

**PRACTICAL DISASTER PREPAREDNESS DRILL IN
PREPARATION FOR LARGE EARTHQUAKES
BASED ON LESSONS LEARNED FROM
THE GREAT EAST JAPAN EARTHQUAKE**



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**HEALTHY CITY
OWARIASAHI**

Good afternoon everyone, I am Yoshinori Mizuno, Mayor of Owariasahi City. Before I begin my presentation, on behalf of the Japanese delegation I would like to say a few words of gratitude to you from all over the world.

We are grateful from the bottom of our hearts to the great number of nations, regions and organizations for their tremendous support in the aftermath of that earthquake and tsunami of the Great East Japan Earthquake in March 2011. My presentation today, is about practical disaster preparedness drills that we implement in Owariasahi based on lessons learned from the Great East Japan Earthquake.

For your information, the character on the left of this slide is the city's mascot "Asapii." Asapii is modelled on a sunflower and will be with us throughout this presentation.

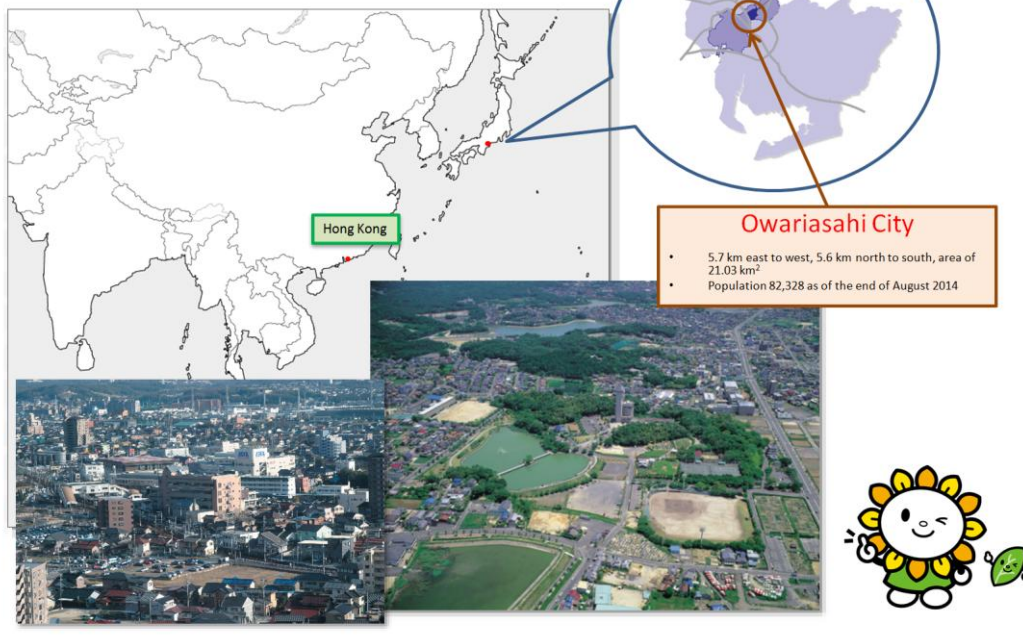
みなさま、こんにちは。日本 尾張旭市から参りました市長の水野義則です。発表の前に、日本からの参加者を代表して、世界の皆様に一言お礼申し上げます。去る2011年3月に東日本大震災が発生しました時には、多くの国、地域、機関から多大なご支援をいただいたことに、心からお礼申し上げます。

本日は、ただいま申し上げました東日本大震災から得た教訓をいかして、尾張旭市が実施している実践的な防災訓練について発表します。

画面の左にありますのは、ひまわりの花をモチーフにした尾張旭市のイメージキャラクター、あさぴーです。

随所にあさぴーを登場させながら、発表します。

Owariasahi City Overview



Let me first give you an overview of Owariasahi City.

This city is located approximately in the center of Japan, covers an area of 21.03 km², and has a population of 82,000.

The city is also blessed with rich greenery and has been developing as a satellite city. We strive to develop the city for the future with the slogan of "Owariasahi, a comfortable city full of greenery and vitality in which we all support each other".

