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THE HYDROLOGY OF ANTIQUE

The Philippines

A field and desk study

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Sammendrag:

Hydrologien i Antique-provinsen (Panay) på Filippinene er vurdert på grunnlag av feltbefaring og analyse av allerede publiserte nedbør- og avløpsdata.

Datagrunnlaget for estimering av hydrologiske parametre til bruk ved forprosjektstudie av vannkraftverk i provinsen er til dels spinkelt. Topografien domineres av bratt fjellterreng. Middelavløp og flomstørrelser er overført til prosjektområdene ved hjelp av en antatt sammenheng med nedbørfeltenes størrelse og høydebeliggenhet. Varighetskurven og lavvannsverdier fra den antatt beste målestasjonen er foreløpig valgt som representativ for større deler av Antique.

En vesentlig kompliserende faktor er mangelen på gode nedbør- og avløpsstasjoner i fjellområdene. Karst-hydrologiske problemer antas å være minimale.

En forsvarlig analyse av hydrologien i området krever at supplerende målestasjoner opprettes så snart som mulig. Enkelte eksisterende avløpsstasjoner kan dessuten forbedres. Flere alternativer for plassering av nye avløpsstasjoner er foreslått.

FORORD

I forbindelse med en forprosjektstudie av muligheten for småkraftverk på Filippinene, "Rural Hydropower Development for Bohol, Antique (Panay) and Mindoro", ble Hydrologisk Avdeling anmodet av NORCONSULT A.S. om å vurdere datagrunnlaget samt å estimere de nødvendige hydrologiske parametre for provinsen Antique (Panay).

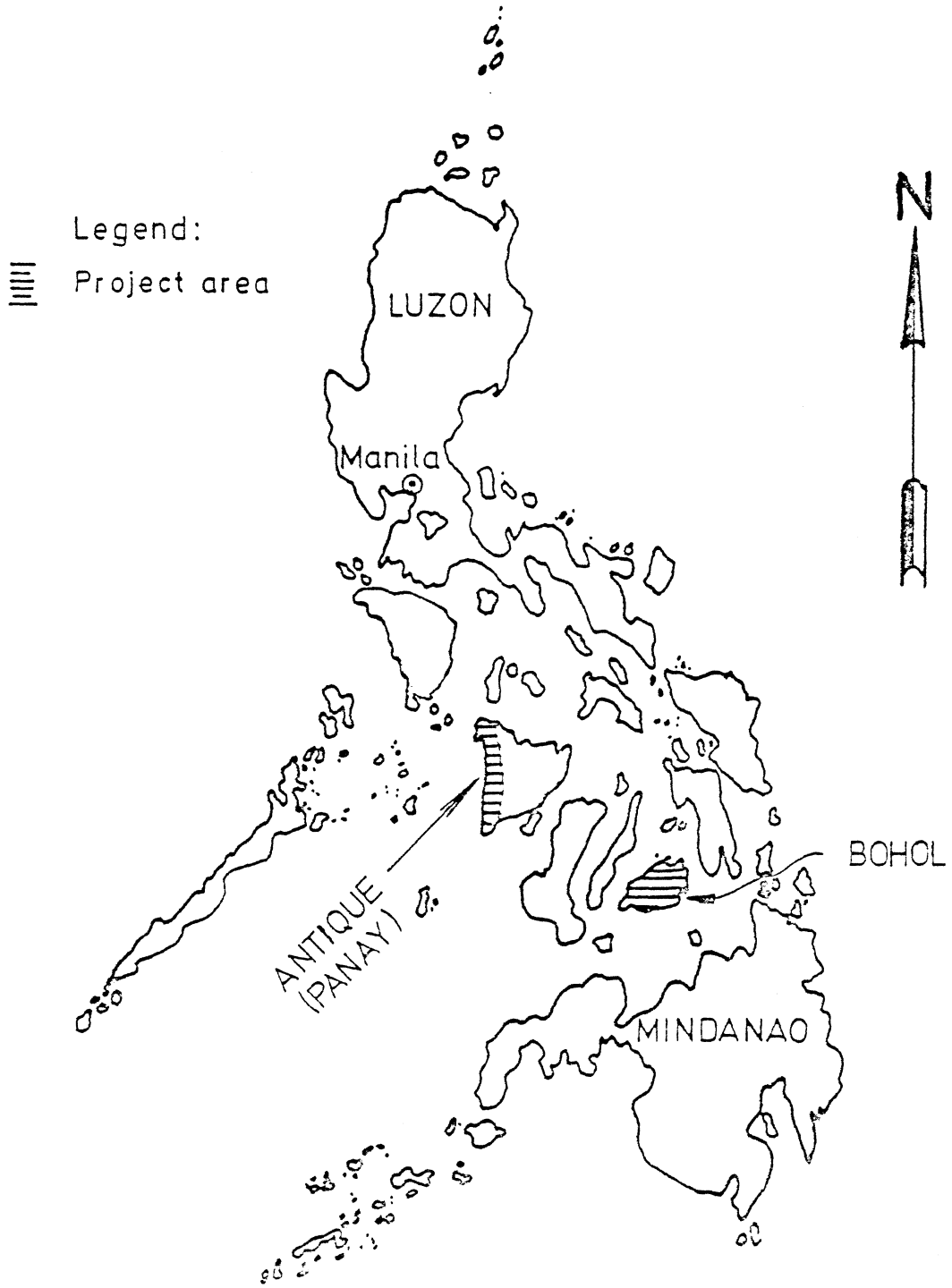
En feltbefaring ble foretatt i februar 1980. Beregningsarbeidet bygger for en stor del på avløpsdata publisert i Filippinske årbøker. Dessuten er det innhentet supplerende opplysninger ved direkte kontakt med de lokale hydrometeorologiske myndigheter.

Rapporten inneholder en kort geografisk beskrivelse av området og oversikt over det eksisterende stasjonsnett for måling av nedbør og avløp. Analysen er i alt vesentlig foretatt ved hjelp av Hydrologisk Avdelings standard EDB-program og kjørt på NVE's CYBER 171. Datagrunnlaget er gjengitt i Appendix. Nummer på tegningene følger NORCONSULT's arkivsystem.

Avdelingen er stor takk skyldig overfor prosjektpersonale hos NORCONSULT A.S. og Siv.ing. Elliot Strømme A.S. for faglig samarbeid og hjelp til utarbeidelse av figurer og tegninger.

Oslo, juni 1981

MAP OF THE PHILIPPINES



INDEX PAGE

INTRODUCTION

The present report is the result of a field and desk study of the hydrology in Antique, with emphasis on the availability of water for power production in the Paliuan, Sibalom, Cangaranan, Dalanas and Tibiao Rivers.

Below is listed available reports, data and other sources of information which have been utilized.

Reports, maps and data:

(1.) Bureau of Public Works: Water Resources Bulletin No. 1-12. Daily Runoff Records, 1908-1921 and 1945-1971.

(2.) Philippine Atmospheric, Geophysical and Astronomical Administration: Monthly and Annual Summaries of Rainfall.

(3.) de Vera, M.R.: Philippines Surface Water Data System. Economic and Social Commission for Asia and the Pacific. Bangkok 1978.

(4.) NEA/NORCONSULT: Report on Hydrological Field Reconnaissance Bohol and Antique, February 6-13, 1980.

(5.) List of Discharge Measurements, Bacong River at Valderama, Paliuan River at Tagudtud and Sibalom River at Pangpang.

(6.) Topographical maps 1:50,000, 1:250,000 and air photographs.

Verbal information:

- Mini-Hydro Office, National Electrifaction Administration, Manila.

- Supervising Engineer, Water Resources Survey Division, Bureau of Public Works, Manila.

- Statistical Division, Philippine Atmospheric, Geophysical and Astronomical Services Administration, Manila.

- Irrigation Hydrologist, National Irrigation Administration, Manila.

- Various pictures taken during field trips to Antique, 1979-1980.

DESCRIPTION OF CATCHMENTS

The geography of Antique is dominated by a range of mountains running parallel to the west coast. Steep hillsides leed to summits well above the 2000 meter level. Generally all main rivers in Antique run west or southwest, quickly losing altitude before reaching heavily cultivated plains at 50-100 meters above sea level. Catchments north of Bugasong are generally shorter and steeper than the southern ones, where plains are cultivated further inland. The Sibalom catchment typifies the southern type.

The western hillsides are directly exposed to the southwestern monsoon giving two distinct seasons. Heavy rainfall occurs between May and October while the rest of the year is relatively dry, especially down on the plains. The highest areas in the mountains derive some rainfall from the northeasterly monsoon helping even the rivers draining west to keep flowing throughout the year.

Numerous irrigation schemes, both gravitational and pumped, are operated along the coast. Diversions occur as soon as the rivers reach the lower parts of the hillsides. Due to the pronounced dry season most rainfed ricefields are harvested only once a year, though irrigation makes doublecropping possible.

There is very little karst limestone in Antique and underground drainage is expected to be unsignificant. Topographical and hydrological catchment boundaries are considered to be in broad agreement.

The Sibalom River system drains by far the largest catchment within the Antique Province. Hills reach to 1400 m altitude. There are two main branches in the headwaters, the Sibalom River running southwest and the Maninila River entering from the east. At the confluence the river is already below the 40 m contour, some 30 km from the coast. Downstream of the confluence the riverbed consists of sand and gravel deposits causing cross-sections to be very unstable. Further down, especially after the confluence with the Tipuluan River, several natural diversions are formed and conditions most probably change considerably from one year to the next.

The Paliuan River drains 220 km^2 some 25-30 km north of the Sibalom River. Within the catchment area hills reach to 2000 m altitude. The altitude of the river is above 100 m at least half the length of the river. Sand and gravel deposits dominate the riverbed downstream of Villa Siga. The major agricultural activities are found on the Tagudtud plain.

The adjacent Cangaranan catchment to the south is similar in shape to the Sibalom catchment, with a shallow widespread riverbed reaching 25-30 km inland. Mountain peaks reach more than 1900 m.

The Dalanas, Tibiao and Bacong Rivers all drain relatively short, steep catchments between Barbaza and Culasi. North of the Paliuan River basin the average catchment altitude gradually decreases.

The catchment boundaries were drawn on 1:50,000 scale maps (see Drawing Nos. 621, 631, 641 and 661).

RAINFALL

In Antique, rainfall records date back to 1960. Stations are located at Valderama in the Cangaranan River basin, at Barbaza and Culasi. All stations are located on the plain or along the coastline.

Standard 125 mm raingauges are used, set about 1/2 m above the ground level. The Barbaza gauge could not be traced, while the Valderama station was satisfactorily located and in good order. At Culasi, the readings might be affected by a big tree nearby, though it is assumed that the effect would have been negligible when the station was opened.

Table 1 shows available stations. Monthly and annual summaries are displayed on Drawing 601 and listed in Appendix A. They have been copied from the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)(2).

Isohyetal sketch maps from PAGASA indicate a minor coastal maximum of annual rainfall near Barbaza. Though the increase from Valderama might be significant, the difference between Culasi and Barbaza is considered negligible.

TABLE 1 RAINFALL STATIONS IN ANTIQUE, AVAILABLE RECORDS

Station name	Latitude North	Longitude East	Altitude m	Period
Valderama	11°01'	122°07'	100 approx.	1960-78
Barbaza	11°13'	122°01'	10 "	1960-77
Culasi	11°27'	122°01'	10 "	1960-77

Any attempt to carry out a water balance for river basins is hindered by the fact that no rainfall stations are located above 100 m altitude. To arrive at a figure for the increase in rainfall with elevation, records from Masalep and Baguio rainfall stations, located on the western side of Luzon had to be used. The rainy seasons and catchment exposure there are comparable to the Antique province. The records indicate an increase of 120 mm/year per 100 meters rise in elevation.

A higher rate of increase has been suggested by PAGASA for other provinces. 120 mm a year/100 m rise in elevation has been adopted as being more appropriate for the western part of Antique.

It is considered most important to install raingauges at high elevations in Antique to make a more reliable estimate for the province.

RUNOFF

Streamflow data have traditionally been collected by the Bureau of Public Works, Water Resources Survey Division (BPW-WRSD). In recent years there has been a decline of financial support for the operation and maintenance of streamflow gauging stations by the BPW (3), thus the quality of data has deteriorated.

Records have been published by BPW in Water Supply Bulletin (WSB)(1). Relevant stations are listed in Table 2. Locations are indicated on Drawing 601.

TABLE 2 RUNOFF STATIONS IN ANTIQUE, AVAILABLE RECORDS

Station	River	Catchment km^2	Latitude N	Longitude E	Period
Valderama	Bacong	33	11°24'	122°05'	1959-71
Tagudtud	Paliuan	176	11°04'	122°05'	1956-70
Pangpang	Sibalom	635	10°48'	121°59'	1958-71

The stations were commenced by reading a staff gauge two or three times a day. Later, water stage recorders were installed at the Valderama and the Tagudtud station. Equipment and procedures have usually been according to U.S. Geological Survey standards.

Data processing and publication were initiated in 1952-53 by a U.S.G.S. mission. Published data are copied in Appendix B, containing daily average flow as well as monthly and annual summaries.

Background material for the calculation of published runoff records is difficult to recover as most of it has been lost or damaged due to various reorganisations and change of office locations of the BPW-WRSD. The possibilities of performing a thorough check on previous processing are very limited indeed. One has to accept the calculated runoff along with the indication of quality as given in the comments on each station. A limited number of discharge measurements show shifting control at most stations.

Recent field trips indicate that stations have not been maintained properly or have been neglected completely due to financial cutback. This applies to the period 1972 and onwards. Therefore, by utilizing records up to 1971 only, the published data and comments are considered adequate. Inspections in the field did reveal possible sources of error due to shifting controls. Diversions of water upstreams of the gauging station, both natural and for irrigation purposes, were especially large at the Pangpang station (4).

Monthly runoff statistics are shown on Figure 1.

RIVER GAUGING STATIONS

Bacong River at Valderama, 32 km^2

The station, which gauges 70% of the total Bacong catchment, was established in December 1958. In the early stages, a staff gauge was read twice a day. A water stage recorder operated from 1963 to 1977. A cableway was erected with the original installation. Records are somewhat fragmentary during 1962, 1966 and 1971. A re-examination of the topographic boundaries on the 1:50,000 scale map, demonstrated the WRB published catchment area at the gauging station to be wrong, and the figure had to be reduced from 54 km^2 to 32 km^2.

The site is located near the foothills where the river enters the Culasi plain, about 3.5 km upstream of the mouth on the China Sea. The section appeared stable with no signs of riverbank erosion. The low-flow control consists of stones and medium-sized rocks. A concrete irrigation dam about 200 m downstream probably controls the water level at medium and high stages.

Discharge measurements and the corresponding water levels are listed in Table 3. The discharge measurements made in February 1969 and March 1978 seem somewhat dubious. The maximum measured discharge is 9.3 m^3/sec, while the highest recorded level gives a maximum rated flow of 142 m^3/sec. There is a pronounced shift in the rating from 1971 to 1972, but the cause for the change is not documented. The WRB comments judge the records to be "good" up to 14 m^3/sec before 1965 and "fair" afterwards.

TABLE 3 SUMMARY OF MEASURED DISCHARGES AT VALDERAMA, 1965-1978

Date	Gauge height m	Discharge m^3/sec
13.04.65	.46	.68
16.10.65	.54	3.84
17.11.68	.57	1.66
27.02.69	.41	.075
21.11.69	.79	9.32
28.05.70	.38	.345
05.12.70	.61	5.05
16.04.71	.46	.454
25.02.72	.26	.820
05.05.72	.22	.484
17.10.72	.26	1.30
10.02.73	.24	.706
08.06.73	.23	1.23
11.07.73	.35	4.12
07.09.73	.29	2.25
20.10.73	.33	4.11
19.01.74	.54	1.68
25.11.76	.51	5.73
13.07.77	.52	4.76
29.03.78	.10	.177
22.07.78	.14	1.450

The Valderama records from the Bacong River is considered to be fairly reliable. The 98 l/sec/km^2 average runoff and the flow duration curve (Figure 2) are both adopted as representative for a steep mountainous catchment in Antique.

Paliuan River at Tagudtud, 176 km^2

The station gauges 80% of the total Paliuan River basin. Since its commencement in March 1956 a staff gauge was read twice a day, exept for the period July 1956 to May 1963 when a water stage recorder was operating.

At the site, the river bed consists of large amounts of gravel, causing the river to flow in several parallell streams. At the time of the site inspection, only a minor channel touched the staff gauge. A cableway spans the river about 100 m upstream of the staff gauge. The water level is controlled by a very unstable reach of river with no firm rock bars downstream. One might expect considerable changes in the riverbed geometry every few years. The list of discharge measurements, Table 4, reflects the effect of an unstable control. The discharge measurements taken at water levels below 1 m are probably faulty. According to the WRB Bulletin the quality of the published discharges alter from one period to another. The comments vary from "good" to "very poor" (1962).

TABLE 4 SUMMARY OF MEASURED DISCHARGES AT TAGUDTUD

Date	Gauge Height m	Discharge m^3/sec
17.10.65	1.32	14.9
27.02.69	1.18	1.86
19.08.69	1.80	21.6
26.08.70	1.60	15.8
16.04.71	1.05	3.77
25.02.72	.23	5.86
05.05.72	1.25	3.48
17.10.72	1.31	9.96
10.02.73	.38	4.07
07.06.73	1.56	5.08
11.07.73	1.69	12.2
06.09.73	1.65	11.5
20.10.73	.98	25.5
18.01.74	1.52	8.92
25.11.76	1.38	11.1
13.07.77	1.57	18.0
28.03.78	-.20	1.86
22.07.78	1.25	12.0

Despite the presence of a cableway, the highest flow measured has been 25 m^3/sec compared with the maximum recorded flow of 1140 m^3/sec, as estimated from the level records. Considerable extrapolation of the rating curve, which is in any case poorly defined, has evidently been made. Little reliance can be placed in medium and high flow estimates therefore.

Several visits to the Sibalom River made by various hydropower study groups state that the catchment yield during the dry season is surprisingly high compared with adjacent catchments. The relatively steep duration curve (Figure 3) indicates the opposite. There is reason to believe, therefore, that the rating curve is not reliable. The calculated average runoff of 137 l/sec/km^2 should be taken as indicative only.

Sibalom River at Pangpang

The Pangpang gauging station is located about 8 km north of San Jose where the main road crosses the Sibalom River. The station has been operating since November 1958. Through the years the staff gauge has been read twice a day, covering three periods of datum. The site is located on the San Jose plain and with shifting river channel, the records are not very reliable. Heavily influenced by numerous irrigation schemes upstream the low-flow records are not satisfactory for the calculation of mountainous areas. There is a pressing need for the station to be relocated. The gauge was washed away in November 1979 during a flood. The present readings will be more misleading than informative. An alternative site for gauging is suggested near Sinundulan (4). The detailed location is shown on Drawing Nos. 621 and 671.

Records are fragmentary during 1959, 1966 and 1969. Published data are classified as "fair" below 250 m^3/sec. Higher flows are judged to be "poor". Calculated average runoff 46.2 l/sec/km^2 is affected by irrigation.

Table 5 shows discharge measurements as copied from WRSD. The lack of measurements before 1968 is probably due to documents beeing lost or damaged. The list confirms the shifting conditions, especially from 1970 and onwards. The duration curve is shown in Figure 4.

Monthly averages are very high during 1960 and 1970, the latter is probably caused by a dobious discharge measurement taken in August 1970. This will bias the low-flow analysis, where the 1970 minimum is far higher than other years. It has been disregarded therefore.

By and large, the published records from Pangpang have very limited value. Even a stable control would still not have made up for the inadequate location for estimation of mountain runoff.

TABLE 5 SUMMARY OF MEASURED DISCHARGES AT PANGPANG

Date	Gauge height m	Discharge m^3/sec
12.11.68	.50	6.94
28.02.69	.40	1.41
18.08.69	.99	90.4
25.08.70	.23	37.7
15.04.71	.28	1.95
24.02.72	.50	5.34
04.05.72	.51	2.71
10.02.73	.24	3.84
07.06.73	.26	8.41
18.01.74	.36	5.29
26.11.76	.42	15.5

LOW FLOW ANALYSIS

Reliability of recorded low flow very much depends on the local condition of flow control at each station, the quality of the rating, the ability of the hydrometrist to detect any changes of datum, and to be aware of the existence of any water diverting constructions upstream.

Two out of the three existing runoff stations are located near the foothills of the mountain range. The Bacong River at Valderama might be slightly affected by minor irrigation upstream. The rating at Tagudtud has not been very reliable, especially at low flows. The Sibalom gauging station has to be disregarded in this respect.

Frequency analysis of annual miniumum flows were made for all three gauging stations (Table 6). 90% firm flow has been extracted from the flow duration curves. The average flows used are those from the monthly and annual summaries (Appendix B). The coefficients $Q_{20}/\bar{Q}_{min}$ are obtained approximately from the frequency analysis.

There is a considerable difference between lowest measured and lowest rated flow, both for the Tagudtud and the Pangpang gauging stations. The minimum flow at Pangpang is much lower than one should expect from its catchment area. This is interpreted as an effect of unstable low-flow control and of divertions upstream of the gauging station.

Observations of Paliuan River during field visits for this study confirmed that it maintains its dry season flow surprisingly well, probably as a result of gaining some rainfall from the eastern monsoon across the mountain barrier. The average altitude of the catchment is comparatively higher than adjacent basins. The low-flow runoff figures from Bacong River would probably be somewhat closer to the general dry season conditions along the mountain range. Considering the relatively high average altitude of the

catchments draining to the possible project sites, a minimum flow of 4 l/sec/km^2 and a somewhat optimistic firm runoff of 20 l/sec/km^2 are adopted for all projects considered in this study. The need for adequate gauging stations and more frequent dischange measurements to confirm these figures is once more clearly demonstrated.

TABLE 6 SUMMARY OF LOW FLOW ANALYS, ANTIQUE

Station	Catchment km^2	$\bar{Q}_{min}$ m^3/sec	$Q_{20}/\bar{Q}_{min}$	q_{20} l/sec/km^2	$Q_{90\%}/\bar{Q}$	$q_{90\%}$ l/sec/km^2	Q_{meas} m^3/sec	Q_{min} m^3/sec
Valderama	32	.258	.5	4.0	.15	14.0	.345	.130
Tagudtud	176	2.07	.2	2.4	.05	6.8	1.86	.380
Pangpang	635	1.80	.1	.28	.10	2.9	1.41	.080

$\bar{Q}_{min}$ - Average annual minimum

Q_{20} - Minimum flow, 20 year return period

$Q_{90\%}$ - Flow exeeded 90% of obs. period

$\bar{Q}$ - Average annual runoff

Q_{meas} - Lowest descharge measurent taken

Q_{min} - " " observed by rating

FLOOD STUDIES

Annual maximum floods are published in the Water Resources Bulletin (1), and are summarised in Table 7. The figures are of varying quality, as they might originate from different recording procedures. Full details of the floods are not available, exept for date, time, maximum water level and the corresponding flow. Judging from the time of observation the bulk of "peak floods" recorded at Tagudtud are taken from the daily readings while highest floods published for the Valderama and Pangpang stations are events from different hours during daytime. No specific comments indicate whether the figures are based on the water stage recorder, crest recorder, flood lines etc.

Large extrapolations were evidently made on the rating curves derived from the maximum measured discharges to arrive at rated peak flows (Table 8). The period covered by available discharge measurements, Table 3, 4 and 5, might be misleading. This applies especially to the Sibalom records where discharge measurements prior to 1968 most probably have been carried out. Hence, taking into

account the Bulletin Remarks made on published records, the confidence in estimates of floods is very limited indeed.

The values in Table 7 were ranked in order of magnitude and plotted using the Grigorton formula for the return period. Curves were fitted by eye from which the 1/100-year peak flood as listed in Table 8 were derived. A logaritmic relationship between peak flood and catchment area is indicated in Figure 5. The Sibalom at Pangpang estimate plots well below the line, possibly caused by upstream diversions.

The Bacong at Valderama estimate also lies below the line. Use of the relationship for sites in Antique should give adequate allowance for errors in estimates at the station due to the large extrapolations to the rating curve and the relatively short period of observation. The Paliuan at Tagudtud estimate plots above the line. At this station, extrapolation of the rating curve was greatest and its definition poorest. Nevertheless the size of the river and the bed material do not rule out the possibility of such large floods occuring. Larger runoff rates are experienced in other tropical catchments. A seperate relationship has been used for Paliuan River.

TABLE 7 ANNUAL MAXIMUM RECORDED FLOODS

	Valderama		Tagudtud		Pangpang	
Year	Level m	Flow m^3/sec	Level m	Flow m^3/sec	Level m	Flow m^3/sec
1956			4.23	928		
57			5.20	889		
58			5.34	932		
59	1.75	47.4	5.44	994	3.44	728
1960	3.00	143	-	-	4.75	520
61	2.05	66.3	3.74 x	436	5.18	645
62	1.75 x	47.4	3.25 x	299	4.20	388
63	2.20	76.6	6.00 x	1137	4.36	423
64	1.55	36.0	6.02	1143	5.74	826
65	2.10	69.7	5.20	889	3.00	177
66	-	-	4.68	727	6.00	921
67	1.76	47.9	4.72 x	740	5.00	591
68	1.57	37.1	4.50	672	5.30	684
69	.96	12.9	5.65	1029	3.40	236
1970	1.05	15.9	5.00	827	2.40	147
71	1.95	56.6	-	-	3.70	188

x Fragmentary

TABLE 8 SUMMARY OF FLOOD ESTIMATIONS

Station	Maximum Measured m^3/sec	Instantanious Maximum Recorded m^3/sec	$\bar{Q}_{max}$	coeff.	q_{100} $l/sec/km^2$	Bulletin remarks
Valderama	9.3	143	55	3.5	5800	Fair all over
Tagudtud	25.0	1143	832	1.6	7500	Varying quality
Pangpang	90.4	921	506	2.1	1700	Fair/poor above 250 m^3/sec

$\bar{Q}_{max}$ Average Annual Maximum

coeff $Q_{100}/\bar{Q}_{max}$

q_{100} Estimated peak runoff

MEAN ANNUAL FLOW

In Antique the number of adequate rainfall and runoff stations is very limited indeed. Out of three river gauging stations of use for this study only the records of Bacong River are considered acceptable for the computation of average flow. The records for Paliuan River may be taken as an indication of the rather higher runoff in that basin, due to a greater contribution during the eastern monsoon season.

Mean annual runoff in Bacong River is estimated to be 98 $l/sec/km^2$, equivalent to 3100 mm a year over the whole catchment and in Paliuan River 137 $l/sec/km^2$ or 4300 mm a year. The mean elevations of the two catchments have been estimated from 1:50,000 scale maps. The hypsometric curves are shown on Figures 6 and 7 and mean elevation on Table 9. An indication of the water balances of the catchments can be obtained by comparing the runoff with estimated rainfall over the catchments. Assuming an increase in annual rainfall of 120 mm/100 m the rainfall over the Bacong catchment would be about 4500 mm a year, leaving 1400 mm for evapotranspiration. Similarly the rainfall over the Paliuan catchment would be about 4600 mm leaving only 300 mm for evapotranspiration. In the first case the figure for evapo-transpiration seems too high, in the second, too low. This can be explained by the relative locations of the catchments and the geography of the island. The Bacong catchment lies in a position sheltered from the southeast monsoon by mountains. The Paliuan catchment is more exposed and is believed to receive rainfall in the southeast monsoon season.

It is concluded therefore that the runoff figures 98 $l/sec/km^2$ and 137 $l/sec/km^2$ represent the extremes for Antique for catchments sheltered and exposed to the southeast monsoon, respectively. In order to estimate runoff from ungauged catchments their position

between the two extremes is judged and an adjustment made for catchment mean elevation. Hypsometric curves are presented on Figures 8 to 16 for the catchment areas corresponding to all projects considered in this study. Average altitude of the catchments are shown in Table 9.

Pending more accurate information from additional gauging stations the increase in runoff with elevation is assumed to be the same 120 mm/100 m as for rainfall. This figure is equivalent to 3.8 l/sec/km^2/100 m. This implies a constant evapotranspirtion. In the case of catchments at higher elevations than the Bacong and Paliuan catchments, this assumption will lead to an underestimate of runoff. The relationships used in making the estimates are shown on Figure 17.

Local conditions may cause the average runoff to differ substantially from these estimates. The need for more rainfall and runoff stations to be established at higher elevations is evident and cannot be stressed too strongly.

TABLE 9 AVERAGE ALTITUDE OF CATCHMENTS

Catchment		Average altitude m. a. s. l.
Bacong/Valderama,	Gauging station	440
Paliuan/Tagudtud,	"	500
" /Villa Siga 1-4,	Project site	900
" " 5-7,	"	1050
Sibalom/Bauang	"	800
" /Walker	"	800
" /Bauang-Walker	"	850
Cangaranan/Igcaratong	"	750
" /Tigmasin	"	700
Dalanas	"	850
Tibiao/San Gregorio	"	750

AVALABILITY OF WATER AT POSSIBLE PROJECT SITES

As outlined in previous chapters, the number of good quality river gauging stations is too limited to allow the use of sophisticated hydrological estimation methods. The only possibility for estimating flows at ungauged mountainous sites in Antique at present, therefore, is by using generalised relationships such as shown in Figure 17, which nevertheless has considerable shortcomings. The error of mean annual flow estimates may be in the order of ± 30%, espesially conserning catchments at high elevations.

A logaritmic relationship between 100-year flood and catchment size used for estimating design floods should allow for at least 50% error. The orographic effect on rainfall intensity cannot be judged due to the lack of rainfall stations at high elevations.

Pending records from a denser network of gauging stations, the best available duration and capacity curves are those deduced from the Bacong River at Valderama records, which are adopted for general use in this study. 4 l/sec/km^2 and 20 l/sec/km^2 have been applied to all projects concerning minimum and firm flow respectively.

Hydrological summaries for possible project sites are given in Table 10. Some comments are necessary on certain projects.

There is a pressing need for additional gauging stations, particularly near project sites. The location of recommended new gauging stations are shown on Drawings Nos. 621, 631, 641, 661 and 671-674.

TABLE 10 HYDROLOGICAL SUMMARY OF PROJECTS SITES

Project	Area km^2	Average Flow l/sec/km^2	Minimum Flow l/sec/km^2	Firm Flow l/sec/km^2	Design Flood l/sec/km^2
Paliuan/Villa Siga 1	90	150	4	20	8500
" " 2	90	150	4	20	8500
" " 3	85	150	4	20	8700
" " 4	80	150	4	20	9000
" " 5	65	160	4	20	9500
" " 6	55	160	4	20	9700
" " 7	45	160	4	20	10000
Sibalom/Bauang 1	110	110	4	20	5600
" " 2	100	110	4	20	5800
" " 3	95	110	4	20	5900
" /Walker	110	110	4	20	5600
" /Bauang-Walker 1	215	115	4	20	4400
" " 2	220	115	4	20	4400
" " 3	85	115	4	20	6200
" /General Fullon 1	85	115	4	20	6200
" " 2	85	115	4	20	6200
" " 3	85	115	4	20	6200
Cangaranan/Igcaratong	90	135	4	20	6000
" /Tigmasin	90	125	4	20	6000
Dalanas	115	140	4	20	5500
Tibiao/San Gregorio	35	130	4	20	8500

Paliuan River at Villa Siga

The catchment is located in an area dominated by steep hillsides and mountain peaks reaching 2000 m altitude. The average altitude of the Paliuan alternatives is about 900 - 1100 m. By extrapolating from 130 l/sec/km^2 at 400-500 m altitude, one arrives at roughly 150 l/sec/km^2 and 160 l/sec/km^2 for the project alternatives 1-4 and 5-7 respectively.

The Sibalom projects

The Valderama raingauge records indicate somewhat less rain when moving south towards the Sibalom catchment. The average topographic gradient is lower than for the Paliuan catchment. Mountain peaks reach 1400 m altitude. Despite an average altitude of 800-850 m it is considered realistic therefore to estimate annual average runoff at about 110-115 l/sec/km^2. Pending the establishment of new gauging stations, one should allow for $\pm$ 30% error of estimation, especially for the General Fullon alternative, which is draining the upper catchments.

The Cangaranan, Dalanas and Tibiao projects

Within the Cangaranan/Igcaratong basin peaks reach 1900 m altitude. The catchment is generally steep and drains areas adjacent to the Paliuan River where runoff is measured to 136 l/sec/km^2. Considering the catchment altitude and probably less rain than further north, the average runoff from the Igcaratong and Tigmasin alternatives is estimated to a somewhat conservative 135 l/sec/km^2 and 125 l/sec/km^2 respectively.

The Dalanas project drains areas geographically between the Paliuan and Bacong gauging stations. Starting from an average value with 120 mm/100 m increase, one arrives at roughly 140 l/sec/km^2.

At San Gregorio the Tibiao River drains areas where peaks reach 2100 m altitude. Being located closer to the Bacong measured catchment, the average yield is estimated to be 130 l/sec/km^2.

Pending reliable records from adequate rainfall and runoff stations, one should allow for 25-30% error of estimate.

PROPOSED RIVER GAUGING STATIONS

See Drawing Nos. 601, 621, 631, 641, 661, 671-674.

General

As stated previously, the number, quality and location of gauging stations in Antique today is far from satisfactory. An upgrading of the existing gauging stations would be useful but not sufficient. There is a pressing need for new stations to be erected in the near proximity of the proposed project sites. This applies especially to the Paliuan River and the Sibalom River.

The Hydrological Field Reconnaissance revealed the existence of a few acceptable sites for new gauging stations. Additional sites were located from air photographics.

As the topography of the Antique province is dominated by steep mountains, the proper registration of rainfall at high elevation will be crucial to the calculation of the water balance. The need for more rainfall and runoff gauging stations to be established cannot be stressed too strongly. The Hydrological Field Reconnaissance consentrated on finding suitable sites for runoff stations. Action should be taken as soon as possible to establish the proposed stations mentioned below. The matter of location of new rainfall stations should be looked into by the local meteorological authorities.

Paliuan River near Villa Siga

See Drawing Nos. 601, 641 and 673.

According to air photos a possible site for a new gauging station is found about 1.5 km upstream of the barangay Villa Siga, at elevation 150 m approximately. Here it will be located downstream of all the intake sites for the proposed Villa Siga project alternatives. The station will consequently, regardless of which alternative that will be approved, registrate excess water not passing through the different headrace tunnel alternatives. If the local conditions are favourable a recorder should be installed.

Cangaranan River near Lublub

See Drawing Nos. 601, 631 and 672.

Several alternative sites seem suitable for establishment of runoff gauging stations. Two sites are located in the Cadian River about 1 km and 2 km upstream of the Cangaranan River confluence respectively. A third possible site is found in the Cangaranan River itself approximately 500 m upstream of the barangay Lublub. If the Tigmaasin Hydropower project will be accomplished, the third alternative might be disturbed by the construction works. In that case the Cadian River alternatives should be preferred. If the local conditions are favourable, one should design for a proper recorder housing.

Sibalom River at Sinandulan

See Drawing Nos. 601, 621 and 671.

As mentioned previously, the Sibalom gauging station at Pangpang is of minor value to hydrological estimations of water availability in the upper Sibalom sub-catchments. A suitable site for a runoff gauging station is found near Sinandulan at elevation 80 m approximately, about 3 km upstream of the Maninila River confluence.

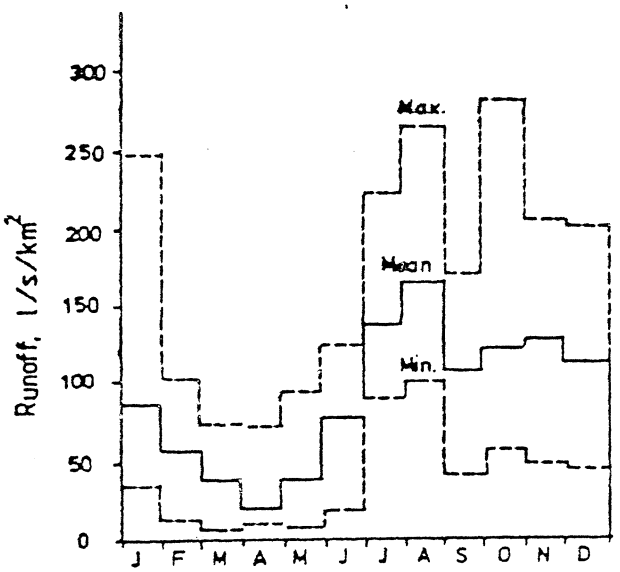
A pool for gauging can easily be identified by a big rock in the middle of the river near left bank rice terraces. The low and medium flow control consists of stones and medium sized rocks. An ordinary gauge plate read twice a day and supported by crest recorder observations would give adequate information. The establishment of this station should be given high priority.

Tibiao River near Tigbaboy

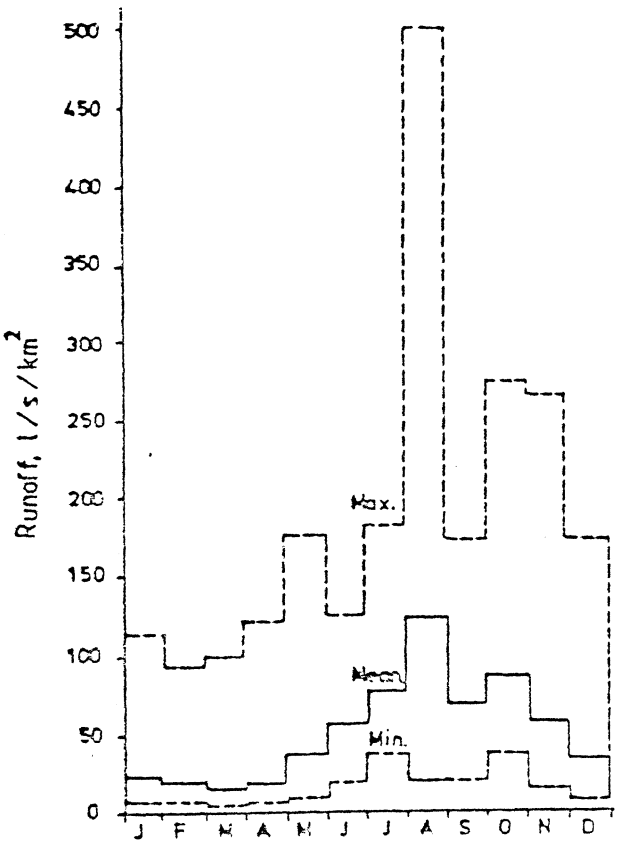
See Drawing Nos. 601, 661 and 674.

