

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

Sub-watershed - 8

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### 1) Catchment Area

Area

149

 ha

Highest Point

1,140

 m

Average Slope

24

 %

Lowest Point

745

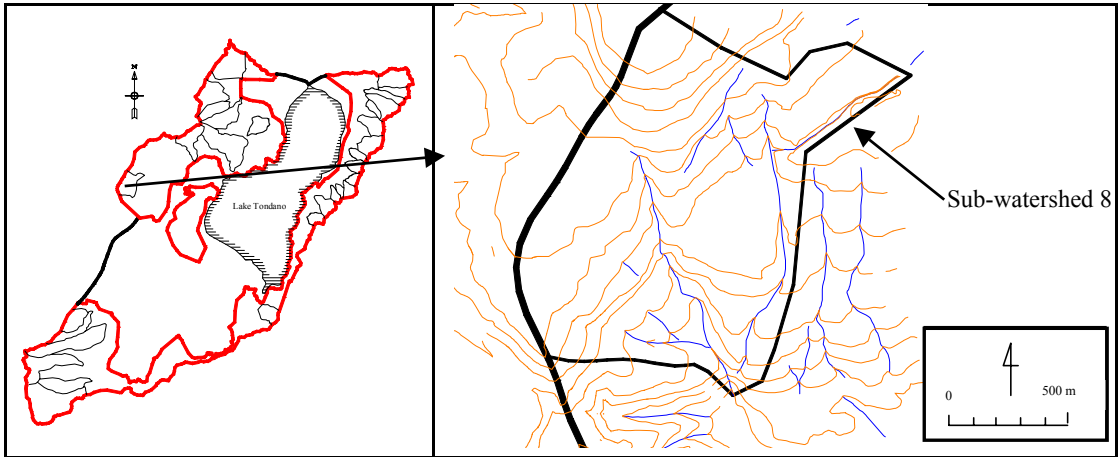
 m

Elevation Difference

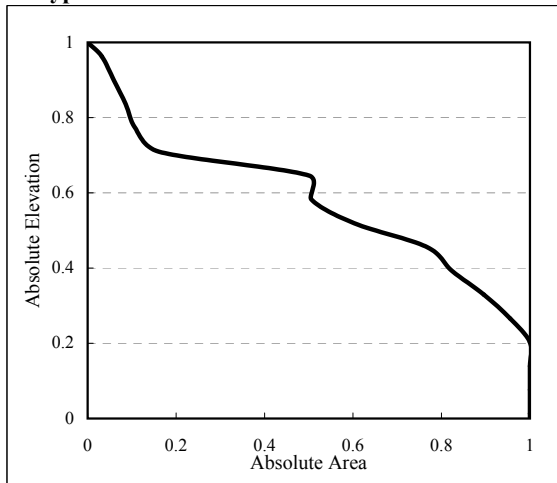
395

 m

Plan



**Hypsometric Curve of the Catchment Area**



### Land Use of Catchment Area

Natural/Semi-natural Forest	16	%
Secondary Forest	0	%
Planted Forest	0	%
Estate	39	%
Mixture of Estate and Dry-farming Land	39	%
Dry Farming Land	6	%
Pasture Land	0	%
Paddy Field	0	%
Swamp	0	%
Water Body	0	%
Settlement & Othres	0	%

Source:

1:50,000 Land Use Map prepared by JICA Study Team for Master Plan.

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in the Republic of Indonesia**

Japan International Cooperation Agency

**Figure HAT2.9**

**Characteristics of Sub-watershed 8 (1/2)**

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

Sub-watershed - 8

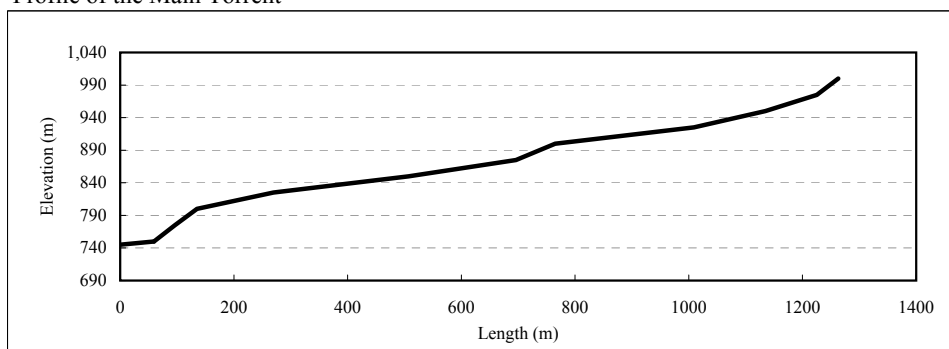
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### 2) Main Torrent

