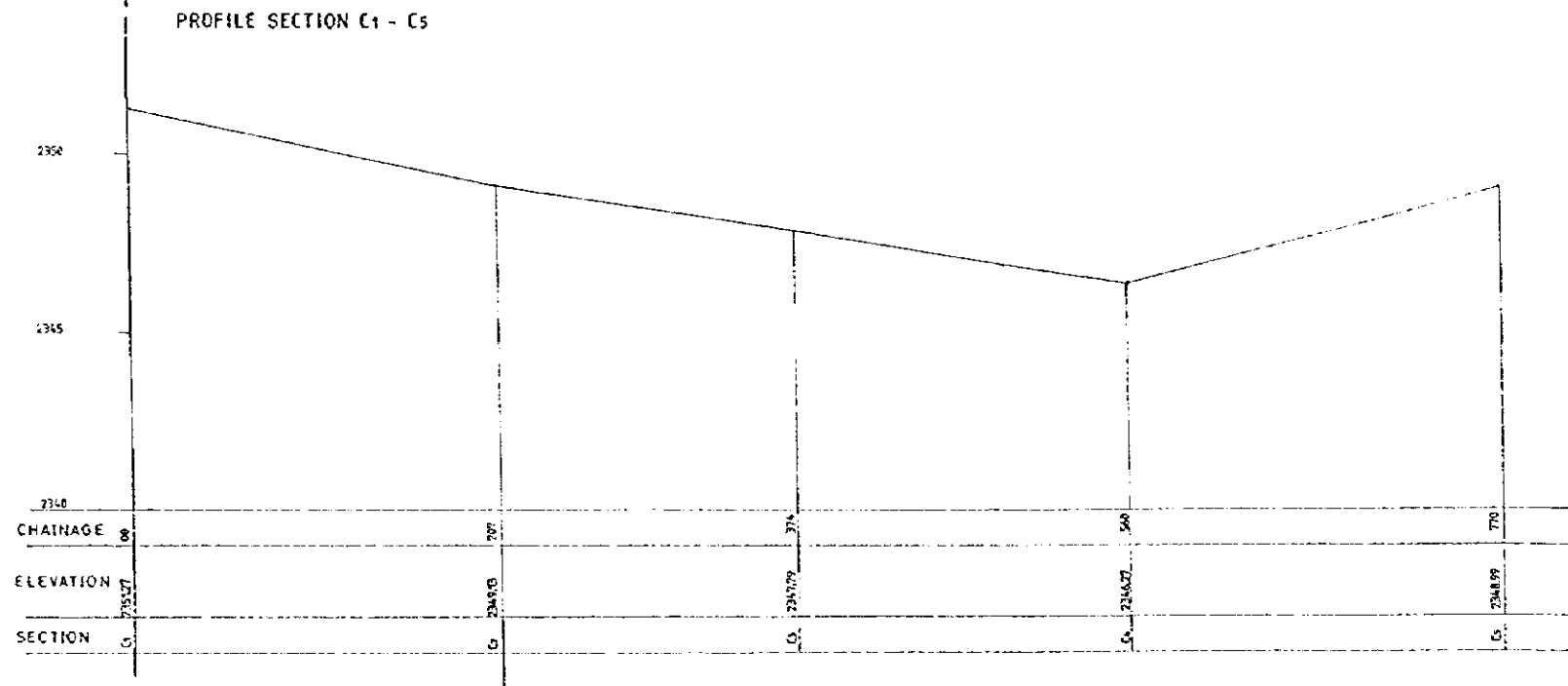
DRAWING NO.  
RD-PR-01

LONGITUDINAL PROFILE OF ROAD(1/2)

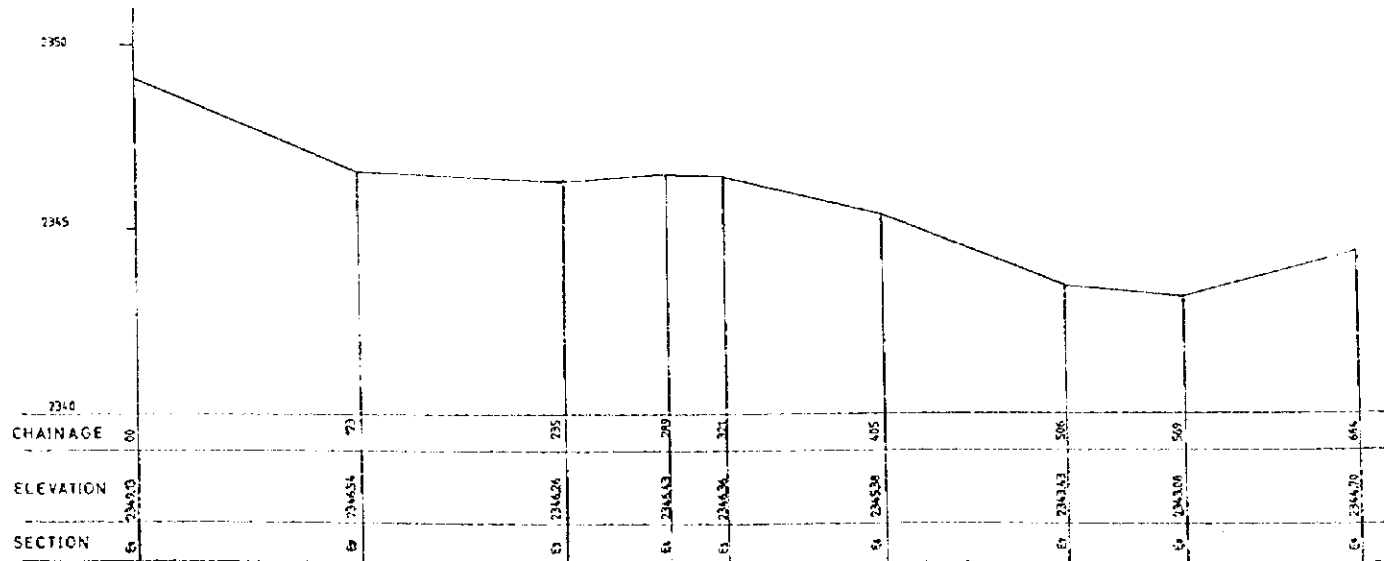
PROFILE SECTION A1 - A3



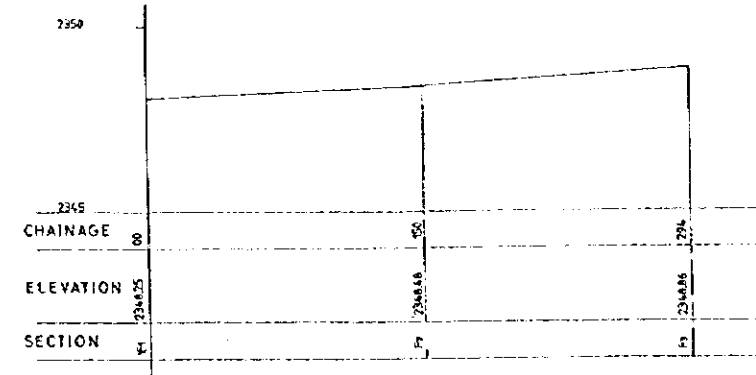
PROFILE SECTION C1 - C5



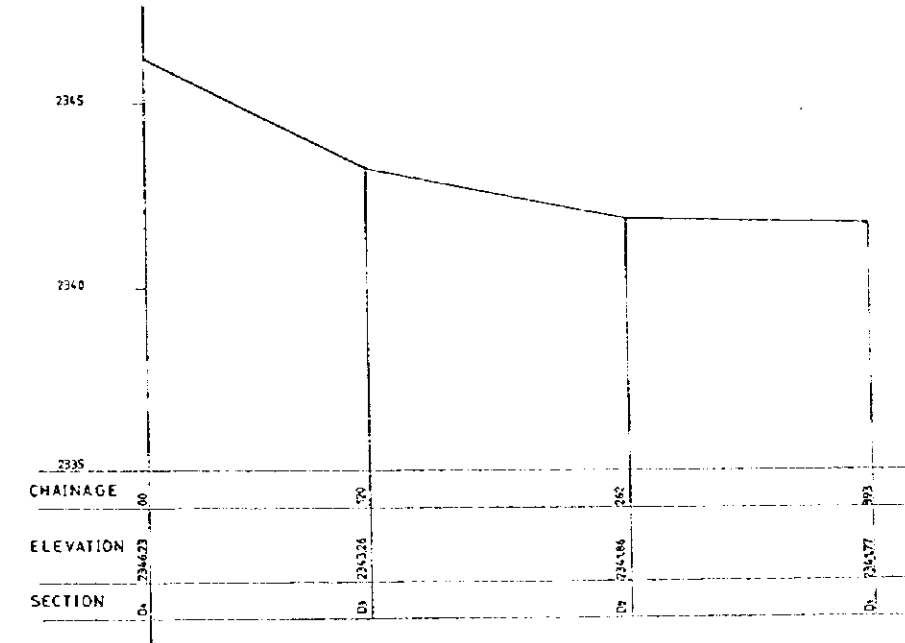
PROFILE SECTION E1 - E9



PROFILE SECTION F1 - F3



PROFILE SECTION D1 - D1



THE STUDY ON ADDIS ABABA FLOOD CONTROL PROJECT  
IN THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

JAPAN INTERNATIONAL COOPERATION AGENCY  
REGION 14 ADMINISTRATION

SCALE  
H=1:2000  
V=1:100

DRAWING NO.  
RD-PR-02

LONGITUDINAL PROFILE OF ROAD(2/2)

## **DAILY RAINFALL DATA**



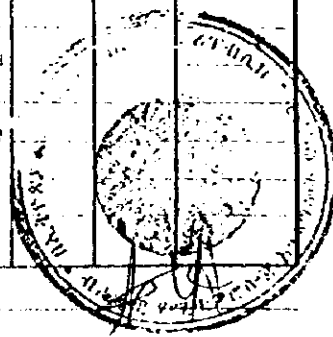


NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: AKAKI ..... Wereda AKAKI BESEKA Awraja MEKKA OESHA Region SIIKA

Alt. 2070 M Long. .... Lat. .... Element DAIRY RAIN Year 1988

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.1	0.0	0.0	0.0	0.0
2	0.0	2.0	0.0	0.0	0.0	0.6	1.5	20.4	11.1	15.1	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	14.5	2.5	13.4	14.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	15.9	26.0	15.2	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	4.5	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0
6	0.0	1.4	0.0	0.3	0.0	0.0	12.1	0.0	0.0	0.0	0.0	0.0
7	0.0	1.5	0.0	0.0	0.0	4.9	25.5	6.1	8.2	1.4	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	2.8	36.8	23.3	19.9	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	17.7	0.0	0.0	0.0
10	0.0	10.1	0.0	25.9	0.0	0.0	4.4	7.4	26.0	0.0	0.0	0.0
	0.0	15.0	0.0	20.1	0.0	25.7	11.2	2.2	11.2	11.2	0.0	0.0
11	0.0	0.0	0.0	1.4	0.0	0.0	7.0	18.3	7.4	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	20.5	0.0	1.9	0.9	13.0	0.0	0.0	0.0
13	0.0	13.5	0.0	15.7	3.3	9.0	2.1	15.4	29.1	0.0	0.0	0.0
14	0.0	0.0	0.0	1.2	0.0	23.9	10.9	16.9	9.0	0.0	0.0	0.0
15	0.0	2.9	0.0	1.0	0.0	13.0	0.0	3.7	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	18.1	18.9	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0
18	0.0	0.0	0.0	22.5	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	12.0	7.7	32.9	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	9.2	0.0	0.0	0.0
	0.0	16.4	0.0	11.2	23.5	51.9	16.4	17.1	10.1	11.2	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	11.4	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	6.0	0.0	31.4	4.9	0.0	0.0	0.0
23	0.0	10.0	0.0	0.0	0.0	0.0	30.0	2.3	0.0	0.0	0.0	0.0
24	0.0	3.1	0.0	0.0	0.0	0.0	0.0	15.7	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	4.3	7.5	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	2.9	14.6	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	11.4	7.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	3.7	0.0	0.0	0.0
29	0.0	0.0	0.0	7.6	0.0	4.1	2.6	0.0	9.0	0.0	0.0	0.0
30	0.0		0.0	15.9	0.0	0.0	14.5	15.9	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		31.4	0.0		0.0	0.0	0.0
Sum	0.0	13.1	0.0	25.9	20.5	23.9	36.8	31.4	32.9	18.9	0.0	0.0
M. Sum	0.0	44.5	0.0	76.1	64.5	73.6	116.6	100.2	104.7	56.7	0.0	0.0
Mean												
Hig.		13.5		25.9	20.5	23.9	36.8	31.4	32.9	18.9		
Date		13		10	12	14	8	22	19	16		
Low												
Date												



