

3-8. Gathering and Providing Information of Emergency Risk Assessment System

3-8-1. Emergency Risk Assessment Systems of Various Countries

The major earthquakes which hit Taiwan and Turkey in 1999 resulted in massive deaths. Emergency risk assessment of buildings, etc. was implemented after both earthquakes. However no emergency risk assessment was carried out for the West India Gujarat Earthquake.

Emergency risk assessment aims to promote the safety of people immediately after disasters such as earthquakes, by surveying the damage of buildings, preventing secondary disasters caused by the collapse of buildings and falling objects by secondary tremors, etc. Technical criteria for assessment and systems composed of the organizations implementing the assessment at the disaster site are necessary.

Such a system was developed by the U.S. and Japan in 1990, after which many countries are said to have established emergency risk assessment systems tailored to the construction criteria of their respective countries.

Risk assessment was also implemented during the earthquake which hit the Lijiang, Yunnan Province in China in 1994.

This system is recognized to be an important method to ensure the safety of lives after disaster, and though it is therefore gradually being constructed in Asian countries, it is not that common yet.

From this perspective, the ADRC is considering accumulating information on the emergency risk assessment system in Asian countries, and providing technical criteria for assessment on its homepage, with the purpose of enabling countries to refer to criteria and implement emergency risk assessments.

At the second International Meeting in December 1999, the ADRC reached a consensus with member countries on its plan and has decided to commence preparations.

Currently, the ADRC is reviewing the technical assessment criteria as part of this preparation. It considers the emergency risk assessment criteria ATC20 (Criteria for Emergency Assessment for Damaged Buildings) developed in the U.S. as the ideal standard criteria for assessment because it is in English.

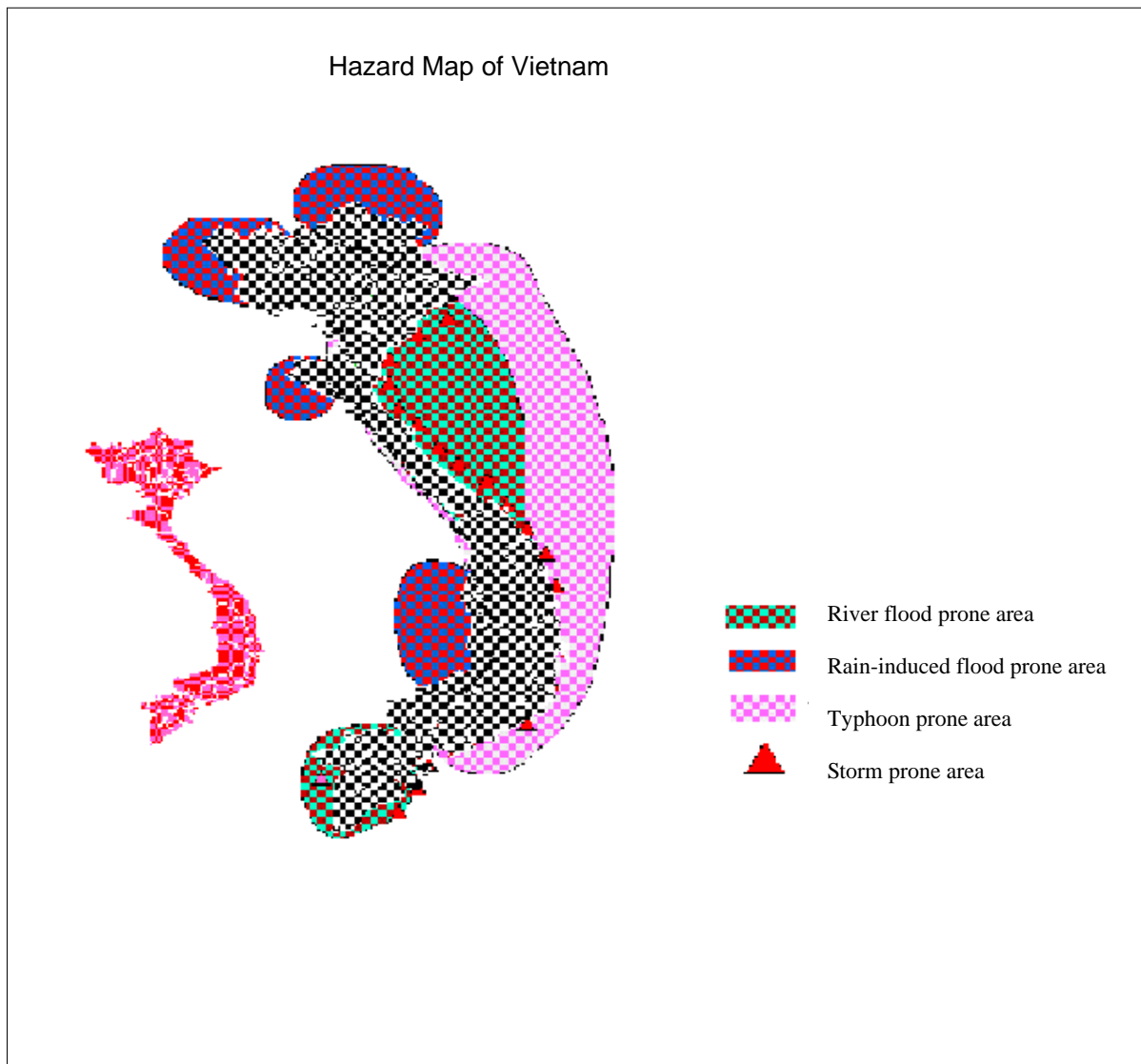
The ADRC has also requested member countries to provide information on the current situation of their emergency risk assessment systems.