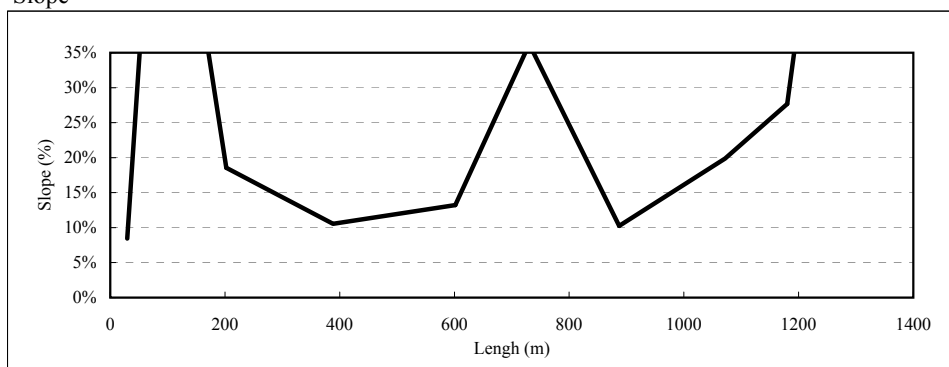
Mean Torrent Bed Gradient

21.0 %

Profile of the Main Torrent



Slope



### Torrent Condition

Survey Point

TD-10

Bed Width

2.5 m

Bank Height

1.5 m

Bank Slope

70 -

Gravel Condition

Min

50 cm

Max

150 cm

Average

80 cm

Uniformity

No

Coverage Ratio

40 %

Amount of Deposition

0 -

Land Use of Surrounding Area

Forest/Grassland

Water Depth at the Time of Measurement

0 m

Water Color

-

Remarks

See Figure O.2.32 for the survey point.