Copied by: Name Kelchede challa sig. No. 3-1-1



NATIONAL METEOROLOGICAL SERVICES AGENCY

4<sup>th</sup> class

Station: AKAKI Wereda: \_\_\_\_\_ Awraja: BENSEKA Region: Shoa  
 Alt. 2070 Long. \_\_\_\_\_ Let. \_\_\_\_\_ Element Daily Rain Fall Year 1989

MTS/SC FORM 2-8/79

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	1.4	0.3	0.0	8.9	8.0	35.2	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	9.6	14.7	6.6	0.0	0.0	0.0
3	0.0	2.0	0.0	0.0	0.0	0.0	8.6	11.0	14.2	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	5.5	13.2	3.4	0.0	0.0	0.0
5	0.0	22.0	0.0	6.6	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
6	0.0	34.6	0.0	0.0	0.0	0.0	0.0	2.4	2.7	0.0	0.0	0.0
7	0.0	0.0	0.0	1.2	0.0	3.0	11.5	13.2	4.4	0.0	0.0	0.0
8	0.0	5.2	0.0	114.4	0.0	3.9	6.2	9.0	10.8	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	33.2	0.3	0.0	0.0	0.0	0.0
	0.0	63.8	0.0	123.6	0.3	6.9	87.5	11.3	5.3			
11	0.0	0.0	0.0	0.0	0.0	16.6	15.0	5.6	16.7	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	2.8	16.9	0.0	3.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	4.0	24.5	22.9	2.9	0.0	0.0	0.0
14	0.0	0.0	0.5	0.0	3.7	0.0	4.6	8.5	10.4	0.0	0.0	0.0
15	0.0	0.0	9.4	0.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0
16	2.1	0.0	0.0	0.0	0.0	7.5	3.3	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	9.2	0.0	0.0	0.0	4.6	10.0	1.8	4.3	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	23.2	0.0	0.0
19	0.0	0.0	0.0	23.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	4.0	0.0	0.0	10.6	7.0	0.0	10.4	0.0	0.0
	2.1	0.0	19.1	27.0	3.7	30.9	79.3	79.7	4.8	37.9		
21	0.0	0.0	3.0	4.4	0.0	9.8	14.9	23.7	7.9	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	4.6	0.0	0.0	0.0
23	0.0	0.0	0.0	29.6	0.0	0.0	10.3	5.5	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	17.8	0.0	0.0	17.2	25.9	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	6.7	0.0	2.9	10.2	10.3	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	7.2	0.0	7.8	2.6	26.5	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	10.0	0.0	0.0	5.4	13.6	11.4	0.0	0.0	0.0
28	0.0	0.0	14.1	0.0	0.0	0.0	5.7	21.1	7.5	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	17.0	4.7	13.4	0.0	0.0	0.0
30	0.0		5.2	0.0	0.0	0.3	13.9	8.6	0.0	0.0	0.0	0.0
31	0.0		12.4		0.0		0.0	3.9		0.0		0.0
Sum	0.0	0.0	34.7	75.7	3.1	20.8	97.2	143.8	41.8	0.0	0.0	0.0
M. Sum	2.1	63.8	53.8	226.3	7.1	58.6	244.2	321.0	170.9	37.9	0.0	0.0
Mean												
Hig.	2.1	34.6	14.1	114.4	3.7	16.6	33.9	28.9	35.2	23.2		
Date	16	6	28	8	14	11	10	13	1	18		
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: AKAKI Wereda: \_\_\_\_\_ Awraja: BOSSENA Region: SHOBA  
 Alt. \_\_\_\_\_ Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element: Daily Rainfall Year: 1990

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	24.2	0.0	16.3	3.5	7.5	13.7	0.0	0.0	0.0
2	0.0	0.0	10.6	0.0	0.0	20.5	2.5	0.0	2.9	5.8	0.0	0.0
3	0.0	0.0	20.4	0.0	0.0	0.0	0.0	3.4	2.0	0.0	0.0	0.0
4	0.0	0.0	11.3	10.4	0.0	0.0	1.5	11.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.4	0.0	0.0	2.2	6.7	1.7	3.3	0.0	0.0	0.0
6	0.0	0.0	0.0	40.1	0.0	3.3	40.6	11.0	1.6	0.0	0.0	0.0
7	0.0	0.0	1.5	10.0	0.0	0.0	0.0	18.1	0.0	0.0	0.0	0.0
8	0.0	6.6	0.0	34.7	0.0	0.0	6.7	21.2	15.1	0.0	0.0	0.0
9	0.0	8.2	0.0	10.0	0.0	3.2	0.0	3.3	7.6	0.0	0.0	0.0
10	0.0	10.4	0.0	0.0	0.0	6.6	12.9	0.0	0.0	0.0	0.0	0.0
	0.0	25.2	44.2	99.7	0.0	52.1	74.4	71.8	46.2	5.8	2.0	2.0
11	0.0	15.1	0.0	0.0	5.2	0.7	0.0	18.6	1.1	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	2.2	9.7	0.0	0.0	0.0	0.0
13	0.0	2.7	0.0	0.0	2.2	0.0	20.9	8.2	3.2	0.0	1.2	0.0
14	0.0	9.4	0.0	0.0	0.0	0.0	20.3	0.0	12.2	0.0	0.0	0.0
15	0.0	11.8	0.0	0.0	3.5	2.1	4.3	19.9	14.1	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	10.8	0.0	0.0	3.5	0.0	0.0	0.0
17	7.7	7.7	0.0	0.0	2.5	0.0	8.3	8.6	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	30.5	7.3	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	2.8	5.1	2.3	0.0	0.0	0.0
20	0.0	0.0	0.0	7.5	0.5	0.0	30.0	5.8	1.4	0.0	0.0	0.0
	7.7	46.7	0.0	7.5	13.9	13.6	119.5	82.0	37.3	5.0	1.0	1.0
21	0.0	11.7	0.0	0.0	0.0	2.5	0.0	8.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	3.4	1.1	16.6	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	78.4	11.5	2.4	0.0	0.0	0.0
24	0.0	20.0	0.0	1.5	0.0	0.0	0.0	8.4	0.6	0.0	0.0	0.0
25	0.0	2.8	0.0	0.0	0.0	0.0	17.3	0.0	0.0	0.0	0.0	0.0
26	0.0	0.6	0.0	4.2	4.1	0.0	0.0	11.7	0.9	0.0	0.0	0.0
27	0.0	13.6	0.0	6.2	0.1	0.0	0.0	3.2	10.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	1.3	0.0	11.3	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	10.3	7.7	0.0	15.8	5.1	2.8	0.0	0.0	0.0
30	0.0		0.0	0.0	10.7	10.7	9.3	12.2	2.0	0.0	0.0	0.0
31	0.0		4.2		0.0		4.5	3.7		0.0		0.0
Sum	0.0	48.7	4.4	22.2	23.9	13.7	87.0	64.9	33.5	5.8	2.0	2.0
M. Sum	7.7	120.6	48.4	129.4	37.8	78.9	280.7	222.9	117.2	5.8	1.7	1.7
Mean												
Hig.	7.7	20.0	20.4	40.1	10.7	20.5	25.4	21.2	16.6	5.8	1.2	
Date	17	24	3	6	30	2	23	8	22	2	13	
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

4th / 1991

Station: AKAKE M. S. Wereda: Awraja AKAKE KALEKA Region: SHOA

Alt. 2070 M. Long.                      Lat.                      Element: PRECIPITATION FALL Year: 1991

WORLD METEOR. 2.6.79

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	00	00	00	00	00	8.7	14.7	00	00	00	00
2	00	00	00	2.4	00	00	2.2	1.1	14.7	00	00	00
3	00	00	00	3.1	00	00	1.1	00	24.6	00	00	00
4	00	00	00	00	00	00	3.8	00	1.7	00	00	00
5	00	00	00	00	00	00	15.2	11.4	18.3	00	00	1.9
6	00	00	00	00	00	00	8.5	19.6	4.3	4.4	00	00
7	00	00	14.1	00	22.3	00	8.8	00	00	00	00	00
8	00	1.3	00	00	00	00	00	5.4	7.2	00	00	00
9	00	00	00	00	00	00	14.6	3.2	00	00	00	00
10	00	23.3	14.2	00	00	00	7.8	33.6	8.1	00	00	00
	00	24.6	28.3	5.5	22.3	00	70.7	89.0	78.9	4.4	00	1.2
11	00	00	00	00	00	18.4	4.4	10.7	00	00	00	00
12	00	00	2.8	00	00	00	00	00	9.7	00	00	00
13	00	1.4	8.7	1.9	00	13.2	10.1	3.2	17.0	00	00	00
14	00	00	00	00	00	1.1	18.7	20.4	00	00	00	00
15	00	1.3	00	00	00	00	3.2	00	00	00	00	00
16	00	1.6	00	00	00	00	7.2	31.4	00	00	00	00
17	00	00	00	00	00	00	00	14.5	00	00	00	00
18	00	00	00	00	00	00	3.6	12.6	2.1	00	00	00
19	00	00	00	00	00	00	18.6	00	4.2	00	50	00
20	00	1.1	00	00	00	16.7	19.4	10.2	00	00	00	00
	00	5.4	11.5	1.9	00	42.4	79.2	105.0	33.0	00	00	00
21	00	3.0	00	00	00	5.5	00	55.6	7.4	00	00	00
22	00	4.6	00	00	16.0	00	13.8	2.9	00	00	00	54.6
23	00	00	00	00	7.3	6.3	00	5.3	00	00	00	00
24	00	00	00	4.2	00	5.8	00	2.3	00	00	00	00
25	00	00	7.9	00	00	1.3	14.6	23.6	00	00	00	00
26	00	00	4.3	00	00	4.6	8.9	2.4	00	00	00	00
27	00	00	00	00	00	9.7	32.6	00	00	00	00	00
28	00	00	00	00	00	1.7	16.5	6.8	00	00	00	00
29	00		00	00	00	3.3	13.1	7.1	00	00	00	00
30	00		10.4	00	00	2.2	00	00	00	00	00	00
31	00		00		00		11.3	10.6		00		00
Sum	00	7.6	22.6	4.2	23.3	47.0	112.8	116.5	7.4	00	50	54.6
M. Sum	00	37.6	62.4	11.6	45.6	90.4	262.7	508.0	113.3	1.1	00	508
Mean												
Htg.		23.3	14.2	4.2	22.3	16.7	32.6	55.6	24.6	4.4		54.6
Date		10	10	24	7	20	27	21	3	6		22
Low												
Date												

Copied by: Name Rebede Walle Sig.                      3-1-4 Sig.

4th class



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: AKAKI M.S Wereda: Awraja AKAKI ERSELA Region: SUDAN  
 Alt: \_\_\_\_\_ Long: \_\_\_\_\_ Lat: \_\_\_\_\_ Element: RAINFALL Year: 1992

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	2.5	00	00	6.1	0.5	5.4	15.5	00	00	00	00
2	00	00	2.5	0.5	00	1.5	20.6	22.2	5.9	4.7	00	00
3	00	00	00	2.3	00	00	1.5	12.7	8.9	00	00	00
4	00	10.9	00	00	00	00	15.4	0.3	18.5	00	00	00
5	00	7.2	00	00	00	00	6.5	00	2.3	00	00	00
6	00	00	00	00	00	00	00	00	6.1	00	00	00
7	00	00	00	00	00	4.5	17.1	7.3	00	00	00	00
8	00	00	00	00	00	8.9	00	00	9.6	9.1	00	00
9	00	00	00	00	4.4	00	00	00	00	00	00	00
10	00	00	00	00	00	00	00	36.2	9.8	2.7	00	00
	0.0	20.9	2.5	2.8	10.5	15.4	66.5	96.5	61.1	16.5	00	00
11	1.1	00	00	00	00	00	12.3	8.3	00	26.8	00	00
12	00	00	00	00	3.9	00	5.3	15.3	00	00	00	00
13	00	00	00	00	00	00	00	00	00	00	00	00
14	00	00	00	00	00	5.4	19.3	5.4	00	00	00	00
15	00	00	00	00	00	4.8	12.6	00	00	00	00	00
16	00	00	00	00	00	10	00	00	00	00	00	00
17	00	00	00	00	00	16.8	0.6	5.3	00	00	00	00
18	00	00	00	00	00	00	00	31.3	00	00	00	00
19	00	00	00	00	00	00	17.1	22.2	13.9	00	00	00
20	4.9	00	00	1.6	00	00	6.5	5.6	4.5	00	00	00
	6.0	0.0	0.0	1.6	3.8	27.0	73.7	93.1	18.4	26.8	0.2	00
21	00	00	00	00	00	00	00	13.5	00	00	00	00
22	00	00	00	00	00	2.9	2.6	00	00	00	00	00
23	00	00	00	00	00	00	00	3.2	00	00	00	00
24	00	00	00	5.2	00	00	15.4	00	00	00	00	00
25	00	3.3	00	00	5.9	6.2	18.9	7.6	00	00	00	00
26	3.9	00	00	00	5.4	00	9.4	5.4	00	00	00	00
27	18.9	00	00	5.9	00	11.8	25.5	7.8	00	00	00	00
28	5.9	00	00	00	00	5.2	1.2	20.9	7.2	00	00	00
29	00	00	24.4	00	00	31.9	5.2	00	00	00	00	00
30	00		00	00	00	00	00	23.3	00	00	00	00
31	00		3.6		00		00	4.7		00		00
Sum	28.7	3.3	28.0	11.1	11.3	58.0	18.2	86.4	7.2	00	00	00
M. Sum	34.7	24.2	30.5	15.5	25.6	100.4	218.4	276.0	86.7	43.3	0.2	00
Mean												
Hig.	18.9	10.9	24.4	5.9	6.1	31.9	25.5	38.2	18.5	26.8	0.2	
Date	27	4	29	27	1	29	27	10	4	11	13	
Low												
Date												

Copied by: Name Fekede Dalla Sig. KW/11 3-1-5 \_\_\_\_\_ Sig. \_\_\_\_\_  
 /lm





NATIONAL METEOROLOGICAL SERVICES AGENCY

4th class

Station: AKAKI MISSION Wereda ..... Awraja ..... Region Shoa .....

