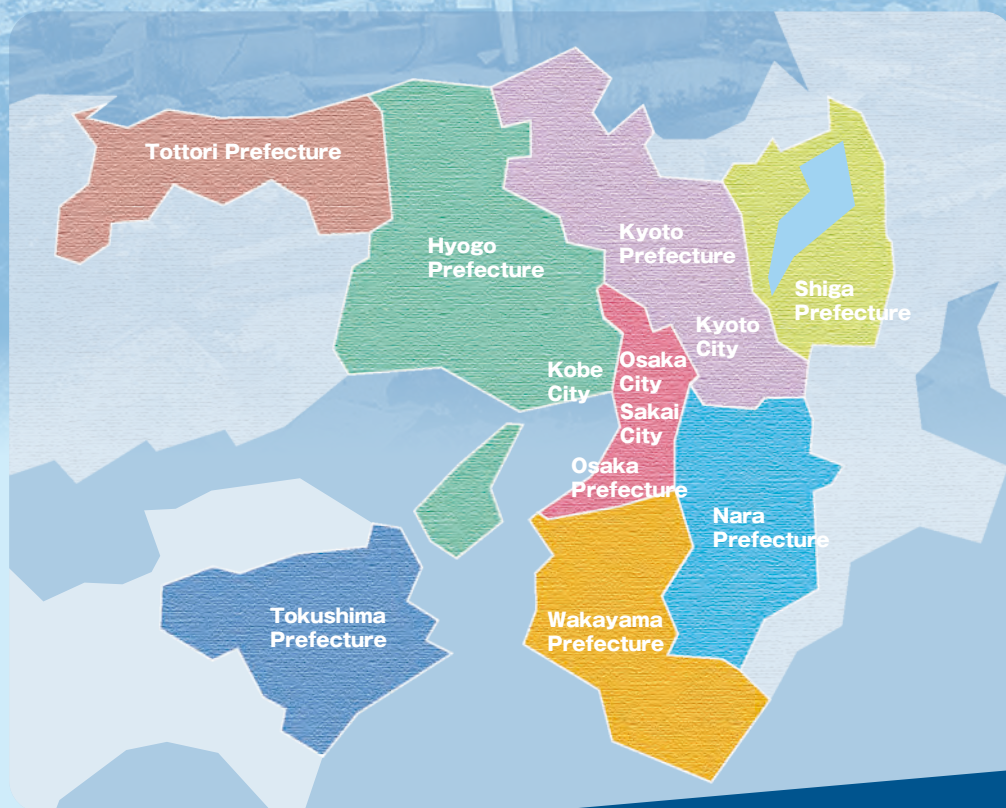


The Efforts for Disaster Prevention and Mitigation in Kansai



Build a safe and vigorous Kansai by combining the strength of the region.

**Region-wide Disaster Preparedness Office,
the Union of Kansai Governments.**

Region-wide Disaster Preparedness Portal Website.
<http://www.kouiki-kansai.jp/kouikibousai/>

What is the Union of Kansai Governments?

The Union of Kansai Governments (UKG) was established in December 2010 as Japan's first region-wide union of prefectural governments. We aim to deal with the challenges that spread beyond prefectural borders, thus establishing foundations of the decentralization of authority.

The Structure of the UKG

The Member Governments Shiga Prefecture, Kyoto Prefecture, Osaka Prefecture, Hyogo Prefecture, Nara Prefecture (joined in December 2015), Wakayama Prefecture, Tottori Prefecture, Tokushima Prefecture, Kyoto City, Osaka City, Sakai City, Kobe City(8 Prefectures and 4 ordinance-designated cities) *Fukui and Mie Prefectures are UKG Partners.

The Purpose of the Establishment of the UKG

- To realize a decentralized system.
- To be a responsible political entity over the entire Kansai region.
- To establish a system to accept secretarial works of regional branches of the central government agency in the future.

◆We address challenges in the following seven fields(Bureau).