3-8-2. Hazard Maps of Various Countries

Though hazard map examples of various countries have yet to be collected sufficiently, the ADRC plans to continue collection and analysis, and disclose examples to which the disaster reduction measures and disaster measures of various countries can be applied appropriately using methods such as its homepage, etc. It will collect and disclose several cases in 2000.

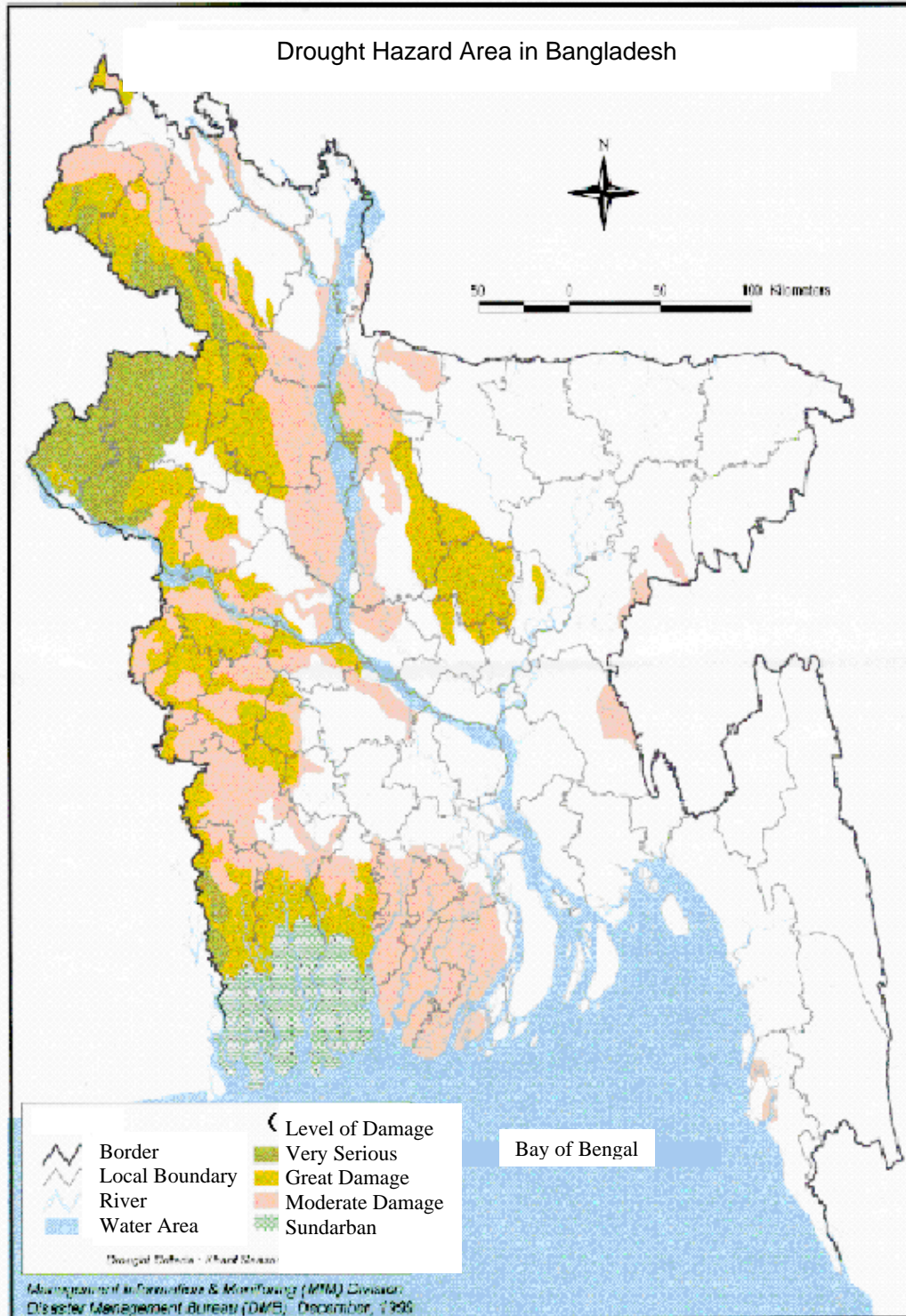
1) Vietnam

This shows the flood and storm hazard map of Vietnam. It was compiled by the Ngo Van Singh, visiting researcher at the ADRC (2000).



2) Bangladesh

This shows the drought hazard map of Bangladesh. It was compiled by Babul Ahkter, visiting researcher at the ADRC (2000).



3) Japan

The following shows examples of volcano hazard maps of Japan, the Mount Iwate Volcano Disaster Reduction Map and Mount Sakurajima Volcano Disaster Reduction Map.

Mount Iwate Volcano Disaster Reduction Map



Edited by: Mount Iwate Volcanic Disaster Countermeasures Survey Committee
 Published by: Ministry of Land, Infrastructure and Transport Tohoku District Bureau Iwate Construction Office, Iwate Prefecture, Morioka City, Shizukuishi and Nishine towns, and Takizawa, Matsuo, and Tamayama villages

Mount Sakurajima Volcano Disaster Reduction Map