A favourable site for a runoff gauging station is located close to the Tigbaboy barrangay, where a bamboo bridge crosses the river. A deep pool is surrounded by huge blocks. The flow control is rock and medium-sized stones. The site seems suitable for the construction of a recorder housing.

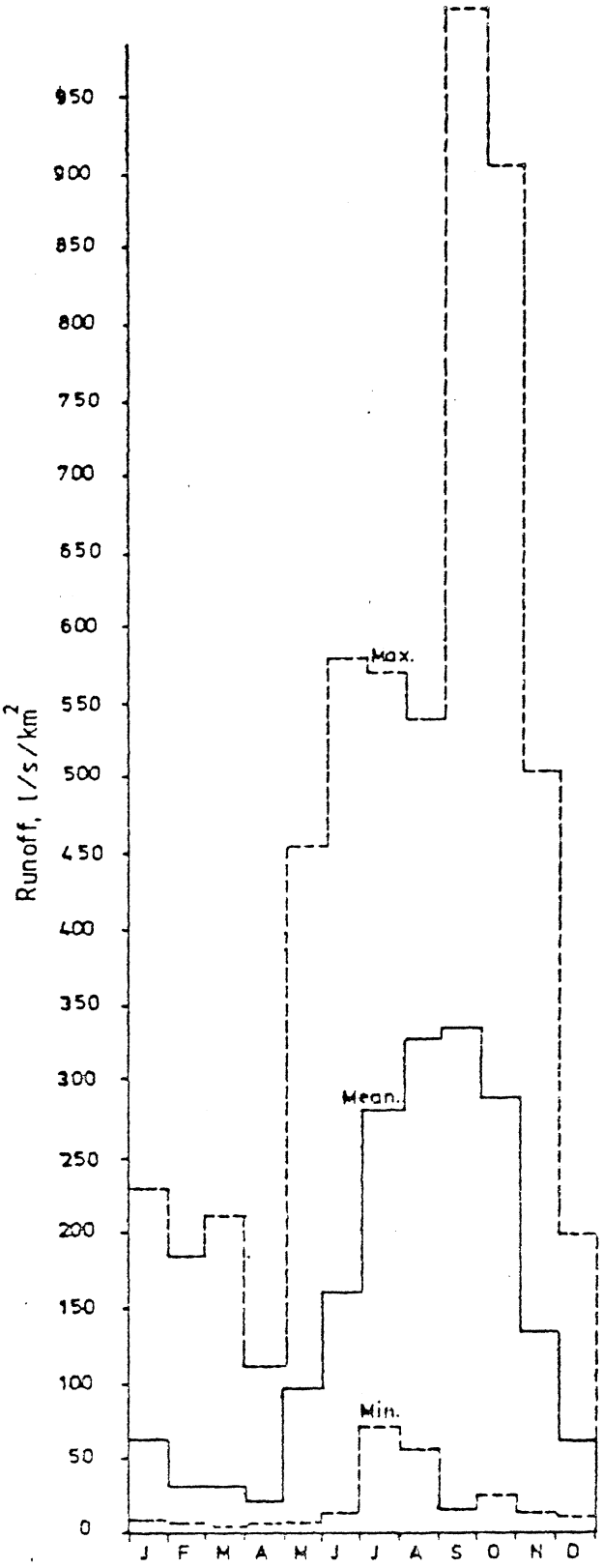
The upper areas of the Tibiao River catchment is adjacent to the Bacong River catchment. The risk of the Bacong River catchment to be situated within a rain shadow area during monsoon months, demonstrates the need for a gauging station to be established within the Tibiao catchment. This station would serve both the Tibiao and the Dalanas Hydropower projects.



Bacong at Valderama
32 km²



Sibalom at Pangpang
635 km²



Paliuan at Tagudtud
176 km²

FIGURE 1
MONTHLY RUNOFF

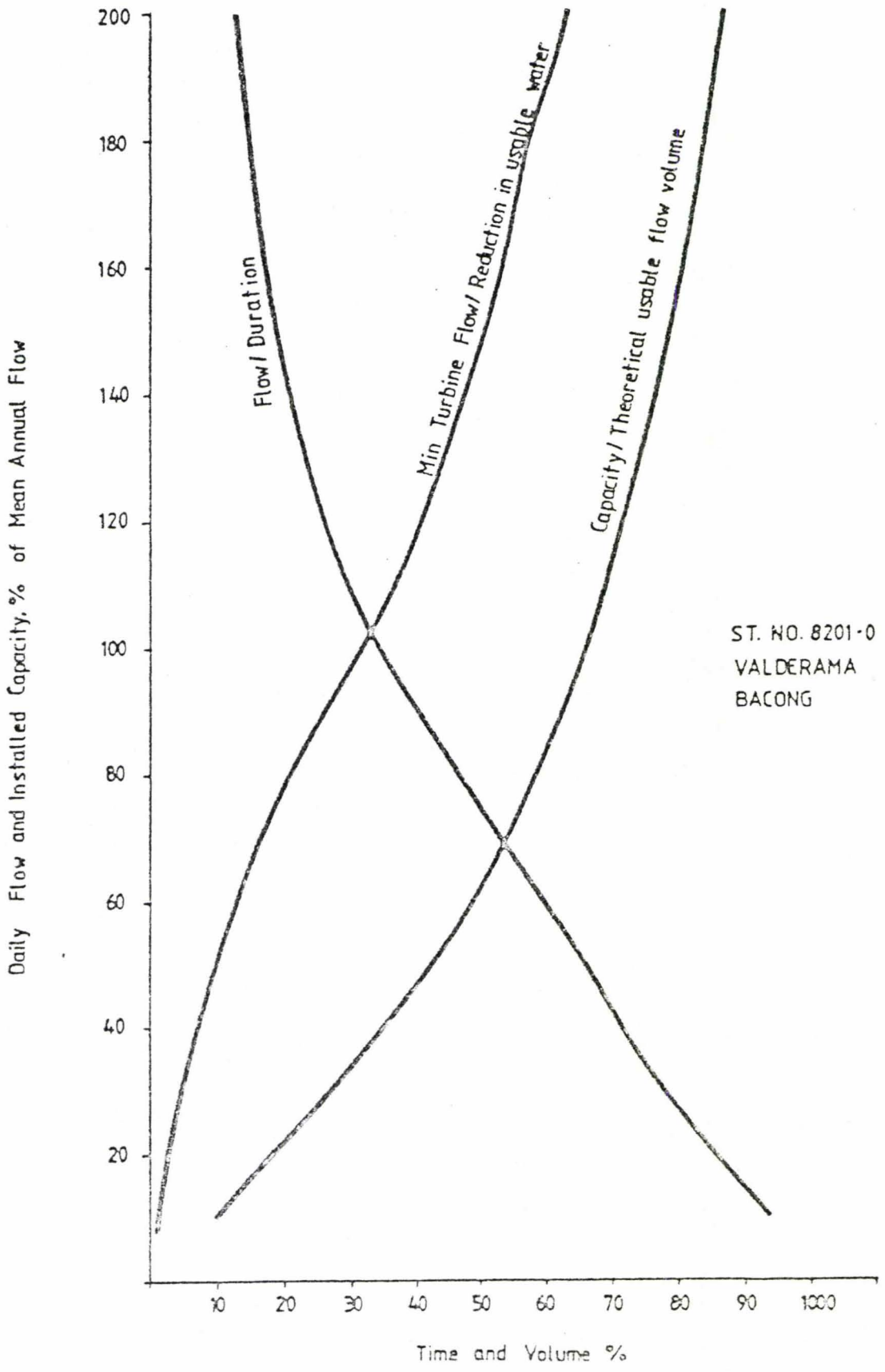


FIGURE 2
FLOW DURATION AND OUTPUT
BACONG AT VALDERAMA

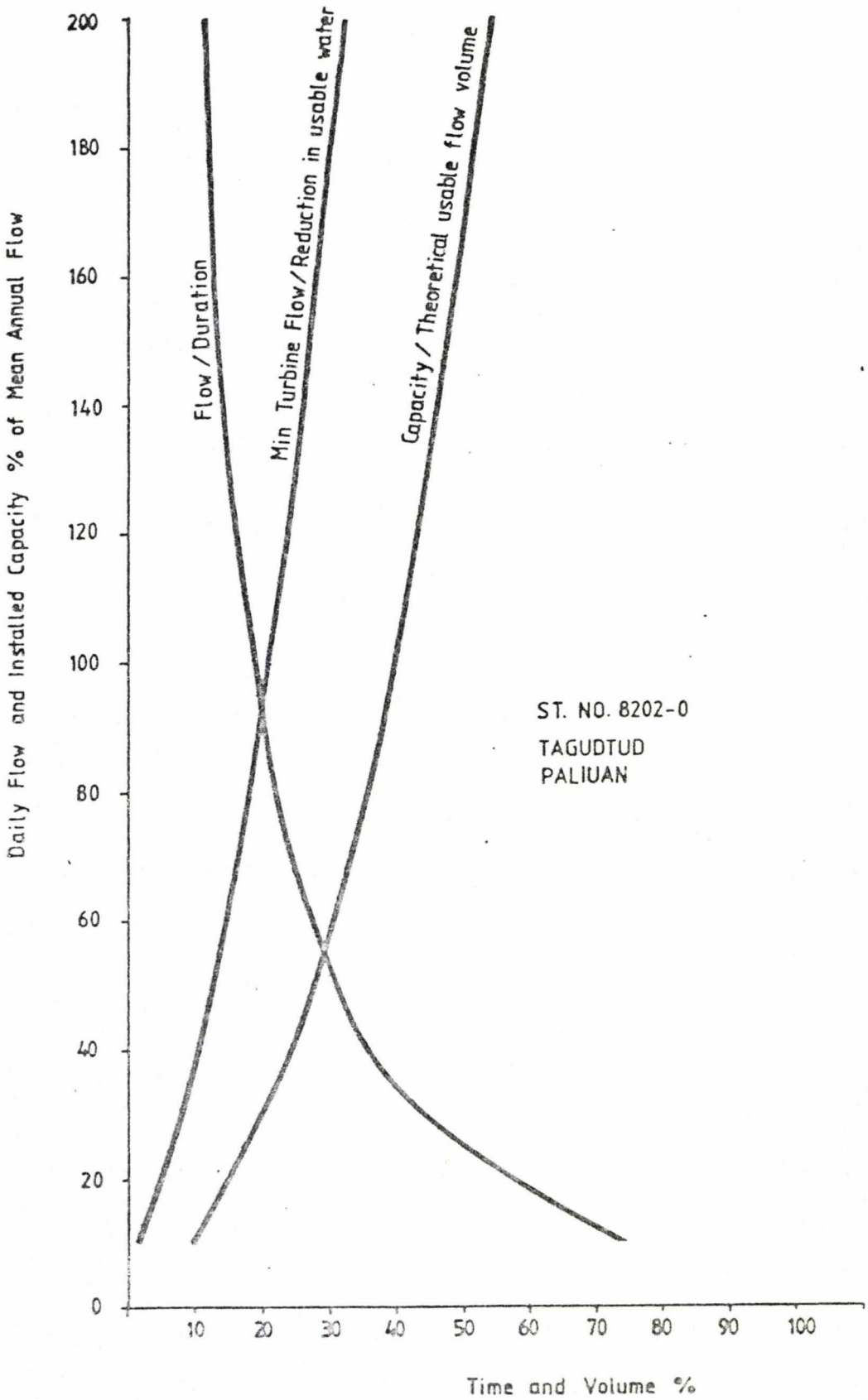


FIGURE 3
FLOW DURATION AND OUTPUT
PALIUAN AT TAGUDTUD

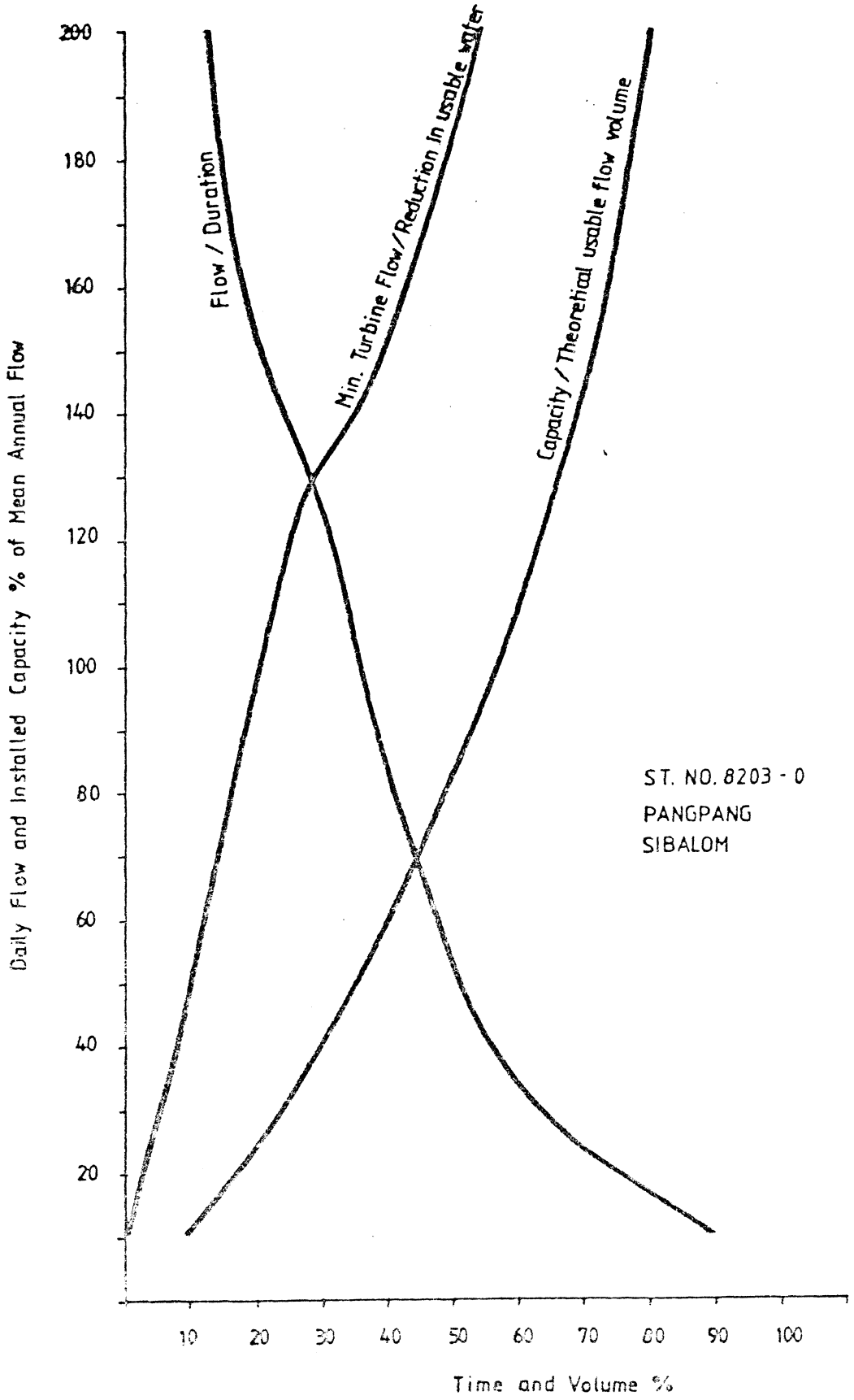


FIGURE 4
FLOW DURATION AND OUTPUT
SIBALOM AT PANGPANG

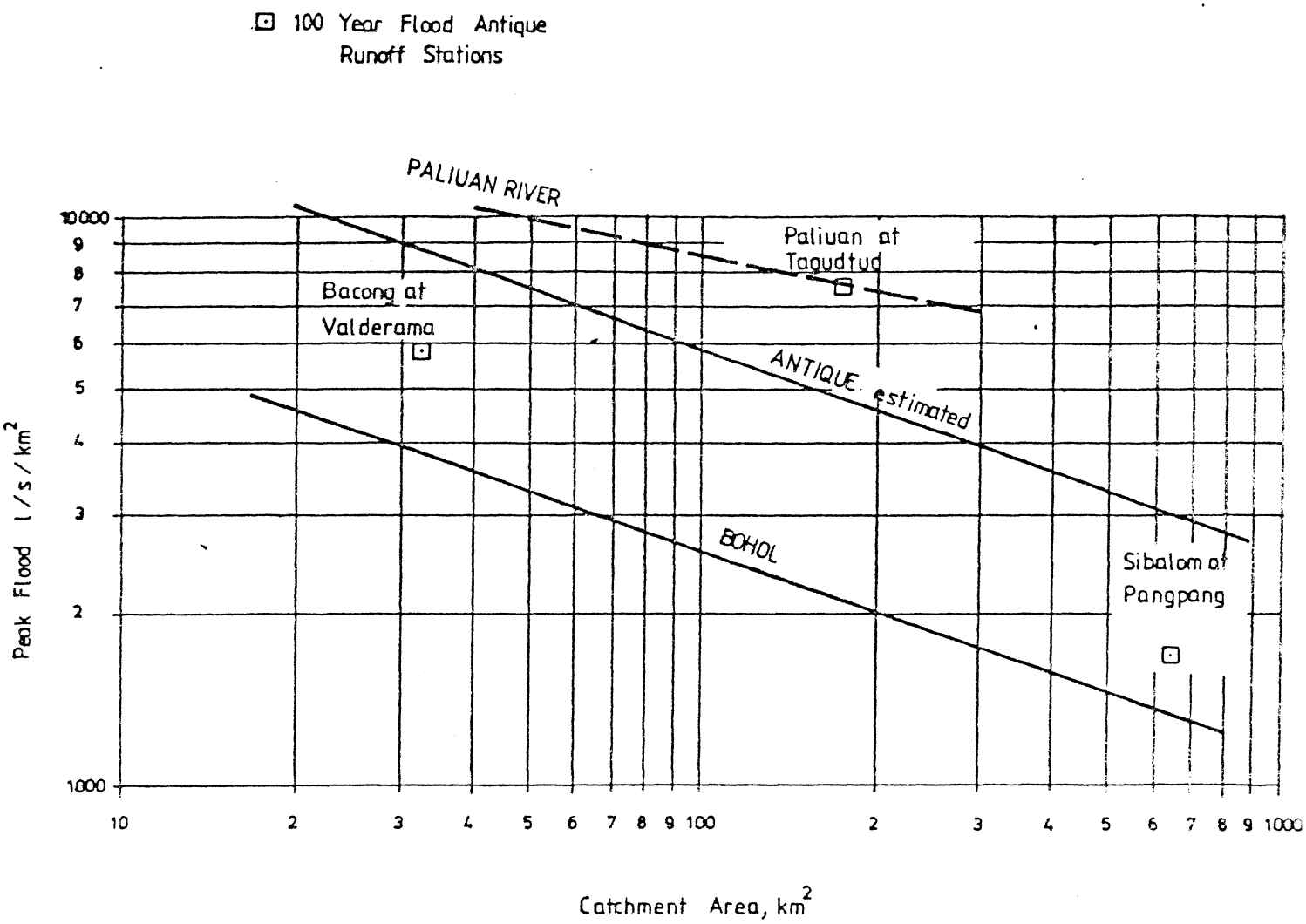


FIGURE 5

DESIGN FLOOD / CATCHMENT AREA

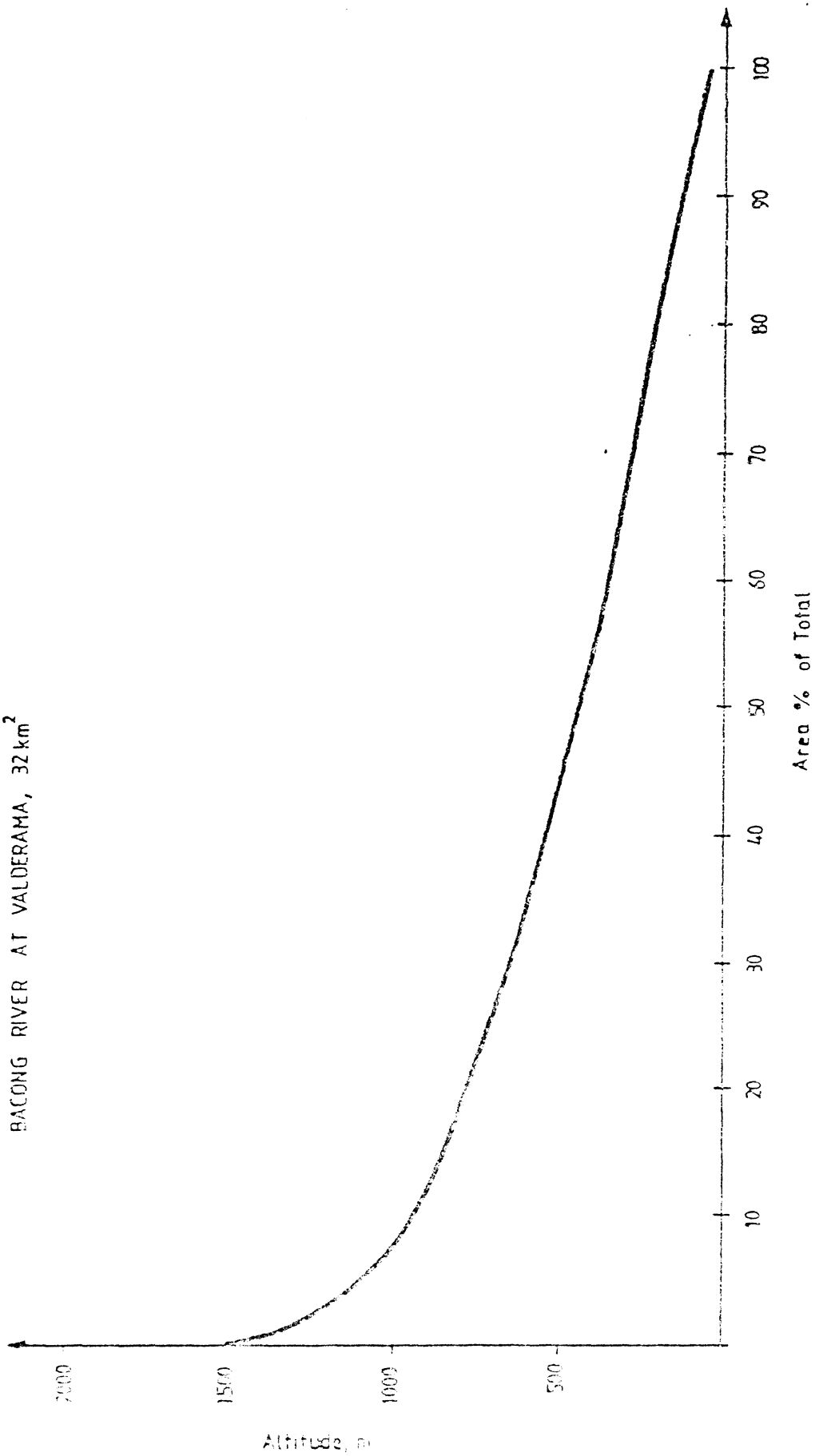


FIGURE
HYPSOMETRIC CURVE
VALDERAMA GAUGING STATION

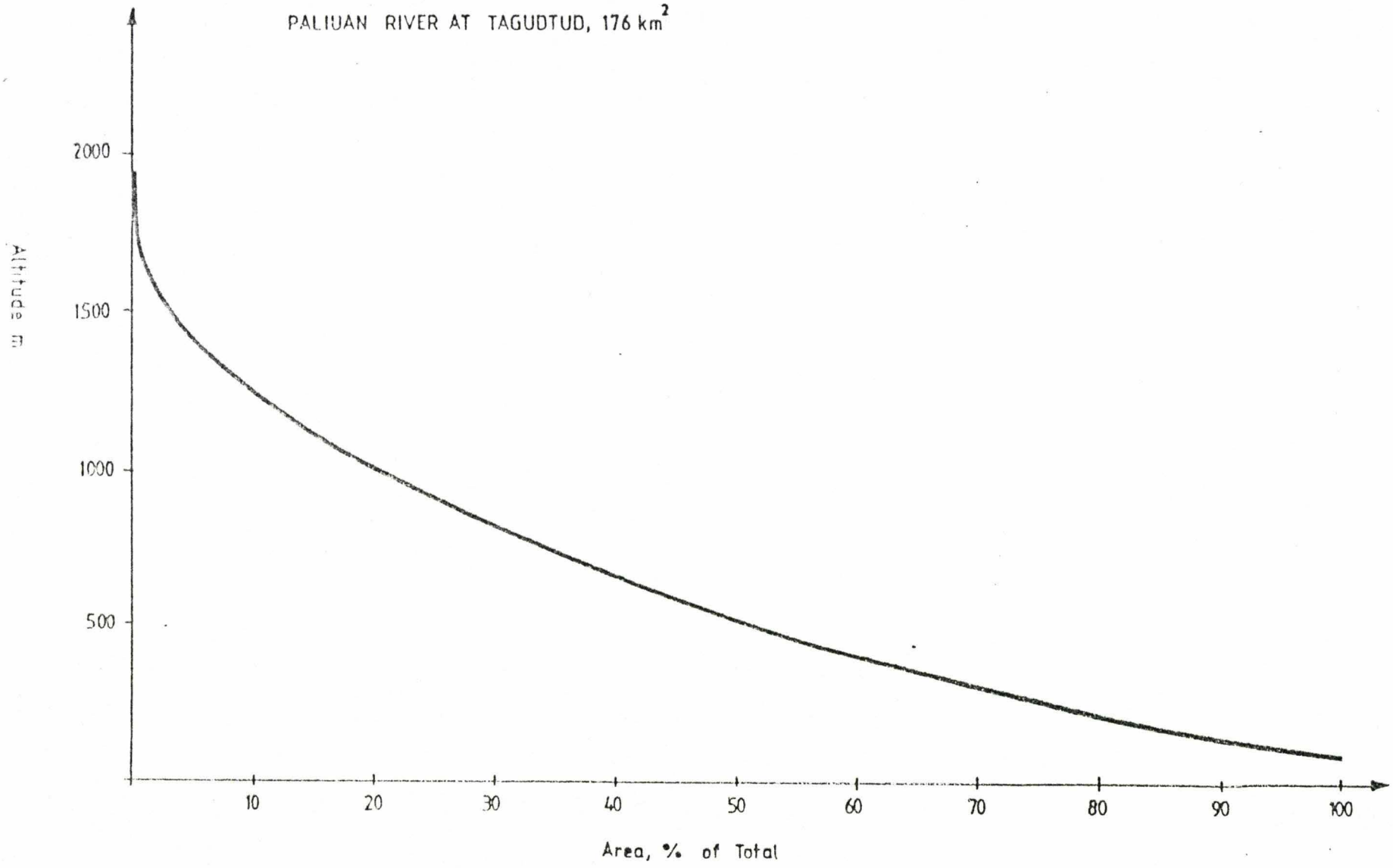


FIGURE 7
HYPSOMETRIC CURVE
TAGUDTUD GAUGING STATION

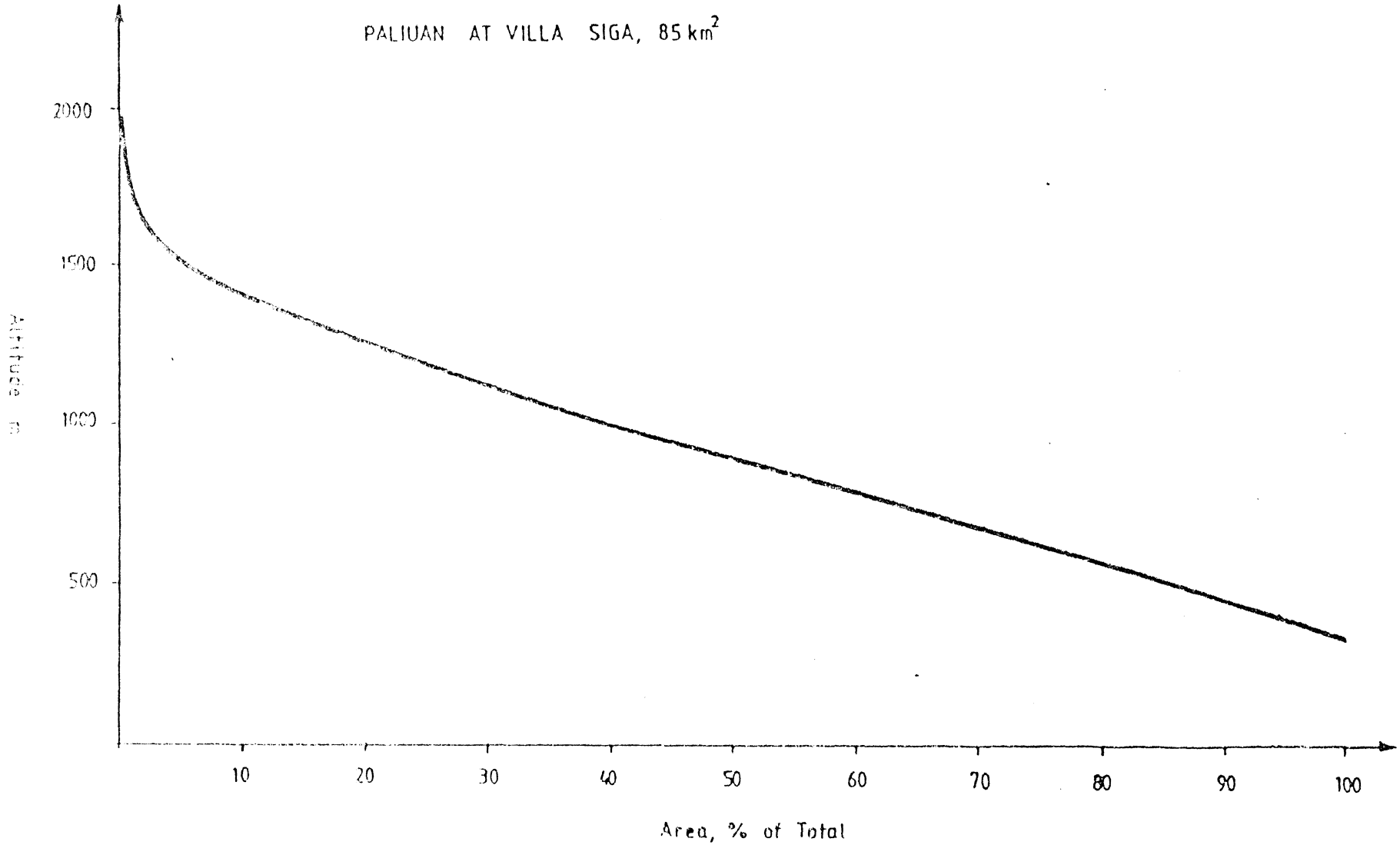


FIGURE 1
HYPSOMETRIC CURVE
VILLA SIGA

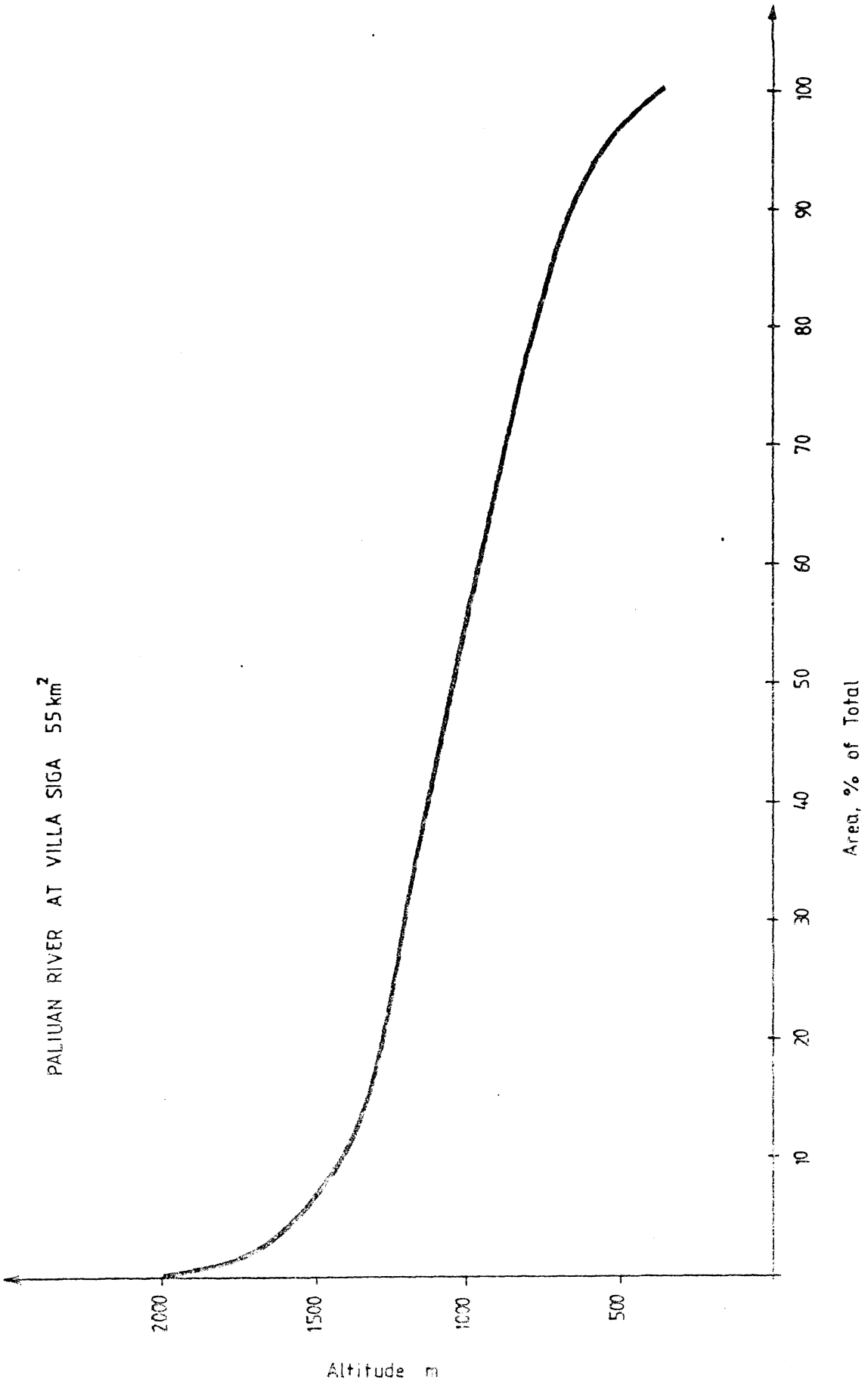


FIGURE 9
HYPSOMETRIC CURVE
VILLA SIGA

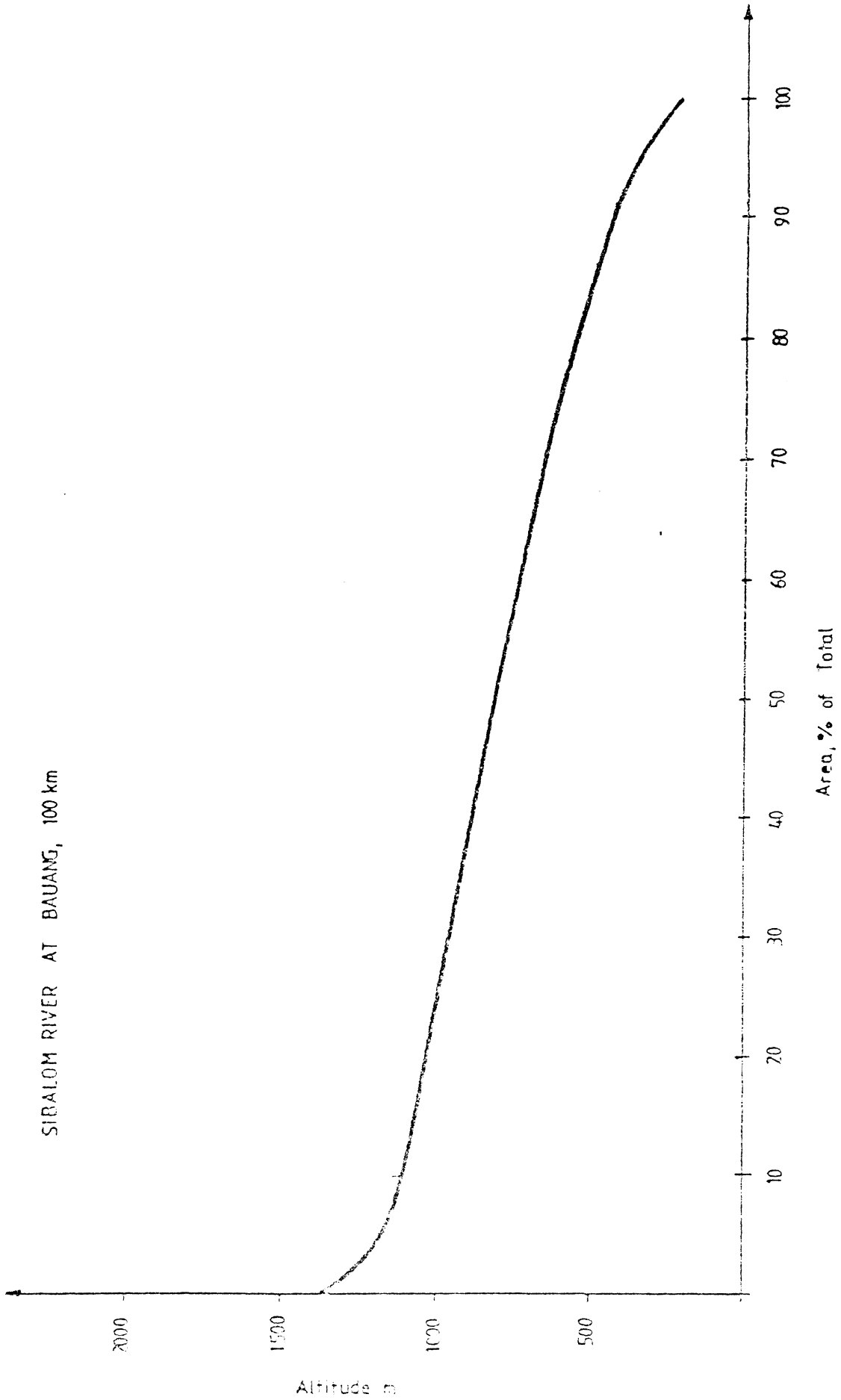


FIGURE 11
HYPSOMETRIC CURVE

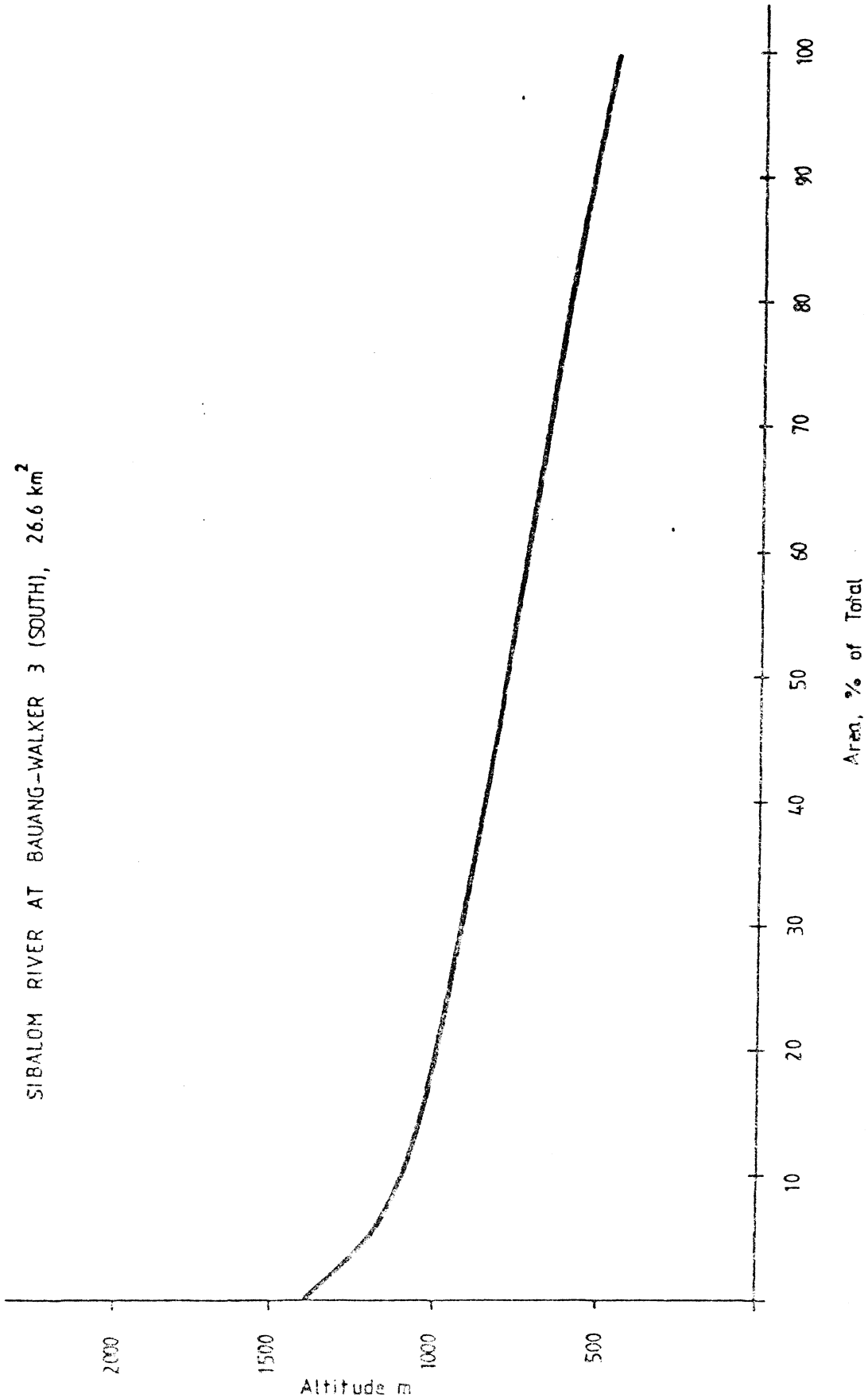


FIGURE 11
HYPSOMETRIC. CURVE
.BAUANG-WALKER 3(SOUTH)

