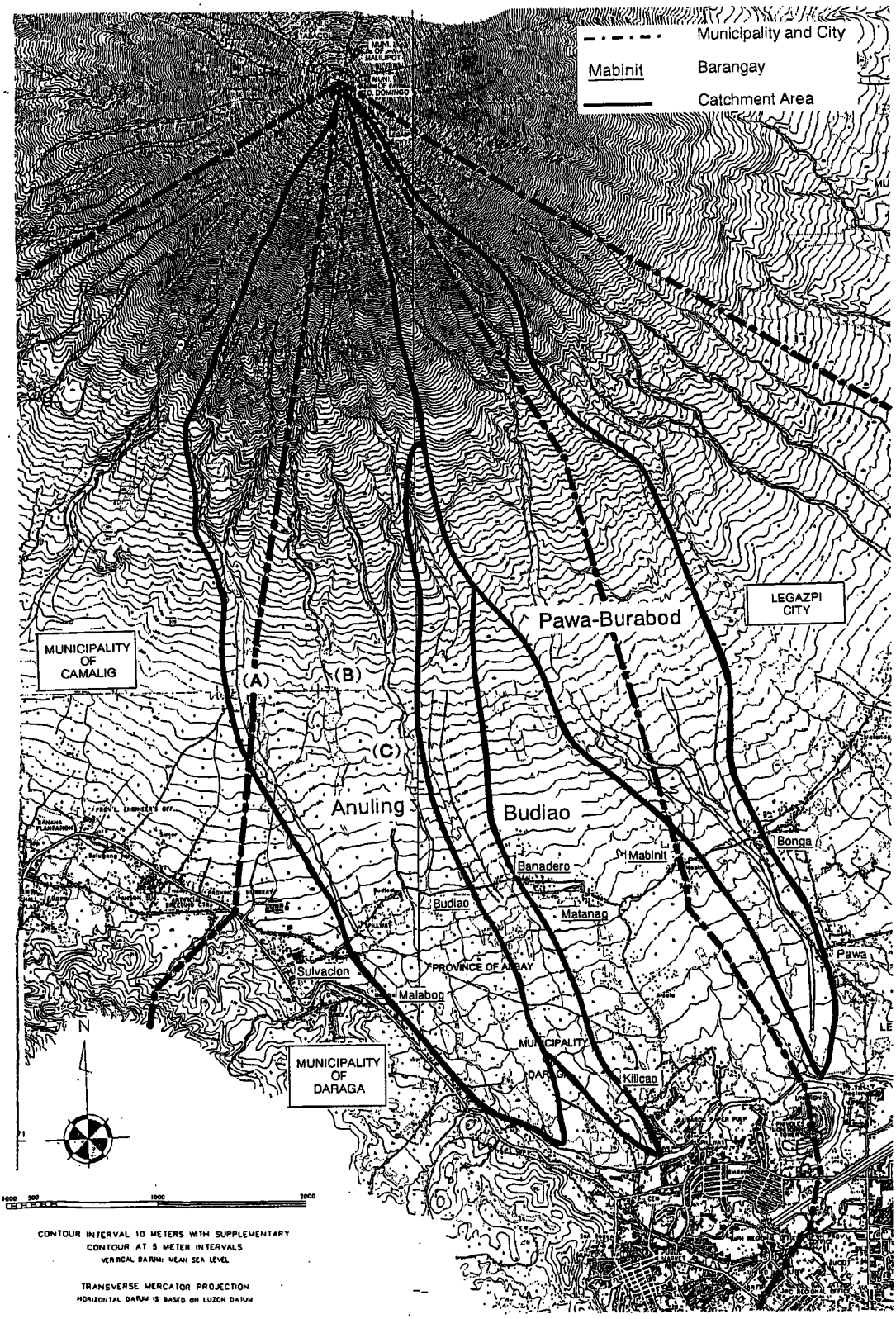
Table XV 4.1 Implementation Schedule of Sabo Works and Length of Facility for Each Package

