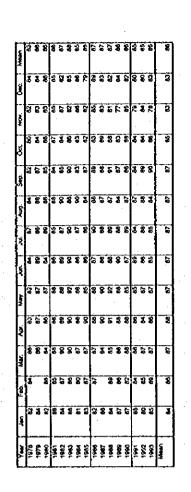
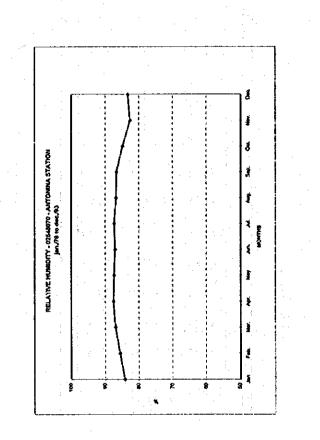
RELATIVE HUMHDRY (%) 02548070 - ANTONIKA STATION



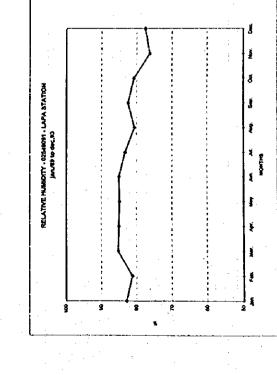


G

аl 22222222222222222 8: N 232352828 ŧ 8588228888 888 į 8386836838E8 8 đ NELATIVE HUMBOTY - 02549006 - CURITIEA 57ATION Jan/74 to aug/93 8288 222322223 2 ŝ ź 8282828282828 9 ¥ MONTHE 2222222222 18 Ŷ Ē ş 8 8 3 28532228 ŝ RELATIVE HUMIDITY (%) 02549000 - CURMBA STATION 8883 2388888866 3 2 88888888888 2 55 8 ł ź 822353323323 5 8 5 į 8 8 8 Ř 3 8 3535 2222 5 ۰. 2 8791 8791 8791 8791 ş I - 182

RELATIVE HUMBOTY (%) 02548081 - LAPA STATION

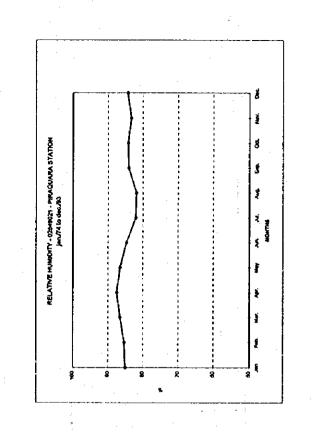
and l	-	Mer.		N.	ş	- File	ý.	3	ġ	NON.	ð	Mean
10 .	219 1	3	8	67	8		8	9.9	67	22	9	đ
 8	2		8	-	3	6	5	8	82	ŝ	19	82
 1		3	ð			70	ġ.	¢.		2	2	
2	P	8	8		2	10	70	3	52	2	2	8
 62			*	85		8	26	87		7	61	
 3	18	ŝ	-	5	5	3	5	28	- 16	92	94	62



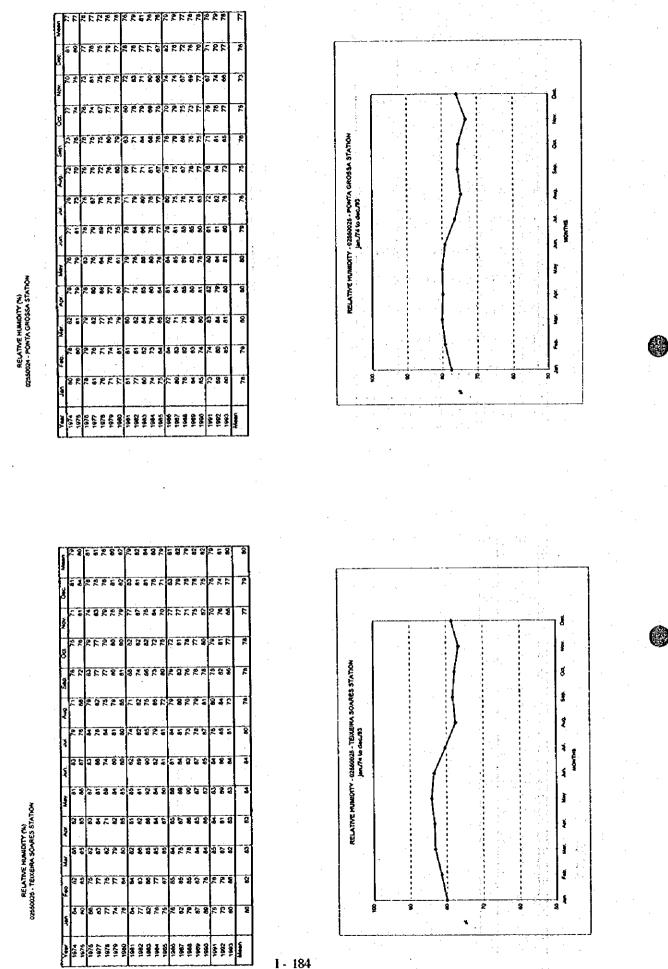


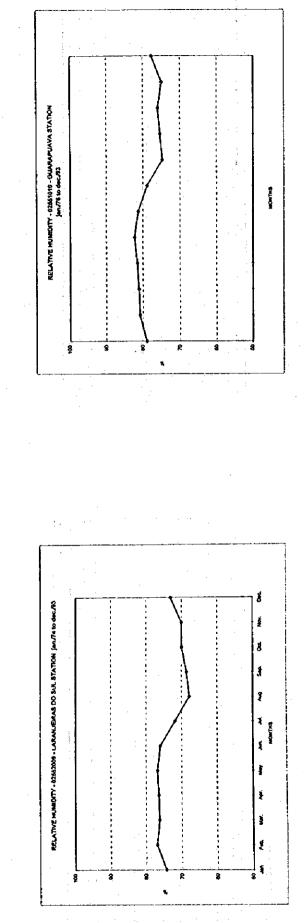
9

Line i	1 3	8	3	8	5	3	2	3	8	1	2	8	ľ	8	2	\$	C.	2	8	8		¥
8	62	\$	8	8	2	8	8	8	2	50	90	2	8	8	3		5	10%	2	g		3
NON	ŝ	5	8	\$	3	2	2	20	8	R	3	2	Ē	5	R	£	8	9	8	2		2
8	3	8	ă	10	8	2		87	3	\$	8	8	2	8	3	3	65	61	2	1		2
Sec.	. 20	8	3	8	8	3	6	2	Ŋ	8	20	8	9	3	R	3	8	3	47			2
Aug.	62	8	8	R	2	5	2	78	8	2	3	2	10	8	2	5	5	82	8	9,		2
Jul. I	3	8	3	2	82	2	ł	14	5	3	2	5	50	3	5	R	8	2	90°	2		20
, unit	3	8	8	8	2	3	8	18	5	. 67	10	8	83	62	8	8	8	3	2	\$	 	×
, inv	8	58	8	8	r	8	85	8	2	8	z	23	8	8	2	8	ŝ	3	87	\$ \$		5
۷u.	96	8	\$	8	8	2	8	8	4	5	20	8	\$2	8	8	B	\$	8	20	8		8
Nier. 5	C 0	3	8	8	2	8	Z) și	8	8	6	97	8	8	1	5	8		8	8	-	28
Teb.	8	2	10	8	2	2	10	8	50	28	8	8	8	10	8	28	8	3	8	1		28
ų	3	8	92	5	2	3	3	8	\$	8	8	Ĵ	10	8	3	3	* -	3	R			1 5 8
į	- 6/	2461	1976	10	6/6/	ŝ	1980	1991	1962 1	583	10 M	1000	600	200	1964	ŝ	8	185	ğ	8		•••



I - 183





R2288222282222222222

. .

\$ 6

3 8

ł

ž

į

2282222222222222222

28283R8282228328282

323222223388235222

828283828382828888888

84869892628898

2322222228822882288

22328888238238238

8688888666666888888

232238888888888888888

33128R23282823R

1991 - 1991 - 1992 - 1992 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 19

2

Ē

ē

۶

2

3

£

2

2

4

2

1

2

)

RELATIVE HUMIOTY (%) 02551010 - GUARAPUAVA STATION

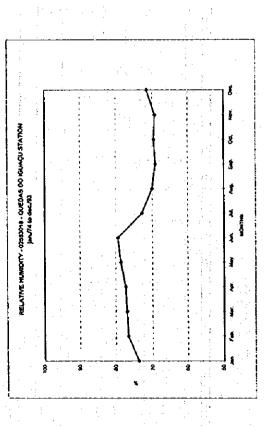
אניאנאנער אואוטער (א) מנאנצטטט - גאנאעובאאנג טס גער גיגאווטא

1 - 185

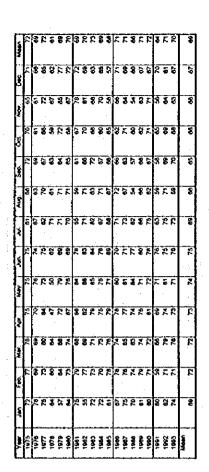
RELATIVE HUMBITY (%) 02553018 - QUEDAS OO IGUAÇU SYATION

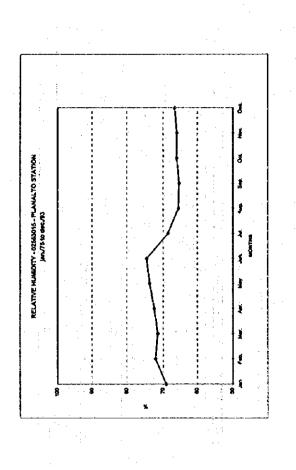
\$ \$ R ******************* * 8 2 Z 12/27 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26 27/26

I - 186



RELATIVE HUMBORY (%) 02553015 - PLANALTO STATION

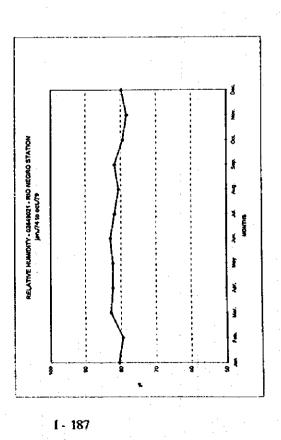






RELATIVE HUMBOTY (%) 02849021 - RIÓ NÉGRÓ STATIÓH

4	Ne.	ž	i i	Ę	ż	Ş	Ĵ	ਲ 8	ž	ő	Si al
8	3	1	10	3	2	*			ĺ		2
	3	2	8	8	\$	20			\$	2	0
	1	3	3	3	Şą	5					3
	3	50	3	8	2	5	-			-	2
	2	2	2	78	ž	8	8	у,			2
	8	8	2	8	8	59	. 1				5
	1	8	2	ŝ	5	19	29	- 02	94. ·	8	5



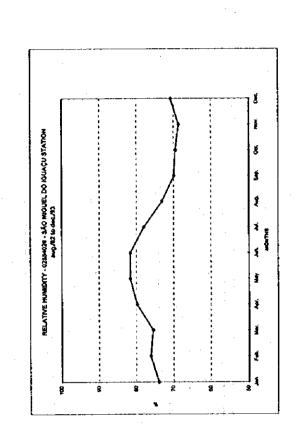
Ľ

ĸ

Ā

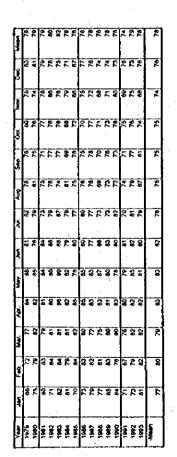
Ŕ

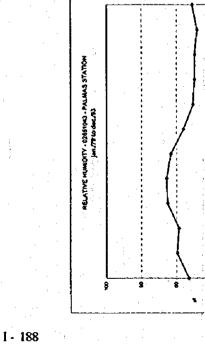
z

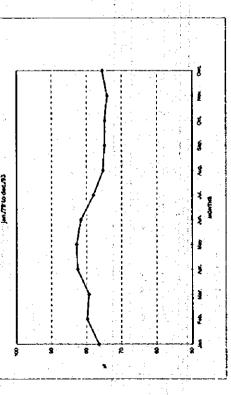


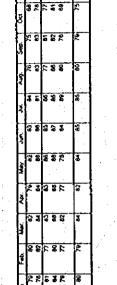
RELATIVE HURIOTY (%) 02554026 - SAD MIGUEL DO IGUAÇU STATION



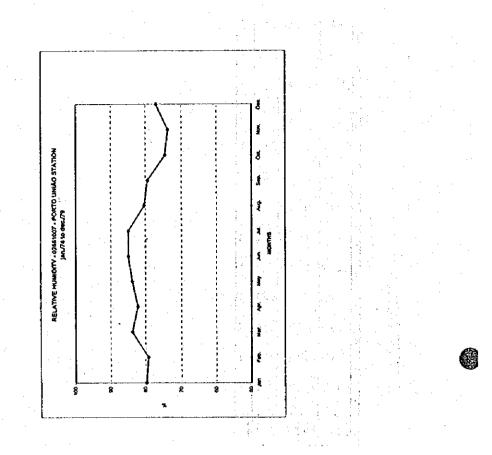






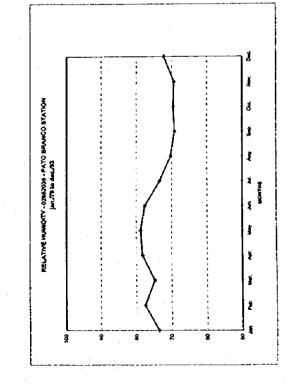


RELATIVE HUMBORY (%) 02651007 - PORTO UNIÃO STATION



RELATIVE HUMBOTY (%) 02652035 - PATO BRANCO STATION

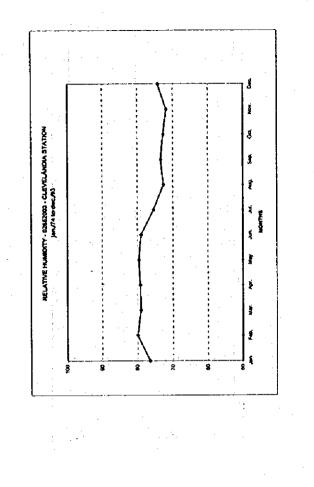
Mean	22	2	2	2	2	2	22	75	£	£	2	2	g.	2	ž		74
Dec				•			-	8	12	() ()	2	5	22	3	74		72
39	62	8	1	2	R	2	8	14	\$	8	6	e .	3	2	8		68
10 0	*2			•		-	-	Ī		Ť		-		2			2
ġ	67	88	3	8	2	8	R	2	R	5	*	2	8	2	4		8
- Conv				• ,	·		•				2			52			2
Ż				-		-	ć			-				2			2
Ś	114	60	97	\$	2	2	7.5	76	2	3	5	2	70	2	1		2
NaM.					-	-								3			Ŕ
ž				1			-				-	-		2			
3		76				1			i.					8			22
1	8	76	8	5	2	78	2	18	82	78	3		ş	2	80		*
Į	3	8	11	8	2	8	8	72	2	2	3	2	8	5	82		2
705	9	1980	19	2001	1965	1	1005	1466	1991	1000	1969	900	12.	1082	1003	ş	



RELATIVE AUMONY (%)

1

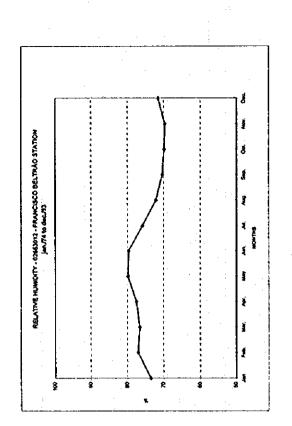
5	Um P	\$	Mur.	Apr.	1	ş	1	Aug.	Sec.	06	NON.	0.000	
1974	67	10	Ī	144	9, ,	92	14	52	89	139			
1075	4	24	-	2	2	P	2	£	8	192			
9/6	1	2		Ē	3	10	28	\$	73	¢.			
101	14	e.		1	£	4	80	£	2	2			
197.0	2	8		8	2	8	2	8	2	8			Ŧ
1070	8	Ĩ.		¢	5	P	75	ž		2			
500	2	8		4	5	F	4	4	3	£			
19	2	8		12	14	8	2	20	38	54			
1982	3	8	•	7	4	8	22	2	74	2			78
1001	5	3		8	g		8	2	7.0	2			
1		24	;	6	8	2	2		3	3			
3		8	68	-	1		10	ř	È.	F	65	3	
200	2	3		I	3	Ē	87	11	ž	90			
1007	8	â		, CB	\$	ž	4	4	70	32	2		
3	4	2		3	8	3	8	2	10	3	\$		
000	58	1		62	2	3	R	2	26	R	3		•
0001	8	R		2	7	8	5	8	73	9	2		
100	33	8		8	ŝ	8	3	1	60	Σ	8	\$2	
200	2	5		2	8	8	5	2	2	£	Ê		2
8	8	12		00	2	8	78	67	63	76	\$		
ş	· ·						1	1	1	1	1		
	1	ā		2	5	ľ		Ì		2			



I - 189

RELATIVE HUMIOTY (%) 02452012 - FRANCISCO BELTRÃO STATION

		1	ľ	2		\$		00 9/	_	22			Ī	_	24		22	63 65			4 5
		R																	3		3
ž	14	3	3	X	5	2	Z	14	2	3	2	C	3	62	5	8	8	11	5	2	
l der	7	4	8	2	3	Ŷ.	5	44	73	67	8	R	85	60	8	2	8	94	3	8	5
Jun.	94	2	8	*	8	ž	2	\$2	2	3	8	4	1	2	8	z	29	3	3	24	
5	2	88	5 8	20	R	78	2	3	2	8	92	2	78	78	80	R	8	12	2	1	7
ANG.	49	75	22	15	29	2	£	3	4	8	Ŕ	2	2	*	3	2	20	30	2	67	ŗ
Ś	\$	4	72	2	5	5	\$	67	2	22	8	2	72	2	3	2	74	8	2	2	ļ.
8	65	*	ş	Ĩ	\$	R	r	202	2	٢	1	8	8	2	3	8	2	02	£	z	×
Ň	3	2	3	z	۶	8	\$	73	8	2	78	8	71	\$	8	8	76	63	2	8	¢r.
š	3	8	02	2	47	R	z	20	Ê	Ŕ	8	8	2	2	8	r	70	54	ŝ	£	1
ş	ſ	-	2	•	¢	2			*	*	2	~	ĥ	6	-	~	2	•	~	~	24



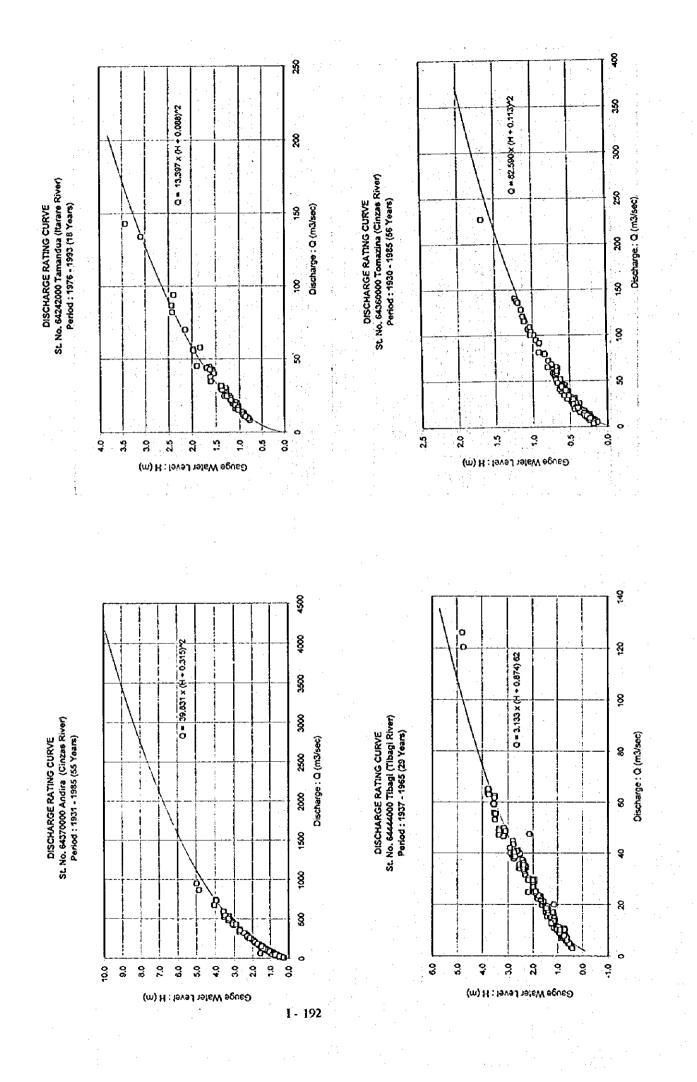
0

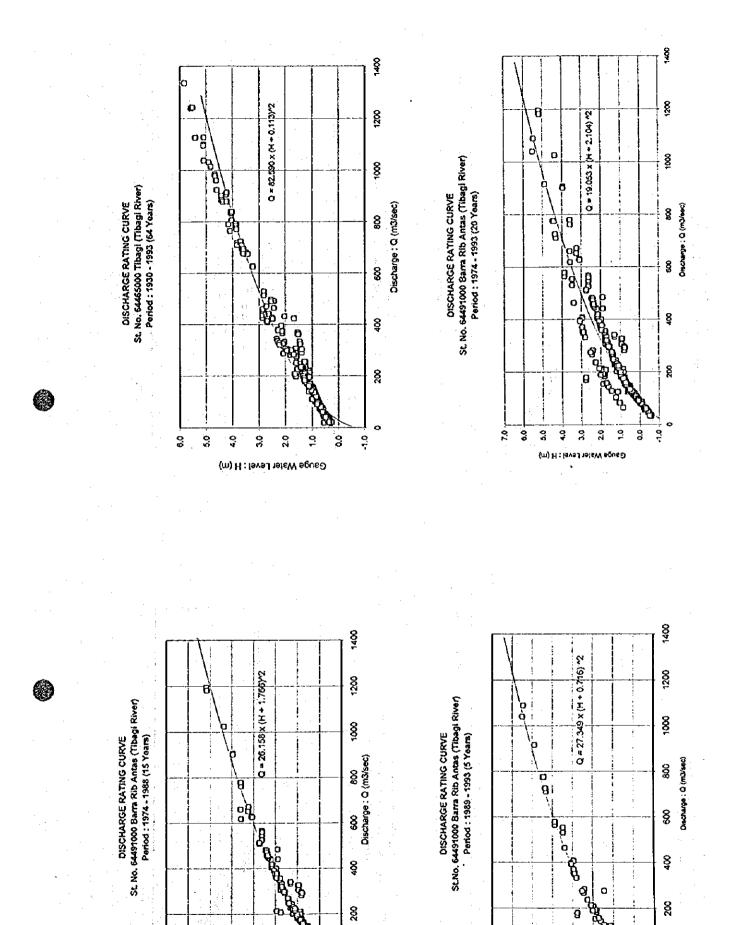
I - 190

I-2 Computation Results of Hydrological Analysis by Station

Discharge Rating Curve

No.	Basin	River	St. No.	St Name	Area	Q≠ax(H+	· b}^2	Correlation	Remarks
		· · ·		and the second second	(km2)	a	ð .	Coefficient	
1	Itarare	Joguanaiva	64-242-000	Famanoua	1,573	13.39747	0 08763	0.99113	
2	Cinzas	Çinzas	64-360-000	Tomazina	2,015	82 59001	0.11331	0.99289	
3			64-370-000	Andira	5,622	39 83073	0.31489	0.99179	
4	Tibagi	Tibagi	64-444-000	Uvaia	4,450	3.13308	0 87398	0.98770	
5		_	64-465-000	Tibagi	8,948	34.68497	0 89977	0.97405	
6			64-491-000	Barra Rib Das Antas	15,600	19.05341	2.10405	0.94054	1974 - 1993 (20 Years)
		· · · · · · · · · · · · · · · · · · ·	64-491-000	• ditto •	15,600	26 15779	1.76576	0.98640	1974 - 1988 (15 Years)
			64-491-000	- ditto -	15,600	27.34863	0.71579	0.97548	1989 - 1993 (5Years)
7	· · · · · · · · · · · · · · · · · · ·		64-507-011	Jataizinho (Extendido)	21,240	163.13911	-0 52300	0.98852	
8	Pirapo	Pirapo		Vila Şilva Jardim	4,627	31.74855	-0.04145	0.93179	
	Ivai	Ival	64-625-000	Tereza Cristina	3,572	21.91277	-0.33811	0.99079	
10			64-645-000	Porto Espanhol	8,600	35.64873	1.17588	0.96807	
- 11			64-675-002	Porto Bananeiras	24,200	166.84236	0.50888	0.97854	
12			64-685-000	Porto Para so do Norte	28,427	51.88534	0.93526	0.96512	
13			64-693-000	Novo Porto Taquara	34,432	21.42278	2.28265	0.96885	
	Piquin	Piquin	64-771-500	Porto Guarani	4,223	54.08229	-0.48952	0.80108	
15			64-795-000	Ponte do Piquiri	11,303	79.28416	0.39022	0.96823	
16			64-820-000	Porto Formosa	17,500	\$7.51248	0.59797	0.97767	
17			64-830-000	Balsa do Santa Maria	20,982	40 22845	0.88422	0.93911	
18	guacu	lguacu	65-010-000	Fazendinha	1,930	1.56861	0.14205	0.93068	
19		· ·	65-025-000	Guajuvira	2,304	8.93537	0.57611	0.98153	
20			65-035-000	Porto Amzonas	3,662	14.99956	0.31715	0.97038	
21			65-060-000	Sao Mateus do Sul	6,065	11.32559	1.25105	0.98759	
22		10	65-310-000	Uniao da Vitoria	24,211	50.91228	0.14970	0.99282	
. 23			65-895-002	Saito Osorio	45,824	40.31134	0 36057	0.91990	
24			65-993-000	Salto Cataratas	67,317	1627,19625	-0.10545	0.98665	
- 25	1	Negro	65-175-000	Divisa	7,970	8.74532	1.56708	0.99326	
26		Timbo	65-260-000	Foz do Cachdeira	693	111.16013	-0.48009	0.93411	
27		Jordao	65-825-000	Santa Clara	3,913	104.02212	-0.01494	0.99667	
28		Chopim	65-960-000	Aguas do Vere	6,696	177.03567	-0.22960	0.99260	
29	Parana	Parana		Porto Sao Jose (Jus)	670,000				
30			64-843-000	Guaira	802,150	464.69193	1.47259	0.47039	1992
	Ribeira	Ribeira	81-200-000	Capela do Ribeira	7,252	41.59167	0.89882	0.97285	1956 - 1974
			4 . S		-	52.65158	-0.28360	0.95104	1974 - 1993
32	Litoranea		82-170-000	Morretes	217	28.80573	0.11850	0.94238	
33			82-195-002	Morretes	53	36.30947	0.00891	0.99687	