- Region-wide disaster prevention (Hyogo Prefecture.)
- Region-wide industrial promotion (Osaka Prefecture.)
- Region-wide environmental conservation (Shiga Prefecture.)
- Region-wide staff training (Wakayama Prefecture.)
- Region-wide tourism, culture and sport promotion (Kyoto Prefecture.)
- Region-wide medical services (Tokushima Prefecture)
- Certification exams, licensing, etc. (UKG Assembly Bureau)

The Merits of Region-wide Disaster Prevention Efforts

1. With the UKG as a leader/coordinator of the entire region, it is possible for the UKG to make quicker decisions and provide faster disaster response for the Kansai region.
2. With excellent know-how shared by member governments, it is possible for the UKG to offer a higher quality disaster response.
3. It will become easier to cooperate with the private sector and national agencies based in the Kansai region and also be possible for the UKG to provide disaster response more smoothly.
4. It will become easier to conduct region-wide disaster prevention/mitigation projects with other member governments beyond prefectural borders.

The Roles of the Region-wide Disaster Preparedness Office (I-IV)

I The drawing up and conducting of the disaster prevention plans, etc.

The outline of disaster prevention and mitigation plans in Kansai.

As a preparation for the large-scale natural disasters across the region such as the Nankai Trough Earthquake, that are forecast to occur in the near future, as well as wind, storms and floods caused by large typhoons, this plan systematically sets out the UKG's policies on the disaster prevention and mitigation measures, as well as emergent responses carried out in cooperation with the UKG member entities and UKG partners.

■The status of the development of the Disaster Prevention and Mitigation Plans in Kansai in each field (completed in 4 fields as of June 2014).

Descriptions	Date	Assumed disaster
General Policies, Measures against the Nankai Trough Earthquake and Tsunamis	March 3, 2012	Nankai Trough Earthquake, Kinki Region Inland Earthquake
Measures against Storms and Flood	June 28, 2014	Floods and overflow of Yodo River and other major rivers High tides in the Osaka Bay area caused by an approaching powerful typhoon Large-scale landslides caused by a record rainfall
Measures against a Nuclear Disaster	March 3, 2012 Updated: June 29, 2013	Accident/disaster at nuclear plants in Fukui Prefecture (Takahama, Oi, Mihama, and Tsuruga), Fast-Breeder Reactor Research and Development Center (Monju), and FUGEN Decommissioning Engineer Center
Measures against Infectious Diseases	June 28, 2014	
Novel influenza, etc.		Infectious diseases including novel influenza (novel influenza, re-emerging influenza), ERIDCC
Avian influenza, foot-and-mouth diseases		Avian influenza, foot-and-mouth diseases

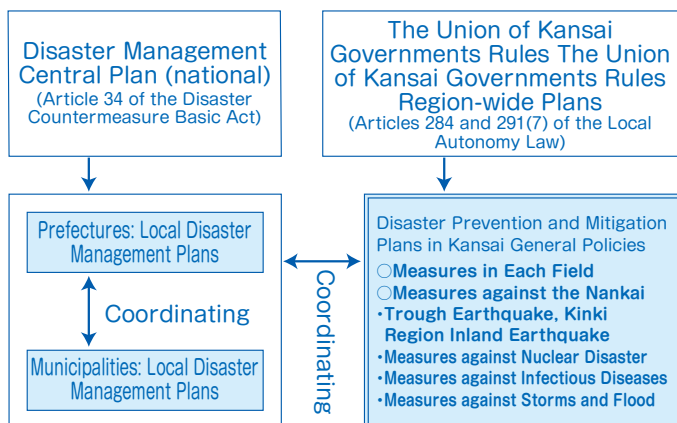
Nature of the Plans

1. Japan's first thorough region-wide disaster prevention/mitigation plans
2. The plans that set out the principles of the "receiving aids"
3. The plans that set out a scenario of the whole process of disaster response
4. The plans to depict the overview of the disaster response carried out by related organizations
5. The plans that strengthen links and promote cooperation with various entities
6. The plans that incorporate lessons learned from two great earthquakes (Hanshin-Awaji, East Japan)

What is "receiving aids"?

