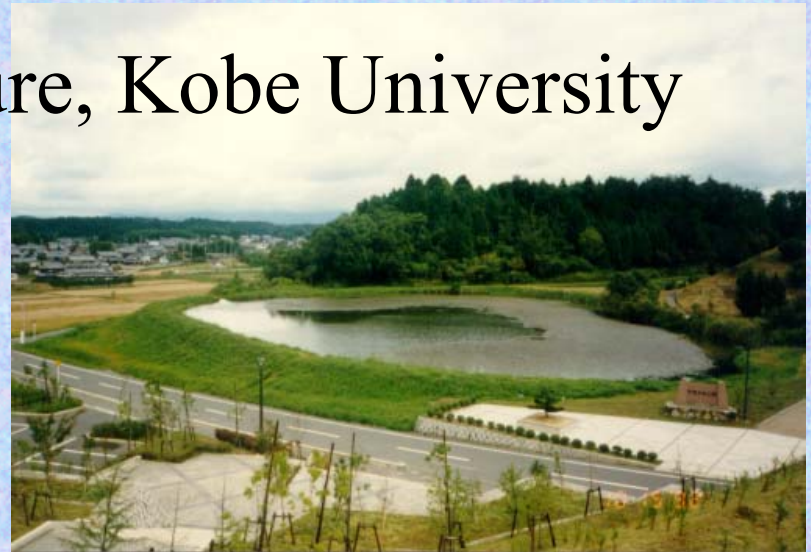


The Effective Role of Rural Communities in Preventing Natural Disasters

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Contents of this short report

- Response of rural community during the Hanshin-Awaji Earthquake
- Utilization of irrigation reservoirs and paddy fields
- Participation of the elderly to disaster prevention activities



Rural life related to natural disasters

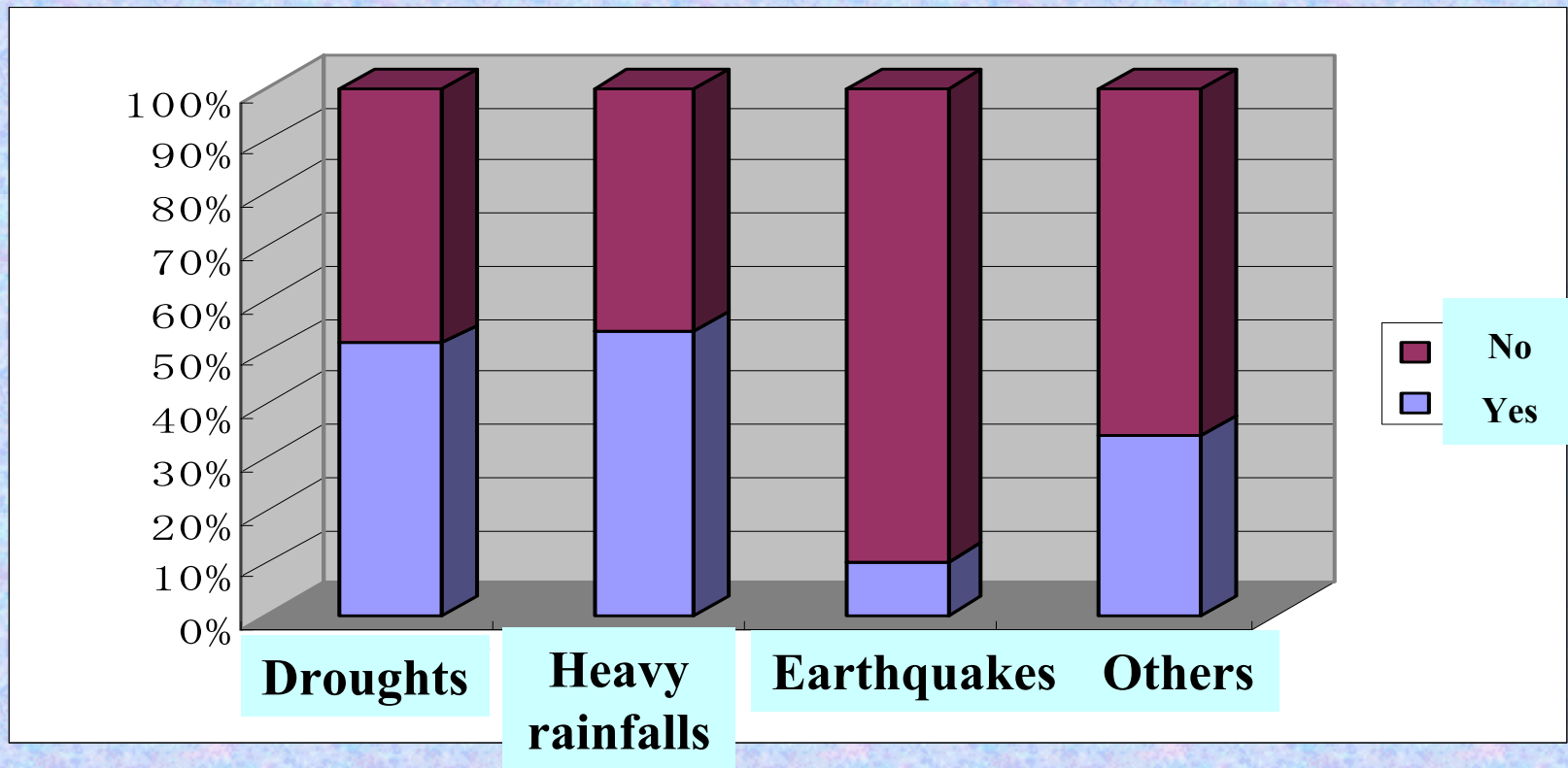
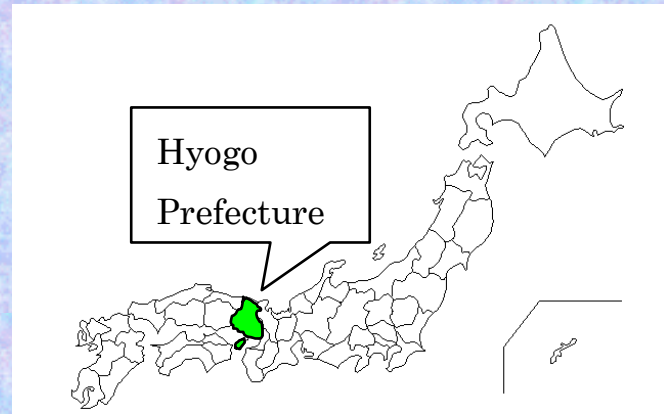