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**Figure HAT2.9**

**Characteristics of Sub-watershed 8 (2/2)**

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

Sub-watershed - 9

Page 1/2

### 1) Catchment Area

Area

147

 ha

Highest Point

1,003

 m

Average Slope

14

 %

Lowest Point

793

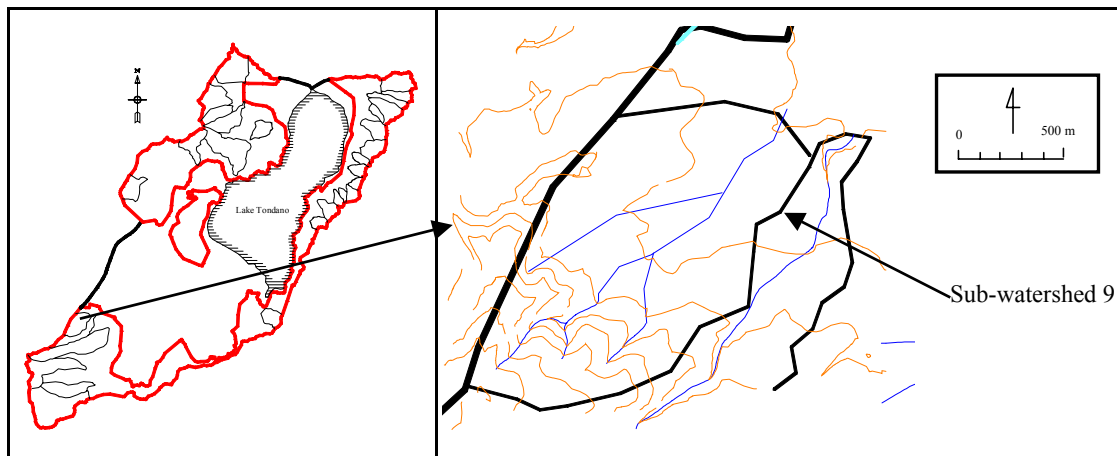
 m

Elevation Difference

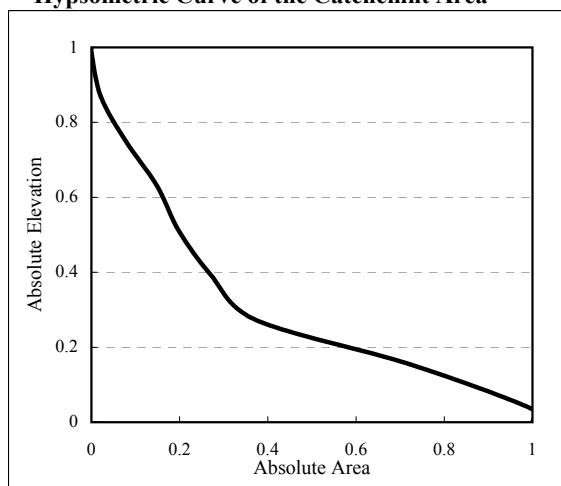
210

 m

Plan



### Hypsometric Curve of the Catchment Area



### Land Use of Catchment Area

Natural/Semi-natural Forest	0%
Secondary Forest	0%
Planted Forest	0%
Estate	0%
Mixture of Estate and Dry-farming Land	59%
Dry Farming Land	41%
Pasture Land	0%
Paddy Field	0%
Swamp	0%
Water Body	0%
Settlement & Othres	0%

Source:

1:50,000 Land Use Map prepared by JICA Study Team for Master Plan.

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**Figure HAT2.10**

**Characteristics of Sub-watershed 9 (1/2)**

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

Sub-watershed - 9

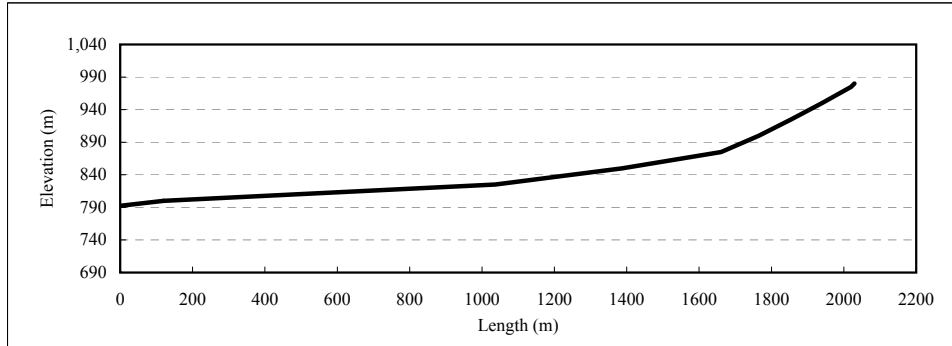
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### 2) Main Torrent

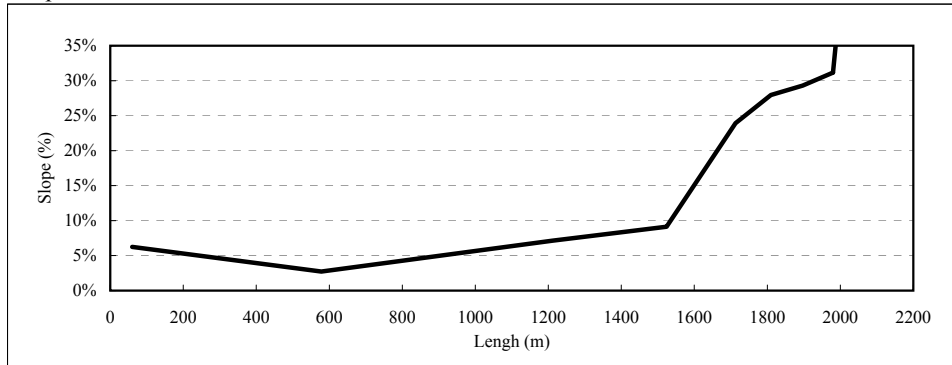
Mean Torrent Bed Gradient

9.2%

Profile of the Main Torrent



Slope



### Torrent Condition

Survey Point

-

Bed Width

- m

Bank Height

- m

Bank Slope

-

Gravel Condition

Min

- cm

Max

- cm

Average

- cm

Uniformity

-

Coverage Ratio

- %

Amount of Deposition

-

Land Use of Surrounding Area

-

Water Depth at the Time of Measurement

- m

Water Color

-

Remarks

See Figure HAT.2.32 for the survey point.