I - 193

82

ó

GBO

0.0 0

0

3.0 50

(m) H : level tevel : H (m)

0 0.0 5.0 9 g

9

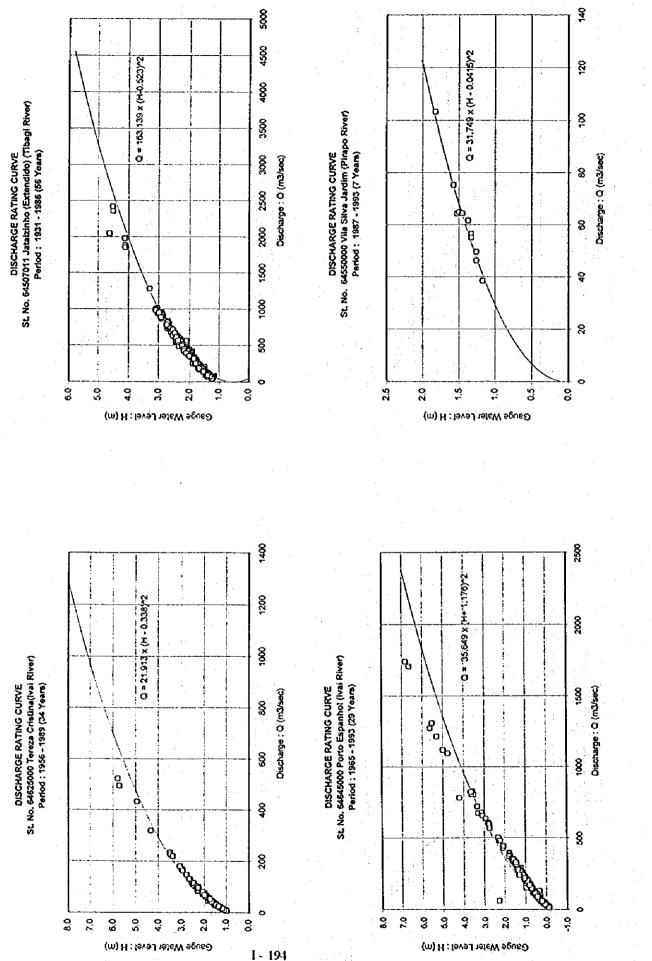
3.0 20 0.1 00 0.1-

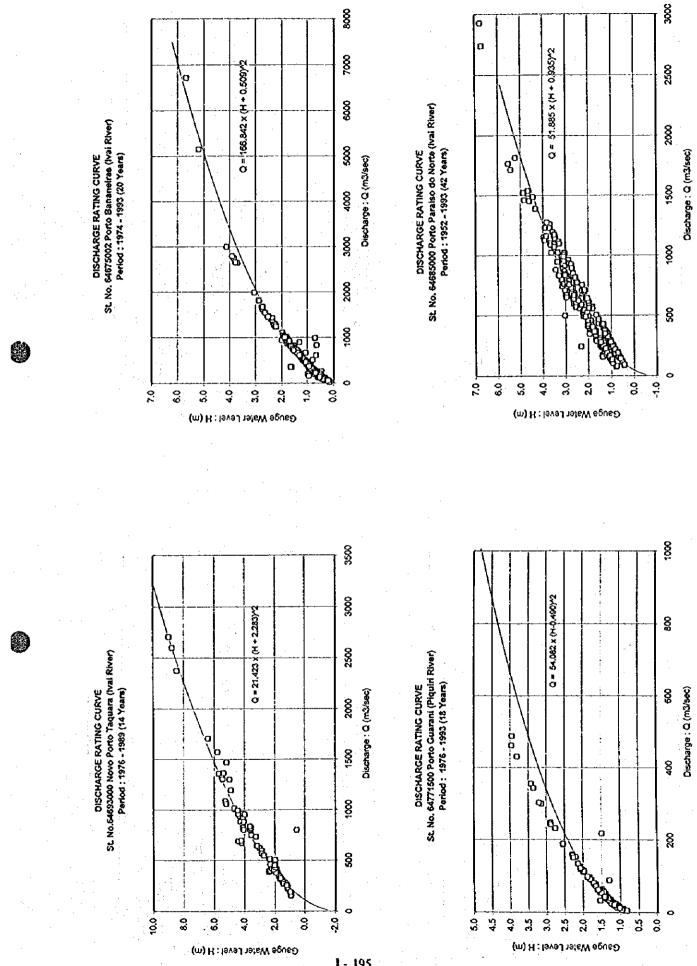
(m) H : Isval hately squed

40

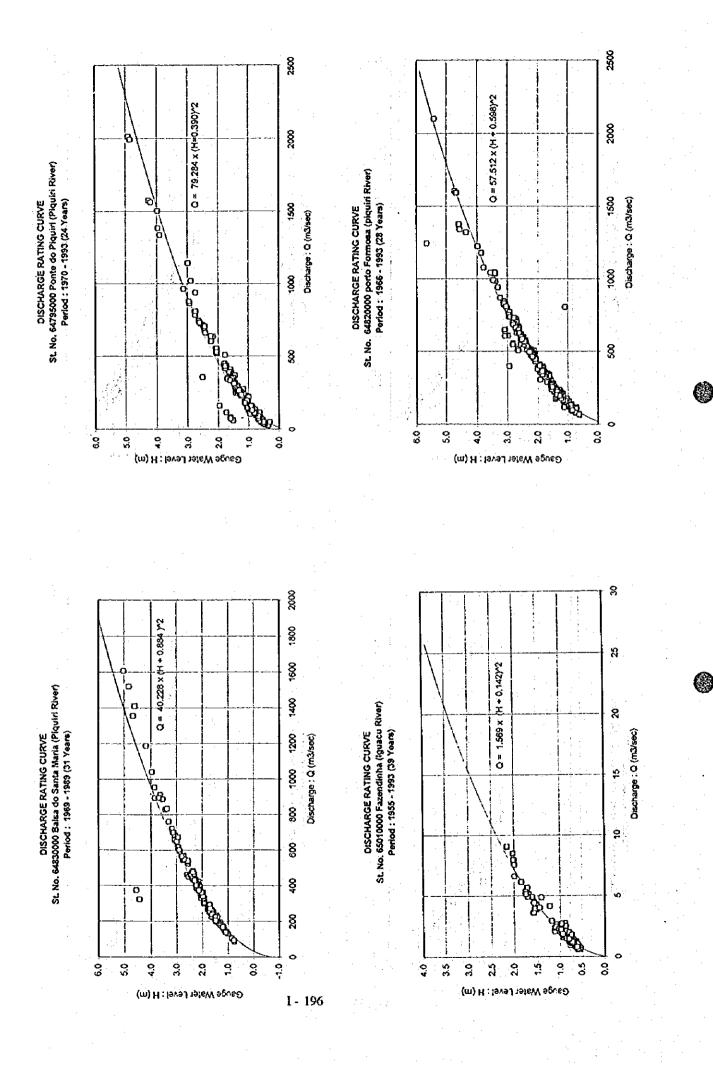
6.0 5.0

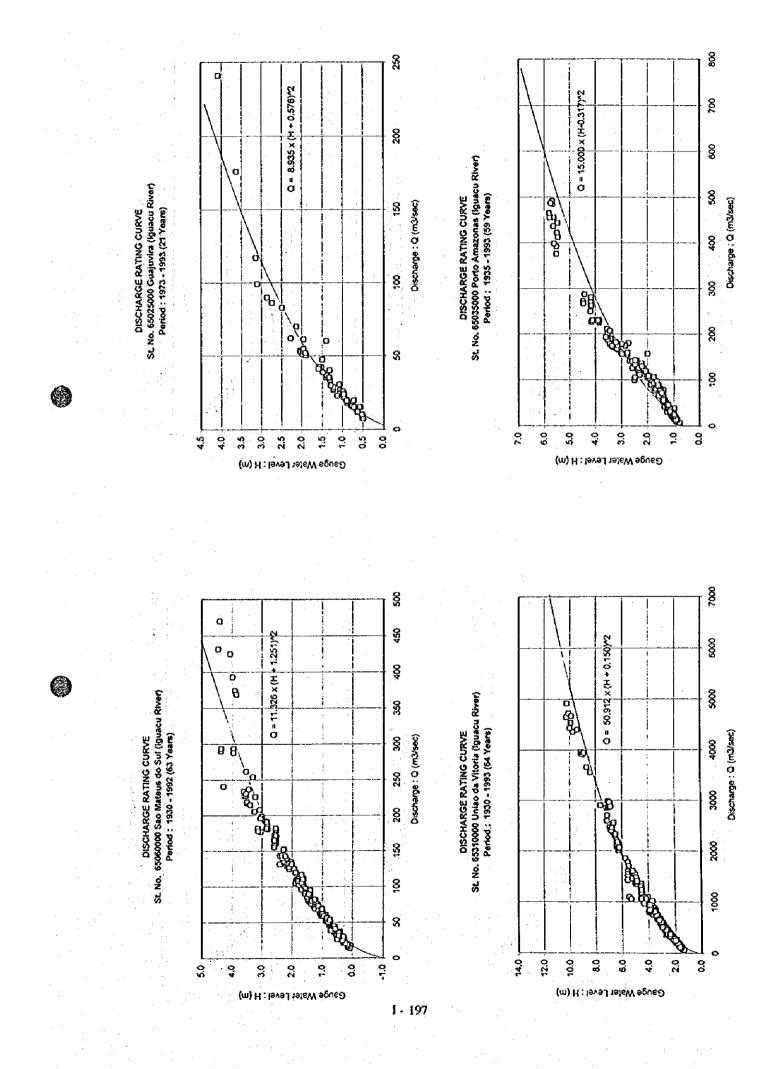
2.0

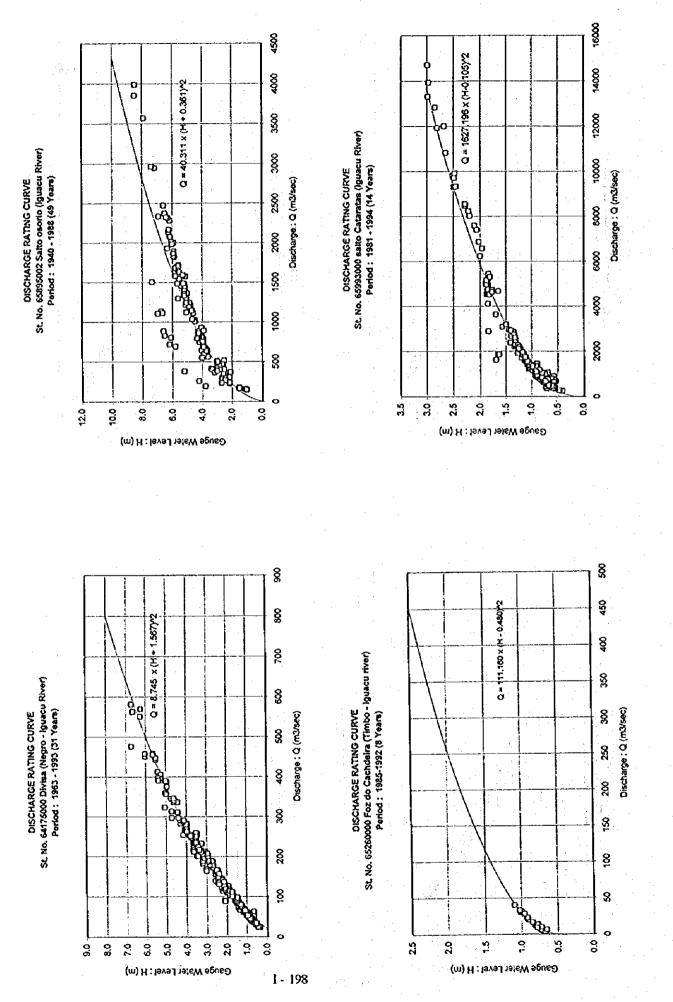




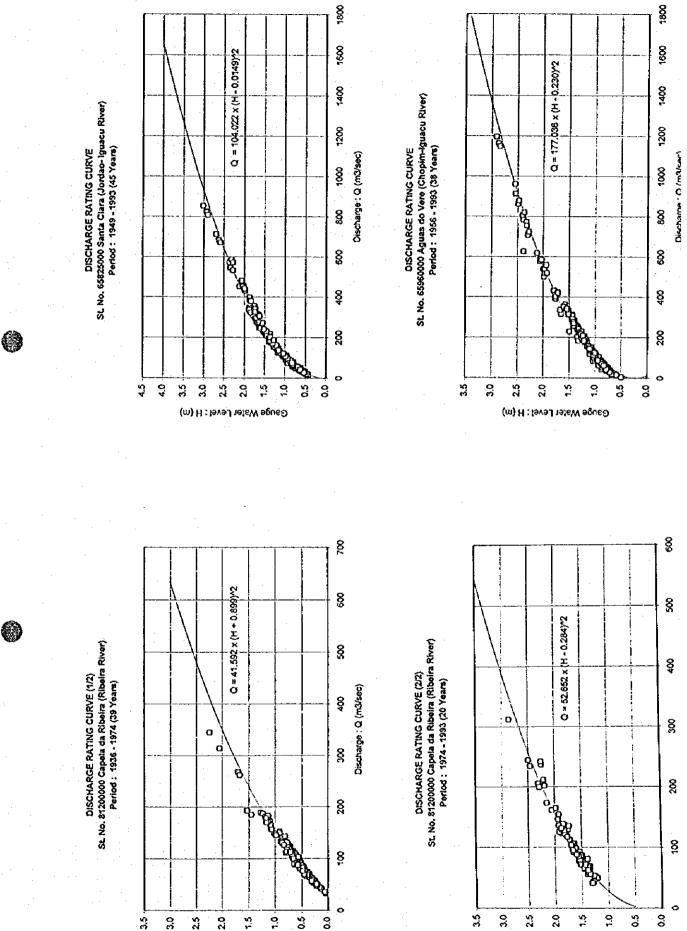
1 - 195







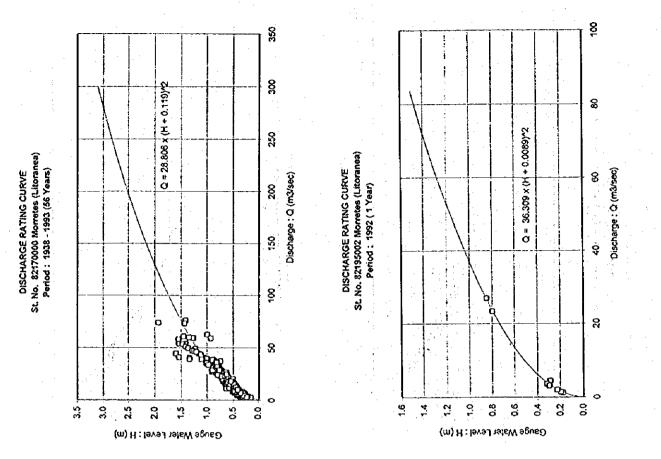
C



0.5 (m) H : laval rater devel : H (m)

1 - 199

(m) H : level reter (m)



I - 200

No.	River	X Station	Y Station	Y=a+t	XX	X = a + 1		Correlation
				a	b	8	b'	Coefficient
-2	Harara Cinzas	64242000, 1622 km2	64360000, 2015 km2	0.00037	0.84961	-0.00044	1.17701	0.9521
· •		Tamandua (itarare)	Tomazina (Cinzas)		1911			
3	Cinne Cinne	64360000, 2015 km2	64370000, 5622 km2	-0.00232	1.01074	0.00285	0,98338	0.9601
*	UF 203 UF 203	Tomazina (Cinzas)	Andira (Cinzas)			1.1		
-5	Tibaol Tibaol	64444000, 4450 km2	64465000, 8948 km2	0.00157	0 92193	-0 00170	1.08468	0.973
f-9	i soagi s bagi	Uvala (Tibagi)	Tibagi (Tibagi)					
		64465000, 8948 km2	64491000, 15600 km2	0.00131	0.90742	0.00144	1,10203	0 988
5-6 <u>_</u>	Tibagi Tibagi		Barta Rib. Das Anlas (Tibogi)	0.00101				
		Tibagi (Tibagi)	64507011, 21955 km2	0 00030	0 98994	0.00031	1.01016	0.985
57	Tibagi-Tibagi	64491000, 15600 km2	Jataizinho (Tibagi)	· · · · · ·				
		Barra Rib. Das Antas (Tibagi)	64550000, 4627 km2	0.00796	0.38490	-0.02068	2 59805	0,738
7-8	Tibagi-Pirapo	64507011, 21955 km2		0.00730	0.000			
		Jataizinho (Tibegi)	Vila Silva Jardim (Pirapo)	0.00366	0.86109	-0.00426	1.15132	0.978
- 10	tvai-tvai	64625000, 3572 km2	64645000, 8600 km2	0.00000	0.00109	-0.00420	1.10134	0.910
<u> </u>		Tereza Cristina (Ivai)	Porto Espanhol (Ivai)	0.00363	0,73018	0.00497	1.36952	0.961
10-11	ival-Ival	64645000, 6600 km2	64675002, 24200 km2	0.00363	0.73018	-0.00497	1.30932	0.901
		Porto Espanhol (Ivai)	Porto Bananeiras (Ivai)					0.989
11-12	ivai-ivai	64675002, 24200 km2	64685000, 28427 km2	0.00086	0.95612	-0.00090	1.04589	0.969
11,1		Porto Bananeiras (Ivai)	Porto Paraiso do Norte (Ival)					
12-13	fval-fval	64685000, 28247 km2	64593000, 34437 km2	0.00206	0.88949	-0.00232	1.12424	0.927
11.	1 A.1	Porto Paraiso do Norte (Ivai)	Novo Porto Taquara (Ivai)					
14-15	Piquid-Piquid	64771500, 4223 km2	64795000, 11303 km2	0.00115	1.04025	-0.00110	0.96130	0.974
	1	Porto Guarani (Piquiri)	Ponte do Piquiri (Piquiri)			•		
15-16	Piquiri-Piquiri	64795000, 11303 km2	64820000 17500 km2	0.00549	0.70210	-0.00782	1.42430	0.981
÷.,		Ponte do Piquiri (Piquiri)	Porto Formosa (Piquin)					
16-17	Piquin-Piquin	64820000, 17500 km2	64830000, 20982 km2	0.00203	0.84994	-0.00239	1.17655	0.976
		Porto Formesa (Piquiri)	Balsa do Santa Maria (Piquiri)				· ·	
18-19	ไลเลตเป็นเลตม	65010000, 110 km2	65025000, 2304 km2	-0.00119	0.92679	0 00128	1.07899	0.825
		Fazendinha (Iguaov)	Guajuvira (iguacu)					
19-20	Strans La Jani	65025000, 2304 km2	65035000, 3662 km2	-0.00011	0.93787	0.00012	1.06625	0.876
13-20	1,000,000,000,000	Guajuvira (Iguacu)	Porto Amzonas (Iguacu)		.			
20-21	linuan lauani	65035000, 3662 km2	65060000, 6065 km2	0.00044	0.94833	0.00047	1.05448	0.945
20-21	Acore Arain	Porto Amzonas (louacu)	Sao Mateus do Sul (Iguacu)					
21.22	Variate Lange	65060000, 6065 km2	65310000, 24211 km2	0.00073	1,11026	-0.00066	0 90069	0.929
(1-24	nguacu-iguacu	Sao Mateus do Sul (Iguacu)	Uniao da Vitoria (Iguacu)					-
	louacu-louacu	the second se	65993000, 67317 km2	0.00359	0.80064	-0.00449	1,24900	0.963
23-24	igcacu-iguacu		Saito Celaratas (iguacu)					
	Iguacu-Negro	Sallo Osono (Iguecu)	63175000, 7970 km2	0.00094	0.86862	-0.00453	1,15125	0 651
21-25	iguacu-nagro	65060000, 6065 km2	Divisa (Negro, Iguacu)	0.0000	0.00002	0.00.00		
		Sao Mateus do Sul (Iguacu)		0.00390	0 76368	-0.00511	1.30945	0.887
22-25	kouacu-Neoro	65310000, 24211 km2	65175000, 7970 km2	0.00550	0.70000			
	l	Uniao da Vitoria (Iguacu)	Divisa (Negro, Iguacu)	0.00362	0.61317	0.00590	1.63088	0.847
26-22	Timbo-Iguaou	65260000, 693 km2	65310000, 24211 km2	0.00002	0.01311	0.00050	1.00000	0.041
	1	Foz do Cachdeira (Timbo)	Uniao da Vitoria (iguacu)	-0.00313	1,18238	0.00265	0 84575	0 891
27-28	Jordao-Chopi	65825000, 3913 km2	65960000, 6696 km2	-nmi3	1.10238	V.U0205	0.09373	0.691
	<u> </u>	Santa Ciara (Jordao, Iguadu)	Aguas do Vere (Chopim, Iguacu)		1 000	0.00107		0.814
23-28	Iquacu-Chopi	65895002, 45824 km2	65960000, 6696 km2	0.00499	1.09337	-0.00457	0.91460	0.814
		Salto Osorio (iguacu)	Aguas do Vera (Chopim, Iguacu)					
31-1	Ribeira-Itarare	81200000, 7252 km2	64242000, 1622 km2	-0.00542	1.50814	0.00359	0.66307	0 851
		Capela do Ribeira (Ribeira)	Tamandua (Itarare)		· · · ·			
32-33	Litoranea	82170000, 217 km2	82195002, 53 km2	-0.00205	1.55160	0.00132	0.64450	0.845
	1	Morreles	Morretes			·		

Summary of Correlation Curve (Monthly Specific Discharge)

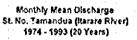


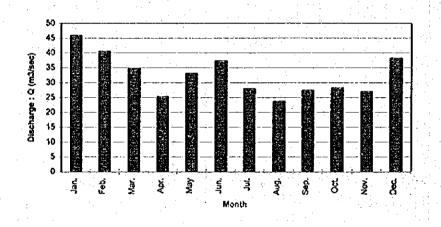


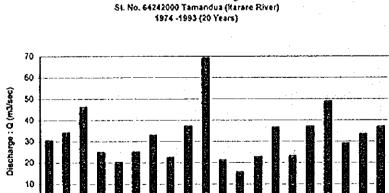


Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64242000 St. Name Tamandua

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Ocl	Nov.	Dec.	Mean
1	1974	(66.70)	(37.79)	(52 90)	(24.16)	(17.51)	(42.98)	(24.41)	(16.00)	(12.13)	(20 69)	(16.10)	(36.37)	30.6
2	1975 -	(46.99)	(44.38)	(37.90)	(18.51)	(16.57)	(16.03)	(21.63)	(20.42)	(13.58)	(\$1.06)	(44.44)	(80.18)	34.3
3	1976	(72 29)	(80.54)	(39.88)	(26.98)	(29.74)	(44.21)	(32.14)	(67.61)	42.88	37.95	43.71	37,11	46.2
4	1977	43.20	38.41	25.01	38.75	20.48]	21.43	19.00	14.92	16 66	17.88	19 24	25.41	25.0
5	1978	- 14.43	13.88	26 32	13.21	13.61	13 26	27.17	16,10	36.89	17.05	30.52	21.98	20.
6	1979	24.52	18.23	21.09	12.64	32.26	16.79	16.40	20.73	38.95	37.67	35.33	28.69	25.
7	1980	51.28	54.42	54.43	33.55	22.60	22.43	27,89	24.05	32.32	22.40	16.24	35.64	33.
8	1981	59.67	30.96	22.34	18.32	17.06	14.61	12.51	12.96	11.30	21.47	18.91	31.43	22.
9	1982	13.03	25.77	17.35	11.03	12.56	37.33	67.61	26.07	12.42	43.26	69.30	112.65	37.
10	1983	67.85	47.36	61.34	47,32	107.25	201.71	67.59	39.44	78.22	52.94	34.97	35.64	69.
11	1984	31.80	24.06	17.70	16.97	17.85	13.59	13.68	18.87	26.04	15.82	20.64	39.13	21.
12	1985	16,19	21.01	20.73	19.80	18.64	18.59	18.12	9.14	12.68	8.86	17.08	8.90	15.
13	1986	10.35	22.93	27.73	19 20	30.83	20.43	. 14.17	25.45	15.95	15.50	17,18	53.25	22.
14	1987	28.76	69.75	23.74	22.07	78,61	68.72	30.41	21.17	21.67	24.45	32.66	19.48	36.
15	1988	19.25	29.23	27.01	25.97	46.68	28.16	21.63	17.33	16.69	15.78	13 23	17.72	23.
16	1989	73.21	65 08	36.90	24.65	22.70	21.77	32.31	27.68	33.94	21.46	19.59	67.24	37.
17	1990	199.89	45.19	36 26	28.45	27.43	26.79	51.27	36.29	42.18	39.10	28,30	26.90	49.
18	1991	22.71	27.52	56.35	30.43	31.35	27.95	21.84	18.70	20.06	30.92	20.73	41.29	29.
19	1992	20.16	38.52	38.19	33.65	71.68	49.84	23.69	22.89	24.58	31,31	24,64	24.49	- 33
20	1993	37.44	75.65	53.00	41.40	28.21	41 23	27.46	20.45	39.98	39.93	19.20	21.31	37.
	Меал	45.99	40.58	34.81	25.35	33.18	37.39	28.05	23.81	27.51	28.32	27.10	38 24	32







