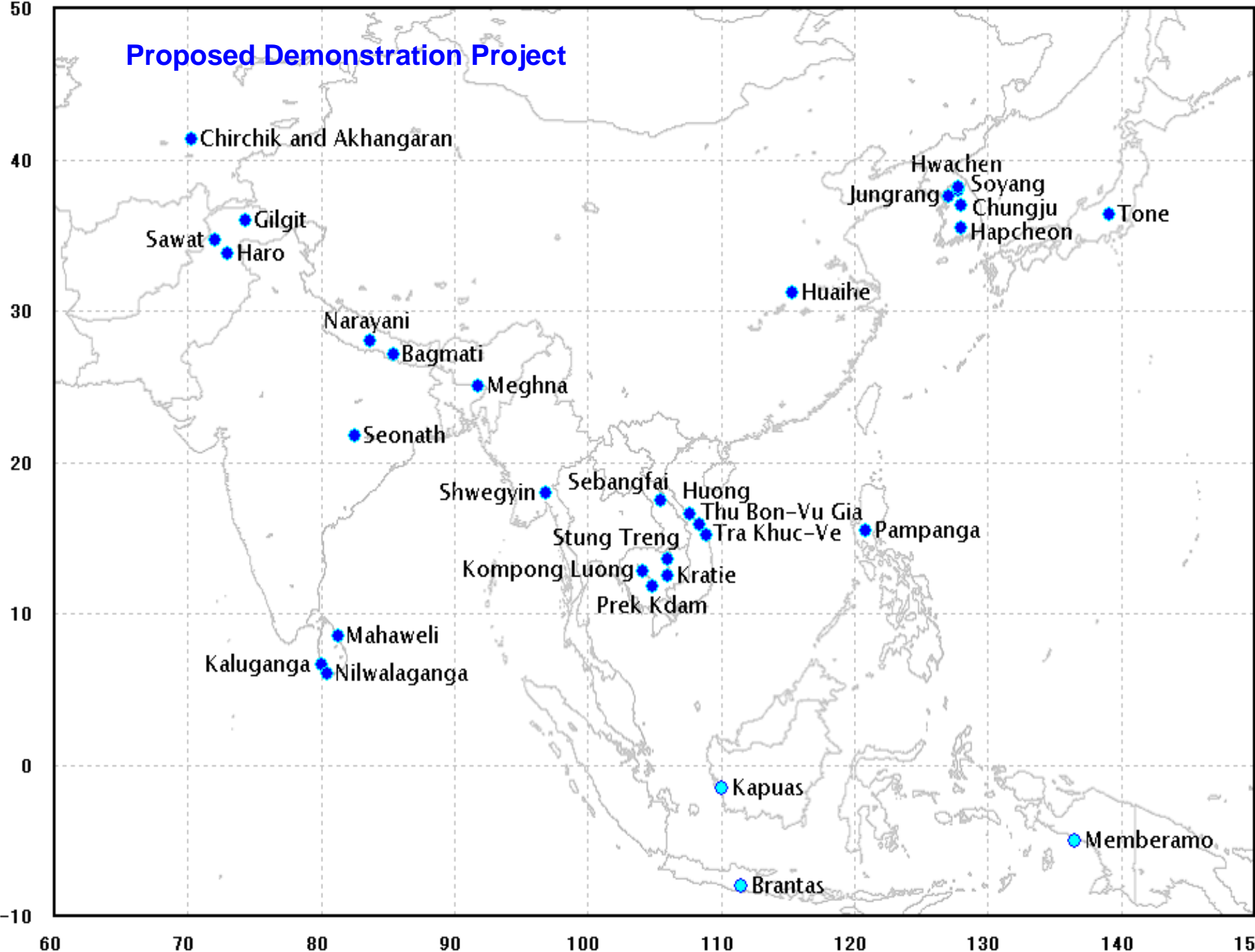


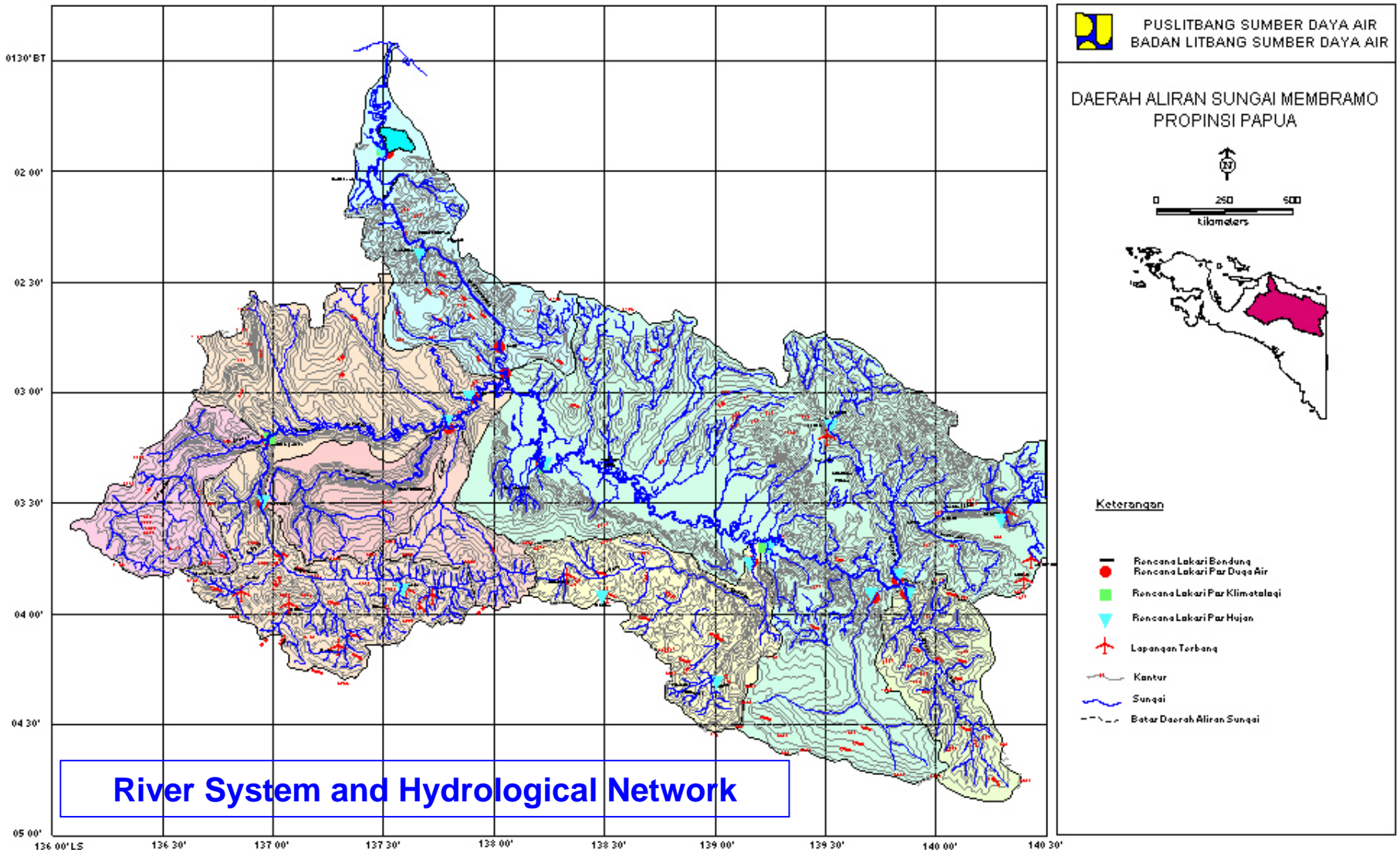
Proposed Demonstration Project





Gambar 1. Lokasi Studi

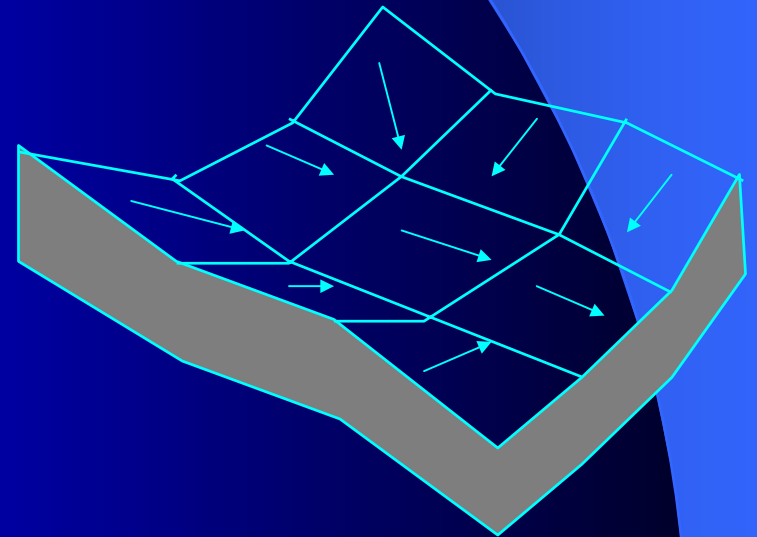
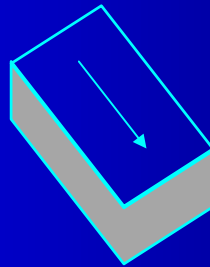
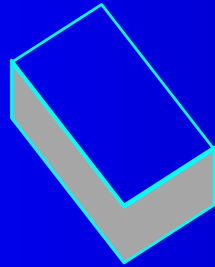
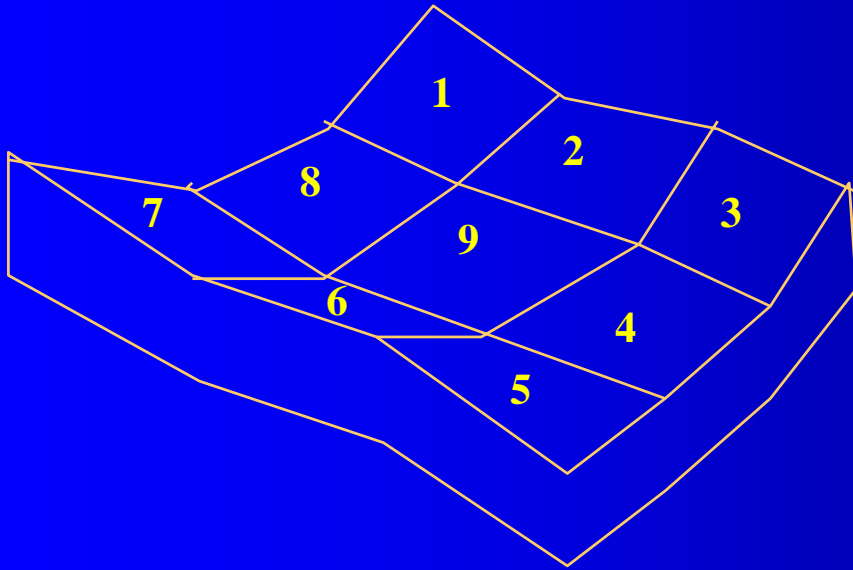
Digitital Elevation Model for Flood Analysis



DATA REQUIREMENT

No	Nama Data	Jenis Data	Instansi	Keterangan
1	DEM	Peta ; Skala 1:25000	Bakosurtanal	
2	Breakline	Peta; Skala 1:25000	Bakosurtanal	
3	Landuse (Lama, existing, rencana)	Peta;Skala 1:25000	Pemda Kab.Semarang	
4	Soil / Tanah	Peta; Skala 1:25000	Pemda	
5	Hidrogeologi	Peta;Skala 1:25000	Hidrogeologi/Dep. Tambang	
6	Jaringan Jalan dan Kota-kota (Kec., Kab. Dan Prop.)	Peta; Skala 1:25000	Bakosurtanal	
7	Batas Administrasi (Kec., Kab., Prop.)	Peta; Skala 1:25000	Bakosurtanal	
8	Jaringan Sungai	Peta; Skla 1:25000	Bakosurtanal	
9	Waduk, Danau, Bendung dan tampungan lainnya	Peta;Skala 1:25000	Bakosurtanal/PDSA	
10	Genangan Banjir	Peta; Skala 1:25000	PDSA	
11	Titik Pepompaan Air Tanah	Peta; Skala 1:25000	P2AT/PDAM/Pemda	
12	Hujan, Debit, Iklim	Peta & Angka	BMG, PDSA, PLN, dll	
13	Demografi (Umur, Jenis Kelamin, Tingkat Pendapatan dll.)	Peta & Angka	Pemda	
14	Aktivitas Ekonomi (Industri, Hotel, dll)	Peta & Angka	Dinas Industri	