- Life in rural areas is full of natural qualities, and gives many opportunities to experience the mechanisms of nature.
- People in rural areas experience the myriad workings of nature, including natural disasters.
- Various systems for disaster prevention have been adopted and are active in rural areas.

The activities of rural communities

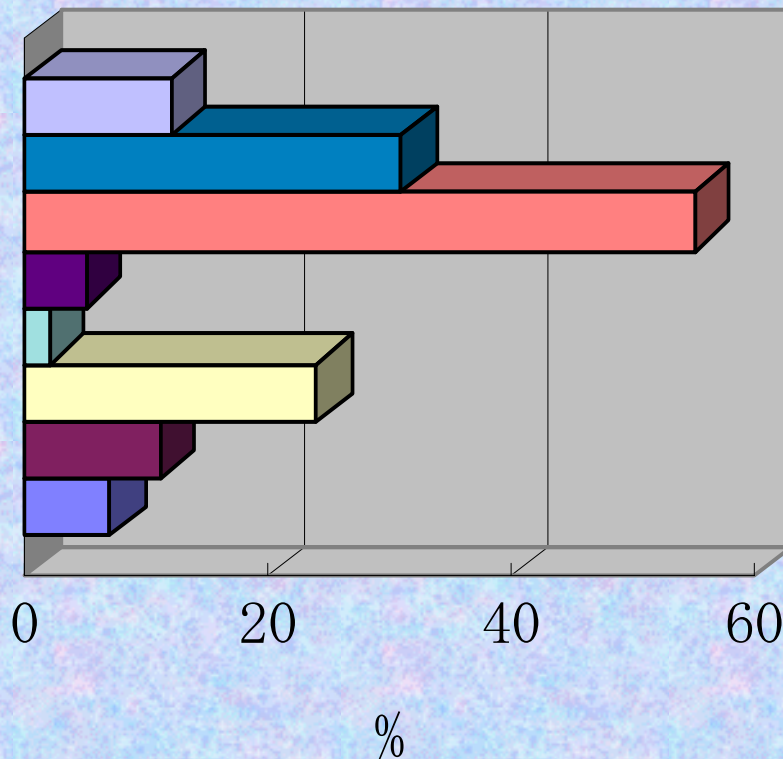


- Autonomous organizations and disaster response based on the daily water management systems of irrigation cooperatives, etc., have a large role to play.
- Activities by voluntary disaster prevention units, fire-fighting organizations, and women's groups are thriving, and that, for their local areas, these are bodies that can be relied upon in the event of a disaster.
- While cooperative relationships with cities are an issue that has been continued, many results have already been achieved, such as relief activities following the Hanshin-Awaji Earthquake and other disasters.