Annual Mean Discharge Si. No. 64242000 Tamandua (Karare River) 1974 -1993 (20 Years)

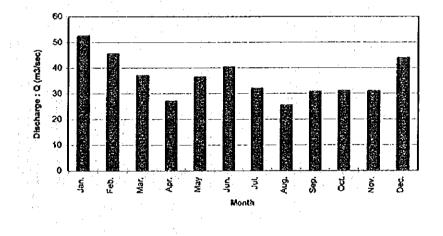
I - 202

Year

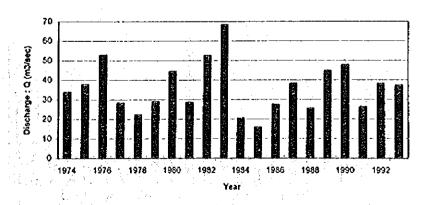
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64360000 St. Name Tomazina

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun,	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Mean
	1974	73.34	41 88	58.32	27.05	19.81	47.53	27.32	18.16	13.95	23.27	18 27	49.34	34.1
1	1975	51.89	49.05	42.00	20.90	18.79	18.20]	24.29	22.98	15 \$3	\$6.32	49.12	\$8.02	38.0
2	1976	79.43	88.41	44.15	30.12	33.12	48.87	35.73	74.33	51.22	50.36	60.55	40.51	53.0
3	1977	55.38	50.36	30.52	47.63	22,13	24.25	19.16	14.44	16.14	: 15 22	20.38	26.85	28.5
4	1978	14.45	12.22	21.07	9.86	12.56	12 37	35.93	19.91	50.49	19.00	29.68	31.10	22 3
- 5	1979	30.26	16.72	16.59	10.27	32.38	16.37	18.09	24.40	53.82	49.73	41.23	40.52	292
6	1980	66 88	63.24	82.26	49.50	26.86	24.51	32.98	28.48	50.34	31.37	22.61	55.66	44.5
7	1991	95.84	38.81	22.33	20.01	19.11	15.40	11.98	10 26	8.38	23.86	25.89	52.52	28.7
8	1982	, 23.71	40.14	25.07	14.82	13.84	57.65	99.34	35.43	21.29	46.91	110.41	145.06	52.8
9	1983	71.98	47.04	64.91	53.45	109.07	200.71	63.63	31.21	70.94	49.68	30.93	28.80	68 5
10	1984	29.04	23.38	15 34	16.19	18.01	11.70	11.82	16.72	24.28	17.66	22.11	40.22	20.5
्रां 1	1985	20.66	20.38	21.43	28.04	22.67	17.30	15.40	9.55	9.65	7.29	11.09	7.90	15 9
12	1986	11.62	28.97	29.64	18.25	46,74	25.76	15.09	33.34	20.64	16.49	23.72	63,72	27.5
13	1987	27.97	81,63	28.34	21.12	75.49	77.35	34.89	21.45	19.40	21.16	29.41	22.48	38.3
14	1988	22 23	29.66	24.74	18.83	58.79	52.94	25.43	16.65	12 85	14.96	12.76	18.01	25 6
15	1989	102.03	87.44	47.06	27.28	21.73	23.48	33.08	33.81	52.74	26.44	21.24	63.88	45.02
16	1990	190.04	38.30	24 67	22.48	27.73	25.75	66.56	44.93]	46 96	37.08	28 17	23.09	47.98
17	1991	19.89	29.15	48.62	23.43	25.67	22.27	20.39	16.98	12.04	28.67	21.04	48.81	26.4
18	1992	21.26	29.11	45.73	49.16	101.58	47.96	25.81	20.25	26.10	43.63	25.37	22.15	38.18
20	. 1993	45.00	95.99	48.99	33.88	23 27	38.31	24.28	17.25	38.74	43 20	17.18	22.41	37.3
	Mean	52.65	45.59	37.09	27.11	36.47	40.43	32.06	25.53	30.78	31.13	31.06	43.95	36.15

Mean Monthly Discharge St. No.6436000 Tomazina (Cinzas River) 1974 - 1993 (20 Years)



Annual Mean Discharge St. No. 643550000 Tomazina (Cinzas River) 1974 - 1993 (20 Years)



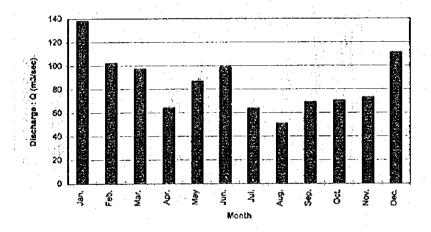
I - 203

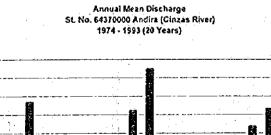
Monthly Mean Discharge Table Period 1974 - 1593 (20 years) St. No. 64370000 St. Name Andira'

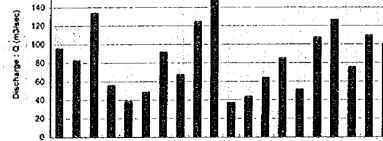
180 160

	Year	Jan	Feb.	Mar,	Apr.	May	Jun.	Jut	Aug.	Sep.	Oct	Nov.	Dec.	Меал
1	1974	209.90	100.44	213.58	70.10	49.04	123.16	60.09	35.17	31.03	72.98	50.52	134.63	95.89
2	1975	137.63	88.11	82.99	38.31	30.31	27.76	37.60	34.25	21.75	148.78	102.33	247.22	83.09
3	1976	170 99	177.15	114.98	70.37	87.08	158.79	80.76	199.36	38.68	155 94	155.43	100.37	134.16
à	1977	154.44	103.92	49.49	101.63	37.55	40.67	31.17	22.26	25 22	24.88	33.30	48.02	56.05
5	1978	24.99	16.59	40.02	15.01	20.08	18.65	69.68	28.94	91.08	29.98	55 59	51,12	38 58
6	1979	41.13	34.11	28.82	15.36	46.60	25.48	25 79	39.00	97.33	82 95	76.76	74.76	49,01
7	1980	130.04	136.43	224.56	96 54	47.12	44.82	64.18	44.10	81.85	50.61	28.54	144.31	91.93
8	1981	234.18	73.44	38.28	52.33	31.98	28.63	20.30	17.04	13.75	50 27	71.52	179.14	67.57
9	1982	50.50	117.12	57.30	29.84	29.42	155.69	214.45	59.90	34.85	82.86	253.54	410.57	124.67
10	1983	189.46	96.66	141.12	91.83	330.09	582.99	131.30	58.94	191.53	102.55	70.63	50.70	169.82
11	1984	55.53	51.12	26.57	29.02	34.98	20.04	18.13	24.31	38.55	26.49	31.40	90.65	37.23
12	1985	58.42	47.00	90.15	94.44	89.60	38.08	28.34	18.17	16.97	12.02	22.16	12.66	44.00
13	1986	19.80	69.78	76.17	54.56	116.78	54.93	25.79	17.77	46.05	37.49	40.13	151,25	64.21
14	1987	52.78	165.54	48.92	33.26	171.34	196.56	69.02	\$7.12	36,47		121.82	44.95	85.31
15	1988	51.330	51.59	47.95	34.78	125.12	114.01	39.35	24,92	20.36	43.51	31.37	32.68	51.41
16	1989	312.42	158.83	122.06	49.97	41.65	39.64	72.67	80.67	164.12	54.89	75.32	118.79	107.59
17	1990	589.46	86.32	55 20	57.93	60.11	45.75	149.3	109.13	105.12	112.69	80 47	68.16	126.72
18	1991	72.04	127.97	165 26	69.19	58.38	54.62	44.13	35.29	22.76	59.43	44 36	154.33	75.65
19	1992	43.71	68.47	209.62	180.89	279.87	104.40	52.67	38.76	96.78	··· 111.79	71.83	59.83	109.89
20	1993	165.87	277.61	117.71	99.56	51.79	105.43	46.37	35.93	110.78	103.55	37.82	53.01	100.45
	Меал	138 23	102.41	97.54	64.30	86.94	99.06	64.07	51.05	69 25	70.48	73 24	111.36	85.66

Monthly Mean Discharge Sf. No. 64370000 Andira (Cinzas River) 1974 - 1993 (20 Years)







1974 1976 1978 1980 1982 1984 1986 1988 1990 1992

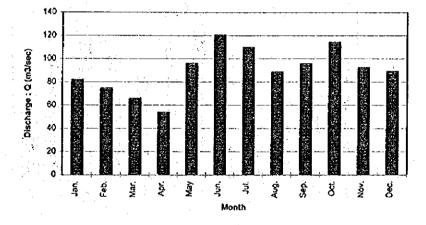
Year

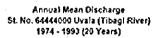


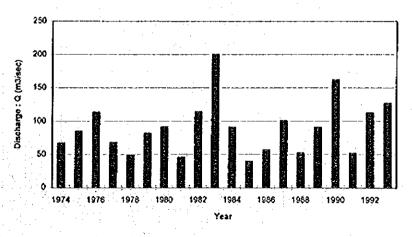
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64444000 St. Name uvala

	Year	Jan.	Feb.	Mar.	· Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec.	Mean
1	1974	(146.74)	105.15	96.10	54.60	33.34	67.00	63.10	35 33	68.88	45.12	58.72	34.47	67.3
2	1975	41.97	46 36	78.77	38.74	26.83	34.57	51.42	95.75	73.79	232.49	121.37	180.57	85.22
3	1976	106.84	93.37	85.17	68.06	54.58	238.97	90.02	172.81	131.02	87.16	126 22	112.60	113.90
4	1977	93.71	- 183.13	78.02	99.96	43.32	38.88]	35.74	30.19	26.64	57,18	56.51	79.87	68 60
5	1978	30.72	22.51	33 23	20.57	20.42	31.20	68 15	112.15	101.17	44.47	61.37	50.42	49.70
6	1979	40.58	21.08	25.10	15.77	139.94	47.17	31.06	38.97	133.26	173.23	202.33	114.09	82.30
7	1980	69.74	78.35	68.45	65.17	40.45	38.53	131.99	115.18	190.77	162.13	72 97	70.30	92.00
- 8	1981	143.85	81.49	36.18	24.56	31.69	21.74	17.74	15.68	14.57	32.66]	49.64	83.05	46.07
. 9	1992	31.89	39.39	29.61	20.15	17.67	91.09	336.54	101.81	41.40	141.69	261.04	259.46	114.31
10	1983	114.75	82.99	197.95	104 87	308.19	448.15	489.59	133.98	163.52	209.08	96.05	56.72	200.49
11	1984	45.12	47.58	37.89	\$3,45	111.51	124.53	89.90	112.82	106 08	105.97	134.30	126.16	91,53
12	1985	72.27	47.93	41.02	100.20	46.43	32.38	28.40	18.21	27.14	20.96	29.64	14,73	39.94
13	1956	24.44	41.94	32.96	30.08	77.16	60.57	25.49	43.30	40.74	54.65	64.09	192.50	57.33
14	1987	155.06	102.71	38 73	35.77	287.70	224.31	101.60	66.24	49 20	68.05	48.07	34.31	100.98
15	1983	27.26	35.80	33.75	29.65	141.78	174.65	61.38	28.89	28.40	31.62	21.09	16.97	52.60
16	1989	72.24	137.43	74.67	\$5.51	159.77	46.49	51.37	126.51	207.49	86.47	45.23	29.83	91.08
17	1990	303.71	152.47	57.91	57.54	73.99	126.73	190.20	232.96	276.47	198.43	202 24	75.48	152.34
18	1991	33.85	48.43	45.81	33.44	34.87	69.43	93.14	45.12	24.87	74.15	63.65	58.34	52.09
19	1992	43.91	34.42	92.54	117.59	146.06	353.02	128.28	167.00	94.00	80.17	59.07	39.54	112.97
20	1993	39.87	97.54	134.92	54.96	127.93	144 24	118.00	81.25	114.62	381.95	78 20	155.75	127.44
	Mean	82.08	75.00	65.94	54.03	96.18	120.68	110.16	88.71	95.95	114.38	92.59	89 26	90.41





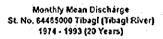


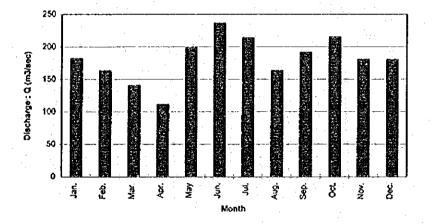


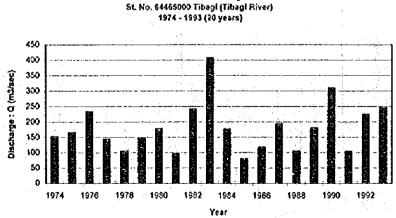
I - 205

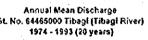
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64465000 St. Name Tibagi

								1 A A A A A A A A A A A A A A A A A A A		1	1	1 A A A A A A A A A A A A A A A A A A A		
	Year	Jan.	Feb.	Mar.	Apr.	Мау	Jun.	Jul	Aug.	Sep.	002	Nov.	Dec.	Mean
1	1974	286.06	196.17	202.14	108.99	75.17	164.46	132.08	\$9.45	152 82	143.05	154.14	92 89	153.12
2	1975	91,73	107.25	151.35	79.54	61.13	82.37	112.04	169.07	116.77	386.51	256.84	382.45	168.42
3	1976	280.57	264.58	179.66	142.54	143.96	431.60]	175.57	326.24	270.84	165.56	226.01	209.61	234.73
- 4]	1977	218.70	355.13	172.88	227.35	89.78	79.94	81,76	69.30]	57.46	111.13	110.06	166.05	144.56
5	1978	69.04	48.77	63.38	38.94	47.55	60,99]	189.35	193.22	273.36	88.74	106.69	91.65	105.97
6	1979	69.49	42.57	44.77	24.38	229.63	88.39	66.05	72.58	272.68	314.33	343 08	- 217.31	148.77
- 7	1980	157.24	146.29	152.86	131.66	85.43	82.98	229.97	198.93	338.78	253.49	121.23	239.43	179.02
8	1981	319.50	164.43	82.58	\$6.70	71.76	50.19	37.38	27.32	20.26	80.06	99.88	169.43	98 29
9	1982	75.06	111.40	75.52	42.63	31.65	264.67	650.08	195.03	91.11	307.03	542.84	525.92	242.75
10	1983	257.97	179.62	368.77	232.94	706.03	990.06	843.08	214.07	389 38	401.20	189.22	124.18	408.04
11	1984	103.63	103.20	93.99	123.59	210.19	202.13	156.04	189.00	204.12	. 191.68	292 56	262.35	177.71
12	1985	142.74	102.76	91.36	172.36	109.87	81.21	61.48	37.95	52.06	38.07	54.15	23.10	80.59
13	1986	44.17	110.72	105.08	73.18	196.59	. 131.99	63.88	107.13	81.78	102.06	109.98	296.62	118.60
14	1987	220.47	273.00]	94.25	82.09	559.29	394.65	197.52	122.53	108.93	125.37	95 22	72.61	194.74
15	1988	56.56	82.41	77.54	64.09	299.99	311.37	125.95	68.22	55.85	56.37	40.52	30.81	105.81
16	1989	220.59	284.63	152.00	102.25	264.79	99.36	143.35	256.91	314.38	152.87	88.82	91.69	180.97
-17	1990	770.98	277.74	121.55	104.03	133.30	200.35	376.10	387.34	480.30	371.73	364.30	138.63	310.53
18	1991	73.14	104.18	99.92	69,37	68.09	131.14	151,85	93.76	52.37	150.13	133.70	130.60	104.85
19	1992	87.41	72.01	203.64	219.22	377.00	570.41	247.42	288.81	212.30	193.49	134.51	99.29	225.45
20	1993	103.57	242.56	271.19	135.12	219.38	311.19	234.87	155.37	258.28	669.75	151.67	242.84	249.65
	Mean	182.43	163.47	\$40.72	111.55	198.58	236.47	213.79	163.61	191.69	215.13	180.77	180.37	181.55





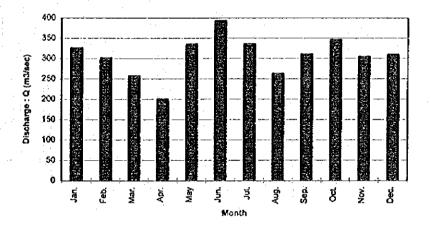


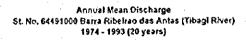


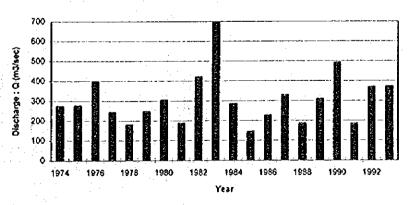
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64491000 St. Name Barra Ribeirao das Antas

	Year	Jan.	Feb.	Mar.	Apr.	Мәү	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec.	Mean
1	1974	(516.69)	(348.00)	(417.81)	187.71	133.07	303.79	227.08	163.30	319.05	251.79	257.01	187.26	276 05
2	1975	193.28	234.40	248.60	149,71	122.74	152.84	201.03	266.61	166.39	585.51	419.69	593.63	277.87
3	1976	505.21	497.37	329.09	247.02	231.69	676.54	299,8	542 21	446.49	289.81	385.66	348.76	399.97
4	1977	414.81	528.07	273,41	376.87	159.84	149.70	146.74	117.11	109.43	189.61	184.43	291.6	245.14
5	1978	126.97	85.82	115.66	69.79	97.33	95.40	320,78	298.54	469.71	152.85	183.92	(156.06)	181.15
6	1979	126.38	(92.09)	(86.08)	(48.81)	368.78	143.54	115.79	139.36	472.37	501.44	525.60	364.89	248.76
7	1980	284.53	264.73	309.45	246.18	162.30	146.01	364.39	308.18	539.44	375.62	196.16	479.22	306.35
8	1981	544.87	292.40	161.02	114.27	130.36	91.63	64.75	53.48	45.4	181.21	204.05	378.56	188.50
9	1982	188.81	249.98	162.66	89.98	69.65	477.08	1008.23	327.77	153.35	492.36	993.11	855.08	422.34
10	1983	454.48	(335.55)	605.63	422.16	1184.56	1808.41	1280.33	371.19	682.37	648.59	(364 25)	233.17	699.22
11	1984	192.35	193.91	160.07	(217.16)	342.42	287.20	231,50	277.76	337.31	302.68	473.11	422 28	285.48
12	1985	233.41	188.30	194.08	297.17	210.55	155.65	113.91	70.97	91.59	61.22	93.02	47.23	146.38
13	1986	71.46	272.80	242.38	150.75	386.19	244.07	110.76	261.93	155.52	169.41	200.49	465.46	227.60
14	1987	335.20	535.95	184.55	161.6	871.63	657.33	337.08	199.53	182.24	204.95	176.34	130.85	331.44
.15	1988	110.85	185.95	180.23	116.97	524.32	494.99	203.75	106 91	88,14	91.43	70.85	\$9.62	186.17
16	1989	471.73	507.08	280.89	182.60	381.24	178.75	235.16	416.51	479.51	252.43	151.52	187.09	310.38
17	1990	1265.18	441.63	219.95	182.48	238 33	311.12	597.06	578.80	714.35	590.23	546.81	237.03	493.58
18	1991	128.44	195.48	188.65	129.97	127.96	205.83	235.24	157.96	86.90	291.93	225.30	249.27	185.33
19	1992	157.18	142.65	386.61	398.73	633.66	834.15	358.72	390.64	317.95	346.06	240.69	177.87	369.59
20	1993	221.03	450.79	405.35	234.09	299.58	469.19	(285.49)	227.55	373.65	953.33	214.02	353.87	374.00
	Mean	327.14	302.20	257.61	201.20	336.32	394.13	336.93	263.82	311.56	346.62	305.30	310.94	307.81
		(Note) ()	: Correlated	value, blan	k is uncorre	lated value								

Monthly Mean Discharge St. No. 64491000 Barra Ribelrao das Antas (Tibagi River) 1974 - 1993 (20 Years)



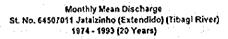


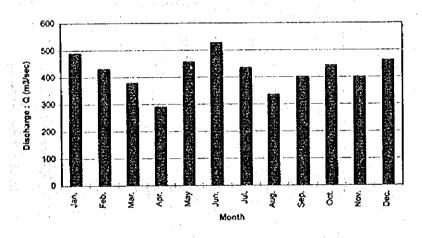


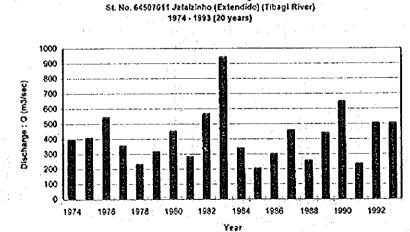
I - 207

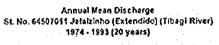
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) SL No. 64507011 SL Name Jataizinho (Extendido)

	Year	Jan.	Feb.	Már.	Apr.	Мау	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec.	Mean
1	1974	702.83	475.47	569.55	298.82	214.24	482.61	326.61	243.37	381.86	384 26	339.89	342.88	396.87
2	1975	383.82	356 80	394.04	213.67	164.02	195 55	273.30	314.67	189.83	731.96	672 70	1027.52	409.82
3	1976	704.08	720.98	452.42	328.77	325.69	843.06	379.52	721.74	583 92	442.60	555.10	491.90	545.82
4	1977	696.60	715.83	386.03	552.04	229.14	247,91	212.45	169.61	156.95	236.37	241.53	435.18	356.64
5	1978	175.22	124.21	156.71	90.51	107.04	109.18	444.43	347.32	600.78	198.40	223.60	216.76	232.85
6	1979	163.39	130.54	122.44	72.21	442.64	193.73	148,60	184.47	602 28	629.02	641.47	476.26	317.25
7	1980	459.65	442.69	612.48	418.05	262 06	210.74	471.26	398.46	707.69	472.48	260.28	712.00	452.32
8	1981	859.44	429.30	242.79	179.90	182.52	132.04	93.20	76.68	54.69	245.13	295.93	610.64	283.61
- 9	1982	320.30	354.83	277.37	143.18	102.40	589.62	1307.93	432.07	213.95	582.26	1261.71	1239.83	568.70
10	1983	632,42	458.68	848 61	527.50	1580.03	2595.82	1561.87	490.17	967.95	830,79	497.37	340,45	944.31
11	1984	253 36	250.60	195.04	299.11	432.69	323.30	272.44	299,12	390.89	354.33	496 21	514.46	340.13
12	1985	294.20	239.73	277.55	411.27	357.25	240.60	165 02	106.31	122.56	78.65	115 29	59.52	205.66
13	1986	81.48	360.52	359.53	214.17	513.39	319.43	155.78	350 24	205.40	217.74	255.65	607.99	303.44
14	1987	444.90	758.26	270.53	233.63	1174.06	932.65	441.16	260.17	216.81	240.48	326.16	232.28	460.92
15	1988	183.35	252.78	292.67	166.03	690.02	656.53	282.24	160.92	120.12	119.51	94.65	78.73	258.13
15	1989	725.56	736.87	423.45	257.63	452.09	241.57	288.44	519.02	648.03	332.71	204.88	486.08	443.03
17	1990	1922.78	603.06	308.70	245.01	301.97	351.38	769.77	715.26	870,16	764.70	665.67	313.10	652.63
18	1991	193.07	270.57	259.76	177.41	152.46	245.26	289.31	191.79	103.58	330.14	263.98	360.65	237.33
19	1992	207.42	207.68	597.35	602 25	1087.25	1049 26	438.06	444.17	401.64	467.76	324.38	258.90	507,18
20	1993	388.64	729.49	540.95	374,19	361.25	602 24	391.21	277.33	491.58	1200.35	281.23	440.13	506.55
T	Mean	489.63	430.94	379.40	290.27	457.11	528.12	435.63	335.14	401.53	443.03	400.88	462 21	421.18





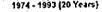


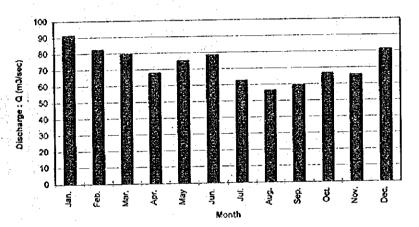


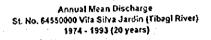
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64550000 St Name Vila Silva Jardin