GRID SYSTEM FOR FLOW DIRECTION



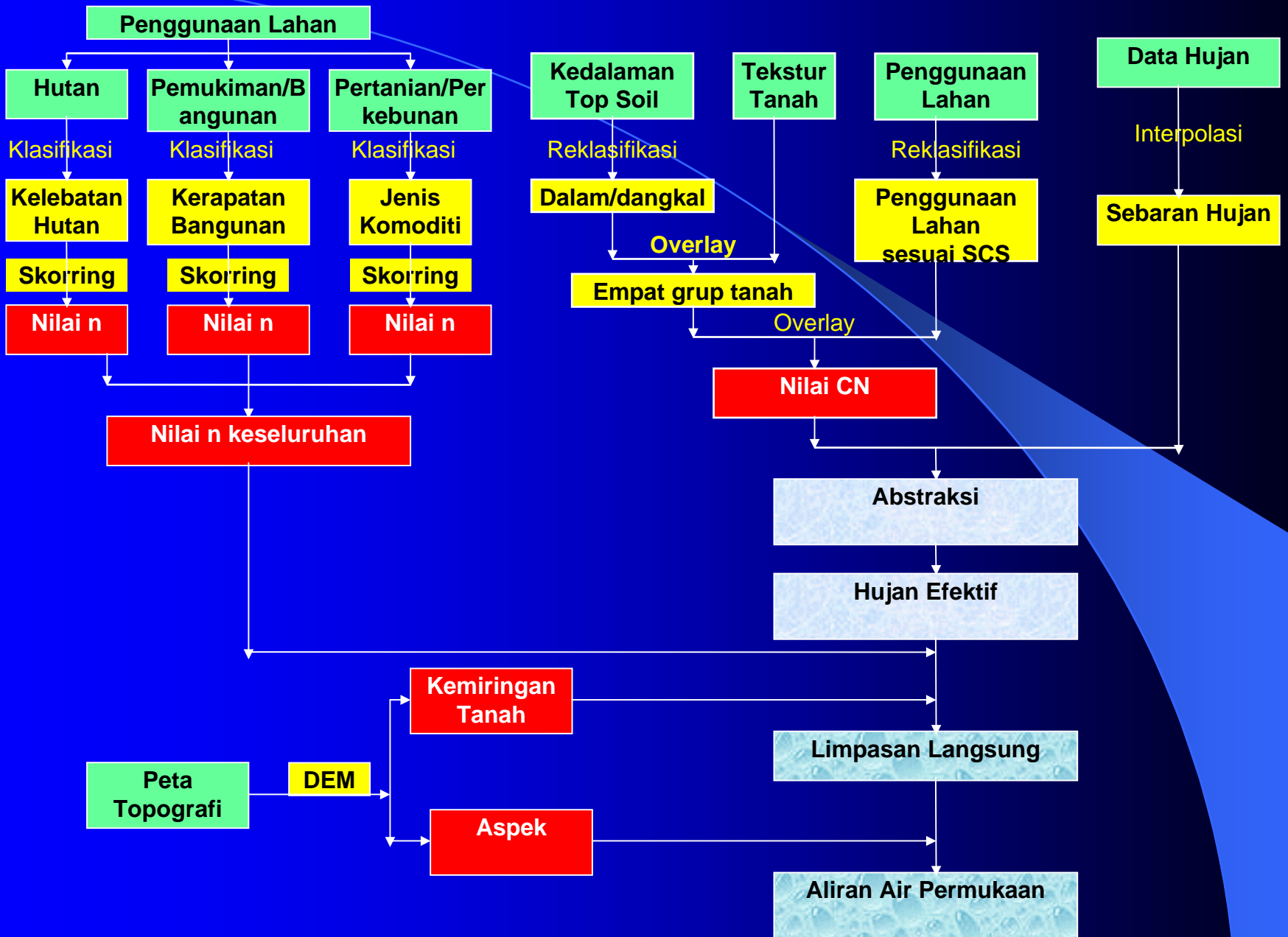