Alt. .... Long. .... Lat. .... Element Daily Rain (all) Year 1973 .....

METRIC RECORD FORM

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	00		00	1.9	0.0	14.2	22.2	1.9	00	00	00
2	00	2.4		00	00	9.4	7.4	1.6	3.6	00	00	00
3	00	1.1		00	00	00	3.8	4.2	5.3	3.9	00	00
4	00	5.4		00	00	00	00	1.2	16.5	00	00	00
5	00	1.9		20.9	4.8	9.5	18.3	4.6	00	00	00	00
6	00	8.9		00	00	7.4	00	62.7	00	00	00	00
7	00	00		00	00	00	15.8	00	00	00	00	00
8	00	2.6		00	00	00	14.9	00	00	00	00	00
9	00	00		00	00	4.2	2.2	00	00	00	00	00
10	00	13.4		00	00	22.7	5.9	00	00	00	00	00
	00	35.7		20.9	14.6	53.2	82.5	96.5	27.3	3.9	00	00
11	00	14.1		00	00	00	4.3	00	19.8	00	00	00
12	00	00		0.4	1.1	00	00	18.2	00	00	00	00
13	0.1	00		2.2	17.2	00	12.5	00	3.2	00	00	00
14	00	00		18.5	2.5	00	00	24.4	17.1	00	00	00
15	00	00		17.3	00	14.1	0.2	00	5.4	00	00	00
16	00	00		11.4	00	8.2	00	1.2	6.2	00	00	00
17	00	00		10.9	00	6.9	00	7.9	8.7	00	00	00
18	00	00		00	00	2.3	2.9	21.5	2.5	00	00	00
19	00	00		25.9	00	7.5	00	9.3	00	00	00	00
20	00	00		1.9	00	00	1.9	6.5	00	00	00	00
	0.1	14.1		82.5	20.8	39.0	21.8	89.0	62.9	00	00	00
21	00	00		00	00	00	00	00	00	00	00	00
22	00	00		00	00	00	11.2	8.7	6.9	00	00	00
23	00	00		00	13.5	00	00	12.9	00	00	00	00
24	1.1	00		00	00	5.9	40.5	4.7	00	00	00	00
25	00	00		00	00	7.2	00	00	0.5	5.2	00	00
26	00	00		00	00	00	19.8	2.9	00	11.4	00	00
27	00	4.1		00	00	11.2	22.6	0.6	00	00	00	00
28	00	00		3.1	00	00	12.5	6.4	00	00	00	00
29	00	00		5.9	00	00	4.2	4.9	20.7	00	00	00
30	00	00		00	1.2	00	2.9	18.3	00	00	00	00
31	00	00		00	12.4	00	00	6.6	00	00	00	00
Sum	1.1	4.1		9.0	27.1	24.3	113.7	66.0	28.1	16.6	00	00
M. Sum	1.2	53.9		118.4	62.5	116.5	218.0	251.5	118.3	20.5	00	00
Mean												
Hig.	1.1	14.1		25.9	17.2	22.7	40.5	62.7	20.7	11.4		
Date	24	11		19	13	10	27	6	29	26		
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY 4<sup>th</sup> class.

Station: Akaki M.S Woreda Awraja Region SKOA  
 Alt.                      Long.                      Lat.                      Element Daily Rainfall Year 1994  
 COMMERCIAL P. E. #1005/85

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	2.6	4.7	6.2	0.4	12.3	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	15.8	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	6.6	0.0	4.8	0.0	0.0	0.0	0.0
4	0.0	0.0	1.8	0.0	0.0	0.0	6.4	0.0	14.3	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	29.3	0.0	4.5	10.3	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	4.4	1.2	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	17.3	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	11.8	0.0	0.0	7.2	0.0	14.8	8.2	0.0	5.6	0.0
10	0.0	0.0	0.0	0.0	15.5	8.7	49.7	2.5	0.0	0.0	0.0	0.0
	0.0	0.0	12.5	0.0	17.1	60.9	80.8	33.7	59.2	0.0	5.6	11.0
11	0.0	0.0	1.8	0.0	1.9	0.0	0.0	41.2	0.0	0.0	2.5	0.0
12	0.0	0.0	16.9	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	18.3	15.6	8.8	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	2.5	0.0	12.9	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	8.5	5.4	7.3	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	11.8	0.0	1.5	7.3	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.3	1.2	5.9	0.5	1.5	0.8	0.0	0.0	0.0
18	0.0	0.0	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	4.8	0.0	11.5	1.2	1.9	0.0	0.0	0.0	0.0
	0.0	0.0	18.8	0.0	8.1	35.8	32.7	31.9	57.6	0.0	2.5	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	10.3	15.4	6.9	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	1.2	7.3	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	08.7	4.5	1.9	0.0	0.0	0.0
24	0.0	0.0	3.9	1.6	0.0	2.5	15.2	0.0	7.4	0.0	0.0	0.0
25	0.0	0.0	25.9	0.0	0.0	10.9	0.0	9.2	21.7	0.0	0.0	0.0
26	0.0	0.0	1.9	1.9	0.0	8.9	0.0	0.6	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	14.4	0.0	0.0	15.7	12.8	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	4.5	5.2	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	24.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	35.3	2.5	0.0	0.0	0.0	0.0
Sum	0.0	0.0	31.7	42.8	0.0	28.3	111.6	52.3	37.4	0.0	0.0	0.0
M. Sum			62.9	72.2	0.0	125.0	225.1	168.9	106.8	0.0	8.1	0.0
Mean												
Hig.			28.9	24.4	15.5	29.3	49.7	41.2	21.4		5.6	
Low			2.5	3.0	1.0	5	1.0	1.1	2.5		0.0	
Date												

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Sig.



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: Alake Wereda: \_\_\_\_\_ Anraja: \_\_\_\_\_ Region: Shoa  
 Alt: 2070 Long: 38 Lat: 08 Element: Rainfall Year: 1996

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	5.6	0.0	0.0	0.0	0.0	24.5	0.0	7.8	9.2	1.9	0.0	0.0
2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	5.8	0.0	0.0	0.0
3	3.4	0.0	0.0	0.0	0.0	3.8	3.2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	8.4	12.4	1.3	9.9	0.0	0.0	0.0
5	3.7	0.0	0.0	0.0	0.0	45.7	2.8	0.0	0.2	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.4	0.3	11.2	8.4	9.3	9.5	0.0	0.0	0.0
8	0.0	0.0	3.2	5.3	0.0	1.4	19.1	35.2	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	19.3	0.0	7.5	5.5	2.9	0.0	0.0	0.0
10	0.0	0.0	1.3	3.3	0.0	5.9	0.0	9.8	10.7	0.0	0.0	0.0
	12.7	0.0	4.5	9.0	19.6	100.9	53.4	111.3	43.2	1.9	0.0	0.0
11	0.0	0.0	0.0	0.0	9.2	4.4	12.4	13.2	0.0	0.0	0.0	0.0
12	0.0	0.0	6.7	0.0	0.0	11.8	7.8	0.0	0.3	0.0	0.0	0.0
13	0.0	0.0	0.0	0.4	5.9	1.2	0.0	6.2	2.5	0.0	0.0	0.0
14	0.0	0.0	1.6	0.0	6.2	25.2	21.7	11.2	3.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	11.2	25.5	17.2	9.9	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	4.5	13.4	8.3	8.4	6.2	12.2	0.0	0.0	0.0
17	0.0	0.0	2.5	0.0	6.5	11.5	28.7	0.0	11.4	0.0	0.0	0.0
18	2.6	0.0	0.0	1.5	0.0	0.4	0.0	9.2	2.7	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	3.8	3.2	18.1	26.2	7.2	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	1.4	14.7	12.1	7.5	0.0	0.0	0.0
	0.6	0.0	10.8	6.4	56.2	92.9	129.0	94.2	39.6	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.6	0.4	0.0	0.0	0.0
22	0.0	0.0	2.2	2.6	0.0	11.9	12.7	2.3	6.9	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	11.5	16.6	8.2	2.7	20.7	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.8	0.0	0.0	0.0	0.0
25	0.0	0.3	20.2	11.2	0.0	7.8	3.4	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	35.5	0.0	0.0	1.9	23.7	6.2	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	8.2	8.7	5.8	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.9	38.5	0.4	0.0	0.0	0.0	0.0
29	0.0	0.0	6.5	9.6	0.0	0.0	0.6	4.5	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	3.2	0.0	3.7	0.0	8.2	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	8.5	1.3	0.0	0.0	0.0	0.0
Sum	0.0	0.3	64.4	23.4	19.7	47.3	170.1	28.6	36.2	0.0	0.0	0.0
M. Sum	15.3	0.3	79.7	38.8	90.5	240.1	292.5	234.1	119.0	1.9	0.0	0.0
Mean												
Hig.	5.6	0.3	35.5	11.2	19.3	45.7	38.5	40.5	20.7	1.9		
Date	1	25	26	25	9	5	25	6	23	1		
Low												
Date												

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NATIONAL METEOROLOGICAL SERVICES AGENCY

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Station: Akaki M.S. Wereda Awraja Region SIOA  
Alt. 2075 M. Long. Lat. Element Daily Rainfall Year 1997

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	8.4	0.0	0.0	0.6	5.2	0.0	0.0	0.2	
2	0.0	0.0	0.0	0.0	0.0	0.3	3.5	4.6	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.1	6.7	0.0	0.0	
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	
5	0.0	0.0	0.0	0.7	0.0	2.5	48.4	4.5	10.1	0.0	0.0	
6	0.0	0.0	0.0	0.0	0.0	0.0	10.2	0.7	2.8	0.0	0.0	
7	0.0	0.0	0.0	17.5	0.0	0.0	3.5	0.0	0.0	0.0	0.0	
8	0.0	0.0	0.0	0.0	0.0	0.0	14.9	1.8	0.0	0.0	0.0	
9	0.0	0.0	0.0	0.0	0.0	0.0	6.2	4.7	0.0	0.0	0.0	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	
	0.0	0.0	0.0	26.6	0.0	2.8	96.7	38.9	30.8	0.0	0.0	
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.5	0.0	0.0	
12	0.0	0.0	0.0	0.0	0.0	0.0	1.2	11.7	0.0	0.0	6.9	
13	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.6	12.8	0.0	0.0	
14	0.0	0.0	0.0	0.0	0.0	5.2	1.9	6.9	3.5	0.0	0.0	
15	0.0	0.0	0.0	0.0	0.0	0.0	16.8	6.4	10.2	0.0	0.0	
16	0.0	0.0	0.0	0.0	0.0	0.0	5.2	4.8	0.0	0.0	0.0	
17	0.0	0.0	0.0	0.0	0.3	1.2	0.0	18.4	0.0	0.0	0.0	
18	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.5	20.3	0.0	
19	9.8	0.0	0.0	0.0	0.0	2.1	9.5	11.7	0.0	0.0	0.0	
20	2.7	0.0	0.0	31.8	0.0	8.2	5.5	3.6	0.0	0.0	0.0	
	12.5	0.0	0.0	31.8	0.3	17.0	40.8	65.9	32.5	20.5	6.9	
21	0.0	0.0	0.0	18.2	0.0	10.8	4.6	0.0	0.0	0.0	0.0	
22	8.1	0.0	0.0	10.8	0.0	0.0	0.7	3.4	0.0	0.0	0.0	
23	0.8	0.0	0.0	0.0	0.0	6.3	14.7	10.3	0.0	0.0	0.0	
24	0.0	0.0	5.8	0.0	0.0	0.0	4.2	3.4	0.0	0.0	0.0	
25	6.2	0.0	1.9	0.0	0.9	5.6	0.4	4.6	0.0	0.7	0.3	
26	0.0	0.0	3.8	10.6	0.0	2.3	5.2	44.6	29.2	2.8	0.0	
27	0.0	0.0	4.5	4.7	0.0	5.5	5.5	25.2	0.0	9.4	2.9	
28	0.0	0.0	0.5	0.0	0.0	0.0	0.5	4.9	0.0	7.6	0.0	
29	0.0		0.0	0.0	0.0	3.3	6.9	0.0	0.0	1.2	0.0	
30	0.0		12.7	0.0	3.2	3.4	23.4	0.0	x	2.9	0.0	
31	0.0		0.3		20.8		0.0	2.2		0.0		
Sum	15.1	0.0	29.5	44.3	24.9	37.2	66.1	98.6	29.2	24.6	3.0	
M. Sum	27.6		29.5	112.7	25.2	57.0	203.6	203.4	82.5	114.9	11.1	
Mean												
Hig.	9.8		12.7	31.8	20.8	10.8	48.4	44.6	29.2	20.3	6.9	
Days	19		30	20	31	21	5	26	26	18	12	
Low												
Date												