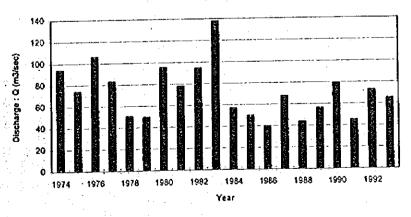
	Year	Jan.	Feb	Mar.	Apr.	May	Jun.	Jul	Aug	Sep.	Oct	Nov.	Dec.	Mean
T	1974	182.14	127.19	116.01	96 91	84.92	96.81	71.27	60.35	52 32	89.05	73.73	83.33	94.:
2	1975	86.95	82 97	76.83	63.10	57.99	51.67	54.43	47.07	42 08	91.08	96 99	139.84	74
2	1976	132.48	113.93	87.60	81.38	81.23	108.82	74.69	139 08	108.99	126.08	112 37	109.65	106
4	1977	155.22	119.43	88.79	97.92	67.79	78.40	63,66	53.23	55.14	48.14	61.73	109.51	83
s	1978	72.81	53.49	57.04	42.83	43.29	38.56	70.07	43.15	59.59	42.99	44.96	42.53	50
6	1979	39.12	59.36	40.98	39.31	47.20	36.69	38.51	33.11	54.44	70.81	59.81	79.70	49
7	1980	78.75	94.61	153.43	122.63	107.93	84.33	76.59	69.61	92.56	87.67	72.82	107.70	95
8	1981	116.61	94.87	89.67	83.45	68.83	66.94	54.36	45 57	39.01]	65.67	76.32	137.70	78
š	1932	95 26	88.71	91.21	61.25		93.89	119.41	73.73	58.01]	81.49	117.49	207.76	94
10	1983	209.97	110.44	199 32	102.52	127.36	268 26	121.44	101.62	94.38	116.72	112.88	91.01	137
iit	1984	80.37	66 52	65.47	75 15	66.40	51.44	43.57	41.74	51.95	43.74	36.34	64.39	57
12	1965	60.38	54 55	60 25	68.19	84.54	64.03	52.27	41.49	36.70	30.78	28.10	21.87	50
13	1985	22.74	57.09	48.79	39.25	57.26	39.10	32.05	45.65	35.84	30 21	26 62	46.65	40
14	1987	43.99	67.82	38.36	38.94	101.48	106.32	78.63	57.90	50.37	47,40	105 66	79.39	83
15	1988	57.38	50.15	58.39	40.09	68.11	66.19	41.99]	32.96	28.59	37.78	25 02	21.23	43
16	1989	83.82	(98.62)	59.68	48.02	43 22	43.98	34.58	51.96	83.95	45 92	43 05	41.77	56
17	1990	155.36	89.19	71.19	60.73		50 22	66.24	67.46	90.87	93.75	75 39]	62.17	7,9
18	1991	65.88	71.68	55.63	48.04		44.45	36 76	29.23	25.11	27.00	39.32	62.35	45
19	1992	29.13	39.50	58.02	73.19		114.25	76.66	59.14	76.89	63 22	54.06	46.37	73
20	1993	50.02	108.22	72.64	75 70		65.55	45.61	36 27	53.92	94.17	51.49	71.26	65
4							70 50	62.64	56.52	59,54	66.78	65.71	81.31	72
1	Mean	91.47 (Note) ()	82.42	79,47	67.93		78.50	02.04	30.32	35.34				

Monthly Mean Discharge St. No. 64550000 Vila Silva Jardin (Tibagi River) 1974 - 1993 (20 Years)







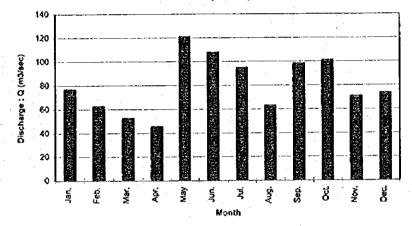


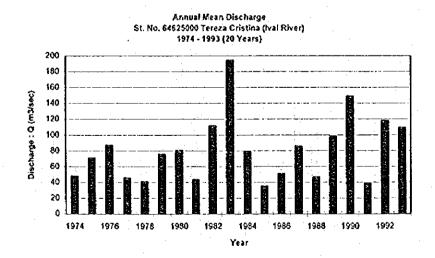
1 - 209

Monthly Mean Oischarge Table Period 1974 - 1993 (20 years) St. No. 64625000 St. Name Tereza Cristina

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul,	Aug	Sep.	Øct	Nov.	Oec.	Mean
1	1974	121.33	59.45	58 65	22.84	14.45	58 28	23.54	41.32	45.43	62.04	42.96	29.82	48.34
- 2	1975	27.59	38.96	53.51	25.04	18.18	28.19	25.92	77.88	79.10	213.89	116 55	151.65	71.37
3	1976	103.77	61.64	55 28	40.81	77.38	159.36	35.49	107.99	137.64	45.91	92.16	133.95	87.62
- 4	1977	92 21	133,11	44.42	44.21	14.88	26.05	20.95	14.43	14.29	44.90	36.43	65.41	45.94
- 5	1978	14.59	14.62	- (17.77)		14.70	19.10	150.31	75.30	102.89	21.25	31.28	33.37	45.02
6	1979	26.97	24.77	17.34	9 27	125.95	17.91	17.62	49.01	213.75	177.12	171.22	64.05	76.25
- 7	1980	59.66	39.03	52.00	35.71	33.30	44.87	103.26	97.00	242 30	97.75	38 27	127,39	80.68
8]	1981	103.85	67.49	27.89	22.82	28.69	16.79	10.78	8.05	9.82	52.04	42.47	137.38	44.01
9	1982	24.80	20.81	12.03	8.43	9.14	292.83	297.29	44.19	19.71	161.54	301.04	152 29	112.01
10	1983	106.19	89.08	223.45	131.71	359.31	449.75	367.63	63.43	254.49	200.61	63.52	36.62	194.73
-11	1984	37.78	41.57	67.88	92.31	85.93	87.95	38.35	101.20	119.00	38.50	107.60	139.51	79.80
12	1985	31.79	32.72	32 23	158.59	44.67	27.19	22.44]	9.79	24.76	12.61	20 84	8.13	35.48
13	1986	16.14	52 92	47.29	23.90	139.90	37.84	· 11.54]	45.23	34.17	35.31	29.20	143.54	51.42
- 14	1987	51.78	140.26	21.07	22.77	448.98	137.55	59.12	32.59	25.54	41.20	33.80	20.21	86 24
15	1988	24.13	45.76	39.63	29.72	257.44	88.14	29.76	13.52	10.05	13 78	7.40	7.28	47.22
16	1989	188.97	192.83	87.55	45.65	153.38	22.46	102.05	85.62	- 184.00	68.46	29.92	24.10	98.83
17	1990	427.44	40.02	24.91	36.93	. 66.71	119.00	301.78	211.95	208.52	244.66	85.55	23.70	149.26
18	1991	12.17	14.75	19.46	25.55	· 15.93	121.61	39.90	24.90	12 85	73 58	58.43	49.58	39.06
19	1992	(22.27)	(19.59)	(84,90)	(97.63)	(361.58)	(287.88)	(116.70)	(109.95)	(92.49)	(105.35)	(76.61)	(45.51)	118.37
20	1993	(47,42)	(127.13)	(70.23)	(44.15)	(152.03)	(126.66)	(126.73)	(53.55)	(138 54)	(313.31)	(35.06)	(81.44)	109.77
	Mean	77.04	62.83	52.88	48.32	121.13	108.02	95.06	63.40	98.47	101.19	71.07	73.75	81.03

Monthly Mean Discharge St. No. 64625000 Tereza Cristina (tval River) 1974 - 1993 (20 Years)





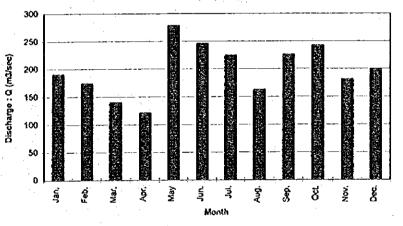


Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64645000 St. Name Porto Espanhol

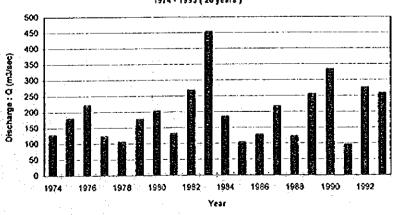
۲

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul	Aug.	Sep.	Oct	Nov.	Dec.	Mear
1	1974	236.70	155.08	146.82	69.68	51.92	109.57	78.12	123.06	150.90	159 69	141.84	116.33	128
2	1975	116.32	167.93	143 80]	67.81	52.10	78.85	67.64	162.84	142.24	493 56	286.66]	388.51	180
3	1976	300.22	178.50	133.65	94.36	153.36	415.60	98.76	229.81	297.21	141.10	235.46	389.67	222
- 4	1977 -	291.43	288.19	126.14	129.86	50.55	89.82	69.61	45.71	48.40	1,10,89	64.57	148.05	123
5	1978	47.91	28 20	68.36	30.85	40.66	44.96	348.70	189.11	247.79	73.43	79.20	79.45	106
6	1979	56.45	73.80	61.78	29.51	257.08	58.64	49.32	146.67	466.20	364.38	384.96	187.48	178
- 7	1980	172.48	114.86	156.20	107.49	124.87	112.10	229.70	238.89	470.66	268 36	114.98	329.56	203.
- 6]	1981	279.49	220.06	87.85	73.14	74.99	52.33	32.49	26.19	23.65	175.54	126.83	413.69	132.
9	1982	120.93	67.19	36 26	24.69	24.97	503.33	686.74	165.29	68.76	355.54	700.39	473.08	268
10	1983	288.54	209.79	549.09	329.17	929.18	904.27	771.45	145.74	544.92	467.41	201.02	106.69	453
11	1984	103.17	136.75	97.44	178.28	222 96	163.91	97.98	194.22	256.18	143.63	258.96	375.36	185.
12	1985	111.86	93.14	106.80	353.92	194.91	130.56	86.67	39.49	47.39	28.70	39.55	18.19	104.
13	1986	30.81	146.13	123.79	112.93	307.42	140.28	50.64	166.94	95.71	82.65	58.39	229.07	128.
14	1987	126.73	442.46	80.55	84.62	892.15	350.96	162.64	90.28	67.81	102.83	141.02	73.95	218
15	1988	81.08	110.98	119.22	90.41	517.28	268.95	106.96	50.36	31.21	50.71	21.17	21.99	122.
16	1989	402.64	497.14	265.83	143.98	332.10	80.15	241.64	309.30	436.02	191.12	97.44	72.35	255.
17	1990	799,19	130.24	69.63	91.16	167.12	286.49	634.05	438.53	540.44	527.81	249.40	83.08	334.
18	1991	43.23	55.20	47.22	55 92	44.21	208.20]	110.62	88.89	39.73	185.67	108.62	163.25	95.
19	1992	77.68	72.12	207.53	233.91	781.14	628.34	273.46	259.45	223.25	249.92	190.34	125.88	276
20	1993	129.82	295.07	177.10	123.04	346.70	294.09	294.24	142.52	318.73	681.06	106.26	200.35	259.
	Mean	190.83	174,14	140.26	121.24	278.28	246.07	224.57	162.66	225.86	242.70	181.35	199.80	198.9





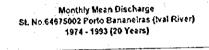
Annual Mean Discharge St. No. 64545000 Porto Espanhol (Ival River) 1974 - 1993 (20 years)

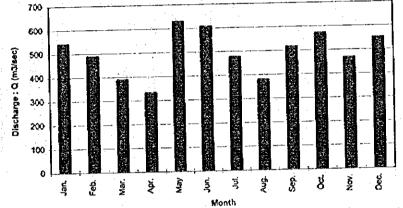


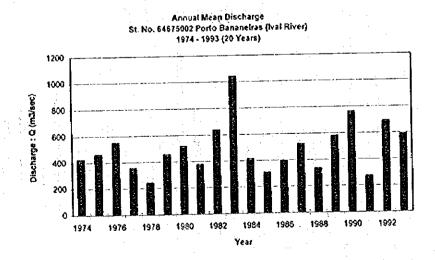
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64675002 St. Name Porto Bananeiras

	Year	Jan.	Feb.	Mar.	Apr.	Мау	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec	Mean
1	1974	(853.25)	642.13	368.86	189.65	145.25	536 56	241.13	259.74	392.69	601.23	443 86	418.73	424.8
2	1975	433.75	625.41	402.39	196.06	170.23	208.32	231.10	327.40	208.02	S60 29]	672 55	1109.63	452.1
3	1976	921.35	648.70	347,43	263.74	400.48	925.96	267.56	577.11	532.88	342.42	554.30	842.39	\$52.0
4	1977	982.03	626.95	295.49	345.67	144.23	325.02	204.74	120.34	133,12	235.37	270.74	584.08	355.7
-5	1978	173.08	99.76	151.77	78.48	88 22	85 46	639.58	340.24	654.68	171.14	229 57	203 60	242.9
6	1979	155.79	221,10	154 78	93 20	689 07	179.62	159 24	438.53	1103 04	858.74	785.56	635.79	456 2
7	1960	515.35	362.48	688 82	381,76	444.85	324.97	540.76	476.63	879.51	522.45	271.50	809.60	518 2
8	1981	734.04	528.35	283.36	270.76	236.82	183.62	130.42	101.08	76.97	- 548 82	341.16	1115.50	379.2
9	1982	395.01	257.92	182.42	105.69	82.45	1061.71	1443.59	421.14	196.64	810 29	1546 26	i 1172.55	639.6
10	1983	590,46	489.23	1371.79	864.99	1889.97	2256.97	1355.35	370.60	1274.80	1038.62	636 52	358.18	1041.4
11	1984	293.72	375.36	203 55	401.80	524.81	291.83	217.23	291.17	536.02	364.63	567.19	914.69	415.1
12	1985	359.76	305.16	406.13	714.87	694.12	407.76	272.33	144.74	158.32	91.79	104.43	53.56	309.
13	1986	71.11	518.88	415.47	346.29	949.46	528.92	180 48	664.05	253.44	185.61	171.72	\$03.13	393.0
14	1987	262.52	1201.28	240.66	255.77	1633.70	716.95	417.18	223.91	180.25	221.40	619.43	283.55	523.0
15	1988	261.19	303.93	324.54	281.17	1006.28	1093.40	250.37	158 26	111.44	102.18	76.48	58.02	335.6
16	1989	1078.30	1088.67	562 91	367.25	579.52	222.19	407 57	727.29	996.35	462.72	264.05	216.62	581.1
17	1990	1884.85	320.51	229 73	222.28	444 27	562.25	1164 30	880.34	1264.07	1274.71	635.70	278.40	763.4
18	1991	176 23	220.51	223.55	151.47	136.75	355.57	274.62	248.55	125.78	493.24	312.54	569.70	274.0
19	1992	233.25	219.29	596.19	779.72	1795.09	1214.69	603.24	524.75	599.78	832.84	566.23	341.94	692.2
20	1992	476.60	743.51	355.70	390.01	578.66	709.72	587.28	339.17	674.99	1364.48	317,72	578 60	593.0
	1993	~10.00		000.10										
	Mean	543.58	489.96	390 28	335.08	631,71	609.57	479.40	381.75	517.65	574.15	469.63	552.41	497,9

(Note) (....): correlated value, blank is uncorrelated value







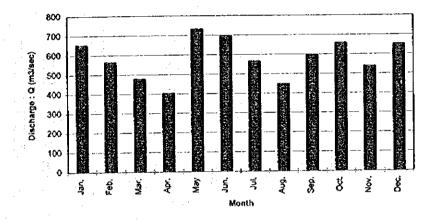
1 - 212

Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64685000 St. Name Porto Paraiso do Norte

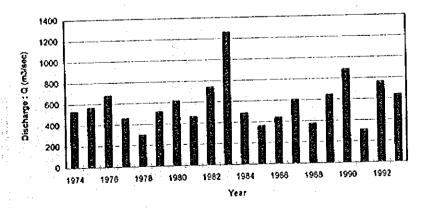
		-				7				····				
	Year	Jan	Feb.	Mar.	Apr.	Мау	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec.	Mean
1	1974	982.70	665.83	517.46	297.45	241.57	667.04	353.38	283.31	507.64	745 57	611.45	513.07	532 21
2	1975	549.42	775.70	528.72	288.22	253.38	292.24	302.67	391.00	262 28	1101.01	743.42	1308.03]	566.76
3	1976	1067.45	791.09	462.40	367.02	502.41	1120.08	367.89	695.30	660.37	475.60	641.63	974.38	677.14
4	1977	1228 16	790.98	415.08	464.08	229 53	416.25	280.45	178.46	184.32	289.07	339.20	720.85	461.37
5	1978	250.65	155.74	199.73	118.93	120 71	132 54	717.78	420 22	724.61	214.83	278.90	241.45	298.01
6	1979	189.94	275.90	199.42	127.74	754.15	218.69	195 83	473.07	1194.37	926.74	\$87.54	757.00	516.70
1	1980	606.64	455.26	820.32	490.71	547.70	406.60	638 65	550 62	973.63	625.86	343.26	920.48	614.98
8	1981	881.75	670.65	379.73	344.10	323.94	255.87	187.70	146.57	126.55	596.30	385.40	1273.08	464.39
9	1982	499.79	343.84	263 35	167.73	139.56	1133.59	1669 54	494.68	255.05	870.56	1671.59	1410.95	743.35
10	1983	710.23	596.07	1713.68	1030.40	2045.79	2931.25	1653.51	501.64	1480.68	1203.51	789 28	474,44	1260.87
11	1984	369.51	478.21	273 87	477,91	613.73	354.92	271.83	367.38	623.94	417.61	574.49	1034.81	488.18
12	1985	416 22	356.83	443.27	731.94	874.62	323.24	351.00	216.31	218.47	148.36	152.91	110.57	361.98
13	1986	122.53	536.95	505 99	387.12	1024.48	468.59	233.23	638.95	309.33	241.51	204 28	557.05	440.67
14	1987	330,46	1301.35	283.65	310.58	1819.95	857.44	502.62	294.60	247.67	270.13	709.55	364.12	607,68
15	1988	324.96	385.66	380.54	341.68	1190.08	782.22	340 22	215.76	167.83	165.34	133.13	100.20	377,39
16	1989	1179.71	1078.38	635.06	403.02	582.10	279.34	404.92	869.90	1179.71	537.63	335.08	279.18	647.00
17	1990	2349.80	(384.37)	322.80	296.71	533.44	608.17	1300.72	967.48	1361.75	1414.77	(738.37)	373.98	887.70
18	1991	255.83	304.39	269.70	200.74	182.50	383.20	307.36	268.01	145.98	491,75	312.79	606.02	310.69
. 19	1992	255.26	235.34	. 573.86	843.48	2061.32	1541.27	675.89	561.16	641.16	803.19	569.13	393.71	764.56
490		489.69	725.03	. 387.28	403.78	600.61	801.35	556.23	378.69	695.73	1645.59	362.53	638.36	640.41
	Mean	653.04	565.38	478.80	404.67	733.08	698.59	565.57	448.66	598.05	659.30	539.50	652.59	583.10
		(Maha) (ليبيب غرب ا		-his users	alated volvo								

(Note) (....): correlated value, blank is uncorrelated value

Monthly Mean Discharge St. No. 64685000 Porto Paralso do Norte (Ival River) 1974 - 1993 (20 Years)



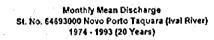
Annual Mean Discharge St. No. 64685000 Porto Paraiso do Norte (Ival. River.) 1974 - 1993 (20 years.)

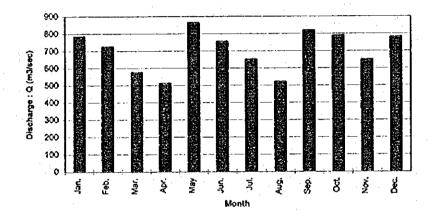


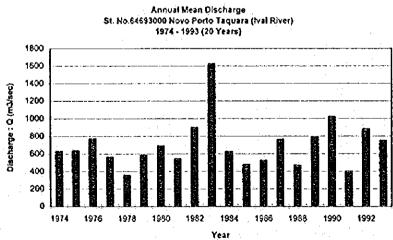
1 - 213

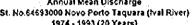
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64693000 St. Name Novo Porto Taquara

	Year	Jan.	Feb.	Mar.	Açı.	May	Jun.	Jul.	Aug.	Sep.	Qci	Nov.	De¢.	Mean
1	1974	(1136.70)	(793.09)	(632.19)	(393.61)	(333.01)	(794.40)	(454.26)	297.19	617.29	802 98	768.43	581.18	633 6
- 2	1975	639.37	829.20	585.66	355.14	304.61	331.59	369.76	443.98	320.91	1240.49	799.50	1459.01	640.7
3	1976	1169 61	907.85	545.67	438.56	523.83	1343.32	423.59	741.48	748.52	605.83	774.30	1083.06	775.4
4	1977	1470.12	1050.82	499.74	557.86	302.26	510.59	345.95	247.44	254.19	346.90	382.50	853.80	568.5
- 5	1978	354.26	226.35	272.90	200.94	190.06	186.13	779.00	457.14	790.09	256.03	313.96	286.60	359.4
6	1979	254.54	336.10	271.46	185.69	865 09	294.70	235.52	503.36	1316 93	1005.31	977.18	840.50	590.6
7	1980	685.23	580.69	965.33	568.86	627.50	459.14	681.99	593.95	1022.15	730.89	412.15	1000.77	694.0
8	1981	1004.33	708.50	441.14	375.05	406.65	331.34	259.51	221.61	185.61	669.90	480 54	1480.92	547.0
9	1982	672.04	516.33	426.51	318.98	202.10	1252.15	1924.26	596.67	318.15	950.43	1833.67	1824.85	903.0
10	1983	1020.85	1121.33	1698.29	1276.73	2315.36	2195.48	1782.68	(615.04)	4116.39	1619.75	1051.36	707.76	1626.7
11	1984	580.74	689.36	403.09	615.99	753.41	462.08	363.05	444.62	715.25	609.01	708.81	1228.56	631.1
12	1935	576.61	509.23	589.05	900.74	991.31	591.13	433.15	293.43	291.32	226.01	225.14	169.88	483.0
13	1986	175.37	618.35	582.62	476.52	1115.04	584.25	309.90	826.30	409.49	326.14	272.36	648.18	528.7
14	1987	418.97	1481.58	394.82	387.88	2261.15	1119.50	630 23	398.00	335.43	362.16	921.27	475.35	765.6
15	\$988	425.02	493.83	488.82	415.76	1264.51	958.79	(439.99)	(305.03)	233.57	258.42	210.99	171.93	472.2
16	1989	1282.08	1392.67	804.54	529.45	766.33	367.24	455.39	1079.57	1409.24	660.69	454 27	359.89	796.7
17	1990	2607.73	628.13	448.64	405.73	670.43	749.39]	1338.11	954.93	1588.93	(1605.24)	(871.75)	455.50	1027.0
18	1991	333.30	479.71	359.99	368.81	265.33	463.53	387.12	336.35	205.63	563.28	371 21	704.17	403.2
19	1992	318.84	328.32	630.95	1019.87	2473.10	1322.81	807.12	675.36	787.43	977.02	728.65	557.02	685.5
20	1993	585.53	848.44	509.66	500.71	€94.02	816.35	634.51	446.71	769.70	1996.67	473.75	(763.30)	753.2
	Mean	785.56	726.99	577.55	514 64	866.26	756.70	652.80	523.91	821.86	790.66	651.59	783.11	704.3







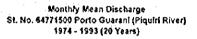


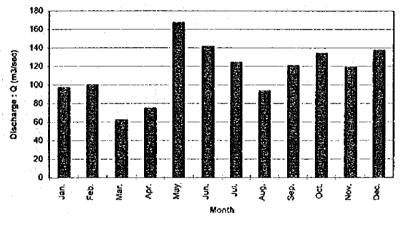
Ô

Monthly Maan Discharge Table Period 1974 • 1993 (20 years) SL No. 64771500 SL Name Porto Guarani

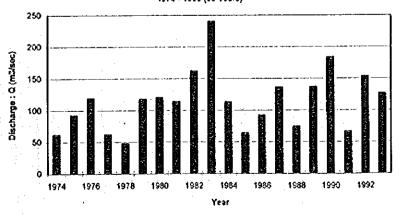
þ

	Year	Jan,	Feb.	Mar.	Apr.	Мәу	Jụn,	Jul.	Aug.	Sep.	Oct.	Nov.	Dec	Mean
1	1974	(72.62)	(87.92)	(53.43)	(24.97)	(20.27)	(59.21)	(25.52)	(71.93)	(77.33)	(79,12)	(77.06)	(95.45)	62.0
2	1975	(96.39)	(155.41)	(55.64)	(37.79)	(34.75)	(83.52)	(37.45)	(50.12)	(55.51)	(199.73)	(119.97)	(176.14)	92.7
- 3	1976	(140.15)	(113.66)	(48.01)	(57.88)	(93.77)	(178.38)	48 67	92.74	141.77	104.29	185.10	230.35	119.5
- 4	1977	145.42	69.36	42.33	50.33	18 25	100.38	27,48	19.51	18.24	33.50	80.91	139.64	62.1
_5	1978	22.61	8.35	8.65	4,97	9.06	12.77	209.32	84.33	80 81	30.36	45.26	64.07	483
5	1979	26.49	127.44	45.44	22.84	268.80	39.96	29.12	127.40	157.55	223 65	202.48	126.88	118.1
- 7	1980	200.31	67.30	94.28	24.01	119.89	69.45	110.11	113.16	302 00]	121.16	64.37	162.96	120.7
- 8	1981	45.28	110.42	39.07	114.43	58.72	90.51	32 26	22.27	15.62	125 54	111.95	507.45	114.4
୍ୱ	1982	78.53	40.49	32.45	13.50	12.57	257.04	387.67	97.34	32.06	244.39	543.93	210.78	162.5
10]	1983	94.32	104.29	302.63	171.82	433.09	434.61	402.58	78,86	271.59	258.14	171.52	64.15	240.6
11	1984	129.41	99 90	50.41	85.66	98.12	89.46	45.41	128.49	100.23	90.92	172.79	272 28	113.5
12	1985	66.79	59.52	59.41	225.33	131.04	70.69	68.22	28.01	20 82	14.19	18.88	7.24	64.1
13	1986	27.32	152.82	79.49	133,14	228.10	93 52	24.55	89.11	75.88	46.47	24.99	133 29	92.3
14	1987	72.66	281.54	41.71	75.87	526.56	173 09	86.40]	48.66	21.92	59.49	165.11	83.65	136.4
15]	1988	52.77	54 94	39.86	85.65	374.23	167.65	50.99	22.68	11.82	14.46	12 29	10.33	74.8
16	1989	149.65	179.42	71.18	85 35	222.40	44.90	173.10	214.82	306.61	123.31	49.44	26.32	137.2
17]	1990	254,45	58.85	32.99	119.67	110.72	234.04	315.56	307.20	335.99	282.80	115.13	41.04	184.1
18	1991	17.04	21.85	13.22	24.72	15.75	180.23	61,40	36.53	16.48	111.04	53 98	245.68	66.4
19	1992	52.23	53.94	72.64	03.19	360.81	295,74	193.80	160.76	187,96	177.34	113.95	72.93	153.7
20	1993	102.29	157.02	. 71.03]	38.74	141.94	111.63	159.17	71.04	186.65	347.89	\$7.62	81.04	127.17
T	Mean	97.35	100.22	62.69	75.04	167.44	141.84	124.49	93.75	120.84	134.39	119.29	137.58	114.5