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Figure HAT2.10

Characteristics of Sub-watershed 9 (2/2)

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

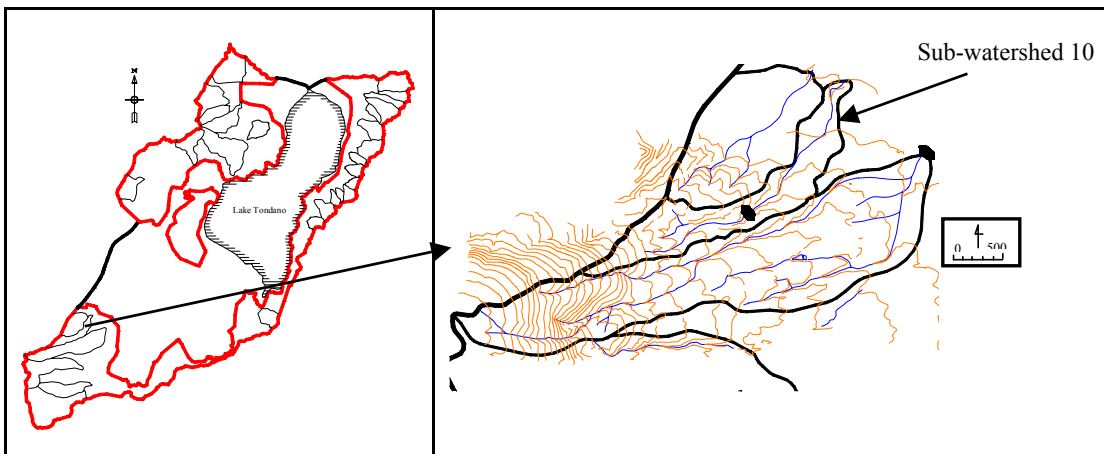
Sub-watershed - 10

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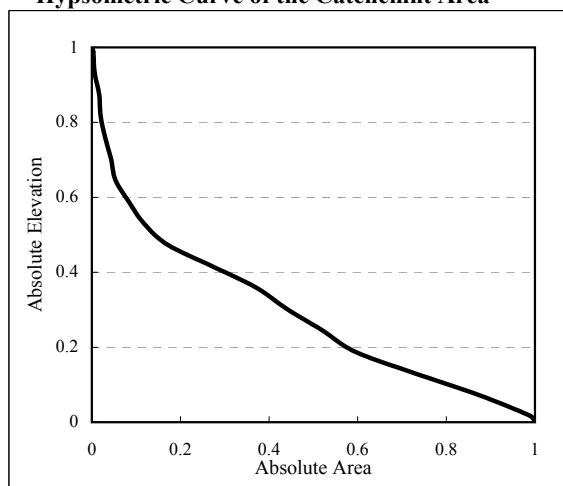
### 1) Catchment Area

Area	120	ha	Highest Point	1,230	m
Average Slope	20	%	Lowest Point	793	m
			Elevation Difference	438	m

Plan



**Hypsometric Curve of the Catchment Area**



**Land Use of Catchment Area**

Natural/Semi-natural Forest	0	%
Secondary Forest	13	%
Planted Forest	0	%
Estate	0	%
Mixture of Estate and Dry-farming Land	23	%
Dry Farming Land	65	%
Pasture Land	0	%
Paddy Field	0	%
Swamp	0	%
Water Body	0	%
Settlement & Othres	0	%

Source:  
1:50,000 Land Use Map prepared by JICA Study Team  
for Master Plan.

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**Figure HAT2.11**

**Characteristics of Sub-watershed 10 (1/2)**

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

Sub-watershed - 10

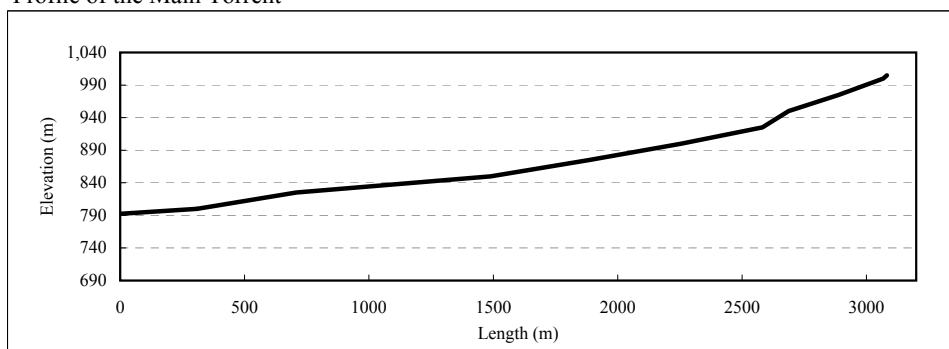
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### 2) Main Torrent

