

CHAPTER THREE

DATA FOR THE STUDY

The streamflows data from Northern region in Thailand were chosen as the basis for the study. Ten streamflow records were collected from the Royal Irrigation Department (RID), Thailand (see Appendix A). The map of catchment is shown in Fig. (3.1). In order to make a proper comparison of streamflow generation models, it is necessary to have data from a wide range of variabilities. In addition, since the parameter estimates improve with the length of record, rivers with long records are selected. The length of record varies from 17 years to 54 years. The basic parameters of these rivers are given in Table 3.1

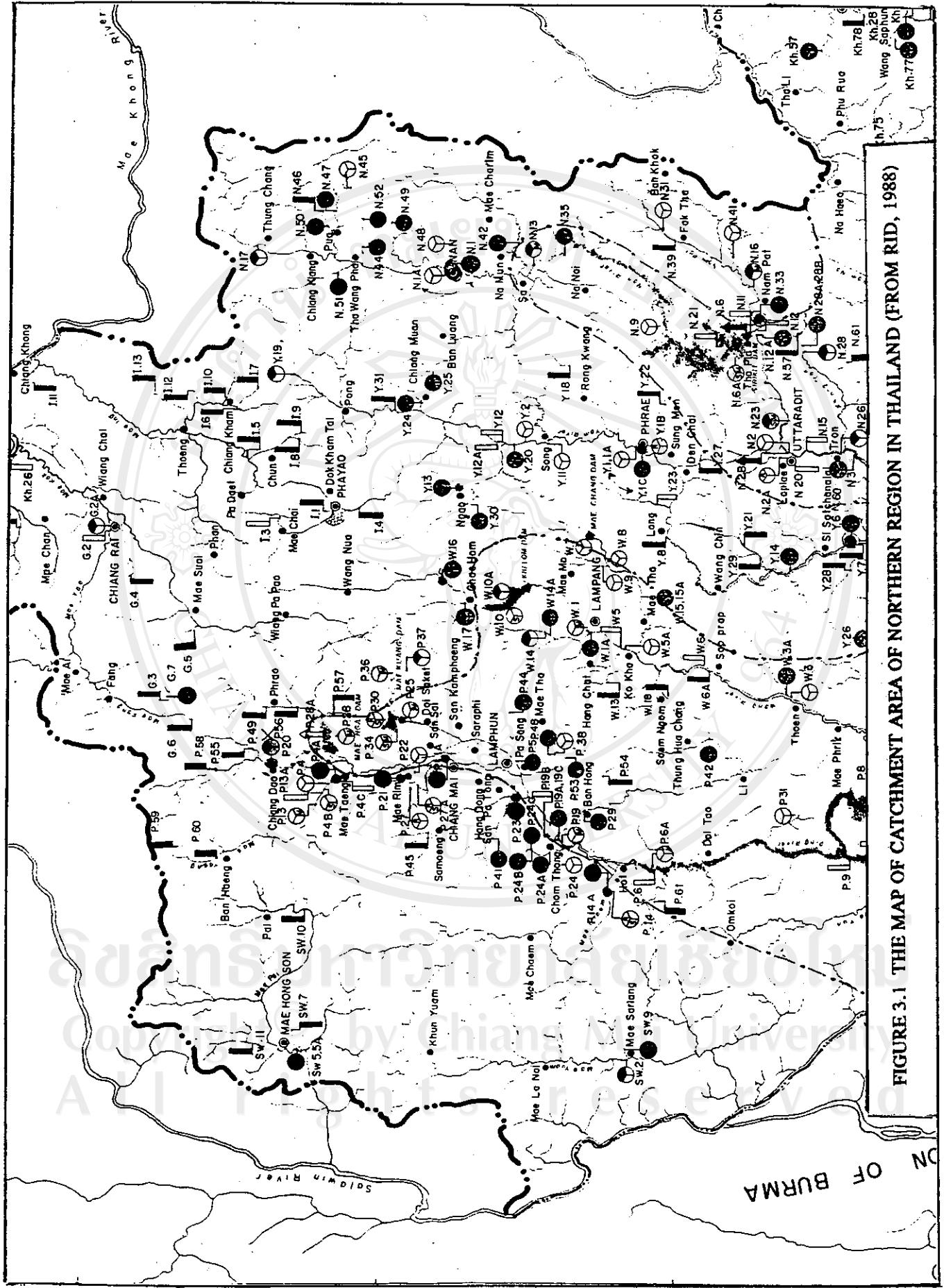


FIGURE 3.1 THE MAP OF CATCHMENT AREA OF NORTHERN REGION IN THAILAND (FROM RID, 1988)

NO.	RIVER NAME	GAUGING STATION NAME	CATCHMENT AREA (SQ. KM.)		LOCATION		RECORD(YEAR) From To	LENGTH OF YEAR	MEAN x 10^6 cu.m.	STD. DEV. x 10^6 cu.m.	COEFF. OF SKEWNESS	LAG ONE AUTO-CORR.	LAG TWO AUTO-CORR.	HURST COEFF. H
			LATITUDE	LONGITUDE	E.									
1	PING	P.1	6,355	18-47-09	99-00-29	1921	1977	54	2018.061	684.676	1.218	0.297	0.714	
2	WANG	W.16	1,284	18-48-12	98-38-45	1972	1988	17	255.085	113.692	1.466	-0.061	0.729	
3	YOM	Y.6	12,638	17-26-03	99-47-32	1952	1988	37	2631.718	1118.134	0.735	-0.068	0.694	
4	NAN	N.1	4,609	18-46-23	100-46-51	1969	1988	20	2655.370	1028.907	0.498	0.210	0.734	
5	MAE TAENG	P.4A	1,902	19-07-15	98-56-51	1955	1988	34	625.856	342.952	2.195	-0.108	0.689	
6	NAM MAE CHAEM	P.14	14,023	18-25-19	98-42-17	1954	1988	35	1145.244	362.210	0.894	0.377	0.815	
7	NAM MAE RIM	P.21	515	18-55-29	98-56-34	1954	1988	35	160.193	68.406	1.588	0.403	0.842	
8	NAM MAE KHAN	P.23	1,777	18-31-27	98-51-42	1955	1987	33	384.669	171.605	0.979	0.378	0.863	
9	NGAO	Y.13	382	18-45-06	99-58-53	1963	1987	25	96.617	40.637	0.150	0.293	0.781	
10	NAM PAT	N.33	2,463	17-43-05	100-34-32	1966	1988	23	395.580	239.624	1.815	-0.220	0.662	

TABLE 3.1 LIST OF RIVERS USED FOR ANNUAL STREAM FLOW GENERATION AND SOME OF THE HISTORICAL PARAMETERS OF ANNUAL FLOWS.