Efforts and arrangements related to disasters

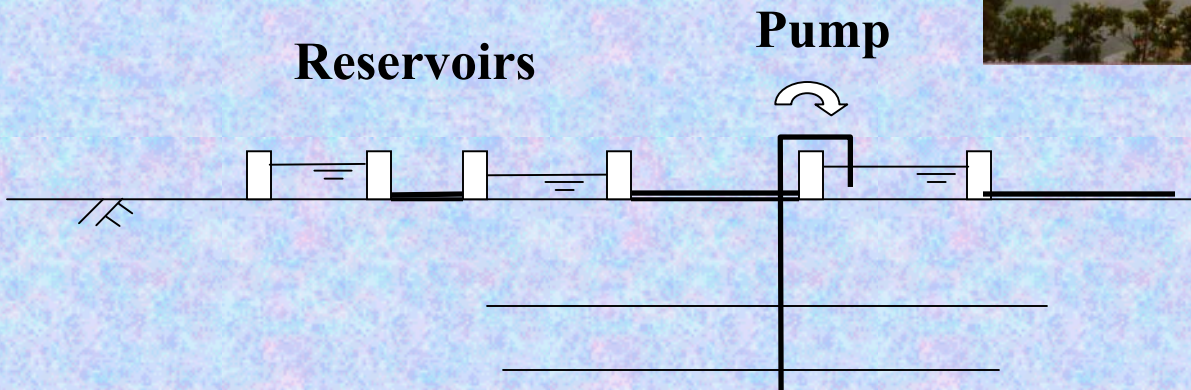
Desire for the multi-objective use of irrigation reservoir



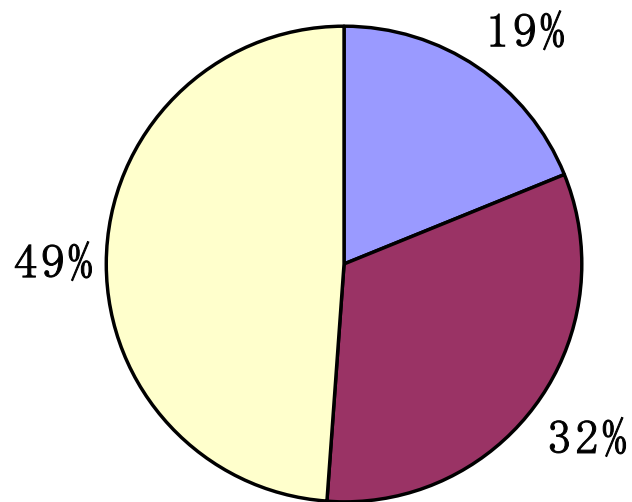
- Play in the water
- Fishing
- Jogging & walking
- Boating
- Golf practice
- Observing biotope
- Camping
- Others

Water resources in the emergency

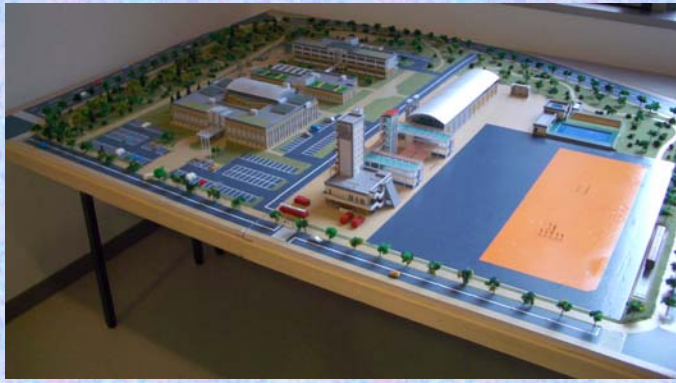
- Utilization of agricultural reservoirs by pumping up groundwater