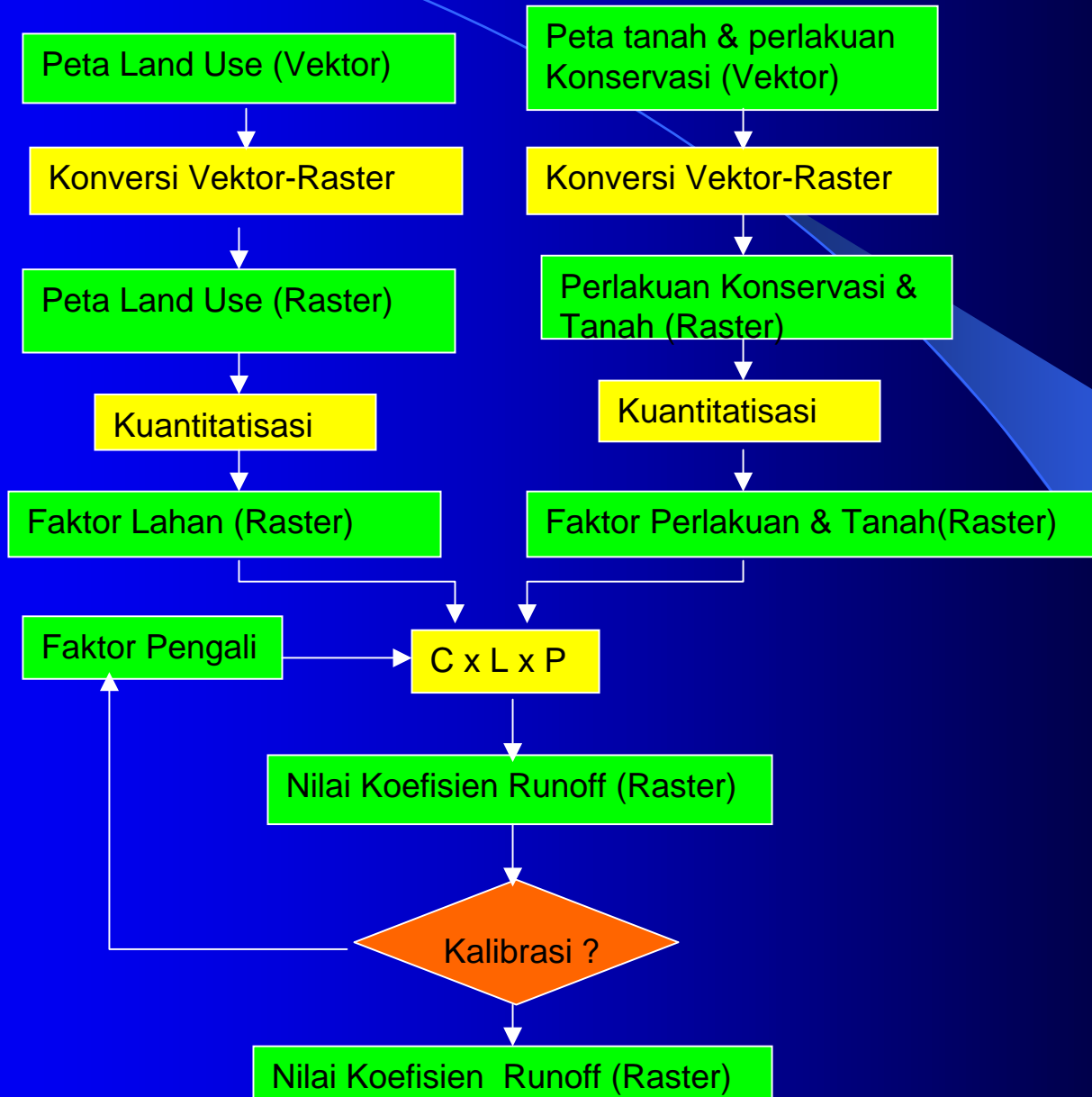
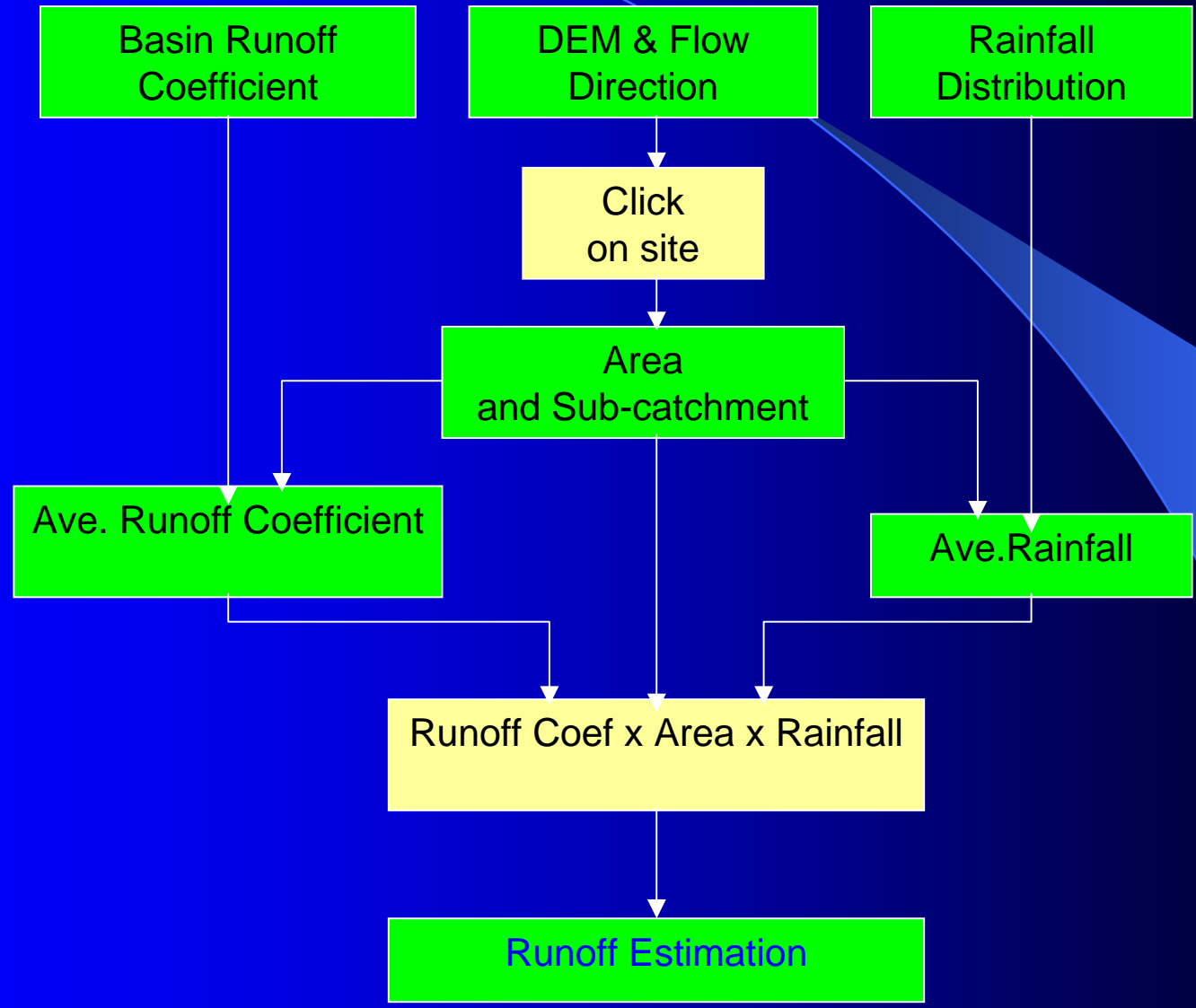