先ずは、尾張旭市の概要について説明します。

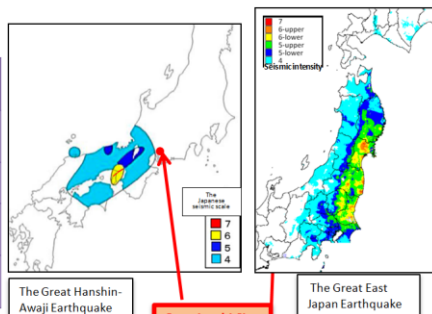
尾張旭市は、日本列島のほぼ中央に位置し、面積21.03km²、人口は、2014年8月末現在82,328人で、緑にも恵まれたベッドタウンとして発展してきました。

将来の都市像を、「皆で支えあう 緑と元気あふれる 住みよいまち 尾張旭」と定め、まちづくりを進めています。

Japan – a nation of many earthquakes

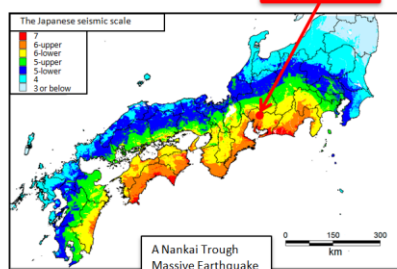
Massive earthquakes in Japan in recent years

Damage, etc.	The Great Hanshin-Awaji Earthquake	The Great East Japan Earthquake
Time and date of occurrence	5:46 on 17 January 1995	14:46 on 11 March 2011
Magnitude	M7.3	M9.0
Number of people killed/missing	6,436	18,517
Number of structures completely collapsed	104,906	127,302



Concerns over a possible future massive earthquake in Japan

Estimated damage, etc.	A Nankai Trough Massive Earthquake
Period	First half of this century
Magnitude	M9.0
Number of people killed/missing	Approx. 323,000
Number of structures completely collapsed	Approx. 2,386,000



Seismic intensity map

Source: White Paper on Disaster Management 2014, published by the Cabinet Office of the Government of Japan

Japan is one of the most seismically active countries in the world and has had the Great Hanshin-Awaji Earthquake in January 1995 and the Great East Japan Earthquake in March 2011.

And there are concerns over a pending Magnitude 9-class great earthquake, the so-called Nankai Trough Massive Earthquake, in the central part of the Japanese Archipelago, where Owariasahi City lies.

日本は世界でも有数の地震多発国であり、1995年1月に阪神・淡路大震災、2011年3月に東日本大震災が発生し、甚大な被害がありました。

そして、尾張旭市が位置する日本列島の中央部では、今世紀前半に、マグニチュード9クラスの南海トラフ巨大地震の発生が懸念されています。

New lessons learned from damage inflicted by the Great East Japan Earthquake

- Disaster-damaged administrative facilities
- Disaster-stricken heads and employees of municipalities

Debilitated
local government
functionality



- Difficulties in grasping scope of damage and executing life-saving and relief operations
- Delay in evacuation of residents

Both residents and the administrative bodies need to enhance abilities to cope with the unexpected.

The Great East Japan Earthquake was an earthquake of the greatest magnitude in Japan. The tremor itself and the great tsunami it caused damaged government office buildings and fire stations, among other things. Meanwhile, the heads and employees of municipalities themselves were significantly affected. All this posed immense obstacles to efforts to comprehend the scope of damage or carry out life-saving and relief operations for affected people.

This experience taught us that both residents and administrative bodies need to improve the abilities to cope with unexpected situations.

東日本大震災では、地震と共に発生した大規模な津波により、庁舎や消防署等が被災し、首長や職員等も被災者となり、被害状況の把握、被災者の救命救助活動等に大きな支障が生じました。

この経験から、大地震の備えには、住民も行政も、想定外の事態に対応できる能力を身につける必要性を実感しました。

Disaster preparedness drills of Owariasahi City



Measures in place before the Great East Japan Earthquake

[Substance of drill]

Participants were pre-informed of the predetermined scope of damage.