River	Phase	Phase I (2000-2005)					Phase II (2005-2010)													Phase III (2010-2020)								
	Stage	Stage I	Stage II				Stage I				Stage II				Stage III					Stage I			Stage II					Stage III	
	Package	-	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	V	I	II	III	I	II	III	IV	V	I	II
Pawa-Burabod		5,875																											
Anoling, Budiao			1,675	1,800	650	4,750																							
Padang							1,750	1,600	350	2,000																			
Basud											1,600	1,750	350	2,000															
Masarawag, Quirangay															1,750	2,000	1,300	450	3,050										
Bulawan																				850	1,800	1,750							
San Vicente																							2,000	2,250	950	1,000	600		
Buang																												650	500
Type of Facility Sabo Dam (S/D), Dike, Training Dike (T/D)		Full Facility	Dike (Type A)	Dike (Type B)	S/D	T/D (General Type)	Dike (Type B)	Dike (Type B)	S/D	T/D (General Type)	Dike (Type B)	Dike (Type B)	S/D	T/D (General Type)	Dike (Type A,B)	Dike (Type A)	Dike (Type B)	S/D	T/D (General Type)	Dike (Type B)	Dike (Type B,C)	Dike (Type C)	Dike (Type B)	Dike (Type B)	Dike (Type A)	Dike (Type A)	S/D	Dike (Type B)	Dike (Type B)
Project Cost	Million Peso																												

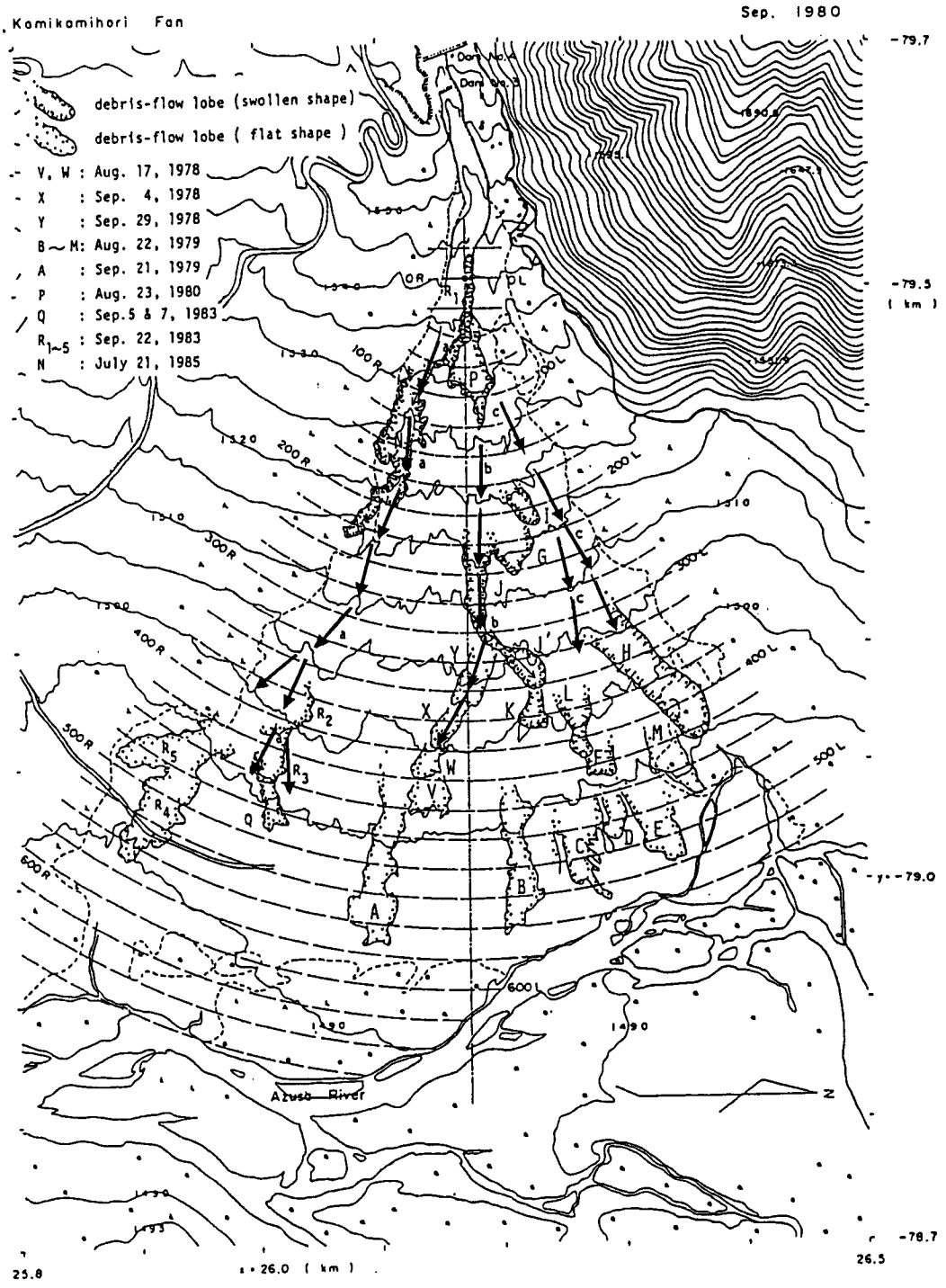
Numerals in the table shows total length (m) of facility for each package in schedule.

