Collection of Critical Situations during Flood Emergency Response

Some municipalities in Japan conduct after-action reviews following a disaster, prepare review documents (e.g., disaster response review reports), and, in some cases, make them publicly available on their websites. These documents often contain many valuable reflections and proposals for improvement regarding responses that did not go well (what are referred to as “cases of critical situations during emergency response” in this booklet). Such insights are highly useful not only for the municipalities that experienced the disaster but also for others seeking to strengthen their own preparedness and response capabilities.

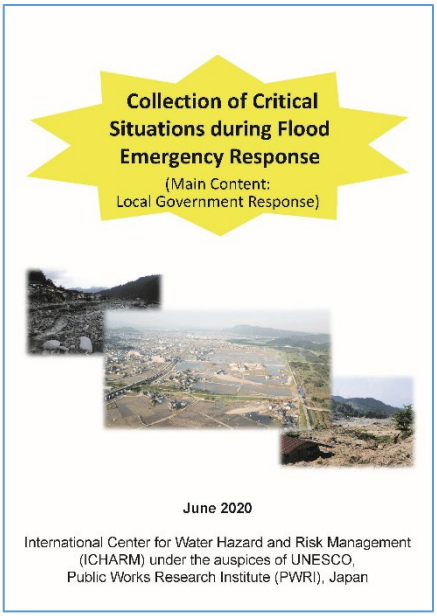


Figure 1” Collection of Critical Situations during Flood Emergency Response”

In fact, many municipalities report similar cases of critical situations. There have been numerous situations in which, had other municipalities known about these cases in advance, they might have avoided the same difficulties. With this background in mind, ICHARM has planned the publication of an easy-to-read booklet that compiles critical situations reported by municipalities, with the aim of preventing the recurrence of similar incidents.

Researchers involved in this project carefully examined disaster response review reports published by municipalities that had suffered major flood damage over roughly the past 20 years. From about 30 publications totaling approximately 2,000 pages, they extracted around 500 cases that offered useful lessons. These cases were then organized into 28 situations that disaster-management personnel are likely to face du ring an actual emergency.

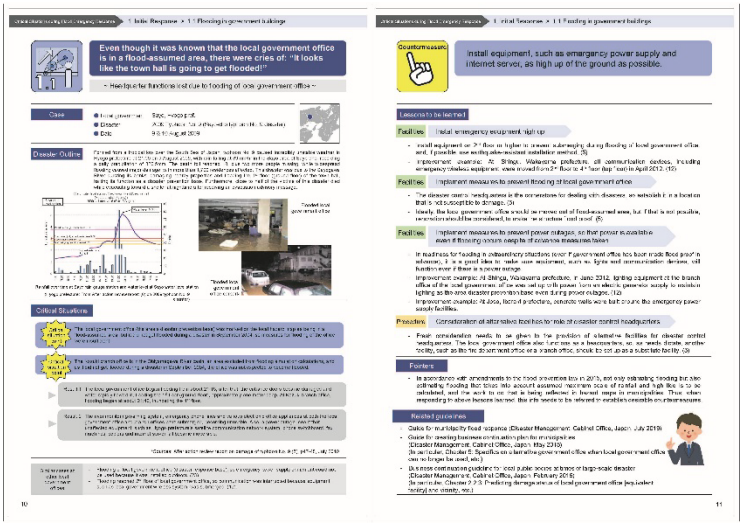


Figure 2 Sample page

Using these situations and the lessons learned from past cases, the project team developed a booklet-style training material titled “Collection of Critical Situations during Flood Emergency Response,” designed for individuals or groups to think through what actions and countermeasures would be appropriate in each situation. The booklet was published in June 2020.

In the municipality edition, the team defined “cases of critical situations during emergency response” as situations in which municipal staff find themselves confused, pressured, uncertain, hesitant, or troubled during flood-response operations. They extracted such cases from disaster response review documents (e.g.,

disaster response review reports) published by local governments and presented representative examples in a two-page spread format. For each case, they also compiled the lessons learned identified in those review documents and introduced them together with the case descriptions.

In June 2021, following the COVID-19 pandemic, the team produced a separate volume with an appendix focusing on local government response under COVID-19. This volume assumes the occurrence of a flood disaster amid concerns about coronavirus infection and presents possible situations and recommended control measures. In preparing the volume, the team referred to various guidelines issued by the Cabinet Office's disaster management section and the Ministry of Health, Labour and Welfare, as well as "A guideline for the creation of countermeasures against flood disasters during a pandemic situation (COVID-19)" developed by Associate Professor Maki Koyama of Gifu University, Professor Sakiko Kanbara of Kochi University, and others.



Photo 1 Training session in Toyota city



Photo 2 Training session for Bhutan officials

This collection was developed as a booklet-style training material so that individuals or groups can think through what actions and countermeasures should be taken in future flood events.

The booklet received the Outstanding Research Award in the General Category (Vitality) in November 2021 from the Research Group for National Land and Infrastructure Technology of MLIT.

From its release in June 2020 through the end of September 2021, the Japanese-language webpage for the booklet received 6,669 visits, while the English-language page received 1,261 visits.

Using this booklet, ICHARM conducted numerous training sessions for municipal staff. An English version was also produced and used in training programs for officials from developing countries, including JICA training courses.

＜Main training sessions＞

- Council for Disaster Reduction during Large-Scale Flooding of the Natori and Abukuma Rivers (July 2021)
- Toyota City, Aichi Prefecture (October 2021)
- National Seminar on Disaster and Crisis Management for Mayors, hosted by the Fire and Disaster Management Agency: "Issuing Timely and Appropriate Evacuation Information" (June 2022)
- Sayama City, Saitama Prefecture (July 2022)
- Saijō City, Ehime Prefecture (October 2022)
- "Key Points of Disaster Response Learned from Case Studies," Seminar Series for Municipal Staff, hosted by the Fire and Disaster Prevention Science Center (December 2022)
- Municipal Preparedness for Water-Related Disasters: Lessons from Case Studies," hosted by the National Construction Training Center (January 2023)
- "Learning from Near-Miss Cases in Disaster Response," JICA Training in Japan for

Disaster-Management Officials from Bhutan (November 2023)

- "Municipal Preparedness for Water-Related Disasters: Lessons from Case Studies," hosted by the National Construction Training Center (January 2024)
- "Realities and Challenges of Disaster Response," regional training for Tottori Prefecture as part of the Disaster Specialist Training Program, hosted by the Cabinet Office (January 2024)

ICHARM hopes that this publication will encourage municipal personnel involved in disaster management to view disasters not as something distant, but as issues that directly concern them, and to actively strengthen their own response capabilities. We also hope that it will serve as a catalyst for enhancing the overall disaster resilience of local communities.

The Collection of Critical Situations during Flood Emergency Response is available at:
https://www.pwri.go.jp/icharm/special_topic/20200625_flood_response_collection_e.html