Water management cooperation in flood control



- Cooperation possible
- Cooperation not possible
- Other replies

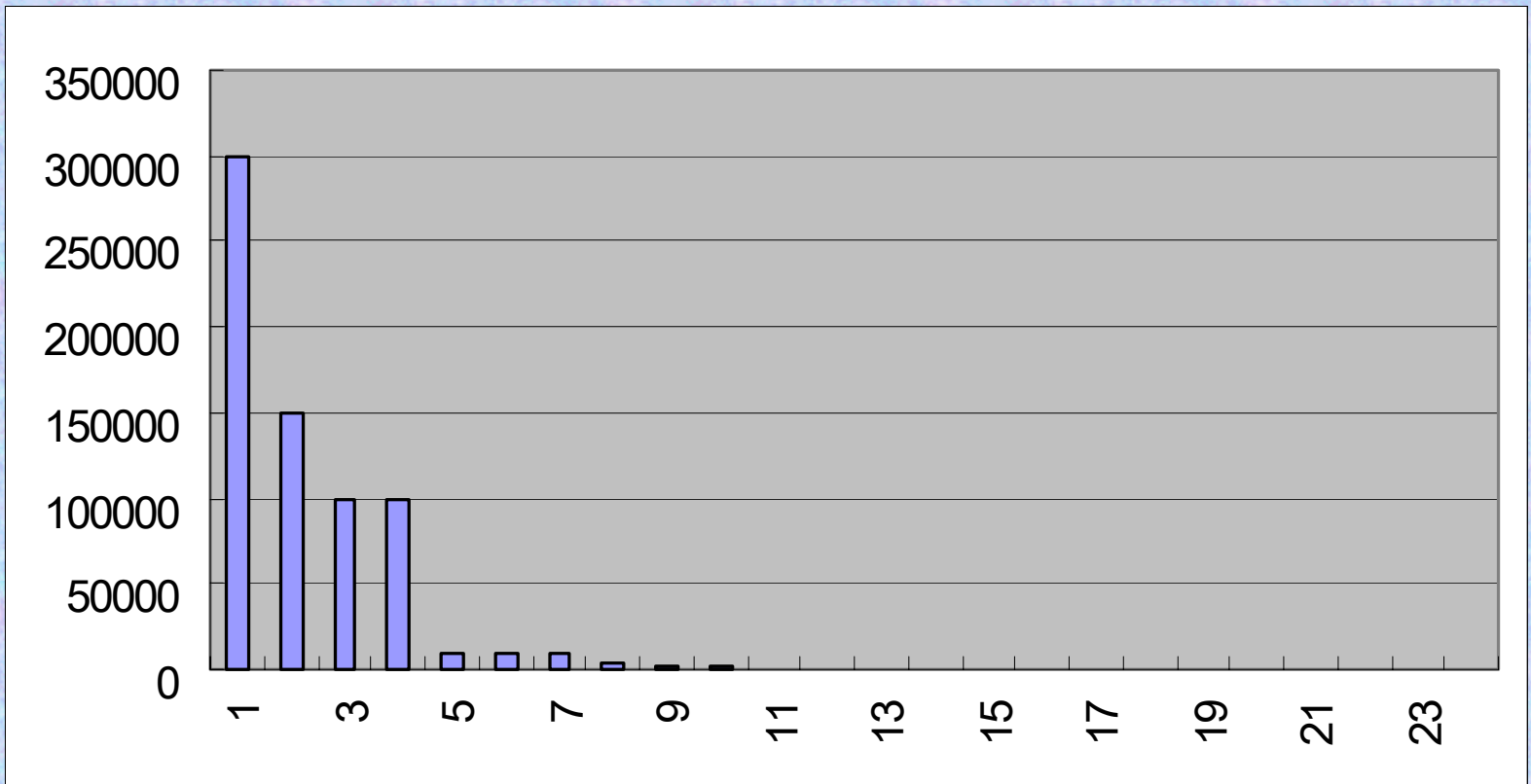


- The Hyogo Prefecture Fire-Fighting School has been moved, stockpiling of food and other disaster prevention materiel is now in progress, and opportunities for disaster prevention training on a national scale are being provided.
- In Hyogo Prefecture, the Miki General Disaster Prevention Park is now being built in a rural area of Miki City, while a Prefectural Wide-Area Disaster Prevention Center is also complete.