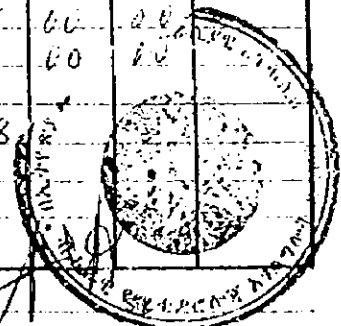
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NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: ALEM-TENA Wereda BORA Awraja HYCOCH & BUTA GIRA Region SHOA  
 Alt. 1620M. Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element DAILY RAIN FALL Year 1987

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1				X	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0
2				X	0.0	0.0	0.0	0.4	0.7	0.8	0.0	0.0
3				X	0.0	0.0	0.0	4.8	27.2	0.0	0.0	0.0
4					0.0	0.0	0.0	4.7	0.8	0.0	0.0	0.0
5					17.2	0.0	0.0	12.4	9.7	0.0	0.0	0.0
6					58.1	1.1	0.0	30.6	0.0	0.0	0.0	0.0
7					0.0	2.7	0.1	2.0	0.0	0.0	0.0	0.0
8					7.6	2.1	0.4	4.3	0.4	0.0	0.0	0.0
9					4.3	0.0	0.0	13.9	8.2	0.0	0.0	0.0
10					0.0	0.0	0.0	1.4	1.1	3.1	0.0	0.0
					87.2	5.9	0.5	52.2	39.9	21.5	0.0	0.0
11					0.3	0.7	0.0	0.0	0.8	0.0	0.0	0.0
12					0.0	0.0	0.0	9.8	0.0	0.0	0.0	0.0
13					0.0	2.5	0.0	0.0	17.7	21.2	0.0	0.0
14					0.0	0.0	0.0	5.6	0.0	6.2	0.0	0.0
15					0.0	0.0	0.0	35.6	0.0	0.0	0.0	0.0
16					0.0	0.0	0.0	0.0	8.9	12.9	0.0	0.0
17					0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
18					0.0	0.0	0.0	0.0	15.8	0.0	0.0	0.0
19					0.0	6.1	0.4	0.0	6.0	0.0	0.0	0.0
20					0.0	25.8	0.0	0.0	4.9	0.5	0.0	0.0
					0.3	35.1	0.4	51.0	54.1	41.9	0.0	0.0
21					0.0	28.8	0.0	0.0	26.4	0.0	0.0	0.0
22					0.0	8.8	0.0	0.0	0.0	0.4	0.0	0.0
23					0.0	16.8	0.0	5.1	15.5	29.5	0.0	0.0
24					0.0	36.6	0.0	6.6	23.0	7.9	0.0	0.0
25					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26					0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0
27					0.0	13.5	0.0	0.0	0.0	0.0	0.5	0.0
28					0.0	5.1	0.0	0.0	13.0	0.0	0.0	0.0
29					0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0
30					0.0	0.0	0.0	0.0	0.8	1.8	0.0	0.0
31						22.8		4.4	0.1		0.0	0.0
Sum					4.0	140.2	0.0	16.1	80.9	39.6	0.5	0.0
M. Sum					87.5	181.2	0.9	119.3	172.9	123.0	1.3	0.0
Mean												
Hig.					58.1	36.6	0.4	35.6	26.4	29.5	0.8	
Date					6	24	8	15	21	23	2	
Low												
Date												



Copied by: Name TSEGAI YEMAM Sig. \_\_\_\_\_ 3-2-1



NATIONAL METEOROLOGICAL SERVICES AGENCY

32

Station: ALEM TRANA Wereda BORA Awraja HAYKACH & BURAJ Region SHOA  
 Alt. 1620 M Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element DAILY RAIN FALL Year 1988

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.5	0.0	0.0	0.0
2	2.0	0.0	43.5	0.0	0.0	1.5	0.0	2.5	0.0	0.0	0.0	0.0
3	4.4	0.0	0.0	0.0	0.0	25.8	6.4	2.7	1.3	0.0	0.0	0.0
4	0.2	0.0	0.0	0.0	0.0	0.0	13.8	10.7	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	5.2	8.0	3.1	0.0	0.5	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	4.1	0.0	16.5	15.4	0.0	0.0	0.0
9	0.0	0.4	0.0	0.0	0.0	0.0	11.5	0.0	21.7	0.0	0.0	0.0
10	0.0	0.0	0.0	2.6	0.0	0.0	23.8	14.4	21.7	0.0	0.0	0.0
	9.6	0.2	43.5	4.7	0.0	44.1	75.5	75.8	65.6	0.5	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	1.3	2.9	4.2	15.4	0.0	0.0	1.7
12	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
13	0.0	28.2	0.0	0.8	5.7	1.4	7.5	11.1	10.6	0.0	0.0	0.0
14	0.0	6.5	0.0	0.2	0.0	0.0	16.2	34.1	0.0	4.4	0.0	0.0
15	0.0	0.0	0.0	9.2	0.0	0.0	3.9	7.8	0.0	3.4	0.0	0.0
16	0.0	0.0	0.0	4.1	0.0	11.7	0.0	6.7	1.2	1.3	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	2.2	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	5.8	0.3	6.9	9.4	2.6	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	5.4	6.4	0.0	1.2	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	34.4	0.0	0.0	0.0
	0.0	34.5	0.0	14.3	5.7	30.8	56.1	66.0	76.9	16.9	0.0	1.7
21	0.0	0.0	0.0	2.0	0.0	0.0	0.3	32.4	3.0	0.0	0.0	0.0
22	0.0	0.0	0.0	1.1	0.0	1.2	0.0	0.0	0.5	0.0	0.0	0.0
23	0.0	0.3	0.0	4.9	0.0	0.0	18.2	0.0	1.1	0.0	0.0	0.0
24	0.0	2.0	0.0	2.1	0.0	0.0	2.4	5.4	2.5	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	4.1	0.0	0.7	0.0	8.5	16.1	0.0	0.0	0.0
27	0.0	0.0	0.0	5.8	0.0	4.8	1.4	8.4	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	1.9	0.0	0.0	2.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0
Sum	1.9	21.3	0.0	28.0	0.0	10.8	29.8	58.2	29.2	0.5	0.0	0.0
Al. Sum	11.5	36.8	43.5	47.0	5.7	85.7	101.8	200.1	111.1	19.4	0.0	1.7
Mean												
Fig.	8.0	28.2	43.5	9.2	5.7	25.8	26.2	34.1	39.4	9.4		1.7
Date	2	13	2	15	13	3	14	14	20	14		11
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

3<sup>rd</sup> class

Station: ALEM TENA Wereda ..... Awraja LOME BORA Region Shoo  
 Alt. 1720 Long. .... Lat. .... Element Daily Rain Full Year 1989  
M.M. METRIC UNITS ONLY

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	8.6	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	8.4	0.0	0.0	0.0
4	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	31.4	0.0	0.0	0.0	0.0	4.3	0.0	0.9	0.0	0.0	0.0
6	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.8	3.8	1.4	10.9	0.0	0.0	0.0
8	0.0	0.0	0.0	26.0	0.0	39.5	TR	0.2	25.7	0.0	0.0	0.0
9	0.0	0.0	0.0	2.1	0.0	0.0	2.7	TR	0.0	0.0	0.0	2.5
10	0.0	0.0	0.0	1.3	0.0	13.4	28.8	10.2	0.0	0.0	0.0	0.0
	0.0	52.6	0.0	29.5	0.0	53.7	42.7	34.2	74.5	0.0	0.0	2.5
11	0.0	0.0	0.0	0.0	0.0	2.1	0.0	10.7	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	25.4	0.0	13.2	0.0	0.0	0.0	0.0
13	0.0	0.0	0.3	0.0	0.0	4.5	7.6	0.0	1.0	0.0	0.0	0.0
14	0.0	0.0	6.9	0.0	0.0	0.0	0.3	40.3	32.1	0.0	0.0	0.0
15	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
16	0.9	0.0	4.6	0.0	0.0	0.2	12.4	13.3	0.0	0.0	0.0	0.0
17	0.0	0.0	57.8	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
18	0.0	0.0	0.0	7.3	0.0	0.0	0.0	9.0	0.0	0.9	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.8	0.0	9.4	0.0	0.0
20	0.0	0.0	0.0	4.1	0.0	0.0	13.5	0.0	0.0	1.3	0.0	0.0
	0.9	0.0	70.7	11.4	0.0	32.2	53.8	96.3	31.1	25.0	0.0	0.0
21	0.0	11.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0
22	0.0	14.1	44.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0
23	0.0	11.1	0.0	19.8	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
24	0.0	13.0	0.0	2.1	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0
25	0.0	11.0	0.0	26.5	0.0	0.2	3.1	0.0	0.4	0.0	0.0	0.0
26	0.0	11.1	0.0	3.4	0.0	0.0	7.3	0.4	7.4	0.0	0.0	0.0
27	0.0	10.0	13.5	0.0	0.0	9.5	0.0	12.8	7.1	0.0	0.0	0.0
28	0.0	10.0	12.8	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0
29	0.0	11.1	12.3	0.0	0.0	0.0	21.9	16.4	1.4	0.0	0.0	0.0
30	0.0	11.1	12.4	0.0	0.0	27.5	0.0	15.9	0.0	0.0	0.0	0.0
31	0.0	11.1	12.4	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
Sum	0.0	91.3	59.0	51.3	0.0	31.2	24.1	52.6	64.2	5.5	0.0	0.0
M. Sum	0.9	143.9	129.7	92.7	0.0	123.1	105.6	185.1	136.3	11.0	0.0	0.0
Mean												
Hig.	0.9	31.4	57.8	26.5		39.5	28.8	40.3	32.1	9.4		2.5
Date	16	5	17	25		8	10	14	14	19		9
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

3rd class

Station: ALEMTEMA Wereda: Awraja HARKOLLA BURAJJA Region: SHOA  
 Alt. \_\_\_\_\_ Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element: DAILY RAINFALL Year: 1990

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	00	0.0	00	00	00	00				00	00
2	00	00	11.0	00	00	00	00				00	00
3	00	0.2	00	40.4	00	00	00				00	00
4	00	7.7	00	14.2	00	00	11.5				00	00
5	00	1.4	3.3	1.1	00	00	00				00	00
6	00	0.4	0.4	32.1	00	16.0	21.4				00	00
7	00	8.4	1.4	9.5	00	0.0	00				00	00
8	00	1.9	0.1	26.6	00	00	1.4				00	00
9	00	0.0	00	00	00	1.3	00				00	00
10	00	27.1	00	00	00	00	8.5				00	00
11	00	117.1	18.2	123.7	00	17.3	45.5				0.0	0.0
12	00	00	00	00	00	1.6	6.7			0.0	00	
13	00	00	00	00	00	0.0	14.4			00	00	
14	00	14.7	00	00	00	0.0	9.6			00	00	
15	00	2.4	00	00	00	00	9.5			00	00	
16	00	0.0	00	00	00	0.0	0.3			00	00	
17	00	15.6	00	00	00	00	00			00	00	
18	00	0.0	00	00	00	00	30.9			00	00	
19	TR	3.8	00	00	00	00	00			00	00	
20	TR	00	00	0.1	00	7.4	55.5			00	00	
	0.0	38.5	0.0	0.1	18.0	9.0	126.6			0.0	0.0	
21	00	00	0.4	00	00	00	00			00	00	
22	00	4.3	00	00	00	00	6.8			00	00	
23	00	7.0	00	0.4	00	00	00			00	00	
24	00	3.1	00	00	00	00	1.4			00	00	
25	00	15.0	00	7.6	00	00	1.8			00	00	
26	00	0.3	00	0.4	00	00	00			0.0	00	
27	00	53.6	00	00	00	00	00			00	00	
28	00	00	00	00	00	00	16.8			00	00	
29	00		00	00	00	00	00			00	00	
30	00		4.5	00	0.9	00	5.4			00	00	
31	00		00		00		1.6			00		
Sum	0.0	83.3	11.8	8.4	0.8	0.0	35.8			0.0	0.0	
M. Sum	0.0	166.9	21.1	132.4	11.9	26.3	206.2			0.0	0.0	0.0
Mean												
Hlg.		53.6	11.0	40.4	11.0	16.0	55.5					
Date		27	2	3	11	6	20					
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