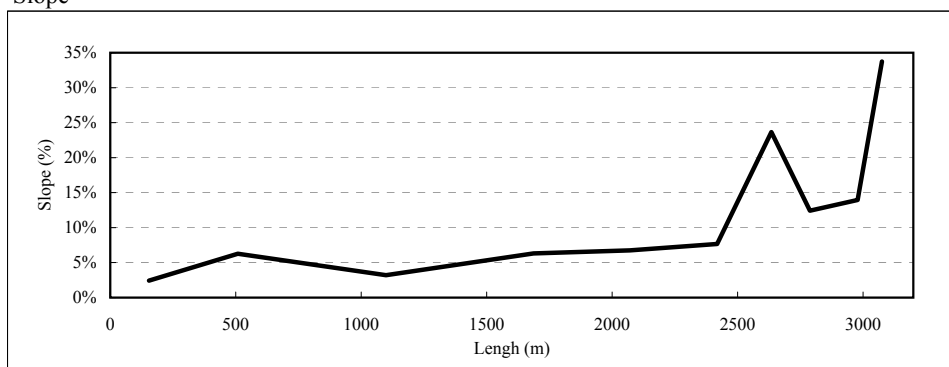
Mean Torrent Bed Gradient

6.9%

Profile of the Main Torrent



Slope



### Torrent Condition

Survey Point

TD-11

Bed Width

1.0 m

Bank Height

7.0 m

Bank Slope

35 -

Gravel Condition

Min

0 cm

Max

0 cm

Average

0 cm

Uniformity

Yes

Coverage Ratio

0 %

Amount of Deposition

0 -

Land Use of Surrounding Area

Arable Upland

Water Depth at the Time of Measurement

0.05 m

Water Color

Yellow-brown

Remarks

See Figure O.2.32 for the survey point.

