

# **The Science Council of Japan (SCJ)**

## **Special Task Committee:**

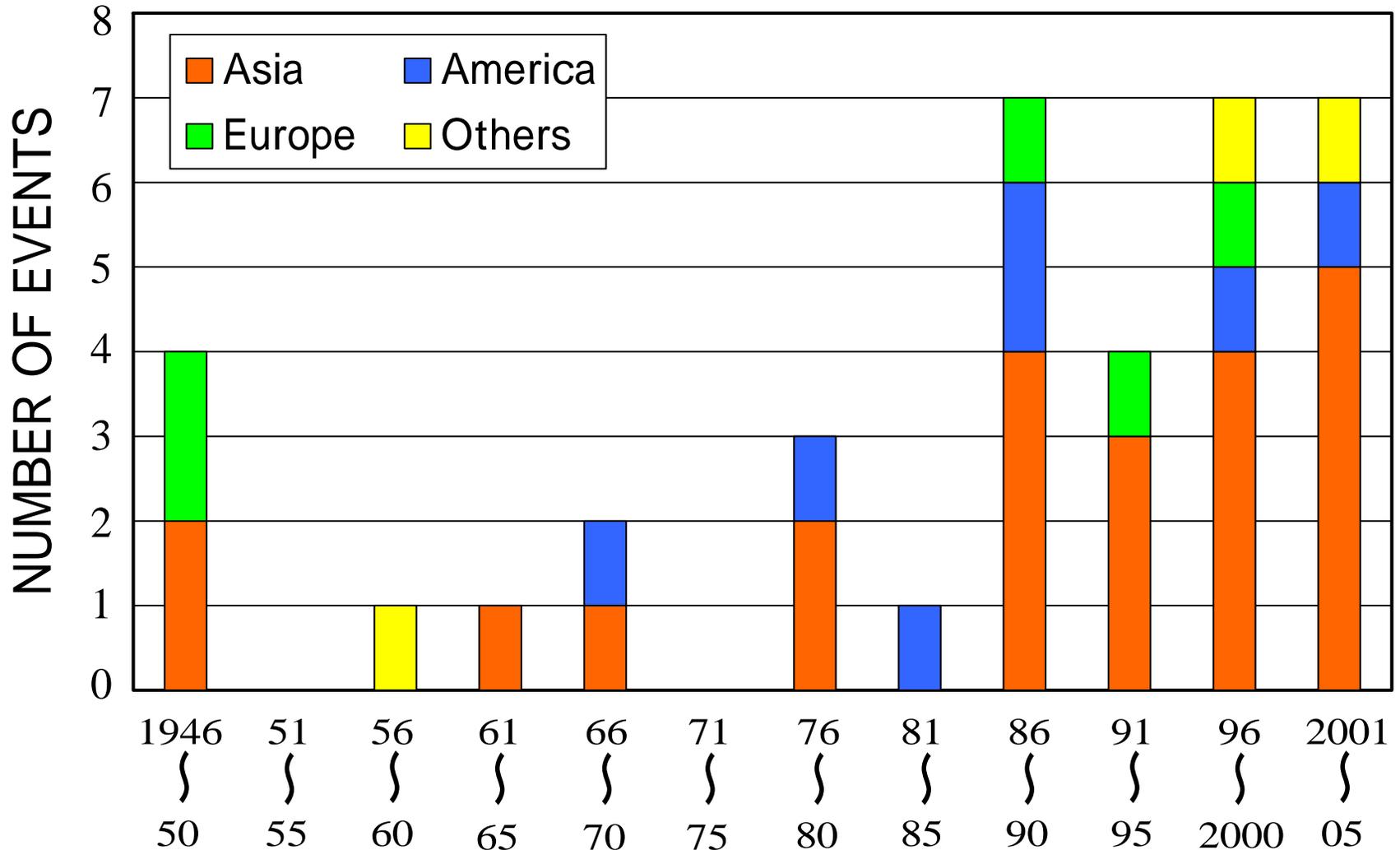
### **Creation of safe and Secure Societies against Global Change of Natural Disasters**