III

Station: Alem Tena ..... Wereda ..... Awraja ..... Region: S10A

Alt. .... Long. .... Lat. .... Element Daily Rain fall: Year 1991

MTS/MS/FORM 7.8.79

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	00	00	28.6	00	00	0.1					
2	00	00	00	0.9	00	00	00					
3	00	00	00	00	00	00	3.6					
4	00	00	00	00	1.5	00	21.1					
5	00	00	00	00	00	00	23.9					
6	00	00	25.2	00	00	00	6.8					
7	00	00	1.4	00	00	00	00					
8	00	00	00	00	00	00	0.3					
9	00	0.8	11.7	00	00	00	1.3					
10	00	0.7	41.0	00	00	00	6.9					
	0.0	1.5	79.3	29.5	1.5	0.0	6.0					
11	00	10.3	0.6	00	00	00	00					
12	00	0.2	7.8	00	00	00	00					
13	00	4.0	00	00	00	00	00					
14	00	00	00	00	00	00	00					
15	00	1.4	00	00	00	00	00					
16	00	0.6	00	00	00	00	12.8					
17	00	00	00	00	00	00	14.8					
18	00	00	00	00	1.3	00	00					
19	00	0.2	00	00	00	00	4.7					
20	00	00	00	00	00	0.7	3.6					
	0.0	16.7	8.4	0.0	1.3	0.0	35.0					
21	00	00	00	00	00	00	33.1					
22	00	00	00	00	00	00	2.4					
23	00	00	2.7	00	13.2	00	00					
24	00	00	x	00	14	00	00					
25	00	14.1	x	00	00	11.7	31.4					
26	00	00	x	00	00	9.7	8.7					
27	1.2	00	x	00	00	00	7.4					
28	00	00	x	00	00	6.5	0.3					
29	00		x	00	00	15.9	1.6					
30	00		x	00	00	0.6	21.5					
31	00		x		00		x					
Sum	1.2	14.1	2.7	0.0	13.2	44.4	106.5					
M. Sum	1.2	32.3	90.4	27.5	16.0	45.1	200.0					
Mean												
Hig.	1.2	14.1	41.0	28.6	13.2	15.9	33.1					
Date	27	25	10	1	23	29	21					
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: Alemtena Wereda: \_\_\_\_\_ Awraja: \_\_\_\_\_ Region: SHOA  
 Alt: \_\_\_\_\_ Long: \_\_\_\_\_ Lat: \_\_\_\_\_ Element: Daily Rainfall Year: 1993

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	0.0	13.7	4.1	2.2	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	18.2	1.9	2.2	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TR	0.0	4.6	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
5	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.5	0.0	0.0	0.0	0.0	0.0	18.6	3.4	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	3.7	0.0	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	13.7	30.8	0.0	0.0	0.0	0.0	0.0
10	0.0	47.5	0.0	0.0	0.0	0.0	19.9	3.8	0.0	0.0	0.0	0.0
	0.0	57.2	0.0	0.0	0.0	27.4	87.1	27.4	5.6	4.6	0.0	0.0
11	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	27.5	0.0	40.9	18.2	3.8	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	1.0	0.0	30.1	7.1	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	36.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	3.3	0.0	0.0	17.2	0.0	11.1	0.0	0.0	0.0
16	0.0	0.0	0.0	13.4	0.0	0.0	0.6	6.9	3.9	0.0	0.0	0.0
17	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	3.1	0.0	0.0	0.0
19	0.0	0.0	0.0	3.2	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	5.9	0.0	22.3	1.5	0.0	0.0	0.0	0.0	0.0
	0.0	9.6	0.0	70.8	28.5	22.3	90.3	59.0	21.9	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	7.4	0.0	0.0	25.9	4.8	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.1	0.0	1.3	26.2	0.3	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	6.5	0.0	0.0	0.0
24	24.5	0.0	0.0	0.0	0.0	0.0	42.6	0.0	0.0	0.0	0.0	0.0
25	2.4	0.0	0.0	0.0	0.0	0.0	12.7	0.0	6.2	17.5	0.0	0.4
26	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	41.5	0.0	3.0	26.0	0.0	16.6	0.0	0.0	0.0
28	0.0	0.0	0.0	3.2	0.9	3.7	43.7	3.9	0.0	1.5	0.0	0.0
29	0.0		0.0	43.4	0.4	3.4	0.0	3.0	16.5	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	2.1	16.7	0.5	0.0	0.0	0.0
31	0.0		0.0		2.0		0.0	x		0.0		0.0
Sum	26.9	0.0	0.0	88.1	10.8	10.1	134.9	98.8	51.4	19.0	0.0	0.4
M. Sum	26.9	66.8		158.9	39.3	59.8	312.3	185.2	78.9	23.6		0.4
Mean												
Hig.	24.5	47.5		43.4	27.5	22.3	43.7	26.2	16.6	17.5		0.4
Dis	24	10		29	12	20	28	22	27	25		25
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: Alem Tena Wereda: \_\_\_\_\_ Awraja: \_\_\_\_\_ Region: SHOA  
 Alt. \_\_\_\_\_ Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element No. ly Rai. falk Year 1994

COMMERCIAL P. E. 4305/766

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.2	3.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	8.2	8.4	0.6	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	10.6	2.6	6.4	0.0	11.3	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	6.6	34.2	0.0	0.0	19.8	0.0	0.0	TR
5	0.0	0.0	0.0	0.0	0.0	2.5	24.6	0.0	1.2	0.0	0.0	13.2
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.3	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6	5.3	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	54.8	TR	1.7	0.0	5.4	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	8.5	28.7	7.3	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	17.2	39.3	106.1	43.9	73.2	0.0	5.4	13.2
11	0.0	0.0	TR	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0	0.0
12	0.0	0.0	TR	0.0	0.0	7.4	2.7	12.0	7.3	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	1.9	0.0	2.5	TR	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	5.6	1.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	10.4	0.0	5.5	0.0	0.0	9.0	0.0	0.0	0.0
17	0.0	0.0	4.6	5.5	0.0	TR	8.0	0.0	4.8	0.0	0.0	0.0
18	0.0	0.0	4.0	5.8	0.0	1.1	1.3	0.0	15.4	0.0	0.0	0.0
19	0.0	0.0	0.0	3.6	0.0	0.0	0.0	2.2	1.4	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	10.6	0.0
	0.0	0.0	8.6	25.3	0.0	15.9	21.7	14.7	20.4	0.0	10.6	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	5.2	TR	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	5.5	31.6	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	TR	0.0	10.4	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	17.7	0.0	0.0	14.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	37.6	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	38.6	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	5.6	5.0	3.3	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	TR		0.0		0.0
Sum	0.0	0.0	0.0	0.0	0.0	61.9	78.3	21.9	24.4	1.0	0.0	0.0
M. Sum			8.6	25.3	17.2	117.1	206.1	126.5	188.0	1.0	16.0	13.2
Mean												
Hig.			4.6	10.4	10.6	38.6	54.8	31.6	75.7	1.0	10.6	13.2
Date			17	16	3	27	9	22	18	28	20	5
Low												
Date												





NATIONAL METEOROLOGICAL SERVICES AGENCY

3<sup>rd</sup> class

Station: ALEMTEENA Wereda: \_\_\_\_\_ Awraja: \_\_\_\_\_ Region: SHOA  
 Alt. 1720M. Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element: DAIRY RAIN/FALL Year: 1995

COMMERCIAL P. E. 0305/86

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	TR	0.0	0.0	0.0	TR	23.5	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	7.4	0.0	0.0	3.6	0.0	TR	0.0	0.0	0.0	0.0
4	0.0	0.0	2.8	TR	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0
5	0.0	0.0	28.4	TR	9.2	0.0	33.6	0.0	4.8	0.0	0.0	0.0
6	0.0	0.0	2.3	3.5	0.0	0.0	0.0	22.8	TR	TR	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	9.9	1.6	29.5	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	28.1	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0
10	0.0	TR	0.0	0.0	1.6	0.0	29.0	TR	0.0	0.0	0.0	0.0
	0.0	28.1	33.5	3.5	10.8	0.0	73.5	66.9	11.5	8.1		
11	0.0	0.0	40.1	0.0	0.0	0.0	33.5	18.1	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	5.1	TR	TR	0.0	0.0	0.0
13	0.0	16.7	0.0	0.0	0.0	0.0	8.3	7.7	8.7	0.0	0.0	0.0
14	0.0	0.0	0.0	3.9	0.0	0.0	0.0	2.6	TR	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	23.4	0.0	0.0	20.5	0.0	TR	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	14.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	9.2	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	4.3	0.0	0.0	0.0
	0.0	16.7	40.1	27.3	0.0	2.3	81.3	32.2	35.2	0.0	0.0	0.0
21	0.0	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	TR	0.0	0.0	0.0	2.6	8.1	6.3	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.9	20.6	TR	0.0	0.0	0.0
24	0.0	0.0	0.0	3.5	0.0	0.0	1.3	5.1	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	TR	0.0	0.0	2.2	1.2	0.0	5.2	0.0	0.0
26	0.0	0.0	0.0	13.2	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	TR	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	11.4	2.1	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	4.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	5.3	0.0	0.0	TR	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		x	0.0		0.0		0.0
Sum	0.0	0.0	14.2	16.7	20.7	20.6	7.0	12.5	6.3	6.2	0.0	0.0
M. Sum		44.8	87.8	47.5	31.5	29.9	159.8	135.6	89.0	5.2		
Mean			28.2									
Hig.		28.1	40.1	23.4	11.4	16.7	33.6	23.5	29.5	5.2		
Date		9	11	16	28	27	5	1	7	25		
Low												
Date												

Copied by: Name Tegeye Yimam Sig. [Signature] 3-2-8 \_\_\_\_\_ Sig. \_\_\_\_\_

NATIONAL METEOROLOGICAL SERVICES AGENCY

3rd

Station: Atm Tona Meroda Amraj Amraj Region: SHOA

Alt: \_\_\_\_\_ Long \_\_\_\_\_ Lat \_\_\_\_\_ Daily Rainfall Year: 1986

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.2	31.8	0.3	0.0	0.0
2	30.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0
3	0.3	0.0	0.0	0.0	0.0	9.2	4.5	0.0	0.0	0.0	0.0	0.0
4	3.6	0.0	0.0	0.0	0.0	7.3	10.9	0.0	TR	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	1.8	0.0	32.3	15.9	9.8	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.5	0.0	8.6	1.6	0.0	3.4	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0	15.7	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	6.0	31.5	3.0	0.0	0.0	0.0	0.0
10	0.0	0.0	5.9	0.0	15.1	5.8	1.2	7.0	8.5	0.0	0.0	0.0
	36.2	0.0	5.9	2.3	15.1	64.2	71.6	35.5	57.4	0.0	0.0	0.0
11	0.0	0.0	5.2	0.0	9.1	TR	0.0	15.2	8.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	23.3	19.2	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	TR	2.7	4.0	0.3	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	9.2	0.0	7.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	4.0	TR	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	8.6	0.0	0.0	3.7	23.2	0.0	0.0	0.0	0.0	0.0
17	29.2	0.0	0.9	15.6	8.8	0.0	11.5	0.0	0.0	0.0	0.0	0.0
18	TR	0.0	0.0	0.0	0.0	0.0	TR	1.9	0.0	0.0	0.0	0.0
19	0.0	0.0	TR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	TR	0.0	2.0	0.0	9.5	13.2	0.0	TR	0.0
21	29.2	0.0	10.9	15.6	17.9	41.7	56.6	51.3	21.5	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	5.6	0.0	8.2	0.0	3.4	0.0	0.0	0.0
23	0.0	0.0	8.6	0.0	9.0	0.0	TR	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	5.8	2.5	0.0	0.0	2.2	0.0	TR	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0	TR	0.0
26	0.0	0.0	20.2	0.0	0.0	0.0	0.0	15.2	0.0	0.0	0.0	0.0
27	0.0	0.0	55.4	0.0	3.7	0.0	24.9	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	6.8	5.9	0.0	TR	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	6.4	0.0	0.0	2.0	10.3	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	1.9	30.3	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	22.4	0.0	0.0	0.0	0.0	0.0
Mo	0.0	0.0	83.4	18.2	30.0	2.5	69.4	59.7	5.6	0.3	0.0	0.0
Max	65.4		60.0	31.1	63.0	113.4	197.6	153.5	92.5	0.2	0.0	0.0
Min												
Max	30.0		55.4	15.6	15.1	32.3	37.5	30.3	31.8	0.8		
Date	2		26	14	10	6	9	30	1	1		
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

3rd

Station: Alem Tena Wereda ..... Awraja ..... Region STOA  
 Alt. 1720M. Long ..... Lat ..... Element Daily Rainfall Year 1997  
 Bureau P.E.