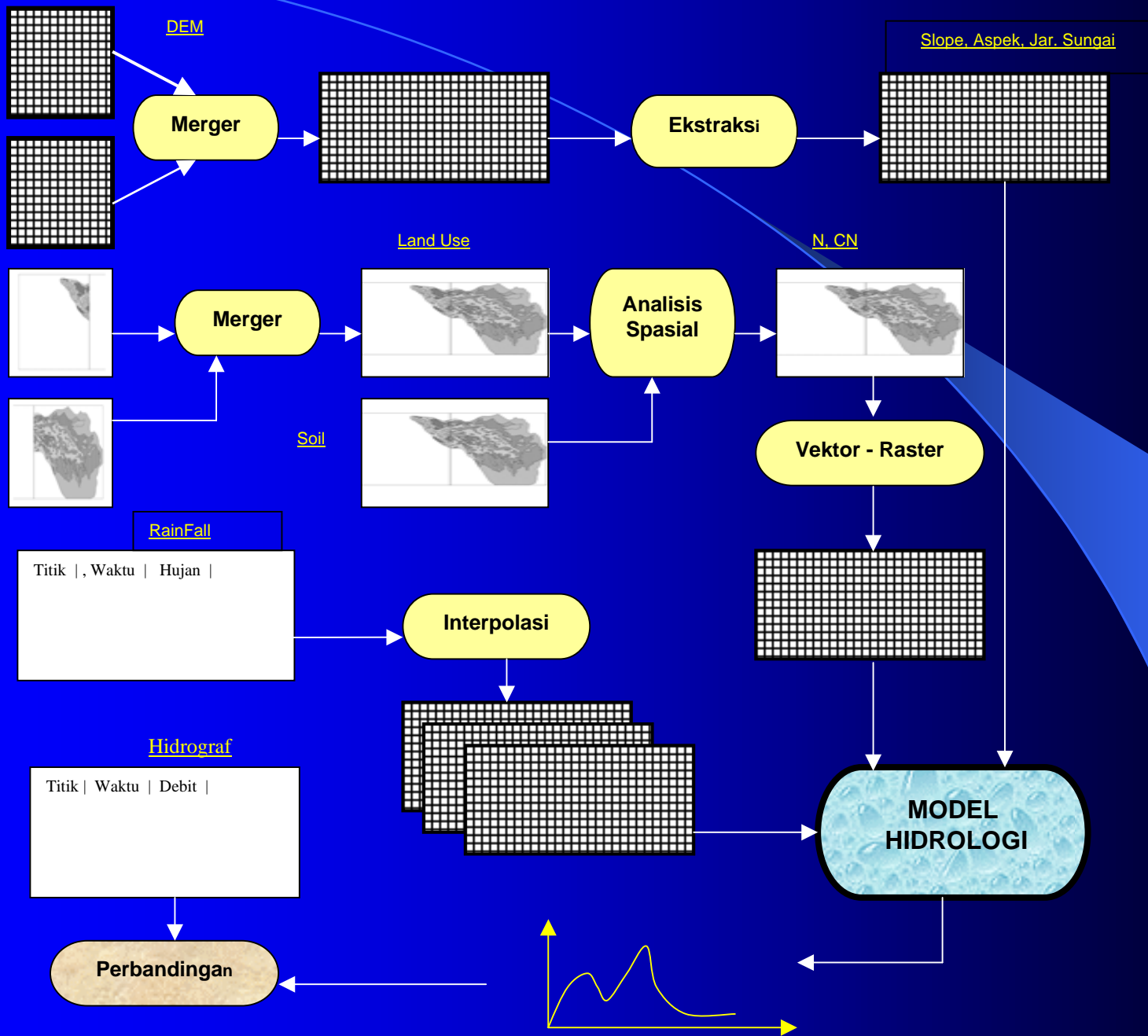
DIAGRAM ALIR PENENTUAN NILAI KOEFISIEN RUN OFF