#### **Themes:**

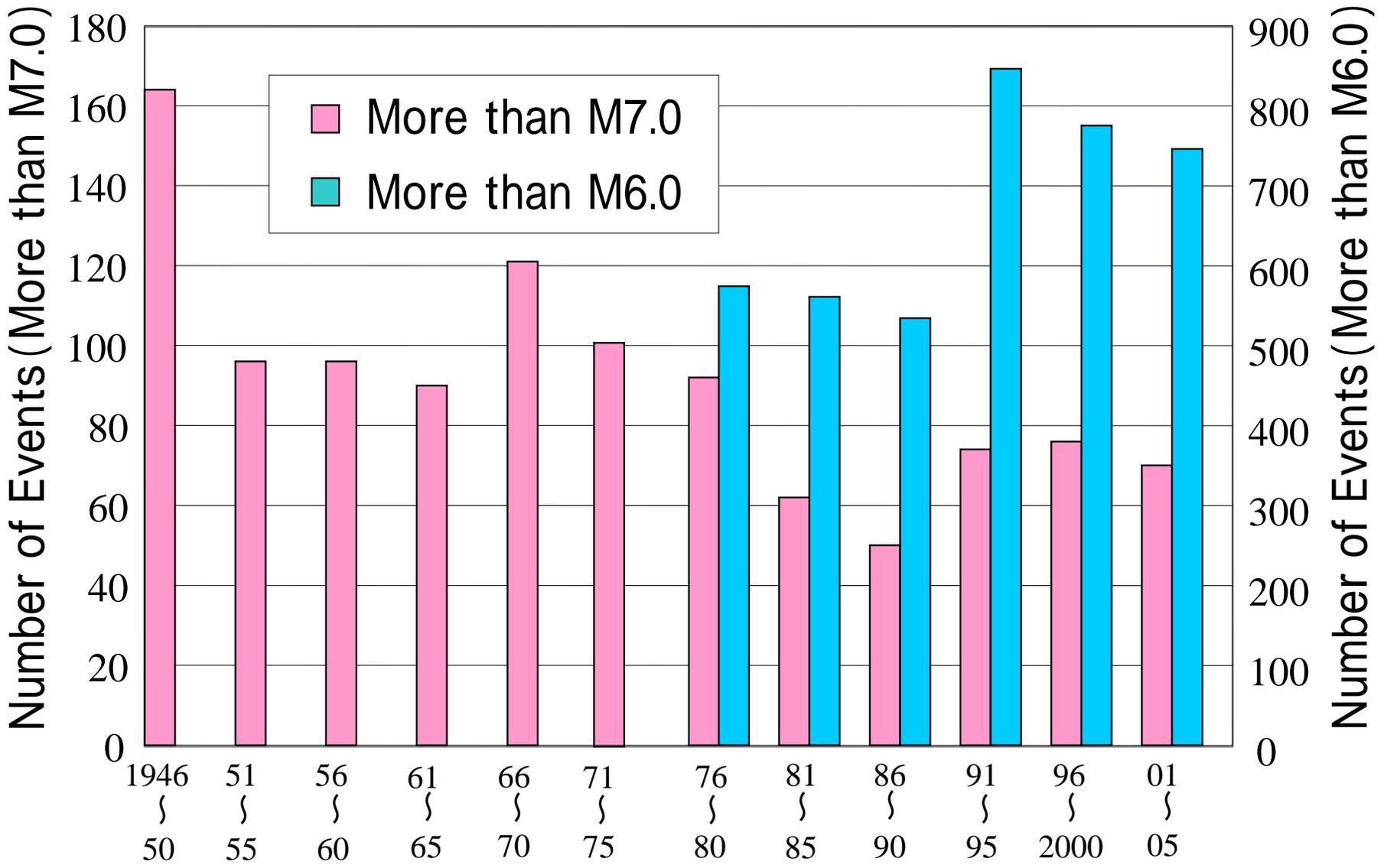
- 1. Forecast of natural hazards resulting in disasters (earthquake and tsunami, volcano eruption, storm, heavy rain, high tidal wave, etc.)**
- 2. Evaluation of social hazards in national land-use and social structures against disasters, and forecast of future natural disasters**
- 3. Basic policies and measures for creation of safer and more secure society**
- 4. Roles and responsibilities of the Science Council of Japan for natural disaster mitigation**