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	2.5	0.0	2.8	1.0	42.6	TR		0.0	
2	0.0	0.0	0.0	0.0	0.0	0.6	22.5	0.0	16.0		0.0	
3	0.0	0.0	0.0	0.0	0.0	0.0	48.6	0.0	6.7		0.0	
4	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.5	1.5		0.0	
5	0.0	0.0	0.0	0.0	8.6	0.0	1.5	0.5	0.0		0.0	
6	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0		0.0	
7	0.0	0.0	0.0	45.5	0.0	0.0	10.2	0.0	0.0		0.0	
8	0.0	0.0	0.0	0.0	0.0	0.0	2.2	49.8	0.0		0.0	
9	0.0	0.0	0.0	0.0	0.0	TR	0.0	1.6	2.2		0.0	
10	0.0	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0		0.0	
	0.0	0.0	0.0	45.5	8.6	10.6	92.5	95.0	26.4		0.0	
11	0.0	0.0	0.0	0.0	0.0	TR	3.2	14.5	0.0		0.0	
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TR	1.2		0.0	
13	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	2.2		0.5	
14	0.0	0.0	0.0	0.0	0.0	30.7	4.2	0.0	0.0		TR	
15	0.0	0.0	0.0	0.0	0.0	21.6	5.0	4.4	17.5		0.0	
16	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.6	1.5		0.0	
17	0.0	0.0	2.8	0.0	0.0	20.4	6.2	4.4	0.5		0.0	
18	0.0	0.0	TR	0.0	0.0	0.0	4.5	2.8	TR		0.0	
19	0.0	0.0	0.0	25.7	0.0	27.4	0.0	1.6	0.0		0.0	
20	0.0	0.0	0.0	0.0	0.0	6.2	0.0	5.2	0.0		0.0	
	0.0	0.0	2.8	25.7	0.0	110.0	23.1	33.5	22.9		0.5	
21	TR	0.0	0.0	1.7	0.0	5.0	0.0	0.0	0.0		5.5	
22	2.0	0.0	0.0	9.0	0.0	0.0	22.6	0.0	0.5		0.0	
23	7.4	0.0	5.6	0.0	0.0	0.0	4.0	0.0	0.0		0.0	
24	0.0	0.0	2.5	0.0	0.0	0.0	8.2	10.2	0.0		0.0	
25	0.0	0.0	5.3	0.0	0.0	0.0	4.2	3.5	0.0		TR	
26	1.0	0.0	5.5	10.1	0.0	12.2	35.6	0.5	5.4		TR	
27	TR	0.0	0.0	0.0	0.0	12.4	2.2	4.5	15.5		0.0	
28	0.0	0.0	0.0	0.0	0.0	8.2	0.0	TR	0.0		0.0	
29	0.0		0.0	0.0	0.0	X	2.2	0.0	0.0		0.0	
30	0.0		10.6	0.0	0.7	X	0.0	4.0	0.0		0.0	
31	0.0		0.0		0.0		0.0	0.0				
Sum	10.4	0.0	29.5	20.8	0.7	37.8	79.0	22.7	21.4		5.5	
M. Sum	10.4		32.3	92.0	9.3	158.4	194.6	151.2	70.7		6.0	
Mean												
Hig.	7.4		10.6	45.5	8.6	30.7	48.6	49.8	17.5		5.5	
Date	23		30	7	5	14	3	8	15		21	
Low												
Date												

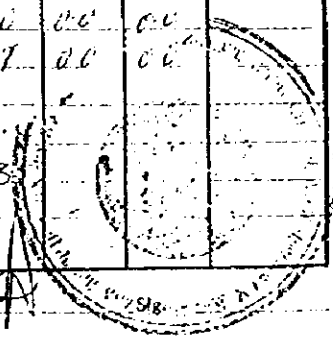


NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: BUYE Woreda: SODO Awraja: NYCOCH & BUTAGIRA Region: SHOA  
 Alt. 2100M Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element DAILY RAIN FALL Year 1987

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	2.7	1.1	TR	0.0	0.0	0.0	0.0
3	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	20.8	TR	0.0	0.0
5	0.0	0.0	3.5	1.4	1.2	0.0	0.0	9.9	10.8	0.0	0.0	0.0
6	0.0	0.0	31.3	46.8	0.1	27.4	2.7	4.3	0.0	0.0	0.0	0.0
7	0.0	0.0	16.1	0.4	3.9	5.3	7.8	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	10.4	15.0	0.1	18.7	1.5	2.5	0.0	0.0	0.0
9	0.0	0.0	1.5	3.8	TR	10.4	18.6	13.9	0.0	0.0	0.0	0.0
10	0.0	0.0	TR	6.8	0.8	1.2	0.7	13.4	0.0	0.0	0.0	0.0
11	0.0	0.8	0.0	1.6	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0
12	0.0	0.0	11.6	0.0	TR	0.0	10.8	0.0	TR	0.0	0.0	0.0
13	0.0	0.0	43.3	0.0	0.2	0.0	TR	14.2	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
15	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	0.0	0.0	0.0
17	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
18	0.0	TR	0.0	0.0	0.0	0.0	0.0	0.5	TR	0.0	0.0	0.0
19	0.0	2.0	1.5	0.0	3.2	0.0	0.0	0.0	3.5	0.0	0.0	0.0
20	0.0	11.9	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	22.5	0.0	1.2	18.2	6.9	1.8	4.9	TR	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	34.3	0.0	7.8	0.0	0.0	TR	0.0	0.0
23	0.0	0.0	0.0	0.0	13.1	0.0	2.9	7.7	8.9	TR	0.0	0.0
24	0.0	0.8	7.0	0.0	33.3	0.0	4.9	0.0	18.9	TR	0.0	0.0
25	0.0	TR	0.0	0.0	13.4	0.0	0.0	0.0	5.9	TR	0.0	0.0
26	0.0	0.1	0.0	0.0	11.3	0.0	0.0	0.0	3.9	0.0	0.0	0.0
27	0.0	8.0	0.0	0.0	13.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0
28	0.0	10.7	30.3	0.0	0.0	TR	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		11.6	0.0	13.8	0.0	TR	0.0	0.0	0.0	0.0	0.0
30	0.0		10.0	0.0	0.0	0.6	0.0	1.4	0.0	0.0	0.0	0.0
31	0.0		23.3		5.8		7.0	15.9		0.0		0.0
Sum	0.0	42.1	82.2	1.2	156.8	7.5	24.4	30.4	37.6	0.0	0.0	0.0
M. Sum	0.0	57.1	207.3	82.5	188.0	57.6	84.6	48.1	26.7	4.7	0.0	0.0
Mean												
Hig.		22.5	43.3	46.8	34.3	27.4	18.7	15.9	20.8	2.4		
Date		26	13	6	22	6	8	31	4	3		
Low												
Date												

Copied by: Name TSEGAYE-ZIMAM Sigs. [Signature] 3-3-1



4<sup>th</sup> class



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: BUEE Wereda: S.D.P.O Awraja: HYKODUJA Region: SHOA  
 Alt. 2102M Long. 38°-35' E Lat. 5°-21' N Element: MEAN RAIN FALL Year: 1989

METRIC UNITS ONLY

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
1	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	15-8	0-0	0-0	0-0	
2	0-0	0-0	0-0	0-0	0-0	0-0	3-8	17-1	1-1	0-0	0-0	0-0	
3	0-0	14-4	0-0	0-0	0-0	0-0	0-0	0-0	0-8	0-0	0-0	0-0	
4	0-0	0-0	0-0	0-0	0-0	0-4	0-4	0-0	0-0	0-0	0-0	0-0	
5	0-0	19-4	0-0	0-0	0-0	0-0	13-2	4-7	0-0	0-0	0-0	0-0	
6	0-0	17-7	0-0	0-0	0-0	0-0	0-5	0-4	0-0	0-0	0-0	0-0	
7	0-0	17-1	0-0	0-0	0-0	0-0	11-7	8-3	4-6	0-0	0-0	0-0	
8	0-0	3-9	0-0	2-5	0-0	8-3	9-9	0-1	15-2	0-0	0-0	0-0	
9	0-0	0-0	0-0	5-6	0-0	TR	18-5	0-5	0-0	0-0	0-0	TR	
10	0-0	0-0	0-0	0-0	0-0	0-5	TR	1-2	0-0	0-0	0-0	0-0	
	0-0	72.5	0-0	6.1	0-0	9.2	58.0	32.3	34.5	0-0	0-0	0-0	
11	0-0	0-0	0-0	4-7	0-0	13-4	12-6	4-7	0-0	0-0	0-0	0-0	
12	0-0	0-0	0-0	0-0	0-0	17-1	7-4	0-0	0-0	0-0	0-0	0-0	
13	0-0	0-0	2-6	0-0	TR	0-0	5-8	17-7	8-1	0-0	0-0	0-0	
14	0-0	0-0	8-6	0-0	TR	0-0	0-1	0-0	3-0	0-0	0-0	0-0	
15	0-0	0-0	11-2	0-0	2-9	0-0	0-0	2-7	0-0	0-0	0-0	0-5	
16	0-0	0-0	0-2	3-7	0-0	1-5	0-0	0-0	0-0	0-0	0-0	0-2	
17	TR	0-0	1-6	0-0	0-0	5-7	11-1	7-4	TR	0-0	0-0	0-0	
18	TR	0-0	0-0	0-0	0-0	0-0	0-0	4-8	0-0	TR	0-0	0-0	
19	TR	0-0	0-0	0-0	0-0	0-0	5-5	0-0	0-0	12-3	0-0	0-0	
20	TR	0-0	0-0	0-8	0-0	0-0	10-6	11-1	0-0	9-8	0-0	0-0	
	0-0	0-0	24.2	9.2	2.9	37.7	60.1	52.4	11.1	22.1	0-0	0-7	
21	0-0	0-0	0-0	0-6	0-0	0-0	17-4	0-0	0-0	0-0	0-0	0-0	
22	0-0	0-0	20-9	6-5	0-0	0-0	0-0	10-9	0-0	0-0	0-0	0-0	
23	0-0	0-0	16-1	18-4	0-0	5-5	7-2	7-8	1-8	0-0	0-0	0-0	
24	0-0	0-0	0-0	8-4	0-0	2-1	1-5	0-0	0-0	0-0	0-0	0-0	
25	0-0	0-0	0-0	TR	0-0	0-2	14-3	TR	0-0	0-0	0-0	28-2	
26	0-0	0-0	0-0	14-5	0-0	0-0	0-0	6-1	15-3	0-0	0-0	11-3	
27	0-0	0-0	TR	0-0	0-0	1-9	0-0	0-0	18-1	0-0	0-0	0-0	
28	0-0	0-0	37-1	0-0	0-0	0-0	10-9	26-2	7-5	0-0	0-0	0-0	
29	0-0		0-0	0-0	0-0	0-0	0-0	16-5	1-5	0-0	0-0	0-0	
30	0-0		6-5	0-0	0-0	3-6	0-0	16-1	0-6	0-0	0-0	0-0	
31	0-0		1-8		0-0		0-0	1-6		0-0		0-0	
Sum	0-0	0-0	82.4	48.4	0-0	13.3	51.3	86.2	44.8	0-0	0-0	39.5	
M. Sum	0-0	72.5	106.6	63.7	2.9	60.2	169.4	170.9	90.4	52.1	0-0	40.2	
Mean													
Hig.		19-4	37-1	18-4	2-9	17-1	19-0	26-9	18-1	12-3		28-2	
Date		5	28	23	15	12	11	28	27	19		25	
Low													
Date													

Copied by: Name REGAIS YIMAM Sig. [Signature] 3-3-2 Sig. \_\_\_\_\_



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: **BUIE** Wereda: \_\_\_\_\_ Awraja: **SODO** Region: **SHOA**  
 Alt: \_\_\_\_\_ Long: \_\_\_\_\_ Lat: \_\_\_\_\_ Element: **Daily Rain Fall** Year: **1990**

