

Present aspects and problems of flood hazard maps

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1: Flood Hazard Map: There are various types of flood hazard maps. Here, the author reports the cases prepared by the leadership of the River Bureau of the Ministry of Land, Infrastructure, Transport and Tourism. These are prepared by local autonomous bodies which have duty to prepare flood hazard maps under the flood fighting law. The requirements of this type of flood hazard maps are; (1)the map must show information on flood, (2)the map must show information on evacuation, (3)each local bodies prepare the map and (4)the map must be open to the public.

Flood fighting law has provided that local autonomous bodies must prepare flood hazard maps. And total numbers of local bodies, which have prepared the maps by the leadership of the River Bureau, are over 600 at the end of September in 2007. But still several hundreds local bodies have not prepared the maps yet. As soon as possible, the maps should be prepared covering the whole potential flood areas.

2: Contents of the maps: The flood hazard maps consist of flood information (potential flood area, former inundated area), evacuation information (places of refuge, evacuation routes, danger points), organizations relating to disaster prevention, and knowledge of flood damage. There are three versions of flood hazard maps;(1)the version before 2001,(2)the version after 2001 revision of the flood fighting law, and (3)the version after 2005 revision of the one.

3: Technical problems for the preparation: The compilation system has not been full-automated through the whole process. Many flood hazard maps are open to the public through the Internet.

Technical problems are as follows:(1)The manual is open to the public, but it is always difficult to compile various data into one hazard map. (2)It is difficult to collect fundamental data of people who need help in emergency. Many local bodies refuse to prepare such data because such information is private information and staff members of welfare always claim, even if they refused to supply data. (3)There are areas where no safe place of refuge exists near the potential danger areas. And there are many cases that the total of places of refuge have not enough capacity for refugee, rather most of evacuees cannot stay there for an enough period. (4)There are flood hazard maps using very poor base maps, for the reason, even map specialists can not prick their houses on the map. And Many local bodies become to understand the maps enough after the whole process of the map compilation.

4:Problems of popularization:(1)Many people often use flood hazard maps as a map showing safe area. It is very danger use. (2)Most maps given to habitants thrown away to a waste box often, because people do not understand what flood hazard maps are. And local bodies must try how to make people keep the maps for a longer period without throwing away into a waste box. Local bodies should train the whole staff to understand what flood hazard maps are at the first of the popularization. Local bodies should hold meetings for habitants, give the maps to habitants directly there, and make habitants walk from their house to the specified place of refuge using the maps with neighbors. Many habitants do not feel that flood hazard maps are important, even if they have not experienced flood damage. (3)There are few people with enough knowledge of the fundamental characteristics of lowlands where flood can easily hit. It is necessary to spread geomorphological history of lowlands. (4) It takes long period for local bodies to popularize flood hazard maps including school education.

5:Conclusion: It is very evident that technical level has been advancing rapidly, but people want better flood hazard maps easy to understand. And in popularization, local bodies need train their staff first of all and repeat to educate people through a long period. There are many problems to be improved to spread flood hazard maps.