# Damaging Earthquakes and Tsunamis in the World during Last 60 Years

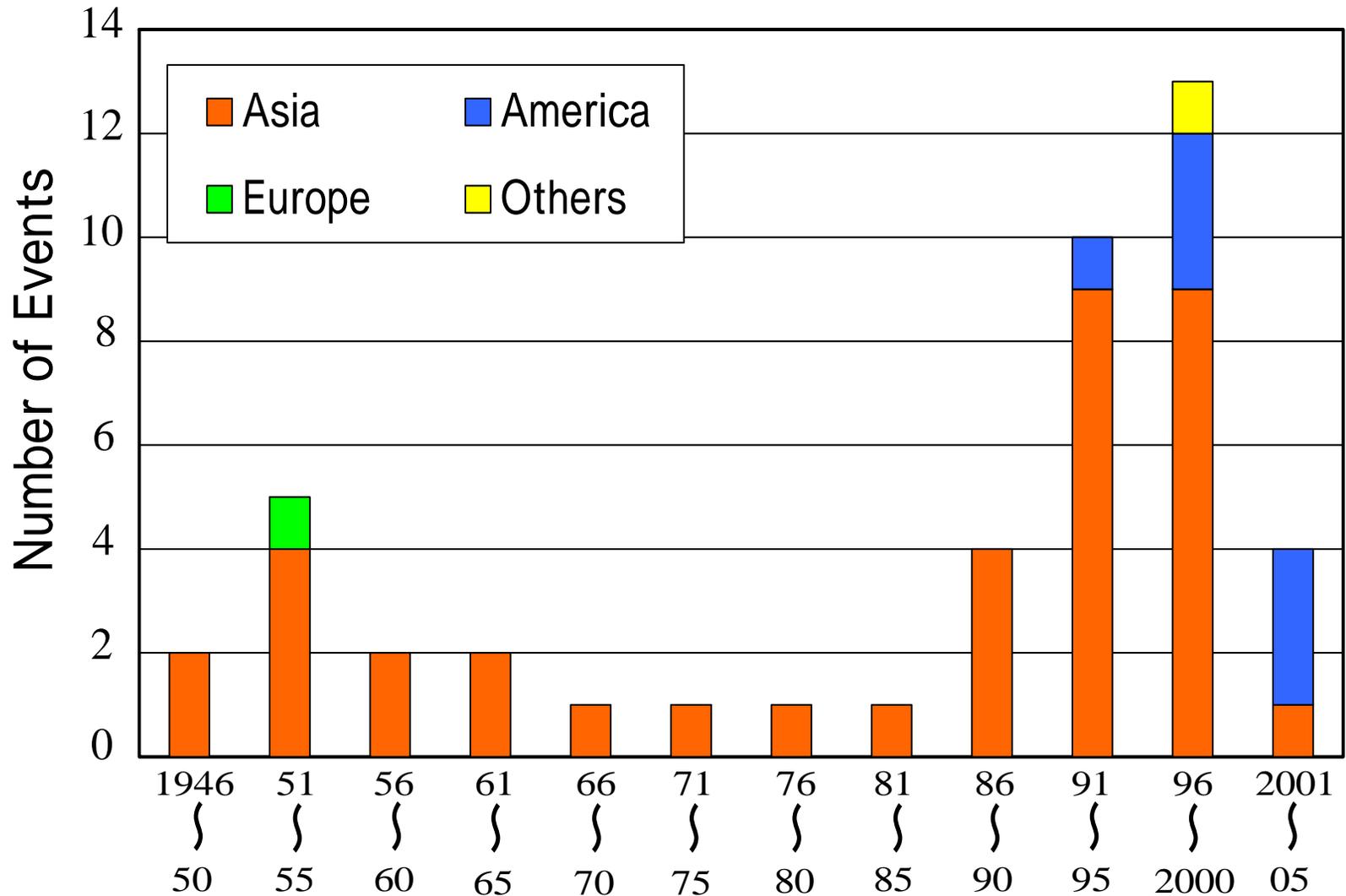
(Events with more than 1000 casualties)