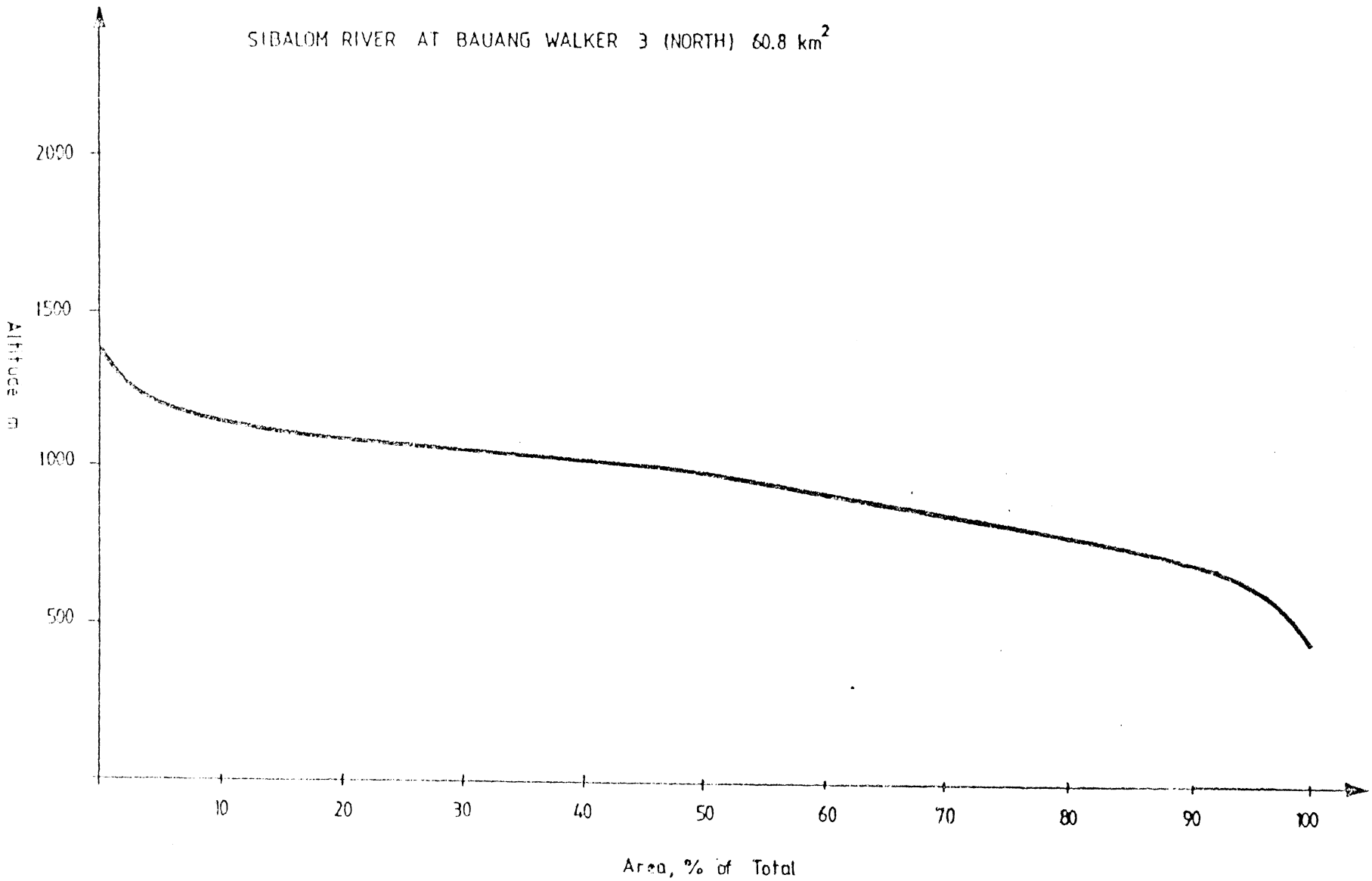


FIGURE 15
HYPSOMETRIC CURVE
BAUANG WALKER 3 (NORTH)

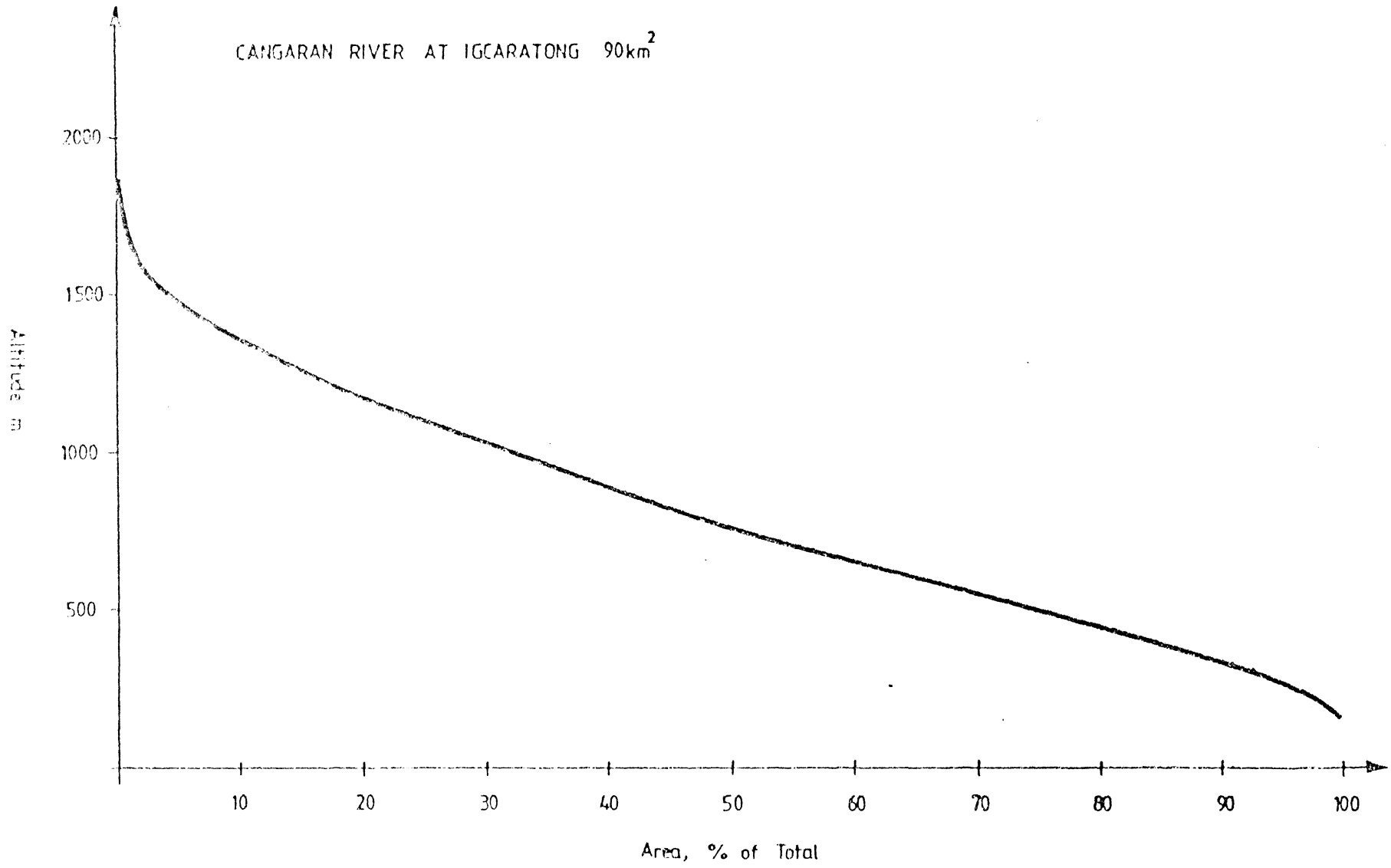


FIGURE 13
HYPSOMETRIC CURVE
IGCARATONG

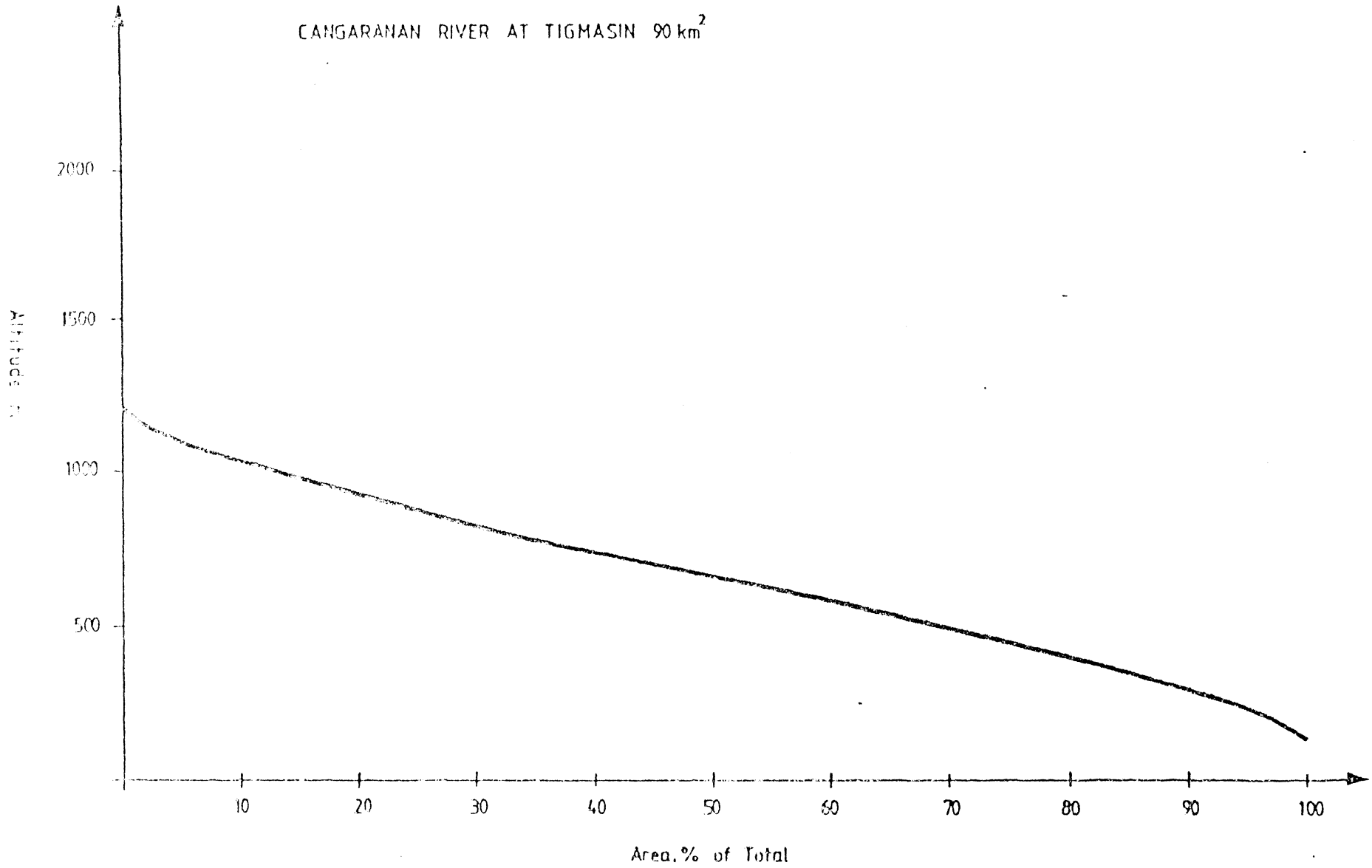


FIGURE 17
HYPSOMETRIC CURVE
TIGMASIN

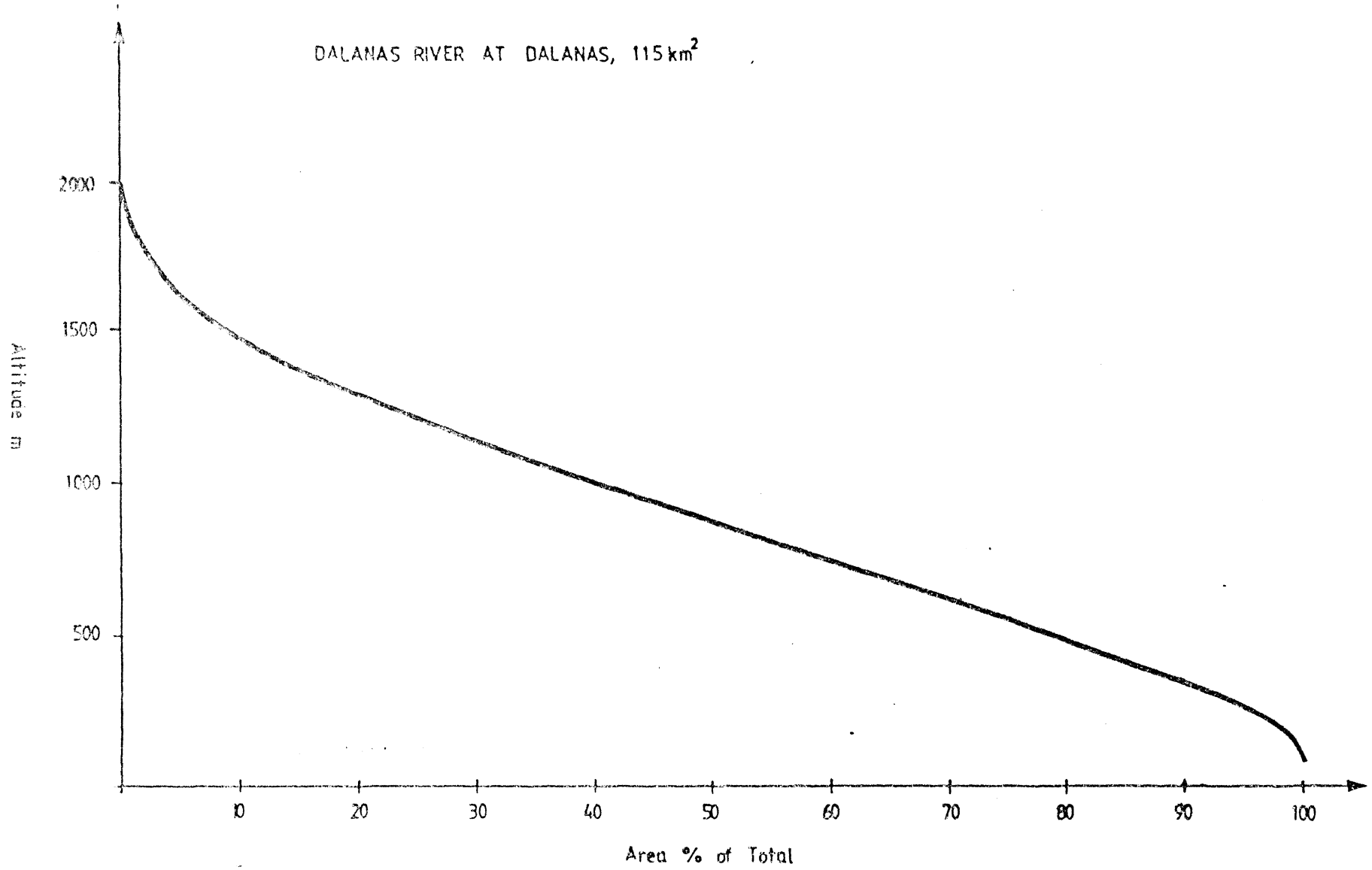


FIGURE 15
HYPSOMETRIC CURVE
DALANAS

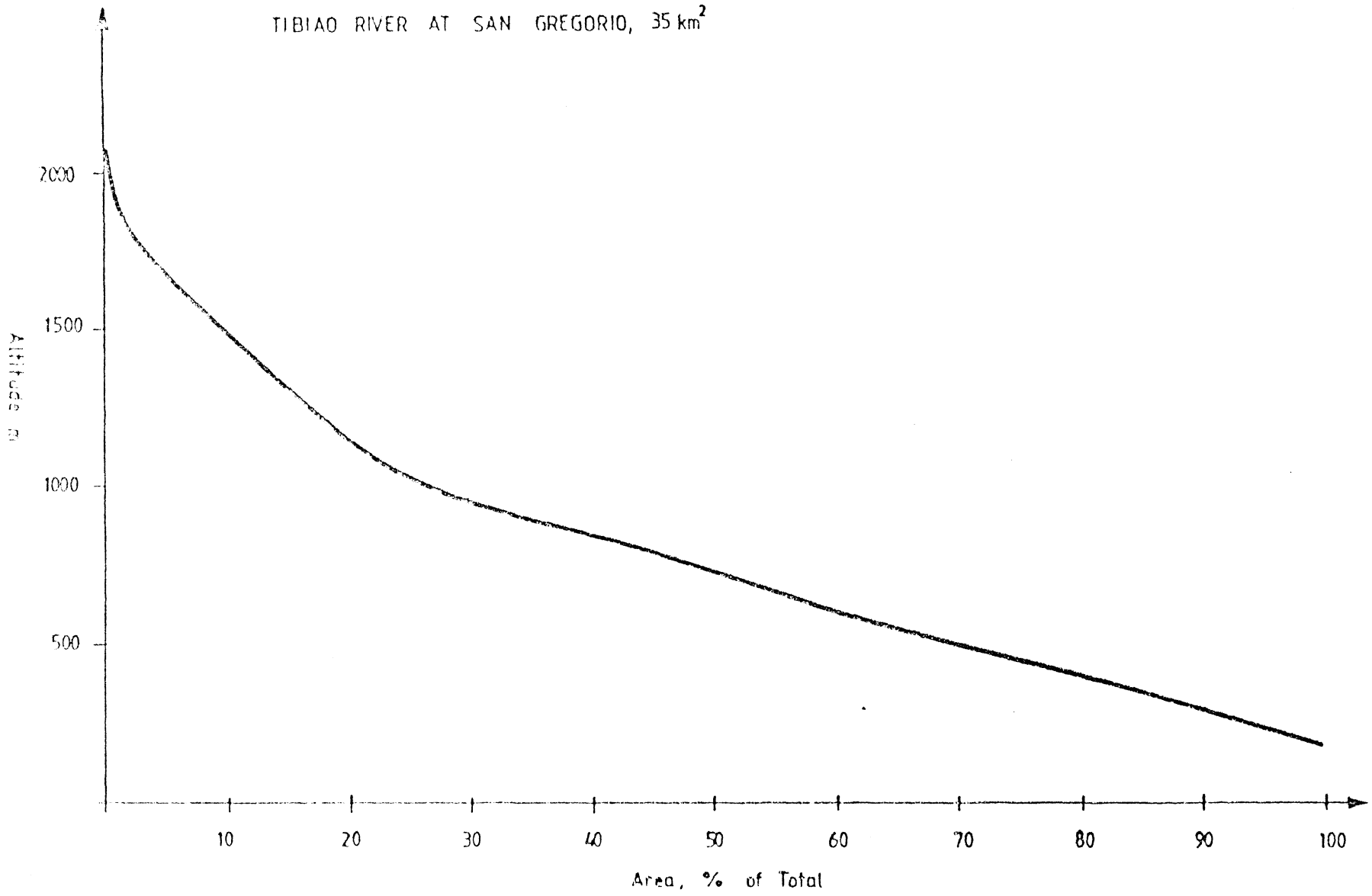


FIGURE 1K
HYPSOMETRIC CURVE
SAN GREGORIO

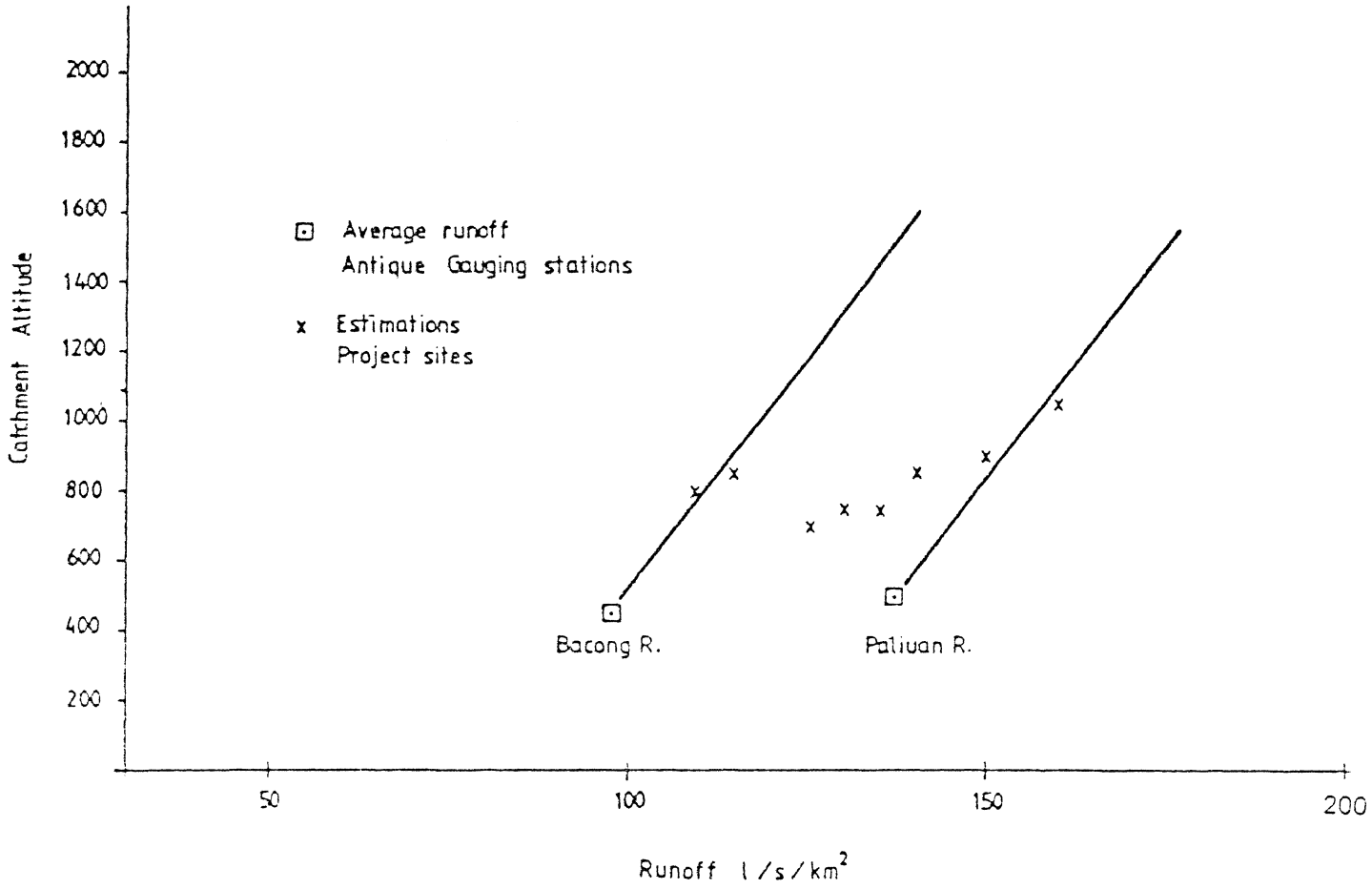
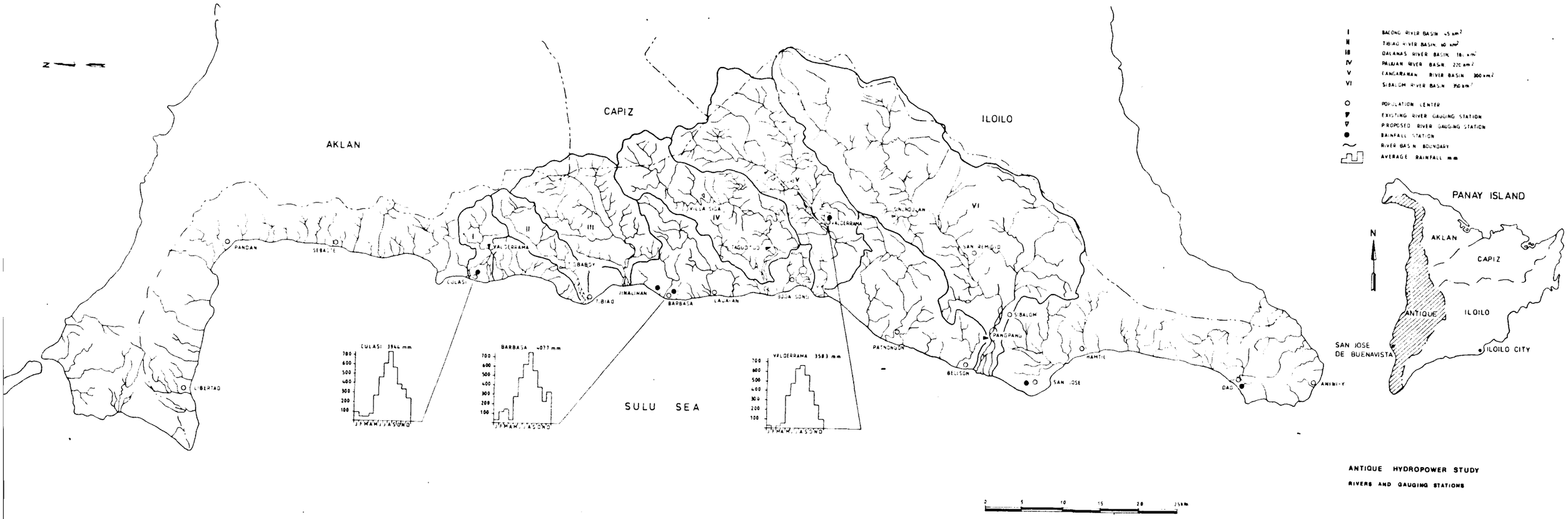


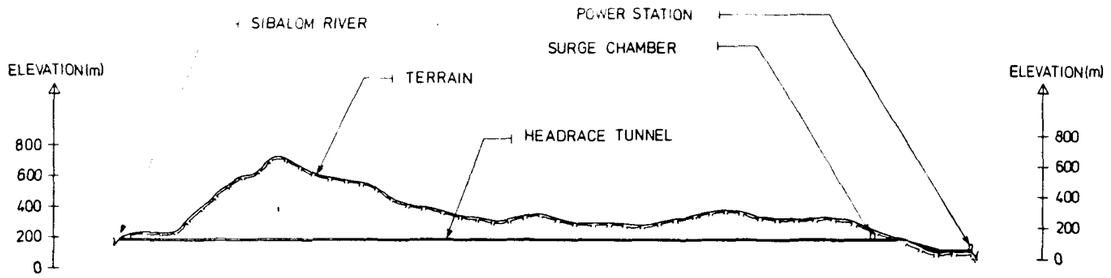
FIGURE 17
RUNOFF CATCHMENT ELEVATION



ANTIQUE HYDROPOWER STUDY

RIVERS AND GAUGING STATIONS

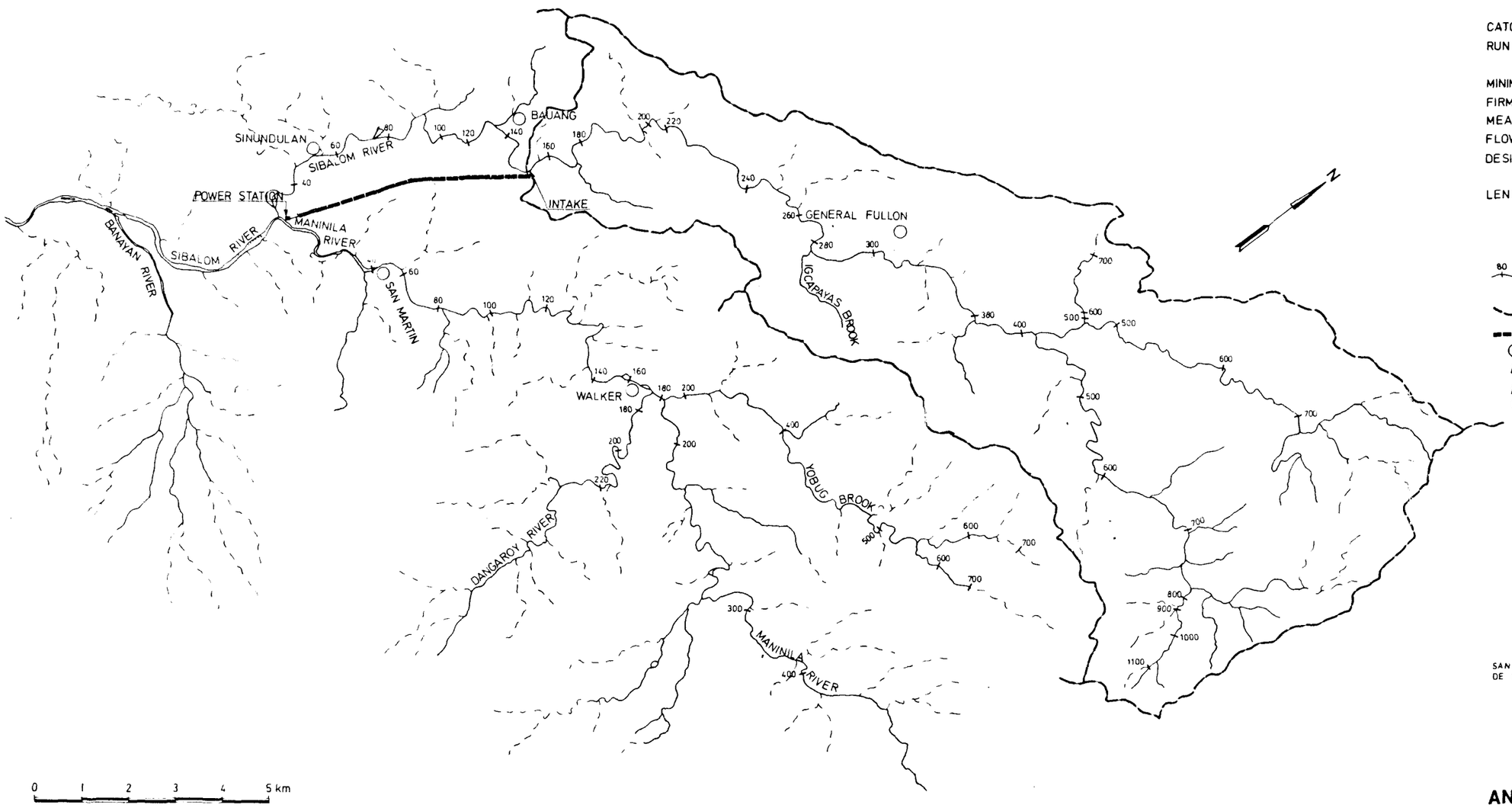
MARCH 1981



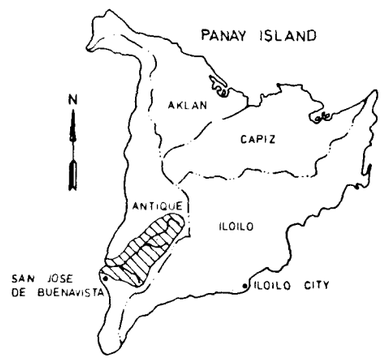
LONGITUDINAL SECTION THROUGH HEADRACE TUNNEL

0 1km

INSTALLED CAPACITY	2 x 8.5 MW
AVERAGE ANNUAL PRODUCTION	60 GWh
GROSS HEAD	80 m
CATCHMENT AREA	110 km^2
RUN OFF	110 l/sec km^2
MINIMUM FLOW	0.4 m^3/sec
FIRM FLOW (90% AVAILABILITY)	2.2 m^3/sec
MEAN FLOW	12.0 m^3/sec
FLOW CORRESPONDING TO INSTALLED CAPACITY	24.0 m^3/sec
DESIGN FLOOD	620 m^3/sec
LENGTH OF WATERWAYS	5.6 km



RIVERS AND CREEKS WITH ELEVATIONS FROM MAPS 1: 50,000
TOPOGRAPHIC CATCHMENT BOUNDARY
TUNNEL
POPULATION CENTER
RIVER GAUGING STATION
PROPOSED RIVER GAUGING STATION
RAINFALL STATION