Table XV 4.2 Implementation Schedule of Sabo Works and Length of Facility for Each Package

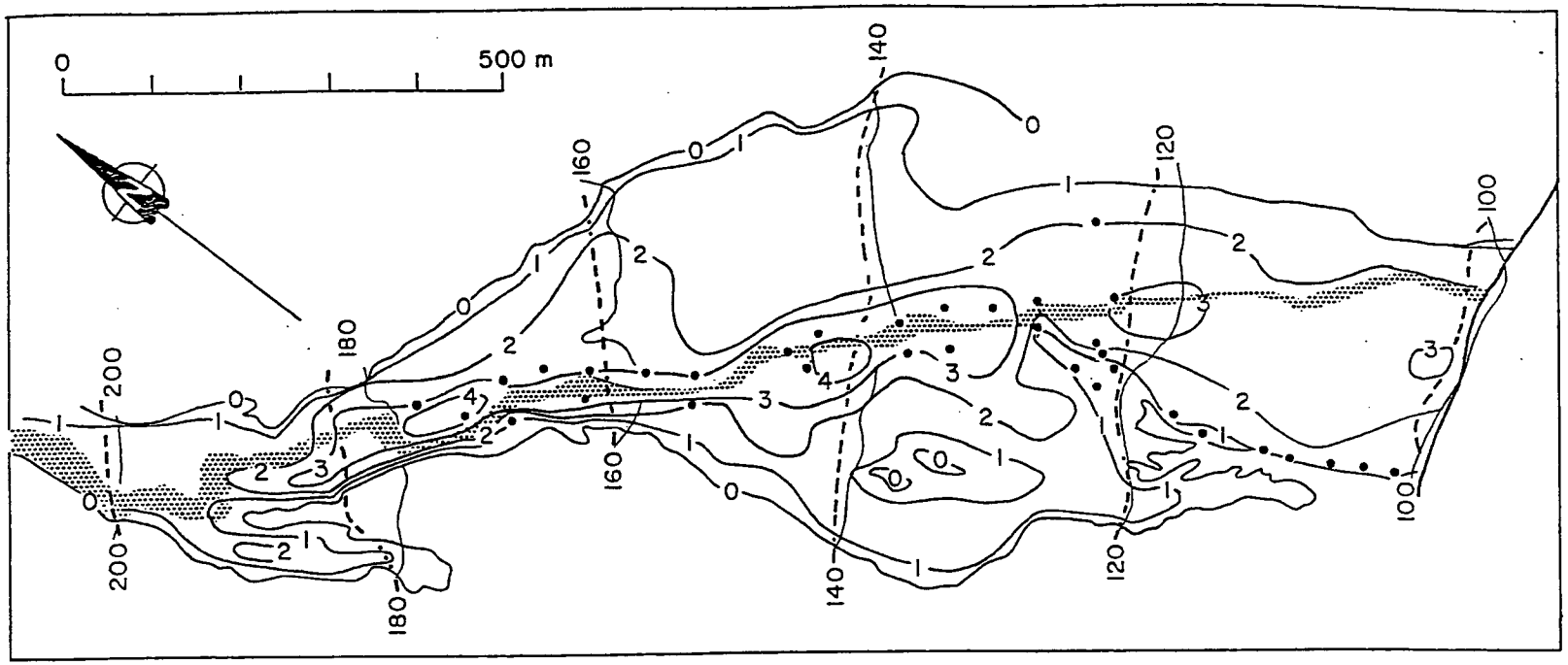
Phase	River	Stage	Package	Works	Facility	Length (m)	Purpose
I	Pawa-Burabod	I	-	Sand Pocketing Work & Channeling Works	Spur Dike, Sabo Dam and Training Dike	5,875	Criteria of Priority Order for the Implementation Schedule on Sabo Works is as follows; I: Construction of the lower half of long dikes to protect core area of Barangays II: Consruction of the upper half of long dikes to protect surroundings of Barangays III: Construction of the sabo dam to complete a sand pocketing works and fulfill a function of control to the mud flow IV: Construction of the training dike to prevent disasters in the lower area from the sand pocket facilities
	Anoling, Budiao	II	I	Sand Pocketing Work	Spur Dike	1,675	
			II	Sand Pocketing Work	Spur Dike	1,800	
			III	Sand Pocketing Work	Sabo Dam	650	
			IV	Channeling Work	Training Dike	4,750	
II	Padang	I	I	Sand Pocketing Work	Spur Dike	1,750	
			II	Sand Pocketing Work	Spur Dike	1,600	
			III	Sand Pocketing Work	Sabo Dam	350	
			IV	Channeling Work	Training Dike	2,000	
	Basud	II	I	Sand Pocketing Work	Spur Dike	1,900	
			II	Sand Pocketing Work	Spur Dike	2,050	
			III	Sand Pocketing Work	Sabo Dam	350	
			IV	Channeling Work	Training Dike	2,500	
	Masarawag, Quirangay	III	I	Sand Pocketing Work	Spur Dike	1,750	I, II, III and IV: Allocation of dikes in order of the number of house in Barangays which is proteced by sabo facilities III: Construction of the sabo dam to complete a sand pocketing works and fulfill a function of control to the mud flow IV: Construction of the training dike to prevent disasters in the lower area from the sand pocket facilities
			II	Sand Pocketing Work	Spur Dike	2,000	
			III	Sand Pocketing Work	Spur Dike	1,300	
			IV	Sand Pocketing Work	Sabo Dam	450	
			V	Channeling Work	Training Dike	3,050	
III	Bulawan	I	I	Channeling Work	Deflection Dike	850	I: Construction of a dike to deflect capture of another catchment area II and III: Construction of dikes to guide the flowing direction
			II	Channeling Work	Spur Dike	1,800	
			III	Channeling Work	Spur Dike	1,750	
	San Vicente	II	I	Sand Pocketing Work	Spur Dike	2,000	I: Construction of the lower half of long dikes to protect core area of Barangays II: Consruction of the upper half of long dikes to protect surroundings of Barangays III: Construction of the sabo dam to complete a sand pocketing works and fulfill a function of control to the mud flow IV: Construction of the training dike to prevent disasters in the lower area from the sand pocket facilities
			II	Sand Pocketing Work	Spur Dike	2,250	
			III	Sand Pocketing Work	Spur Dike	950	
			IV	Sand Pocketing Work	Spur Dike	1,000	
			V	Sand Pocketing Work	Sabo Dam	600	
	Buang	III	I	Protection Work	Spur Dike	650	
			II	Protection Work	Spur Dike	500	



COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES	**Figure XV 1.1** **Administrative Boundary of the Yawa River Basin**
JAPAN INTERNATIONAL COOPERATION AGENCY	



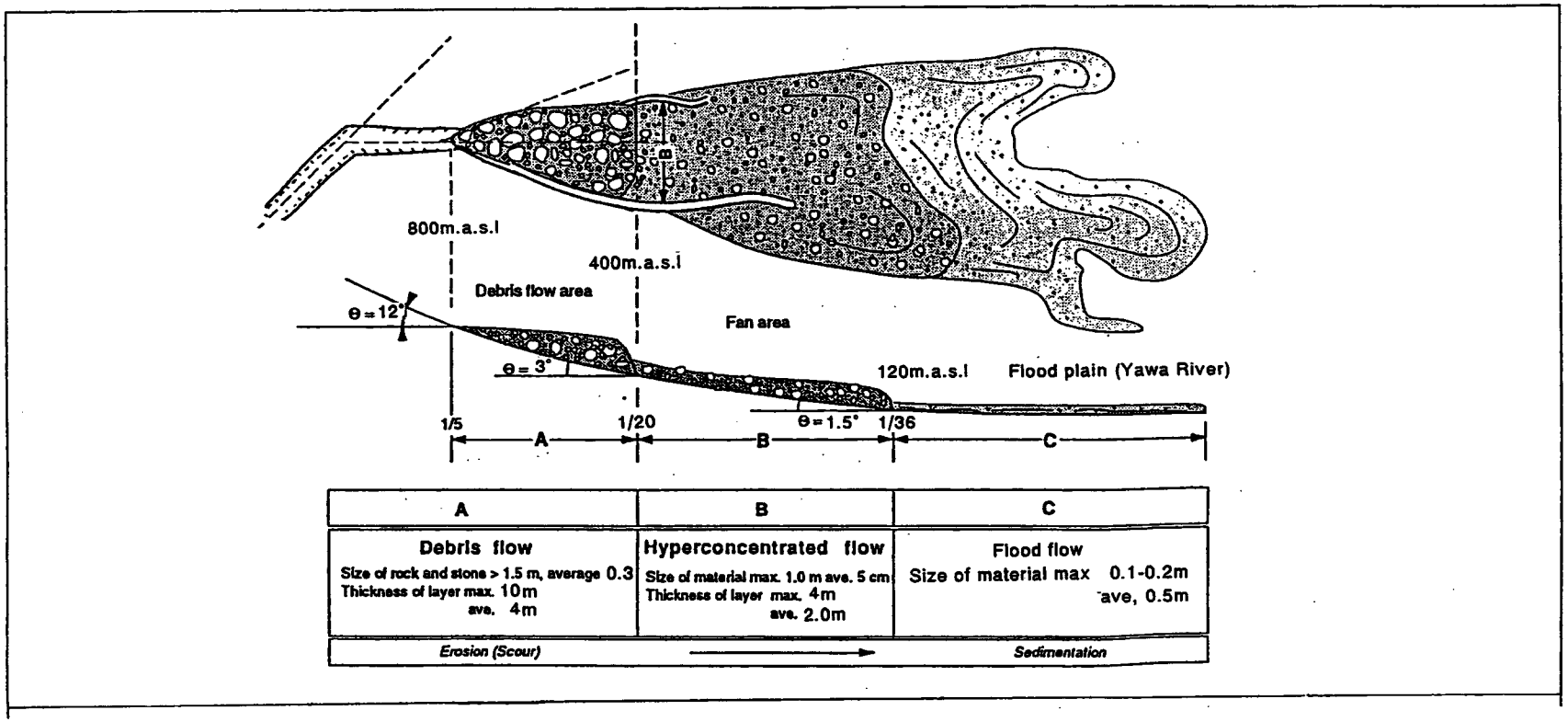
COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES	**Figure XV 2.1** **Distribution of Debris Flow Lobes on an Alluvial Fan Routes are shown in Arrows**
JAPAN INTERNATIONAL COOPERATION AGENCY	