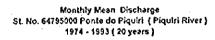
Annual Mean Discharge St. No. 64771500 Porto Guarani (Piquirl River) 1974 - 1993 (20 Years)

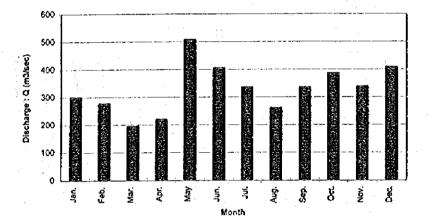


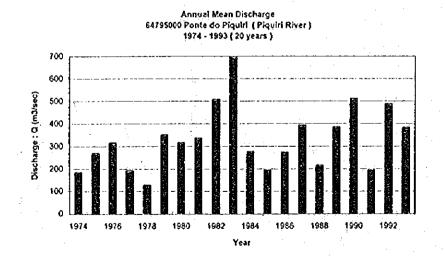
I - 215

Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 64795000 St. Name Ponte do Piquiri

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct,	Nov.	Dec.	Mean
1	1974	215.13	257.73	161.71	82.46	69.39	177,79	83.99	21321	228.25	233 24	227.49	278.69	185.76
2	1975	281.31	445.66	167.85	118.17	109.70	245.48	117.21	180.32	167.49	569.05	346.97	503.37	271.05
3	1976	403.17	329.40	146.61	174.09	274.01	509.60	144.32	225.17	290.88	233.81	496.47	579.03	317.21
4	1977	560.04	270.54	150.92	129.80	63.50	182.09	85.13	53.15	61,38	110.52	227.05	441.25	194.61
5	1978	88 8 8	45.38	39.99	26 23	30.02	35.54	473.09	182.90	261.49	81.91	125.02	166.30	129.73
6	1979	79 50	322.15	119.71	69.70	728.78	131.13	113 20	402 55	545.16	528.80	668 04	523.81	352 71
- 7	1980	446.08	196.68	334.08	97.33	335.03	189.26	260.38	305.26	745.07	359.06	189.92	353.89	317.75
8	1981	361.31	292.30	134.94	336 26	192.72	231.35	106.10	80.68	55.41	385.78	290.33	1581.79	337.41
- 9	1982	659,40	148.12	108 65	\$2.47	44.73	624.59	1102 56	339.65	124.90	725.68	1385.64	783.28	508 31
10	1983	268.69	259.72	840.09	510.38	1445.52	1458,12	1041.35	266.15	842 23	717.35	532.94	200.87	698.62
11	1984	417.64	289.76	140.66	246.93	265.52	168.62	100.50	243.98	216.65	213 26	380.29	652.14	278.00
12	1985	210.65	177.26	201.10	601.78	434.94	233.80	179.05	97.18	63.27	45.60	71.41	31.75	195.65
13	1986	64.89	341.82	262.09	385.72	726.89	323,96	108 63	276.20	194,18	154.57	89.88	360.80	274.22
14	1987	195.14	793.15	136.79	225.75	1514.00	642.17	233.58	144.02	78.25	130 99	407.03	226 81	393.97
15	1988	155.70	146.10	136 20	274 61	978.39	466.89	173.43	89.94	52.59	49.15	46.05	27.07	216.34
16	1989	398.54	447.61	211 67	268 04	586.93	141.13	433.45	581.51	858 20	416,80	181.36	105.02	386 27
17	1990	635.57	186 93	112.49	257.88	318.73	611.00	848.01	768.14	960.50	878.33]	402 89	175.56	513.00
18	1991	107.98	112.47	73.94	73.92	57.40	389.09	168.61	110.33	59.73	342.69	183.66	662.51	195.19
19	1992	181.49	140.48	241.20	353.03	1363.61	1047.00	537.93	482.03	499.77	498.01	310.86	212.86	489.02
20	1993	287.02	362 66	193.93	132.52	631.52	326.22	419.17	202.74	424.25	1075.80	222.35	327.30	384.29
	Меза	300.91	278.30	195.98	220.90	508.62	406.74	336.73	262.26	336,48	387.57	339.28	409.71	331.96







Monthly Mean Discharge Table Period 1974 - 1993 (20 years)

	Yéar	Jan.	Feb	Mar.	Apr.	May	Jun	اېل	Aug	Sep.	Oct	Nov.	Dec.	Mean
-11	1974	395.05	462.70	331.21	205.87	169.14	302.79	188 50	329.43	372.42	358 02	422.10	472.45	334.14
2	1975	431.85	616.07	315 24	269.44	245.90	367,19	218.10	266.06	247.38	694 08	507.55	659 93	403 23
3	1976	564.52	512.72	276.37	284.17	378.93	793.71	254.46	343.73	400.81	310.65	585.75	653 24	446.5
- 4	1977	893.13	459.57	278 21	255.05	159.15	292.48	165.85	119.37	139.87	165.83	329.86	631.67	325.00
- 5	1978	226.39	133.82	110.13	83.40	(128.67)	86.25	608.40	257,43	355.71	151.24	224.28	255.17	218.4
6	1979	150.52	350.76	222.24	136.97	1105.31	243.08	193.56	370.25	571.32	548 21	785.17	636.45	442 82
7	1980	671.95	526.47	405.48	238.16	490.87	312.77	410.01	353.95	878.86	500.54	335.16	497.30	468.46
8	1981	527.75	322.66	239.80	439.21	332.42	342.76	202.35	167.95	133.01	500.65	393.50	1672.69	439.56
- 9	1982	496.51]	261.76	210.38	136.15	115.95	734.61	1273.37	536.64	268.20	825.26	1479.43	987.29	δ10.40
10	1983	482.41	387.89	1156.75	777.73	1534.92	1701.72	1321.10	505.27	1115.18	917.15	749.19	420,11	923.29
11	1984	466.01	456.70	240.13	335.06	395.16	253.06	185,14	304.09	299.51	299.25	477.52	774.74	373.86
12	1985	361.79	306.29	300.02	688.63	649.03	407.80	324.89	208 22	163.01	126.47	140.63	85.51	313.52
13	1986	119.32	416.07	339.68	429.98	798.25	453.44	208.85	380.35	287.87	234.97	163.57	454.81	357.26
14	1987	291,14	795.45	239.48	338.44	1862.26	767,99	452 67	268.87	174.63	210.79	500.52	337.64	519.99
15	1988	234.85	240.03	213,43	417.37	972.46	639,42	297.40	184.93	128.78	124.76	102.19	84.46	303.34
16	1989	489.15	616.91	329.64	354.45	647.37	252.79	529.60	765.12	1068.20	614.59	330.61	203.12	518.46
17	1990	802.70	351.63	229.96	406.37	432.67	767.86	927.03	1004.43	1179.56	1181 39	644,16	350.43	689.8
18	. 1991 -	264.82	257.51	173.96	145.33	139.33	371.82	243.45	. 191.13	127,16	423.28	272.75	802.45	283.58
19	1992	292.42	236.25	332.71	491.81	1744.29	1263.26	732.65	643.78	667,31	666.40	507.55	376.47	664.58
20	1993	439.76	478.01	293.71	234.51	686.03	447.55	535.98	334.07	513.19	1261.22	375.76	467.95	505.65
T	Mean	430.10	409.96	312.43	333.41	649.41	540.12	463.67	376.25	455.60	506.74	466.36	541.19	457.10

Monthly Mean Discharge St. No. 64820000 Porto Formosa (Piquiri River) 1974 - 1993 (20 Years)

a part of the second part

TANK DA 194

Ę,

Annual Mean Discharge St. No. 64820000 porto Formosa (Piquiri River) 1974 - 1993 (20 Years)

, lul

Month

1.000

Sep.

Aug.

ខី

λ N

「大学を行うないない。 た

144

Ç Qeç

-24

Apr.

May

1980

I - 217

1978

1982

1984

Year

1986

1988

1990

1992

Feb.

Jan.

Mar.

St. No. 64820000 St. Namé Porto Formosa

۲

700

600

500

400

300

200 100 0

1000 900 800

> > 1974

1976

Discharge: Q (m3/sec)

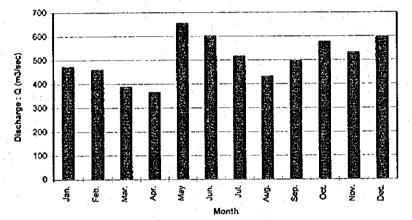
÷

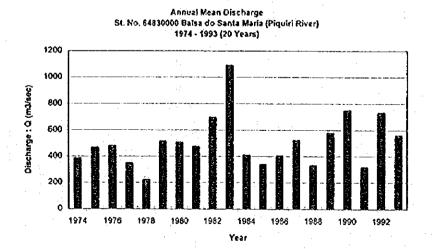
Discharge : Q (m3/sec)

Monthly Mean Discharge Table Period 1974 - 1993 (20 years) SL No. 64830000 SL Name Balsa do Santa Maria

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec.	Мезл
ī	1974	474.21	529.30	401.84	263.06	216.72	328.51	224.02	359.65	445.00	413.04	465 01	\$24.81	387.1
2	1975	498 65	692.83	382.34	340.81	324 20	424 04	283.39	323.31	285.85	787.19	547.30	739.05	469.0
3	1976	639 39	539.97	314.77	319.55	388.77	731.89	285.61	370.75	427.97	358.07	666 54	739.18	481.8
4	1977	876.40	529.62	343.10	288.77	188.73	306.36	183.78	137,19	148.42	187.93	340.44	676.80	350.6
5	1978	251 97	173.94	139.60	100.72	99.91	100.49	503.69	267.21	363.96	\$64.65	239.42	261.74	222 2
6	1979	187.09	376.12	328.91	173.45	900.95	289.88	259.11	526.81	688.63	651.31	989.04	841.67	517.3
7	1980	708.09	429.14	666.23	265.74	554.78	355.87	424.42	402.37	780.51	570.97	398.47	534.38	507.5
8	1981	521.72	442.79	307.02	382.47	368 24	386.70	253.14	198.48	162.34	583.30	414.76	1694.94	476.3
9	1982	587.06	360.77	277.15	174.62	156.23	771.65	1496.56	589.13	341.45	883.77	1646.10	1078.47	697.:
10	1983	559.03	502.87	1429.84	827.40	1909.39	1976.09	1473.05	735.60	1180.01	1141.19	870.99	493.23	1095.
11	1984	512.04	486.34	269.51	378 23	446.32	301.45	228.39	360.50	324.35	330.67	502.83	801.03	411.
12	1985	396 67	343.44	322.90	712.53	677.64	440.71	370.16	242.93	184.58	148.29	158.02	94 86	341.0
13	1986	137.49	431.94	380.40	461.11	840.70	532.t4	286.03	465.34	338.11	292 55	211.02	502.14	406
14	1987	347.01	915.18	299.99	383.32	1238.93	899.54	500.35	339.80	220.87	251,40	536.37	350.51	523.
15	1988	268 39	270.70	225.11	407.43	1013.98	686.92	354.75	224.74	163.63	151.96	123.94	94.40	332.
16	1989	504.45	660.89	465.84	399.51	(702.31)	310.22	517.97	855.00	1168 02	689.72	408.08	271.63	579.
17	1990	853.02	395.02	272.95	431.92	518 94	804.39	1002.63	938.28	1275.50	1290.41	755 54	463.52	750.1
18	1991	296.74	321.72	222.07	190 25	161.39	403.39	273.92	201.92	143.89	482 67]	321.67	820.35	320.
19	1992	347.90	282.69	367.18	540 90	1660.19	1490.11	835.72	721.54	741.72	789.35	585.44	449.43	734.
20	1993	484.15	523.32	342.12	270.43	746.95	493.93	577.01	384.38	549.18	1373.47	460.44	518.36	560.
T	Mean	472.57	460.43	387.95	365.61	655.76	601.71	516.69	432 25	496.95	577.35	532.07	597.53	508

Monthly Mean Discharge St. No. 64830000 Baisa do Santa Maria (Piquiri River) 1974 - 1993 (20 Years)





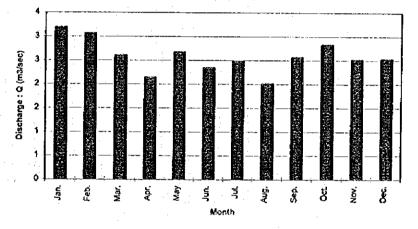


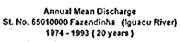
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 55010000 St. Name Fazendinha

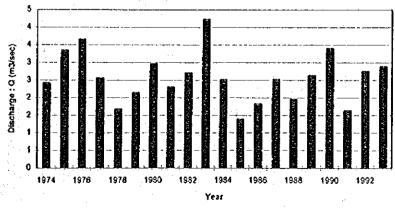
600

	Year	Jan 🛛	Feb.	Mər.	Apr.	May	Jun.	Jut.	Aug.	Sep.	Oct	Nov.	Dec.	Mean
. 1	1974	4.04	3.76	4.87	2.60	1.36	1.81	1.97	1.22	2.24	1.66	1.68	1.93	2.4
. 2	1975	3.24	4.54	2.75	1.88	1.67	1.55	2.47	2.55	3.61	5.62	4.78	5 60	3.3
3	1976	8.17	4.56]	4.82	2 55	4.29	4.12	3.16	3 64	2.83	2.55	2.47	2.18	3.6
- 4	1977	3.83	3.53	3.15	3.10	1.32	1.18	1.22	1.12	1.38	5.43	2.93	(2.64)	2.5
5	1978	2.99	1.94	(1.03)	0.95	(0.76)	1.24	1.34	1.84	3.11	1.21	2.19	1.68	1.6
6	1979	2.01	1.80	1.87	1.31	4.00	1.35	1.40	0.96	2.25	3.38	2.62	(2 95)	2.1
7	1980	2.79	3.45	2.61	1.97	- 1.11	1.07	3.07	3.11	4.34	4.86	2.12	5.15	2.9
- 8	1981	5.47	3 28	2.20	2.00	1.69	1.09	1.22	0.93	0.86	1.82	3.82	3.40	2.3
9	1982	1.17	(2.52)	2.40	1.49	1.55	3.28	3.87	1.68	1.31	2.98	5 63	(4.70)	2.7
10	1983	3,44	3.85	3.05	4.45	5.63	6.85	8 57	2.75	4.23	3.91	2 30	1.83	4.2
11	1984	2.64	1.45	1.79	2.76	3.30	3 26	2.00	3.61	2.61	1.71	3.09	2.06	2.5
12	1985	1.95	-2.82	2.00	2,11	1,17	1,13	0.84	0.54	1.35	1.02	1.14	0.68	1.4
13	1986	(1.11)	2.57	2.17	1.52	1.33	0.72	0.90	1.35	1.39	1,98	2.63	4.43	1.6
14	1987	2.43	3.72	1.25	2.50	6.28	3.88	1.82	1.40	1.97	2.39	1.35	1,35	2.
15	1988	1 25	2.07	2.50	1.77	4.94	2.62	1.29	0.97	1.92	2.02	1 18	1.04	1 1
16	1989	6.17	2.61	2.08	2.22	3 78	1.35	2.29	1.82	3.94	1.56	1.02	2.85	2.6
17	1990	6.90	2.90	2.69	2.68	2.30	2.55	4.37	4.00	3.69	3.68	3.65	1.53	3.4
18	1991	1.58	1.26	3.08	- 1.53	1,18	1.84	0.89	1.21	0 76	2.52	2.42	1.48	1.6
19	1992	1.22	4.57	3.02	1.32	3.09	3.23	4.55	4.37	2.82	1.76	1.74	1.43	2.7
20	1993	2.88	4, 19	2.87	2.30	2.83	2.94	2.52	1.32	4.81	4.73	1.61	1.81	2.9
	Mean	3.19	3.07	2.61	2.15	2.68	2.35	2,49	2.02	2.57	2.84	2.52	2.54	2.

Monthly Mean Discharge St. No. 65010000 Fazendinha (Iguacu River) 1974 - 1993 (20 years)





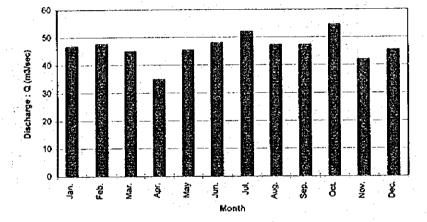


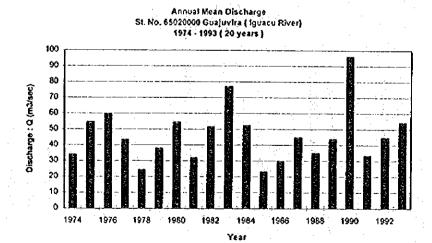
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65025000 St. Name: Guajuvira

							r				T			·
	Year	Jan.	Feb.	Mar.	Apr,	Мау	Jun.	Jul.	Aug.	Sep.	Oct	Nov.	Dec.	Mean
1	1974	(\$7.68)	(40.50)	(73.10)	(31.73)	(15.87)	(30.00)	(34.76)	(17.00)	(38.95)	(22 84)	(22 58)	(22.37)	
2	1975	(42.07)	(44.31)	(46.33)	(25.11)	(17.69)	(21.17)	(44.98)	(58.53)	(52.67)	(122.12)	(68.04)	(114.28)	54.7
3	1976	(107.10)	(69.58)	(72 20)	(33.10)	(43.07)	(95.10)	(48.55)	(90.29)	34.31	45.05	47.65	31.97	59 9
4	1977	53.61	76.90	60.01	73.37	23.71	21.40	22 02	19.32	18.45	68.23	35.35	48.46	43.4
- 5	1978	23 36	15.80	17.29	9 52	11.92	17.31	25.55	39,86	59.33	19.25	32 33	20.26	24.3
6	1979	17.32	18.01	20.41	14.90	73.95	21.80	24.36	18.48	46 59	75.44	70.07	54.51	37.9
7	1980	33.17	47.99	64.45	38.37	17.64	19.59	60.75	69.34	89.94	72.46	42.00	93.98	54.5
8	1981	89.98	47.08	27.75	24.57	20.60	13.84	13.68	14.50	12.40	28.90	32.83	57.41	31.9
9	1982	13.66	46.14	32.85	16.88	17.43	61.03	110.63	32.53	24.34	68.90	106.54	88.49	- 51.8
10	1983	62.63	61.94	61.74	73 74	64.76	159.47	136.18	64.75	92.50	65.63	34.26	49 26	- 77.3
11	1984	50.00	33.77	38.60	47.59	67.57	70.49	43.85	73.64	53.48	40.37	60.51	49.57	52.
12	1985	31.03	50.07	34.34	36.08	18.73	18.32	14.24	6.81	23.32	18.11]	15.38	8.39	23.1
13	1986	18.87	41.03	37.12	21.59	25.55	13 26	10.67	25.36	16.52	27.83]	36 86	84.60	29.
14	1987	43.95	47.24	14.92	37.66	133.10	82.33	36.85	26.23	29.60	41.42	19.91	25.04	44.
15	1988	20 30	40.33	51.05	30.72	97.65	66.28	26.70	14.92	23.56	24.23	12.25	11.43	34
16	1989	75 50	56.34	33.26	43.77	71.29	21.92	31.12	45.37	75.97	30.39	17.44	23.86	43.
17	1990	108.57	(70.16)	(66.48)	50.82	50.54	47.91	208.99	192.72	105.81	128.93	92.67	30.10	96
18	1991	35.11	33.86	47.48	28.47	30.19	36.13	29.12	22.96	14.52	43.98	37.65	41.39	33.
19	1992	22.23	42.06	48.05	24.35	52 68	82.76	70.16	86.26	38 43	26.52	24.69	18.28	44.
20	1993	30.20	70.17	52.13	35.82	53.95	60.06	48.79	24.64	94.51	121.05	(30.63)	29.76	54.
	Mean	45.82	47.67	44.98	34.92	45.39	48.06	52.10	47.28	47.26	54.58	42.03	45.42	45.
بطبيعين		(Nole) ()	: correlated	value, bla	nk is uncorri	elated value								

Monthly Mean Discharge St. No. 65020000 Guajuvira (Iguacu River) 1974 - 1993 (20 years)

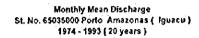
6

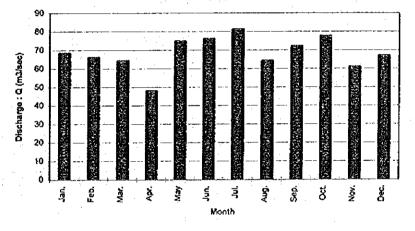


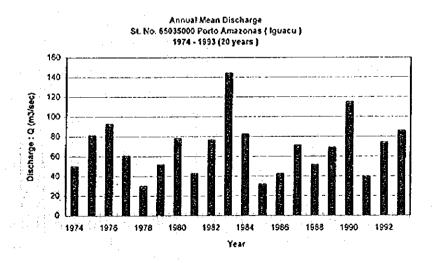


Monthly Mean Discharge Table Period 1974 - 1993 (20 years) SL No. 65035000 SL Name Porto Amazonas

	Year	Jan.	Feb.	. Már.	Apr.	Мәу	Jun.	jut	Aug.	Sep.	Oct	Nov.	Dec.	Mean
1	1974	85.58	59.96	108 56	46.89	23 25	44.32	\$1.41	24.93	57.6 6	33.64	33 26	32.94	50 20
2	1975	62.31	65 64	68.65	37.03	25.96	31.15	66.64	85.84	78.10	181.63	101 02	169.94	81.24
-3	1976	159.24	103.31	107.22	48 94	63 80	142 84	71.96	134.18	89.05	66.60	74.05	53.11	92.86
4	1977	84.53	119.82	83 98	104.02	30.60	27.82	27.99	24.83	24.09	92.24	43 92	61.00	60.8 2
5	1978	26.68	20.50	19 32	9.77	11.95	21.84	37.93	57.68	76.10	22 25	38.77	20.58	30 28
6	1979	16.57	15.95	24.58	14.53	103.88	25.79	28.89	24.28	70.78	114.04	97.07	86.74	51.93
7	1980	46.73	66.77	84.32	59.10	23.65	25.95	90.94	105.69	134,14	95.30	59 29	148.60	78.37
8	1981	139.81	62 23	32.84	27.79	24 21	15.43	14.33	15.88	13.31	36.29	50 30	81.58	42.83
9	1982	16.63	60.79	41.99	19.36	20.87	89.21	186.73	48.54	30.59	96.51	185.16	123.49	76.66
10	1983	76 26	78.44	87.45	92 53	192.10	267.66	433.00	104.93	150 93	112.17	58.88	77.78	144 34
11	1984	74.12	51.44	62.20	69.91	104.64	120.92	74 25	120.90	81.80	60.76	94.52	76.39	82.65
12	1985	41.80	65.19	54,80	59.92	27.85	25.71]	19.81	11.23	28.81	21.82]	20.28	8.69	32.16
13	1986	23.32	45.84	43.81	25.34	37.87	20.05]	13.04	34.30	22.00	39.29	56 29	150.15	42 69
14	1987	73.91	69.14	22.78	52.05	238.01	139.83]	56.38	41.54	42.40	59.94	28.88	30.11	71.25
15	1988	24 72	54.38	70.73	42.03	160.55	111.83]	39.61	19.60	34.38	32.29	16 14	14.54	51.73
16	1989	94.65	87.49	47.02	65.56	119.89	30.94	48.94	77.73	149.51	45,14	27.34	34.18	69.03
17	1990	236.41	104.18	98.70	74.65	72.40	86.87	153.64	153.89	135.46	120.30	109.75	· 35.03	115.11
- 31	1991	30.64	44.49	58.02	27.49	23.99	54.71	28.57	31.97	12.99	63.12	41.24	56.56	39.90
32	1992	23.68	50.41	84.71	41.81	114.64	159.81	109.43	136.62	59.14	46.12	38.70	27.21	74.36
20	. 1993	36.30	101,19	88.53	48.22	82.97	86.79	77.18	37.53	156.98	213.39	45 25	58.47	86.07
-	Mean	68.69	65.41	64.51	48.35	75.15	76.47	81.53	64.65	72.41	77.89	61.25	67.35	68.72







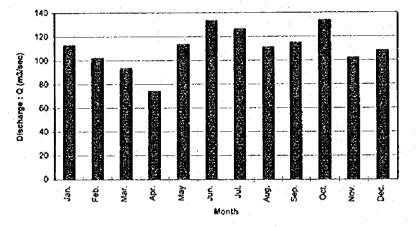
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65060000