ANTIQUE HYDROPOWER STUDY

SIBALOM RIVER BASIN

THE BAUANG PROJECT ALT. 1

621

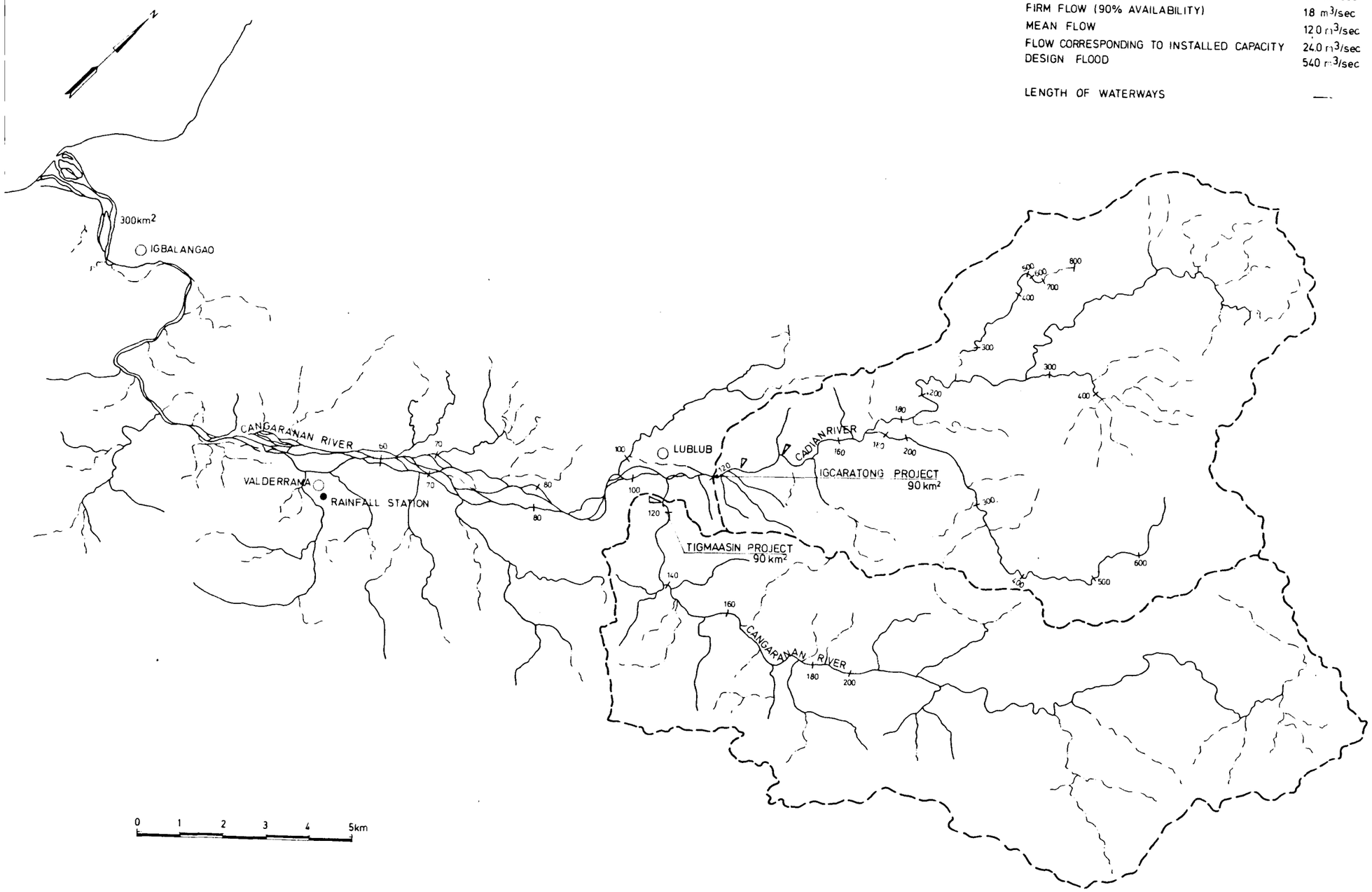
MARCH 1981

THE IGCARATONG PROJECT

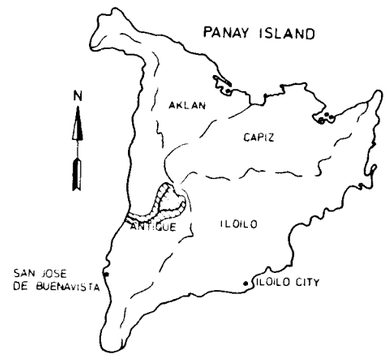
INSTALLED CAPACITY	2x30MW
AVERAGE ANNUAL PRODUCTION	20 GWh
GROSS HEAD	30m
CATCHMENT AREA	90 km²
RUN OFF	135 l/sec km²
MINIMUM FLOW	0.4 m³/sec
FIRM FLOW (90% AVAILABILITY)	1.8 m³/sec
MEAN FLOW	12.0 m³/sec
FLOW CORRESPONDING TO INSTALLED CAPACITY	24.0 m³/sec
DESIGN FLOOD	540 m³/sec
LENGTH OF WATERWAYS	—

THE TIGMAASIN PROJECT

INSTALLED CAPACITY	2x30 MW
AVERAGE ANNUAL PRODUCTION	20 GWh
GROSS HEAD	30m
CATCHMENT AREA	90 km²
RUN OFF	125 l/sec km²
MINIMUM FLOW	0.4 m³/sec
FIRM FLOW (90% AVAILABILITY)	1.8 m³/sec
MEAN FLOW	11.0 m³/sec
FLOW CORRESPONDING TO INSTALLED CAPACITY	22.0 m³/sec
DESIGN FLOOD	540 m³/sec
LENGTH OF WATERWAYS	—



RIVERS AND CREEKS WITH ELEVATIONS FROM MAPS 1:50000
TOPOGRAPHIC CATCHMENT BOUNDARY
TUNNEL
POPULATION CENTER
RIVER GAUGING STATION
PROPOSED RIVER GAUGING STATION
RAINFALL STATION

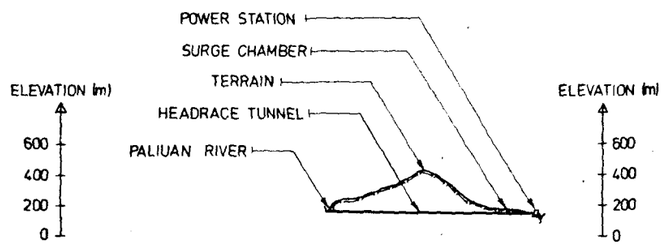


ANTIQUE HYDROPOWER STUDY

THE CANGARANAN RIVER BASIN
THE TIGMAASIN AND
THE IGCARATON PROJECT

631

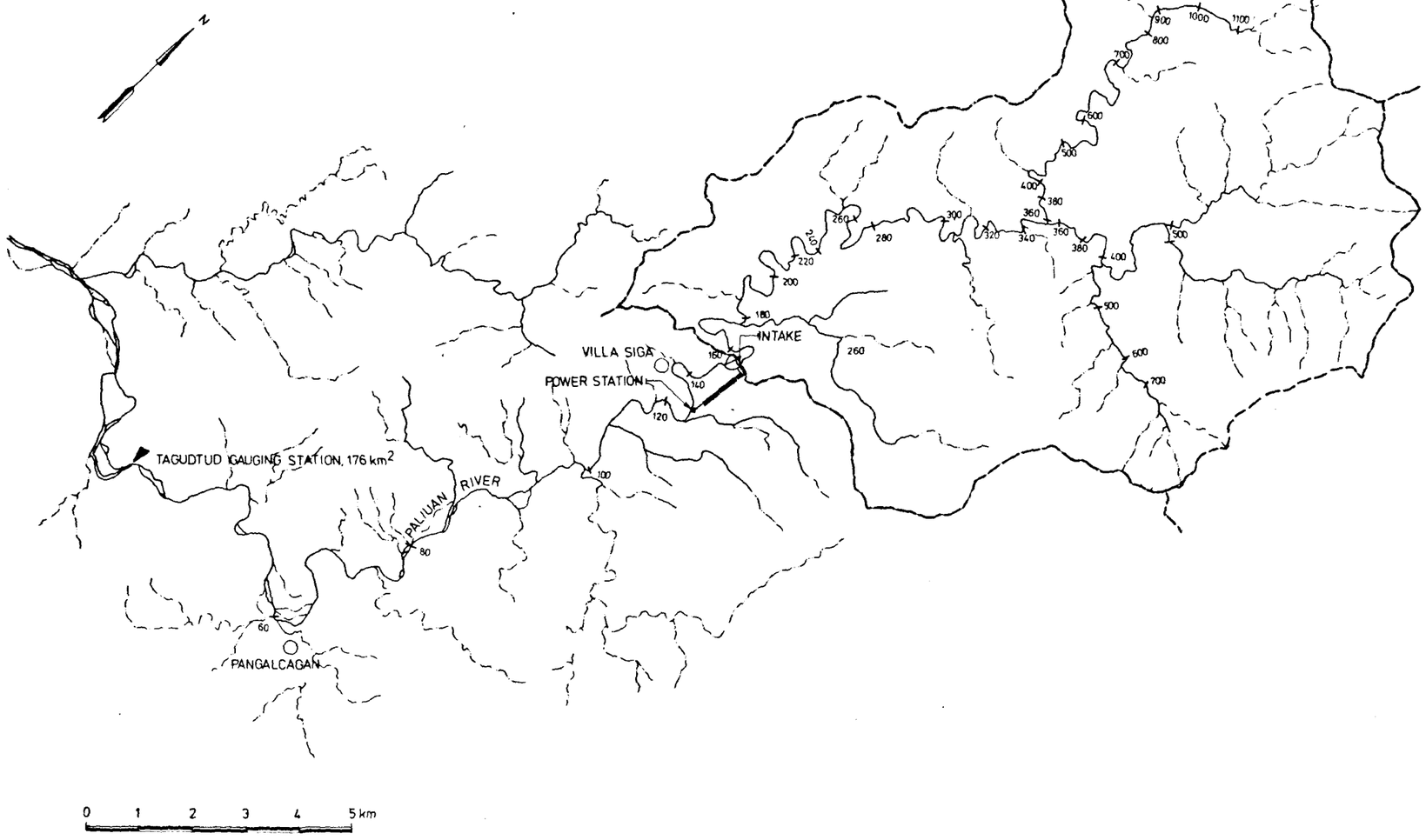
MARCH 1981



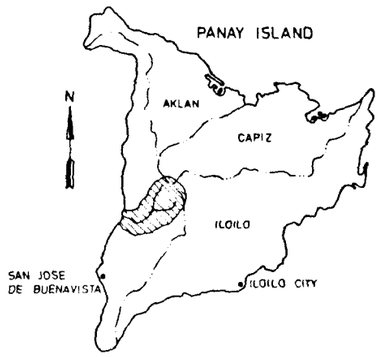
LONGITUDINAL SECTION THROUGH HEADRACE TUNNEL

0 1 km

INSTALLED CAPACITY	2x3.5 MW
AVERAGE ANNUAL PRODUCTION	25 GWh
GROSS HEAD	30m
CATCHMENT AREA	90 km^2
RUN OFF	150 l/sec km^2
MINIMUM FLOW	0.4 m^3/sec
FIRM FLOW (90% AVAILABILITY)	1.8 m^3/sec
MEAN FLOW	13.5 m^3/sec
FLOW CORRESPONDING TO INSTALLED CAPACITY	27.0 m^3/sec
DESIGN FLOOD	765 m^3/sec
LENGTH OF WATERWAYS	1.4 km



80 RIVERS AND CREEKS WITH ELEVATIONS FROM MAPS 1:50,000
TOPOGRAPHIC CATCHMENT BOUNDARY
TUNNEL
POPULATION CENTER
RIVER GAUGING STATION
PROPOSED RIVER GAUGING STATION
RAINFALL STATION



ANTIQUE HYDROPOWER STUDY

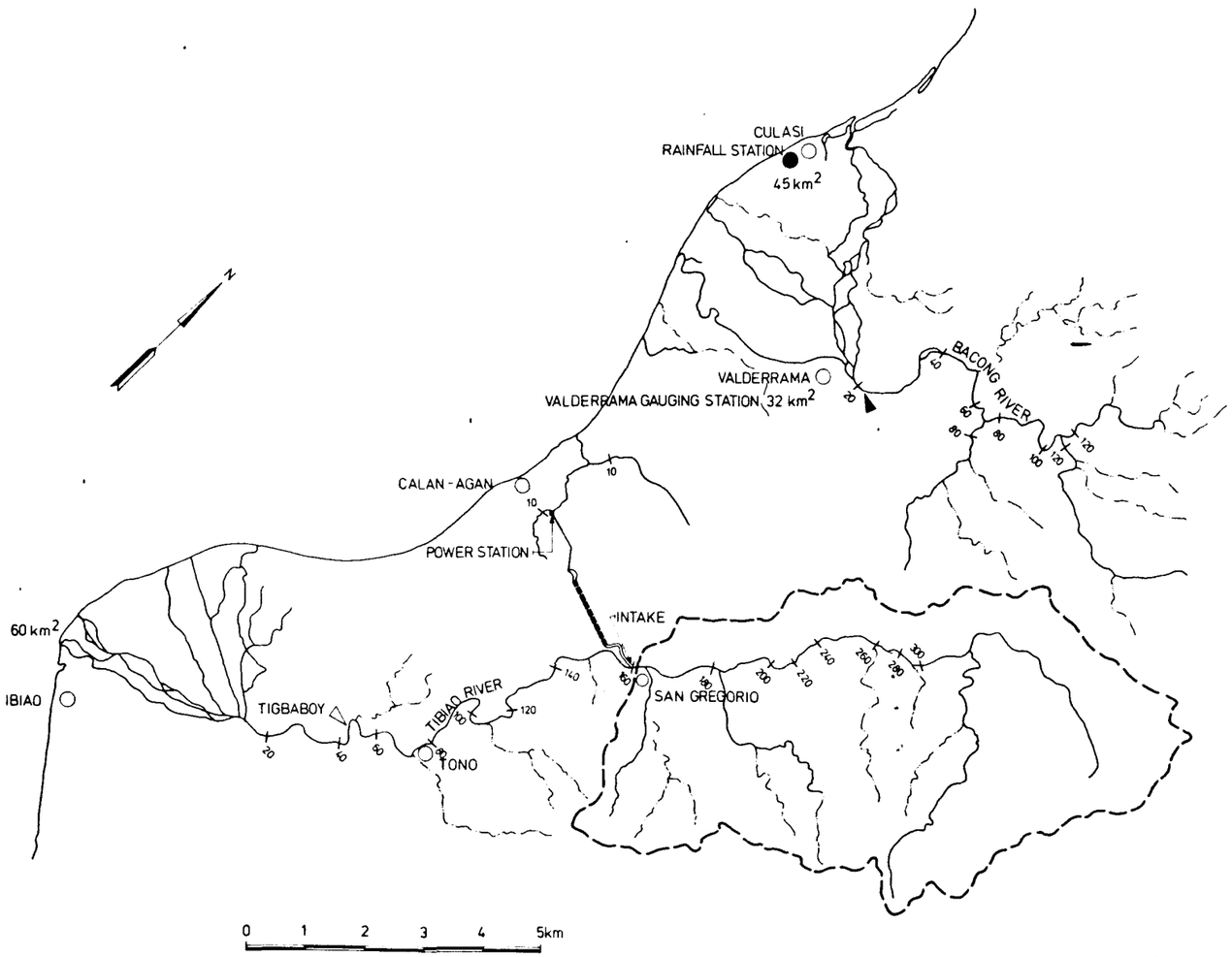
PALIUAN RIVER BASIN

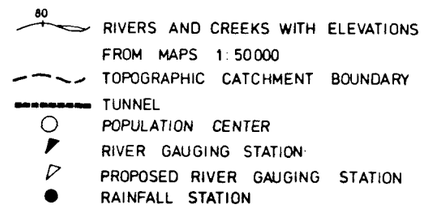
THE VILLA SIGA PROJECT ALT.1

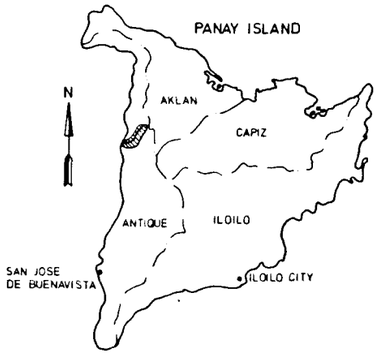
641

MARCH 1981

INSTALLED CAPACITY	2x5.5MW
AVERAGE ANNUAL PRODUCTION	35 GWh
GROSS HEAD	135 m
CATCHMENT AREA	35 km^2
RUN OFF	130 l/sec km^2
MINIMUM FLOW	0.1 m^3/sec
FIRM FLOW (90% AVAILABILITY)	0.7 m^3/sec
MEAN FLOW	4.5 m^3/sec
FLOW CORRESPONDING TO INSTALLED CAPACITY	9.0 m^3/sec
DESIGN FLOOD	300 m^3/sec
LENGTH OF WATERWAYS	3.0 km





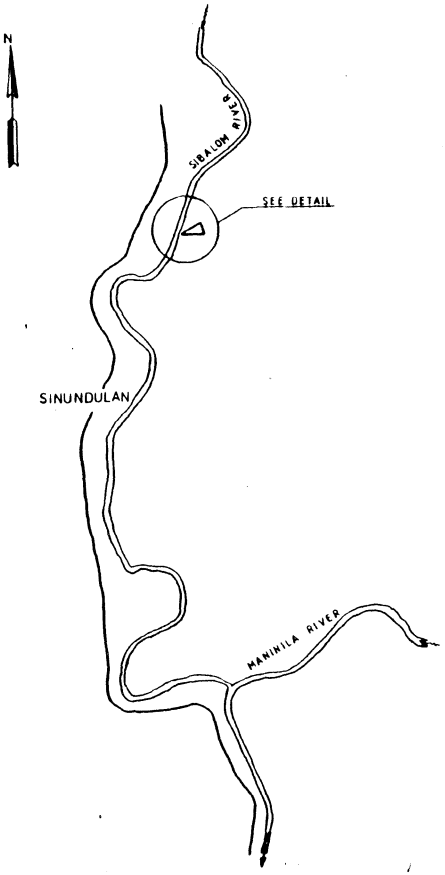


ANTIQUE HYDROPOWER STUDY

THE TIBIAO RIVER BASIN
THE SAN GREGORIO PROJECT

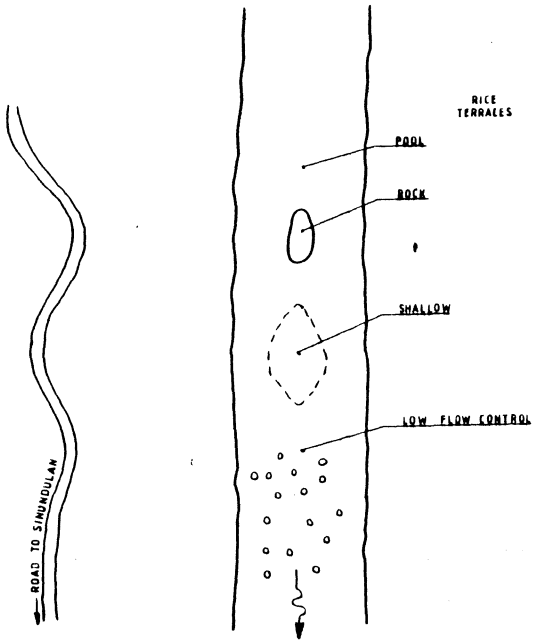
661

MARCH 1981



LOCATION MAP

0 1km



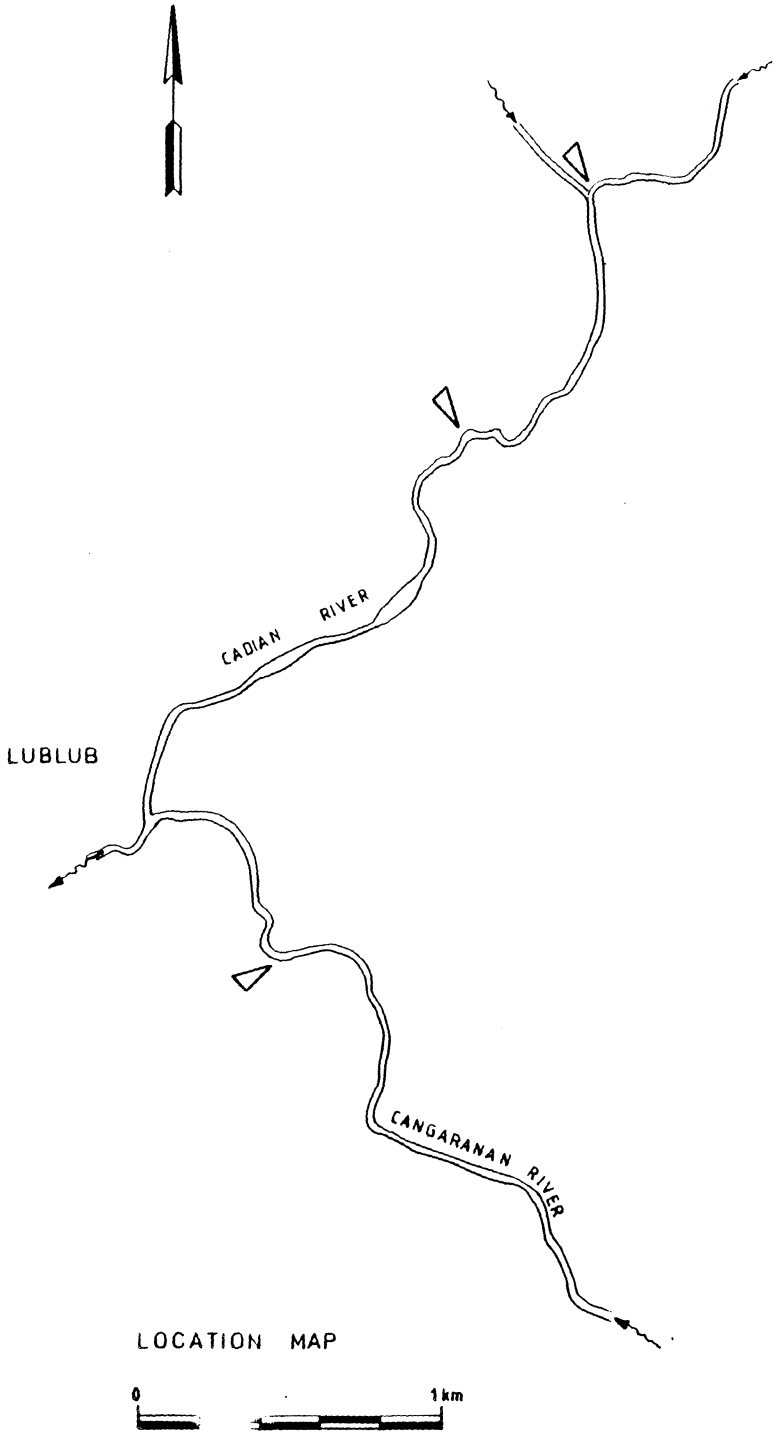
DETAIL

▽ PROPOSED RIVER GAUGING STATION

ANTIQUE HYDROPOWER STUDY

PROPOSED RIVER GAUGING STATIONS
SIBALOM RIVER

871
MARCH 1981



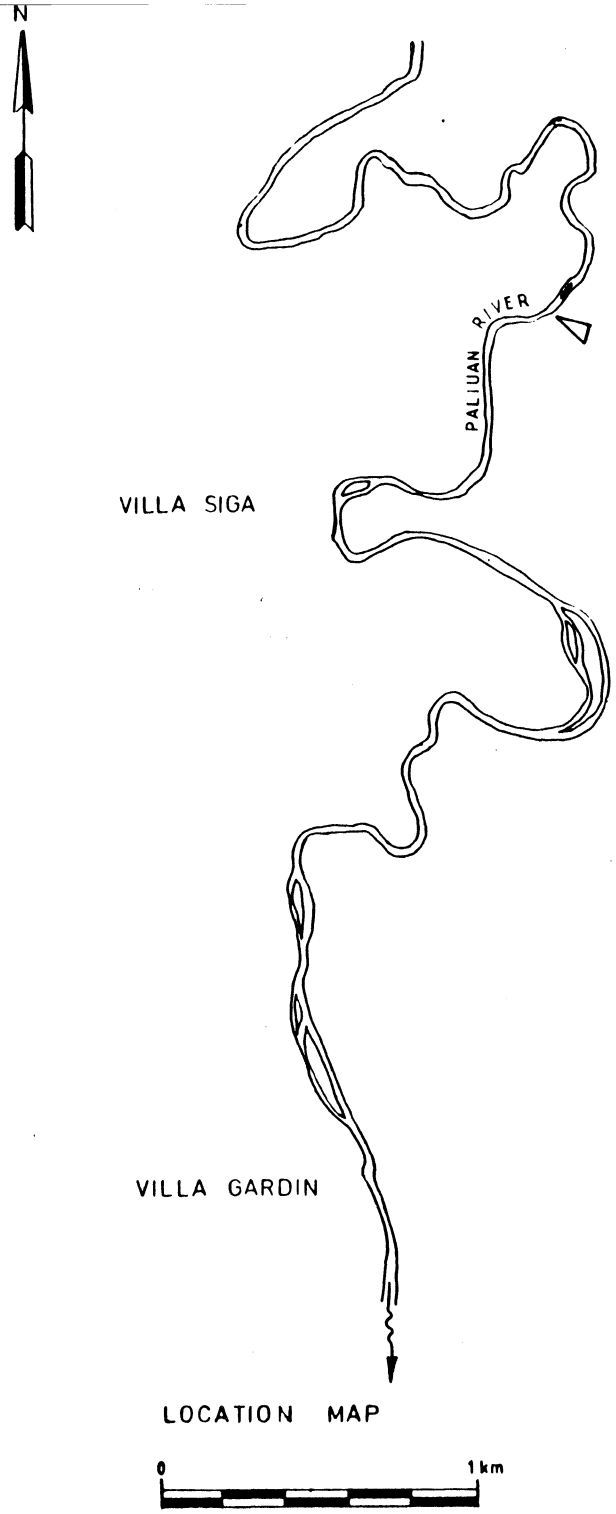
PROPOSED RIVER GAUGING STATION

ANTIQUE HYDROPOWER STUDY

PROPOSED RIVER GAUGING STATIONS
CANGARANAN RIVER

672

MARCH 1981



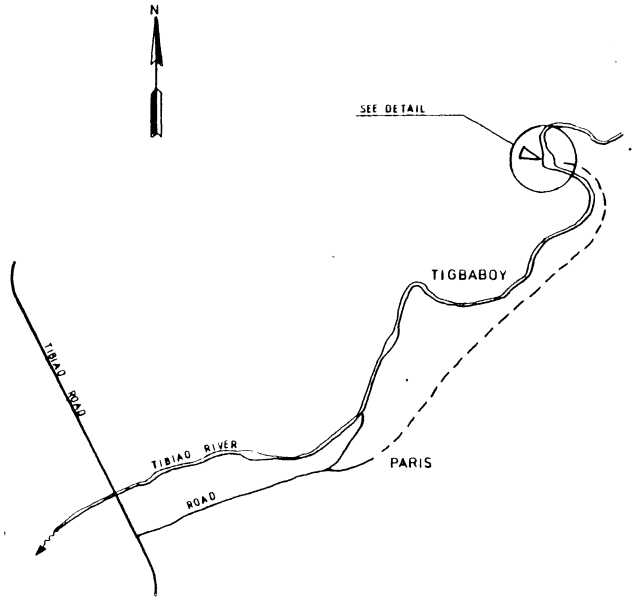
PROPOSED RIVER GAUGING STATION

ANTIQUE HYDROPOWER STUDY

PROPOSED RIVER GAUGING STATIONS
PALIUAN RIVER

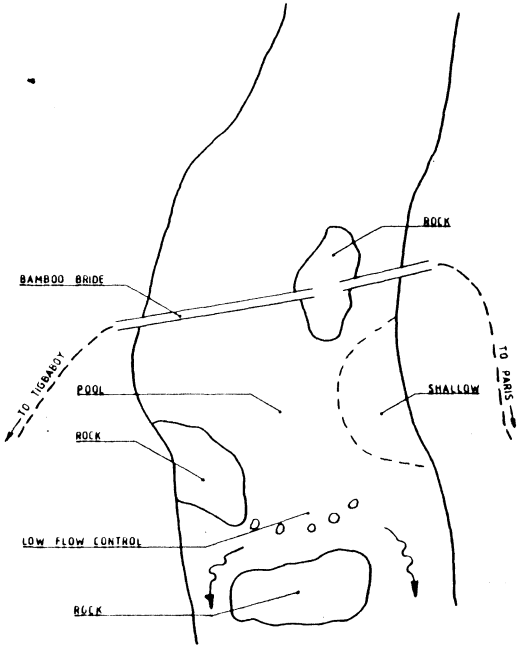
673

MARCH 1981



LOCATION MAP

0 1 km



DETAIL

PROPOSED RIVER GAUGING STATION

ANTIQUE HYDROPOWER STUDY

PROPOSED RIVER GAUGING STATIONS
TIBIAO RIVER AT SAN GREGORIO

874
MARCH 1981

APPENDIX A

RAINFALL - MONTHLY AND ANNUAL SUMMARIES

VALDERAMA, MONTHLY RAINFALL in mm

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1960	69	23	55	38	566	511	416	503	425	793	118	8	3523
	0	0	9	12	506	747	424	663	497	429	155	20	3461
	9	6	32	67	294	393	828	611	468	166	184	25	3085
	11	0	4	15	120	745	248	792	648	141	48	165	2939
	0	0	0	42	375	542	381	602	491	274	721	62	3491
1965	71	0	47	116	499	616	791	508	540	152	130	37	3507
	0	3	3	6	858	532	683	420	501	229	199	159	3591
	95	18	57	34	124	568	1036	977	577	675	362	0	4523
	17	0	0	28	398	347	634	1090	232	403	187	4	3340
	0	0	0	41	272	606	1287	419	869	151	98	171	3912
1970	0	0	0	37	265	534	743	556	432	627	283	100	3576
	26	61	86	65	424	1001	1282	551	314	561	105	26	4502
	244	0	23	14	355	560	687	430	527	145	104	125	3214
	0	0	0	57	265	200	358	740	476	411	245	34	2786
	61	0	1	72	168	566	531	497	171	678	294	206	3245
1975	67	12	0	202	435	461	303	338	376	495	54	91	2834
	53	47	98	15	579	649	516	569	526	109	147	49	3357
	52	18	4	9	268	323	888	679	1102	133	127	3	3606
	32	0	5	140									
Normal 1951-70	27	7	24	60	345	481	635	667	574	405	251	108	3583

BARBASA, MONTHLY RAINFALL IN mm

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1960	31	48	19	169	511	469	438	958	311	620	138	25	3736
	0	6	11	2	454	645	457	1074	679	361	161	22	3871
	8	58	16	0	329	248	1190	671	501	128	457	36	3642
	0	3	6	0	126	739	262	922	453	52	45	116	2723
	0	0	0	21	373	526	237	414	670	222	597	89	3150
1965	51	23	36	53	484	578	694	507	641	50	126	83	3325
	12	0	0	3	804	563	617	459	514	168	266	128	3533
	164	26	29	7	154	564	888	1284	664	511	168	1	4459
	36	0	0	0	234	327	478	1079	541	343	201	8	3246
	0	0	0	0	409	499	1378	511	655	188	65	148	3852
1970	12	5	15	3	204	751	511	1057	540	714	382	163	4357
	36	116	63	13	136	330	822	486	359	841	130	56	3388
	258	8	50	14	289	582	1012	566	646	78	243	74	3820
	0	3	35	0	282	275	310	961	353	507	490	122	3338
	76	94	13	7	197	861	587	909	221	1051	383	208	4607
1975	132	7	29	199	148	657	414	406	286	409	19	143	2849
	42	5	7	15	774	581	574	938	677	74	259	109	4055
	23	50	3	4	133	253	1023	784	1304	16	134	8	3735
	2												-
Normal 1951-70	29	127	149	39	290	494	632	761	586	391	241	339	4077

CULASI, MONTHLY RAINFALL IN mm

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1960	185	157	41	170	503	361	544	1659	386	1128	587	104	5824
	58	94	69	81	445	823	791	1406	361	–	–	–	–
	–	–	–	–	–	–	–	–	–	–	–	–	–
	18	9	10	5	110	1269	382	688	447	104	169	239	3451
	–	–	–	–	–	–	–	–	–	–	–	–	–
1965	99	58	61	97	287	575	605	380	511	227	348	320	3569
	18	13	1	9	1163	365	635	532	469	147	260	307	3919
	282	43	33	69	127	599	806	827	611	306	226	15	3944
	20	3	20	5	205	203	316	876	326	287	234	18	2513
	8	0	0	3	226	236	1018	450	514	72	203	371	3100
1970	33	23	30	10	24	363	489	455	279	678	467	369	3221
	97	206	188	28	119	764	978	272	257	672	257	208	4045
	381	3	138	8	254	660	714	383	480	114	358	145	3638
	8	20	8	3	108	162	234	919	177	484	910	485	3518
	114	71	10	36	71	635	681	681	165	882	305	329	3980
1975	273	66	10	273	117	356	335	488	307	505	30	338	3098
	100	23	46	13	536	580	502	740	503	98	316	190	3647
	81	112	33	13	41	279	843	556	1349	28	102	23	3460
	18	3	13	99	81	422	343	866	498	490	174	262	3269
	25	8	3										
Normal 1951-70	93	48	50	76	273	469	615	746	570	395	350	259	3944

APPENDIX B

RUNOFF - DAILY AVERAGE

- MONTHLY AND ANNUAL SUMMARIES

DAILY AVERAGE PROCESSED 81/05/25.

STAT 8101 - 0
NAME TIGBAO
MAIN RIVER LOBOC
RIVER
CATCHM. FT DISCH. M3/S

LATITUDE N 09,39,57 YEAR 1955
LONGITUDE E 124,02,04
UTM
CATCHMENT 618.00 KM2

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	35,00	30,04	9,42	6,56	8,24	27,19	38,60	52,15	14,18	22,61	21,75	88,00
2	35.00	23.47	8.52	6.56	8.24	22.61	31.00	49.30	18.43	18.43	23.90	56.30
3	35,00	25,31	8,24	6.28	8,24	33,40	30,52	39,66	82,00	19,60	19,21	43,37
4	35.00	18.04	14.18	6.28	8.24	20.46	47.68	34.96	48.22	18.04	16.48	36.52
5	35,00	13,80	36,52	6,28	7,96	14,56	70,80	24,84	53,86	37,56	14,18	40,72
6	35.00	12.28	31.48	7.12	8.24	12.66	38.08	21.32	72.20	38.60	15.32	130.00
7	35,00	10,97	17,65	6,84	8,24	10,66	34,96	18,04	54,43	33,40	13,80	50,44
8	35.00	10.66	12.28	6.84	8.24	16.37	36.52	19.60	32.92	47.68	23.04	38.08
9	35,00	10,04	9,73	6,84	8,24	20,46	48,22	18,04	40,19	25,78	19,60	33,92
10	35,00	9,73	8,80	6,84	8,52	20,46	32,92	19,21	34,96	25,78	16,48	30,52
11	42,31	9,42	8,52	6,84	8,24	16,37	34,44	18,82	32,92	23,04	16,09	43,90
12	39.13	10.35	8.52	6.84	8.24	21.75	20.89	18.43	48.76	44.44	29.08	37.04
13	41,25	10,35	8,24	6,84	8,24	19,21	46,06	19,60	43,37	40,72	22,61	29,56
14	41.25	9.42	19.21	6.84	8.24	17.26	25.31	29.08	31.48	66.70	36.52	70.10
15	36.00	9,11	8,80	6,84	8,24	24,37	17,26	17,65	24,84	66,05	21,75	34,44
16	74.30	8.52	7.68	6.84	7.96	17.65	15.32	18.82	20.89	35.48	18.04	28.60
17	41.78	8.24	6.84	6.84	7.96	14.56	12.28	17.26	22.61	38.60	14.56	62.80
18	58.25	8.24	6.56	6.84	8.52	11.28	11.59	31.48	35.48	36.00	23.47	38.08
19	38.60	8.52	6.28	7.40	14.18	10.04	11.28	18.82	52.15	47.14	15.32	26.25
20	29.56	8.52	6.56	8.24	11.28	14.18	11.90	16.48	42.13	23.47	12.28	22.18
21	24.84	8.24	6.28	7.68	12.66	62.15	15.70	22.18	34.44	28.60	11.28	20.03
22	23.04	8.52	6.00	7.40	16.09	41.78	24.84	16.48	22.18	26.72	10.66	18.82
23	23.90	9.42	6.00	7.68	24.37	25.31	17.26	14.18	18.04	23.04	10.04	17.65
24	25.31	8.80	6.00	7.40	36.00	30.52	22.61	13.80	16.09	42.84	11.28	27.19
25	23.47	8.80	6.00	7.68	21.32	65.40	21.75	12.28	15.32	46.06	12.28	70.80
26	19.21	9.11	6.00	8.52	14.18	45.52	33.92	11.90	18.94	36.52	12.28	77.10
27	23.25	8.80	6.00	8.80	14.56	35.48	34.96	10.97	23.04	30.52	194.20	47.68
28	17.26	9.42	6.00	8.24	12.66	22.18	51.58	21.32	36.52	28.60	332.40	31.96
29	18.43		6.00	8.24	10.97	17.65	39.66	18.43	24.84	21.32	219.80	24.84
30	26.72		6.00	8.24	10.04	34.96	61.50	23.04	31.48	36.52	155.20	26.25
31	39.08		6.00		23.47		57.60	27.66		28.13		23.04

DAILY AVERAGE

PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11.24.45
LONGITUDE E 122.05.30
UTM
CATCHMENT 33.50 KM2

YEAR 1959

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.02	3.23	.58	.88	.26	1.70	6.65	5.65	6.40	6.90	3.06	7.90
2	1.02	3.06	1.87	.88	.20	4.15	5.65	11.89	6.65	5.40	2.21	5.90
3	1.02	2.21	1.10	.88	.20	2.72	4.90	21.46	4.65	4.90	2.04	4.40
4	.95	1.70	1.58	.65	.35	2.21	3.90	11.89	3.40	9.40	2.04	3.65
5	.88	1.46	1.70	.72	.29	1.46	3.40	11.56	3.40	18.82	1.87	5.40
6	.95	1.58	1.02	.65	.23	1.10	3.23	9.15	3.23	8.90	1.70	4.90
7	1.02	1.34	.80	.65	.23	1.02	7.90	7.15	3.23	6.90	2.38	3.06
8	4.90	1.22	.65	.38	.23	1.02	4.65	5.65	2.72	7.15	2.72	2.55
9	1.70	1.22	.58	.32	.26	.88	4.40	7.90	2.38	5.65	2.38	2.38
10	1.02	1.22	.80	.29	.26	.88	5.40	4.65	2.38	4.90	2.21	2.38
11	1.10	1.02	.50	.29	.26	3.06	6.90	3.40	2.38	5.90	2.72	2.55
12	1.10	.88	.50	.29	.43	1.46	4.15	9.65	2.72	5.40	3.40	2.21
13	1.22	.88	1.02	.29	1.22	3.06	20.80	7.90	3.65	3.23	4.40	2.21
14	1.10	.88	4.90	.29	.58	2.38	34.24	7.40	3.90	3.40	3.06	2.04
15	1.10	.88	6.65	.43	.43	2.89	17.50	7.65	3.06	3.06	2.89	1.58
16	1.02	2.04	4.65	.43	3.06	5.15	11.23	7.65	2.72	3.06	18.82	1.58
17	1.10	1.02	2.38	.43	1.70	6.40	8.40	8.90	2.38	5.40	18.16	1.46
18	1.34	1.02	2.04	.35	1.02	7.15	6.40	5.90	3.23	3.40	8.90	2.04
19	2.89	.88	3.23	.35	.65	6.90	5.15	5.40	3.40	6.90	6.65	26.80
20	2.04	.80	2.89	.35	.58	3.06	4.15	4.65	3.90	3.23	4.65	11.56
21	1.70	.73	2.04	.32	.80	3.06	4.15	4.15	3.90	3.06	4.65	7.40
22	1.58	.73	1.46	.32	.73	3.90	7.65	3.90	4.65	2.55	7.65	9.40
23	1.70	.73	1.22	.32	.73	2.89	5.90	4.40	3.65	2.38	7.65	7.40
24	2.21	.65	1.02	.35	.73	2.55	5.65	3.40	3.40	2.38	8.15	7.65
25	2.04	.73	.95	.35	.58	6.40	5.65	4.40	3.40	7.90	10.90	7.40
26	1.70	.73	.88	.35	.43	6.65	5.15	6.40	3.06	3.40	9.65	9.90
27	1.70	.73	.88	.50	.32	3.23	5.65	10.15	8.15	3.06	7.90	13.54
28	1.46	.65	.88	.29	1.02	8.90	4.90	8.90	5.65	2.72	7.15	11.56
29	1.70		1.34	.29	2.55	6.15	3.90	13.54	4.15	2.55	6.90	6.90
30	1.58		.95	.29	1.46	14.86	3.65	9.65	3.40	2.21	7.15	5.90
31	1.70		.95		3.40		3.23	8.65		2.21		7.40