Though this map shows only one portion, it indicates areas affected by the pyroclastic flow during previous eruptions, and positions of ports of refuge, evacuation centers, and trenchers. It also forecasts disaster areas in major eruptions in the future for use in evacuations.

Published by: Kagoshima, Tarumi, and Sakurajima cities



3-9. Disaster Data of 2000

By analysing the CRED data for the year 2000, the following facts were obtained.

- In 2000, 537 disasters occurred in the world. Of this, 32% occurred in ADRC member countries (23 countries). The number of deaths amounted to 46% and number of injuries to 72% in member countries. The tendency was more or less the same throughout Asia, indicating that member countries and Asian countries are a disaster-prone area. However due to the influence of the drought in nonmember country, Iran and typhoon damages in North Korea, the percentage of damage costs in the world differed between member countries and the whole of Asia.
- With regard to the types of disasters which occurred in the world, droughts, floods, and storms made up 90% of all victims and 94% of damage costs. Likewise, these three disasters made up 99% of the victims and 99% of damage costs in member countries.
- Among member countries, China, Russia, India, Bangladesh, and Indonesia made up about 60% of the number of disasters which occurred, and about 90% of the number of victims.
- In Cambodia, Mongolia, Philippines, Tajikistan, and Thailand, there were more than one million victims.