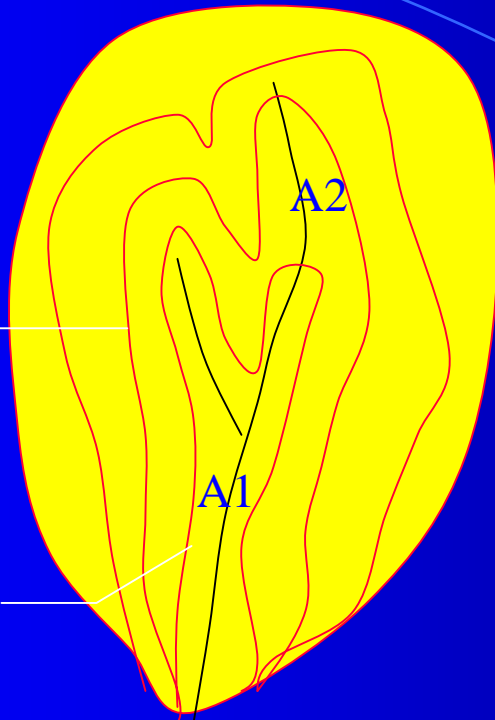


RUNOFF ESTIMATION









isochrone t2

isochrone t1

A2

A1

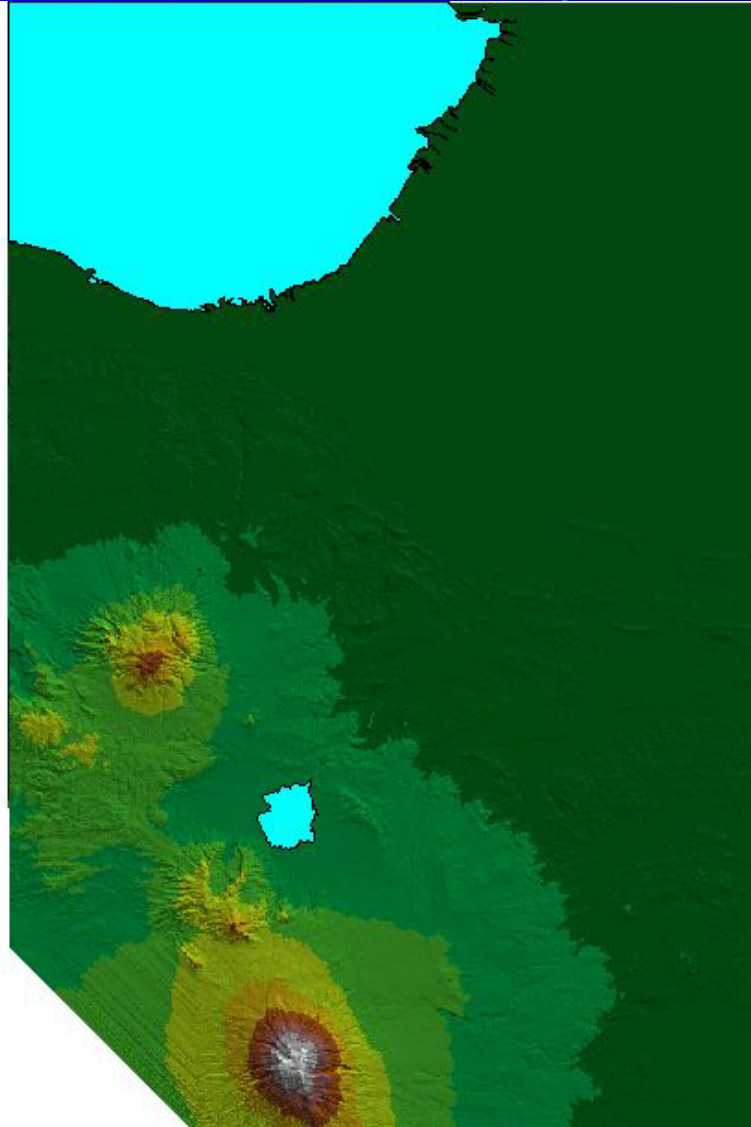


$$Q_n = \sum_{i=1}^n \frac{P_{ij} A_i}{\Delta t}, j = n - i + 1$$

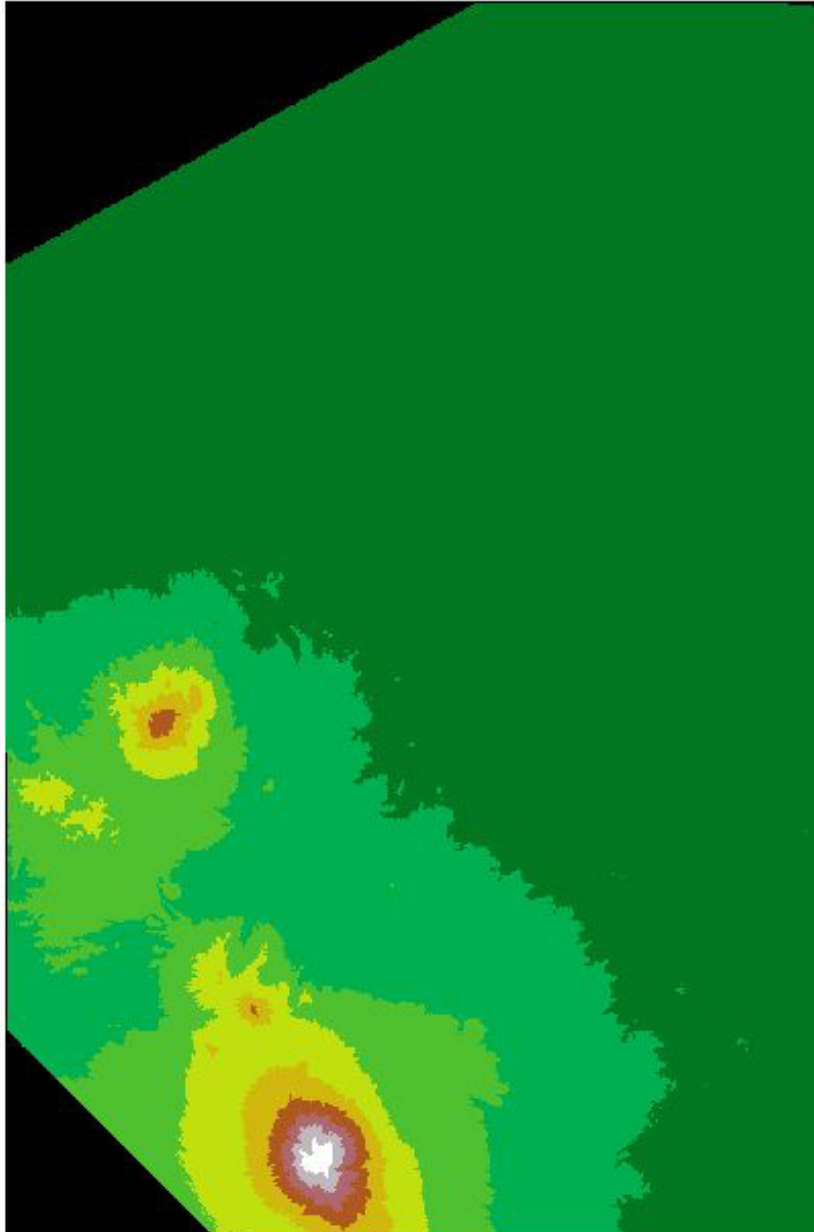
Q_n : limpasan langsung pada waktu $t=n$ t

P_{ij} : rata-rata excess rainfall dalam zone isochrone I selama interval waktu j