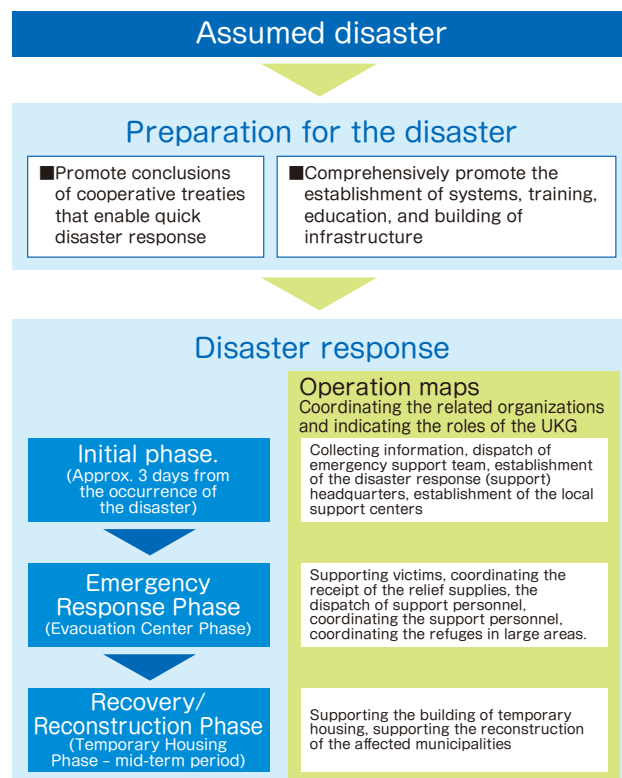
This is a concept of how to effectively receive aid from the third parties and use them to support the victims. As a lesson from the Great East Japan Earthquake, the importance of prior planning by municipal governments on how to receive and use aid from volunteers and other third parties is emphasized.

The Positioning of the Plans



! Highlights of the Plans

- These are continuously developing plans that are regularly reviewed and new lessons are incorporated.
- We check and assess the progression of "Preparation for Disasters," and modify the plans if necessary.
- In "Disaster Response," we set out the operation maps that depict the entire activities of related organizations on each phase of disaster response to clearly indicate the roles of the UKG, prefectures, municipalities, and other related organizations.

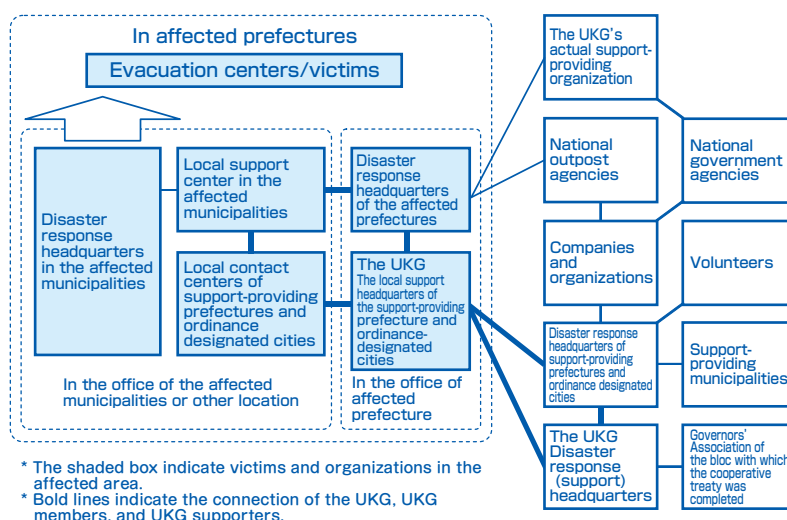


Kansai Outline for Disaster-Relief Work

This guideline is a manual of disaster response carried out and led by the UKG at the time of an emergency.

The guideline set out the systems of procedures of providing and receiving aid in each field of disaster response, such as the supply of daily necessities, dispatch of personnel, evacuation, and building of temporary housing, thus facilitating a smooth disaster response in cooperation with the UKG member governments and other related organizations.

The outline flow of the system of providing and receiving support



- * The shaded box indicate victims and organizations in the affected area.
- * Bold lines indicate the connection of the UKG, UKG members, and UKG supporters.

We use these guidelines in various disaster prevention drills, check the results, and improve if necessary.

○The Types of Support

(1) The dispatch of personnel, (2) The supply of daily necessities, (3) The acceptance of evacuees, sick or injured people.

○Coordination of the provisions and receipt of support

- The UKG allocates the types of support and its recipients in each support providing municipality.
- If the disaster affects more than one prefecture, the support of each prefecture is assigned to one supportproviding prefecture/municipality. This support system is called "Counterpart System."