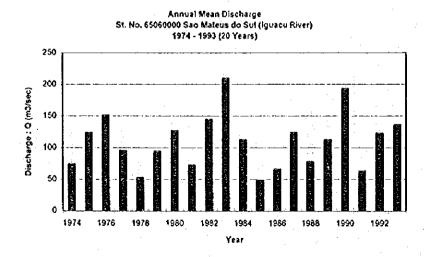
St. Name Sao Mateus do Sul

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	રુખ.	Aug.	Sep.	Oct.	Nov.	Dec.	Mean
- T	1974	96.27	75.89	134.80	86.35	41.49	89.97	90.14	47.06	80.01	45.13	56 52	48.83	74.4
2	1975	92.33	103.49	70.07	54,12	35.94	43.08	80.62	152.63	96.87	321.10	133.09	304.08	124.0
3	1976	205.31	160.11	170.32	115.93	77.26	299.83	102.19	232.03	147.68	93.85	118.72	99.92	- 151.9
4	1977	145.95	223.01	106.55	148.78	51.34	44.70	42.40	42.82	40.03	125.37	79.26	99.73	95.8
5	1978	45.44	34.91	42.51	24.76	23.97	37.81	66.94	102 50	116.01	45 46	58.19	40.70	53 2
6	1979	28.66	24.68	33.58	22.22	187.27	50.41	44.93	47.35	140.69	196.94	198.25	166.02	95 Q
7	198Q	9126	106.58	(135.12)	87.80	41.92	40.26	150.68]	160.49	291.61	176.09	101.58	142.30	127.1
8	1981	305.12	102.43	43.82	35.04	35.45	24.30	21.20]	22.55	20.39	59.54	77.46	122.55	72.9
9	1982	123.91	75.40]	73.22	34,18	28 50	80.12	390.28]	87.14	49.65	175.17	346.36	276.34	145.0
10	1983	123.91	115.27	160.09	113.98	263.44	469 26	540.56	172.44	165.93	218.02	80.54	97.57	210.1
11	1934	83.51	77.36	56.34	62.67	117.69	164.17	\$9.26	192.16	135 21	109.99	138.75	118.02	112.9
12	1985	62.31	78.72	84.80	91.97	48 60	33.09	34.53	22.76	37.55	33.02	37.44	17.68	48.9
13	1986	32.49	62.08	59.72	44.75	56.65	40.82	22.94	41.55	45.11	62.67	85.78	241.68	66.3
14	1987	185 29	114.26	43.96	60.72	398.86	263.45	121.16	65.46	59.44	83.00	54.35	41.64	124.3
15	1988	35.73	78.63	91.79	53.41	208.64	231.91	69.94	32.41	40.81	43.85	31.33	21.85	78 36
16	1989	104.89	160.69	89.49	115.16	191.88	44.83	52.37	169 22	266.49	78.55	42.65	38.34	112.88
17	1990	364.75	187.87	120.16	123.43	126.51	172 95	199.97	276.34	287.45	207.82	199.75	56.58	193.63
18	1991	41.61	71.92	78.03	39.48	32.56	85.21	84.13	47.56	24.41	93.26	78.04	87.50	63.6-
19	1992	48,13	64.62	108.15	100.32	149,83	316.42	180.17	242.35	97.19	70.30	60.08	43.62	123.4
20	1993	42.81	125.46	163.03	70.80	152.75	129.41	134.36	64.41	156.93	431.74	65.51	100.67	136.4
	Mean	112.98	102 22	93.53	74.29	113.58	133.35	126.44	111.09	114.97	133.59	102.18	108.29	110.5

Monthly Mean Discharge St. No. 65060000 Sao Mateus do Sul (louacu River) 1974 - 1993 (20 Years)

C

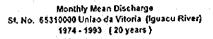


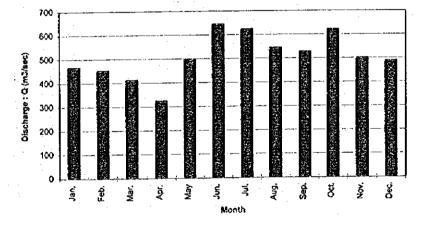


I - 222

Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65310000 St. Name Uniao da Vitoria

	Year	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul.	Aug.	Sep.	ા	Nov,	Dec.	Mean
1	1974	615.73	607.17	621.31	331.00	168.01	313.10	482.89	343.09	462.24	181.09	242.10	138.95	375.56
2	1975	300.92	228.09	338 23	187.34	142.74	167.39	226.27	554.85	565.56	1203.60	518.15	1351.45	491.88
3	1976	827.18	\$55.92	603.92	493.79	362.40	1169.76	435.59	883.30	638.05	384.56	588.03	500.13	620 22
- 4	1977	619.81	\$02.30	479.09	564.13	200 2 i	193.81	214.54	279.50	232.38	707.28		467.50	435.13
- 5	1978	189.26	153.80	280.64	128.43	95.54	136.60	300.04	408.57	476.05	249.47	312.55	305.60	253.05
6	1979	201.59	104.44	154.06	140.16	964.67	275.70	251.54	325.82	607.66	1059.87	1022.98	824.66	494.43
7	1980	413.85	409.33	533.33	301.71	245.68	205.17	703.72	707.21	1293.44	684.80	476.46	784.37	568.26
8	1981	1245.55	474.63	208.54	163.07	148.43	118.83	103.81	127.72	171.10	389.71	418.90	592.83	346.93
9	1982	253.54	399.73	328.16	160.87	145.97	437.47	1451.08	541.53	302.01	788.35	1503.21	1228.43	628.45
10	1983	634.95	631.23	922.07	436.35	1275.92	1805.76	3611.91	1403.71	783.72	1026.38	497.50	428.16	1121.47
11	1984	340.42	199.33	232.30	292.33	466.13	738.40	488.10	1267,43	593.12	493.60	710.48	496.75	526.53
12	1985	224.60	378.48	307.04	533.80	230.07	130.21	141.21	79.58	141.64	105.17	187.34	63.82	210.66
13	1986	125.07	276.66	321.54	277.60	237.75	235.13	98.27	185.15	291.58	376.96	426.38	739.63	299.31
14	1987	723.93	571.37	221.\$8	218.99	1238.19	-1113.36]	514.02	341,02	253.00	394.51	232.40	148.96	497.64
15	1988	195.65	300.65	314.24	174.24	1104.70	998.44	323.94	132.71	176.74	308.90	255.95	111.08	366.44
549	1989	548.72	959.98	545.47	558.37	723.92	207.05	277.99	703.79	1230.61	521.86	231.23	143.58	554.38
550	1990	1216.96	811.62	393.19	518.51	662.93	1275.79	799.79	1109.92	1173.54	1010.00	881.19	398.71	854.35
551	1991	165.56	253.23	225.90	186.20	152.15	441.63	462.27	359.44	134.21	491.27	411.80	425.27	309.08
552	1992	289.83	261.61	479.47	424.32	751.91	2385.83	1044.15	903.36	455.39	338.15		258,56	662.19
209	1993	208.87	682.26	693.93	407.77	666.37	577.52	557.44	244.43	570.58	1732.27	311.71	385.19	586.53
	Mean	467.10	452.99	413.22	325.20	499.24	646.35	624.43	545.11	527.63	622.39	502.15	489.68	509.62



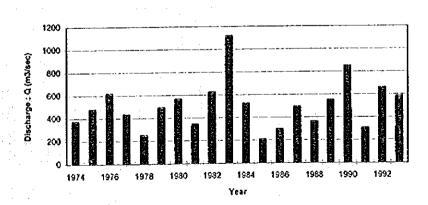


.

9

ANNUAL MEAN DISCHARGE St. No. 65310000 Unizo da Vitoria (Iguacu) 1974 - 1993 (20 Years)

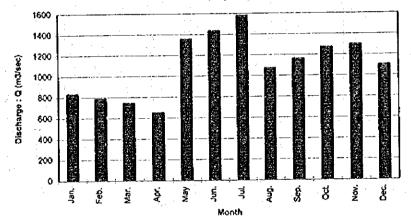
.

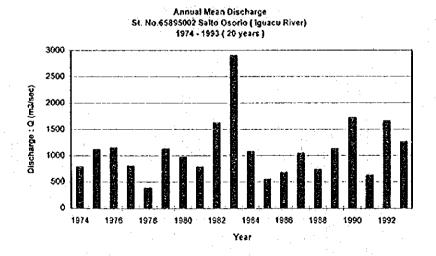


Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65895002 St. Name Salto Osorio

	Year	Jan.	Feb.	Mər.	Apr.	Мау	Jun.	Jul.	- Aug.	Sep.	oa	Nov.	Dec.
	1974	1121,23	1168.44	1089.33	604.07	371.00	742.61	934.43	727.76		497.59	543.84	571.49
2	1975	779.37	763.95		461.09	340.44	(395.65)	(444.36)		(1447.48)	(3026.80)	(1396.75)	(2667.84)
3	1976		(1083.58)			(493.10)	•	(709.15)		(1354.41)	(974.24)	(1522.14)	(931.10)
4	1977		(1165.77)		• •	(206.16)		(405.42)		(517.75)	(1200.35)	(1258 39)	(1170.72)
5	1978	(265.05)	•		• •	, ,	(71.74)	(926 20)	(872.46)	(837.74)	(294.64)	(571.31)	(537.14)
6	1979	(275.08)				(2878.12)	(772 21)	(473.42)	(992.95)	(1376.72)	(1611.05)	(2867.63)	(1636.56)
7	1980	(903.94)	• •		• •			(523.20)	(963.39)	(2241.59)	(1367.60)	(1199.07)	(1409.62)
8	1981	(1670.15)			• •	•	(635.09)	(304.03)	(234.06)	(258.72)	(374.25)	. (598.90)	(2296 25)
9	1982	(734.75)				(252.14)	(1040.71)	(3923 68)	(1012.50)	(507.76)	(2647.73)	(\$188.76)	(2675.15)
10	1983	(980.71)			• • •	(5606.99)	(3615.76)	(10650 94)	(2095.30)				(839.67)
11	1984	(674.88)	(630.68)	(641.56)	(812.56)	(713 33)	(1939.08)	(884.81)	(2198.07)	(1038.37)	(1006.06)	(1295.31)	
12	1985	(622 58)	(683.00)	(626.37)	(916.41)	(825.29)	(662.54)	885.32	368.29	229.63	246.97	288.17	264.94
13	1986	422.91	306.39	225.65	528,17	846.40	1003.11	994.67	717.36	508.45	678.34	1040.41	887.84
14	1987	878 96		489.09		3435.31	2207.80	1400.90	724.07	511.96	447.39	684.53	390.27
15	1988	624.62			393,58	1876.11	1884.93	968.76	611.58	319,41	191 32	691.55	
16	1989	203.83		625.25	756.73	1473.39	965.85	672.87	1077.27	3051.06	1428.00	891 22	523.05
17	1990	1781.60			1118.86	1281 11	2869.15	1820.48	2427.05	2429.58	2284.71	1701.57	1029.48
18	1991	654.42	471.77	464.08	463.69	498.12	630.33	805.81	615.35	608.87	605.90		914.95
19	1992	809.77	544.62		938.23	3186.59	5170.32	2613.44	1824.06	31381.90		870.57	821.06
20	1993	656.66	777.23	1061,28	802.80	1705.66	1312.27	1305.30	894,12	1366.61	3461.00	945.53	869.35
	Mean	834.60	788.66	745.53	652.79	1432.93	1438,19	1582.36	1074.56	1164.28	1274.98	1301.89	- 1104.30
		(Nole) () : correlate	d value, bia	nk is uncorr	elated value	6						

Monthly Mean Discharge St. No. 65895002 Salto Osorio (Iguacu River) 1974 - 1993 (20 years)





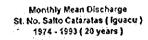
I - 224

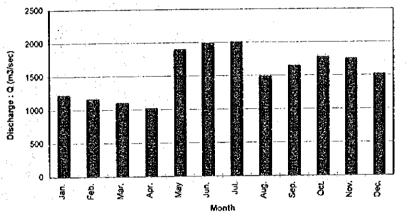
ę

l

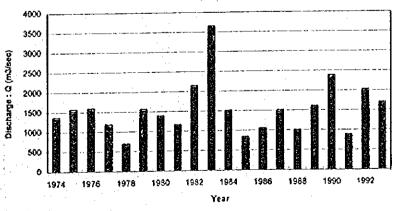
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65993000 St. Name Salto Cataratas

		وصدمته محمد							يدعد فصمحم					
	Year	Jan,	Feb.	Mar.	Apr.	Мәу	Jun.	Jul.	Aug.	Sep.	Ocl	Nov.	Dec.	Mean
1	1974	1552.40	1584 84	1415 27	\$96.14	1437.30	1784.18	1619.77	1068 26	1849.10	757.55	1144.48	1222.76	1369.3
2	1975	1390.39	1257.37	996 58	786.92	608.74	707.33	764.61	1388.42	1944.45	3801.99	1884.78	3379.80	1575.9
3	1976	2051.89	1516.45	1113.77	1253.17	821.94	2559.15	1076.06	2189.55	1834 98	1387.84	2032 27	1337.10	1597.8
4	1977	1530.66	1613.11	1177.89	1166.33	484.45	892 47	718.82	835.90	850.93	1653 79	1722.05	1618.94	1188.7
5	1978	554.89	372.00	450.48	281.13	152.90	326.35	1331.34	1268.13	1227.30	588.52	913.93	873.74	695.0
6	1979	565.52	297.79	588.76	624.77	3627.12	1150 22	798.80	1409.85	1861.23	2136.84	3614.78	2166.84	1570.2
7	1980	1305.16	1223 21	1655.89	574.97	803.94	618.85	857.35	1375.08	2878.46	1850 50	1652 28	1899.92	1391.3
8	1981	2206.35	1419 32	865.19	1163.22	1134.18	990.12	599.56	517.27	546 27	682.15	946 38	2942.75	1167.7
9	1982	1106.16	1046.75	955.26	522.10	538,53	1466.02	4856.87	1432.84	839.18	3356-15	6344.82	3388.39	2154.4
10	1983	1395.45	1367.57	3438.17	1931.22	6836.73	4494.71	12769.25	2706.40	2911.23	2744.61	2111,10	1228.39	3661.2
11	1984	1035.74	983.76	996.56	1197.68	1080.97	2522.66	1282.66	2827.27	1463 27	1425.27	1765.48	1617.44	1516.5
12	1985	974.23	1045.30	978.69	13 19 82	1212.65	1021.23	819.40	766.73	428.70	436.02	690.00	426.87	843.3
13	1986	452.21	693.30	656.00	1016.58	1480.92	1568.88	1117.06	1058.60	1112.48	1143.87	1146.12	1238.11	1057.4
14	1987	928 23	1400.14	904.68	1159.57	4304.11	2667 23	1747.76	1029.48	686 27	948.74	1456,17	897 26	1510.8
15	1988	852.69	664.50	697.77	668.48	2579.77	2321.28	1226.52	799.84	508.95	430.97	762.67	576.42	1007.4
16	1989	1072.58	2521.37	1196.89	1008.20	1687.85	1048.33	1023,11	1529.97	4309.50	1944.65	1212.05	745.68	1608.3
17	1990	2571.12	1544.43	904.42	1591.77	1848.37	4573.57	2338.84	3358.10	3636.05	2976 21	2061.68	1330.56	2394.5
18	1991	803.95	610.61	551.63	669.47	663.94	1438.75	1156.35	841.11	787.93	927.18	967.48	1249.63	889.0
19	1992	1050.11	732.66	1145.73	1361.23	4295.38	5665.82	2443.71	2061.08	1705.43	1522.40	1381.70	1030.74	2033.0
20	1993	1026.56	1289.62	1380.32	1107.89	2337.08	1921.40	1600.97	1245.08	1487.97	4748.45	1160.33	1158.84	1705.3
	Mean	1221.31	1159.46	1103.50	1020.03	1896.84	1986 93	2007.44	1485.45	1643.49	1773.19	1748.53	1516 51	1546.8



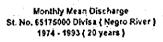


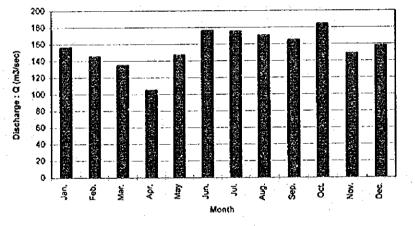
Annual Mean Discharge St. No. Salto Cataratas (Iguacu) 1973 - 1993 (20 years)

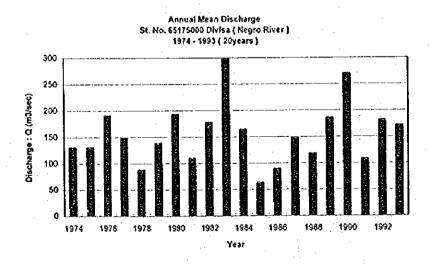


Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65175000 St. Name Divisa

	Year	Jan.	Feb.	Mar,	Apr,	Мау	Jun.	Jul	Aug.	Sep.	Oct	Nov.	Dec	Mean
<u>""</u>	1974	247.80	199.44	242 58	122.24	58.86	93.74	168.46	120.83	135.30	61,70	66.68	43.83	130 9
2	1975	78 25	49.78	79.59	51,95	45.87	42 82	65.65	156.53	112.63	285.08	168.65	438.45	131.2
3	1976	274.27	155.98	184.47	151.65	120.58	348 37	151.80	278.62	190.15	123.91	155.59	159.22	191.
4	1977	229.99	281.28	158.76	214.25	84.58	72.61	68.01	78.00	67.81	225.71	150.59	152.38	149.
-5	1978	81.16	68 25	106.60	49.03	43.54	57.88	81.25	123.36	165.25	87.48	105.43	93.44	88.
6	1979	61.79	40.81	42.30	38.51	262.69	79.03	93.35	93.57	169.11	277.68	238.67	271.96	139.1
7	1980	176.89	160.86	182.41	121.20	74.59	70.80	228.56	249.96	432 87	216.43	150.60	256.55	193.4
8	1981	373.71	163.36	71.20	60.35	47.71	39.52	42.47	46.24]	\$7.38	113.92	133.07	176.77	110.
- 9	1982	73.97	142.34	117.67	66.62	50.65	119.17	383.03	126.09	76.07	235.26	402.53	339.45	177.
10	1983	182.21	130 20	250.41	149.35	334 88	505.69	717,82	381.71	281.16	350.24	136.13	175.72	299.
11	1984	136.57	69.20	87.79	83.43	125.79	211.09	136.80	413.57	207.18	164.28	217.32	123.01	164.
12	1985	68.74	103,13	87,65	134.13	73.54	49.87	46 50	31.63	\$1.08	39.71	53.67	25.64	63
13	1986	57,13	87.18	78.72	80.43	53 32	50.62	34.05	56.46	93.60	109.03	120.43	261.00	90.
14	1987	193.63	199.54	79.34	69,16	363.31	290.83	139.58	116.02	103 50	119.03	61.57	49.15	148
15	1938	73.37	86 89	\$9.31	53.06	349.64	275.40	102.09	53.08	81.85	111.94	88.70	45.08	118
16	1989	163.48	322.04	202.56	- 184.84	231.10	71.88	90.84	263.64	361.00	156.42	(134.62)	56.46	186.
17	1990	404.80	223.53	. 148.43	. 183.41	187.51	359.23	287.99	326.24	- 341.29	327.68	262.87	192.36	270.4
18	1991	(72.72)	(94.76)	(87.89)	(77.91)	(69.35)	(142.12)	(147,31)	(121.45)	(64.84)	(154.60)	(134.62)	(138.01)	108.
19	1992	(103.96)	(96.87)	(151.64)	105.63	172.82		352.34	286.23	137.97	109.35	96.38	- 70.14	182.
20	1993	77.30	237.58	240.11	111.60	184.37	147.72	175.60	93.15	176.32	425.65	100.91	95.69	172.
. 1	Mean	156.59	145 65	135.47	105.44	147.24	176.70	175.68	170.82	165.32	184.76	148.95	158.27	155.







1 - 226

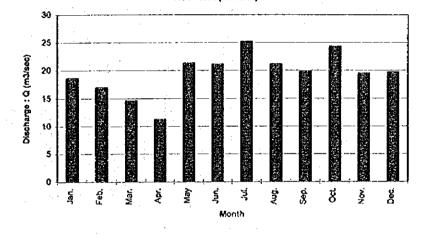
Ċ

Monthly Mean Discharge Table Ferlod 1974 - 1993 (20 years) St. No. 65260000 St. Name Foz do Cachdeira

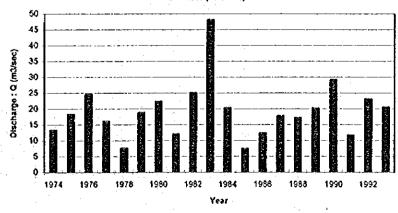
9

	Year	Jan	Feb.	Mar.	Apr.	May	Jun	Jul.	Aug	Sep.	Oct	Nov.	Dec.	Mean
1	1974	(24.66)	(24.25)	(24.92)	(11.36)	(3.76)	(10.53)	(18.45)	(11.93)	(17.49)	(4.37)	(7 21)	(2.40)	13.4
2	1975	(9.96)	(6.47)	(11.70)	(4.66)	(2.58)	(3.73)	(6.48)	(21.81)	(22.31)	(52.10)	(20.10)	(59.00)	18.4
3	1976	(34.53)	(21.86)	(24.10)	(18.95)	(12.83)	(50.52)	(16.25)	(37,15)	(25.70)	(13.86)	(23.36)	(19.26)	24.8
_∢[1977	(24.85)	(33.36)	(18.28)	(22.25)	(5.26)	(4.96)	(5.93)	(8 96)	(6.76)	(28 93)	(17.44)	(17.74)	16 2
5	1978	(4.75)	(3.09)	(9.01)	(1.91)	(0.37)	(2.29)	(9.92)	(14.99)	(18.14)	(7.56)	(10.50)	(10.18)	1.1
6	1979	(5.32)	(0.79)	(3.10)	(2.46)	(40.94)	(8.78)	(7.66)	(11.12)	(24.28)	(45 39)	(43.67)	(34.41)	18 9
7	198Q	(15.23)	(15.02)]	(23.61)	(10.00)	(7.38)	(5.49)	(28.76)	(28.93)	(56.29)	(27.88)	(18.15)	(32 53)	22.4
8	1981	(54.06)	(18.07)	(5.65)	(3.53)	(2.84)	(1.46)	(0.76)	(1.88)	(3.90)	(14.11)	(15.47)	(23.59)	12.1
. 9	1982	(7,75)	(14.57)	(11.23)	(3.42)	(2.77)	(16.33)	(63.65)	(21.19)	(10 01)	(32.71)	(66.08)	(53.26)	25.2
10	1983	(25.55)	(25.38)	(38.96)	(16.28)	(55.47)	(80 21)	(164.52)	(61,44)	(32.50)	(43.82)	(19.14)	(15.90)	- 48 2
11	1984	(11.80)	(\$ 22)	(6.76)	(9.55)	(17.67)	(30 38)	(18.70)	(55.08)	(23.60)	(18.95)	(29 06)	(19.10)	20.4
12	1985	(6.40)	(13.58)	(10 25)	(21.06)	(6.65)	(1.99)	(2.51)		(2.53)	(0.82)	12.40	5.40	7.6
13	1985	3 20	11.10]	9.30	19.10	11.90	9.80	4.30	7.20	11.50	15.00	18.10	29.50	12.5
14	1987	22.60	22.80	6.30	5.50	54.10	24.00	17.90	13.40	7.00	24.10	7.80	9.40	17.9
15	1988	18 20	18.60	17.90	8.50	61.90	29.30	9.00	4.20	7.60	15.50	7.00	9.70	17.3
16	1989	36.60	35.50	15.00	20 20	20.70	7.00	14.30	13 60	43.40	24.90	8.10	4.60	20 3
17	1990	41.70	15.70	9.10	20.90	24.70	57.80	34.30	31.10	28.50	40.70	31.60	15.90	29.3
18	1991	8.50	. 7.00	7.50	6.20	6.60	20.80	15.80	22.90	4,90	21.40	7.40	11.50	11.7
19	1992	7.70	14.40	20,80	10.20	62.90	37.70]	46.20	27.90	18,20	8 50	14.90	.9.80	23.2
20	1993	10.40	34.00	19.70	10.20	25,70	19.90	18.10	(7.32)	33.00	46 20	12.70	11.00	20.8
	Mean	18.69	17.05	14.66	11.31	21.35	21.15	25.22	21.16	19.88	24.34	19.51	19.71	19.4

Monthly Mean Discharge St. No. 65260000 Foz do Cachdelra (Timbo River) 1974 - 1993 (20 Years)

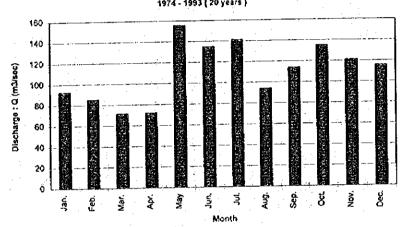


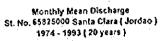
Annual Mean Discharge St. No. 65260000 Foz do Cachdeira (Timbo River) 1974 - 1993 (20 Years)

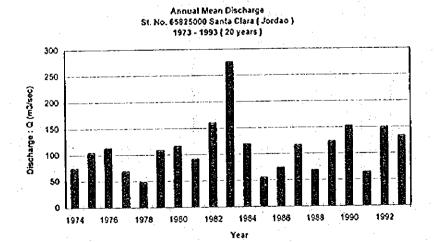


Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65825000 St. Name Santa Clara

فسعستهم	Year	· Jan,	Feb,	Mar.	Apr.	• Мау	Jun.	Jul	Aug.	Sep.	Oct	Nov.	Dec.	Mean
	1974	101.49	112 26	93.28	50.21	32 58	75.10	77.78	59.12	98.50	63.86	68.59	66.35	74.93
	1975	63 48	88.72	71.02	46.15	37.45	52.05	43.14	72 56	123 25	290.10	143.47	225.00	104.70
3	1976	128 54	81.65	78 36	86.18	83.15	209.86	82 08	145.85	131.06	85 29	124,47	127.27	113.65
4	1977	108.90	94.13	90.14	71.00	33.85	60 27	48.40	45.21	47.89	76.40	83.96	69.55	69.14
5	1978	30.63	18 24	25 84	14.49	16.09	24.28	128.82	88.01	78.15	41.61	60 23	52 29	48.22
6	1979	56.13	47.77	45.20	28.38	179.26	59.13	45.97	90.11	160.64	235.59	229.58	133.60	109 28
,	1980	131.16	62.69	82.73	47.72	92 25	84.59	134.70	135 23	231.03	140.37	85.94	151.23	116.65
8	1981	157.02	150 25	72.70	75 58	69.96	62.45	48.87	32.93	29.92	99.44	90.07	213.52	91.89
9	1982	86.88	54.50	33.78	17.85	18.40	183.89	381.05	110.06	52.66	220.21	496.02	268.35	160,30
10	1983	194.42	119.20	187.81	181.92	575.10	354.51	840.34	114.72	257.74	244.95	153.89	82.15	275.57
11	1984	57.95	59.77	83.50	68.85	113.13	196.78	91.34	178.90	117.42	82.89	185.89	175.87	119.36
12	1985	60.47	84.91	63.79	\$58.49	67.71	44.37	60.13	33.44	36.74	20.69	23.22	13.56	55.63
13	1986	30.33	73.60	65.53	67.54	130 61	107.55	37.89	53 94	67.79	64.12	63.63	120.49	73.59
14	1987	59.32	99.60	42.85	67.62	495.63	184.86	109.58	67.38	40.49	74.32	81.59	78.00	116.77
15	1988	53.98	66 29	60.02	66.09	239.37	149.69	69.76	33.92	24.50	23.90	17.88	18.75	68.68
16	1989	109.38	187.70	117.29	81.39	166.92	50.79	76.10	134.32	267.76	150.64	80.12	59.45	123.49
17	1990	222.81	88.83	51.08	102.44	113.93	196.98	183 29	186.88	213.56	258.12	E. 140.28	74.81	152.75
18	1991	35.71	31.15	22.45	45.06	35.42	150.19	93.12	55.77	28.41	78.40	89.95	107.73	64.45
19	1992	79.45	65.93	70.50	74.85	388.50	333.49	149.82	167.13	134.00	140.17	122.55	78.17	150.38
20	1993	85.36	98,13	74.41	70.24	220 26	114.87	124.16	76.73	140.03	313.08	83.91	200.72	133.49
	Mean	92 67	85.28	71.61	72.10	155.48	134.79	141.32	94.11	114.08	135.21	121.26	115.84	111.15