Isopach map of eruption-lahar deposit thicknesses (m) in the principal field. The heavy dashed and fine solid lines across the field are pre- and post-eruption contour lines, from the 1:25,000 JICA topographic map and the 1985 PHIVOLCS-UICDOGS survey, respectively. The dots are sites where thicknesses were measured directly, and the stippling shows the principal channel as mapped in 1985.

Source:Kelvin.S.Rodolfo.1989

COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES	Figure XV 2.2
JAPAN INTERNATIONAL COOPERATION AGENCY	Isopach Map of Lahar Deposit Thidkness in the Pawa-Burabod River Field caused on the 1984 Eruption



COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES

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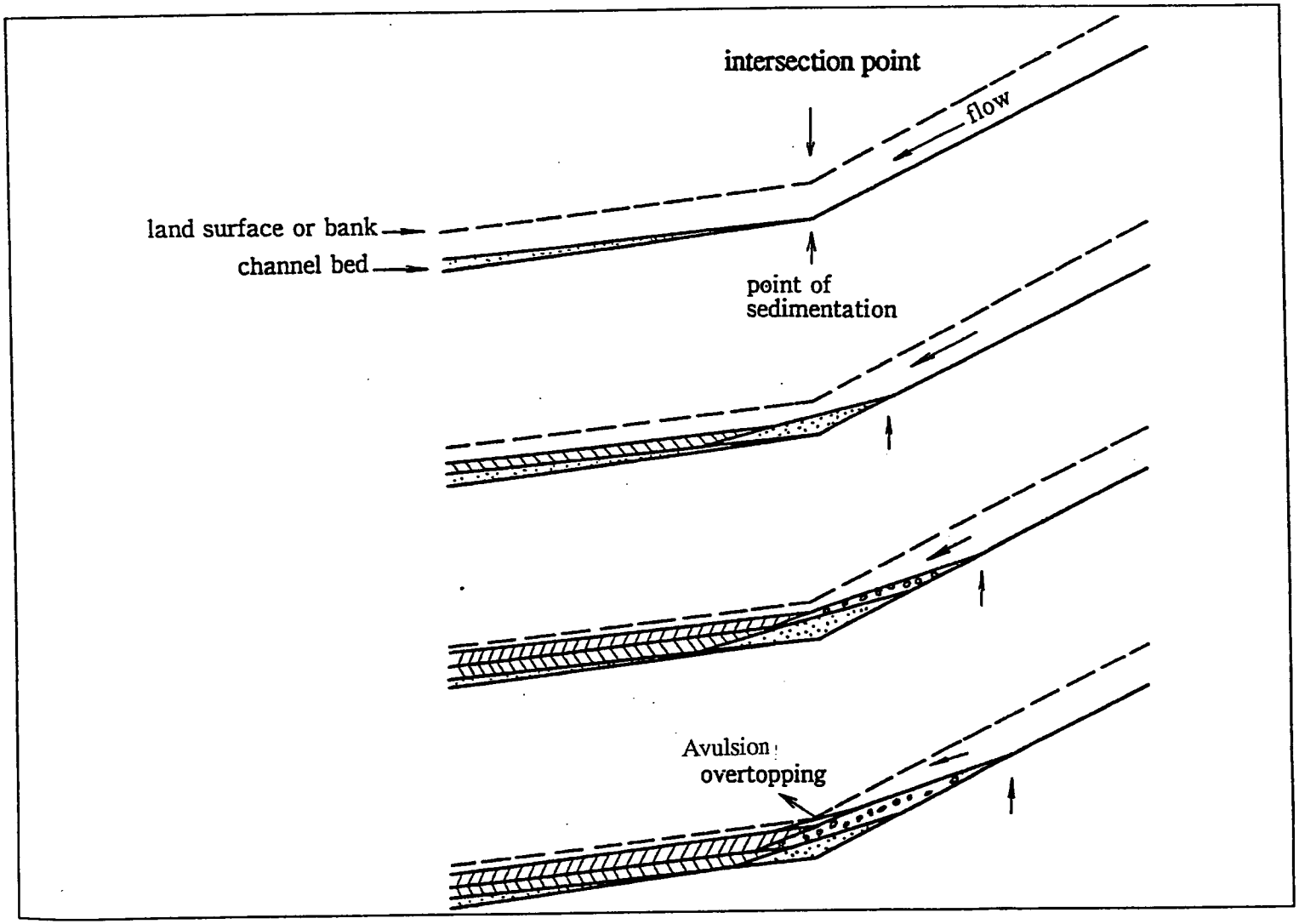
Figure XV 2.3

