

# Resident-driven Activity for Improvement of Local Disaster Management Capability

Yoichi SAKO<sup>1\*</sup>, Yu YAMAGUCHI<sup>1</sup>, Shoji IGARASHI<sup>2</sup>, Masakazu NAGANO<sup>3</sup>, Takashi DOI<sup>4</sup>, Shinzo KOBAYASHI<sup>5</sup>, Kihachiro MINAMI<sup>5</sup> and Keiya YOSHINAMI<sup>5</sup>

<sup>1</sup> Sabo Frontier Foundation

<sup>2</sup> Erosion and Sedimentation Control Division, pref. Kagoshima

<sup>3</sup> Hokuriku Regional Development Bureau

<sup>4</sup> Kurobe River Office

<sup>5</sup> Nagawa District Community Development Center, Matsumoto City

\*Corresponding author E-mail: kikaku@sff.or.jp

## INTRODUCTION

This report outlines a case of activities for improvement of local disaster management capability conducted for an area in the southern part of Nagawa district (which corresponds to a former village named Nagawa) in Matsumoto city as a model area. The Nagawa district is located in a southwestern area of the municipal land of Matsumoto city stretching for 11 km from east to west, and 14 km from north to south, with a total land area of 117.65 km<sup>2</sup>. The district sits on a valley with a small flatland area and is surrounded by 2,000-meter-high mountains. There are 14 communities scattered over the area, which has an altitude of around 1,200 m.

This district suffered devastating damage from Typhoon No. 10, which hit the area on September 28, 1983. The typhoon caused an unprecedented rainfall event including a total rainfall of 289 mm and a maximum hourly rainfall of 37 mm. Sediment was washed down through every mountain stream. Sediment and floating tree(or log) washed down to downstream areas in some mountain streams, particularly those without any sabo dams, finally causing a large-scale sediment-related disaster.

The activity reported in this paper was conducted to help local residents take proper action (self-aid and mutual help) in the event of a sediment-related disaster, or when at an increased risk for such a disaster, without making the memories of the past disasters obsolete past disasters fade away. To be specific, the activity included holding of workshops with local residents as the main players, and preparation of sediment-related disaster hazard maps and disaster management action plans.

## ACTIVITY PROGRAMS FOR WORKSHOPS

The specific programs of the activity shown in Fig.1 include the holding of three workshops, opinion polls to all district residents (households), and exchange of notes by each neighborhood association about sediment-related disaster hazard maps prepared by the residents (draft).

The first workshop involved identification of information on resources usable in disaster situations, local hazards and the exchange of notes regarding disaster preparedness activities to be taken in the event a disaster occurrence is likely, and about cooperation residents can provide in an emergency situation.

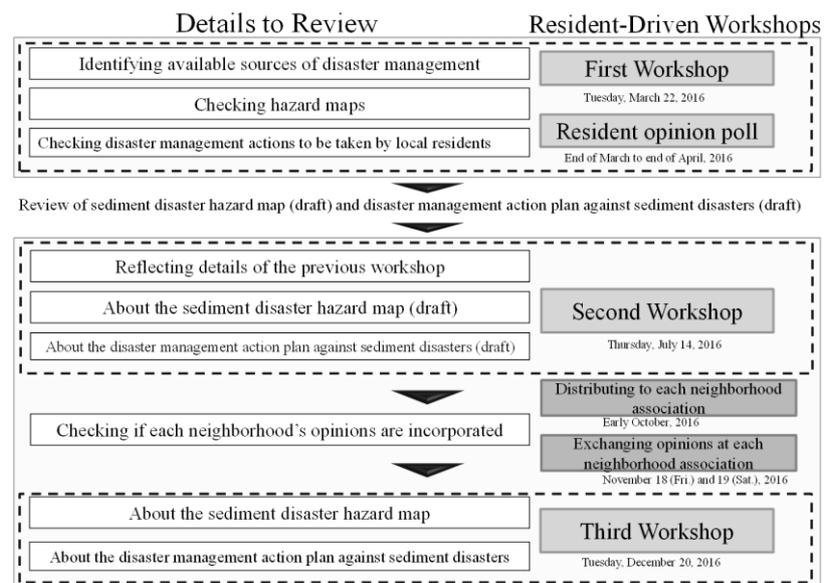


Fig.1 Workshop Agenda

The opinion poll intended to gather information that may supplement the results of the first workshop and clarify residents' awareness of sediment-related disasters.

At the second and third workshops, the drafts of sediment-related disaster hazard maps and disaster management action plans, prepared with the help of the authors, were presented to the participants as a springboard, and the following points were discussed among the participants, with the results of the first workshop in mind.