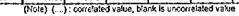


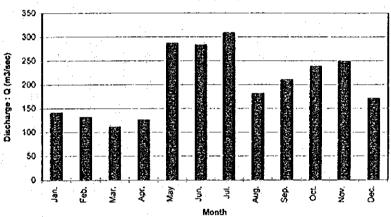


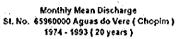


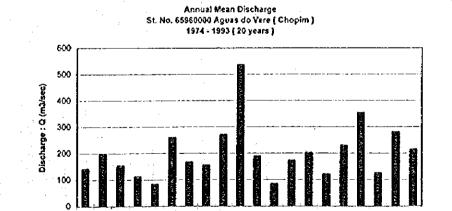
Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 65960000 St. Name Aguas do Vere

	Year	Jan.	Feb.	· Mar.	Apr.	May	Jun.	Jul,	Aug	Sep.	Oct	Nov.	Oec.	Mean
1	1974	158.23	131.55	90.59	68 21	102 82	241.92	152.62	88.74	225.12	91.45	177.66	181.14	142.50
2	1975	213.08	166.92	85.76	69.33	56 95	112.48	137.56	161.79	283.72	541.39	278 26	282 22	199.12
. 3	1978	207.74	137.24	70.44	74.98	103.43	267.42	115.32	217.92	179 22	163.43	227.33	97.34	155.15
4	1977	106 25	68.10	86.21	58.43	31.67	107.97	\$6.52	146.76	120.19	176.05	202.35	156.88	. 112 28
- 5]	1978	52.53	25.95	19.42	7.78	9.17	27.33	232.23	128 39	159.18	73.55	164,15	112.78	84.37
6	1979	43 38	37.07	45.54	113.65	696.77	160.38	160.03	253.58	235 62	614.38	524.96	238.92	260.86
7	1980	224.49	145.91	145.78	55.50	\$14.54	70,38	149.77	238.40	222.18	157.45	226 20	269.05	168.30
8	1981	195.30	199.77	90.55	157.26	135.11	124.44	57.89	39.54	47.25	97.85	248.32	481.47	156.31
· 9	1982	123.14	110.62	60.62	24.77	38.58	367.97	609.66	188.77	100.30	328.89	969.71	331.46	271.21
10	1983	134.44	126.02	633.03	283.13	1111.93	481.90	2390.55	(211.16)	371.85	259.10	306.00	133 05	536.85
11	1984	91.03	100.91	95.64	192.64	156.96	389.04	159.11	373.40	207.53	168.74	225.40	122 57	190.25
12	1985	63.85	107.60	56.77	133.05	90.41	65.70	72 52	78.36	75.25	90.19	144.99	45.99	85 39
13	1985	58.79	184.07	130.41	216.42	324.95	255.81	87.65	156.10	252.06	219.09	119.82	81.88	173.92
14	1987	75 66	181.54	57.99]	207.17	725.64	366 38	193.03	115.00	67.88	162.19	188.51	102 89	203.68
15]	1988	73.45	48.98	34.24	73.67	466.58	373.71	140.86	53.91	34.21	66.21	62.78	39.02	122.30
16	1989	287.60	377.17	134.54	118.53	236.98	85.49	164.45	209.53	647.51	281.05	147.05	79.26	230.76
- 17	1990	390.97	172.72	61.78	333.65	299.92	936.74	· 290.72	412.65	468.72	428.27	253.72	204.03	354.49
18	1991	69.76	51.41	29.91	70 21	44.54	402.92	189.01	114.13	57.42	175.55	132.75	181.05	126.56
19	1992	109.69	106.04	207.98	179.30	647.72	470.77	529.57	265.88	257.10	204.14	247.78	152.88	281.57
20	1993	148,14	161.29	91.26	87.25	345.43	362.55	264.81	175.77	199.04	478.44	139.07	136.51	215.80
	Mean	141.38	132.04	111.42	126.25	287.06	283.57	309.19	181.74	210.62	238.87	249.34	171.52	203.58







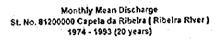


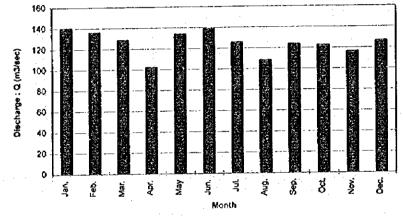
Year

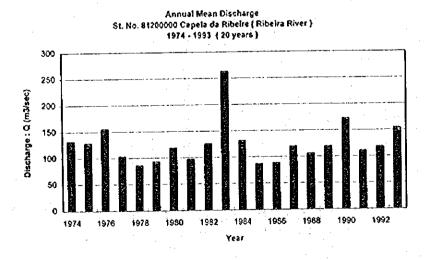
.

Monthly Mean Discharge Table Period 1974 - 1993 (20 years) SL No. 8120000 SL Name Capela do Ribeira

<u>.</u>	Yeat	Jan.	Feb.	Mar.	Apr	Мау	Jun.	fut	Aug	Sep.	Oct	Nov.	Dec.	Mean
-T	1974	234.71	133.86	189.93	127.31	107.68	141.86	99.02	110.58	115.30	118.44	103 23	98.92	131.74
2	1975	124.94	179.35	172.11	95.64	85.78	88.28	129.51	107.64	89.06	155.65	138 21	179.39	128 80
187	1976	187.23	152.24	187.78	115.97	157.35	171.53	147.89	172 64	159.52	144.01	145.76	123.80	155.48
183	1977	133.30	146.41	116.24	141.75	94.87	89.08	83 91	76,78	74.31	93.78	81.58	103.43	102.95
189	1978	78.34	71.63	91.90	60.38	74.16	67.14	96.56	80.66	136.45	64.83	130 86	78.51	65.95
190	1979	78.50	61.85	74.16	57.49	111.06	59.69	59.76	67.20	133.92	143.71	111.28	156.26	92.91
191	1980	143 96	123 67	118.49	107.64	82.51	82.43	122.38	112.84	138.33	105.76	\$8.17	195.54	118.66
192	1981	211.50	125.30	98.99	89.48	82.59	75.03	69.89	65.08	62.20	93.02	84.03	107.99	97.09
193	1982	67.75	124.90	78.66	63.05	62.16]	152.13	181.49	97.83	75.96	153.52	233.86	221.52	126.07
194	1983	198 34	163.07	188.62	185.72	371.17	\$66.07	380 27	208.41	331.52	213.42	182.79	169.68	253.26
195	1984	149.47	136.64	122 22	118.09	135.27	124.94	104.91	139.30	142.66	100.27	150.42	150.64	131.24
196	1985	111.17	133.91	110.30	104.25	91.23	82.90	75.33	68.01	75 76	65.04	69.16	54.19	86.77
197	1986	68.90	117.54	99.61	71.64	95.43	67.39	59.65	85.82	63.66	71.05	85.99	177.90	88.72
198	1987	123.91	165.08	83.57	80.33	217.25	204.56	113.57	93.46	99,16	95.68	86 90	71.59	119.59
199	1988	80.15	111.38	108.52	84.55	237.74	154.57	99.75	82.30	81.50	83.67	69.08	76.51	105.81
200	1989	133 84	145.74	104.81	104.69	150.12	97.93	134.92	113.44	130.06	92.85	86 37	137.79	119.38
201	1990	364.62	169.14	139.48	115.52	116.47	114.72	203.80	169.83	195.73]	178.40	179.46	120.76	172.33
202	1991	115.11	132.68	177.43	112.66	106.14	120.23	95.32	68.83	76.83]	113.44	86.43	105.90	110.94
203	1992	77.98	96.87	163.81	99.92	180.52	: 155.14	121.14	128.08	111.91	109.65	94.24	82.70	118.50
20	1993	125.70	229.27	149.58	112.88	123.87	167.46	140.41	103.63	187.47	258.56	124.10	125.40	154.03
T	Mean	140.47	136.04	128.81	102.45	134.17	139.15	125.97	108.62	124.07	122.74	116.60	126.97	125.50



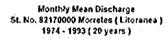


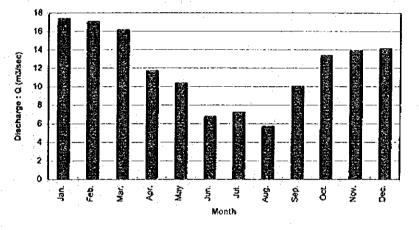


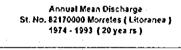
I - 230

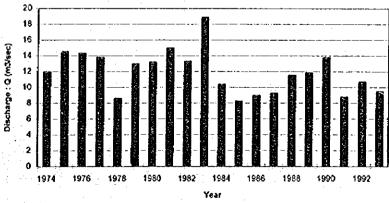
Monthly Mean Discharge Table Period 1974 • 1993 (20 years) St. No. 82170000 St. Name Morretes

ſ		Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul	Aug	Sep.	Oct	Nov.	Dec.	Mean
T	1	1974	21.70	15.84	31.07	12.29	4.97	5.82	4.43	2.78	7.89	8.71	681	21.73	12 00
	2	1975	20.38	21.25	14.45	11.20	11.64	8.29	8.57	8.30	8 33	17.98	23.06	21.39	14.57
	3	1976	27.12	22.04	20.48	11.07	24.26	9.37	9.61	10 23	9 64	8 99	11.41	\$ 38	14.38
	4	1977	18.35	16.64	13.12	16.38]	10.22	5.90	4.08	4.37	9.09	25.32	19.13	23.54	
	5	1978	12.40	12.17	12 37	7.86]	3.61	3.14	3.00	5 49	9.49	6.43	14.99	12.77	
1	6	1979	17.27	19.34	19.50	10.46	11.10	5.50	6.97	3.71	\$4.68	15.04	17.27	15.34	
	7	1980	23.05	21.84	14.48	8.68	4.65	4.55	11.52	9.48	9.62	17.69	10.47	22.70	
	8	1981	36.89	15.53	20.07	14 25	11.47	7.14	8.45	5.14]	4,19	19.54	18.45	16 23	-
	9	1982	14,31	. 18.98	23.22	13.77	10.76	9.78	8 25	5.20]	6.31	16.66	20.48	11.96	
	10	1983	27.24	31.84	17.82	19.36	26.23	18.55	24.71	7.16	14.10	19.92	10,13	9.70	
	11	1984	8.08	8.34	15.03	9.86	6.53	6.65	3.33	12.42	7.92	6.98	24.90	14.79	10.40
	12	1985	16.37	16.89	15.17	13.00	3.63	2.34	0.96	0.67	6.17	5.86	12.27	5.98	
	13	1986	6.27	15.93	9.03	5.86	3 24	1.53	5.93	3.83	11.24	9.91	11.14	24.10	
1	14	1987	13.25	14.06	5.36	12.69	14.03	8.47	3.11	2.30	8.26	13.64	7.14	9.03	
1	15	1988	10.51	18.59	16 23	15.98	20.39	8.35	4.82	2.73	14.11	13.93	6.91	6.45	
	16	1989	31.22	15.27	12.82	9,78	9.99	5.78	5.67	4.85	12.01	9.50	5.33	19.54	11.90
	17	1990	24.71	7.45	21.13	19.86	8.09	5 88	11.97	11.33	10.72	14.18	20.84	9.64	13.82
	18	1991	9.01	11.27	14,59	9.49	4.36	6.52	2.34	2.19	5.83	12.42	20.08	7.48	8.80
	.19	1992	4.46	17.61	13.89	4.09	11.06	5.55	12.32	10.24	13.35	11.52	13.42	11,18	10.72
	20	1993	5.68	16.61	13.92	8.67	7.62	7.18	4.80	2.35	18.36	13.47	4.37	11.00	9.50
ſ		Mean	17.41	17.07	16.19	11.73	10.39	6.81	7.24	5.74	10.07	13.39	13.93	14.15	12.01







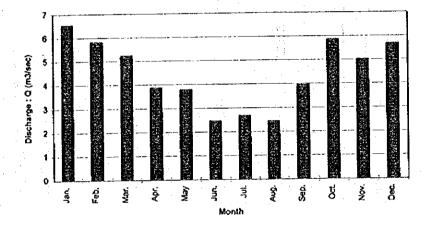


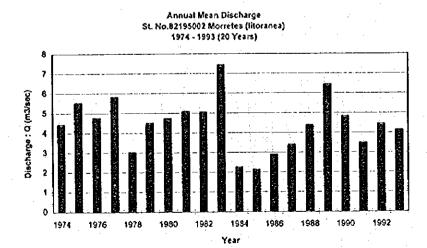
I - 231

Monthly Mean Discharge Table Period 1974 - 1993 (20 years) St. No. 82195002 St. Name Morretes

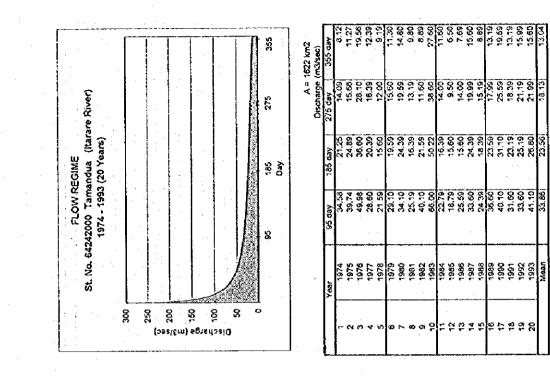
	Year	Jan.	Feb.	Mar,	Apr.	May	Jun.	Jul	Aug.	Sep.	Oct	Nov.	Dec.	Mean
े ग	1974	(8.11)	(5.89)	(11.67)	(4.55)	(177)	(2.10)	(1.57)	(0.94)	(2.88)	(3.19)	(2.47)	(8.13)	4,4
2	1975	(7.61)	(7.94)	(5.37)	(4.14)	(4.30)	(3.03)	(3.14)	(3.04)	(3.05)	10.46	8.48	5.74	5.5
3	1976	8.57	5.99	6.13	2 96	8 23	3.04	2.99	4.05	3.39	4.89	3.97	3.01	4.7
ž	1977	924	8 32	6.35	4.81	2 93	1.65	1.22	1.69	4.07	12.21	7.60	9.63	5.8
5	1978	3 56	3.11	4.09	1.75	1.05	1.38	1,18	1.72	4.00	2.47	5.61	6.43	30
Ť	1979	7.10	7.68	6.12	2 95	6.65	1.79	1.77	1.29	4.03	5.02	4.68	5.11	4.5
7	1980	7.71	6.13	5.04	3.14	1.26	1.30	3.46	2.84	4.09	7.43	2.78	11.76	. 4.7
8	1981	10.55	6.45	5.06	3 88	2.82	1.42	2.74	1.85	1.37	12.37	6.99	5.72	· 5.1
9	1982	4.16	6.50	5.82	5.64	4.53	5.13	3.15	1.94	1.89]	5.31	9.01	6.75	5.0
10	1983	11.45	8,86	5.93	8.99	10.47	7.09	10.85	1.72	7.08	10.44	3.82	2.64	7.4
Ť	1934	1.51	1.53	2.24	2.34	1.34	1.77	0.63	1.53	0.73	0.71	7.69	5.08	22
12	1985	5.63	3.64	2.41	2.70	0.59	0.66	0.38	0.22	1.66	1.83	3.69	2.22	2.1
13	1986	0.75	4 12	2.33	1.58	(1 12)	(0.47)	(2.14)	(1.34)	(4.15)	(3.65)	. (4.11)	(9.02)	2.9
14	1987	(4.91)	(5 22)	(1 92)	(4.70)	(5 2 1)	(3.10)	(1.07)	(0.76)	(3.02)	(5.06)	(2.60)	(3.31)	3.4
15	1988	(3.87)	(6.94)	(5 04)	(5.95)	(7.62)	(3.06)	(1.72)	(0.93)	6.13	5 91	2.34	2.33	4.4
17	1989	17.47	5.17	5.47	4.73	4.75	1.45	2.56	11.14	5.72	3.57	2.17	13 26	. 6.4
18	1990	9.93	2 48	5.54	4,79	2.65	2.08	4,79	5,18	4.76	7.62	5.36	2.96	4.8
19	1991	3.38	4.38	6 25	3 01	1.78	3,16	0.83	0,94	2.17	4.69	9.15	2.01	3.5
20	1992	1.13	7.01	5.17	1.59	4.28	2.62	5.32	4.81	6.66	4.99	5.56	4.33	.4.4
20	1993	4.34	9.09	4.90	3.33	2.43	3.00	2.17	0.90	8.30	5.20	2.05	4.08	4.1
	Mean	6.55	5.82	5.24	3.89	3.79	2.46	2.68	2.44	3.96	5.86	5.02	5.68	· 4,4

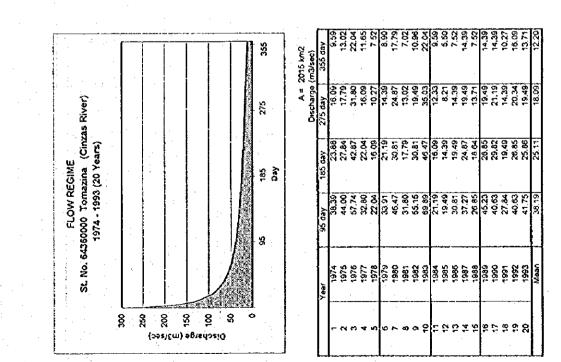
Monthly Mean Discharge St. No.82195002 Morreles (Litoranes) 1974 -1993 (20 Years)

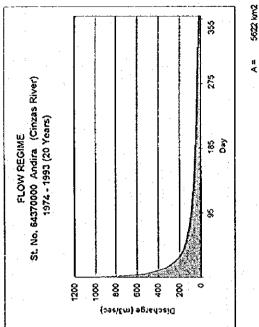


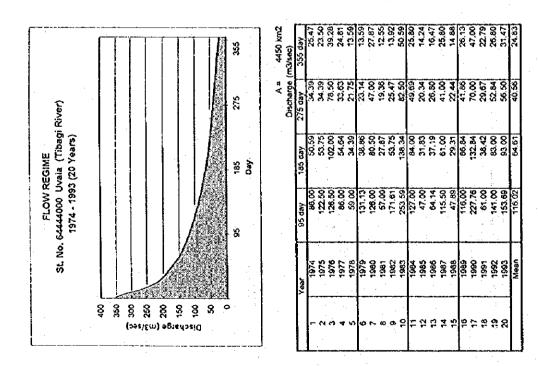


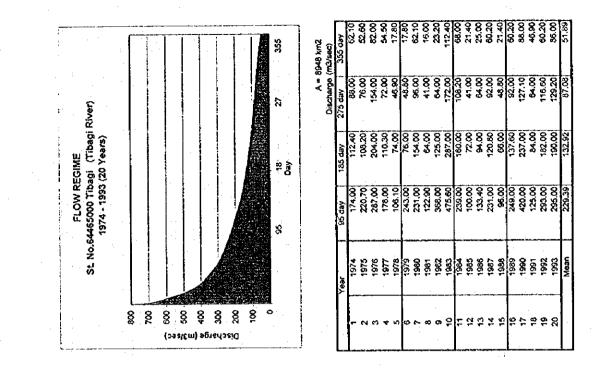




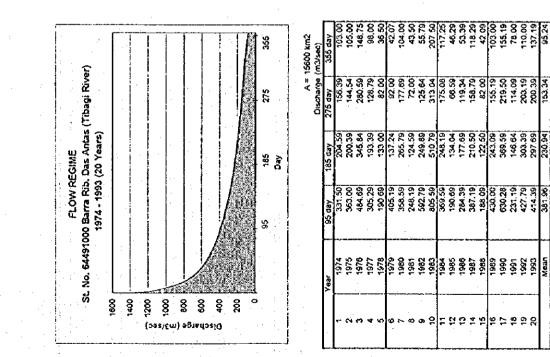


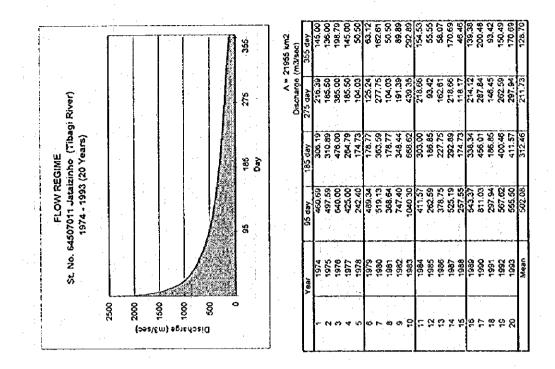


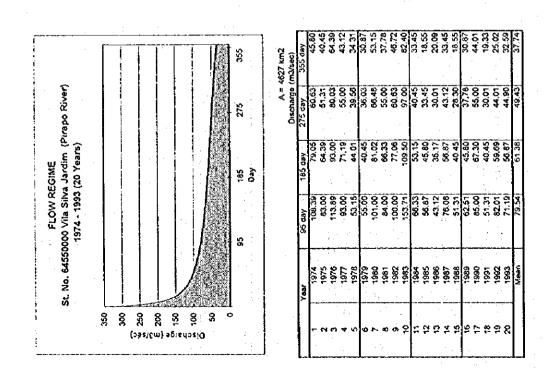




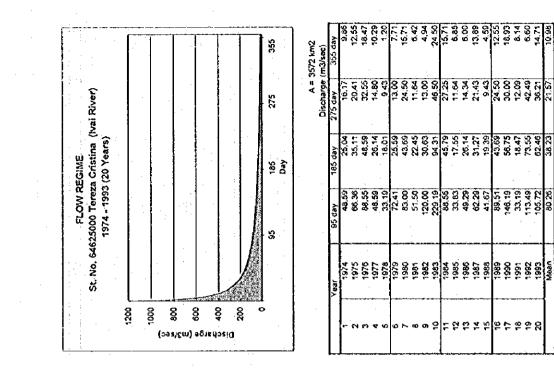
9

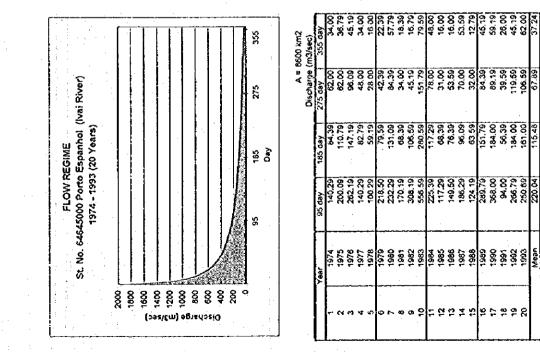


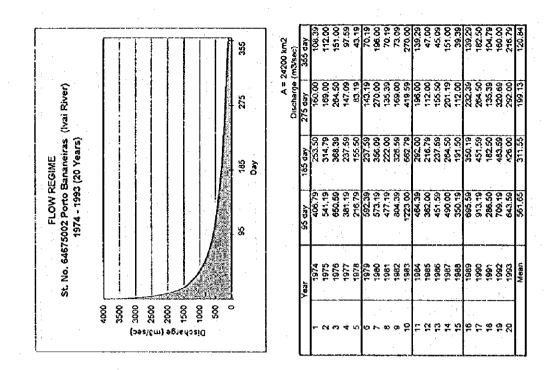


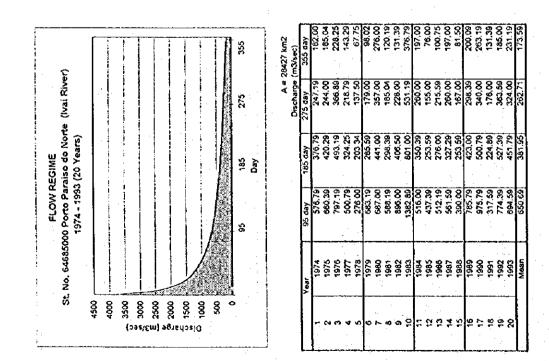


1 - 236





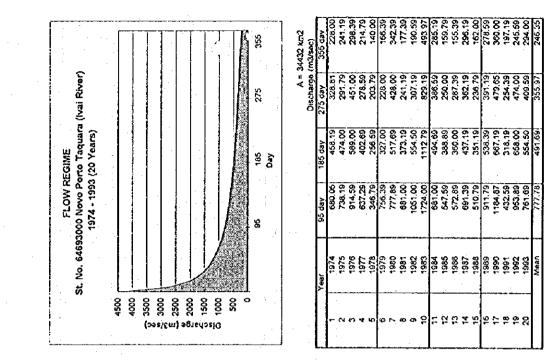


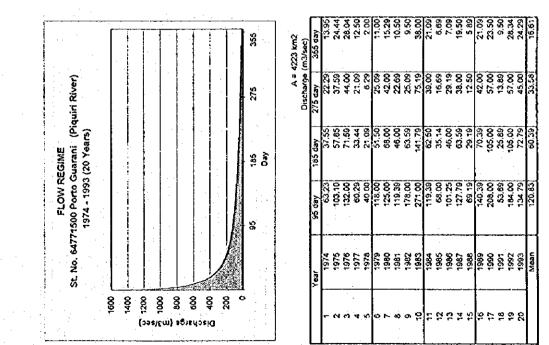


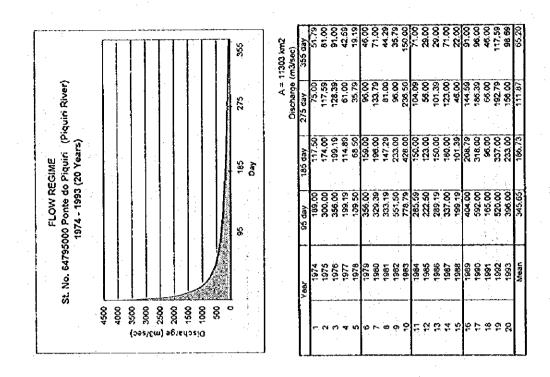
I - 238

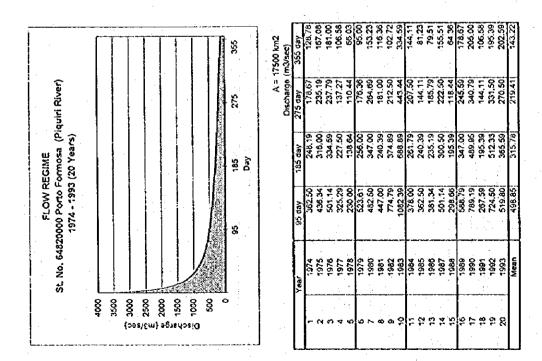
e

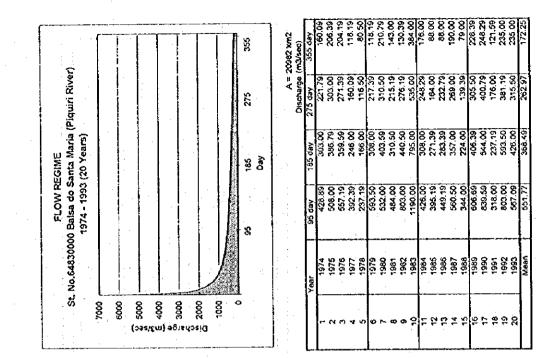
ĺ.