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
ARCHIVE F1

LATITUDE N 11,24,45
LONGITUDE E 122,05,30
UTM
CATCHMENT 33.50 KM2

YEAR 1960

DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15,19	1,58	1,10	,65	,50	10,15	1,70	1,58	1,50	10,90	1,22	3,66
2	7,90	1,58	1,22	,58	,43	6,90	3,06	1,87	1,46	7,40	1,22	2,72
3	5,90	1,46	1,10	,65	,50	5,40	3,06	23,44	,80	5,90	1,22	2,89
4	4,40	1,34	1,03	,65	,65	9,65	2,89	23,11	1,70	3,90	1,22	1,58
5	3,40	1,10	1,03	,58	,43	6,90	3,40	12,88	2,04	6,40	3,06	1,58
6	3,06	1,10	1,03	,58	,35	5,90	1,70	13,21	1,58	45,07	3,65	5,98
7	2,55	1,34	,95	,65	,32	5,90	3,90	13,21	1,46	37,28	4,65	6,80
8	2,38	1,46	,88	,58	,50	4,40	2,72	11,56	1,22	29,95	5,40	3,80
9	2,55	2,04	,80	,58	,65	3,06	1,46	11,56	1,10	15,32	5,65	3,80
10	3,40	2,72	,73	,58	,38	2,04	2,72	7,40	1,03	13,54	4,90	2,70
11	2,21	1,70	,80	,65	1,10	1,70	3,06	5,90	1,58	10,40	4,15	2,00
12	1,70	2,38	,73	,63	,65	1,70	2,35	4,90	1,46	10,40	3,90	1,80
13	1,70	1,70	,65	,65	,73	1,46	1,70	6,90	,88	8,90	5,40	1,44
14	1,58	1,46	1,46	,58	,65	1,34	3,40	5,90	,57	8,15	2,38	1,34
15	1,46	1,34	,95	,58	,43	1,70	3,65	3,23	,50	8,15	1,70	1,70
16	1,46	1,22	,95	,50	,35	1,46	3,40	5,63	1,46	7,40	1,46	1,64
17	1,46	1,10	,88	,58	,32	2,72	1,70	4,40	1,70	6,40	1,22	1,29
18	1,46	1,03	,88	,73	,32	1,70	,95	3,40	1,58	5,90	1,34	1,23
19	1,58	1,03	1,46	,65	,32	2,38	1,10	2,72	1,46	5,15	1,58	1,03
20	1,70	,95	1,87	,58	,32	1,58	6,90	2,21	1,58	4,90	6,90	1,03
21	1,87	1,03	1,10	,50	1,87	1,70	3,23	2,38	1,46	4,65	10,65	1,03
22	1,58	2,04	,95	2,72	,58	2,38	1,58	1,70	1,46	4,40	10,90	1,03
23	1,46	2,72	,88	1,03	,43	1,58	1,67	1,70	1,46	3,90	10,40	,60
24	2,21	1,70	,80	1,58	,43	2,04	1,70	1,70	1,70	3,65	9,90	1,10
25	1,58	3,65	,73	1,58	,43	3,65	1,58	1,58	1,46	3,40	9,90	2,20
26	1,46	2,04	,73	1,22	,32	12,88	1,70	1,34	1,70	1,70	8,90	1,22
27	4,40	1,46	,65	,95	3,40	8,15	1,70	,88	1,70	3,06	8,40	1,22
28	2,04	1,10	,65	,95	12,55	5,15	13,54	,80	2,38	1,58	5,90	1,22
29	2,04	1,10	,65	,73	8,40	2,38	6,40	1,70	2,72	1,46	6,15	1,22
30	1,87		,73	,65	5,90	1,58	3,65	,80	47,35	1,22	3,06	1,22
31	1,87		,65		7,90		3,40	1,70		8,90		1,34

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11.24.45
LONGITUDE E 122.05.30
UTM
CATCHMENT 33.50 KM2

YEAR 1961

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.22	1.58	1.58	.65	.73	3.40	4.65	1.87	3.06	3.06	1.46	.73
2	1.03	1.34	1.87	.58	.65	3.65	4.40	2.04	3.06	3.06	1.22	1.22
3	.95	1.34	1.70	.58	.65	3.23	4.40	2.04	3.06	3.06	1.10	1.34
4	.88	1.22	1.58	.58	.65	3.23	4.15	1.70	9.65	3.40	1.03	2.04
5	.88	1.87	1.58	.58	.73	3.06	10.15	1.70	3.23	3.23	.88	2.38
6	.73	1.87	1.46	.58	.80	3.23	8.40	1.46	3.06	3.06	.80	2.38
7	1.22	1.58	1.10	.75	3.40	3.40	4.15	1.58	3.90	3.40	.73	2.55
8	2.89	1.58	1.03	.80	.68	3.40	3.65	1.70	3.65	4.15	.65	2.38
9	3.15	2.53	.95	.80	.88	2.04	3.40	7.90	3.40	5.40	.80	2.21
10	3.90	3.06	.95	2.04	1.03	2.04	3.23	11.56	3.90	22.45	.73	2.04
11	2.72	3.06	.95	1.10	1.34	1.87	3.06	10.65	3.90	10.40	.65	1.70
12	2.89	3.23	.95	1.03	2.55	2.04	2.89	9.63	4.40	8.15	.58	1.70
13	9.40	4.40	.80	.95	7.40	1.87	2.89	9.40	16.84	5.40	.50	1.58
14	6.15	3.65	.80	.80	9.90	1.70	2.72	13.54	9.40	3.40	.43	1.46
15	4.90	2.89	.80	.73	4.90	1.70	3.65	33.67	5.90	3.06	.35	1.46
16	4.15	2.55	.65	.73	3.65	1.70	7.65	13.54	4.40	3.06	.35	1.22
17	3.65	2.55	.65	.73	3.23	1.58	8.90	18.82	3.65	3.06	4.40	1.10
18	3.40	2.38	.88	.65	2.04	1.58	8.15	11.23	3.40	2.89	3.40	1.10
19	3.65	2.38	.88	.65	1.03	2.04	8.15	10.90	3.40	3.23	3.06	1.03
20	3.06	2.21	.88	.58	1.10	2.38	7.90	11.56	3.06	3.06	5.15	1.34
21	2.72	2.04	.73	.58	1.20	2.38	7.90	12.53	3.90	3.06	5.90	1.70
22	2.89	1.87	.73	.58	1.10	3.40	7.65	12.20	4.40	3.06	8.40	1.87
23	2.55	1.87	.73	.58	1.03	5.15	7.40	15.19	5.40	2.72	1.46	1.70
24	2.55	1.87	.50	.58	1.03	3.90	6.65	9.90	4.90	2.38	.80	2.21
25	2.72	1.70	.80	.50	1.87	9.40	5.90	9.40	3.40	2.38	.73	3.06
26	2.89	1.87	.65	.43	1.87	5.65	5.90	8.40	3.65	2.04	.73	2.38
27	2.38	2.04	.58	.43	2.53	4.15	5.15	7.90	3.40	1.70	.65	2.38
28	2.04	2.04	.58	.35	3.40	4.40	4.40	7.40	3.40	1.70	.58	2.04
29	1.87		.50	.32	5.15	6.65	3.65	3.40	3.40	1.70	.50	2.04
30	1.70		.50	.32	7.15	14.20	3.23	3.40	3.23	1.58	.43	1.70
31	1.58		.43		7.15		2.72	3.40		1.46		1.58

DAILY AVERAGE PROCESSED 81/06/26.

STAN 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER

LATITUDE N 11,24,45
LONGITUDE E 122,05,30
UTM
CATCHMENT 33.50 KM2

YEAR 1962

ARCHIVE FI DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.46	.80	-	-	-	1.34	-	12.55	-	5.90	-	-
2	1.46	.73	1.46	.43	.25	-	1.58	-	-	-	2.72	-
3	1.46	.73	-	-	-	-	-	9.40	4.65	17.50	-	7.15
4	1.70	.73	-	.43	.23	1.10	1.58	-	-	-	-	-
5	1.58	.73	12.23	-	-	-	-	-	15.19	9.65	2.72	11.89
6	1.46	.73	-	.35	-	1.03	2.04	8.90	-	-	-	-
7	1.46	.65	3.06	-	.58	-	-	-	9.90	-	47.35	8.90
8	1.70	.65	-	-	-	.88	-	6.40	-	5.40	-	-
9	2.04	1.22	3.40	.80	.80	-	4.40	-	-	-	8.15	-
10	1.87	5.40	-	-	-	-	-	3.06	7.65	5.15	-	5.15
11	2.21	3.90	-	.50	.58	1.46	3.40	-	-	-	-	-
12	3.40	3.23	2.55	-	-	-	-	-	7.90	4.65	6.15	4.15
13	2.72	3.23	-	.26	-	1.58	2.72	2.55	-	-	-	-
14	2.04	3.23	1.70	-	.26	-	-	-	10.15	-	4.40	4.65
15	1.70	5.15	-	-	-	2.89	-	1.87	-	3.65	-	-
16	1.46	4.15	2.21	.32	.26	-	3.65	-	-	-	4.90	-
17	1.46	4.15	-	-	-	-	-	1.34	10.90	3.65	-	4.15
18	1.46	2.55	-	.26	6.40	1.70	9.65	-	-	-	-	-
19	1.22	2.38	1.22	-	-	-	-	-	5.65	5.65	4.40	3.90
20	1.03	2.38	-	.26	-	1.70	6.40	3.23	-	-	-	-
21	.80	2.38	1.03	-	.35	-	-	-	4.40	-	3.90	4.65
22	.73	1.70	-	-	-	2.38	-	3.23	-	3.40	-	-
23	.73	1.58	.88	.26	.43	-	3.23	-	-	-	8.15	-
24	.73	1.10	-	-	-	-	-	2.72	5.90	3.65	-	5.90
25	.73	1.10	-	.23	.26	3.63	5.90	-	-	-	-	-
26	.65	.80	1.03	-	-	-	-	-	6.65	3.90	16.84	6.15
27	.65	.73	-	.23	-	2.38	10.90	1.10	-	-	-	-
28	.73	.50	.80	-	.23	-	-	-	5.65	-	14.86	4.90
29	.73		-	-	-	2.72	-	7.65	-	3.23	-	-
30	.73		.43	.20	.26	-	-	-	-	-	7.40	-
31	.73		-		-		-	.23		1.22		3.40

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11.24.45
LONGITUDE E 122.05.30
UTM
CATCHMENT 33.50 KM2

YEAR 1963

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.23	2.89	2.38	2.21	2.38	3.90	4.65	5.40	3.90	6.40	1.70	2.38
2	3.06	2.89	2.72	2.21	2.38	3.06	6.15	6.65	4.40	5.15	1.87	2.89
3	3.06	3.06	2.72	2.21	2.38	2.55	5.65	6.40	15.52	3.40	3.90	2.21
4	3.23	3.23	2.72	2.21	2.04	2.55	5.15	6.15	14.53	2.89	3.40	1.87
5	3.40	3.40	2.55	2.21	1.03	2.38	4.65	5.90	10.40	2.55	2.72	2.55
6	3.65	3.23	2.21	2.21	.95	1.87	4.15	5.90	7.40	2.55	4.40	2.21
7	3.65	3.23	2.55	2.38	1.03	1.70	4.15	5.65	5.90	2.21	4.15	2.04
8	4.40	3.23	2.55	2.38	.80	2.38	3.40	4.90	4.90	1.87	3.06	1.87
9	5.15	3.23	2.21	2.38	.73	2.55	3.06	4.15	4.40	1.70	3.40	4.40
10	4.90	2.72	2.04	2.38	1.03	2.38	3.40	4.15	3.65	1.58	3.23	8.65
11	3.40	2.72	2.38	2.38	.88	2.21	3.65	4.40	3.40	1.70	2.72	5.90
12	3.23	3.06	2.38	2.38	.73	1.87	3.40	4.15	5.65	2.21	2.89	4.65
13	3.06	2.04	2.38	2.38	.73	1.58	19.81	8.90	4.15	2.04	7.65	5.90
14	2.55	.43	2.38	2.38	.65	1.46	19.48	10.90	3.25	1.70	7.15	4.90
15	2.89	1.22	2.38	2.38	2.04	1.46	12.23	9.40	2.89	1.87	7.40	3.90
16	3.40	1.70	2.38	2.38	2.72	1.46	7.90	4.40	4.90	2.21	8.40	3.06
17	3.23	2.04	2.38	2.21	4.65	1.34	6.15	4.40	2.89	2.21	8.65	3.06
18	3.06	1.70	2.38	2.21	7.15	1.70	5.90	4.65	2.89	2.04	8.40	2.89
19	3.06	2.04	2.38	2.21	6.40	1.22	5.15	4.90	2.55	2.21	8.65	2.72
20	3.06	2.04	2.21	2.21	9.40	1.70	4.40	4.40	2.55	2.21	8.90	3.90
21	3.06	2.38	2.21	2.21	5.15	3.06	4.65	3.90	2.89	1.87	8.15	6.65
22	2.89	2.72	2.04	2.21	3.65	3.06	5.15	4.40	3.65	1.87	7.90	4.40
23	2.72	2.72	2.04	2.21	2.89	2.55	4.65	4.40	3.06	1.70	8.40	3.40
24	5.90	2.72	2.04	2.21	2.21	2.21	3.90	3.90	4.40	1.70	9.40	3.06
25	7.40	2.72	2.04	2.21	1.70	2.55	3.40	3.40	3.23	1.46	9.65	2.72
26	6.90	2.72	2.04	2.21	2.21	5.15	3.06	3.23	2.38	1.46	10.15	2.55
27	5.40	2.72	2.04	2.21	7.40	3.65	3.40	3.65	2.04	1.46	11.23	2.38
28	2.89	2.38	2.04	2.38	5.90	4.40	4.15	4.15	1.87	2.72	12.23	2.38
29	3.06		2.04	2.38	3.90	3.65	4.15	4.15	1.70	2.04	11.89	2.35
30	3.23		2.21	2.58	3.40	3.23	3.90	3.90	2.21	1.70	8.90	3.06
31	3.23		2.21		3.23		3.90	4.65		1.70		3.65

DAILY AVERAGE PROCESSED 81/06/26.

STAO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER

LATITUDE N 11,24,45
LONGITUDE E 122,05,30
UTM
CATCHMENT 33,50 KM2

YEAR 1964

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3,90	1,34	3,23	,18	,19	1,10	8,90	2,10	1,87	4,15	1,22	4,90
2	3,40	1,10	2,38	,18	,17	,88	5,90	2,10	2,04	3,23	1,70	3,65
3	2,89	,73	1,87	,18	,16	,95	4,15	2,04	1,70	2,55	1,58	3,23
4	2,38	,26	1,87	,18	,14	,88	3,23	2,00	1,87	2,21	1,58	5,40
5	2,21	,73	1,87	,18	,16	,65	2,72	2,04	1,70	2,04	2,04	7,65
6	2,55	,80	1,70	,18	,17	,58	2,38	6,00	2,72	2,04	2,04	7,65
7	1,87	,65	1,58	,18	,18	,58	2,55	14,20	2,55	2,38	2,38	7,40
8	1,87	,35	1,46	,18	,18	,43	1,87	10,00	2,04	1,87	2,72	5,90
9	1,70	,58	1,70	,17	,20	,43	2,38	8,00	1,70	2,04	2,21	4,65
10	1,70	,65	1,58	,50	,17	,80	3,90	5,90	1,46	2,04	1,70	4,15
11	1,70	,73	1,22	,73	,19	1,58	3,40	7,00	3,40	1,70	2,04	3,65
12	1,70	,73	1,22	,58	,88	1,10	3,23	9,15	2,72	1,70	3,40	3,23
13	2,55	,29	,73	,32	,35	,80	3,40	7,00	5,90	1,70	5,90	3,06
14	1,87	,26	,73	,88	,26	1,46	2,89	6,65	4,40	1,87	4,15	3,06
15	1,70	,20	,73	,26	,35	1,87	2,89	7,40	3,06	1,46	2,89	3,06
16	1,70	,73	,73	,20	,26	1,46	2,89	7,40	3,40	1,46	3,40	2,89
17	1,70	1,70	,73	,32	,26	1,46	3,06	6,40	7,40	1,58	2,55	2,55
18	1,70	2,55	,73	,29	,23	1,46	3,40	5,40	7,15	1,46	3,40	2,89
19	1,70	3,23	,65	,65	,43	1,46	2,89	4,90	4,65	1,22	4,65	4,15
20	1,70	2,55	,58	,32	2,72	2,04	2,38	4,65	4,15	1,70	21,46	3,40
21	2,89	2,04	,58	,32	4,15	1,58	3,00	3,90	3,23	1,58	12,22	3,23
22	3,40	2,04	,58	,32	3,65	1,46	4,40	3,40	2,72	1,46	7,15	7,40
23	2,55	2,04	,58	,26	2,55	2,21	3,00	4,15	3,40	1,22	5,15	5,40
24	2,04	2,04	,58	,23	2,55	5,65	2,21	4,40	3,65	1,70	4,15	4,15
25	1,87	1,87	,58	,23	1,70	4,90	2,20	6,90	3,06	2,21	3,90	5,40
26	1,70	2,89	,73	,18	1,34	3,23	2,20	5,65	2,55	2,04	3,90	9,15
27	1,70	2,55	,58	,18	,95	3,65	2,21	3,90	2,38	1,70	7,15	6,65
28	1,70	2,55	,50	,17	,95	7,15	2,38	2,89	7,40	1,58	9,40	4,90
29	1,70	2,89	,50	,18	,95	16,84	2,21	2,38	9,90	1,58	12,22	4,40
30	1,70		,29	,20	,80	17,83	2,20	2,21	5,65	1,34	6,90	3,90
31	1,70		,18		1,46		2,20	2,21		1,34		3,40

DAILY AVERAGE

PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
ARCHIVE F1

LATITUDE N 11,24,45
LONGITUDE E 122,05,30
UTM
CATCHMENT 33.50 KM2

YEAR 1965

DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2,55	3,90	1,46	,80	2,04	1,87	2,04	6,40	6,40	2,72	1,58	4,90
2	2,55	2,04	,80	,72	1,70	1,87	1,70	4,15	6,90	2,55	1,87	3,40
3	2,55	2,04	,65	,80	1,46	2,38	1,87	3,40	6,90	2,55	1,46	2,89
4	2,38	1,70	,80	,95	1,10	2,04	2,55	3,06	6,40	2,21	3,06	2,38
5	2,21	2,21	,65	,50	,87	2,04	2,72	2,55	3,90	2,04	3,65	1,87
6	2,04	2,21	,58	,43	1,02	2,21	2,55	3,06	3,65	3,40	6,40	4,15
7	1,70	2,89	1,02	,43	1,02	2,04	5,15	2,72	6,15	2,38	3,65	5,90
8	1,46	2,21	2,72	,43	,95	1,70	4,15	2,38	4,90	2,04	2,72	6,90
9	1,70	2,72	3,23	,43	,88	3,65	2,89	2,55	6,65	2,04	2,21	8,15
10	1,70	2,89	2,72	,32	,88	2,55	2,04	2,04	6,40	2,21	1,87	6,40
11	2,55	4,15	2,72	,32	,88	2,04	2,89	2,55	7,65	6,65	1,70	4,40
12	2,04	4,15	1,70	1,10	,65	2,89	11,23	3,65	8,40	4,65	2,04	3,65
13	2,72	4,40	1,58	,80	,58	2,72	10,90	3,23	9,40	3,90	2,04	6,40
14	2,89	2,89	1,58	,73	,80	2,21	7,40	2,72	8,65	7,65	1,58	4,40
15	6,15	2,21	1,10	,58	,73	1,87	5,40	2,38	8,90	4,65	1,22	11,89
16	6,40	2,04	1,10	,50	,73	1,70	3,65	2,72	8,65	4,15	1,34	21,13
17	7,40	1,58	,95	,43	1,34	2,38	3,65	2,21	7,15	3,23	1,34	13,54
18	7,15	1,58	,95	,43	,95	4,65	5,90	3,40	5,15	3,06	1,58	11,56
19	7,40	1,58	,95	,87	,65	5,40	7,90	4,40	4,65	3,06	,95	10,40
20	4,90	1,34	,65	1,10	,80	5,90	6,90	4,15	4,15	3,90	1,10	8,15
21	3,40	1,34	,57	,95	,80	3,65	5,65	3,90	3,40	3,90	1,87	13,21
22	2,72	1,34	,73	,73	1,22	3,06	5,15	3,06	4,15	3,65	2,21	10,90
23	2,21	1,02	1,02	,58	1,02	4,65	5,65	2,72	6,40	4,15	1,46	8,15
24	2,04	1,10	1,10	,65	2,89	8,90	6,90	3,06	4,15	3,06	1,58	5,90
25	2,04	1,02	1,02	,50	4,65	5,90	5,90	3,90	3,23	2,55	2,21	4,40
26	2,55	1,02	1,02	,35	4,15	3,90	11,89	4,65	3,06	2,38	1,87	4,15
27	2,38	1,22	,88	,35	2,38	3,06	8,15	6,65	2,72	2,21	8,65	3,23
28	2,04	1,02	,80	,73	2,72	2,72	5,65	20,14	2,55	2,04	10,65	2,38
29	2,04		1,34	1,22	2,21	2,04	4,40	12,88	2,55	1,87	15,52	2,21
30	1,70		,87	1,22	2,04	1,87	3,65	3,65	2,72	2,04	8,40	1,87
31	1,58		,65		1,70		5,90	7,90		2,04		1,70

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER

LATITUDE N 11,24,45
LONGITUDE E 122,05,30
UTM
CATCHMENT 33.50 KM2

YEAR 1966

ARCHIVE T1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.46	-	-	-	-	-	-	-	-	-	-	-
2	3.23	-	-	-	-	-	-	-	-	-	-	-
3	2.38	-	-	-	-	-	-	-	-	-	-	-
4	1.87	-	-	-	-	-	-	-	-	-	-	-
5	1.70	-	-	-	-	-	-	-	-	-	-	-
6	1.46	-	-	-	-	-	-	-	-	-	-	-
7	1.22	-	-	-	-	-	-	-	-	-	-	-
8	1.46	-	-	-	-	-	-	-	-	-	-	-
9	1.87	-	-	-	-	-	-	-	-	-	-	4.15
10	1.58	-	-	-	-	-	-	-	-	-	-	4.15
11	2.21	-	-	-	-	-	-	-	-	-	-	5.40
12	1.46	-	-	-	-	-	-	-	-	-	-	4.15
13	1.46	-	-	-	-	-	-	-	-	-	-	3.65
14	1.34	-	-	-	-	-	-	-	-	-	-	3.40
15	1.18	-	-	-	-	-	-	-	-	-	-	3.40
16	1.10	-	-	-	-	-	-	-	-	-	-	3.23
17	1.02	-	-	-	-	-	-	-	-	-	-	3.40
18	.95	-	-	-	-	-	-	-	-	-	-	3.23
19	2.21	-	-	-	-	-	-	-	-	-	-	3.40
20	1.10	-	-	-	-	-	-	-	-	-	-	4.40
21	2.38	-	-	-	-	-	-	-	-	-	-	5.15
22	3.40	-	-	-	-	-	-	-	-	-	-	3.40
23	1.58	-	-	-	-	-	-	-	-	-	-	3.23
24	1.22	-	-	-	-	-	-	-	-	-	-	6.40
25	1.02	-	-	-	-	-	-	-	-	-	-	4.40
26	.95	-	-	-	-	-	-	-	-	-	-	3.40
27	.95	-	-	-	-	-	-	-	-	-	-	17.50
28	1.10	-	-	-	-	-	-	-	-	-	-	26.35
29	1.10		-	-	-	-	-	-	-	-	-	6.40
30	.95		-	-	-	-	-	-	-	-	-	6.40
31	.87		-		-		-	-		-		5.65

DAILY AVERAGE

PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER

LATITUDE N 11,24,45
LONGITUDE E 122,05,30
UTM
CATCHMENT 33.50 KM2

YEAR 1967

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5,15	1,58	1,87	,72	,23	,35	2,72	6,65	6,65	15,85	3,40	3,90
2	3,90	1,46	2,89	,72	,20	,50	2,38	5,90	5,65	10,90	3,90	3,40
3	3,23	1,58	4,65	,65	,20	,95	3,23	4,90	8,65	7,63	7,40	3,23
4	2,72	1,34	4,65	,72	,20	,95	3,06	3,90	7,65	6,40	20,80	3,23
5	22,45	1,22	3,90	,87	,20	,80	3,90	3,23	8,65	5,15	13,34	2,89
6	18,16	1,22	3,63	,95	,20	,57	6,15	3,06	12,55	5,15	7,65	2,72
7	14,20	,80	3,40	1,02	,20	,35	8,65	8,15	8,65	4,65	6,40	2,55
8	14,20	,72	3,06	1,34	,23	,50	8,40	8,15	8,15	3,65	7,40	2,55
9	9,90	,72	2,04	1,02	,23	11,56	6,90	7,65	8,90	3,23	6,40	2,38
10	8,90	,72	1,46	,72	,23	6,40	7,65	4,90	6,40	2,89	5,15	2,21
11	7,65	,87	1,46	,72	,20	2,55	6,15	3,06	5,15	3,40	4,15	2,21
12	5,90	1,70	1,46	,72	,20	1,87	4,40	2,89	5,65	2,89	5,15	2,55
13	4,65	2,89	1,34	1,22	,23	1,46	3,06	4,40	5,40	2,72	4,15	4,15
14	10,90	10,90	1,34	,80	,20	2,89	2,89	3,23	4,40	2,55	3,65	2,55
15	10,40	7,15	1,34	,72	,50	3,06	2,55	2,04	3,65	2,55	3,65	2,21
16	12,55	5,90	1,34	,65	,65	2,35	2,04	2,04	3,06	5,15	3,06	2,55
17	12,55	4,40	1,46	,57	,65	2,72	5,15	2,89	2,72	10,15	2,72	2,55
18	11,56	6,40	1,34	,42	,80	2,21	4,15	7,65	3,90	10,90	2,38	2,21
19	11,56	5,90	1,34	,42	,87	2,89	2,72	9,15	2,72	8,15	2,21	2,04
20	14,53	7,63	1,34	,57	,80	2,55	3,40	8,90	2,55	7,65	1,87	2,55
21	11,56	5,90	1,34	,42	1,02	3,06	3,23	6,90	3,23	5,90	1,87	2,21
22	10,65	3,90	1,02	,50	,72	3,40	4,40	5,65	3,23	5,65	2,21	1,87
23	4,90	3,40	,72	,50	,42	2,21	7,90	11,23	3,06	4,65	2,21	1,87
24	4,15	3,40	,72	,29	,32	2,04	8,90	7,65	2,55	4,40	3,40	2,21
25	3,23	3,40	1,22	,26	,32	2,89	8,15	7,40	2,55	3,65	6,15	2,21
26	3,06	3,23	1,58	,23	,35	6,15	8,40	5,40	2,21	3,23	9,65	1,70
27	1,87	2,72	1,46	,23	,35	2,04	12,55	3,90	2,21	3,23	6,65	,87
28	1,70	2,21	1,34	,23	,35	3,40	9,90	8,15	3,23	3,06	6,15	,50
29	1,58		1,34	,23	,72	3,63	15,52	10,90	5,40	2,72	5,15	1,10
30	1,58		,95	,29	,87	3,65	12,22	15,19	10,40	2,72	3,65	2,04
31	1,46		,72		,95		9,65	7,15		3,06		2,72

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
ARCHIVE F1 DISCH, M3/S

LATITUDE N 11,24,45
LONGITUDE E 122,05,30
UTM
CATCHMENT 33.50 KM2

YEAR 1968

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3,40	1,58	,57	,32	,29	2,21	3,65	1,70	1,70	3,90	1,87	1,46
2	3,23	1,10	,50	,32	,29	3,06	2,55	2,21	1,34	3,06	1,70	2,72
3	2,89	,35	,50	,32	,29	6,15	1,70	2,72	1,34	2,55	1,34	2,04
4	3,65	,32	,32	,35	,29	3,90	1,70	3,06	1,34	2,72	1,22	1,87
5	3,40	,20	,42	,32	,29	2,55	1,58	2,55	1,34	3,90	1,22	2,04
6	3,23	,29	,32	,50	,29	3,23	3,23	3,06	1,34	3,23	1,10	1,70
7	2,55	1,46	,57	,65	,29	3,06	3,65	5,90	1,34	2,89	,95	1,46
8	2,21	1,58	,57	,57	,29	4,65	3,40	17,17	1,02	2,38	,95	1,34
9	4,90	1,46	1,87	,42	,29	4,65	3,06	23,77	1,34	2,21	,87	1,46
10	7,40	2,21	1,58	,42	,32	3,40	3,65	13,54	1,34	2,21	1,10	1,58
11	5,40	2,21	1,02	,32	,32	2,55	2,89	6,65	1,22	3,06	2,21	1,58
12	4,65	3,40	2,55	,20	,32	1,22	2,21	4,65	1,22	2,21	,87	1,70
13	10,15	1,58	2,21	,19	,32	1,22	2,38	4,40	1,46	3,65	,95	1,22
14	11,23	,80	1,70	,29	,35	1,02	2,38	6,40	1,22	3,06	,87	1,10
15	8,15	,35	,95	,29	,42	,87	2,72	5,90	1,70	8,65	,80	,95
16	7,65	1,02	,88	,32	,42	,95	2,38	6,15	2,72	6,40	,87	1,02
17	6,15	1,10	,72	,19	,42	1,22	2,21	12,88	1,46	3,90	,87	1,02
18	5,40	1,02	,65	,14	,50	1,34	1,87	10,90	1,46	4,90	,80	,87
19	5,15	,80	,65	,13	,57	2,89	1,58	8,90	2,04	3,90	,72	,87
20	4,15	,65	1,22	,29	,72	2,89	2,72	8,40	2,72	3,23	3,23	,87
21	3,65	,72	,72	,29	,72	2,89	3,23	7,90	9,15	3,40	9,15	1,10
22	3,40	1,34	,50	,29	,72	2,72	6,90	5,40	6,15	2,89	5,15	3,65
23	3,65	,87	,42	,29	,65	2,38	6,15	3,65	4,65	2,72	2,89	2,21
24	4,15	,35	,50	,29	,57	1,70	5,90	3,23	5,65	2,38	10,15	,57
25	2,89	,32	,42	,29	,57	1,87	3,90	2,89	4,65	1,87	12,22	1,34
26	2,89	2,89	,50	,29	,57	2,89	3,65	2,55	3,06	1,58	8,65	1,58
27	3,40	1,58	,50	,29	,65	3,23	3,06	2,21	3,06	1,58	6,65	1,58
28	3,90	,87	,32	,29	1,34	2,72	2,55	1,87	8,40	2,04	3,65	1,46
29	3,23	,72	,32	,29	2,04	2,38	1,87	1,58	7,40	1,87	1,87	1,46
30	2,38		,32	,29	2,21	2,55	1,58	1,46	4,65	1,87	1,70	1,02
31	1,87		,32		1,58		1,34	1,87		2,04		,95

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11.24.45
LONGITUDE E 122.05.30
UTM
CATCHMENT 33.50 KM2

YEAR 1969

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.34	.35	.23	.23	.65	1.22	.95	6.65	1.22	2.72	2.38	.35
2	1.10	.42	.23	.23	.65	1.22	.95	5.90	1.10	2.72	2.21	.35
3	1.02	.50	.20	.23	.65	1.34	1.02	4.90	1.02	2.55	2.21	.42
4	1.02	.58	.20	.23	.65	1.46	1.10	3.90	.95	2.38	2.21	.42
5	1.34	.50	.16	.23	.65	1.22	1.22	3.65	.95	2.21	2.21	.50
6	1.10	.50	.16	.26	.65	1.34	1.34	3.40	1.02	2.04	2.21	.58
7	1.10	.50	.16	.26	.65	1.10	.46	3.06	1.02	2.04	2.21	.58
8	1.02	.35	.16	.26	.72	1.02	5.90	2.89	1.10	2.04	2.21	1.46
9	3.40	.65	.16	.23	.80	.95	12.55	2.72	1.02	2.04	2.21	1.34
10	2.89	.88	.16	.26	.72	1.22	7.15	2.72	1.02	2.04	2.21	1.34
11	2.38	.50	.17	.27	.72	1.58	4.65	2.55	1.02	1.87	2.38	1.22
12	1.87	.26	.17	.29	.65	1.58	4.40	2.55	.95	1.70	2.55	4.90
13	1.34	.29	.17	.26	.50	1.10	4.40	2.55	.95	1.58	2.55	9.65
14	1.34	.32	.17	.26	.35	1.22	4.40	3.06	.95	1.58	2.55	6.40
15	1.10	.26	.18	.26	.42	1.34	4.15	4.15	1.02	1.70	2.72	7.90
16	1.02	.26	.19	.26	.50	1.46	4.15	3.40	.88	1.87	2.72	7.90
17	.88	.42	.19	.29	.42	1.34	5.15	3.06	.80	2.21	2.72	4.65
18	.65	.29	.19	.29	.42	1.34	5.90	2.72	.80	2.21	5.65	4.40
19	.50	.16	.17	.29	.42	1.34	5.40	3.06	.72	2.21	9.15	4.15
20	.50	.17	.20	.29	.42	1.34	4.90	3.40	.72	2.21	4.40	4.15
21	.42	.19	.19	.29	.42	1.34	4.65	3.23	.72	2.38	2.21	5.65
22	.65	.17	.19	.29	.50	1.34	5.40	3.23	.72	2.55	1.22	9.65
23	.65	.17	.19	.29	.50	1.10	5.90	3.06	1.34	2.55	.80	5.90
24	.42	.16	.19	.29	.65	1.02	5.15	3.06	2.38	2.55	.65	5.40
25	.42	.16	.20	.29	.80	.95	4.65	3.06	2.38	2.72	.65	4.65
26	.42	.15	.20	.29	.80	1.02	5.40	3.40	2.55	2.70	.65	4.40
27	.50	.20	.20	.26	1.46	1.10	6.65	3.06	3.06	2.89	.65	4.15
28	.35	.18	.20	.29	2.89	1.10	7.15	3.23	2.72	2.72	.65	4.90
29	.35		.20	.29	1.58	1.02	5.15	3.40	2.55	2.55	.58	5.90
30	.72		.20	.29	1.58	1.02	4.40	2.55	2.55	2.38	.42	7.15
31	.35		.20		1.02		5.90	1.70		2.21		5.40

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER

LATITUDE N 11;24;45
LONGITUDE E 122;05;30
UTM
CATCHMENT 33.50 KM2

YEAR 1970

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.65	2.89	2.72	.80	.26	.23	1.70	2.72	2.89	2.72	3.65	4.65
2	4.15	2.89	2.72	.72	.23	.23	2.38	2.38	3.06	2.38	3.65	4.65
3	3.90	2.89	2.55	.72	.23	.29	2.21	4.65	3.06	2.21	3.65	4.65
4	3.90	2.89	2.55	.72	.23	.35	2.04	5.90	2.72	2.04	3.65	4.90
5	3.90	2.89	2.55	.72	.26	.29	2.21	5.40	2.55	1.70	3.65	4.90
6	3.90	2.89	2.72	.72	.26	.26	2.38	5.15	2.21	1.70	3.65	5.15
7	5.40	2.89	2.89	.65	.26	.23	2.04	5.15	2.04	1.70	4.15	5.15
8	5.90	3.06	2.55	.65	.23	.26	1.70	4.90	2.21	2.04	4.40	6.40
9	4.90	3.23	2.55	.58	.23	.29	1.70	4.65	2.38	2.21	4.90	7.40
10	4.15	3.90	2.55	.58	.23	.32	1.87	4.90	2.38	5.65	4.40	6.90
11	4.15	3.40	2.55	.65	.23	.32	2.04	3.06	2.38	8.90	3.90	6.40
12	3.90	4.40	2.55	.65	.20	.50	2.38	3.40	2.38	15.85	4.15	9.65
13	3.65	4.65	2.55	.72	.23	.80	2.55	3.65	2.38	13.54	4.40	10.65
14	3.65	4.15	1.46	.72	.23	.88	2.38	3.90	2.38	10.90	4.40	11.89
15	3.90	3.40	.72	.72	.23	.88	2.21	3.90	2.04	9.90	4.40	9.40
16	3.90	3.90	.72	.72	.23	.80	2.04	3.90	1.70	8.90	4.40	7.15
17	3.40	3.65	.72	.80	.23	.80	1.87	3.90	1.70	7.65	4.90	6.40
18	3.06	3.65	.72	.80	.23	.80	2.55	3.90	1.70	5.90	5.40	6.15
19	3.06	3.65	.72	.80	.23	.80	5.40	3.40	1.70	4.90	5.40	5.65
20	3.23	3.65	.72	.65	.20	.80	3.40	3.23	1.70	3.65	5.40	5.40
21	3.23	3.40	.72	.58	.20	.80	6.40	2.89	1.70	3.65	4.90	5.15
22	2.89	3.23	.72	.50	.20	.80	5.65	2.89	1.70	3.65	4.65	4.65
23	2.55	3.06	1.70	.50	.50	.80	5.15	2.72	1.70	3.23	4.15	4.40
24	2.72	3.06	3.06	.42	.80	.72	4.65	2.72	1.70	3.06	3.90	4.90
25	2.89	2.89	1.70	.42	.50	.72	4.15	2.38	2.04	3.23	3.90	5.15
26	2.72	2.89	2.04	.42	.29	.72	3.65	2.55	2.38	3.40	4.40	6.00
27	2.72	2.72	1.46	.35	.20	.72	3.40	2.21	2.21	3.40	4.90	7.65
28	2.72	2.72	1.02	.32	.20	.80	3.40	2.38	2.04	3.40	5.65	8.80
29	2.89		1.10	.29	.23	.88	3.40	2.55	2.04	3.40	5.40	7.90
30	3.06		.95	.29	.23	1.22	3.06	2.21	2.38	3.40	4.90	6.90
31	3.06		.88		.23		2.72	2.55		3.40		6.15