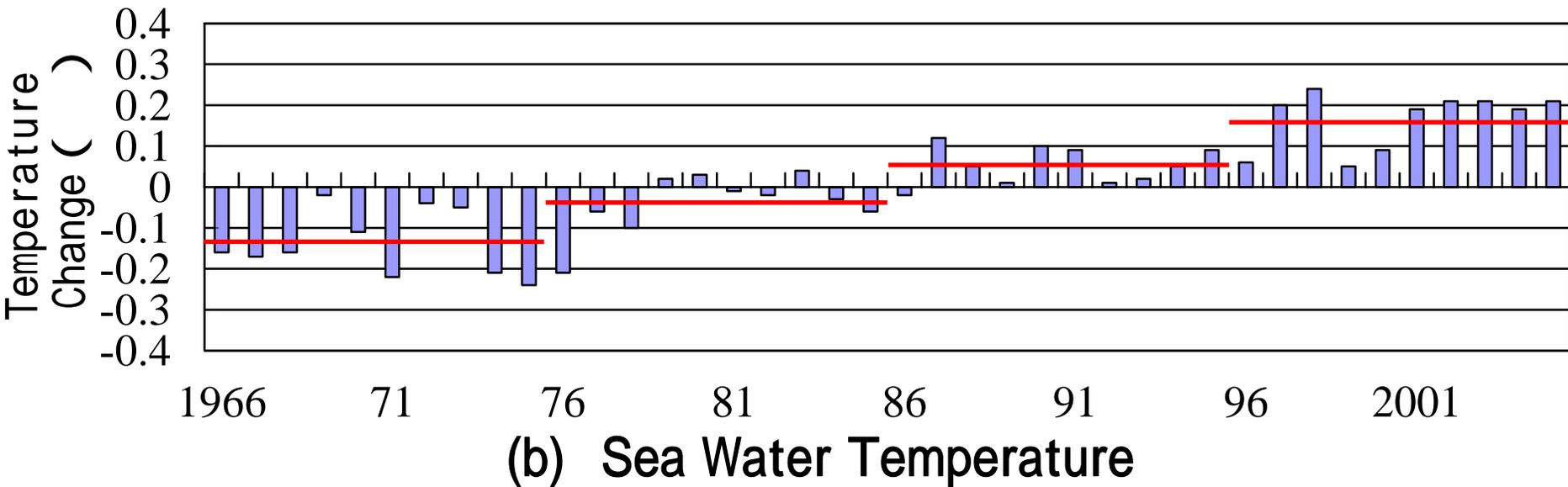
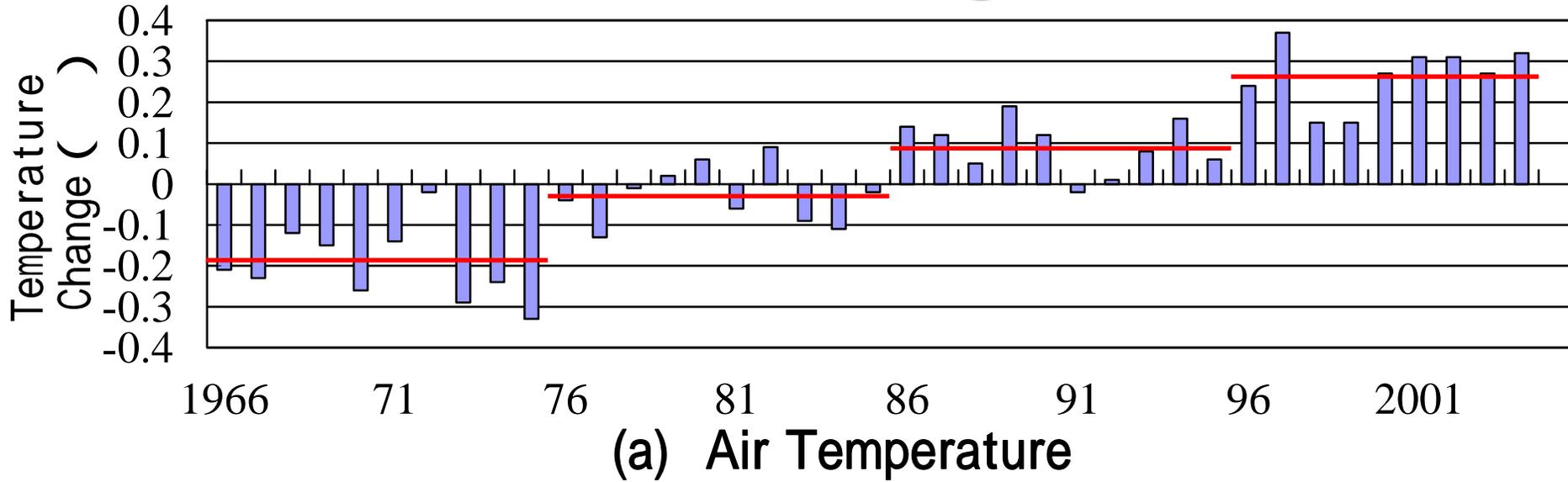
# Number of Earthquakes with Magnitudes More than 7 and More than 6 during Last 60 Years