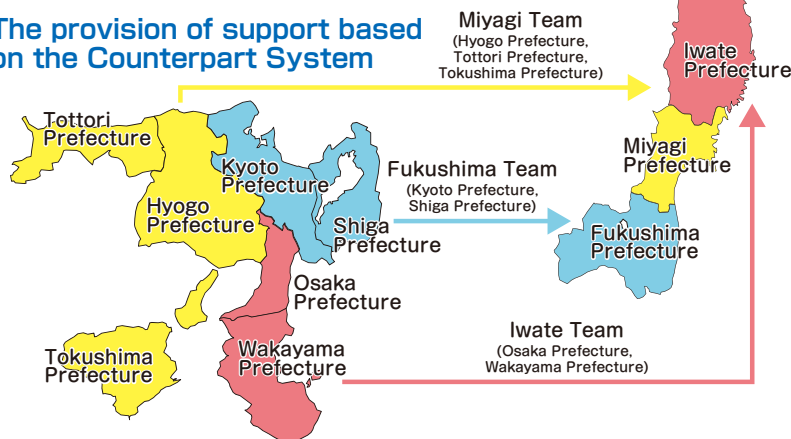
II The Coordination of Providing and Receiving Support

The UKG coordinates the region-wide provisions and receipt of support, by establishing the initial system, collecting the detailed information about the disaster, understanding the needs of the affected area, and providing support to the affected organizations, based on the Counterpart System.

The Response to the Great East Japan Earthquake

- ◇The emergency announcement on the support The UKG announced that we actively: ①Take measures to support the affected areas; ②Provide relief supplies; ③Dispatch personnel; and ④Accept evacuees.
- ◇The UKG provided support to the affected area based on the Counterpart System
- ◇The UKG established the “Local Contact Centers” to directly collect information in the affected area

The provision of support based on the Counterpart System



[An emergent committee of the UKG was held on March 13, 2011]

What is the Counterpart System?

The Counterpart System is a system whereby each UKG member government is allocated to a specific affected prefecture, under the overall coordination of the UKG. The system enables the UKG members to provide quick, effective, and continuous support based on the actual needs of the affected area.

- **The provision of relief supplies:** pre-gelatinized rice (approx. 260,000 servings), drinking water (approx. 460,000 bottles), blankets (approx. 64,000), temporary toilet (approx. 21,000 units), etc.
- **The dispatch of personnel (as of July 29, 2016):** 358,400 person-days in total, 214 person/day *387/day at the peak *Excluding personnel dispatched from the police, fire brigade, DMAT, and municipal offices.
- **The acceptance of the evacuees (as of July 29, 2016):** 3,364 people (in public housing, etc.) *4,754 people at the peak.

The Response to the 2016 Kumamoto Earthquake

- ◇The UKG established the Disaster Response/Support Headquarters. The Local Support Headquarters in the Kumamoto Prefectural Office were also established, as well as Local Contact Centers in Mashiki Town, Ozu Town, and Kikuyo Town, to provide support.

2016 Kumamoto Earthquake Disaster Response/Support Headquarters

Local Support Headquarters (in the Kumamoto Prefectural Office)	Entities in charge: Kyoto Pref., Hyogo Pref., Nara Pref.
Mashiki Town Local Contact Center	Entities in charge: Shiga Pref., Kyoto Pref., Hyogo Pref., Nara Pref., Wakayama Pref., Tokushima Pref., Tottori Pref.
Ozu Town Local Contact Center	Entity in charge: Osaka Pref.
Kikuyo Town Local Contact Center	Entity in charge: Nara Pref.

* Kyoto City, Osaka City, Sakai City, and Kobe City supported Kumamoto City under the coordination of the Association of the Mayors of Ordinance-designated Cities.

- **The provision of relief supplies:** pre-gelatinized rice (approx. 330,000 servings), blankets (approx. 90,000), temporary toilet (approx. 3,000 units), blue sheets (approx. 9,000 sheets), etc.
- **The dispatch of personnel (as of July 19, 2016):** 7,423 person-days in total, 1,299/day (including personnel dispatched from municipal offices) *Excluding personnel dispatched from the police, fire brigade, DMAT, and DPAT, etc.



The situation in Mashiki Town



The situation in Mashiki Town



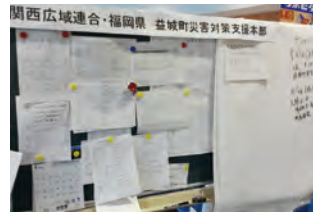
Local Support Headquarters



Delivering of the relief supplies



Mashiki Town Local Contact Center



Mashiki Town Local Contact Center



Supporting the operation of an evacuation shelter (Mashiki Town)



Shipping of relief supplies at a relief supplies center(Ozu Town)



Supporting the operation of an evacuation shelter (Kikuyo Town)