Methods and effects of flood management using paddy fields

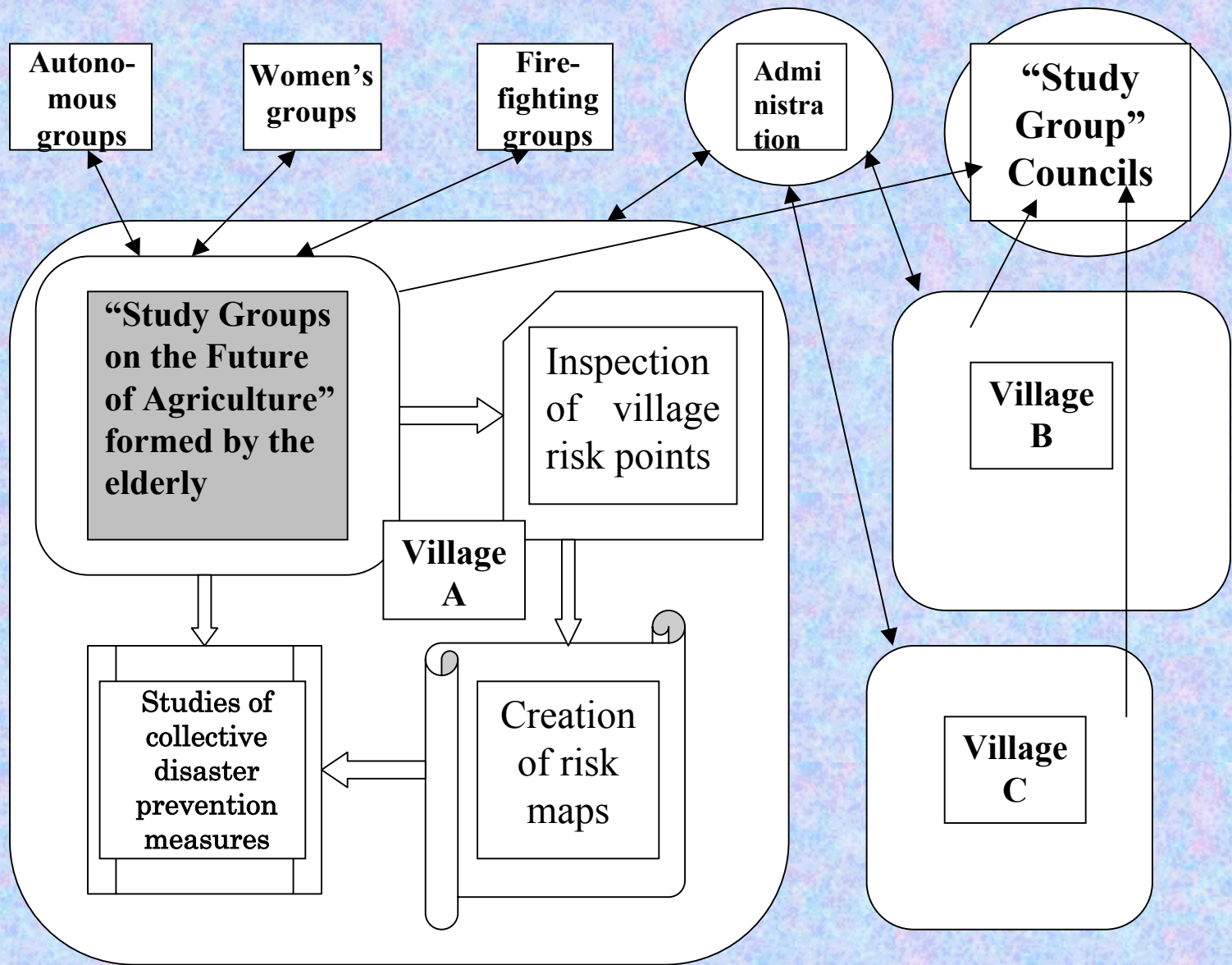


- If, in collaboration with river authorities, the water levels in paddy fields and irrigation reservoirs could be controlled during torrential rains, it should be possible to effectively retain rainfall in accordance with the water level in drainage rivers and control discharge, drain them when river levels fall and prepare for the next rainfall, and thus repeatedly make effective use of the water storage capacity of paddy field zones.
- What is important here is direct involvement by farmers in acts that have a public purpose. Involvement in planning to prevent flooding for people living downstream is a noble act, and will lead to spiritual interchange between rural areas and urban residents living downstream, when they come to know of these efforts.
- And while organized cooperation is necessary, participation by farmers, fostered by significant flood control effects with just a few days of work per year, as well as the spiritual linkage with downstream residents, is surely a problem that is worth tackling in a society of “participation” and “collective action”.



Desired price for the cooperation (yen/10a/year)





Forms of contribution to disaster prevention by the elderly

Conclusions



- Far from seeing the elderly merely as the recipients of protection, we need policies that can draw on their experiential wisdom and other qualities. This is a task that should be tackled positively, above all by agriculture and fishery-related departments with jurisdiction over rural areas, where population aging is most advanced.
- On the emergent case of floods paddies and irrigation reservoirs can be used for their control by the help of water management in the fields.
- Irrigation reservoirs have great possibilities for the multi-objective uses through the ordinary and emergent periods. Paddy farming is the key for the recharge of groundwater to stabilize the conjunctive use of surface and groundwater.
- Although various efforts were seen in the disaster response, there is still plenty of untapped energy. To improve the potential for regional disaster prevention, we will need to raise the disaster prevention awareness of more residents, and further intensify their relationship with nature.