

THE GOVERNMENT OF THE PHILIPPINES
THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

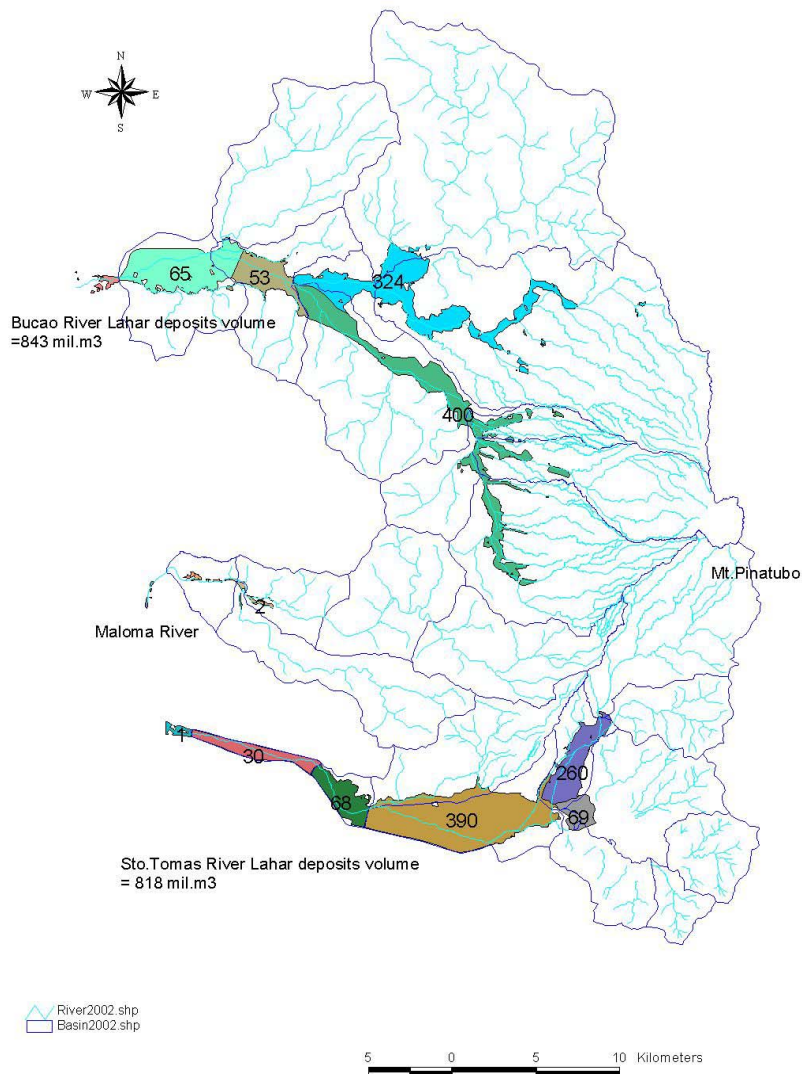
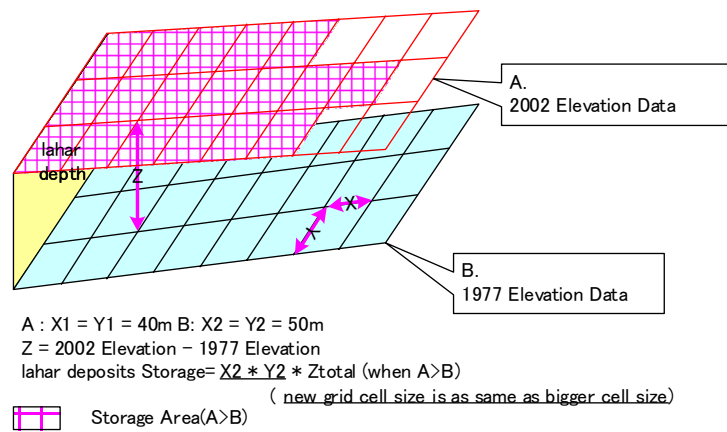
**The Study on Sabo and Flood Control for
Western River Basins of Mount Pinatubo in
the Republic of the Philippines**

JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 2.1.1

**Change of River Condition between 1990 and
2002**

Estimate of Volume of Lahar deposits



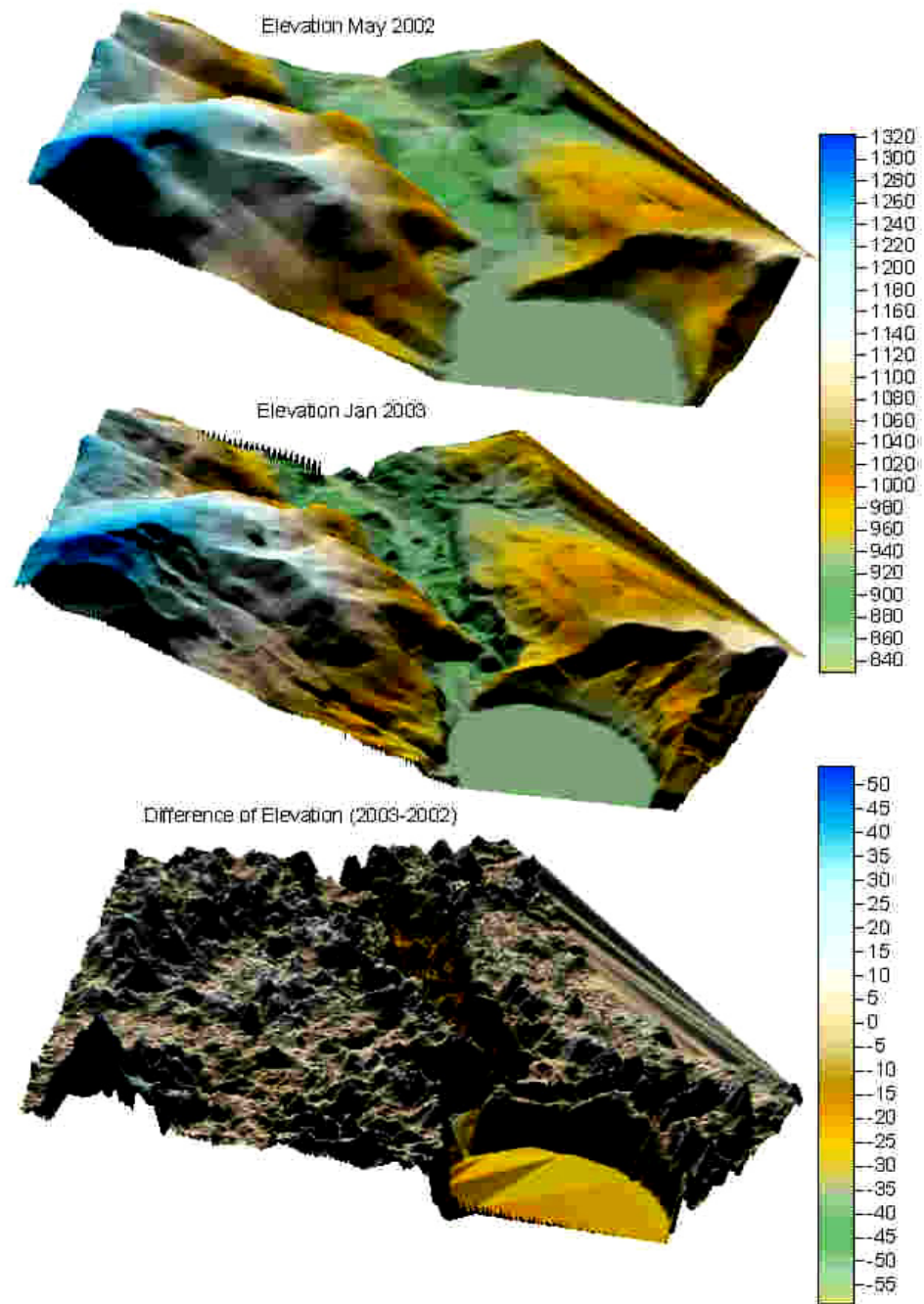
THE GOVERNMENT OF THE PHILIPPINES
 THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