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**Figure HAT2.11**

**Characteristics of Sub-watershed 10 (2/2)**

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

Sub-watershed - 11

Page 1/2

### 1) Catchment Area

Area

379

 ha

Highest Point

1,548

 m

Average Slope

21

 %

Lowest Point

815

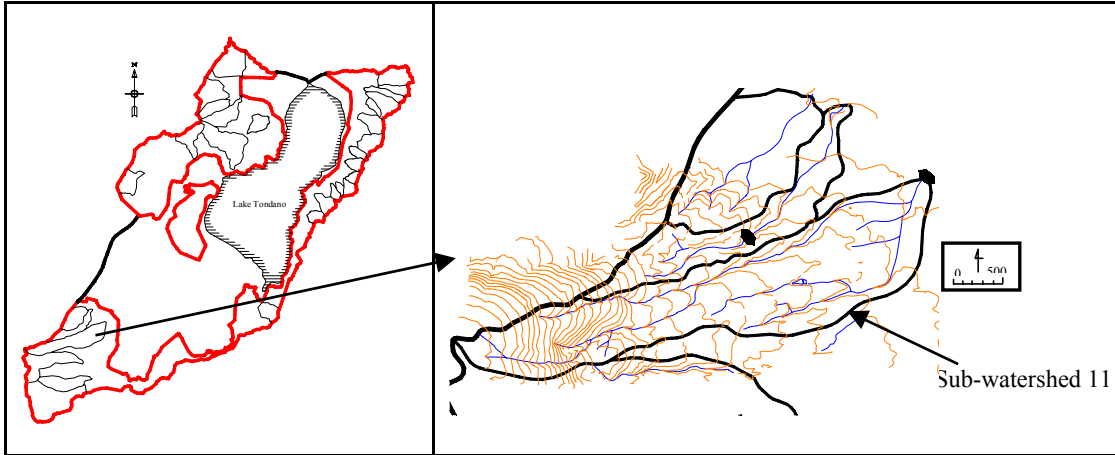
 m

Elevation Difference

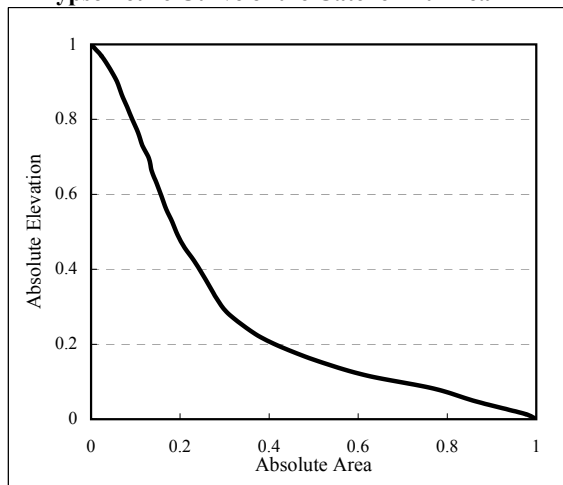
733

 m

Plan



### Hypsometric Curve of the Catchment Area



### Land Use of Catchment Area

Natural/Semi-natural Forest	23	%
Secondary Forest	3	%
Planted Forest	0	%
Estate	10	%
Mixture of Estate and Dry-farming Land	53	%
Dry Farming Land	11	%
Pasture Land	0	%
Paddy Field	0	%
Swamp	0	%
Water Body	0	%
Settlement & Othres	0	%

Source:

1:50,000 Land Use Map prepared by JICA Study Team for Master Plan.

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**Figure HAT2.12**

**Characteristics of Sub-watershed 11 (1/2)**

## Characteristics of Sub-watershed in the Intensive Area

Sub-watershed No.

Sub-watershed - 11

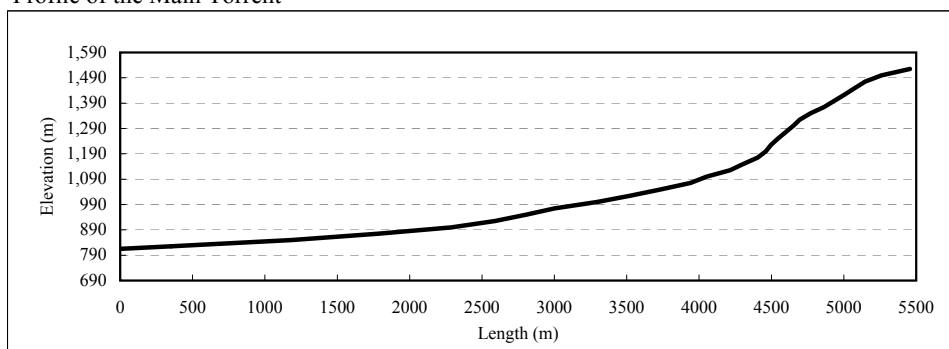
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### 2) Main Torrent

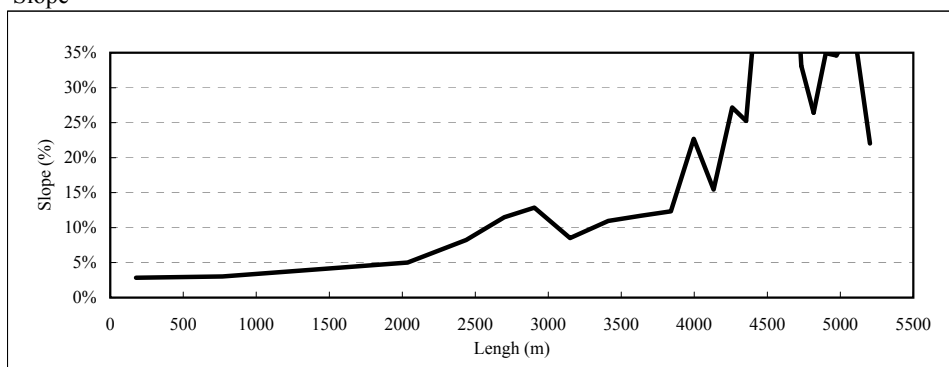
Mean Torrent Bed Gradient

13.2%

Profile of the Main Torrent



Slope



### Torrent Condition

Survey Point

TD-13

Bed Width

0.7 m

Bank Height

0.4 m

Bank Slope

60°

Gravel Condition

Min

0 cm

Max

0 cm

Average

0 cm

Uniformity

Yes

Coverage Ratio

0 %

Amount of Deposition

0 -

Land Use of Surrounding Area

Arable Upland

Water Depth at the Time of Measurement

- m

Water Color

-

Remarks

See Figure HAT2.32 for the survey point.

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**Figure HAT2.12**

**Characteristics of Sub-watershed 11 (2/2)**