Characteristic of Flow Process as a Function of River Bed Gradient



COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES

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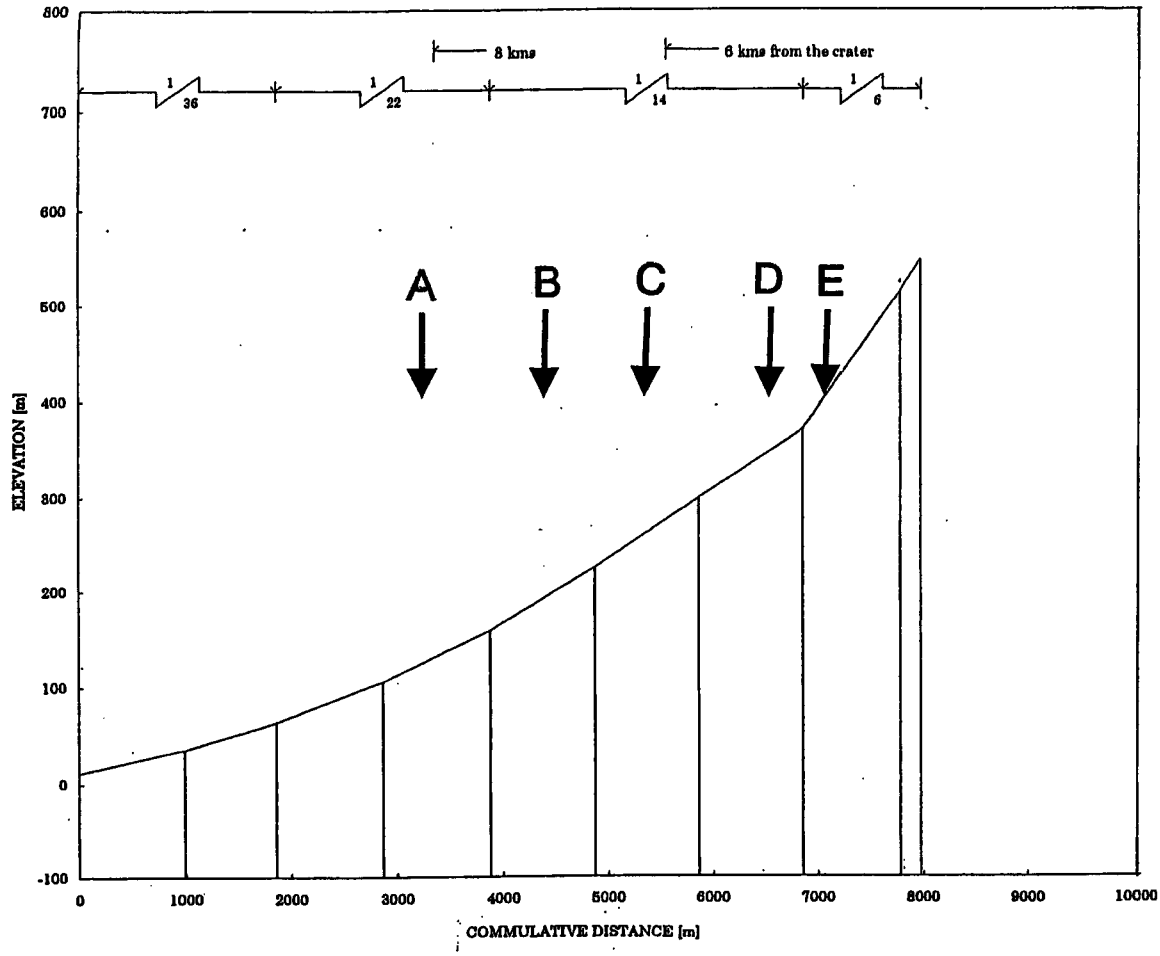
Figure XV 2.4