[Participants]

Mostly city officials, with only a small number of citizens



New initiatives

[Substance of drill]

Spontaneous, scenario-free drills requiring on-the-spot decision-making

[Participants]

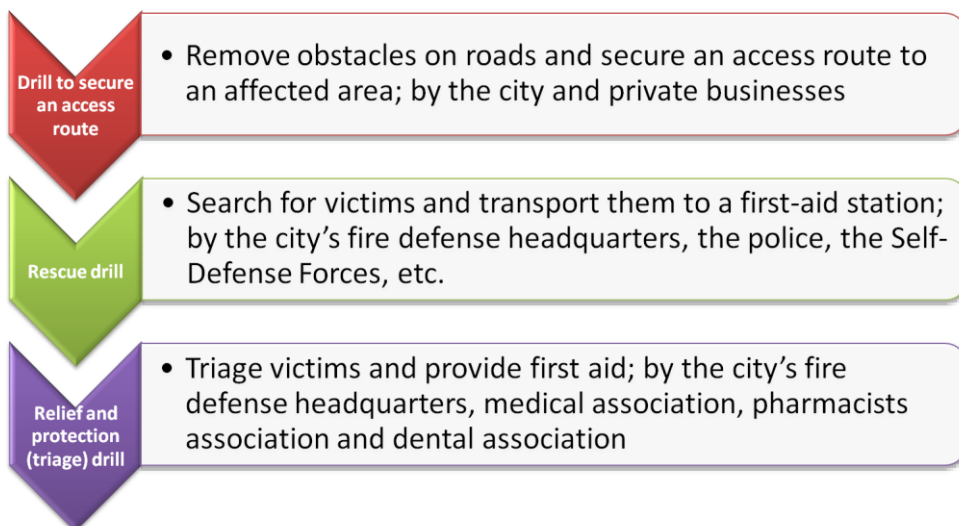
Drills with citizen participation

Our disaster preparedness drills before the Great East Japan Earthquake had meager citizen participation. The participants, mostly city officials who were informed in advance of the predetermined damage situation, would walk through scenarios. To improve abilities to cope with unexpected situations, however, the city adopted a new “spontaneous drill method” without scenarios and with greater citizen participation.

東日本大震災発生前の尾張旭市の防災訓練は、市民の参加が少なく、事前に知らされた仮定の被災状況を基に職員主導でシナリオ通りに実施するものでした。しかし、想定外の事態に対応できる能力を向上させるため、防災訓練をシナリオの無い訓練「ブラインド訓練」に変更し、新たに市民参加型の訓練を実施しました。

New initiative I: Emphasis on spontaneity in drills (1)

• Part 1: General Disaster Preparedness Drill



We introduced this spontaneous drill methods in two ways.

The first one is an annual joint drill participated in by citizens, private businesses, the police and others.

As part of this drill, we have been practicing securing an access route to an affected area, rescuing victims and triaging them to determine who should be treated first.

The spontaneous drill method offered insights into some challenges that were not understood before, such as the need for clearly defined roles of various organizations so as to ensure efficient rescue operations, and communication difficulties.

ブラインド訓練は、2つ導入しました

まず一つめは、毎年、市民、民間企業、警察等と合同で実施している総合防災訓練に導入しました。

この訓練では、被災現場までの通行路確保、被災者の救出と治療に優先順位を決めるトリアージを行いました。

他機関との役割分担を明確にして救出作業の効率化を図る、意志の疎通に問題が生じる等、ブラインド化で初めて分かる課題もありました。

Scenes from General Disaster Preparedness Drill



Triage

Drill Overall Perspective

Now I am going to share some photos from the General Disaster Preparedness Drill in August this year.

In this photo, Self-Defense Force officials are trying to rescue a victim from a vehicle buried in sediment.

In this photo, firefighters are trying to rescue a victim from a collapsed structure.

In this photo, doctors and public health nurses are triaging the injured.

And this photo offers an overall perspective of the venue of the drill.