- Items or content that need additions, corrections, or deletions on hazard maps
- Ease of recognition or use of items shown in the maps or their margins, or in other documents
- Addition, correction, or deletion of action to be taken by each neighborhood association, or relevant information
- Timing of action to be taken
- Appropriateness or viability of action plans for neighborhood associations
- Specific roles to share among residents

Between the second and third workshop, residents meetings were held by the neighborhood association to make complementary checks, collect opinions, and interview representatives to grasp what residents need and want, and improve the hazard maps and action plans.

### RESULTS OF THE ACTIVITY

Based on the opinions gathered through the workshops and opinion polls, the sediment-related disaster hazard map (Fig. 2) and disaster management action plan (Fig. 3) were completed. In developing the action plan, various ideas were tried and adopted regarding how to show illustrations and photos, or what font or character or letter size to use so that the plan and what it intends to convey can be easily read, recognized and understood. In addition, a supplementary reader, or Guide Book, was prepared to show how to use or read the plan and other relevant documents to help residents effectively use them.

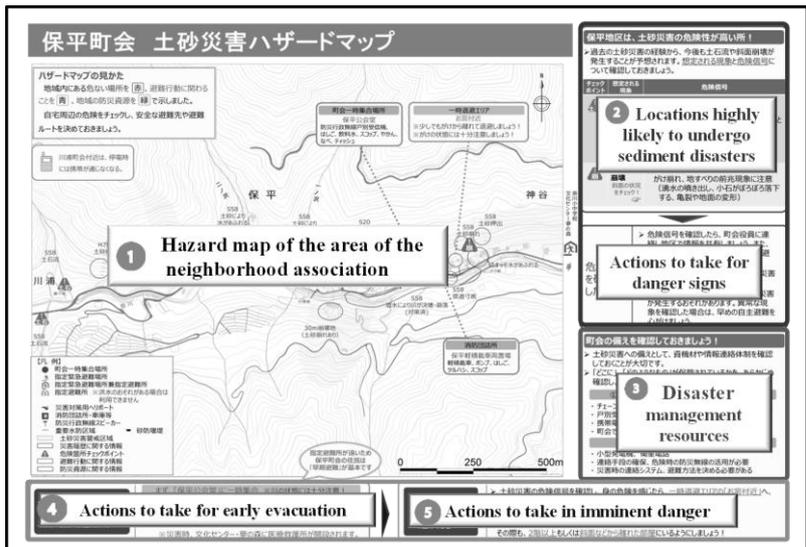


Fig.2 the sediment disaster hazard map

### CONCLUSIONS

This report introduces the results of a model activity taken primarily by local residents for improvement of their disaster management capability. Residents in the southern part of Nagawa district in Matsumoto city willingly agreed to participate in this activity, and were actively involved in various programs of the activity, including airing and exchange of opinions, for their own active use of the information or deliverable. At the end of the final workshop the residents' representative wrapped up the activity saying, "This is not to mark the completion of the activity, but to mark the start of our being constantly aware of disaster management activities and revising them from time to time." It is hoped that the results of the activity will be continuously utilized for their good.

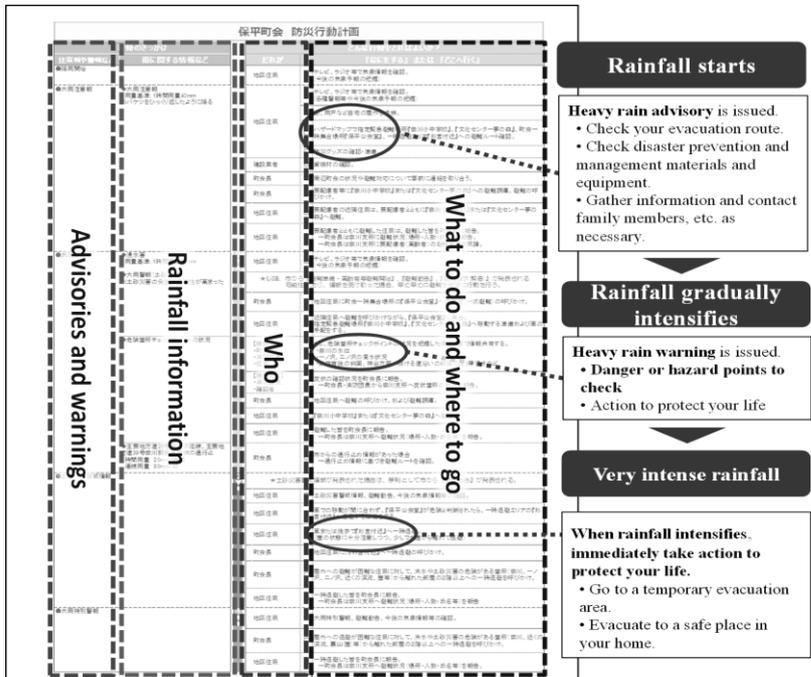


Fig.3 disaster management action plan

**Keywords:** the sediment-related disaster hazard map, disaster management action plan, Local Disaster Management Capability, workshop, Resident-driven Activity