# Damaging Storms and Floods in the World during Last 60 Years (Events with more than 1000 casualties)



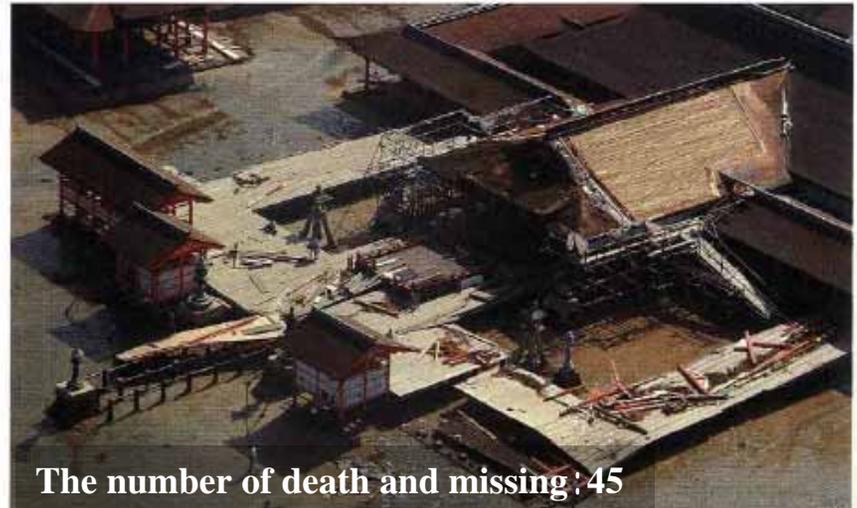
# Temperature Change of Air and Sea Water in the World during Last 40 Years



# Recent Flood and Storm Disasters in Japan



The number of death and missing : 98  
2004 Typhoon No.23



The number of death and missing : 45  
2004 Itsukushima-shrine severely damaged by Typhoon No.18(Hiroshima)