これから、今年の8月に行った総合防災訓練を写真でご紹介します。

これは、自衛隊が土砂に埋もれた車から被災者を救出している様子です。

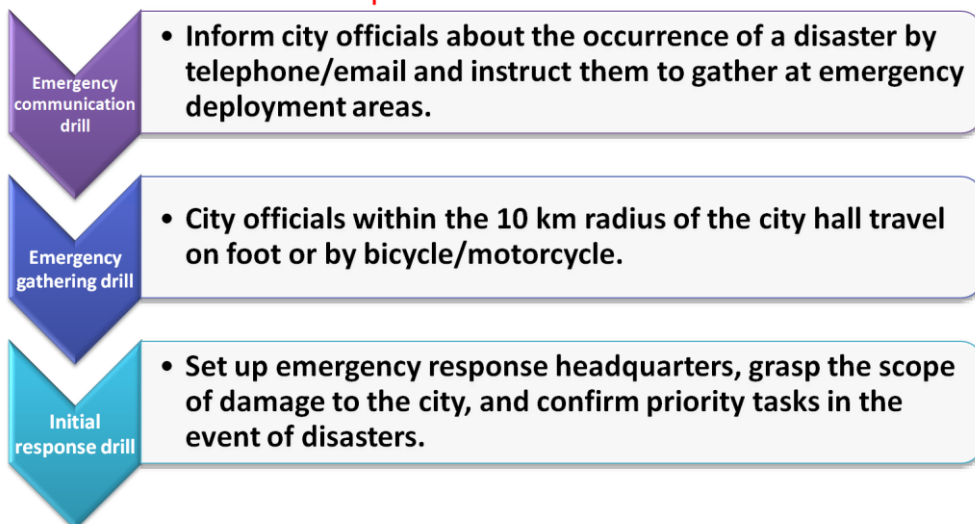
これは、消防隊が倒壊建物から被災者を救出している様子です。

これは、医師や保健師によるトリアージの様子です。

これは、総合防災訓練の全体風景です。

New initiative I: Emphasis on spontaneity in drills (2)

• Part 2: City Officials' Emergency Gathering and Initial Response Drill



Secondly, the spontaneous drill method was implemented in the form of City Officials' Emergency Gathering and Initial Response Drills.

For 2014, we implemented these drills on a holiday without informing city officials in advance of the date or time of the drill, the scope of damage, and others.

We first informed the city officials about the occurrence of a major earthquake by telephone or email and instructed them to gather at emergency deployment areas.

On the assumption that the transport network is cut off by the disaster, those city officials who lived within the 10 km radius of the city hall were told to travel on foot or by bicycle or motorcycle.

The drill provided opportunities to practice on setting up emergency response headquarters, grasping the scope of damage to the city spontaneously, and confirming priority tasks in the event of disasters.

ブラインド訓練の二つめは、職員緊急参集・初動訓練です。

この訓練は、2014年に、訓練実施日時、被害状況等を職員に通知せずに実施しました。

訓練は、先ず全職員に電話及びメールで大地震の発生と非常配備場所への参集を伝達しました。

災害時の交通網遮断を想定し、市役所から半径10km以内に住んでいる職員には、徒歩、自転車又はバイクでの参集を要請しました。

この訓練は災害対策本部の設置、ブラインド化された被害状況の把握、災害時に優先する業務の確認を行いました。

Scenes from City Officials' Emergency Gathering and Initial Response Drills



response headquarters dry-run



Grasping the scope of damage

These photos are from the Drills this February.

We chose to inform and instruct city officials to gather at emergency deployment areas early in the morning at 5:46.

As you can see in the top-left photo, the footpath was beginning to be covered with snow while city officials travelled on a treacherous road. Some of them started off on bicycle but got off halfway and pushed them for safety.

The participants, including members of the police and the Self-Defense Force, summarized the information on damage and casualties that they collected spontaneously from various departments and posted it on a board for visualization.