Health checks at an evacuation center



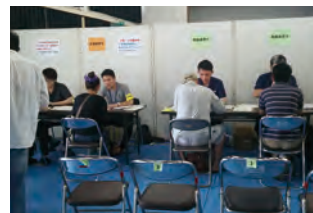
Examining damage to housing



Activities of public nurses



Victim Support Center



Victim Support Center



Debris Removal Support Center

Major Disaster Support in the Past

The UKG supported the area affected by Typhoon 12 in 2011, Typhoon 18 in 2013, torrential rain in August 2014, and torrential rain in the Kanto and Tohoku regions in 2015, by offering proposals to the national government and providing both human (dispatching personnel with professional skills) and material (dispatching of relief supplies) support.

III The Cooperation with Related Organizations

The UKG established a disaster support system in cooperation with the UKG member governments, other UKG bureaus, UKG partner prefectures, wide-area blocs, National Governors' Association, the national government, the UKG's actual support organizations, as well as the private sector.

The Promotion of the Cooperation with the Wide-area Bloc and the Private Sector

In order to be thoroughly prepared for a large-scale disaster, the UKG aims to conclude treaties to establish mutual cooperation between wide-area blocs. The UKG also seeks ways to establish a cooperation system by concluding cooperation treaties with private companies and organization so that the UKG and its member entities are able to effectively provide support for the affected area.

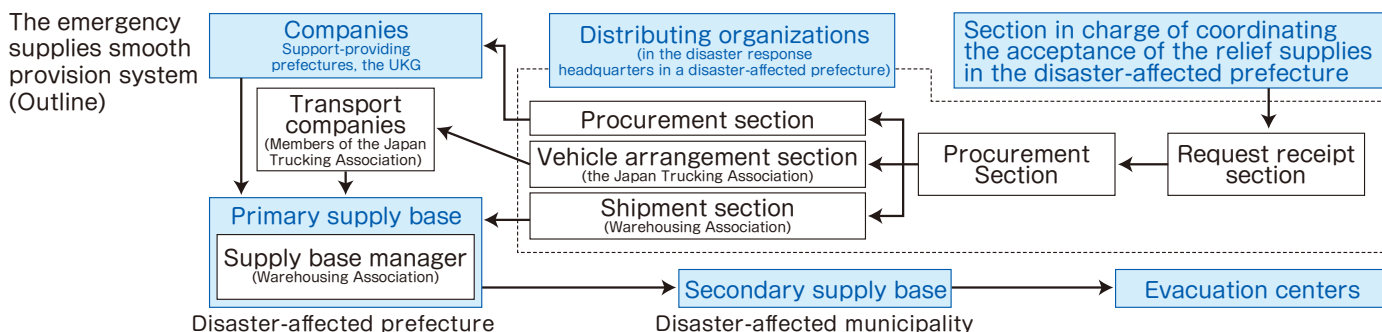


Cooperative entities:

Wide-area Blocs, etc.	Association of Governors in Kyushu, National Governors' Association, 9 Prefectural governments in the Kinki region (Fukui Pref., Mie Pref., Shiga Pref., Kyoto Pref., Osaka Pref., Hyogo Pref., Nara Pref., Wakayama Pref., Tokushima Pref.), Tottori Pref., 9 prefectural or municipal governments in the Kanto region (Kanagawa pref., Saitama Pref., Chiba Pref., Tokyo Metropolitan Government, Yokohama City, Kawasaki City, Chiba City, Saitama City, Sagami-hara City)
Private business entities, etc.	Convenience stores and food service providers (26), nuclear power providers (KEPCO, The Japan Atomic Power Company, Japan Atomic Energy Agency), P&G, 6 helicopter flight service providers, Kinki Passenger Boat Association & Kobe Passenger Boat Association, Organizations for Hanshin-Awaji Town Development, Kansai Golf Union & Tokushima Prefecture Golf Union, Lions Clubs International Multiple District 335, Associations of Radiological Technologists in 10 prefectures in the Kinki region & The Japan Association of Radiological Technologists (11 organizations). Takken Associations in 10 prefectures in the Kinki region, prefectural headquarters of All Japan Real Estate Federation in 10 prefectures in the Kinki region, Chintai Association, & Japan Property Management Association (22 organizations), Bus Associations in 10 prefectures in the Kinki region (10 organizations).

Establishing of the emergency supplies smooth provision system and networking of Wide-area Disaster Management Bases.