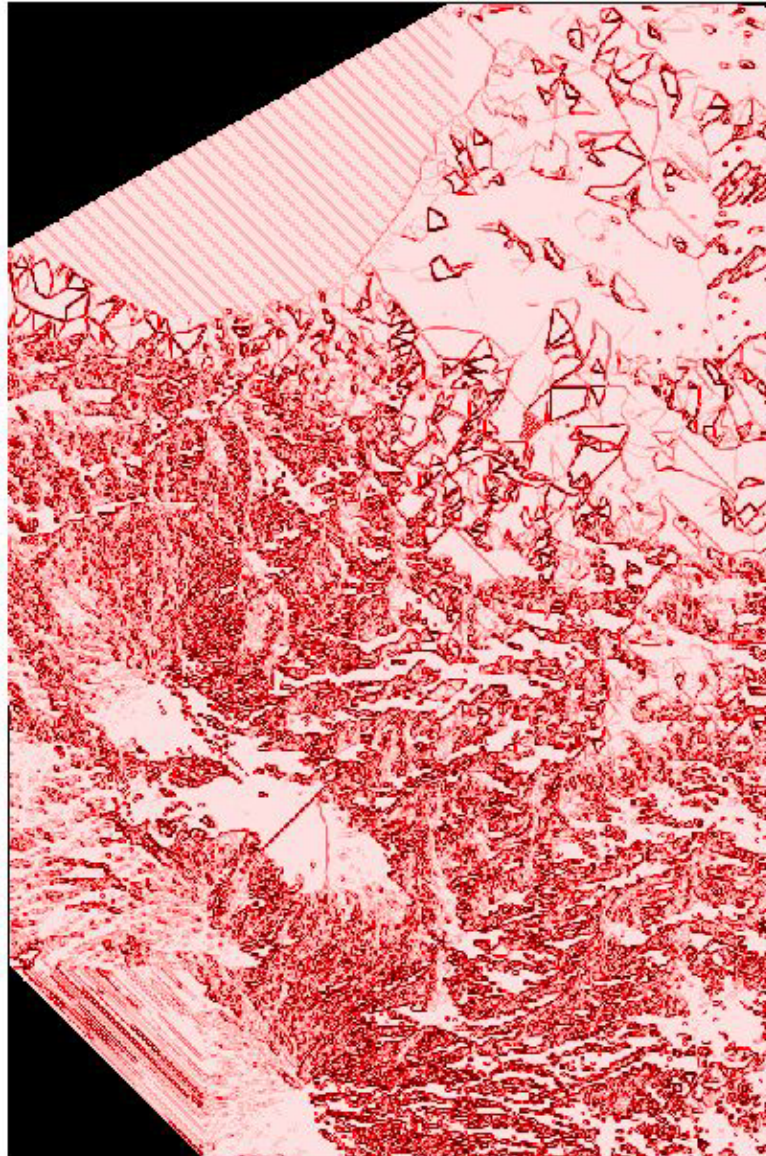
DEM River System



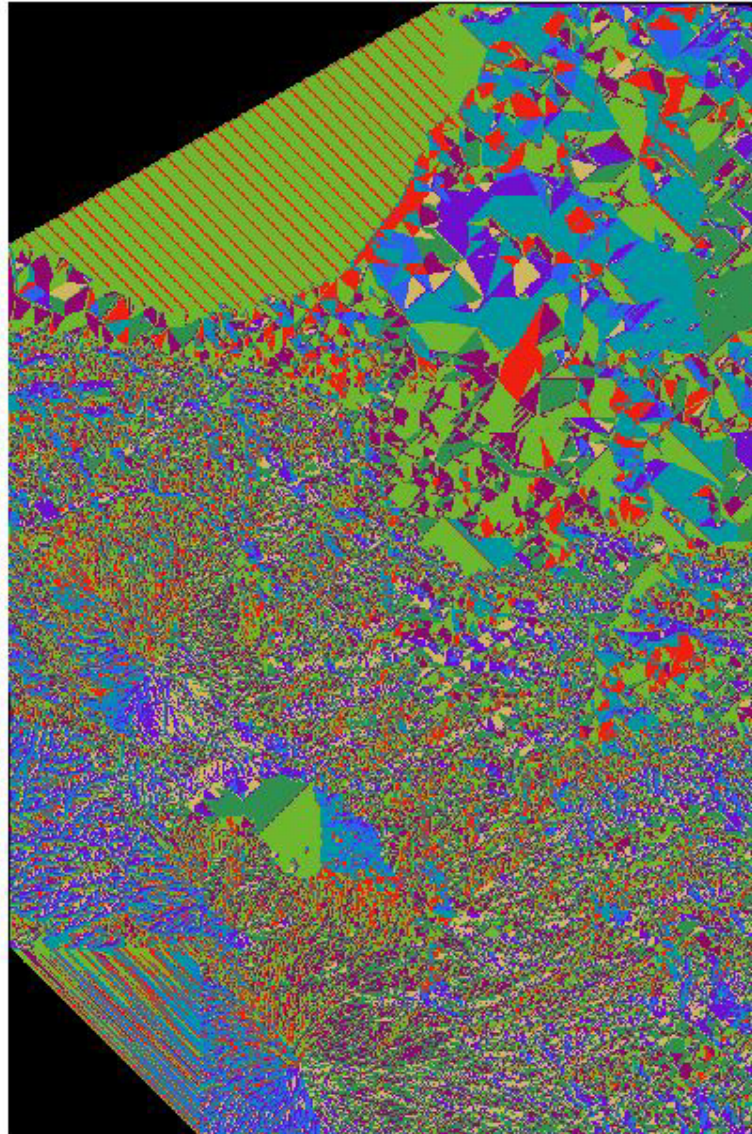
Grid Elevation



Grid Slope

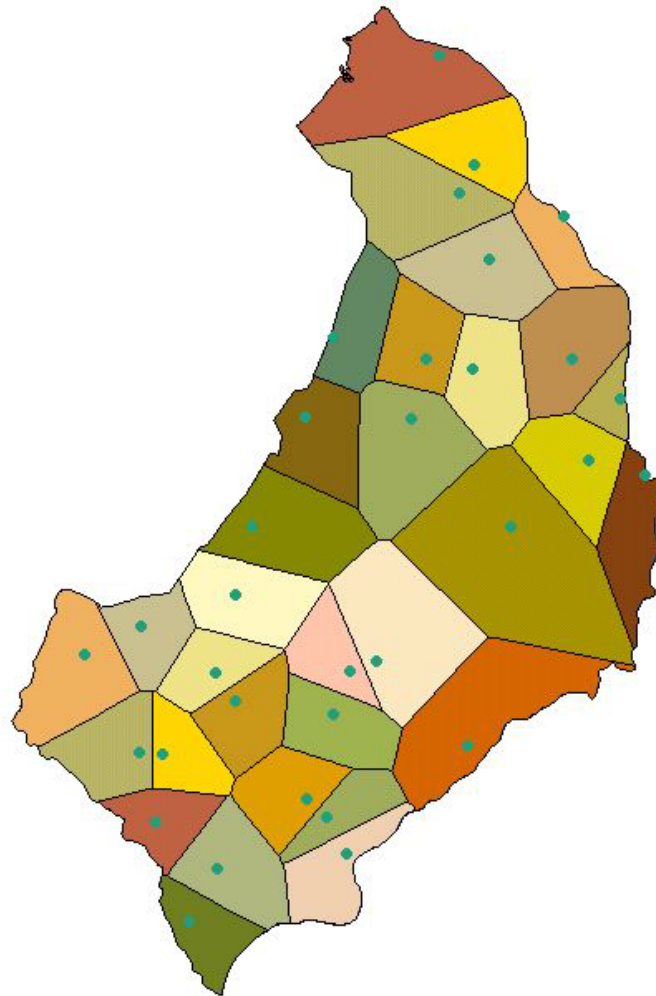


Grid Flow Direction

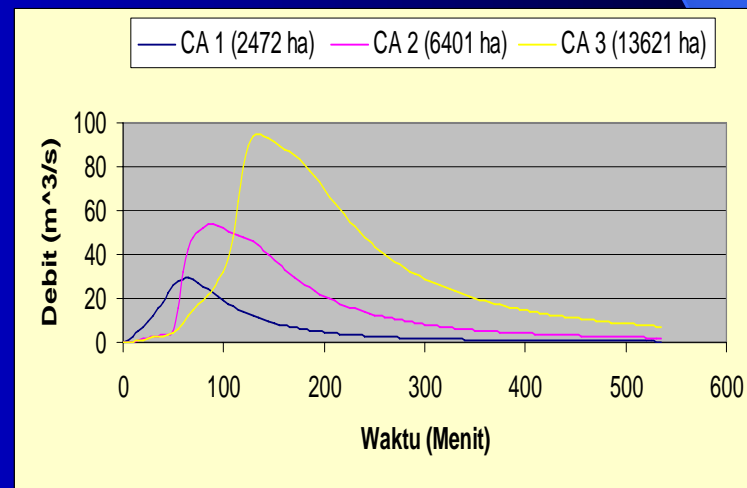