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	TR	3.0	0.0	0.0	23.1	15.2	0.0	0.0	0.0	
2	0.0	2.6	4.2	3.1	0.0	0.7	0.0	31.0	1.2	1.9	0.0	
3	0.0	8.4	0.0	35.4	0.0	1.2	TR	10.0	0.0	TR	0.0	
4	0.0	10.6	3.0	21.4	0.0	0.0	44.5	0.5	0.0	TR	0.0	
5	0.0	3.5	1.9	0.3	0.0	4.2	0.5	0.0	TR	0.0	0.0	
6	0.0	38.2	2.8	4.0	0.0	1.4	10.5	1.1	9.8	0.0	0.0	
7	0.0	15.0	29.0	8.3	0.0	22.8	0.0	11.3	8.9	TR	0.0	
8	0.0	15.3	TR	6.9	0.0	TR	3.6	1.2	0.0	0.0	0.0	
9	0.0	TR	1.4	0.0	0.0	5.4	0.0	0.0	5.6	0.0	0.0	
10	0.0	17.8	0.0	0.0	0.0	0.0	3.9	5.2	TR	0.0	0.0	
	0.0	111.4	43.3	82.4	0.0	35.7	86.1	75.5	35.5	1.9	0.0	
11	0.0	0.0	0.0	X	10.1	0.0	0.7	36.8	0.0	0.0	0.0	
12	0.0	0.0	0.0	0.0	1.5	0.0	9.2	21.0	TR	0.0	0.0	
13	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	
14	0.0	8.3	0.0	0.0	0.0	0.0	3.6	14.2	0.0	0.0	0.0	
15	0.0	0.0	0.0	0.0	0.0	0.0	9.6	TR	TR	0.0	0.0	
16	0.0	1.1	0.0	0.0	0.0	1.7	1.8	28.3	0.0	0.0	0.0	
17	2.4	14.1	0.0	0.0	TR	0.0	TR	TR	0.0	0.0	0.0	
18	TR	2.1	0.0	TR	9.0	0.0	32.8	3.2	0.0	0.0	0.0	
19	0.0	1.9	0.0	0.0	1.1	2.5	0.4	9.6	1.0	0.0	0.0	
20	0.0	0.7	0.0	7.1	4.6	TR	3.6	4.2	0.0	0.0	0.0	
	2.4	28.2	0.0	7.1	26.3	4.2	38.7	117.3	1.0	0.0	0.0	
21	0.0	0.6	26.4	TR	0.0	0.2	2.5	TR	0.6	0.0	0.0	
22	0.0	2.4	0.0	0.0	0.0	TR	TR	3.1	12.9	0.0	0.0	
23	0.0	26.0	TR	2.6	TR	0.0	17.4	11.9	0.0	0.0	0.0	
24	0.0	9.2	0.0	TR	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
25	0.0	71.0	0.0	0.2	0.3	0.0	3.5	TR	1.0	0.0	0.0	
26	0.0	0.1	0.0	1.6	0.0	0.0	0.0	0.0	8.6	0.0	0.0	
27	0.0	2.6	0.0	0.0	0.0	0.0	0.0	5.0	TR	0.0	0.0	
28	0.0	36.1	0.0	15.6	5.0	0.0	20.0	15.7	2.5	0.0	0.0	
29	0.0		0.0	0.0	1.1	0.0	5.0	7.7	1.3	0.0	0.0	
30	0.0		22.8	0.0	3.2	0.0	6.0	0.4	TR	0.0	0.0	
31	0.0		0.6		1.7		0.0	0.2		0.0		
Sum	0.0	148.0	49.8	80.0	12.5	0.2	54.4	44.0	26.9	0.0	0.0	
M. Sum	2.4	287.6	98.1	109.5	38.8	40.1	213.2	236.8	53.4	1.9		
Mean												
Hig.	2.4	71.0	29.0	35.4	10.1	22.8	44.5	36.8	12.9	1.9		
Date	17	25	7	3	11	7	4	11	22	2		
Low												
Date												

Copied by: Name **Getachew Yimer** Sig. **3-3-3**

1st class



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: BULE Wereda: \_\_\_\_\_ Awraja: SODO Region: SHOA

Alt. \_\_\_\_\_ Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element: MAX. RAIN FALL Year: 1991

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	00	00	5.7	00	X	35.2	TR	19.6	00	00	00
2	00	00	00	0.2	00	X	5.8	00	1.7	00	00	00
3	00	00	00	00	00	X	9.7	3.8	00	00	00	00
4	00	00	00	00	00	X	13.6	8.6	5.9	00	00	00
5	00	00	25.5	00	00	X	10.9	19.6	20.0	00	00	TR
6	00	00	25.8	00	3.7	X	16.9	3.2	00	00	00	00
7	2.6	00	00	00	00	X	00	13.5	00	00	00	00
8	00	8.0	15.4	00	TR	X	9.6	TR	17.0	00	00	00
9	00	6.2	3.8	00	00	X	4.6	21.7	0.3	00	00	00
10	00	TR	33.4	00	00	X	13.0	00	00	0.0	00	00
	2.6	14.2	80.9	5.9	3.7	R	119.3	76.4	64.5	00	00	00
11	00	30.5	TR	00	00	X	00	0.4	30.0	00	00	00
12	00	7.2	12.4	00	00	X	00	00	12.6	00	00	00
13	00	1.5	1.8	00	00	X	13.5	18.7	00	00	00	00
14	00	0.5	00	00	00	X	00	00	00	00	00	00
15	00	11.5	00	00	00	X	24.3	20.0	00	00	00	00
16	00	TR	00	00	00	X	2.8	19.6	00	00	00	00
17	00	00	00	00	00	X	17.4	00	TR	00	00	00
18	00	00	00	00	00	X	5.0	9.2	0.2	00	00	00
19	00	15.4	00	00	00	X	TR	00	00	00	00	00
20	00	12.0	00	00	00	X	11.6	4.4	00	00	00	00
	00	68.6	14.2	00	00	X	80.6	72.3	42.8	00	00	00
21	00	0.3	00	00	00	X	3.4	37.2	0.8	00	00	0.5
22	00	00	00	00	9.7	X	00	13.4	0.9	00	00	TR
23	00	7.9	0.3	00	TR	16.4	00	3.2	00	00	00	00
24	00	00	18.0	00	00	00	00	7.3	00	00	00	00
25	00	TR	0.9	00	00	4.1	17.7	3.3	00	00	00	00
26	00	00	0.3	00	X	23.0	19.4	0.3	00	00	00	00
27	00	00	13.0	00	X	3.3	00	00	00	00	00	00
28	00	00	00	00	X	8.9	13.1	19.1	00	00	00	00
29	00		28.0	00	X	27.7	14.4	7.6	00	00	00	00
30	00		7.6	00	X	5.5	10.9	9.5	00	00	00	00
31	00		X	X	X		TR	15.5		00		00
Sum	00	8.2	68.1	00	9.7	188.9	78.9	116.4	1.7	00	00	0.5
M. Sum	2.6	91.0	163.2	5.9	13.4	188.9	278.8	265.1	109.0	00	00	0.5
Mean												
Hig.	2.6	30.5	33.4	5.7	9.7	27.7	35.2	37.2	30.0			0.5
Date	7	11	10	1	22	29	1	21	11			21
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

1st class

Station: BULE ..... Wereda ..... Awraja SODO ..... Region SHOA .....  
 Alt. .... Long. .... Lat. .... Element DAYS RAINFALL Year 1992 .....

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	22.3	00	14.7	00	00	00	4.6	27.1	00	00	00
2	00	00	00	6.8	00	00	14.0	20.3	0.8	00	00	00
3	00	00	00	3.8	00	00	6.4	44.5	00	1.5	00	00
4	00	2.6	00	1.2	00	00	23.2	0.9	00	00	00	00
5	00	TR	00	1.3	00	3.2	10.0	TR	00	3.2	00	00
6	00	00	00	00	00	9.0	00	23.4	14.0	1.5	00	00
7	00	00	00	00	00	00	4.4	4.2	29.2	00	00	00
8	00	1.4	00	14.0	00	28.5	00	1.2	00	35.8	00	00
9	00	5.6	00	00	4.5	TR	3.4	8.0	8.0	00	00	00
10	TR	14.0	00	00	00	00	7.5	X	0.3	00	00	6.7
	0.0	46.8	0.0	41.8	4.5	40.7	68.9	107.1	79.4	42.0	00	6.7
11	00	00	00	00	00	00	3.2	X	00	16.3	4.2	00
12	00	00	00	00	00	2.8	6.8	2.2	TR	4.5	00	00
13	00	00	00	00	00	4.2	00	X	00	00	0.2	00
14	00	00	00	00	00	10.0	3.2	5.4	00	00	00	00
15	00	00	00	00	00	00	9.3	0.8	00	00	00	00
16	00	00	00	00	00	00	41.0	7.8	TR	00	00	00
17	00	1.4	TR	00	00	0.6	0.4	3.0	00	00	00	00
18	0.2	00	0.4	00	00	00	17.3	00	3.5	00	00	00
19	00	00	00	00	00	00	4.5	5.0	7.7	00	00	00
20	00	00	00	00	00	00	14.7	4.1	4.3	00	00	00
	0.2	1.4	0.4	0.0	00	17.6	102.4	28.3	15.5	20.8	4.4	00
21	00	00	00	00	00	1.8	00	4.3	1.7	00	00	00
22	16.9	00	00	00	00	4.3	10.0	8.5	TR	00	00	00
23	TR	00	00	00	00	3.3	19.8	0.5	00	00	00	00
24	0.3	2.1	00	2.2	TR	00	4.2	00	00	00	00	00
25	1.8	00	00	7.4	17.0	2.2	00	3.4	00	00	00	00
26	3.0	00	00	30.2	00	11.9	00	6.5	00	00	00	0.7
27	6.4	00	7.8	00	00	TR	3.7	7.0	00	00	00	0.2
28	2.2	00	TR	00	00	16.0	00	8.0	00	00	00	00
29	41.2	00	00	7.5	00	12.8	15.9	00	00	00	00	00
30	00		00	00	00	00	00	2.2	00	00	00	00
31	6.5		00		00		0.4	62.0		00		00
Sum	78.3	21.1	7.8	48.5	17.0	53.2	54.0	102.1	1.7	00	00	0.7
M. Sum	78.5	56.3	8.2	90.3	21.5	110.6	223.3	237.5	96.6	62.8	4.2	7.6
Mean												
Htg.	41.2	22.3	7.8	30.2	17.0	28.5	41.0	62.0	29.2	35.8	4.2	0.7
Date	23	1	27	26	25	8	16	31	7	8	11	26
Low												
Date												





NATIONAL METEOROLOGICAL SERVICES AGENCY

5<sup>th</sup> class

Station: BULF Wereda: Awraja Region: SIIOA  
 Alt.            Long.            Lat.            Element 122.5 Year 1993

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	00	00	00	00	00	13.1	17.2	8.5	00	31.6	00	
2	00	TR	00	00	00	00	9.3	14.6	16.0	7.6	00	
3	00	TR	00	9.9	00	00	00	3.6	13.2	2.6	00	
4	00	00	00	X	00	00	00	00	17.4	00	00	
5	00	2.6	00	00	00	TR	1.2	5.3	2.3	13.0	00	
6	00	4.5	1.6	00	TR	1.9	4.7	00	TR	00	00	
7	00	3.4	00	00	00	00	00	27.2	TR	X	00	
8	00	10.0	00	00	00	4.8	10.0	00	00	00	00	
9	00	00	00	00	00	00	13.3	00	00	00	00	
10	00	17.3	00	00	00	1.2	00	10.1	X	00	00	
	00	37.8	1.6	9.9	00	21.0	55.7	69.3	18.9	5.1	4.1	
11	00	13.1	00	X	00	00	21.8	1.4	X	00	00	
12	00	00	00	00	4.4	00	13.2	6.5	X	00	00	
13	00	00	00	12.5	7.0	00	13.9	12.9	TR	00	00	
14	00	00	00	12.9	46.7	00	00	00	00	00	00	
15	00	00	00	3.5	00	00	00	00	3.0	00	00	
16	0.8	00	00	6.0	00	2.7	11.0	00	1.8	00	00	
17	00	00	9.2	31.0	00	X	18.9	00	00	00	00	
18	00	00	00	00	00	X	14.8	5.0	00	00	00	
19	00	00	00	4.3	X	X	4.3	33.7	2.7	00	00	
20	00	00	00	42.6	X	22.8	4.2	2.7	00	00	00	
	0.8	13.1	9.2	112.8	58.1	25.5	102.1	62.2	7.5	00	00	
21	00	00	00	00	13.5	00	00	X	00	X	00	
22	00	00	00	00	1.6	00	00	21.9	00	00	00	
23	TR	00	00	00	00	00	8.4	10.0	00	00	00	
24	TR	00	00	00	00	10.0	25.5	00	00	00	00	
25	5.6	00	X	TR	00	00	00	7.4	20.0	00	00	
26	TR	00	00	00	1.5	00	4.4	00	00	5.6	00	
27	2.0	00	00	00	00	8.6	26.0	00	7.8	48.8	00	
28	00	00	00	7.5	5.2	15.0	14.6	6.1	17.7	00	00	
29	00	00	00	11.9	00	TR	00	5.0	21.9	2.9	00	
30	TR	00	00	00	13.9	00	X	X	00	00	00	
31	00	00	00	3.3			X	X		00		
Sum	7.6	00	00	19.4	39.0	33.6	80.9	50.4	48.4	54.3	00	
M. Sum	7.6	50.9	10.8	12.1	96.1	80.1	238.7	181.9	101.8	112.3	00	
Mean												
Hig.	5.6	17.3	9.2	42.6	46.7	22.8	28.0	33.7	20.0	48.8		
Low	2.5	1.0	1.7	2.0	1.4	2.0	2.7	1.9	2.5	2.7		
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