The UKG establishes a system to procure and deliver emergency supplies, with the cooperation of private distributors and logistics providers. In order to establish a system that provides and receives region-wide support at the time of natural disasters such as the Nankai Trough Earthquake, the UKG also builds bases in order to gather, store, and deliver basic supplies by developing the network of Disaster Management Bases across the Kansai region. This includes the building of a system that uses bases in neighboring prefectures, when it becomes impossible to use Disaster Management Bases in one prefecture, in case of emergency.



The region-wide cooperation drills

In order to strengthen the system to deal with large-scale, region-wide disasters, the UKG conducts region-wide cooperation on assumption of a large-scale disaster across the region. UKG member governments and related organizations participate in these drills.



Field training



Operation map training

Countermeasure to nuclear disaster

■ The establishment of the guideline of the region-wide evacuation at the time of a nuclear disaster (March 27, 2014).

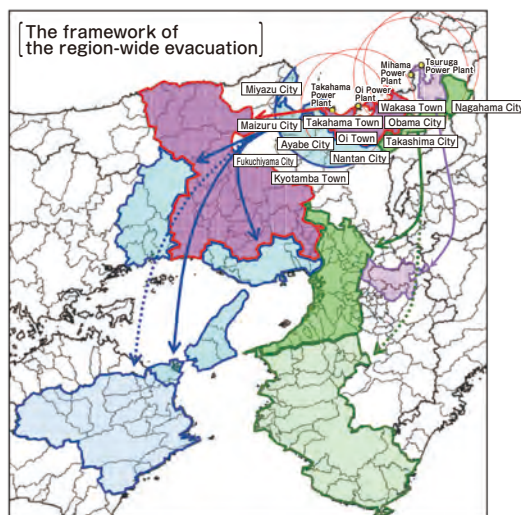
- ◆ With an assumption of a nuclear accident/disaster at nuclear plants in Fukui Prefecture (Mihama, Takahama, Oi, and Tsuruga), a plan to accept approximately 250,000 residents living within the UPZ (the Urgent Protective action planning Zone: the area with a radius of 30 km from the nuclear plant) in Fukui, Shiga, and Kyoto Prefectures has been established.
- ◆ We coordinate the matching of the affected area and the municipalities accepting evacuees. The detailed procedures of region-wide evacuation have also been established.

■ The national government's participation in the Fukui Area Nuclear Disaster Prevention Conference.

The national government, Fukui Prefecture, Gifu Prefecture, Shiga Prefecture, Kyoto Prefecture, the Union of Kansai Governments (observer) discuss topics including the evacuation plans in the area where nuclear plants are located.

■ Areas to be evacuated in a nuclear disaster and the number of residents accepted by the UKG member entities.

Prefecture to be evacuated		Number of evacuees	Prefecture(s) accepting evacuees
Fukui Pref.	Western Reinan	Approx. 66,900	Hyogo Pref.
	Eastern Reinan (Tsuruga City)	Approx. 78,700	Nara Pref.
Shiga Pref.		Approx. 57,600	Osaka Pref. and Wakayama Pref. (Requesting cooperation of Mie Pref. and Nara Pref. if necessary)
Kyoto Pref.		Approx. 128,800	Hyogo Pref. and Tokushima Pref. (Requesting a cooperation of Tottori Pref. if necessary)



IV The Disaster Prevention & Mitigation Projects

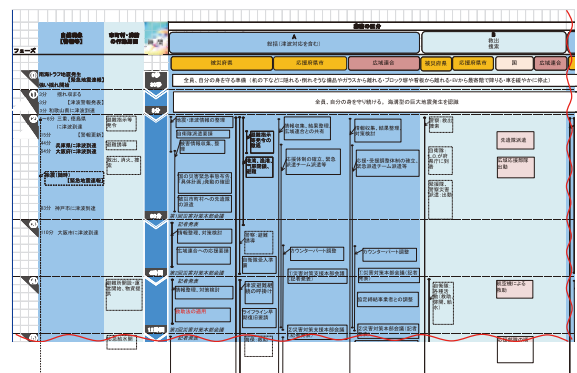
The UKG plans to implement various disaster prevention/mitigation projects such as establishing the Kansai Region-wide Disaster Prevention System, training personnel about disaster prevention, establishing measures to support people who are unable to return home after disasters, and producing manuals.

Nankai Trough Earthquake Emergency Manual (Established in March 2016)

"Nankai Trough Earthquake Emergency Manual" was written to set out the actions taken by the UKG at the initial phase in case of the Nankai Trough Earthquake.