この写真は、今年の2月に行った訓練の写真です。

早朝5時46分に職員参集伝達を行いました。

左上のように、降雪のため、歩道は雪で白く覆われ始め、滑りやすい足場の悪い中での参集になりました。

職員の中には、危険を避けるため、乗ってきた自転車を途中で降り、手で押して参集した者もありました。

訓練には警察、自衛隊も参加し、各部署から集められた被災情報(ブラインド情報)をボードにまとめ、被災状況を可視化しました。

New initiative II: Citizen Participation Drills

Drill to rescue victims from collapsed houses

- Rescue victims under collapsed houses using a car jack.



Evacuation shelter management drill

- Set up an evacuation shelter.
- Simulated evacuation shelter management



The second new initiative of the city is the Citizen Participation Drills.

In the General Disaster Preparedness Drill, teams of four citizens worked together to rescue victims trapped under collapsed houses using a car jack.

We also had evacuation shelter management drills, because citizens themselves, too, would have to run evacuation shelters in the event of disaster. The participating citizens prepared a list of evacuees, set up partitions and sorted out supplies.

Both the citizens and city officials who participated in the drills shared the feeling that “they identified challenges that they were not aware of before” through this new initiative.

We believe that the abilities of Owariasahi City to cope with disasters will steadily improve if we continue to implement citizen-centered practical drills, allow them to identify potential challenges by themselves and seek solutions to such challenges.

新たな取組の二つ目は、市民参加型の訓練の導入です。

総合防災訓練では、自動車用ジャッキを使用し、4名1組で倒壊家屋から被災者の救出訓練を実施しました。

また、災害時は市民自ら避難所を運営する必要があるため、避難者の名簿作成、居住スペースの確保、支援物資の仕分けなどを行う、避難所運営訓練を実施しました。

この新たな取組について、市民や職員等の参加者の共通した感想は、「今までの訓練では気がつかなかった課題に気がついた」ことでした。

実践的な訓練を市民主体で実施し、市民自身で課題を発見し、解決策を見つけることで、尾張旭市の防災対応能力は確実に向上すると考えています。

Enhanced cooperation with entities including private businesses

Cooperation with various organizations, etc.

- Cooperation in General Disaster Preparedness Drill

With private businesses, medical professionals (medical association, pharmacists association and dental association), the police, the Self-Defense Force and the Ministry of Land, Infrastructure, Transport and Tourism (MILT)

- Cooperation in Initial Response Drill

City Assembly, the police and the Self-Defense Force

- Disaster prevention-related agreements with private businesses

Provision of living essentials, signposting for evacuation shelters, and installation of vending machines that offer products free of charge in the event of emergency

- Disaster prevention agreements with other local governments

Concluded "mutual disaster support agreement" with three local governments



Lighting vehicle provided by the MILT for the General Disaster Preparedness Drill



Vending machine that offers products free of charge in the event of emergency, installed in the city hall



We are proactive about promoting cooperation with other administrative bodies and private businesses.

And the 2014 edition of City Officials' Emergency Gathering and Initial Response Drills were participated in by many of the city assembly members, who had opportunities to review the city assembly's response in the event of disasters.

In addition to disaster preparedness drills, we work on disaster preparedness also by way of concluding agreements with private businesses on the provision of living essentials, signposting for evacuation shelters, and installation of vending machines that offer products free of charge in the event of emergency.

Moreover, we have concluded mutual disaster support agreement with three local governments to enhance each other's disaster preparedness.