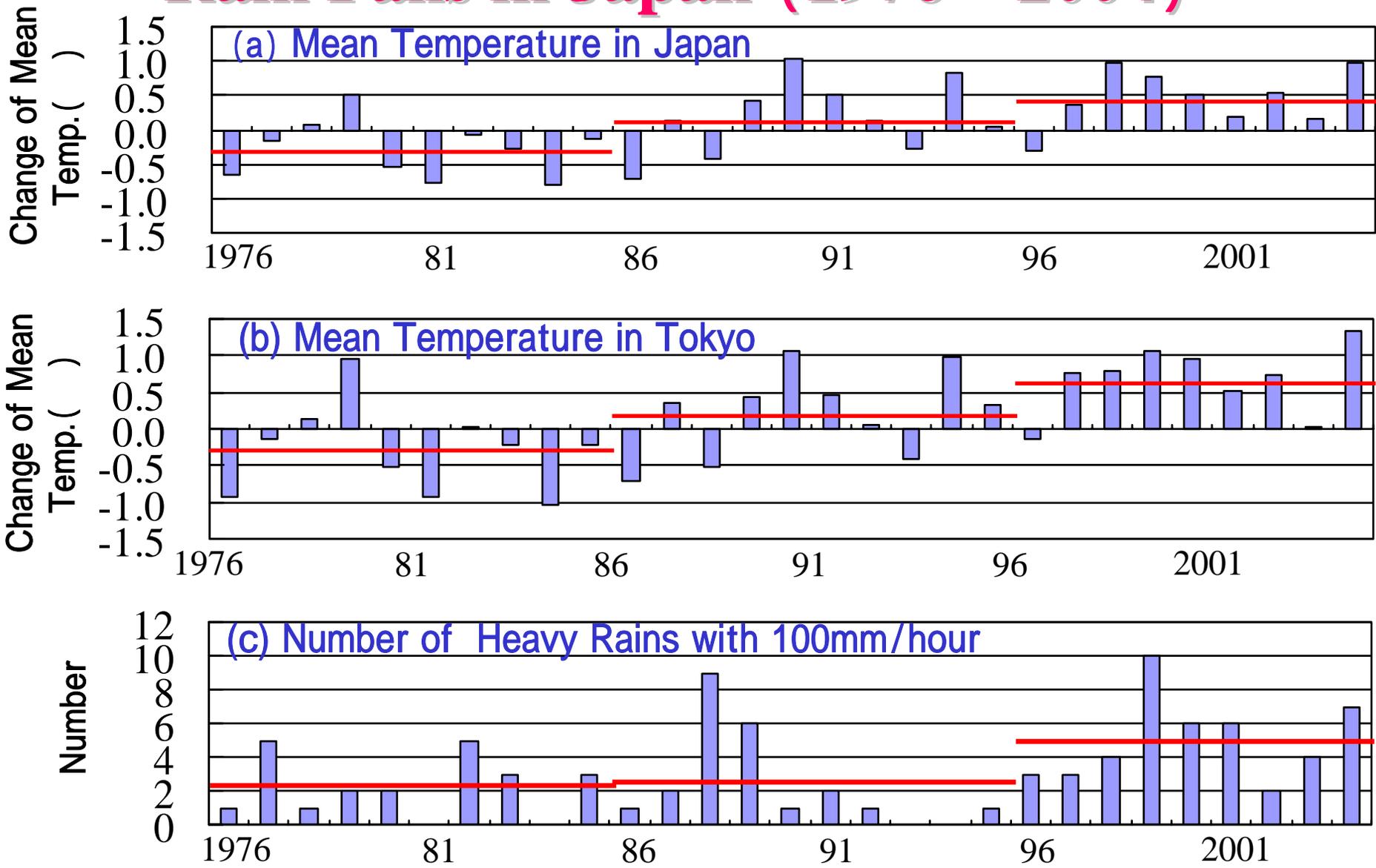


The number of death and missing : 0  
2005 Flood in Tokyo



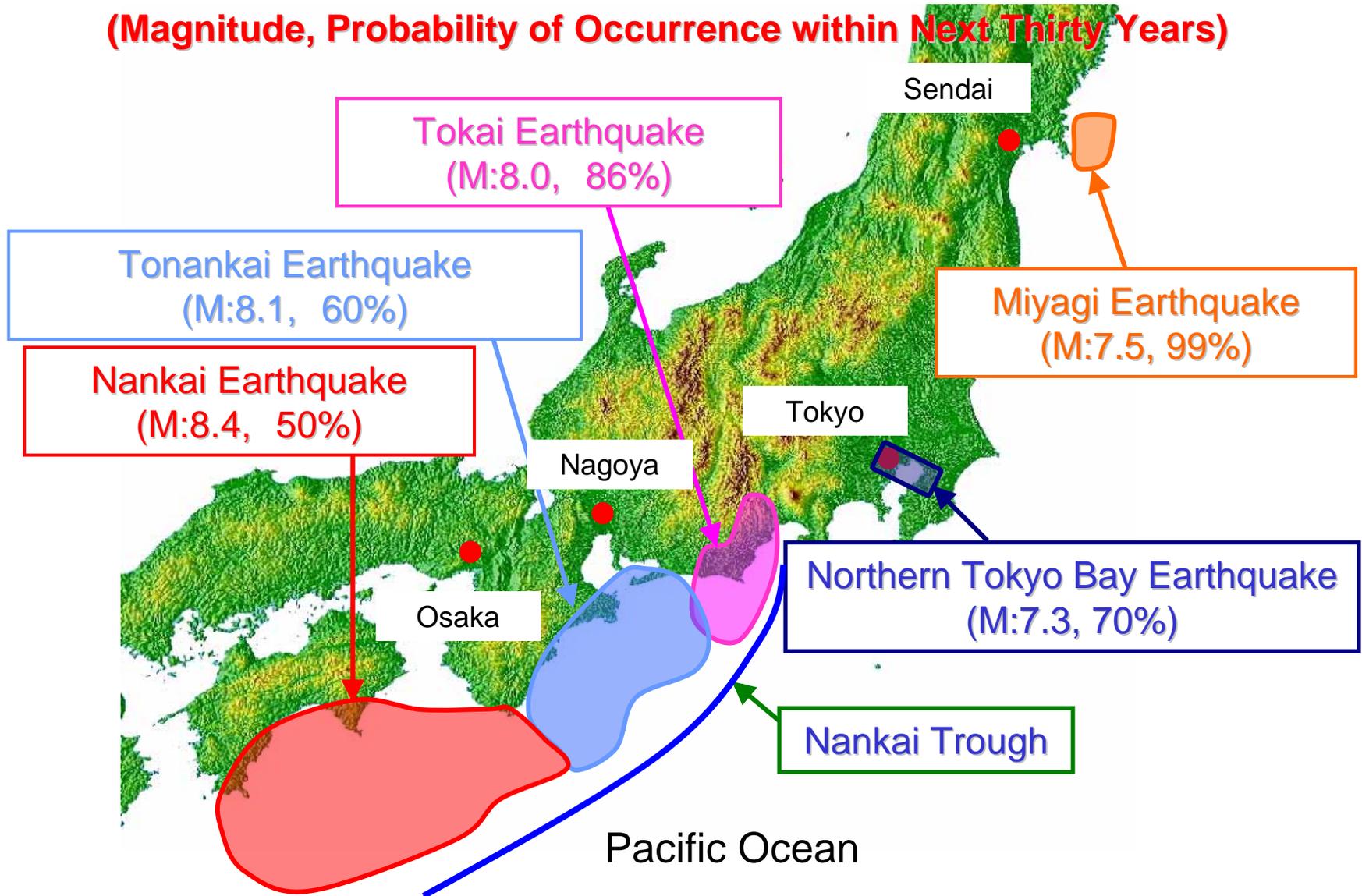
The number of death and missing : 39  
1999 Flood in Fukuoka