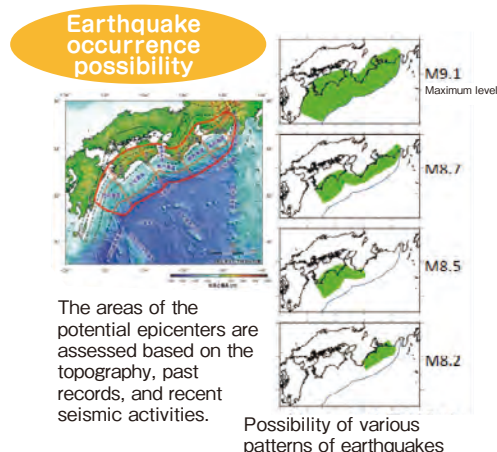
The contents of the manual

Basic policies	• This section is established as the detailed provisions of "the Kansai Plan for Disaster Prevention and Preparation."
Overview (see right)	• Overview the entire flow in the timeline
Phase sheets	• Created in three categories of "disaster-affected prefecture," "support-providing prefecture," and "the UKG." • Checklists of tasks for each phase divided by the time flow



What is the Nankai Trough Earthquake?

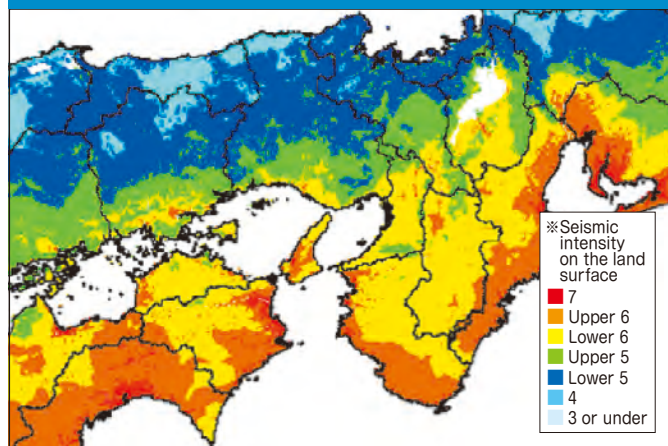
The Nankai Trough is a point where the Philippine Sea Plate, an oceanic plate, sinks under a continental plate on which the Japanese Archipelago is located from the south, by several centimeters per year. As a plate sinks under the other, tension accumulates at the border of the two plates. In the past 1,400 years, large-scale earthquakes that emit such accumulated energy at the Nankai Trough have occurred every 100-200 years. The most recent such earthquakes were the Showa Tonankai Earthquake in 1944 and the Showa Nankai Earthquake in 1946. About 70 years have passed since these two earthquakes struck, and the time when the next great earthquake occurs is approaching.



	Size	Possibility of earthquake within 30 years
Earthquakes at Nankai Trough	M8-M9 class	Approx. 70% (As of Jan. 2016)

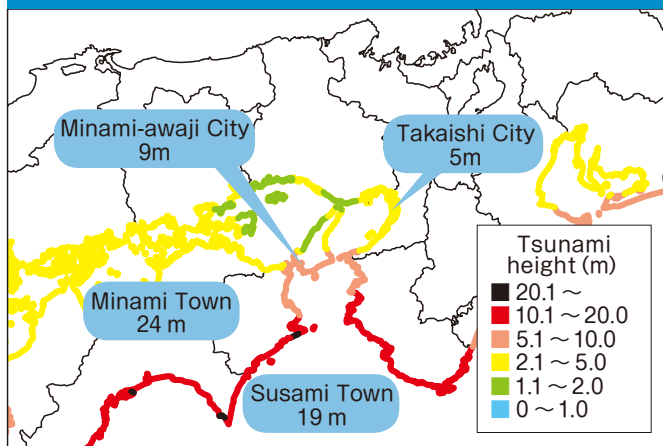
The size and possibility of an earthquake is assessed in the entire Nankai Trough area. "Long-term Assessment of the Seismic Activities at the Nankai Trough (Second Edition)" (May 2013). The Seismic Assessment Committee, the Headquarters for Earthquake Research Promotion.

Seismic Intensity Map of a largest possible Nankai Trough Earthquake.



* The seismic intensity on the land surface in the type of earthquake that causes greatest damage by seismic tremors (the shore-side type). Source: Additional material for the Cabinet Office's Committee for Modeling a Nankai Trough Megaquake (Second report session) (August, 2012).