Station: BUTE Wereda Awraja Region STOA  
 Alt. \_\_\_\_\_ Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element Daily Rain Fall Year 1994  
 COMMERCIAL P. E. 43003/86

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	4.6	0.0	0.0	20.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	15.0	6.7	5.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	TR	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	14.8	0.0	0.0	0.0
5	0.0	X	0.0	0.0	0.0	15.5	19.5	0.0	0.0	0.0	0.0	14.6
6	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	1.7	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	4.5	25.5	TR	0.0	0.0	5.1	0.0
10	0.0	0.0	0.0	0.0	24.5	8.1	0.0	5.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	24.1	29.3	53.6	52.5	24.5	0.0	5.1	14.6
11	0.0	0.0	0.2	0.0	0.3	21.0	14.2	5.3	2.3	0.0	0.0	0.0
12	0.0	0.0	12.7	0.0	0.0	10.0	0.5	TR	3.3	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	13.3	0.0	24.5	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	1.5	2.3	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	3.2	23.6	3.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	4.5	9.8	0.0	8.8	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	7.6	4.4	15.2	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0	14.8	0.0	0.0	0.0
19	0.0	0.0	0.0	5.9	0.0	23.5	0.0	0.0	2.2	0.0	0.0	0.0
20	0.0	0.0	0.0	4.5	0.0	5.8	0.0	5.0	3.0	0.0	5.7	0.0
	0.0	0.0	19.9	26.0	12.4	92.5	61.8	46.6	38.6	0.0	5.7	0.0
21	0.0	0.0	0.0	1.1	0.0	0.0	11.5	9.4	TR	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	TR	0.0	9.8	24.2	0.0	0.0	0.0
23	0.0	0.0	0.0	TR	0.0	1.9	4.4	0.0	9.5	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	3.5	2.8	TR	1.4	0.0	0.0	0.0
25	0.0	0.0	5.5	0.0	0.0	6.2	4.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	31.0	0.0	0.0	9.6	5.8	20.0	0.0	0.0	0.0	0.0
27	X	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0
28	X	0.0	2.4	0.0	0.0	20.0	14.1	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	TR	13.3	10.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	X	0.0	TR	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum	0.0	0.0	38.9	1.1	0.0	41.2	55.9	64.4	38.1	0.0	0.0	0.0
M. Sum	0.6	0.0	51.8	24.1	49.5	173.6	140.7	165.5	91.2	0.0	10.8	14.6
Mean												
Hig.			31.0	15.6	27.5	23.5	25.5	24.5	24.2		5.7	14.6
Date			28	18	10	19	9	13	22		20	5
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY

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Station: BUJE Wereda: \_\_\_\_\_ Awraja: \_\_\_\_\_ Region: SHOA  
 Alt. \_\_\_\_\_ Long. \_\_\_\_\_ Lat. \_\_\_\_\_ Element: Daily Rain Fall Year: 1995

COMMERCIAL P. E. 4305/86

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0	0.0	0.0	0.0	0.0	0.0	29.0	6.0	19.0	0.0	0.0	0.0
2	0.0	0.0	3.4	0.0	0.0	0.0	0.0	9.2	8.8	0.0	0.0	0.0
3	0.0	0.0	0.0	26.3	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	20.0	24.5	12.2	0.0	0.0	0.0
5	0.0	0.0	14.1	18.7	23.8	0.0	4.6	0.0	52.8	0.0	0.0	X
6	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	1.7	0.0	0.0	X
7	0.0	7.5	0.0	71.6	0.0	0.0	0.0	0.0	15.9	0.0	0.0	4.7
8	0.0	5.0	0.0	0.0	24.0	0.0	7.4	30.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	28.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
10	0.0	0.0	54.7	0.0	0.0	0.0	11.6	37.0	0.0	0.0	0.0	0.0
	0.0	7.5	72.2	116.6	78.8	0.0	44.5	111.7	101.4	0.0	0.0	4.7
11	0.0	0.0	TR	0.0	24.9	0.0	11.6	5.5	0.0	0.0	0.0	0.0
12	0.0	1.9	0.0	0.0	TR	4.0	1.6	0.0	0.0	0.0	0.0	0.0
13	0.0	5.0	0.0	0.0	0.0	0.0	14.9	3.6	0.0	0.0	0.0	0.0
14	0.0	0.6	0.0	56.4	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0
15	0.0	36.9	0.0	1.5	4.5	7.5	0.0	8.1	0.0	TR	0.0	0.0
16	0.0	0.0	0.0	16.0	0.0	5.4	41.8	0.0	4.4	0.0	0.0	0.0
17	0.0	0.0	0.0	16.8	0.0	0.0	7.5	0.0	24.9	0.0	0.0	3.0
18	0.0	0.0	0.0	6.0	0.0	22.5	4.2	0.0	4.1	0.0	0.0	TR
19	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0
	0.0	44.4	0.0	0.6	39.9	34.0	81.6	21.3	39.4	0.0	0.0	5.1
21	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	5.5	0.0	0.0	5.2	3.1	6.3	0.0	0.0	0.0	0.0
23	0.0	0.0	8.5	13.7	0.0	24.6	15.1	5.7	7.4	0.0	0.0	0.0
24	0.0	0.0	0.0	11.7	0.0	1.7	0.0	10.0	12.2	3.6	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	21.5	12.5	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	15.8	0.0	11.9	4.8	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	TR	TR	0.0	0.0	8.7	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	22.7	7.8	0.0	5.4	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	5.9	0.0	0.0	TR	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	13.7	22.8	5.4	14.8	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	21.4
Sum	0.0	0.0	17.6	41.2	52.3	71.0	40.9	63.4	19.6	3.6	0.0	21.4
M. Sum		56.9	87.8	254.5	171.0	116.2	303.0	40.4	169.7	3.6	0.0	21.1
Mean												
Hig.		36.9	54.7	56.4	39.7	24.6	41.8	39.0	52.8	3.6		21.4
Date		15	10	11	28	23	16	10	5	24		31
Low												
Date												

Copied by: Name \_\_\_\_\_  
 /m.

Sig. \_\_\_\_\_ 3-3-8 \_\_\_\_\_

Sig. \_\_\_\_\_



NATIONAL METEOROLOGICAL SERVICES AGENCY 1<sup>st</sup> class

Station: BULE Wereda Awraja Region SHOA  
 Alt.                      Long.                      Lat.                      Element DAIly RAIN FALL Year 1996

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	22.4	0.0	0.0	0.0	0.0	0.0	0.0	18.8	0.0	1.9	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	2.2	15.6	36.0	24.7	0.0	0.0	0.0
3	67.0	0.0	0.0	0.0	0.0	TR	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	8.9	11.0	0.0	3.2	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0	TR	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	22.5	16.7	14.3	0.0	7.3	0.0	0.0
7	18.6	0.0	1.2	0.0	0.0	0.0	12.9	2.4	8.7	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	27.5	18.8	1.7	0.0	0.0	0.0	0.0
9	0.0	0.0	1.4	0.0	0.0	8.7	24.2	6.3	12.8	0.0	0.0	0.0
10	0.0	0.0	4.3	0.0	6.5	21.5	0.0	8.4	12.7	2.5	0.0	0.0
	108.0	0.0	6.9	0.0	6.5	103.2	97.2	51.9	62.1	11.7	0.0	0.0
11	0.0	0.0	8.5	0.0	8.3	7.2	13.9	37.5	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	x	12.5	11.5	8.2	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	x	20.0	2.2	0.0	14.6	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	x	0.0	TR	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	x	9.5	8.3	12.1	0.0	0.0	1.7	0.0
16	0.0	0.0	35.0	0.0	0.0	10.0	5.5	20.0	0.0	0.0	3.0	0.0
17	8.9	0.0	TR	0.0	53.5	0.0	10.0	2.7	0.0	0.0	0.0	0.0
18	0.0	0.0	16.6	4.5	7.0	5.0	5.8	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	5.6	2.7	3.7	0.0	0.0	0.0
20	0.0	0.0	2.9	5.4	0.0	13.9	11.2	17.7	6.6	0.0	0.0	0.0
	8.9	0.0	63.0	9.9	68.8	28.1	74.0	100.9	24.9	0.0	4.7	0.0
21	0.0	0.0	0.0	0.0	13.2	0.0	6.4	18.8	0.0	0.0	0.0	0.0
22	0.0	0.0	16.0	0.0	x	TR	14.0	3.0	0.0	0.0	0.0	0.0
23	0.0	0.0	78.9	0.0	x	9.0	12.0	25.8	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	x	1.4	0.0	2.2	3.3	0.0	0.0	0.0
25	0.0	0.0	17.5	0.0	x	22.0	9.8	9.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	2.0	2.4	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	6.6	0.0	4.5	0.0	18.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	TR	9.0	0.0	0.0	3.5	3.0	0.0	0.0	0.0	0.0
29	0.0	0.0	2.2	16.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Sum	0.0	0.0	121.2	25.0	17.7	34.4	76.1	79.8	3.3	0.0	0.0	0.0
M. Sum	16.9		191.1	34.9	93.0	215.7	249.3	268.6	90.3	11.7	4.7	
Mean												
Hig.	67.0		78.9	16.0	53.5	27.5	24.2	37.5	24.7	7.3	3.0	
Date	3		23	29	17	6	9	11	2	6	16	
Low												
Date												



NATIONAL METEOROLOGICAL SERVICES AGENCY 1<sup>st</sup> class

Station: BUJE Wereda: Awraja Region: SIIOA  
 Alt: ..... Long: ..... Lat: ..... Element: DAILY RAIN Year: 1997

Items P.E

Date	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	0.0		0.0	0.0	0.0	12.3	4.2	0.0		0.0		
2	0.0		0.0	13.7	0.0	7.0	5.5	13.2	2.2			
3	0.0		0.0	0.0	0.0	TR	4.2	0.0	2.4			
4	0.0		0.0	0.0	0.0	TR	2.9	0.0	0.0			
5	0.0		0.0	7.7	0.0	2.6	TR	3.0	TR			
6	0.0		0.0	1.5	0.0	0.0	11.0	12.7	TR			
7	0.0		0.0	23.2	0.0	0.0	0.0	0.0	0.0	4.4		
8	X		0.0	0.0	0.0	2.0	0.0	TR	0.0	0.0		
9	0.0		0.0	0.0	0.0	0.0	3.3	22.0	0.0	0.0		
10	0.0		0.0	0.0	0.0	0.0	2.1	12.0	0.0	0.0		
	0.0		0.0	1.1	0.0	2.1	0.0	1.2				
11	0.0		0.0	0.0	0.0	TR	0.0	2.0	0.0	0.0		
12	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	
13	0.0		0.0	0.0	0.0	5.5	0.0	11.4	3.6	0.0	0.0	
14	0.0		0.0	0.0	0.0	8.5	0.0	0.0	TR	0.0	4.3	
15	0.0		0.0	0.0	0.0	0.0	6.0	TR	2.5	0.0	0.0	
16	0.0		0.0	0.0	0.0	0.0	11.6	0.0				
17	0.0		5.6	0.0	1.8	0.0	5.8	0.0	0.0	0.0	0.0	
18	0.0		TR	0.0	6.0	2.3	0.0	3.5	0.0	3.0	0.0	
19	0.0		0.0	20.7	0.0	0.0	8.4	1.9	0.0	20.0	0.0	
20	0.0		0.0	5.0	0.0	46.7	31.3	2.7	0.0	TR	0.0	
	0.0		5.6	0.0	0.0	0.0	0.0	0.0				
21	TR		0.0	20.0	1.0	2.5	0.0	23.6	2.0	18.2	0.0	
22	13.9		0.0	0.7	0.0	0.0	8.4	0.0	0.0	0.0	0.0	
23	5.8		16.1	0.0	0.0	0.0	31.3	31.1	0.0	1.6	0.0	
24	0.0		5.0	0.0	0.0	6.2	11.5	0.0	0.0	0.0	0.0	
25	0.0		2.5	0.0	0.0	0.0	0.0	1.3	0.0	2.0	0.0	
26	5.7		0.0	9.3	0.0	0.0	0.0	1.0	3.5	0.0	0.0	
27	7.5		3.3	0.0	0.0	2.9	0.0	6.0	8.3	0.0	0.0	
28	0.0		0.0	0.0	0.0	0.0	6.7	7.8	0.0	0.0	0.0	
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30	0.0		16.4	0.0	0.0	1.9	0.0	0.0	0.0	1.2	0.0	
31	0.0		4.9		2.1		4.5	1.0				
Sum	32.9		48.2	3.1								
M. Sum	32.9		53.8	11.2								
Mean												
Hig.	13.9		16.4	23.2	6.0	46.7	31.3	23.6	8.5	33.0	15.0	
Date	22		30	7	18	20	20	21	1	30	30	
Low												
Date												