# Change of Mean Temperature and Rain Falls in Japan (1976 ~ 2004)



# Future Earthquakes with High Probabilities to Hit The Mega Cities in Japan

National Council for Disaster Prevention JAPAN  
(Magnitude, Probability of Occurrence within Next Thirty Years)



# **Request for Advisory from Minister of Land, Infrastructure and Transport to SCJ President**

## **- Policies on Infrastructure Development for Disaster Mitigation under Global Change of Natural and Social Circumstances -**

### **Themes:**

- 1. Forecast of future natural hazards resulting from the changes of global environments.**
- 2. Evaluation of hazards in national land-use and social structures and evaluation of vulnerability of existing infrastructures.**
- 3. Proposals of basic policies and measures for improvement of national land-use plan and for development of infrastructures.**

# Contents of the Report

- 1. Forecast of natural hazards**
- 2. Evaluation of vulnerabilities in land-use and social systems**
- 3. Basic policies for creation of safer and more secure society**
- 4. Measures for the improvement of national land-use plan and for the reinforcement of existing infrastructures**
- 5. Roles and responsibilities of SCJ for natural disaster mitigation**

## Propositions

# Propositions for Policies and Measures by SCJ Committee ( 1 )

- (1) **Paradigm change** from short-period view of efficiency of economics to long-term view of creation of safe and secure society
- (2) **Stable and long-term tax spending** for measures of improvement of land-use and social systems, and reinforcement of infrastructures
- (3) **Reforms of the national land-use** by decentralization of population and properties, particularly, by establishment of back-up systems to secure the capital function of Tokyo
- (4) **Improvement of both soft ware and hardware measures** against huge natural disasters with low probability of occurrence

# Propositions for Policies and Measures by SCJ Committee ( 2 )

- (5) **Unified and synthesized policies** among ministries, governmental offices and concerned authorities
- (6) **Creation of disaster-awareness society** by education of people and by transfer of knowledge and experiences of past disasters to next generations
- (7) **Encouragement of NPO and NGO's activities** for natural disaster preparedness, and for rescue and recovery operation
- (8) **International cooperation and assistance** in developing countries under the consideration of the characteristics of disasters, cultures and histories

# **Roles of the Science Council of Japan for Natural Disaster Mitigation**

- 1) Promotion of research on high accuracy prediction of natural hazards (Earthquake, Tsunami, Storm, Volcano Eruption, etc)**
- 2) Promotion of development of technologies and social systems for disaster mitigation, involving various fields (Nature Science, Engineering, Human Science, Life Science, etc)**
- 3) Continuous participation in policy making by propositions to government and communities based on scientific accomplishment**
- 4) Promotion of internationally cooperative research activities on disaster mitigation**