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8201 - 0
NAME VALDERAMA
MAIN RIVER BACONG
RIVER
LATITUDE N 11;24;45
LONGITUDE E 122;05;30
UTM
CATCHMENT 33;50 KM2
YEAR 1971

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5;40	5;40	1;87	1;10	-	-	-	-	-	-	-	-
2	-	-	-	1;10	-	1;03	2;21	3;65	-	-	-	-
3	-	4;15	1;87	;95	;32	-	-	-	-	-	-	-
4	4;90	-	-	;88	-	1;03	-	3;65	-	-	-	-
5	-	4;15	1;58	;73	;32	-	2;55	-	-	-	-	-
6	7;65	-	-	;73	-	-	-	3;65	-	-	-	-
7	-	-	-	;58	;32	1;46	4;15	-	-	-	-	-
8	5;40	4;90	1;58	;23	-	-	-	-	-	-	-	-
9	-	-	-	;50	-	-	3;90	3;65	-	-	-	-
10	-	4;15	1;58	;50	;35	1;46	-	-	-	-	-	-
11	4;65	-	-	;50	-	2;04	-	3;06	-	-	-	-
12	-	7;15	4;90	;50	;35	-	4;90	-	-	-	-	-
13	4;40	-	-	;50	-	-	-	3;06	-	-	-	-
14	-	-	-	;50	;50	2;89	4;90	-	-	-	-	-
15	4;40	7;15	1;70	;50	-	-	-	-	-	-	-	-
16	-	-	-	;43	-	4;40	8;40	3;23	-	-	-	-
17	-	5;15	1;70	-	;50	-	-	-	-	-	-	-
18	3;40	-	-	-	-	4;40	-	2;72	-	-	-	-
19	-	7;90	1;70	;29	;80	-	8;90	-	-	-	-	-
20	4;15	-	-	-	-	-	-	2;72	-	-	-	-
21	-	-	-	;32	1;03	4;90	12;22	-	-	-	-	-
22	3;65	6;40	1;58	-	-	-	-	-	-	-	-	-
23	-	-	-	;29	-	7;40	5;90	2;04	-	-	-	-
24	-	5;40	1;70	-	1;03	-	-	-	-	-	-	-
25	4;15	-	-	-	-	56;59	-	2;04	-	-	-	-
26	-	5;15	1;34	;29	;95	-	3;23	-	-	-	-	-
27	3;40	-	-	-	-	-	-	2;04	-	-	-	-
28	-	-	-	;29	;95	8;65	3;23	-	-	-	-	-
29	3;90		1;10	-	-	-	-	-	-	-	-	-
30	-		-	;29	-	4;90	2;55	2;04	-	-	-	-
31	-		1;22		1;03		-	-		-		-

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1956

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-	-	1,06	1,29	1,56	4,48	6,52	25,94	202,00	7,96	12,38	11,40
2	-	-	1,06	1,24	1,68	4,14	5,20	184,00	114,20	7,62	11,89	11,40
3	-	-	1,06	1,20	1,81	8,98	5,02	167,50	74,00	12,38	12,38	11,89
4	-	-	1,02	1,24	1,61	8,30	5,02	96,00	289,40	62,60	11,40	19,58
5	-	-	,98	1,33	1,52	9,32	33,50	70,20	380,60	180,70	10,98	13,36
6	-	-	,98	1,24	1,47	4,84	1193,00	50,50	268,40	78,40	10,57	25,91
7	-	-	,98	1,15	1,52	3,68	34,80	43,00	170,80	46,00	10,57	23,82
8	-	-	,98	1,38	1,43	5,20	7,62	32,20	145,20	32,20	10,57	15,89
9	-	-	,93	2,68	1,52	3,99	4,84	21,70	361,40	23,82	10,15	14,36
10	-	-	,93	2,68	1,81	3,52	3,27	18,52	293,60	33,50	9,74	13,36
11	-	-	1,24	2,79	2,10	3,27	3,27	23,82	236,00	36,10	9,74	12,38
12	-	-	1,56	2,19	2,35	3,15	5,02	145,20	130,70	40,00	9,32	9,32
13	-	-	2,10	1,74	2,29	4,66	4,66	93,80	151,00	52,00	9,32	9,32
14	-	-	1,74	1,56	3,40	3,27	3,83	56,90	96,00	27,00	21,70	8,30
15	-	-	2,19	1,43	3,52	3,02	4,14	40,00	78,40	28,30	28,30	7,96
16	-	-	2,90	1,33	2,79	2,79	3,83	29,60	80,60	27,00	33,50	7,62
17	-	-	1,87	1,29	2,79	2,57	2,68	21,70	91,60	276,80	43,00	7,62
18	-	-	1,61	1,47	2,57	2,90	2,10	17,46	80,60	264,20	30,90	7,35
19	-	-	1,52	1,43	2,35	3,15	1,68	23,82	52,00	285,20	32,20	8,30
20	-	-	1,43	1,33	2,27	3,83	1,43	16,40	36,10	289,40	22,76	8,98
21	-	-	1,29	1,29	2,27	3,15	1,38	15,89	252,00	15,38	15,89	8,30
22	-	-	1,24	1,24	2,02	3,40	1,15	15,38	145,20	14,36	14,36	10,57
23	-	-	1,24	1,38	1,81	3,15	1,02	33,50	64,50	20,64	13,36	9,32
24	-	-	1,38	1,43	1,81	2,90	,93	55,00	28,30	20,64	12,38	8,98
25	-	-	1,29	1,29	1,68	2,57	1,43	44,50	15,89	16,40	10,98	9,74
26	-	-	1,24	1,24	1,81	2,57	1,47	224,00	11,40	15,89	10,57	9,32
27	-	-	1,24	1,15	2,57	7,96	1,15	122,00	8,64	14,87	9,74	19,58
28	-	-	1,24	1,15	2,90	7,96	1,06	78,40	7,35	14,36	8,98	24,88
29	-	-	1,61	1,20	2,19	4,30	,89	58,80	7,35	13,85	8,64	55,00
30	-		1,38	1,43	2,79	4,84	,76	119,40	6,25	13,85	7,96	281,00
31	-		1,33		3,99		1,87	400,00		12,38		366,20

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALTUAN
RIVER
ARCHIVE F1

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1957

DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	205,70	4,40	2,20	1,62	1,50	1,44	104,40	30,50	116,20	10,63	44,00	11,00
2	41,00	7,67	2,20	1,62	1,56	1,44	108,60	18,00	196,50	15,20	25,70	11,00
3	27,90	6,30	2,20	3,30	1,56	1,80	95,20	24,60	341,80	21,30	17,30	11,70
4	27,90	4,85	2,20	2,70	1,56	2,20	3,00	22,40	271,50	30,50	16,60	21,30
5	20,20	4,40	2,00	2,80	1,74	1,80	13,10	15,90	344,40	47,80	15,90	13,80
6	18,00	3,80	2,00	2,10	1,56	2,10	8,78	17,30	239,10	47,80	15,90	27,90
7	148,20	3,50	1,90	1,90	1,50	3,00	12,40	16,60	295,80	29,00	15,90	25,70
8	57,30	3,30	2,10	3,40	1,50	2,30	13,10	15,20	244,50	95,20	15,20	17,30
9	41,00	3,20	1,90	3,60	1,50	2,20	16,60	27,90	244,10	109,00	14,50	15,20
10	30,50	3,00	2,20	3,00	1,68	4,55	15,20	47,80	185,00	108,60	12,40	13,80
11	27,90	3,00	2,30	2,50	1,62	3,80	14,50	72,20	228,70	81,40	16,60	12,40
12	20,20	3,00	2,00	2,20	1,50	3,30	26,80	67,60	424,00	102,10	15,20	9,52
13	17,30	3,00	1,90	2,00	1,50	2,50	23,50	152,80	357,90	290,40	32,00	9,15
14	15,90	2,90	1,80	1,90	1,38	2,10	104,40	189,60	187,30	148,20	25,70	8,04
15	12,40	2,90	1,80	1,80	1,38	2,10	166,60	63,00	185,00	120,00	19,10	7,67
16	10,63	3,50	1,80	1,80	1,44	1,80	88,30	271,50	137,10	109,00	16,60	7,30
17	9,52	3,50	1,74	1,74	1,44	1,74	59,20	376,80	108,60	97,50	15,20	7,30
18	8,41	3,30	1,90	1,74	1,56	2,20	41,00	241,80	108,60	90,60	13,80	8,04
19	7,30	3,00	1,90	1,74	1,80	2,30	26,80	145,90	106,70	86,00	13,10	9,89
20	6,70	2,90	2,10	1,80	2,10	2,30	22,40	110,50	451,90	81,40	13,10	9,15
21	6,30	2,70	2,20	1,68	2,80	2,00	24,60	104,40	357,90	32,00	12,40	8,78
22	6,10	2,70	2,00	1,62	2,40	2,50	24,60	104,40	185,00	30,50	11,00	8,04
23	5,70	2,60	1,90	1,68	1,90	2,70	18,00	118,10	127,60	24,60	10,63	8,04
24	5,30	2,60	1,90	1,68	1,56	4,10	13,80	97,50	114,40	24,60	10,26	7,30
25	5,15	2,50	1,74	1,56	1,50	3,60	11,70	81,40	45,90	22,40	10,26	8,04
26	4,70	2,40	1,68	1,56	1,56	4,10	32,00	67,60	32,00	22,40	9,89	7,30
27	4,40	2,30	1,68	1,56	1,50	3,20	32,00	61,10	27,90	20,20	9,52	7,30
28	4,25	2,20	1,68	1,56	1,62	3,20	20,20	57,30	27,90	18,00	9,89	7,10
29	4,10		1,68	1,50	1,62	8,78	15,20	79,10	25,70	18,00	12,40	6,90
30	3,95		1,62	1,50	1,50	83,70	14,50	90,60	18,00	17,30	10,26	6,90
31	3,80		1,62		1,44		13,80	117,10		15,90		6,90

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1958

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6,90	6,90	8,41	27,90	7,10	4,40	13,80	49,70	141,30	27,90	55,40	15,20
2	6,90	6,90	7,30	25,70	6,90	4,25	42,50	61,10	137,10	26,80	33,50	13,80
3	6,70	7,10	6,90	15,20	5,70	4,70	55,40	57,30	95,20	22,40	24,60	11,70
4	6,70	6,90	6,70	11,00	5,15	4,70	44,00	49,70	55,40	18,00	19,10	10,63
5	13,80	6,90	6,70	9,52	5,00	5,00	35,00	47,80	44,00	17,30	15,90	9,89
6	22,40	6,90	8,04	8,41	4,85	5,30	29,00	49,70	97,50	15,90	13,80	9,89
7	12,40	6,90	7,67	7,67	4,70	4,85	74,50	33,50	171,20	15,20	11,70	9,52
8	10,26	6,90	9,15	7,30	4,70	4,55	55,40	26,80	203,40	15,20	10,63	8,78
9	9,15	6,70	8,04	7,10	4,70	22,40	33,50	25,70	164,30	20,20	13,80	8,41
10	9,52	6,50	10,26	6,90	4,70	29,00	51,60	25,70	106,70	22,40	13,10	8,41
11	8,41	6,50	9,52	6,70	4,70	29,00	55,40	25,70	59,20	20,20	10,63	8,04
12	10,63	6,50	9,52	6,50	5,00	12,40	42,50	24,60	35,00	16,60	9,52	8,04
13	9,89	6,50	8,78	6,50	4,85	11,00	27,90	24,60	24,60	15,20	8,78	7,30
14	8,78	6,90	8,04	6,30	4,55	11,00	67,60	24,60	22,40	15,20	8,41	7,30
15	8,41	9,89	7,67	6,10	4,40	11,00	108,60	24,60	16,60	16,60	7,67	7,10
16	8,04	10,26	7,30	6,10	4,55	16,60	171,20	24,60	14,50	24,60	10,63	7,10
17	8,41	9,15	7,30	6,10	4,70	26,80	155,10	25,70	13,80	20,20	15,90	7,10
18	8,41	8,04	6,90	6,10	4,40	15,20	125,70	25,70	12,40	19,10	45,90	6,90
19	8,04	7,30	6,90	6,10	4,55	10,63	114,30	26,80	11,00	19,10	106,70	6,90
20	7,67	7,10	6,90	5,90	5,00	17,30	114,40	26,80	19,10	24,60	111,70	6,70
21	7,30	6,90	6,70	5,70	5,30	13,80	76,80	27,90	10,63	560,40	86,00	6,50
22	7,67	6,90	6,70	5,70	5,90	10,26	55,40	44,00	10,26	349,80	49,70	6,50
23	7,30	6,70	6,50	5,70	5,70	11,00	44,00	72,20	13,80	168,90	42,50	6,50
24	7,10	6,50	6,50	5,70	5,00	13,80	38,00	102,10	23,50	86,00	106,70	6,30
25	7,30	6,50	6,30	6,10	5,30	65,30	38,00	42,50	198,80	49,70	109,00	6,10
26	7,10	6,90	6,30	5,90	4,70	44,00	35,00	63,00	133,30	33,50	45,90	6,10
27	6,90	7,67	6,10	5,90	4,70	24,60	55,40	114,40	63,00	53,50	32,00	6,30
28	6,70	9,52	6,10	5,50	4,85	15,90	38,00	97,50	53,50	51,60	26,80	6,10
29	6,70		6,10	5,30	4,85	15,90	30,50	152,80	38,00	162,00	20,20	5,90
30	6,50		6,10	5,00	4,55	15,90	27,90	108,60	33,50	129,50	16,60	5,70
31	7,10		10,26		4,40		27,90	79,10		83,70		5,70

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALTUAN
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11,04,42 YEAR 1959
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.70	6.70	3.95	6.50	3.70	5.50	15.90	18.00	143.60	15.90	19.10	9.52
2	5.50	6.90	4.40	6.50	3.20	5.70	9.15	102.10	99.80	14.50	17.30	8.04
3	5.50	6.10	4.70	4.55	3.10	5.30	16.60	155.10	74.50	25.70	15.90	10.63
4	5.30	5.70	4.70	4.40	3.50	5.15	11.70	180.40	47.80	38.00	15.20	6.90
5	5.30	5.50	4.55	4.40	5.30	5.70	8.41	152.80	32.00	33.50	14.50	6.50
6	5.50	5.50	4.40	4.40	3.50	4.85	12.40	106.70	39.50	38.00	16.60	5.90
7	5.15	5.30	4.25	4.25	3.00	4.70	12.40	76.80	30.50	45.90	53.50	5.70
8	7.67	5.00	4.25	4.10	2.90	4.40	11.70	51.60	24.60	111.70	27.90	5.30
9	6.50	4.85	4.25	4.10	2.90	4.40	20.20	38.00	30.50	117.10	25.70	5.30
10	5.70	4.70	4.25	4.10	2.90	4.55	20.20	32.00	23.50	109.00	18.00	5.50
11	5.50	4.40	4.25	4.10	2.90	5.15	16.60	27.90	15.20	72.20	30.50	5.15
12	5.30	4.25	4.25	3.95	2.90	5.15	81.40	25.70	13.10	233.70	47.80	4.70
13	5.30	4.25	4.55	3.95	3.40	5.15	436.40	38.00	18.00	178.10	108.60	4.55
14	5.90	4.70	5.70	3.80	3.60	5.15	371.40	38.00	25.70	104.40	61.10	4.40
15	5.90	4.70	10.26	3.80	3.20	5.90	244.50	29.00	21.30	79.10	39.50	4.40
16	5.70	4.70	11.00	3.80	4.10	5.50	109.00	67.60	18.00	57.30	330.90	4.40
17	5.50	4.70	7.67	3.80	4.55	5.50	41.00	51.60	15.20	49.70	366.00	4.40
18	5.90	4.40	6.30	3.80	4.55	7.30	20.20	104.40	13.10	45.90	127.60	24.60
19	5.90	4.25	7.67	4.10	7.10	12.40	13.80	90.60	59.20	39.50	63.00	341.70
20	5.70	4.25	7.10	4.25	5.30	7.30	14.50	72.20	49.70	35.00	13.80	194.20
21	5.50	4.25	6.50	3.95	5.00	6.90	20.20	45.90	45.90	36.50	11.70	15.90
22	5.30	4.25	6.10	3.80	4.55	7.30	19.10	36.50	33.50	27.90	15.90	9.52
23	5.15	4.25	5.70	3.80	4.25	8.78	11.70	30.50	26.80	26.80	13.10	9.52
24	5.50	4.40	5.30	3.50	3.95	9.15	24.60	25.70	15.20	23.50	14.50	11.00
25	5.90	4.25	5.15	3.60	4.10	9.15	21.30	23.50	35.00	22.40	20.20	11.00
26	6.70	4.25	5.00	3.60	3.80	9.52	14.50	47.80	18.00	20.20	14.50	8.41
27	7.10	4.10	4.70	3.60	3.70	10.26	12.40	92.90	27.90	20.20	9.52	35.00
28	6.50	4.10	4.55	3.60	6.50	12.40	10.26	72.20	118.10	20.20	7.30	20.20
29	6.10		4.55	3.60	6.10	8.78	8.78	603.80	72.20	18.00	7.30	10.63
30	5.70		4.40	3.70	5.70	3.80	7.10	244.50	38.00	15.90	8.04	7.67
31	5.70		6.50		5.15		7.30	123.80		15.90		23.50

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11.04.42
LONGITUDE E 122.00.21
UTM
CATCHMENT 176.00 KM2

YEAR 1960

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	219.50	6.70	5.15	4.55	9.89	-	-	-	80.10	-	11.00	9.89
2	88.90	6.50	5.30	4.25	11.00	-	-	-	78.20	-	8.41	9.15
3	51.60	6.30	5.00	4.25	10.26	-	-	-	76.30	-	10.26	8.41
4	33.50	6.30	4.85	4.70	10.63	-	-	-	70.60	-	8.04	7.67
5	26.80	6.10	4.85	4.55	9.52	-	-	-	70.60	-	6.90	7.10
6	22.40	6.10	4.70	4.25	9.89	-	-	-	76.30	-	7.10	6.90
7	19.10	5.90	4.55	4.25	9.89	-	-	-	72.50	-	7.67	10.26
8	16.60	5.90	4.40	4.10	10.26	-	-	-	70.60	-	18.00	8.78
9	15.20	5.50	4.25	4.10	9.89	-	-	-	89.60	-	10.26	7.30
10	13.80	6.50	4.10	4.10	12.40	-	-	-	74.40	-	8.41	6.70
11	12.40	6.70	4.10	4.25	15.20	-	-	-	93.40	-	7.67	6.50
12	11.70	7.30	4.10	4.25	11.00	-	-	-	78.20	-	6.30	6.70
13	10.63	6.90	4.10	4.25	13.10	-	-	-	68.70	-	5.90	6.30
14	9.89	6.30	4.40	4.10	9.89	-	-	-	64.90	-	6.30	6.10
15	9.15	6.30	4.40	4.10	9.89	-	-	-	74.40	-	5.70	5.90
16	8.78	5.90	4.40	4.10	10.26	-	-	-	120.00	-	5.70	5.70
17	8.04	5.70	4.70	3.95	10.63	-	-	-	180.40	-	5.15	5.50
18	7.30	5.70	5.70	4.40	11.00	-	-	-	157.40	-	5.15	5.30
19	6.90	5.50	6.70	4.55	9.89	-	-	-	121.90	-	6.30	5.15
20	6.90	5.30	7.67	4.25	17.30	-	-	-	93.40	-	6.70	5.00
21	7.10	5.15	6.30	3.95	20.20	-	-	-	-	-	8.04	4.85
22	7.10	5.50	5.50	25.70	12.40	-	-	-	-	-	13.80	4.85
23	6.90	7.04	4.85	38.00	10.26	-	-	-	-	-	29.00	4.70
24	6.90	6.70	4.55	24.60	10.63	-	-	-	-	-	74.40	4.40
25	6.70	7.30	4.55	15.90	11.00	-	-	-	-	-	42.50	4.40
26	7.67	6.50	4.40	14.50	8.78	-	-	-	-	-	24.60	4.85
27	7.10	6.10	4.40	13.10	30.50	-	-	-	-	-	17.30	4.55
28	7.10	6.10	4.25	11.00	133.30	-	-	-	85.80	-	16.60	4.55
29	7.30	5.63	4.25	10.63	263.40	-	-	-	68.70	-	15.20	9.52
30	7.10		4.25	10.26	171.20	-	-	-	66.80	-	11.00	5.50
31	6.90		4.40		131.40		-	-		-		5.00

DAILY AVERAGE

PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11.04.42
LONGITUDE E 122.00.21
UTM
CATCHMENT 176.00 KM2

YEAR 1961

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6.10	3.50	3.00	2.80	2.90	32.00	22.40	-	-	-	27.90	39.50
2	6.90	3.60	3.00	2.80	3.20	19.10	22.40	-	-	-	26.80	36.50
3	6.30	3.50	3.00	2.80	3.10	10.63	18.00	-	-	-	25.70	33.50
4	5.30	3.60	3.00	2.80	3.10	13.10	23.50	-	-	-	24.60	30.50
5	5.00	3.60	2.90	2.80	3.10	14.50	19.10	-	-	-	24.60	27.90
6	4.85	3.60	2.90	2.80	3.10	9.15	19.10	-	-	-	23.50	23.50
7	4.85	3.60	2.90	2.80	3.60	20.20	18.00	-	-	-	22.40	22.40
8	5.15	3.70	2.80	3.00	4.25	41.00	17.30	-	-	-	22.40	22.40
9	5.70	4.25	2.80	3.00	4.10	35.00	20.20	-	-	-	22.40	21.30
10	5.50	5.15	2.80	2.90	3.50	22.40	35.00	-	-	-	21.30	19.10
11	5.00	5.50	2.80	3.40	3.70	11.00	25.70	-	-	-	20.20	18.00
12	5.00	4.85	2.70	3.20	4.40	8.41	21.30	-	-	-	20.20	18.00
13	5.90	5.15	2.70	3.10	5.00	7.67	17.30	-	-	-	20.20	17.30
14	5.50	5.15	3.00	3.00	9.89	8.04	32.00	-	-	-	19.10	16.60
15	4.85	5.30	2.80	2.90	9.15	11.70	25.70	-	-	-	19.10	16.60
16	4.55	5.15	2.50	2.90	6.90	10.63	120.00	-	-	-	19.10	17.30
17	4.40	4.70	2.60	2.90	6.70	9.15	271.50	-	-	-	24.60	15.90
18	4.25	4.55	2.60	2.90	9.15	19.10	189.60	-	-	-	21.30	15.20
19	4.40	4.10	2.60	2.80	6.30	14.50	121.90	-	-	-	22.40	15.20
20	4.25	3.95	2.40	2.80	6.50	13.10	89.60	-	-	-	36.50	14.50
21	4.10	3.70	2.30	2.80	5.90	17.30	78.20	-	-	-	38.00	13.80
22	3.95	3.60	2.30	2.80	17.30	41.00	139.00	-	-	-	118.10	13.80
23	4.10	3.50	2.30	2.80	8.04	76.30	101.00	-	-	-	97.20	12.40
24	4.10	3.40	3.10	2.80	6.30	116.20	76.30	-	-	-	-	14.50
25	3.95	3.30	3.50	2.80	7.10	120.00	61.10	-	-	-	-	15.20
26	3.80	3.20	3.50	2.90	32.00	74.40	61.10	-	-	-	-	13.10
27	3.70	3.20	3.50	3.00	18.00	42.50	59.20	-	-	-	-	12.40
28	3.70	3.00	3.60	2.90	10.63	104.80	49.70	-	-	-	-	12.40
29	3.70		3.60	2.80	15.90	271.50	39.50	-	-	-	-	11.70
30	3.60		3.50	2.80	18.00	74.40	30.50	-	-	-	42.50	13.10
31	3.60		2.70		66.80		26.80	-		-		14.50

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1962

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12,40	29,00	30,50	19,10	-	32,00	-	38,00	-	35,00	-	-
2	11,70	30,50	32,00	20,20	20,20	-	38,00	-	-	-	18,00	-
3	11,00	30,50	38,00	21,30	-	-	-	30,50	-	32,00	-	66,80
4	11,00	30,50	44,00	22,40	18,00	38,00	44,00	-	-	-	-	-
5	11,00	29,00	53,50	21,30	-	-	-	-	-	29,00	17,30	66,80
6	11,00	27,90	49,70	20,20	-	24,60	82,00	36,50	-	-	-	-
7	11,00	27,90	42,50	20,20	18,00	-	-	-	-	-	80,10	55,40
8	13,80	26,80	45,90	19,10	-	26,80	-	29,00	-	27,90	-	-
9	18,00	26,80	47,80	19,10	18,00	-	36,50	-	-	-	97,20	-
10	44,00	27,90	49,70	17,30	-	-	-	22,40	-	25,70	-	36,50
11	35,00	29,00	45,90	16,60	16,60	38,00	41,00	-	-	-	-	-
12	26,80	27,90	42,50	16,60	-	-	-	-	-	24,60	33,50	22,40
13	23,50	27,90	42,50	15,90	-	32,00	32,00	19,10	-	-	-	-
14	21,30	27,90	36,50	16,60	14,50	-	-	-	-	-	33,50	16,60
15	19,10	33,50	38,00	16,60	-	39,50	-	18,00	-	22,40	-	-
16	17,30	39,50	33,50	16,60	9,15	-	82,00	-	-	-	26,80	-
17	16,60	38,00	33,50	17,30	-	-	-	20,20	-	18,00	-	16,60
18	16,60	36,50	32,00	17,30	10,26	44,00	152,80	-	-	-	-	-
19	15,90	35,00	29,00	17,30	-	-	-	-	-	29,00	15,90	11,70
20	15,90	33,50	30,50	18,00	-	29,00	63,00	22,40	-	-	-	-
21	15,90	33,50	29,00	18,00	11,70	-	-	-	-	-	12,40	10,63
22	16,60	33,50	33,50	18,00	-	30,50	-	26,80	-	33,50	-	-
23	16,60	32,00	35,00	18,00	10,26	-	298,50	-	-	-	18,00	-
24	15,90	32,00	35,00	19,10	-	-	-	30,50	-	29,00	-	10,63
25	15,20	32,00	30,50	20,20	7,67	26,80	93,40	-	-	-	-	-
26	14,50	30,50	27,90	19,10	-	-	-	-	-	27,90	11,00	20,20
27	15,20	30,50	25,70	17,30	-	41,00	47,80	30,50	-	-	-	-
28	15,90	29,00	24,60	17,30	29,00	-	-	-	-	-	21,30	13,80
29	15,90		24,60	18,00	-	44,00	-	29,00	-	23,50	-	-
30	15,20		26,80	18,00	32,00	-	74,40	-	-	-	11,00	-
31	15,20		18,00		30,50		-	29,00		20,20		7,10

DAILY AVERAGE

PROCESSED 81/06/26.

STAO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1963

ARCHIVE F1 DISCH: M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-	6,70	5,50	4,10	3,70	7,30	137,10	29,00	26,80	5,15	13,10	8,76
2	7,67	-	-	-	3,70	9,89	127,60	29,00	25,70	4,70	12,40	8,41
3	-	-	-	3,95	3,60	72,50	82,00	27,90	23,50	2,80	11,00	8,04
4	7,67	6,70	5,50	-	3,50	12,40	59,20	25,70	22,40	2,00	11,00	7,30
5	-	-	-	3,80	3,50	13,80	55,40	25,70	20,20	4,55	11,00	7,30
6	-	6,70	5,30	-	3,50	13,80	47,80	22,40	18,00	5,30	10,63	7,30
7	7,67	-	-	-	3,40	12,40	44,00	20,20	16,60	36,50	10,26	7,30
8	-	6,70	5,15	3,70	3,30	10,26	41,00	20,20	15,90	30,50	11,00	10,63
9	7,67	-	-	-	3,30	9,89	36,50	19,10	15,20	26,80	10,63	16,60
10	-	6,30	-	3,40	3,20	10,26	33,50	19,10	14,50	26,80	9,15	102,90
11	7,67	-	5,15	-	3,20	9,89	29,00	20,20	13,80	24,60	10,26	11,70
12	-	-	-	3,40	3,20	9,52	25,70	22,40	11,00	22,40	11,00	11,00
13	-	6,30	5,15	-	3,20	9,52	23,50	566,60	9,15	22,40	11,00	11,00
14	7,67	-	-	-	3,10	8,41	22,40	951,00	7,67	24,60	11,00	9,52
15	-	6,30	4,70	3,30	3,00	38,00	22,40	513,90	9,89	32,00	10,63	8,41
16	7,67	-	-	-	2,80	32,00	21,30	178,10	9,89	29,00	11,70	6,70
17	-	-	-	3,30	2,70	38,00	20,20	150,50	9,52	27,90	11,70	5,70
18	7,67	5,90	4,70	-	2,90	290,40	26,80	78,20	9,15	22,40	11,70	4,70
19	-	-	-	3,30	2,90	597,60	27,90	19,10	8,41	22,40	11,70	4,70
20	-	5,90	4,55	-	2,80	498,40	26,80	18,00	7,30	20,20	11,00	3,80
21	7,67	-	-	-	2,50	236,40	24,60	16,60	7,30	18,00	11,00	3,30
22	-	5,90	4,55	3,20	3,20	72,50	22,40	14,50	7,30	18,00	11,00	2,50
23	7,67	-	-	-	3,50	61,10	19,10	12,40	6,90	16,60	11,00	2,20
24	-	-	-	3,30	3,60	99,10	19,10	10,26	6,50	18,00	10,63	2,00
25	7,67	5,50	5,00	-	3,50	42,50	19,10	8,41	6,10	24,60	10,63	1,80
26	-	-	-	3,20	3,40	118,10	30,50	8,64	7,10	23,50	11,00	78,20
27	-	5,50	4,85	-	3,30	129,50	26,80	8,64	7,30	20,20	11,00	74,40
28	6,70	-	-	-	3,60	164,30	25,70	9,15	7,67	24,60	11,00	63,00
29	-		4,55	2,90	3,95	189,60	25,70	11,00	7,10	20,20	12,40	61,10
30	6,70		-	-	4,10	203,40	25,70	11,00	5,90	15,20	11,00	26,80
31	-		-		4,25		29,00	19,10		13,80		11,00

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME IAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11.04.42
LONGITUDE E 122.00.21
UTM
CATCHMENT 176.00 KM2

YEAR 1964

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10.26	6.70	6.90	3.20	5.70	11.00	205.70	101.00	1.68	3.30	25.70	16.63
2	9.52	6.70	6.90	3.20	5.30	18.00	162.00	91.50	1.32	1.50	24.60	11.10
3	9.52	6.50	6.50	3.20	5.30	18.00	102.90	118.10	1.26	1.56	24.60	10.63
4	9.52	6.50	6.70	3.20	5.15	15.20	76.30	194.20	1.08	1.80	24.60	13.80
5	8.78	6.30	6.70	3.20	5.30	13.80	57.30	322.80	1.14	3.00	23.50	10.27
6	8.78	6.30	6.50	3.20	5.15	11.70	57.30	529.40	1.38	1.74	24.60	22.40
7	8.78	6.30	6.30	3.20	5.30	12.40	57.30	210.30	1.08	1.80	35.00	17.50
8	8.78	6.10	6.50	3.30	5.30	10.63	64.90	102.90	1.14	1.20	45.90	10.36
9	9.15	6.10	6.30	3.40	5.70	10.26	53.60	35.00	1.20	1.14	116.20	7.47
10	9.52	5.90	6.10	3.80	5.30	10.26	44.00	10.26	1.50	1.14	25.70	5.00
11	8.78	5.90	5.70	3.95	5.30	20.20	36.50	12.40	1.80	1.08	22.40	4.10
12	8.78	5.70	5.70	3.95	5.70	22.40	30.50	11.00	1.62	1.02	23.50	3.70
13	8.41	5.70	5.30	3.70	6.90	23.50	32.00	11.70	1.14	1.14	57.30	2.60
14	7.67	5.50	5.30	3.70	5.70	17.30	27.90	9.52	1.90	1.80	15.20	2.30
15	7.67	6.10	5.30	3.70	5.70	13.80	16.60	8.78	1.74	3.70	42.50	1.80
16	7.30	6.30	5.00	3.40	44.00	11.70	14.50	6.30	2.30	5.15	32.00	1.62
17	7.67	6.30	5.00	4.55	32.00	10.26	11.00	6.10	3.30	26.80	24.60	1.20
18	8.04	6.30	4.85	5.50	189.60	9.52	8.04	6.30	1.20	27.90	25.70	18.00
19	7.67	6.30	4.70	5.90	187.30	9.52	6.10	6.30	1.56	3.80	63.00	38.00
20	7.30	6.10	4.40	4.85	175.80	22.40	5.15	6.30	3.70	1.20	120.00	30.50
21	7.10	5.90	4.70	3.70	123.80	26.80	4.10	5.50	1.68	1.08	74.40	8.41
22	7.10	5.50	4.40	3.70	51.60	24.60	3.80	4.85	2.80	1.20	221.80	20.20
23	7.30	5.30	4.25	4.55	64.90	63.00	3.50	5.50	4.55	27.90	212.60	15.90
24	8.04	5.50	3.95	6.90	36.50	66.80	3.50	5.00	1.90	27.90	208.00	15.90
25	7.30	5.70	3.60	6.90	41.00	64.90	3.40	4.55	1.62	27.90	208.00	23.50
26	7.30	5.90	3.60	6.10	13.10	35.00	3.60	5.70	1.50	25.70	224.10	15.80
27	7.30	5.70	3.60	5.00	9.52	63.00	3.10	3.30	1.44	24.60	312.00	6.70
28	7.30	5.50	3.60	5.00	5.70	212.60	2.60	3.50	5.50	23.50	231.00	5.90
29	7.30	6.20	3.40	5.30	6.30	287.70	1.68	3.00	44.00	21.30	114.30	5.50
30	6.90		3.20	6.10	5.50	236.40	1.20	3.40	5.90	44.00	24.60	5.00
31	6.70		3.20		5.70		1.20	2.30		25.70		4.10

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11.04.42
LONGITUDE E 122.00.21
UTM
CATCHMENT 176.00 KM2

YEAR 1965

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.00	2.00	1.32	7.67	16.60	8.78	4.25	91.50	29.00	16.60	9.52	5.15
2	2.70	2.00	1.26	7.67	20.20	8.41	3.95	91.50	29.00	15.90	9.15	3.95
3	2.40	2.10	1.26	7.67	11.70	8.04	3.70	85.80	22.40	15.90	10.26	3.10
4	2.70	2.00	1.20	8.41	12.40	7.30	3.70	82.00	19.10	14.50	9.15	2.50
5	2.50	1.90	1.20	7.30	8.41	7.30	3.60	80.10	16.60	13.80	9.52	2.20
6	2.40	1.80	1.20	7.30	6.90	7.10	4.10	72.50	21.30	14.50	8.04	2.60
7	2.50	1.68	1.20	7.10	6.70	11.00	9.89	76.30	15.90	13.10	8.41	2.70
8	2.20	1.68	1.32	6.90	9.89	9.89	7.30	70.60	18.00	13.10	12.40	4.25
9	2.20	1.62	1.14	6.70	10.63	8.78	7.30	66.80	15.90	11.70	9.52	3.70
10	2.20	1.62	13.10	6.70	7.67	11.00	7.67	63.00	11.70	10.63	8.41	3.60
11	2.00	1.62	17.30	6.50	7.10	13.80	8.78	59.20	15.90	10.63	8.04	3.30
12	1.90	1.56	9.89	6.70	6.70	24.60	777.40	57.30	106.70	11.70	6.70	3.20
13	1.90	1.56	8.41	6.70	7.67	30.50	244.50	57.30	139.00	17.30	6.50	3.20
14	1.90	1.56	9.89	6.50	10.26	39.50	99.10	83.90	152.80	14.50	6.10	3.70
15	2.80	1.50	9.52	6.30	11.00	38.00	47.80	91.50	99.10	25.70	5.50	4.85
16	3.30	1.50	9.52	6.30	9.52	116.20	19.10	80.10	95.30	17.30	5.15	8.78
17	3.60	1.50	9.15	6.10	7.30	8.78	11.00	74.40	87.70	14.50	4.55	7.30
18	4.25	1.44	9.15	6.10	6.90	5.70	17.30	64.90	42.50	11.70	4.10	7.30
19	3.40	1.44	8.78	6.10	6.90	10.63	35.00	74.40	35.00	10.26	3.80	6.30
20	3.00	1.44	8.78	5.90	5.90	22.40	38.00	44.00	27.90	9.89	3.40	5.90
21	2.90	1.38	8.41	5.90	5.30	10.26	47.80	47.80	23.50	13.10	3.10	5.90
22	2.80	1.38	8.41	5.90	5.90	228.70	30.50	44.00	21.30	11.70	3.10	5.50
23	2.70	1.32	9.89	5.70	8.04	263.30	23.50	11.70	23.50	13.10	2.80	5.00
24	2.70	1.32	10.26	5.70	53.50	328.20	20.20	15.20	15.90	11.00	3.50	4.70
25	2.50	1.38	9.89	5.70	133.30	29.00	15.20	19.10	13.80	8.41	4.85	4.40
26	2.40	1.38	8.41	6.10	150.50	19.10	19.10	15.90	13.80	9.89	4.70	3.95
27	2.40	1.38	8.41	5.90	95.30	13.10	14.50	20.20	19.10	9.52	3.30	3.60
28	2.30	1.32	8.04	5.90	33.50	6.70	10.26	293.10	16.60	9.52	3.30	4.40
29	2.30		8.04	7.10	20.20	4.40	17.30	201.10	15.90	8.41	5.15	3.80
30	2.20		8.04	6.90	13.10	3.95	21.30	44.00	15.90	8.04	5.15	3.50
31	2.10		7.67		9.52		87.70	36.50		7.67		3.20