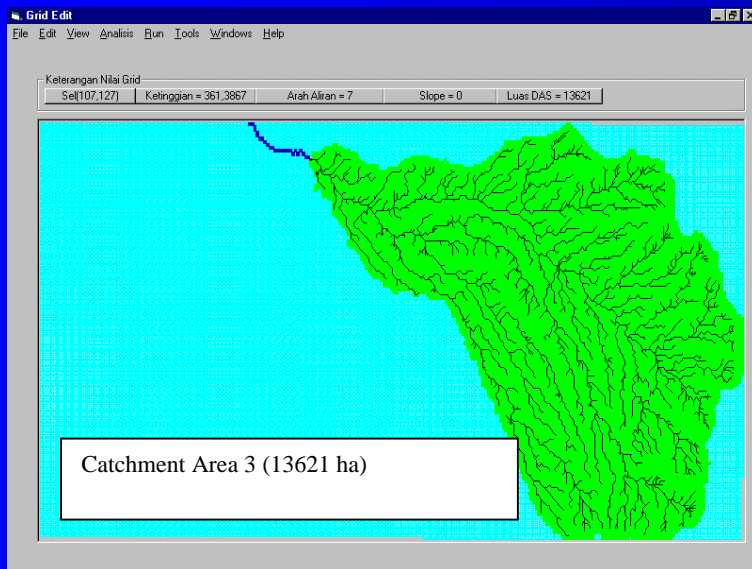
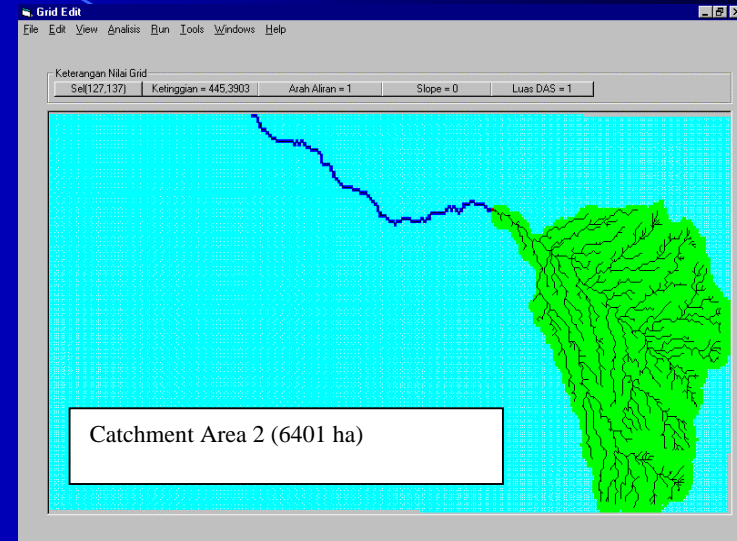
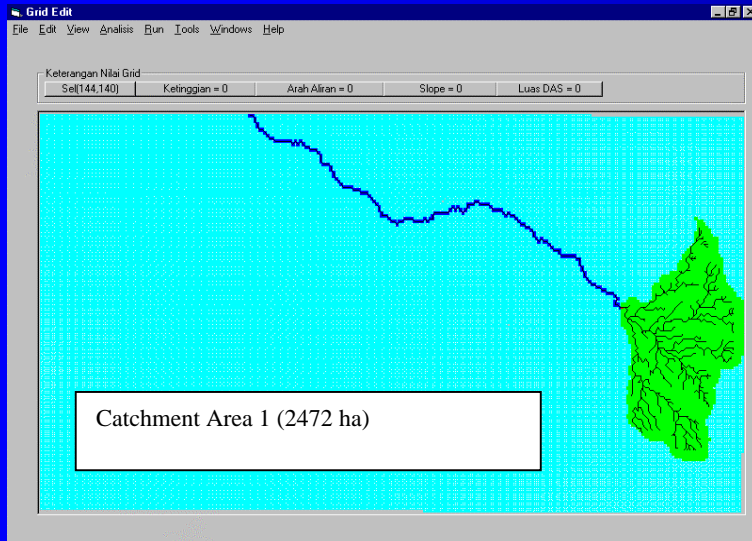


Rainfall Distribution

Theissen poligon



Rainfall –Run off Relation



Thank you
for your kind attention