The height of tsunami caused by the largest possible Nankai Trough Earthquake.



* When the large landslide occurs in the sea off the Kii Peninsula in the sea off Shikoku. Source: Additional material for the Cabinet Office's Committee for Modeling a Nankai Trough Megaquake (Second report session) (August, 2012).

The Rules at the Time of a Disaster

We always live with the threat of a natural disaster. In case of emergency, your quick action will protect the lives of you and your family, and minimize damage. Please remember the following rules at the time of a disaster.

5 Rules in Case of an Earthquake.

- 1.** Stay calm and make sure you are safe.
- 2.** Open a door or a window to secure your way out of the building.
- 3.** Evacuate on foot. Do not bring anything unnecessary.
- 4.** Stay away from narrow alleys, walls, cliffs, or river banks.
- 5.** Cooperate with other people to first-aid the injured or rescue those who are trapped.

Information Necessary in Emergency

[Evacuation information]

- When a disaster occurs, the mayor of your municipality may issue an "Evacuation Warning" or "Evacuation Order".
- The evacuation is urgent and forcible in the ascending order of "Evacuation Preparation Information," "Evacuation Warning," and "Evacuation Order."

Types	Description
Evacuation Preparation Information	You need to prepare for the evacuation
Evacuation Warning	This is issued when the land or building may be damaged in the area. This warning urges the residents to evacuate.
Evacuation Order	When this is issued, the situation is more imminent than when the Evacuation Warning is issued. This order orders the residents to evacuate immediately.

[Earthquake Early Warning]

- This warning is issued as soon as possible after an earthquake happens. The expected time when the strong tremor reaches different locations, and the strength of the seismic tremors, are instructed. It is issued by the Meteorological Agency a few seconds, or less than 20 minutes, after the first strong tremor. After you receive the warning you must stop factory machines, speed down trains, or take actions to protect yourselves.

The Rules When Evacuating from a Tsunami

- ☐ If you feel a strong tremor or when there is a tsunami warning, a tsunami advisory, or a large-scale tsunami warning has been issued, immediately stay away from the seashore and evacuate to the safest place on the coast. If you are in low land, evacuate to higher ground.
- ☐ When a tsunami repeatedly comes, remain alert until the tsunami advisory or warning has been lifted.
- ☐ Comply with the Evacuation Warning or Evacuation Order and evacuate to the emergency evacuation center.

How to Obtain Information at the Time of a Disaster

- Useful information is issued via various media at the time of a disaster. You need to pay attention to more than one method to obtain such information.
- ◇ Mass media news: TV, radio
- ◇ Public announcement by the municipality: wirelessactivated disaster warning system, websites, cable TV, and public announcement vehicles
- ◇ "Area Mail," an emergency warning via the mobile phone email system

Rules When It Is Difficult For You to Return Home

When a disaster happens, workplaces must tell their employees not to take unnecessary action, in order to prevent secondary accidents.

"Homecoming Support Station on Disastrous Occasion"

The UKG promotes the project of "the Homecoming Support Station on Disastrous Occasion" in cooperation with convenience stores and food service providers. This station provides services (tap water, toilet, road information) to people who walk home at the time of a disaster.



You can identify a station by the above sticker

The Basic Rule at the Time of a Disaster: Do Not Move Unnecessarily

To safely return home at the time of a disaster

- ◇ **Do not move unnecessarily.**
 - If many people begin to walk to return home at the same time, you may be caught up in the crowd. Many people may fall in the crowd. You may also be killed or injured by fire or objects falling from buildings.
 - You may also hinder emergency activities such as first aid, rescue, and delivering urgent supplies. Please keep calm and return home if there are no large crowds.
- ◇ **Prepare items you need to walk home, find a method to communicate with your family, and confirm the route you intend to take to return home.**
 - You should prepare drinking water, emergency food, maps, a torch, and sports shoes at your workplace in case you need to walk home.
- ◇ **Learn how to use more than one method to confirm the safety of your family: emergency messaging service, mobilephone emergency messaging service, Web171, etc.**
- ◇ **Companies must prepare a disaster manual**
- ◇ **Conduct a drill to check/confirm all of the above**



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Region-wide Disaster Preparedness Portal Website.
<http://www.kouiki-kansai.jp/kouikibousai/>

Union of Kansai Governments

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