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1966

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.80	1.10	.65	.47	.73	41.00	3.20	11.00	2.30	1.20	5.70	10.63
2	2.45	1.08	.62	.48	.79	29.00	3.00	10.63	2.30	1.35	6.10	9.89
3	2.60	1.04	.65	.49	.80	49.70	3.20	13.80	2.40	1.26	6.30	12.40
4	3.50	1.02	.60	.49	.82	22.40	3.00	18.00	2.60	1.20	6.90	10.26
5	2.40	1.00	.58	.41	.82	15.90	2.80	44.00	2.50	1.14	7.30	10.26
6	2.26	.98	.55	.47	.98	11.00	2.65	53.50	2.70	1.20	8.04	9.89
7	2.26	.98	.56	.47	.90	41.00	2.60	44.00	2.80	1.20	8.78	8.78
8	2.26	.90	.55	.46	.92	27.90	2.45	32.00	2.75	1.44	9.15	8.04
9	76.30	.90	.56	.43	.98	18.00	2.35	6.10	2.70	1.44	9.15	7.67
10	2.18	.88	.56	.43	.98	12.40	2.30	2.45	2.90	1.70	16.60	7.30
11	2.14	.86	.57	.42	.92	38.00	2.50	2.22	2.75	1.74	10.63	7.30
12	2.02	.86	.57	.41	.92	57.30	2.70	2.40	3.10	1.82	8.78	9.58
13	2.02	.84	.56	.41	1.23	44.00	6.50	2.22	3.20	16.60	13.10	8.78
14	1.98	.84	.53	.41	2.90	33.50	20.20	2.22	3.00	11.00	11.70	7.10
15	1.98	.82	.51	.41	3.40	26.80	9.52	1.58	2.80	11.00	14.50	6.90
16	1.86	.80	.45	.41	5.90	25.70	5.70	1.66	2.60	7.30	12.40	6.50
17	1.82	.77	.50	.41	150.50	18.00	10.26	1.78	2.26	7.30	10.63	5.70
18	1.78	.76	.51	.40	405.40	41.00	8.78	1.90	3.30	5.90	9.52	5.30
19	1.78	.75	.51	.41	162.00	59.20	11.70	7.30	2.26	5.70	12.40	5.30
20	1.78	.79	.49	.41	189.60	38.00	12.40	1.74	2.40	5.30	55.40	5.00
21	1.66	.76	.49	.43	203.40	38.00	11.00	1.82	2.70	5.15	29.00	4.70
22	1.70	.75	.49	.45	217.20	41.00	30.50	1.86	2.80	5.15	18.00	4.10
23	1.62	.75	.47	.47	201.10	30.50	53.50	1.90	2.30	4.70	13.80	4.10
24	1.54	.74	.47	.47	185.00	35.00	30.50	2.06	2.22	4.25	9.89	3.80
25	1.54	.74	.46	.47	187.30	42.50	25.70	2.18	1.98	4.10	8.04	3.70
26	1.50	.73	.45	.44	175.80	89.60	16.60	2.26	1.98	3.80	6.90	3.60
27	1.41	.72	.45	.43	41.00	108.60	15.20	2.40	1.74	3.40	6.90	63.00
28	1.35	.70	.45	.43	116.20	20.20	17.30	2.60	1.62	3.10	6.90	6.90
29	1.29		.47	.43	97.20	3.80	17.30	2.70	1.50	3.20	6.90	15.20
30	1.18		.49	.43	63.00	3.00	125.70	2.65	1.32	3.10	6.90	11.00
31	1.16		.47		29.00		22.40	2.50		3.20		11.00

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUBTUD
MAIN RIVER PALIUAN
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1967

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9,52	7,30	2,50	1,90	5,15	25,70	8,04	-	7,67	-	3,60	2,90
2	13,10	7,10	6,90	1,94	4,85	21,30	8,04	162,00	-	-	-	2,75
3	12,40	7,10	30,50	1,94	4,55	18,00	7,30	-	-	-	3,30	2,65
4	20,20	6,70	3,40	1,86	4,25	16,60	7,30	143,60	7,10	-	-	2,65
5	35,00	7,30	2,80	1,82	4,10	14,50	7,67	-	-	-	-	2,60
6	152,80	6,70	3,20	1,86	3,80	13,10	6,90	-	8,78	-	3,00	2,40
7	17,30	6,10	2,55	1,90	3,50	11,70	7,10	191,90	-	-	-	2,26
8	17,30	5,70	2,50	1,82	3,30	224,10	12,40	-	7,10	-	2,80	2,22
9	13,10	5,50	2,45	1,78	3,40	317,40	13,10	173,50	-	13,10	-	2,10
10	13,10	5,00	2,40	1,74	3,30	236,40	10,63	-	-	-	2,70	2,06
11	13,80	5,00	2,40	1,78	3,00	110,50	8,78	3,40	5,70	13,10	-	1,98
12	12,40	4,25	2,30	1,74	2,80	13,10	8,04	-	-	-	-	1,94
13	11,70	4,40	2,26	1,66	2,70	11,00	6,70	-	5,70	12,40	2,40	1,82
14	15,90	3,95	2,10	1,66	2,65	194,20	6,30	22,40	-	-	-	1,82
15	9,89	3,70	2,30	2,10	2,60	162,00	6,10	-	5,50	-	2,30	1,74
16	12,40	3,50	2,22	1,90	2,50	108,60	6,10	14,50	-	9,52	-	1,62
17	12,40	3,30	2,18	1,82	2,55	106,70	5,50	-	-	-	2,10	1,42
18	23,50	3,20	2,18	1,70	2,50	10,63	5,15	411,60	5,00	8,04	-	1,41
19	212,60	3,00	2,14	1,66	2,40	8,78	5,00	-	-	-	-	1,38
20	276,90	2,90	2,06	1,62	2,30	6,90	4,55	-	4,40	7,30	5,90	1,35
21	166,60	2,80	2,02	1,62	39,50	6,10	4,10	42,50	-	-	-	1,29
22	32,00	2,75	1,98	1,54	210,30	5,70	3,95	-	4,10	-	5,15	1,26
23	15,90	2,65	2,02	1,54	166,60	12,40	27,90	21,30	-	6,70	-	1,18
24	19,10	2,60	1,98	1,50	108,60	108,60	148,20	-	-	-	4,25	1,20
25	11,70	2,45	1,94	1,44	102,90	26,80	175,80	14,50	3,70	6,70	-	1,16
26	9,89	2,40	1,94	1,41	106,70	24,60	55,40	-	-	-	-	1,18
27	9,89	2,30	1,94	1,70	125,70	22,40	606,90	-	3,40	5,70	3,60	1,16
28	21,30	2,30	1,90	1,32	97,20	15,90	417,80	10,63	-	-	-	1,12
29	9,52		1,86	2,45	68,70	13,10	628,60	-	217,20	-	3,30	1,12
30	7,30		1,82	5,30	51,60	9,89	368,70	8,41	-	5,00	-	1,38
31	7,10		1,90		42,50		212,60	-		-		1,32

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11.04.42
LONGITUDE E 122.00.21
UTM
CATCHMENT 176.00 KM2

YEAR 1968

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.38	.79	.54	.54	.64	3.80	3.70	3.30	139.00	120.00	7.10	3.95
2	1.32	.78	.54	.54	.63	3.30	3.60	5.00	135.20	114.30	5.90	3.30
3	1.29	.77	.52	.53	.62	3.60	3.50	15.90	131.40	114.30	5.15	3.60
4	1.23	.76	.56	.54	.61	3.50	3.40	59.20	131.40	110.50	4.25	3.50
5	1.23	.75	.61	.53	.61	3.50	4.25	141.20	127.60	108.60	3.70	3.50
6	1.18	.74	.62	.52	.60	3.40	5.15	233.70	127.60	104.80	2.75	3.70
7	1.23	.73	.62	.53	.59	3.60	5.15	492.20	123.80	102.00	2.60	4.10
8	1.20	.72	.60	.52	.59	3.60	5.15	641.00	120.00	191.90	-	3.70
9	1.14	.72	.59	.51	.60	3.60	5.70	551.18	148.20	159.70	-	3.60
10	1.14	.71	.58	.52	.59	3.30	10.63	355.20	145.90	141.30	-	3.40
11	1.29	.70	.57	.51	.64	3.30	17.30	339.00	150.50	137.10	-	3.40
12	1.14	.70	.57	.51	.61	3.20	15.20	282.30	133.30	131.40	-	3.80
13	1.10	.69	.57	.50	.58	3.00	13.80	325.50	135.20	129.50	2.55	3.00
14	1.08	.68	.58	.48	.57	2.90	13.10	210.30	129.50	127.60	2.50	3.70
15	1.08	.68	.57	.48	.56	2.80	11.70	173.50	125.70	123.80	2.45	3.40
16	1.06	.67	.58	.47	.54	2.75	10.63	504.60	123.80	135.20	2.50	3.30
17	1.06	.66	.57	.46	.53	2.70	9.89	554.20	120.00	123.80	2.40	3.20
18	1.02	.64	.56	.45	.51	2.65	9.52	-	118.10	116.20	2.30	3.10
19	1.00	.63	.56	.44	.54	2.60	8.41	226.40	114.30	106.70	3.30	3.20
20	1.00	.62	.57	.44	.50	2.60	7.67	196.50	112.40	99.10	6.10	3.10
21	.96	.62	.56	.44	.49	2.50	7.10	178.10	137.10	87.70	3.00	3.20
22	.98	.61	.57	.42	.60	2.50	7.10	175.80	145.90	80.10	3.10	3.00
23	1.00	.60	.55	.42	.53	2.40	6.70	173.50	137.10	68.70	2.70	2.90
24	.98	.60	.56	.41	.51	2.35	6.30	168.90	129.50	61.10	2.55	2.90
25	.88	.59	.57	.40	.49	2.35	6.50	166.60	127.60	53.50	4.85	4.55
26	.84	.58	.56	.40	.47	2.30	6.50	162.00	141.30	42.50	3.10	4.40
27	.79	.58	.56	.39	.45	2.22	5.90	155.10	155.10	33.50	2.14	4.10
28	.88	.57	.55	.39	.45	2.14	5.50	152.80	162.00	23.50	23.50	3.95
29	.82	.56	.55	.38	.58	2.10	5.90	148.20	139.00	16.60	6.10	3.95
30	.96		.54	.65	.53	2.06	5.15	145.90	123.80	12.40	4.25	3.80
31	.86		.55		.52		-	141.30		8.41		3.80

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1969

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3,70	1,86	1,78	1,41	1,44	2,40	2,30	120,00	5,50	15,90	3,70	1,78
2	3,60	1,90	1,78	1,38	1,41	2,18	2,35	110,50	6,70	35,00	3,60	1,74
3	3,40	1,90	1,78	1,35	1,41	2,06	2,26	152,40	6,30	18,00	3,50	1,74
4	3,40	1,86	1,78	1,35	1,41	2,10	2,10	53,50	5,70	16,60	3,40	1,70
5	3,30	1,82	1,78	1,32	1,66	2,18	2,40	5,90	5,90	15,90	3,20	1,70
6	3,20	1,86	1,74	1,29	1,86	2,06	2,50	5,90	5,70	15,20	3,00	1,66
7	2,80	1,82	1,74	1,29	1,78	1,98	2,55	6,10	19,10	13,80	2,90	1,74
8	3,70	1,78	1,74	1,26	1,74	1,90	805,30	3,95	19,10	13,10	2,75	1,70
9	2,80	1,78	1,74	1,26	2,06	1,82	32,00	5,50	15,90	11,70	2,70	1,82
10	2,75	1,78	1,74	1,26	1,90	1,98	24,60	5,00	14,50	11,00	2,60	1,70
11	2,70	1,86	1,74	1,23	1,90	1,82	47,80	4,55	15,20	10,63	2,50	2,14
12	2,65	1,82	1,70	1,23	2,26	1,74	47,80	4,55	30,50	9,89	2,40	1,90
13	2,60	1,82	1,70	1,23	2,02	1,70	22,40	4,10	35,00	9,52	2,35	1,86
14	2,70	1,82	1,66	1,20	2,18	2,06	32,00	4,10	13,80	8,78	2,26	1,86
15	2,35	1,82	1,66	1,20	1,98	2,45	139,00	3,95	9,89	7,67	2,22	1,86
16	2,65	1,82	1,62	1,20	1,94	2,14	53,50	3,80	8,78	7,10	2,22	1,82
17	2,65	1,90	1,62	1,90	1,90	1,98	63,00	3,40	7,30	6,50	2,14	2,10
18	2,55	1,86	1,58	1,90	1,86	1,90	38,00	3,10	6,50	6,50	2,26	2,10
19	2,45	1,82	1,58	1,86	2,22	1,86	41,00	21,30	20,20	6,10	2,50	2,02
20	2,30	1,86	1,58	1,82	1,66	2,02	85,80	24,60	4,70	5,90	2,75	2,10
21	2,30	1,86	1,58	1,78	1,90	1,78	59,20	16,60	3,95	5,50	2,65	2,30
22	2,26	1,78	1,54	1,70	1,86	1,86	59,20	15,20	7,30	5,15	2,55	2,06
23	2,22	1,90	1,54	1,70	1,82	1,78	23,50	14,50	3,60	4,85	2,40	2,06
24	2,26	1,90	1,50	1,62	1,74	2,06	19,10	19,10	3,40	4,85	2,10	2,02
25	2,14	1,86	1,50	1,58	2,40	2,60	53,50	21,30	3,30	4,25	2,10	1,98
26	2,06	1,86	1,47	1,54	2,18	2,26	97,20	8,41	18,00	4,10	1,94	1,98
27	2,02	1,82	1,47	1,47	2,40	2,18	916,90	6,10	25,70	3,80	1,82	1,94
28	1,98	1,82	1,44	1,44	2,35	2,06	279,60	4,55	13,10	3,60	1,78	1,90
29	1,94		1,44	1,41	2,30	1,90	63,00	5,90	10,63	3,40	1,74	2,02
30	1,90		1,44	1,47	1,98	1,78	24,60	5,90	12,40	3,70	1,74	2,02
31	1,86		1,44		2,30		35,00	5,70		4,10		1,90

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8202 - 0
NAME TAGUDTUD
MAIN RIVER PALIUAN
RIVER

LATITUDE N 11,04,42
LONGITUDE E 122,00,21
UTM
CATCHMENT 176.00 KM2

YEAR 1970

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,90	1,44	1,62	1,47	1,44	2,26	1,94	3,10	21,30	7,67	101,10	4,40
2	1,98	1,41	1,62	1,47	1,41	2,14	1,86	3,00	32,00	7,10	97,20	4,25
3	1,86	1,44	1,58	1,47	1,41	2,26	1,82	3,00	72,50	7,30	32,00	3,95
4	1,86	1,41	1,58	1,44	2,02	2,45	2,40	2,90	63,00	6,90	15,90	3,80
5	1,86	1,38	1,54	1,44	1,58	1,86	3,60	2,80	29,00	6,70	5,30	3,80
6	1,82	1,38	1,50	1,44	1,50	1,82	3,80	3,20	26,80	6,50	4,40	3,70
7	1,82	1,35	1,50	1,41	1,74	2,02	3,10	3,60	25,70	6,10	4,25	3,70
8	1,82	1,35	1,50	1,41	1,74	2,02	2,70	3,30	23,50	5,90	4,40	3,70
9	1,78	1,32	1,47	1,41	1,90	1,94	2,65	3,20	22,40	8,78	4,25	3,80
10	1,78	1,32	1,47	1,41	2,10	1,86	2,40	3,10	10,63	8,04	4,10	3,70
11	1,74	1,32	1,44	1,41	1,74	1,94	2,35	3,00	9,52	8,78	3,95	3,60
12	1,74	1,29	1,44	1,00	1,62	1,98	2,26	2,90	6,70	7,30	5,30	3,50
13	1,74	1,29	1,44	1,35	1,58	1,78	2,14	11,00	6,70	399,20	8,41	3,40
14	1,70	1,26	1,44	1,35	1,74	1,74	12,40	18,00	14,50	811,50	5,30	3,30
15	1,70	1,26	1,41	1,35	1,78	1,66	10,26	29,00	10,63	424,00	4,55	3,30
16	1,66	1,23	1,41	1,32	1,74	1,66	8,41	41,00	10,63	274,20	4,40	3,20
17	1,66	1,23	1,41	1,32	1,74	2,55	11,00	26,80	10,63	271,50	4,70	3,20
18	1,66	1,23	1,38	1,32	1,70	2,26	13,80	24,60	9,15	312,00	5,15	3,10
19	1,62	1,20	1,38	1,29	1,66	2,40	15,90	19,10	18,00	325,50	4,40	3,30
20	1,62	1,20	1,35	1,29	1,78	2,18	11,70	19,10	14,50	320,10	4,25	3,80
21	1,58	1,20	1,35	1,26	1,70	2,22	9,89	18,00	8,78	249,90	4,10	4,25
22	1,58	1,20	1,32	1,26	1,70	2,22	8,41	18,00	8,04	182,70	3,95	4,40
23	1,54	1,20	1,32	1,26	1,62	2,60	7,30	17,30	7,30	178,10	3,95	5,00
24	1,58	1,38	1,29	1,23	1,70	3,10	8,78	13,10	7,30	145,90	4,10	4,55
25	1,54	1,41	1,29	1,23	1,78	2,55	8,41	13,00	11,70	123,80	3,95	5,15
26	1,54	1,90	1,29	1,23	1,66	2,22	9,52	14,50	11,70	129,50	3,80	5,15
27	1,50	1,74	1,29	1,26	1,78	2,10	10,26	14,50	7,67	152,80	4,70	6,30
28	1,50	1,66	1,26	1,26	1,90	2,14	74,40	14,50	7,10	148,20	5,70	5,30
29	1,47		1,26	1,26	1,98	2,14	114,30	13,80	6,70	123,80	5,30	5,15
30	1,44		1,26	1,47	2,14	2,10	4,85	15,20	8,78	116,20	4,70	5,15
31	1,44		1,23		2,30		3,50	15,20		106,70		4,70

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER
ARCHIVE F1 DISCH, M3/S

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1958

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-	-	-	-	-	-	-	-	-	-	-	8,60
2	-	-	-	-	-	-	-	-	-	-	-	7,91
3	-	-	-	-	-	-	-	-	-	-	-	7,45
4	-	-	-	-	-	-	-	-	-	-	-	6,53
5	-	-	-	-	-	-	-	-	-	-	-	5,92
6	-	-	-	-	-	-	-	-	-	-	-	5,92
7	-	-	-	-	-	-	-	-	-	-	-	5,54
8	-	-	-	-	-	-	-	-	-	-	-	5,16
9	-	-	-	-	-	-	-	-	-	-	-	5,16
10	-	-	-	-	-	-	-	-	-	-	-	5,16
11	-	-	-	-	-	-	-	-	-	-	-	5,35
12	-	-	-	-	-	-	-	-	-	-	-	5,16
13	-	-	-	-	-	-	-	-	-	-	-	4,78
14	-	-	-	-	-	-	-	-	-	-	-	4,59
15	-	-	-	-	-	-	-	-	-	-	-	4,40
16	-	-	-	-	-	-	-	-	-	-	-	4,25
17	-	-	-	-	-	-	-	-	-	-	-	4,40
18	-	-	-	-	-	-	-	-	-	-	-	4,40
19	-	-	-	-	-	-	-	-	-	-	-	4,10
20	-	-	-	-	-	-	-	-	-	-	-	4,10
21	-	-	-	-	-	-	-	-	-	-	-	4,10
22	-	-	-	-	-	-	-	-	-	-	-	3,80
23	-	-	-	-	-	-	-	-	-	-	-	3,80
24	-	-	-	-	-	-	-	-	-	-	-	3,80
25	-	-	-	-	-	-	-	-	-	-	-	3,80
26	-	-	-	-	-	-	-	-	-	-	-	3,65
27	-	-	-	-	-	-	-	-	-	-	-	3,65
28	-	-	-	-	-	-	-	-	-	-	-	3,65
29	-		-	-	-	-	-	-	-	-	11,92	3,65
30	-		-	-	-	-	-	-	-	-	9,68	3,65
31	-		-		-		-	-		-		3,65

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1959

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3,50	2,38	1,81	3,20	2,90	2,77	17,20	464,49	-	175,38	106,40	132,06
2	3,50	2,51	1,92	3,20	2,77	2,51	20,63	499,00	-	196,30	106,40	133,20
3	3,35	2,38	2,14	3,05	2,64	4,97	20,24	680,08	-	310,58	106,40	132,06
4	3,35	2,25	1,92	2,90	4,10	4,10	12,23	633,70	-	373,45	106,40	132,06
5	3,20	2,14	1,92	2,90	5,73	4,10	8,60	412,99	-	354,52	105,42	123,18
6	2,90	2,14	2,03	2,64	3,95	3,50	6,99	212,60	-	280,80	104,44	112,58
7	2,90	2,14	1,92	2,38	3,05	3,05	9,41	256,16	-	229,74	232,92	112,58
8	2,90	2,14	1,81	2,38	2,77	3,95	10,76	259,62	-	193,40	150,90	99,54
9	2,77	2,14	1,70	2,38	2,77	4,97	23,09	252,70	-	168,78	132,06	91,02
10	3,20	2,03	1,61	2,38	2,51	13,78	15,10	229,74	-	155,94	132,06	83,78
11	2,90	1,92	1,70	2,38	2,38	7,91	18,68	469,35	-	153,42	166,14	115,67
12	2,77	1,92	1,81	2,38	2,51	8,87	13,78	304,83	-	136,62	199,20	111,55
13	2,38	1,92	1,81	2,38	2,77	6,76	158,46	289,87	-	138,90	182,22	110,52
14	2,64	1,70	4,59	2,38	2,77	8,60	-	324,16	-	132,06	160,98	110,52
15	3,20	1,70	3,50	2,38	2,51	6,30	-	288,00	-	132,06	143,70	110,52
16	2,77	1,70	9,14	2,38	3,05	6,99	-	252,70	-	153,42	438,32	110,52
17	2,64	1,70	5,35	3,65	5,35	5,35	-	259,62	-	147,30	340,17	71,03
18	2,38	1,92	4,97	3,35	10,49	12,23	-	342,18	-	136,62	208,04	76,01
19	2,64	1,92	3,80	3,05	7,68	9,95	-	263,08	-	135,48	193,40	220,20
20	2,64	1,92	5,35	2,90	7,91	9,95	-	211,08	-	147,30	179,46	136,62
21	2,64	1,92	4,10	3,65	5,35	14,75	-	187,74	-	171,42	150,90	95,67
22	2,64	1,70	3,95	3,95	4,59	14,75	-	196,30	-	143,70	143,70	89,16
23	2,64	1,70	3,50	3,05	3,35	8,14	-	189,12	-	123,18	143,70	80,26
24	2,64	1,70	3,35	4,40	3,05	6,76	-	172,74	-	122,10	143,70	71,86
25	2,64	1,70	3,20	3,20	2,90	31,96	-	155,94	-	119,94	142,50	85,54
26	3,05	1,81	2,90	2,90	2,77	16,85	-	193,40	-	117,78	141,30	82,02
27	3,20	1,81	2,90	3,05	2,51	8,87	-	193,40	-	117,78	141,30	90,09
28	3,35	1,81	2,90	2,90	2,51	17,55	-	302,96	-	117,78	123,18	83,78
29	2,90		2,90	2,90	3,65	15,10	-	603,62	-	117,78	135,48	78,50
30	2,77		2,77	2,90	5,73	16,15	-	348,28	-	115,67	125,34	75,18
31	2,64		3,20		3,50		-	242,74		106,40		74,35

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1960

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	98,56	57,29	54,42	51,70	87,30	28,50	30,42	36,78	17,55	20,63	19,88	5,10
2	133,20	56,36	51,70	71,86	127,30	19,85	14,09	33,53	9,95	17,20	17,27	5,10
3	92,88	56,56	51,02	65,96	95,67	21,41	8,37	99,54	7,91	26,58	15,22	4,89
4	87,30	55,10	51,02	60,21	87,30	28,50	50,34	190,50	13,16	22,23	13,68	4,89
5	83,78	55,10	50,34	58,75	94,74	23,95	94,74	123,18	12,85	30,42	11,88	4,68
6	82,02	53,74	49,66	58,75	94,74	15,45	63,18	129,78	13,78	221,79	11,16	4,68
7	78,30	53,74	47,04	58,02	88,23	14,40	64,74	155,94	15,45	415,28	9,87	8,63
8	77,67	54,42	47,04	53,74	83,78	12,85	60,21	187,74	12,85	419,06	8,63	7,44
9	66,30	53,74	47,04	50,34	111,55	11,92	55,83	215,64	30,42	386,35	7,44	8,01
10	64,74	53,74	46,41	49,66	104,44	12,23	45,15	200,65	66,30	336,15	6,66	8,01
11	64,74	52,38	46,41	49,66	102,48	17,55	18,29	189,12	76,01	279,00	5,88	8,01
12	62,40	60,94	46,41	49,66	98,56	14,75	6,99	178,00	78,50	244,40	5,62	8,01
13	62,40	60,94	45,78	48,30	129,78	22,66	6,30	164,82	71,03	218,68	5,36	8,01
14	61,67	60,21	47,04	48,30	114,64	22,23	16,15	138,90	63,96	180,84	4,89	8,01
15	60,21	55,83	51,02	47,04	105,42	19,46	8,87	128,64	76,01	135,94	4,89	8,01
16	60,21	52,38	48,30	47,04	104,44	26,58	5,35	115,67	101,50	70,38	4,89	8,01
17	60,94	51,70	45,78	44,52	102,48	10,76	28,50	94,74	71,86	75,42	4,68	8,01
18	66,30	51,02	187,74	44,52	95,67	11,61	22,66	81,14	88,23	58,74	12,60	6,40
19	65,52	51,70	94,74	48,30	76,84	10,76	16,15	69,42	91,95	32,12	18,09	6,40
20	65,52	51,02	78,50	45,15	76,01	9,95	16,85	58,75	84,66	64,80	14,81	6,14
21	65,52	49,66	76,84	45,15	149,70	21,02	14,75	48,98	74,33	85,80	12,24	6,14
22	63,96	54,42	70,20	45,15	148,50	23,09	8,37	28,50	63,18	101,82	10,49	6,14
23	63,96	59,48	70,20	200,63	135,48	72,69	6,99	18,29	60,94	128,64	9,25	6,14
24	56,56	53,06	62,40	134,34	140,50	53,74	8,60	9,95	26,10	162,24	8,63	5,88
25	56,56	60,94	60,94	132,06	157,20	72,69	12,23	6,53	16,15	125,34	7,44	5,88
26	55,83	65,52	60,21	127,50	114,64	85,54	9,68	6,30	12,85	89,94	6,66	5,62
27	55,83	55,10	55,10	118,86	160,98	122,10	11,30	6,30	16,15	72,90	5,88	5,62
28	56,56	65,52	53,06	102,48	183,60	46,41	8,37	6,30	13,16	64,80	5,88	5,62
29	56,56	59,97	52,38	96,60	85,54	33,55	35,67	6,30	10,49	30,10	5,36	5,62
30	55,85		52,38	138,90	36,78	31,96	72,69	5,35	16,15	33,63	5,10	5,62
31	58,02		51,70		32,49		51,02	46,41		24,63		5,62

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
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MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1961

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5,62	4,47	3,84	2,84	3,84	33,80	72,40	11,45	38,29	47,98	10,45	9,10
2	5,62	4,47	3,84	2,84	3,84	28,20	45,43	10,70	29,40	43,39	9,98	9,10
3	5,62	4,47	3,84	2,84	11,88	20,34	64,40	9,76	22,00	53,80	9,76	9,10
4	5,36	4,47	4,47	4,05	7,70	38,68	109,00	39,82	14,70	51,40	9,54	9,10
5	5,36	4,47	4,03	4,47	5,62	27,18	80,70	31,98	13,20	47,98	9,54	9,10
6	5,36	4,47	3,21	4,26	4,26	27,69	55,00	27,92	12,70	43,39	9,54	8,88
7	5,36	4,47	3,21	4,05	3,84	21,26	45,94	24,59	49,00	39,82	9,32	8,88
8	5,36	4,26	3,21	4,05	3,42	22,18	40,84	17,06	62,80	59,20	9,32	8,88
9	5,10	4,05	3,21	3,84	8,63	35,02	38,29	43,90	59,20	77,20	9,32	8,88
10	5,10	4,05	3,21	3,84	8,32	33,80	34,72	47,47	66,00	141,40	9,10	8,88
11	5,10	4,05	3,21	5,10	6,40	22,26	32,41	35,74	56,40	62,00	8,88	8,88
12	4,87	4,05	3,21	5,36	9,87	22,26	30,69	30,26	52,60	42,88	8,88	8,88
13	4,68	4,05	3,21	4,05	10,18	38,07	27,55	25,70	74,80	31,55	8,88	8,44
14	4,68	4,05	3,21	3,84	10,80	26,16	27,55	29,40	62,00	24,96	8,88	8,44
15	4,68	4,05	3,21	3,84	43,20	52,68	24,59	131,30	46,45	21,26	8,88	8,44
16	4,68	4,05	3,21	3,84	19,88	53,70	52,00	102,00	41,35	17,68	8,88	8,44
17	4,68	4,05	3,21	3,42	18,96	45,84	58,50	95,00	58,50	13,45	8,66	8,22
18	4,68	4,05	3,21	3,42	15,63	41,22	52,00	177,00	44,41	40,84	8,66	8,22
19	4,68	4,05	3,21	3,42	18,09	68,70	47,98	82,50	51,40	23,11	8,66	8,00
20	4,68	4,05	3,21	3,42	21,72	52,26	43,90	87,00	66,00	72,40	46,45	8,00
21	4,60	4,05	3,21	4,68	35,63	44,52	40,33	51,40	63,60	31,98	82,50	8,00
22	4,68	4,05	3,21	4,68	27,18	39,29	34,72	41,86	62,00	24,59	58,50	7,78
23	4,68	3,84	2,84	4,26	10,80	29,32	31,12	179,80	59,90	17,68	26,44	7,78
24	4,68	3,84	2,84	4,26	39,29	72,06	29,83	151,00	57,10	15,20	23,85	7,78
25	4,68	3,84	2,84	4,03	31,56	91,86	25,33	113,00	60,60	70,00	16,44	7,56
26	4,47	3,84	2,84	3,84	37,46	82,50	22,74	77,20	65,00	25,70	11,45	7,56
27	4,47	3,84	2,84	3,84	28,20	67,14	19,78	51,40	58,50	14,45	9,76	7,56
28	4,47	3,84	2,84	3,84	42,54	137,76	18,30	40,84	55,70	47,98	9,32	7,56
29	4,47		2,84	3,84	31,56	328,11	18,30	31,98	53,80	22,74	9,10	7,34
30	4,47		2,84	3,84	15,22	187,74	15,20	25,70	52,00	13,20	9,10	7,34
31	4,47		2,84		41,88		12,45	35,25		11,20		7,34

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1962

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7,34	4,80	7,56	5,60	9,10	21,26	20,52	139,00	45,94	30,69	9,76	19,78
2	7,34	4,60	7,12	5,60	8,88	14,70	17,68	95,00	49,00	29,03	8,44	19,04
3	7,34	4,60	6,68	6,46	8,88	74,80	32,84	90,00	36,76	24,96	8,00	27,92
4	7,34	4,40	6,68	6,90	11,45	26,81	52,60	74,00	35,23	37,27	8,00	20,89
5	7,34	4,40	6,68	6,24	9,76	21,26	60,60	78,00	25,70	34,21	7,56	15,82
6	7,12	4,40	6,68	5,60	9,32	15,20	83,40	70,00	30,69	32,84	7,56	14,70
7	7,12	7,56	6,68	5,60	9,10	14,70	78,90	105,00	39,31	32,41	175,70	13,20
8	7,12	8,22	6,68	5,60	9,10	14,70	145,00	145,00	42,37	35,74	50,20	12,70
9	7,12	12,45	6,68	5,60	8,88	14,45	146,20	132,40	71,60	27,92	41,35	12,20
10	7,12	12,95	6,46	5,40	8,88	35,74	174,40	59,90	31,98	23,85	29,40	10,20
11	7,12	8,44	6,46	5,20	8,88	30,26	145,00	37,78	26,44	22,37	29,40	9,98
12	7,12	7,34	6,46	5,20	8,88	17,68	109,00	27,18	23,11	21,63	29,84	9,76
13	7,12	6,46	6,46	14,70	8,66	39,31	95,00	23,48	52,00	21,26	26,07	8,88
14	6,68	6,24	6,46	8,22	8,66	25,70	83,40	36,25	30,69	20,89	24,22	8,66
15	6,68	6,24	6,24	15,82	8,44	16,44	69,20	20,52	37,78	20,89	22,00	8,44
16	6,46	6,24	6,24	9,76	8,44	34,72	70,80	16,75	31,98	20,89	19,04	8,00
17	6,02	6,24	6,24	7,12	8,44	37,78	115,00	14,70	22,00	14,45	26,07	8,00
18	5,80	6,24	6,24	14,45	8,44	27,18	81,60	8,00	30,26	11,70	31,12	7,78
19	5,80	6,02	6,24	20,89	8,22	21,26	147,40	21,26	31,98	11,70	19,78	7,78
20	5,60	6,02	6,24	14,45	8,22	16,44	99,00	40,33	26,44	13,20	14,20	7,56
21	5,40	6,02	6,24	11,70	8,00	14,45	117,00	41,35	27,18	31,55	12,20	7,56
22	5,40	6,02	6,24	11,20	12,45	13,70	32,84	47,98	22,00	13,70	11,70	7,56
23	5,40	5,80	6,24	10,20	8,66	13,70	23,48	50,20	21,63	30,26	13,45	7,34
24	5,20	5,80	6,24	9,98	8,00	31,98	170,50	136,80	27,55	19,78	15,20	7,12
25	5,20	5,60	6,24	9,76	8,00	17,06	123,60	90,00	44,41	15,51	15,20	6,90
26	5,20	5,40	6,02	9,76	7,56	14,95	185,40	87,00	32,84	10,95	22,00	6,90
27	5,00	5,40	6,02	9,54	7,56	19,41	199,40	154,90	28,66	9,32	20,89	6,68
28	5,00	5,40	6,02	9,32	7,34	91,00	125,80	108,20	23,48	9,32	169,20	6,46
29	5,00		5,80	9,32	46,65	59,20	237,70	179,80	31,12	8,00	157,50	6,46
30	5,00		5,80	9,10	15,51	27,18	146,20	131,30	23,85	8,00	87,00	6,46
31	4,80		5,80		36,76		223,20	107,00		8,22		6,46

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1963

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6,46	5,40	3.52	2.68	1,72	28,29	59,90	17,68	47,47	56,40	35.74	6,90
2	6.46	5.40	3.28	2.68	1.72	23.11	46.96	23.85	46.96	78.00	30.26	6.68
3	6,24	5.40	3.24	2.68	1,72	36,25	43,90	26,44	139,00	96,00	27.18	6,68
4	6.24	5.40	3.24	2.68	1.72	22.74	34.21	21.63	84.30	66.80	24.22	6.46
5	6,24	5,20	3.24	2,54	1,64	20,52	39,82	22,37	62,80	54,40	22.00	6,24
6	6.24	5.20	3.24	2.54	1.64	19.04	33.27	33.27	45.43	47.47	19.78	6.24
7	6,02	5,20	3,24	2.54	1,64	18,30	25,33	24,96	35,23	45,43	18,30	6,02
8	6.02	5.00	3.24	2.40	1.64	17.68	28.29	40.33	30.69	51.40	17.68	5.80
9	6.02	5.00	3.24	2.40	1,64	17,37	24,22	26,81	44,92	41,86	17,37	5.80
10	5.80	5.00	3.10	2.28	1.56	17.06	18.30	23.11	49.00	34.21	17.06	38.80
11	5.80	5.00	3.10	2,16	1,56	17,06	19,04	18,67	39,82	37,27	16,75	55,00
12	5.80	5.00	3.10	2.16	1.56	16.75	24.96	31.98	34.21	32.84	15.20	76.40
13	5.80	4.80	3.10	2.16	1.56	16.75	33.27	136.80	30.26	59.90	14.70	36.76
14	5.80	4.80	3.10	2.04	1.56	16.75	69.20	205.00	27.18	70.00	14.20	30.26
15	5.80	4.80	2.96	2.04	1.56	34.72	27.92	154.90	25.33	59.90	13.95	26.07
16	5.60	4.60	2.96	2.04	1.92	29.83	17.37	85.20	39.31	29.40	13.95	20.89
17	5.60	4.60	2.96	2.04	2.54	32.64	17.70	57.10	67.60	24.22	13.20	15.82
18	5.60	4.40	2.96	2.04	2.28	71.60	14.45	62.00	44.41	22.74	12.70	15.20
19	5.60	4.40	2.96	1.92	3.52	74.00	17.37	46.45	49.60	47.47	12.45	15.20
20	5.40	4.20	2.96	1.92	4.60	107.00	62.00	45.94	44.41	49.00	12.20	14.70
21	5.40	4.20	2.96	1.92	9.98	43.90	48.49	232.80	37.27	41.35	12.20	14.70
22	5.40	4.20	2.96	1.92	7.56	29.40	35.74	177.00	35.74	30.26	11.95	14.45
23	5.40	4.00	2.82	1.80	4.20	22.00	31.98	97.00	29.83	27.18	11.45	14.20
24	5.40	3.80	2.82	1.80	3.80	36.76	30.69	79.80	20.67	25.33	11.45	14.20
25	5.40	3.80	2.82	1.80	3.28	111.00	33.70	59.20	23.48	23.11	10.95	13.95
26	5.40	3.66	2.82	1.80	2.96	41.35	41.35	186.80	14.41	21.63	10.70	13.95
27	5.40	3.52	2.82	1.80	2.96	94.00	32.84	188.20	17.37	19.78	8.00	13.70
28	5.40	3.52	2.82	1.72	16.44	119.20	25.33	275.40	167.90	17.99	7.56	13.20
29	5.40		2.82	1.72	24.22	139.00	20.15	193.80	162.70	15.82	7.34	12.70
30	5.40		2.82	1.72	10.20	133.50	20.52	104.00	106.00	14.20	7.12	11.20
31	5.40		2.75		8.22		20.52	234.40		31.55		10.20