**The Study on Sabo and Flood Control for
 Western River Basins of Mount Pinatubo in
 the Republic of the Philippines**

JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 2.1.2

Lahar Deposits Volume along the Rivers



THE GOVERNMENT OF THE PHILIPPINES
THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

**The Study on Sabo and Flood Control for
Western River Basins of Mount Pinatubo in
the Republic of the Philippines**

JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 2.1.3

**3-Dimensional Image of Maraunot Notch
before and after Collapse**

Example of GIS Analysis

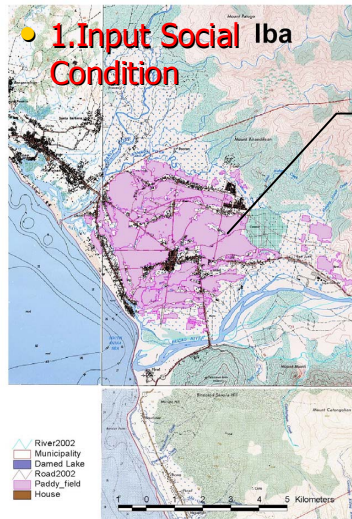
Estimate the amount of Damage from Hazard Map

Input
• Social Condition
• Result of Mudflow analysis

Overlay Hazard map and Social data

Estimate probable Damages

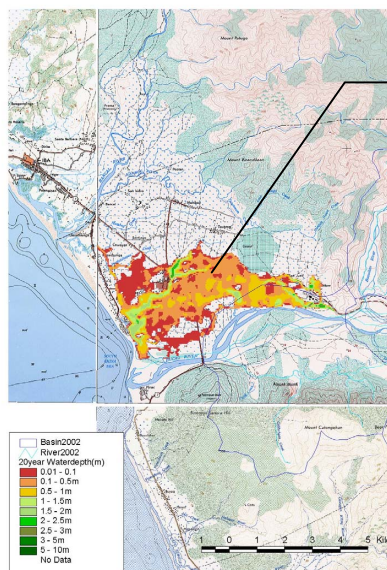
Nos of house
Length of Road
Area of Paddy Fields



Input Paddy Field

Estimate the amount of Damage from Hazard Map

2. Input Result of a two dimensional Inundation analysis

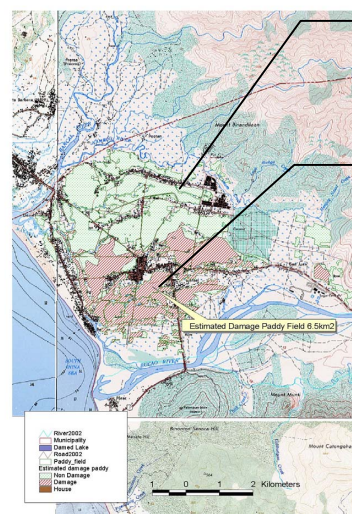


Input inundation analysis result

Estimate the amount of Damage from Hazard Map

3. Overlay Hazard map and Social data

4. Extract probable damages
Number of house
Length of Road
Area of Paddy Fields



Overlapping two layers
Non-damaged area

Overlapping two layers
Calculate damaged area

THE GOVERNMENT OF THE PHILIPPINES
THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

**The Study on Sabo and Flood Control for
Western River Basins of Mount Pinatubo in
the Republic of the Philippines**

JAPAN INTERNATIONAL COOPERATION AGENCY

Figure 2.1.4

Flow of Estimation for Amount of Damage from Inundation