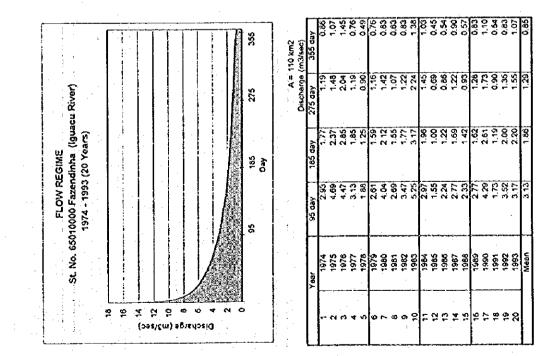


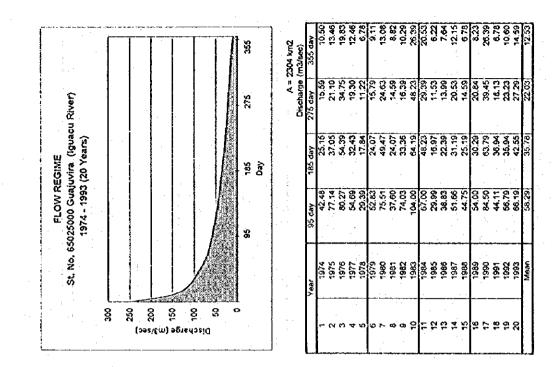


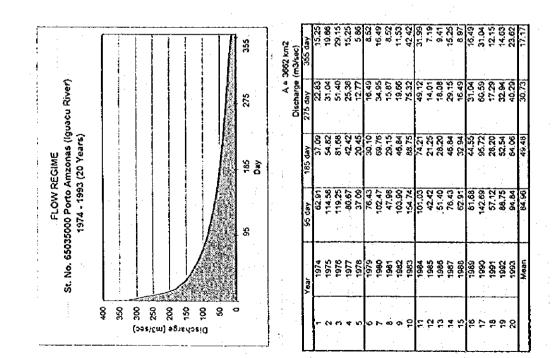


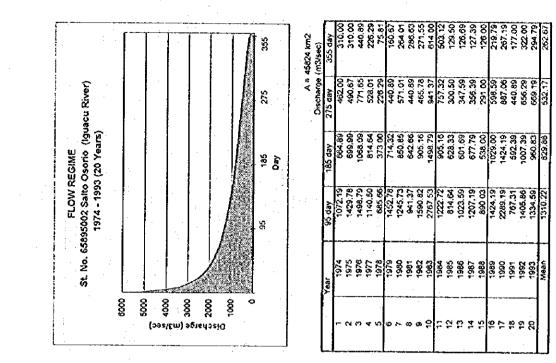


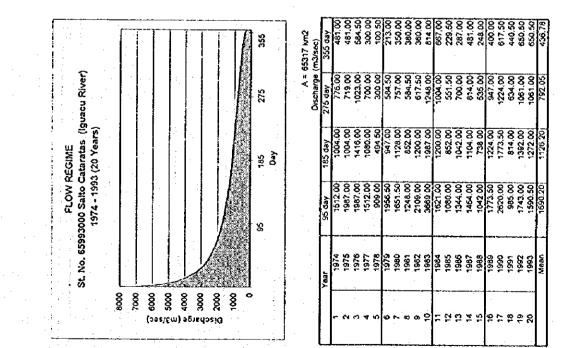
9

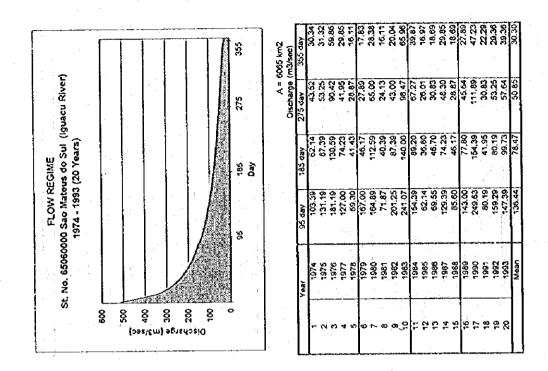




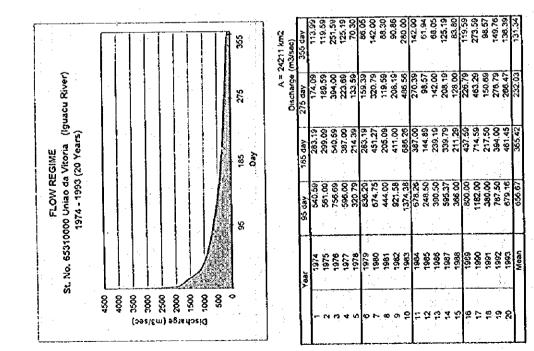


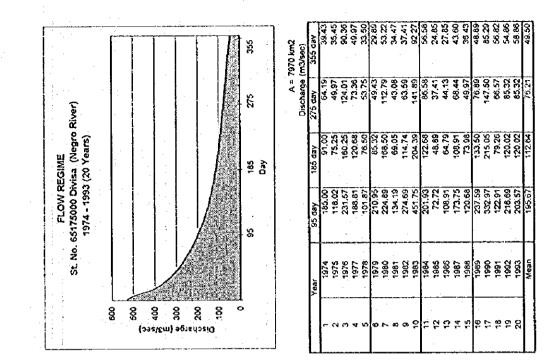


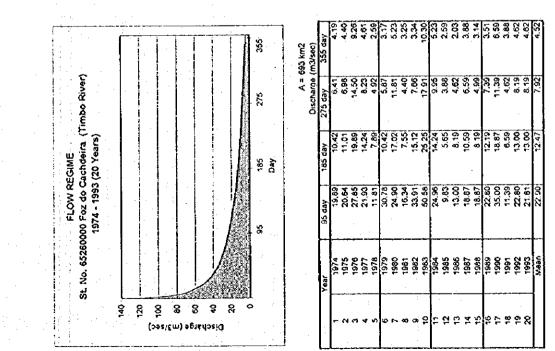


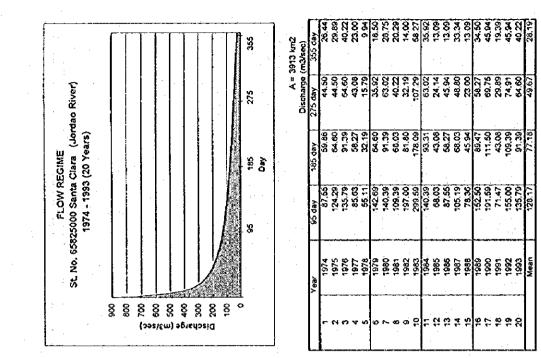


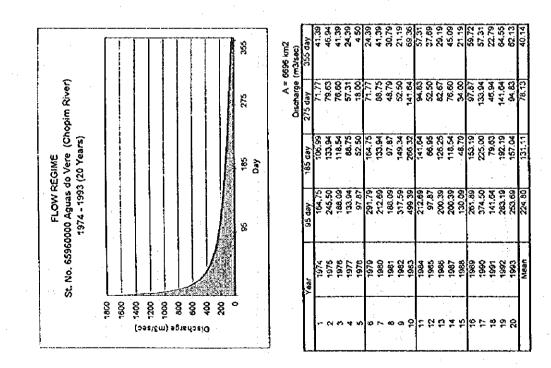
Q

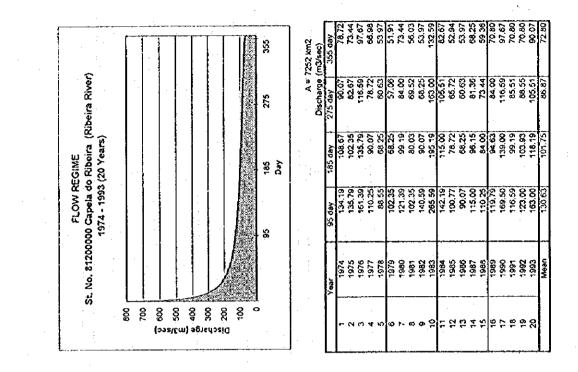


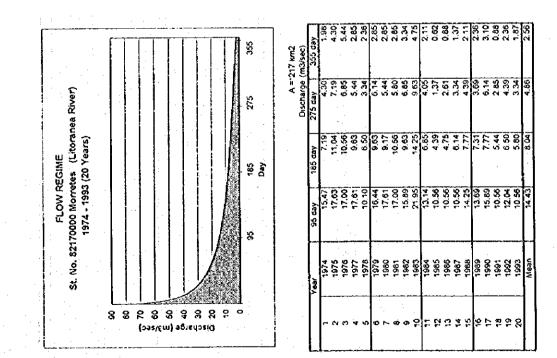


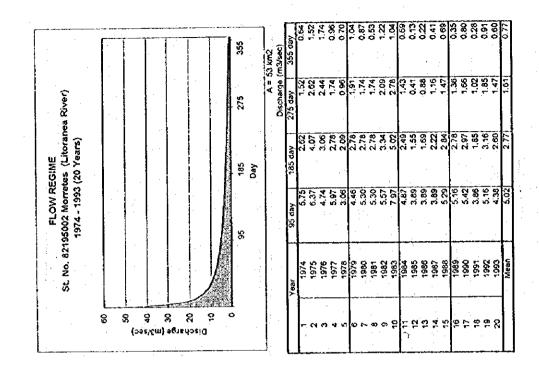


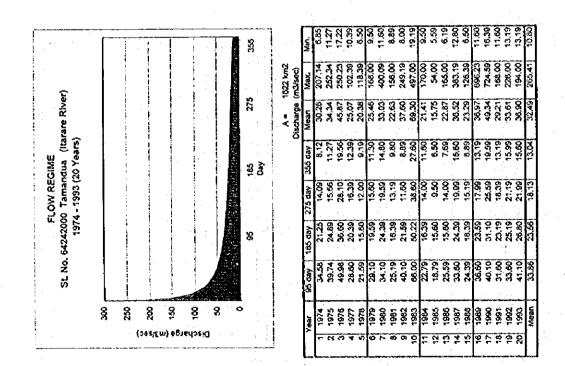


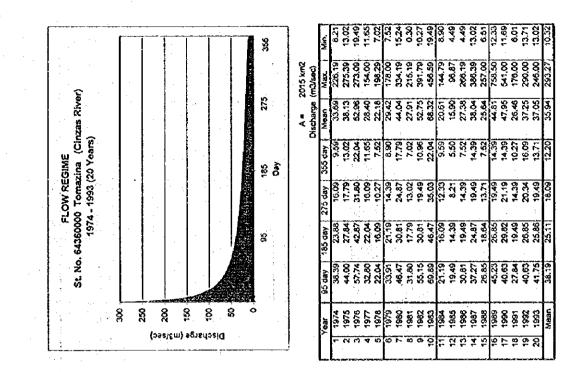




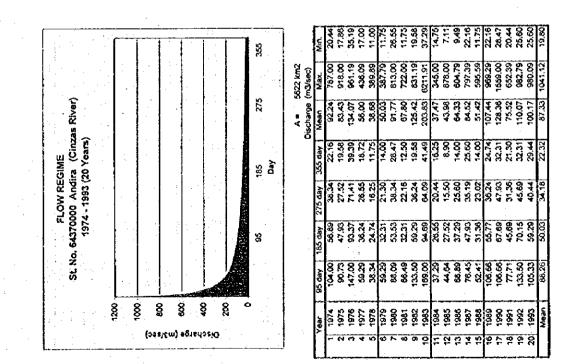


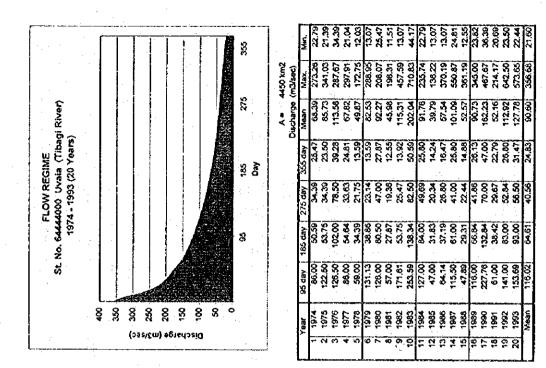




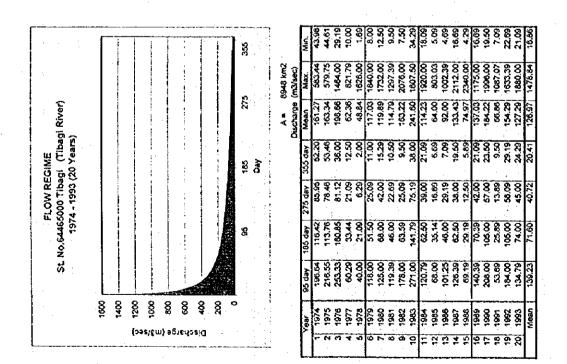


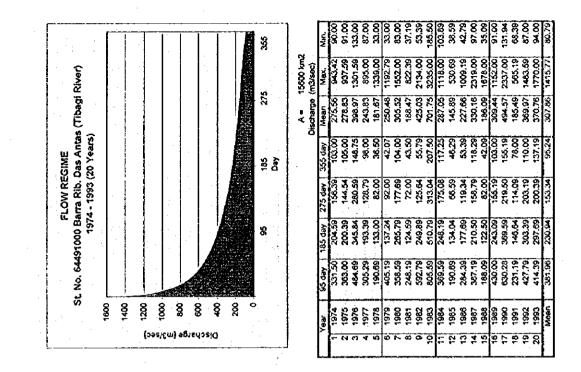
9

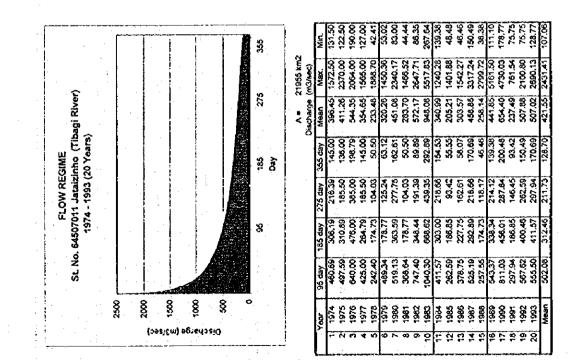


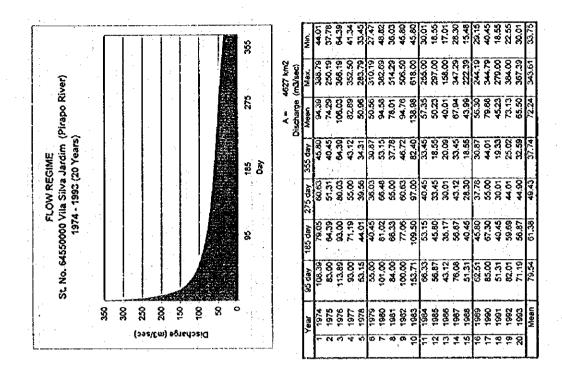


C

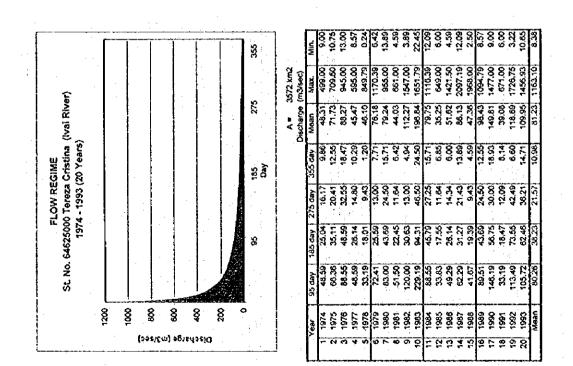


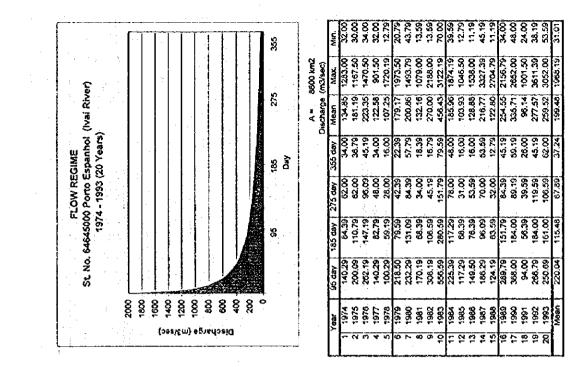


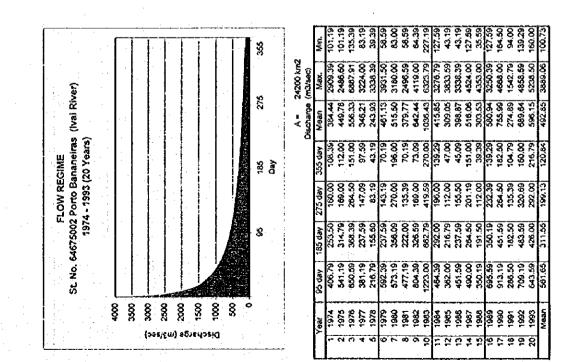


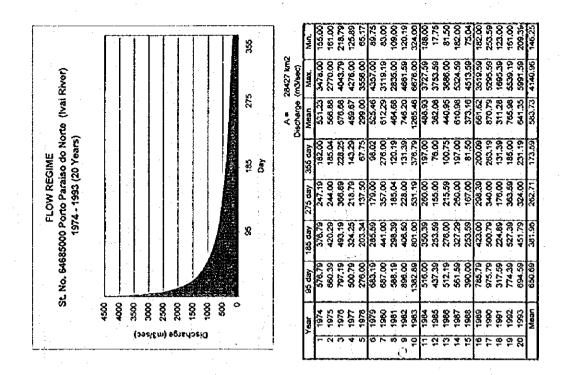


Ć

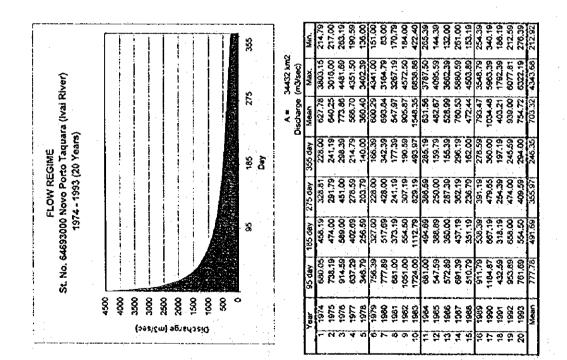


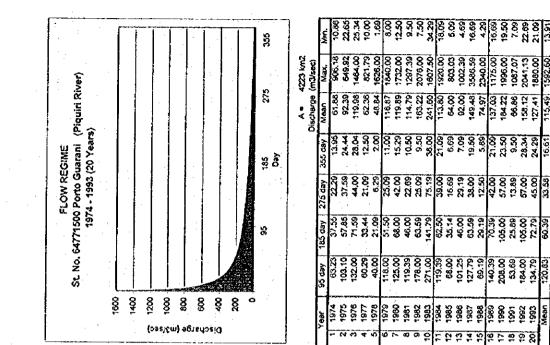






S)





B

7.09

1996.00

86

12 13 ۶

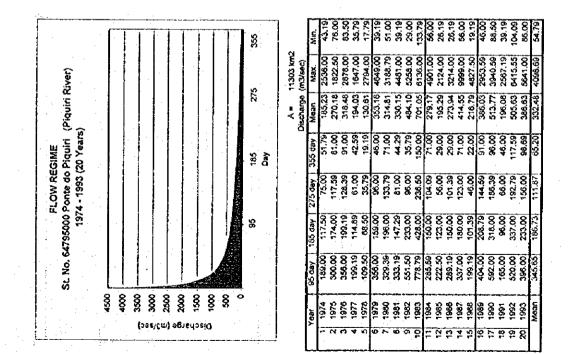
83 8 33.56

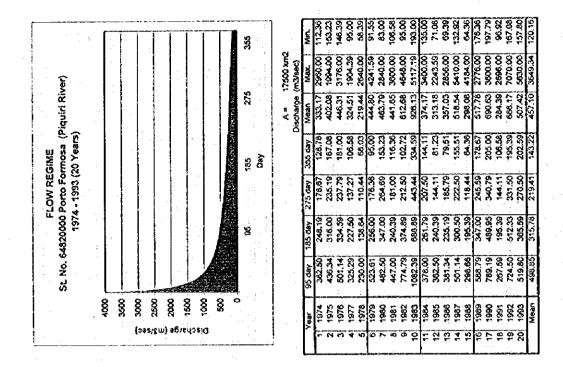
175.00 1067.07 2041,13

37.03

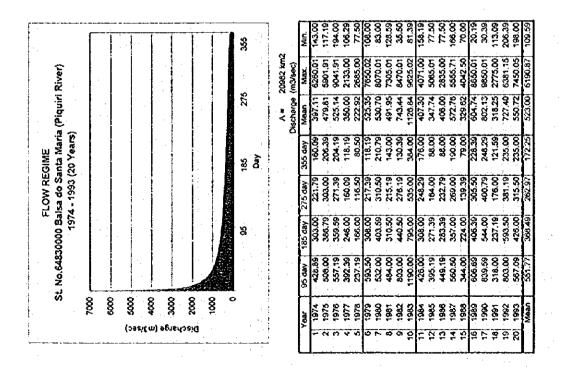
8 6.65

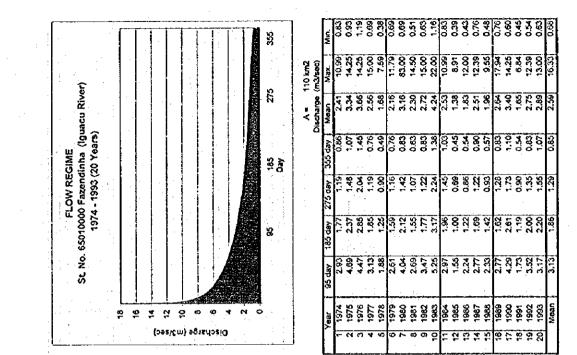
74.97 184.22 **66.86** 58.12

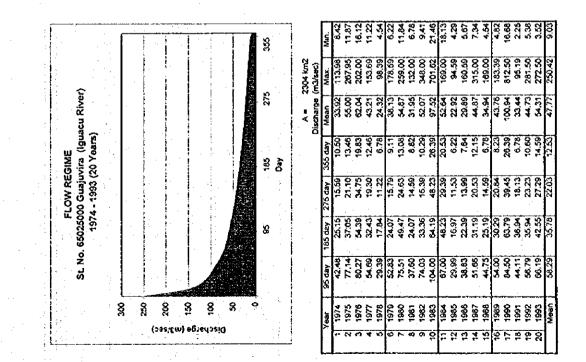


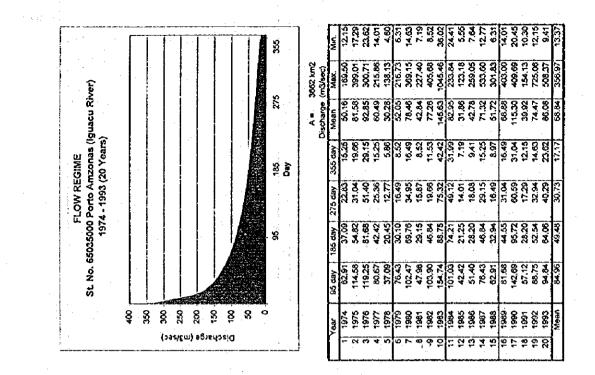


6









C