DAILY AVERAGE

PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1964

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.88	4.40	.19	.09	5.92	7.22	110.00	11.92	13.47	32.72	21.80	35.42
2	8.00	4.40	.19	.10	6.30	8.37	33.26	19.85	16.85	43.12	20.24	33.80
3	7.56	4.20	.16	.13	10.76	4.78	23.12	26.20	17.55	25.32	32.72	21.80
4	7.12	4.20	.13	.19	4.40	3.95	18.29	104.00	16.15	23.56	24.44	17.90
5	6.90	4.20	.13	.28	3.20	3.50	31.10	50.10	31.10	46.78	25.32	16.15
6	6.90	4.00	.13	.34	3.35	2.90	44.95	65.20	43.12	31.10	19.85	14.40
7	6.68	4.00	.10	.40	3.80	2.78	55.00	153.60	35.96	36.50	27.18	17.90
8	6.68	3.80	.10	.50	2.18	2.78	27.18	52.20	28.16	24.44	35.42	14.40
9	6.68	3.80	.10	.80	1.94	4.40	19.46	60.60	13.78	21.80	20.24	12.85
10	6.46	3.80	.09	1.30	1.62	2.42	16.85	44.34	30.61	32.72	17.90	12.85
11	6.46	3.66	.09	1.54	18.68	6.76	15.80	37.58	24.44	28.65	19.46	11.92
12	6.24	3.66	.09	1.82	12.23	9.95	42.51	48.70	17.90	22.68	17.90	11.30
13	6.24	3.66	.09	2.42	9.41	5.35	25.32	40.28	14.40	20.24	58.50	12.85
14	6.02	43.90	.09	1.82	8.14	4.97	15.10	33.26	17.20	37.58	67.60	11.92
15	6.02	29.40	.09	1.70	4.78	5.73	12.54	26.69	14.09	24.44	58.50	11.30
16	5.80	8.87	.09	1.62	29.14	6.11	11.30	20.63	24.88	19.85	46.78	10.76
17	5.40	4.40	.09	1.62	30.61	5.92	10.22	15.45	18.68	22.68	48.00	10.22
18	5.40	3.65	.09	1.94	20.24	4.40	9.95	14.75	35.42	45.56	45.56	10.22
19	5.40	2.78	.09	2.54	12.23	8.14	9.68	14.09	23.12	27.18	63.60	9.95
20	5.20	2.18	.09	2.78	20.24	24.44	9.41	13.78	59.90	37.58	97.00	9.95
21	5.00	1.46	.09	1.82	13.47	34.88	9.14	220.00	62.00	31.10	67.60	9.14
22	5.00	1.06	.09	1.94	19.46	16.85	8.60	96.00	55.70	29.63	58.50	9.14
23	5.00	.75	.09	2.42	133.80	12.23	8.14	38.66	63.60	22.68	62.00	20.24
24	5.00	.45	.09	4.97	52.20	13.16	7.91	44.95	57.10	29.63	53.60	16.50
25	4.80	.37	.08	3.50	21.80	14.40	7.68	32.18	45.56	31.10	32.18	13.16
26	4.80	.31	.08	2.78	21.80	14.75	7.68	28.16	27.18	28.16	62.00	11.30
27	4.60	.25	.08	2.06	13.16	10.22	7.45	24.44	40.82	22.68	130.20	10.22
28	4.60	.25	.08	5.35	10.49	15.80	7.45	21.41	375.40	22.68	119.20	9.68
29	4.60	.22	.08	22.68	10.76	390.20	9.14	18.68	198.00	21.02	89.00	27.18
30	4.40		.08	30.12	11.30	102.00	8.37	16.50	46.78	35.42	52.20	16.15
31	4.80		.08		13.16		17.20	14.75		33.80		12.23

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1965

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14,70	5,54	4,10	6,11	15,10	23,56	71,60	52,20	38,66	28,65	12,23	5,16
2	14,70	5,54	4,10	5,92	9,68	19,07	52,20	39,20	33,26	30,61	6,53	5,16
3	14,45	5,35	3,95	6,30	8,87	43,12	43,12	34,34	46,78	26,20	4,59	5,16
4	14,20	5,35	3,95	5,92	8,37	39,74	53,60	32,18	43,73	22,68	4,25	4,97
5	13,95	5,16	3,95	5,92	9,14	53,60	45,56	29,14	44,34	19,46	4,25	4,97
6	13,70	5,16	4,25	5,54	9,95	20,24	70,00	23,12	46,78	17,55	4,10	4,97
7	13,70	5,16	4,10	5,16	9,41	37,04	66,00	19,07	51,50	15,80	4,10	4,78
8	13,45	4,97	4,10	7,45	8,37	31,10	49,40	15,80	84,30	14,75	3,95	4,78
9	14,45	4,97	4,10	5,54	7,68	24,44	59,20	30,61	49,40	14,40	3,95	4,78
10	24,22	4,97	3,95	6,90	7,68	16,50	45,56	29,63	37,58	14,09	3,95	4,78
11	22,00	4,97	3,95	9,14	8,37	19,85	57,10	48,00	57,80	35,96	3,80	4,59
12	16,75	4,78	3,80	8,14	7,91	18,68	111,00	54,30	56,40	31,10	3,80	4,59
13	15,20	4,78	3,80	9,14	11,61	43,12	78,00	30,12	78,00	79,80	3,80	4,59
14	14,70	4,78	3,80	8,60	11,03	43,73	57,10	25,32	15,80	52,20	3,80	4,59
15	13,70	4,78	3,80	8,37	10,22	82,50	78,00	36,50	45,56	28,65	3,80	4,40
16	9,95	4,78	3,80	6,76	8,60	64,40	82,50	33,26	46,78	44,95	3,80	4,40
17	9,68	4,78	4,40	6,30	7,45	96,00	63,60	25,23	57,80	37,18	3,80	4,40
18	9,68	4,78	2,30	5,92	10,22	72,40	64,40	36,50	57,80	20,63	5,35	4,25
19	9,68	4,59	4,10	5,73	10,76	23,12	83,40	48,00	44,95	17,20	11,03	4,25
20	9,14	4,59	3,95	5,54	15,45	22,68	146,20	45,56	36,50	31,10	5,92	4,25
21	8,87	4,59	3,95	5,16	17,90	33,80	135,70	37,58	31,10	39,20	5,16	4,25
22	8,60	4,40	3,95	7,91	46,78	102,00	54,30	34,34	30,12	41,36	4,97	4,10
23	7,91	4,40	4,70	10,22	92,00	102,00	57,10	31,64	24,44	26,20	4,78	4,10
24	7,68	4,40	4,40	8,60	92,00	74,80	108,00	77,20	21,02	18,68	4,78	4,10
25	6,90	4,25	4,25	7,91	76,40	48,70	116,00	82,50	19,46	12,54	4,59	4,10
26	6,76	4,10	4,10	6,90	33,80	39,74	90,00	65,20	17,20	10,22	26,20	3,95
27	6,53	4,10	4,10	8,37	36,50	32,18	61,30	55,70	15,80	7,68	36,50	3,95
28	6,11	4,10	3,95	7,68	20,24	27,18	38,66	46,78	14,40	6,30	5,54	3,95
29	5,92		4,78	6,76	28,65	38,12	30,61	41,90	30,12	5,54	5,16	3,80
30	5,73		5,35	6,11	55,00	33,80	38,66	38,66	48,00	4,59	5,54	3,88
31	5,54		4,25		30,61		64,40	44,95		33,26		3,80

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1966

ARCHIVE F1 DISCH. M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3,80	-	,90	,60	,55	-	38,66	17,90	30,12	21,80	17,90	19,85
2	3.80	-	.90	.60	1.62	-	26.69	11.30	31.10	21.80	17.90	19.07
3	3,65	-	,90	,55	1,22	-	22,68	8,60	37,58	28,65	17,20	18,68
4	3.65	-	.88	.55	1.06	-	36.50	21.41	41.90	19.85	17.20	18.68
5	3,50	-	,88	,55	1,30	-	48,00	29,14	28,16	17,90	16,85	18,68
6	3.50	-	.88	.55	1.38	-	30.61	22.68	35.96	17.90	16.85	18.29
7	3,50	-	,88	,50	1,94	-	16,15	28,16	33,80	22,68	18,68	18,29
8	3.50	-	.88	.45	2.66	-	33.26	39.20	24.44	17.90	46.78	17.90
9	3,50	-	,80	,45	3,65	-	36,50	40,28	25,32	17,90	54,30	17,55
10	3.35	-	.80	.40	4.59	-	17.90	26.20	12.85	17.90	36.50	17.20
11	3,35	-	,80	,40	2,42	-	52,20	40,82	11,30	17,90	33,26	17,20
12	3.35	-	.80	.40	1.94	-	41.90	34.34	12.85	17.90	39.20	16.85
13	3,35	-	,80	11,30	5,16	-	50,80	19,85	17,90	17,90	34,34	16,50
14	3.20	-	.80	5.16	16.50	-	53.60	22.68	21.02	21.02	33.80	16.50
15	3,20	-	,75	3,50	31,10	-	58,50	24,00	24,44	17,90	59,20	16,50
16	3.20	-	.75	2.06	54.30	-	87.00	19.46	21.02	27.18	40.82	15.80
17	3,05	-	,75	1,54	461,80	-	68,40	26,20	44,95	21,80	35,42	15,80
18	3.05	-	.75	1.38	72.40	-	27.67	21.41	51.50	17.90	37.58	17.20
19	3,05	-	,70	1,22	53,60	-	17,20	21,02	45,56	17,90	39,74	15,10
20	3.05	-	.70	1.06	70.80	-	24.88	8.60	41.90	24.00	34.88	14.40
21	2,90	-	,70	,98	55,70	-	52,20	8,60	99,00	21,02	44,34	14,40
22	2.90	-	.70	.88	57.10	21.80	31.10	8.60	42.51	17.90	41.90	14.40
23	2,78	-	,70	,80	50,80	23,56	92,00	11,30	26,20	49,40	62,00	14,09
24	2.78	-	.65	.80	37.04	23.12	42.51	13.47	32.72	31.10	44.34	13.78
25	2,78	-	,65	,75	30,61	39,20	21,80	11,61	19,85	25,32	38,66	13,78
26	2.78	-	.65	.75	37.04	50.10	34.88	11.30	17.90	23.56	34.34	13.78
27	2,78	-	,65	,70	33,80	81,60	41,90	10,40	18,68	18,68	29,63	13,47
28	2.66	-	.65	.70	21.41	54.30	49.40	10.76	17.90	36.50	26.69	13.47
29	2,66		,65	,65	21,02	19,07	29,14	17,20	18,29	21,80	24,44	13,47
30	2.66		.65	.65	20.63	-	26.20	32.72	36.50	19.46	21.80	13.16
31	2,54		,60		20,63		22,24	13,78		17,90		13,16

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER
ARCHIVE F1 DISCH. M3/S

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1967

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12,54	9,14	9,14	5,35	4,40	6,90	21,80	39,74	30,12	74,80	17,90	11,50
2	12.54	9.14	9.14	5.35	4.40	7.45	31.64	40.28	55.70	87.00	17.90	11.30
3	12,54	8,60	8.60	5,35	4,40	7,68	27,67	51,50	34,88	84,30	25,32	11,30
4	11.30	8.60	8.60	5.35	4.40	7.22	31.10	52.90	48.00	40.82	226.40	9.68
5	11,30	8,60	8,60	5,35	4,40	6,30	24,44	54,30	34,34	31,10	48,70	9,68
6	12.54	7.68	7.91	5.35	4.40	5.73	74.00	71.60	62.00	25.32	41.36	10.49
7	11,30	7,68	7,91	4,97	4,40	5,73	111,00	59,20	31,64	20,63	64,40	10,49
8	14.09	6.90	7.91	4.97	4.40	5.73	41.90	52.90	51.50	24.44	39.20	10.22
9	12,54	6,90	7,68	4,97	4,40	31,64	40,28	61,30	51,50	17,55	25,12	11,30
10	11.30	6.30	7.68	4.97	5.16	48.00	82.50	46.78	59.90	15.80	18.29	10.49
11	10,49	6,30	7,22	4,97	4,40	19,85	47,39	56,40	36,50	40,82	24,00	10,49
12	10.49	7.22	7.22	4.40	4.40	13.16	36.50	90.00	37.58	21.02	17.90	10.76
13	10.49	9,95	7,22	4.40	4,40	10,22	32,18	112,00	25,32	44,95	17,55	9,95
14	10.22	9.41	6.53	4.40	4.40	4.59	27.67	110.00	24.88	53.60	13.16	9.95
15	11,03	8,60	6,53	4,40	4,40	14,40	28,16	64,40	18,68	50,80	13,16	9,95
16	10.76	7.45	6.53	4.40	4.40	16.15	28.16	48.00	21.80	108.00	12.25	8.60
17	10,22	7,45	6,53	4,40	4,40	17,90	24,00	128,00	27,18	67,60	11,92	8,60
18	11.61	8.14	6.53	4.40	4.40	11.92	22.68	237.70	21.80	118.10	11.50	8.60
19	16.50	7.91	6.30	4.40	4.59	12.85	19.85	254.70	21.41	42.51	11.30	8.60
20	33.80	11.30	6.30	4.40	4.97	16.15	41.36	64.40	21.02	26.20	11.30	8.14
21	15,10	10,22	6,30	4,40	5,54	24,00	35,42	35,42	47,39	18,29	12,54	8,14
22	14.40	10.22	6.30	4.40	4.97	25.76	49.40	33.80	25.32	67.60	12.85	8.14
23	11.30	9.68	6.53	4.40	4.97	29.14	46.17	57.10	21.80	41.36	12.85	7.91
24	11.30	9.68	5.92	4.40	4.97	59.90	50.80	46.78	21.41	32.72	14.40	7.91
25	11.30	9.68	5.92	4.40	4.97	46.17	87.00	55.00	29.14	33.26	13.78	7.91
26	11.30	9.14	5.92	4.40	4.97	25.32	66.00	31.10	30.12	20.24	12.23	7.45
27	11,03	9,14	5,73	4,40	4,40	19,85	78,90	70,00	25,76	16,85	11,61	7,45
28	11.03	9.14	5.54	4.40	14.09	50.10	78.00	33.80	61.30	14.75	13.78	7.45
29	9,95		5,54	5,35	6,53	31,10	103,00	28,16	46,78	29,63	18,23	7,45
30	9.95		5.54	4.97	7.45	34.08	103.00	40.28	71.60	16.85	11.30	7.22
31	9,14		5,35		6,30		53,60	35,42		14,40		7,22

DAILY AVERAGE

PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1968

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7,22	7,91	9,41	7,45	8,60	39,74	14,40	31,64	17,37	17,06	13,45	11,03
2	7,22	7,91	9,41	7,45	19,85	44,34	13,78	73,20	17,37	17,06	13,45	5,92
3	7,22	9,41	9,41	7,45	21,41	45,56	13,78	60,60	17,06	16,75	12,20	3,20
4	7,22	8,37	8,87	7,45	22,68	40,28	13,78	44,95	27,55	16,75	12,20	1,70
5	7,22	8,14	8,87	7,45	13,78	35,42	13,47	38,12	27,18	16,75	11,45	1,06
6	7,22	8,14	8,87	7,45	16,15	31,10	13,16	33,80	25,33	16,75	11,45	,90
7	7,22	8,14	8,60	7,45	13,47	27,18	12,85	33,80	29,03	16,44	10,70	,90
8	7,22	7,91	8,60	7,45	31,10	26,69	12,85	105,00	25,33	16,44	9,76	,90
9	7,22	7,91	8,37	7,45	31,10	22,24	12,85	70,80	24,22	16,44	9,54	,90
10	7,22	7,91	8,37	7,45	30,12	28,16	17,90	42,51	23,48	16,44	9,10	,90
11	7,22	7,91	8,14	7,45	31,64	46,17	28,16	35,42	22,74	62,00	8,88	,90
12	7,22	7,91	8,14	7,45	29,63	37,04	24,88	30,16	22,37	39,82	8,66	,90
13	7,22	7,91	8,14	7,45	26,20	38,12	21,80	32,18	22,00	107,00	7,34	,90
14	10,22	7,91	8,14	7,45	23,56	36,50	18,68	24,44	21,63	166,60	7,12	,90
15	8,60	7,86	7,91	7,45	21,02	35,96	19,85	21,41	21,63	128,00	6,46	,90
16	8,60	7,68	7,91	7,45	19,46	50,10	32,18	19,46	21,26	111,00	6,02	,90
17	8,60	7,68	7,91	7,45	17,55	39,74	25,76	77,20	20,89	62,80	6,02	,90
18	8,37	7,68	7,68	7,45	15,80	31,10	22,24	410,00	20,52	47,47	6,02	,90
19	8,37	7,68	7,68	7,45	14,75	31,64	19,07	151,00	20,52	45,94	6,02	,90
20	8,37	10,76	7,68	7,45	14,09	31,64	15,45	107,00	20,15	37,78	14,95	,90
21	8,37	10,76	7,45	7,45	35,42	26,69	13,16	70,00	22,74	32,41	12,20	,90
22	8,37	10,49	7,45	7,45	44,95	22,24	22,68	52,60	20,52	28,92	9,98	,90
23	8,37	10,49	7,45	7,45	33,80	20,24	38,12	40,84	18,67	24,59	7,56	,90
24	8,14	10,49	7,45	7,45	28,16	19,85	52,20	32,84	17,99	21,26	38,80	,90
25	8,14	10,22	7,45	7,45	33,26	19,07	45,56	27,92	25,23	19,04	58,50	,88
26	8,14	10,22	7,45	7,45	25,76	18,68	39,20	24,22	24,59	18,30	31,10	,88
27	8,14	10,22	7,45	8,37	23,56	18,29	47,39	22,74	21,63	18,30	24,00	,88
28	7,91	10,22	7,45	8,14	21,41	17,90	47,39	21,26	19,73	17,99	21,02	,88
29	7,91	9,81	7,45	9,68	46,17	16,85	41,36	18,67	17,68	17,99	17,90	,88
30	7,91		7,45	8,60	37,58	14,75	37,58	17,68	17,06	17,68	15,45	,88
31	7,91		7,45		42,51		34,34	17,37		15,82		,88

DAILY AVERAGE

PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER
ARCHIVE F1

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1969

DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.88	2.78	1.54	1.62	1.62	-	30.61	91.60	61.40	97.00	57.00	43.00
2	.88	2.78	1.62	1.62	1.62	-	21.80	109.00	61.00	91.00	57.00	43.00
3	.88	2.78	1.70	1.62	1.62	-	19.07	94.00	61.00	85.00	57.00	48.40
4	.88	2.66	1.70	1.62	1.62	-	18.68	66.50	82.50	80.00	56.20	43.00
5	.88	2.66	1.70	1.62	1.62	-	22.24	68.00	108.00	77.00	56.20	43.00
6	.88	2.66	1.70	1.62	1.62	-	21.80	55.80	103.00	70.00	56.20	43.00
7	.88	2.66	1.70	1.62	1.62	-	23.12	65.50	113.20	67.50	56.20	43.00
8	.88	2.54	1.70	1.62	1.62	-	177.00	62.20	109.00	65.00	55.40	42.40
9	.88	2.54	1.70	1.62	1.62	-	115.00	70.00	109.00	65.00	55.40	42.40
10	.88	2.54	1.70	1.62	1.70	-	101.80	61.80	106.60	61.00	55.40	42.40
11	.88	2.54	1.70	1.62	1.70	-	88.00	71.50	109.60	61.00	55.40	57.40
12	.88	2.42	1.70	1.62	1.94	-	77.50	71.50	115.00	61.00	54.20	53.80
13	.88	2.42	1.70	1.62	1.70	-	85.00	65.00	115.00	61.00	54.20	54.60
14	.88	2.30	1.70	1.62	2.30	-	77.00	61.40	113.20	61.00	54.20	52.20
15	.88	2.30	1.70	1.62	2.30	-	118.00	80.00	109.00	61.00	54.20	56.20
16	.88	2.30	1.70	1.62	2.18	-	81.50	80.00	106.60	61.00	54.20	52.20
17	2.06	2.30	1.62	1.62	2.18	-	91.00	75.00	105.40	59.80	51.40	50.60
18	2.06	2.18	1.62	1.62	2.30	-	88.00	75.50	103.00	59.80	51.40	50.60
19	2.06	2.18	1.62	1.62	2.78	-	103.00	55.80	123.40	59.80	56.20	46.00
20	3.05	2.06	1.62	1.62	2.30	-	85.00	56.20	115.00	59.80	51.40	46.00
21	3.05	2.06	1.62	1.62	1.94	-	85.00	54.60	109.60	59.80	50.20	46.00
22	3.05	2.06	1.62	1.62	1.94	-	76.50	59.80	116.80	59.80	50.20	42.40
23	3.05	1.82	1.62	1.62	1.70	-	88.00	57.00	125.20	59.00	46.00	51.00
24	3.05	1.82	1.62	1.62	1.94	-	75.00	55.80	118.00	59.00	56.20	46.00
25	3.05	1.62	1.62	1.62	2.66	-	74.50	55.40	118.60	58.60	47.50	46.00
26	3.05	1.62	1.62	1.62	2.42	-	88.00	63.00	113.20	59.00	46.00	44.80
27	3.05	1.46	1.62	1.62	2.18	-	164.50	61.40	109.00	59.00	45.10	44.80
28	2.90	1.46	1.62	1.62	2.30	-	127.00	71.00	107.20	59.00	44.50	44.80
29	2.90		1.62	1.62	2.42	-	75.00	72.50	103.00	58.20	44.50	43.60
30	2.78		1.62	1.62	2.54	-	99.40	64.20	98.80	58.20	44.50	43.60
31	2.78		1.62		2.54		90.40	62.60		58.20		43.60

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1970

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	43,00	40,60	40,00	40,00	40,00	48,10	55,40	65,00	38,00	42,70	45,10	39,20
2	43.00	40.60	40.00	40.00	46.60	55.00	48.40	92.80	37.60	42.70	44.50	39.20
3	42,40	40,60	40,00	40,00	41,80	51,80	47,20	83,00	37,60	42,70	44,20	39,00
4	40.40	40.60	40.00	40.00	43.00	47.50	46.30	94.60	56.20	42.40	43.60	39.00
5	42,40	40,60	40,00	40,00	41,20	43,00	45,40	85,00	51,00	42,40	43,30	39,00
6	42.40	40.60	40.00	40.00	40.30	44.80	44.50	115.00	43.60	42.40	43.00	38.80
7	42,40	40,60	40,00	40,00	40,00	49,00	43,30	86,20	40,00	42,10	43,00	38,80
8	40.40	40.60	40.00	40.00	51.00	57.00	41.80	89.20	39.60	42.10	42.40	38.80
9	42,40	40,60	40,00	40,00	50,20	53,40	41,20	98,20	85,00	42,10	42,40	38,60
10	42.40	40.60	40.00	40.00	43.30	57.40	65.00	106.00	57.00	42.10	41.80	38.60
11	40,40	40,60	40,00	40,00	40,60	63,80	53,80	97,00	95,20	42,10	41,80	38,60
12	42.40	40.00	40.00	40.00	40.60	127.00	46.90	91.00	56.60	50.60	41.50	38.60
13	42,40	40,00	40,00	40,00	40,30	118,00	46,00	109,00	50,20	53,00	41,50	38,60
14	42.40	40.00	40.00	40.00	40.30	65.00	55.00	120.40	55.00	129.40	40.90	38.60
15	42,40	40,00	40,00	40,00	63,00	82,00	49,00	88,00	46,00	101,20	40,90	38,60
16	42.40	40.00	40.00	40.00	58.20	70.00	58.60	103.00	41.80	92.80	40.90	38.60
17	42,40	40,00	40,00	40,00	50,60	88,00	84,00	77,50	39,60	83,00	40,30	38,60
18	41.80	40.00	40.00	40.00	46.30	91.00	94.00	69.00	48.10	76.50	40.30	38.60
19	41,50	40,00	40,00	40,00	44,80	94,00	75,00	63,40	113,80	69,50	39,60	38,60
20	41.50	40.00	40.00	40.00	42.40	86.80	59.00	57.00	53.40	62.60	39.60	38.60
21	41,50	40,00	40,00	40,00	40,60	70,00	46,90	58,10	46,30	59,00	39,60	38,60
22	41.50	40.00	40.00	40.00	49.00	91.00	42.70	48.10	42.40	51.40	39.60	38.60
23	41,50	40,00	40,00	40,00	42,40	82,50	85,00	43,00	40,00	46,60	39,40	38,60
24	41.50	40.00	40.00	40.00	40.00	75.00	55.00	38.60	40.00	46.00	39.40	38.40
25	41,50	40,00	40,00	40,00	51,00	109,00	44,80	37,80	39,80	46,00	39,40	38,40
26	41.50	40.00	40.00	40.00	43.60	82.50	47.50	74.00	48.10	46.00	39.20	38.40
27	41,50	40,00	40,00	40,00	40,90	80,00	45,40	62,20	41,80	45,40	39,20	38,40
28	41.50	40.00	40.00	40.00	56.20	106.00	59.00	40.90	72.00	45.40	39.20	38.40
29	40,60		40,00	40,00	57,80	100,60	53,80	39,20	90,40	45,40	39,20	38,20
30	40.60		40.00	40.00	57.80	75.00	50.60	38.60	49.00	45.40	39.20	38.20
31	40,60		40,00		55,40		49,80	38,00		43,60		38,20

DAILY AVERAGE PROCESSED 81/06/26.

STNO 8203 - 0
NAME PANGPANG
MAIN RIVER SIBALOM
RIVER

LATITUDE N 10,48,30
LONGITUDE E 121,59,15
UTM
CATCHMENT 635.00 KM2

YEAR 1971

ARCHIVE F1 DISCH, M3/S

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,48	1,48	1,40	1,32	2,28	1,92	19,41	8,00	5,00	9,90	5,00	7,34
2	1.48	1.48	1.40	1.32	2.28	1.92	17.99	7.78	5.00	6.02	5.00	7.12
3	1,48	1,48	1,40	1,32	2,28	1,92	17,99	7,78	5,00	5,00	4,40	7,12
4	1.48	1.48	1.40	1.32	2.16	1.80	17.68	10.20	5.00	205.00	4.80	6.90
5	1,48	1,48	1,40	1,32	2,16	1,80	17,68	7,78	4,80	74,80	4,80	6,68
6	1.48	1.40	1.40	1.32	2.16	1.80	17.68	7.34	4.80	22.37	4.80	6.68
7	1,48	1,40	1,40	1,32	2,16	1,80	62,00	7,12	4,80	13,45	4,60	6,46
8	1.48	1.40	1.40	1.32	2.04	2.28	48.49	11.95	4.80	53.80	4.60	6.24
9	1,48	1,40	1,40	2,04	2,04	2,04	64,40	38,80	4,80	66,80	4,60	6,22
10	1.48	1.40	1.40	2.28	2.04	1.92	59.20	15.20	4.60	95.00	4.40	6.02
11	1,48	1,40	1,40	2,40	2,04	3,52	37,78	14,70	4,60	97,00	4,40	5,60
12	1.48	1.40	1.40	2.40	1.92	10.20	31.12	14.20	4.60	23.11	4.40	5.60
13	1,48	1,40	1,40	2,40	1,92	3,52	49,00	13,70	4,60	12,70	4,40	5,40
14	1.48	1.40	1.40	2.20	1.92	27.55	38.29	12.20	4.40	9.76	4.40	5.40
15	1,48	1,40	1,40	2,16	1,92	74,00	63,60	11,95	4,40	8,00	4,40	5,40
16	1.48	1.40	1.40	2.28	1.92	23.11	25.70	11.95	4.40	6.90	4.20	5.40
17	1,48	1,40	1,40	2,28	2,40	15,20	17,68	9,32	4,40	6,24	4,20	5,20
18	1.48	1.40	1.40	2.28	2.54	10.70	46.45	8.66	4.40	6.24	4.20	5.20
19	1,48	1,40	1,40	2,28	2,54	8,00	87,00	8,00	16,75	6,02	4,20	5,20
20	1.48	1.40	1.40	2.28	2.40	5.80	133.50	7.34	5.20	6.02	10.20	5.20
21	1,48	1,40	1,40	2,16	2,82	5,00	167,90	6,90	8,44	5,80	10,40	5,00
22	1.48	1.40	1.40	2.16	2.82	4.80	49.00	6.46	52.00	5.80	8.66	5.00
23	1,48	1,40	1,52	2,16	2,54	4,80	27,18	6,02	41,86	5,60	8,44	5,00
24	1.48	1.40	1.32	2.16	2.40	4.20	17.68	5.80	17.68	5.60	8.22	5.00
25	1,48	1,40	1,32	11,45	2,40	95,00	15,51	5,40	11,95	5,60	8,22	5,00
26	1.48	1.40	1.32	2.82	2.28	76.40	13.95	5.40	9.32	5.40	7.78	5.00
27	1,48	1,40	1,32	2,40	2,16	30,69	11,45	5,20	7,56	5,40	7,56	4,80
28	1.48	1.40	1.32	2.40	2.16	23.48	10.45	5.20	5.80	5.20	7.56	4.80
29	1,48		1,32	2,28	2,16	22,00	9,76	5,20	16,44	5,20	7,34	4,80
30	1.48		1.32	2.28	2.04	20.15	8.88	5.00	11.45	5.20	7.34	4.80
31	1,48		1,32		2,04		8,44	5,00		5,00		4,80

MONTHLY AVERAGE PROCESSED 81/06/26.

STNO 8201 0 VALDERAMA
MAIN RIVER BACONG
RIVER

CATCHMENT 33.5 KM2 M3/SEC

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	-	-
1959	1.53	1.22	1.68	.44	.91	3.91	7.24	7.84	3.77	5.04	5.80	6.16	3.82
1960	2.88	1.62	.94	.80	1.68	3.98	3.06	5.85	3.00	9.33	4.88	2.05	3.36
1961	2.80	2.23	.93	.69	2.61	3.61	5.39	8.70	4.58	3.99	1.62	1.79	3.26
1962	1.38	2.02	-	-	-	-	-	-	-	-	-	-	-
1963	3.72	2.54	2.30	2.29	2.96	2.49	5.70	5.14	4.59	2.27	6.68	3.50	3.69
1964	2.11	1.36	1.06	.30	.93	2.88	3.12	5.24	3.66	1.88	4.84	4.66	2.68
1965	3.07	2.14	1.22	.67	1.48	3.13	5.24	4.39	5.53	3.19	3.26	6.47	3.33
1966	1.54	-	-	-	-	-	-	-	-	-	-	-	-
1967	8.09	3.33	1.86	.62	.44	2.67	6.14	6.20	5.31	5.29	5.40	2.38	3.99
1968	4.53	1.16	.79	.32	.61	2.61	2.96	5.98	2.92	3.17	2.89	1.48	2.46
1969	1.04	.34	.19	.27	.77	1.22	4.53	3.33	1.34	2.26	2.27	4.06	1.82
1970	3.62	3.32	1.78	.61	.27	.61	2.99	3.55	2.18	4.89	4.44	6.49	2.90
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-

MONTHLY AVERAGE PROCESSED 81/06/26.

DATA FOR PERIOD 1/ 1 1959 -30/ 8 1971

STNO 8201 0 VALDERAMA

CATCHMENT 33.5 KM2

M3/SEC

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MEAN	3.03	1.93	1.27	.70	1.26	2.71	4.64	5.62	3.69	4.13	4.21	3.90	3.13
MAX	8.09	3.33	2.30	2.29	2.96	3.98	7.24	8.70	5.53	9.33	6.68	6.49	3.99
MIN	1.04	.34	.19	.27	.27	.61	2.96	3.33	1.34	1.88	1.62	1.48	1.82

L/SEC/KM2

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MEAN	90.30	57.73	38.00	20.87	37.70	80.95	138.39	167.82	110.06	123.31	125.58	116.51	93.40
MAX	241.49	99.40	68.57	68.36	88.30	118.93	216.15	259.61	165.10	278.60	199.52	193.67	119.01
MIN	30.96	10.15	5.55	8.00	7.91	18.21	88.24	99.43	40.00	55.97	48.21	44.09	54.30

MONTHLY AVERAGE PROCESSED 81/06/26.

STNO 8202 0 TAGUBTUD
MAIN RIVER PALIUAN
RIVER

CATCHMENT 176. KM2 M3/SEC

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	1.37	1.49	2.20	4.40	43.37	75.65	129.32	63.99	15.47	33.90	-
1957	26.06	3.41	1.93	2.04	1.64	5.50	38.20	93.76	191.23	63.47	16.01	10.96	37.96
1958	8.68	7.30	7.47	8.19	5.01	16.02	60.78	51.12	67.43	68.43	36.09	7.95	28.85
1959	5.79	4.81	5.51	4.11	4.14	6.69	53.05	90.50	40.85	54.57	51.15	26.59	29.22
1960	21.84	6.21	4.81	8.43	33.06	-	-	-	-	-	13.65	6.37	-
1961	4.71	4.05	2.89	2.89	9.92	42.29	59.74	-	-	-	-	18.97	-
1962	17.26	31.02	35.75	18.40	-	-	-	-	-	-	-	-	-
1963	-	-	-	-	3.34	100.69	37.99	93.10	12.13	19.54	11.08	18.97	-
1964	8.11	6.02	5.10	4.31	34.68	45.76	35.52	59.57	3.46	11.05	87.58	11.48	26.12
1965	2.59	1.59	7.10	6.58	23.18	43.48	53.57	71.47	39.34	12.70	6.24	4.37	22.84
1966	4.33	.85	.52	.44	78.96	35.40	15.60	9.21	2.46	4.19	11.88	9.47	14.57
1967	39.21	4.36	3.31	1.87	38.27	62.56	90.34	-	-	-	-	1.76	-
1968	1.07	.67	.57	.48	.56	2.89	-	-	133.04	96.32	-	3.55	-
1969	2.62	1.84	1.63	1.46	1.93	2.02	99.34	21.60	11.92	9.42	2.53	1.91	13.37
1970	1.68	1.36	1.41	1.34	1.75	2.14	12.13	12.67	17.43	157.51	12.25	4.12	19.07
1971	-	-	-	-	-	-	-	-	-	-	-	-	-
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-

MONTHLY AVERAGE PROCESSED 81/06/26.

DATA FOR PERIOD 1/ 3 1956 -31/12 1970

STNO 8202 0 TAGUDTUD

CATCHMENT 176. KM2

M3/SEC

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MEAN	11.07	5.65	5.67	4.43	17.05	28.45	49.97	57.86	58.96	51.02	23.99	11.45	24.00
MAX	39.21	31.02	35.75	18.40	78.96	100.69	99.34	93.76	191.23	157.51	87.58	33.90	37.96
MIN	1.07	.67	.52	.44	.56	2.02	12.13	9.21	2.46	4.19	2.53	1.76	13.37

L/SEC/KM2

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MEAN	62.91	32.11	32.21	25.16	96.85	161.63	283.93	328.77	335.02	289.86	136.32	65.08	136.36
MAX	222.80	176.23	203.10	104.55	448.62	572.11	564.41	532.72	1086.55	894.91	497.61	192.63	215.68
MIN	6.07	3.83	2.97	2.49	3.16	11.47	68.93	52.31	13.97	23.81	14.35	9.98	75.98

MONTHLY AVERAGE PROCESSED 81/06/26.

STNO 8203 0 PANGPANG
MAIN RIVER SIBALOM
RIVER

CATCHMENT 635. KM2 M3/SEC

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1951	-	-	-	-	-	-	-	-	-	-	-	-	-
1952	-	-	-	-	-	-	-	-	-	-	-	-	-
1953	-	-	-	-	-	-	-	-	-	-	-	-	-
1954	-	-	-	-	-	-	-	-	-	-	-	-	-
1955	-	-	-	-	-	-	-	-	-	-	-	-	-
1956	-	-	-	-	-	-	-	-	-	-	-	-	-
1957	-	-	-	-	-	-	-	-	-	-	-	-	-
1958	-	-	-	-	-	-	-	-	-	-	-	4.84	-
1959	2.89	1.95	3.11	2.92	3.89	9.38	-	312.65	-	168.57	162.87	104.25	-
1960	69.03	55.77	59.77	73.10	107.32	30.61	28.16	89.73	43.78	134.70	9.34	6.46	59.22
1961	4.88	4.12	3.23	3.93	18.63	59.72	40.39	60.00	50.31	40.34	15.93	8.31	25.92
1962	6.24	6.40	6.38	9.14	11.13	27.43	110.09	76.42	33.47	21.05	37.07	10.55	29.84
1963	5.74	4.63	3.03	2.13	4.29	46.92	32.22	94.61	53.44	41.06	15.59	17.69	26.93
1964	5.89	5.42	.10	3.39	17.12	24.98	20.64	45.45	48.96	29.43	49.82	14.93	22.21
1965	11.57	4.79	4.07	7.00	23.41	44.24	70.07	40.15	40.85	25.44	6.80	4.45	23.71
1966	3.16	-	.76	1.36	37.93	-	39.76	20.42	30.77	22.20	33.88	16.03	-
1967	12.37	8.58	6.92	4.74	5.12	20.50	49.86	69.77	36.55	41.98	26.74	9.17	24.51
1968	7.88	8.78	8.07	7.62	25.63	30.44	25.35	57.70	21.78	38.95	14.24	1.49	20.78
1969	1.81	2.27	1.65	1.62	2.02	-	80.27	68.18	104.98	64.89	52.45	46.77	-
1970	41.76	40.24	40.00	40.00	46.43	75.47	54.20	74.48	53.17	54.99	41.13	38.63	50.10
1971	1.48	1.41	1.38	2.34	2.22	16.24	39.12	9.53	9.63	25.61	5.92	5.63	10.13
1972	-	-	-	-	-	-	-	-	-	-	-	-	-
1973	-	-	-	-	-	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-	-	-	-	-

MONTHLY AVERAGE PROCESSED 81/06/26.

DATA FOR PERIOD 29/11 1958 -31/12 1971

STNO 8203 0 PANGPANG

CATCHMENT 635. KM2

M3/SEC

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MEAN	13.44	12.03	10.65	12.25	23.47	35.09	49.18	78.39	43.97	54.55	36.29	20.66	29.33
MAX	69.03	55.77	59.77	73.10	107.32	75.47	110.09	312.65	104.98	168.57	162.87	104.25	59.22
MIN	1.48	1.41	.10	1.36	2.02	9.38	20.64	9.53	9.63	21.05	5.92	1.49	10.13

L/SEC/KM2

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
MEAN	21.16	18.94	16.77	19.29	36.96	55.25	77.44	123.45	69.25	85.91	57.15	32.53	46.20
MAX	108.71	87.83	94.12	115.13	169.00	118.86	173.36	492.36	165.32	265.46	256.49	164.17	93.27
MIN	2.33	2.23	.16	2.14	3.18	14.78	32.50	15.01	15.16	33.15	9.32	2.34	15.95