Mechanism of Aggradation at an Intersection Poiny, Leading to Overtopping (UN, 1996)



RIVER BED ELEVATION	11.27	35.32	62.63	105.51	167.16	224.27	297.93	369.73	512.86	547.26
COMMULATIVE DISTANCE	0.00	988.30	1861.69	2862.74	3879.30	4874.53	5868.30	6857.95	7784.86	7977.93
DISTANCE	0.00	988.30	872.39	1001.05	1016.56	995.03	993.97	989.65	926.91	193.07

COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES

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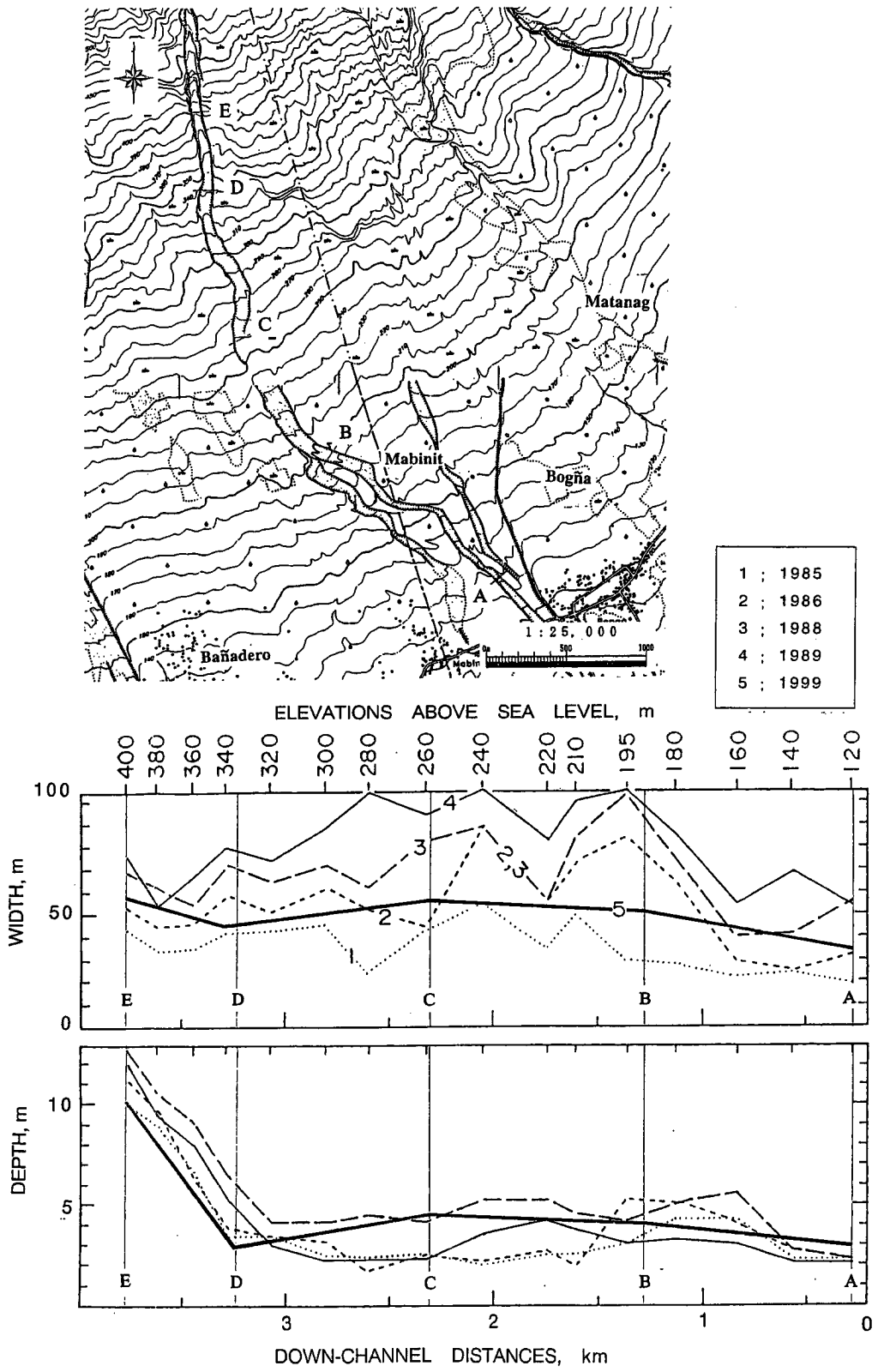