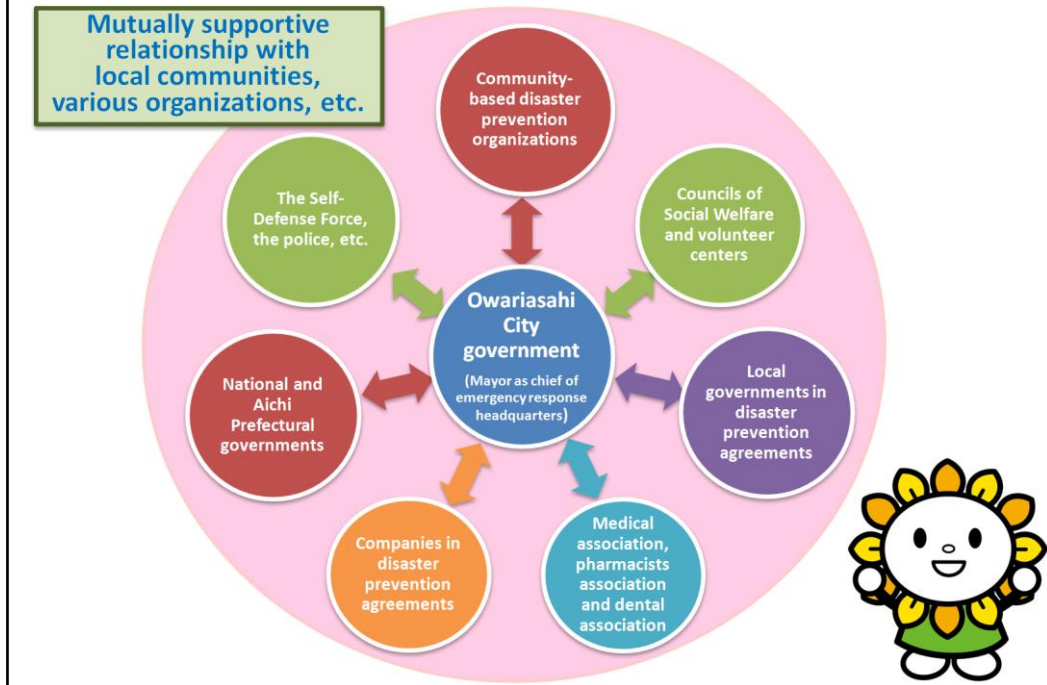
尾張旭市は、他の行政機関や民間企業との連携を積極的に進めています。

2014年の緊急参集・初動対応訓練には、多くの市議会議員も参加し、災害発生時の議会の対応を検討しました。

防災訓練以外にも、民間事業者とは、災害時の生活必需品の供給、避難所案内看板の設置、緊急時解放備蓄型自動販売機設置等の協定を締結し、防災対策を進めています。

また、3自治体と災害時における相互応援協定を締結し、相互に防災関係の強化を図っています。

Disaster preparedness of Owariasahi City



As shown in this diagram, we have mutually supporting relationships with a great number of entities including local communities, businesses and other local governments in order to establish a robust disaster preparedness regime. Moreover, to cope with unexpected situations, we take various measures to improve the abilities of both residents and the administrative bodies to cope with the unexpected and at the same time work on establishing mutually supporting relationships with communities and relevant organizations.

以上のように、尾張旭市は、地域、企業、自治体等、多くの団体と相互に連携し、防災体制を構築しています。

そして、大規模災害発生時の想定外の事態に対応するため、市民と行政の対応能力の向上を図るとともに、地域や関係機関等との相互連携体制を構築しています。

Making of “*KIZUNA*” activities in Owariasahi



Making of illumination by citizens



River side clean up by citizens



Summer festival (Bon Dance)

The Japanese word *kizuna* gained currency all across Japan after the Great East Japan Earthquake. *Kizuna* literally means “ties,” but its connotation is much larger and encompasses “trusting relationships in communities” and “bonds among the members of society at large.” Even today, *kizuna* remains a tremendous force for recovery.

To protect citizens from disasters and other dangers, we remain committed to realizing a disaster-resistant “Healthy City Owariasahi” by continuing to promote our new initiatives through cooperation among the administrative bodies, citizens and private businesses and by strengthening *kizuna* among communities.

東日本大震災では、日本中に広がった言葉に「絆」があります。絆とは、地域の人々の信頼関係、社会全体の結束力のことで、今も復興の大きな力になっています。

災害等の危険から市民を守るため、尾張旭市は、この新しい取り組みを推進することで、行政、市民、民間企業が連携し、地域の絆を強め、災害に強い「健康都市尾張旭」の実現を目指していきます。



Thank you for your kind attention.

Thank you for your kind attention.

以上で発表を終わります。ご静聴ありがとうございました。