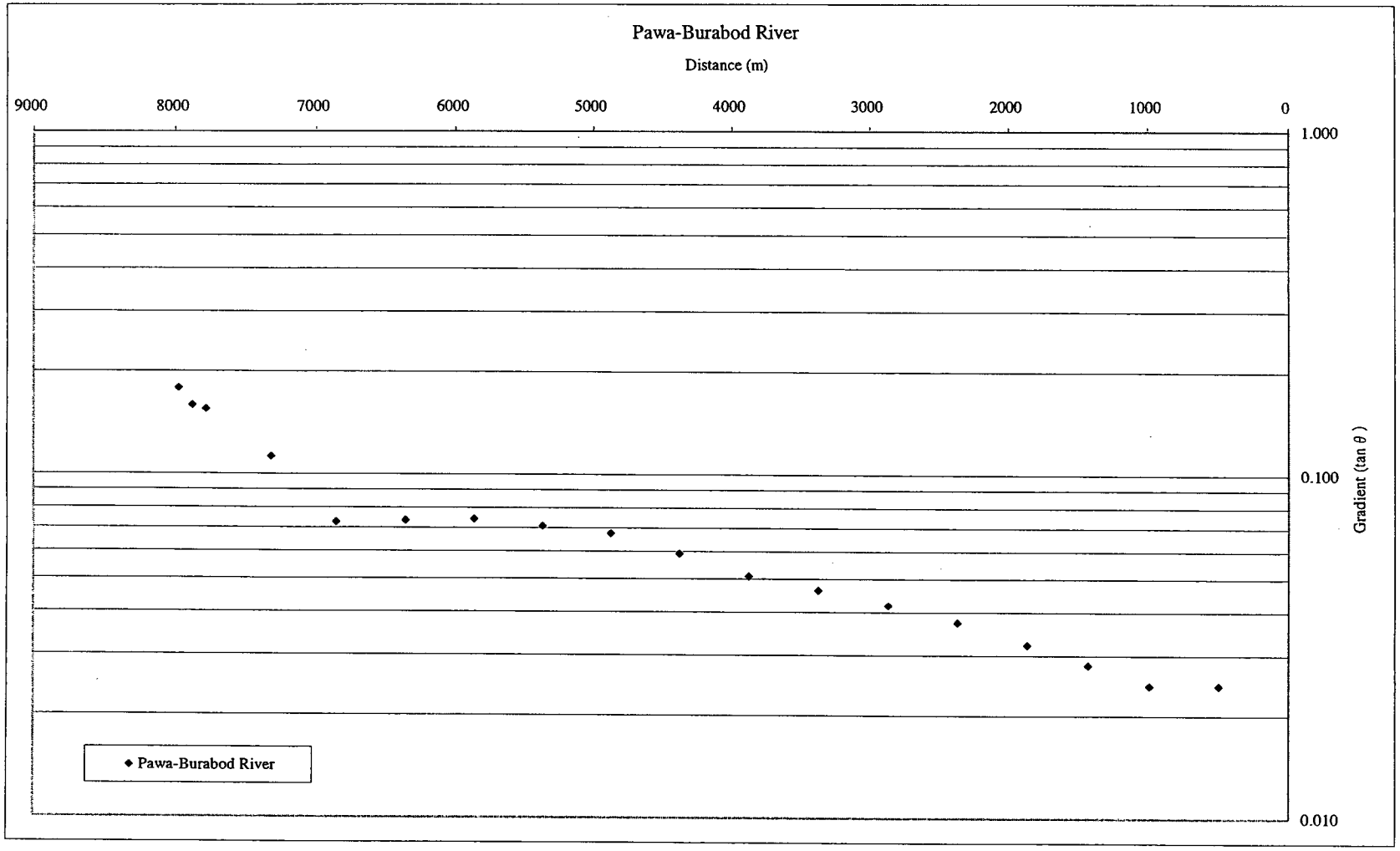
Figure XV 2.5

Longitudinal Profile of the Pawa-Burabod River (A-E are shown in Figure XV 2.6)



COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES	**Figure XV 2.6** **Fluctuation of River Channel Bed of the Pawa-Burabod River**
JAPAN INTERNATIONAL COOPERATION AGENCY	



COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO IN THE REPUBLIC OF THE PHILIPPINES	**Figure XV 2.7** **Relationship of the Distance and River Bed Gradient**
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