

Fire Service System of Japan

October 2023

These materials were created by the International Fire Service Information Center based on the 2022 white paper on fire service and other FDMA data and in cooperation with the aforementioned agency.

Introduction

- The current Japanese fire service system was established by the Fire Defense Organization Act of 1947 as a local government fire and disaster management system (fire department or volunteer fire corps) tied to the region, and to date has accomplished a great deal bearing responsibility for “national safety and security” such as fire prevention, fire fighting, ambulance, and rescue services.
- Additionally, the origin of this fire defense organization dates all the way back to the Edo period to the Tokugawa Shogunate’s “Jobikeshi” firefighting system (approx. 1650) and the “Machibikeshi” organized by artisans and merchants (approx. 1718) that came after.
- In Japan, through the steady hard work of fire officials, there has been a reduction in large scale fires over the decades. Even so, the harm caused by building fires, residential fires, etc., has yet to be eliminated. From time to time a fire that causes significant harm to human life and property breaks out.
- Also, the occurrence of various natural disasters such as earthquakes, downpours, typhoons, and heavy snowfalls is a characteristic of Japan. In particular, in recent years, similar to global trends, floods and landslides caused by record setting downpours and large scale typhoons, due to the influence of climate change, have brought about serious harm.
- In order to respond to such fires, natural disasters, special disasters and accidents, and emergencies, related agencies starting with the FDMA of the national government, to prefectural disaster prevention departments, municipal fire departments, regional volunteer fire corps, and resident volunteer organizations all come together to create areas and a country where residents and citizens can live without fear.

Local Public Entities of Japan

o Population of Japan: 125,930,000 Area: 378,000 km²
(Population as of Jan. 1, 2022 according to the basic resident register. Same below.)

o Japan's local government system is a two layer system composed of prefectures and municipalities.

- Prefectures (wide area local governments)...47

 - * the dotted lines on the below graphic (map of Japan)

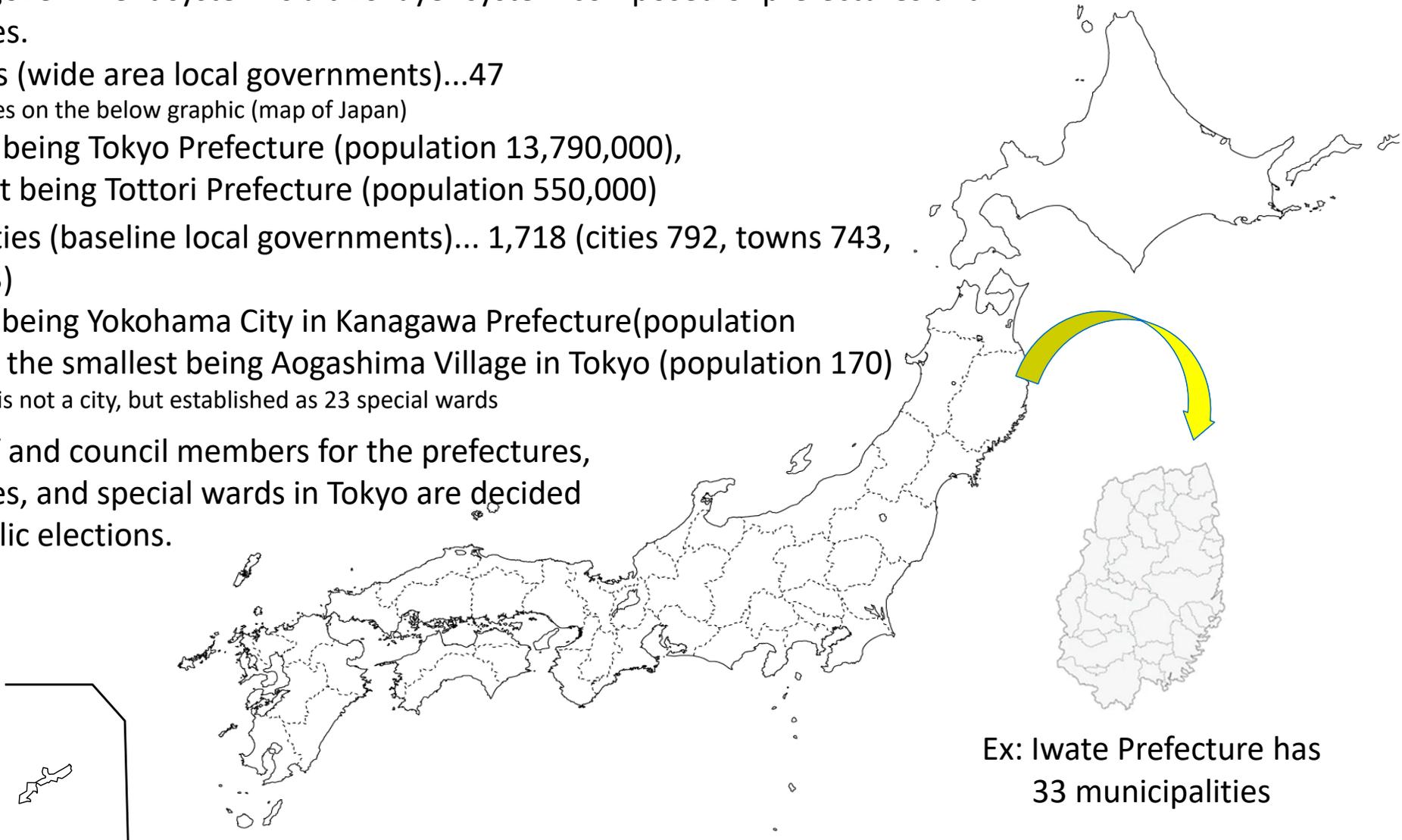
 - The largest being Tokyo Prefecture (population 13,790,000), the smallest being Tottori Prefecture (population 550,000)

- Municipalities (baseline local governments)... 1,718 (cities 792, towns 743, villages 183)

 - The largest being Yokohama City in Kanagawa Prefecture (population 3,760,000), the smallest being Aogashima Village in Tokyo (population 170)

 - *Central Tokyo is not a city, but established as 23 special wards

o The heads of and council members for the prefectures, municipalities, and special wards in Tokyo are decided through public elections.



Ex: Iwate Prefecture has 33 municipalities

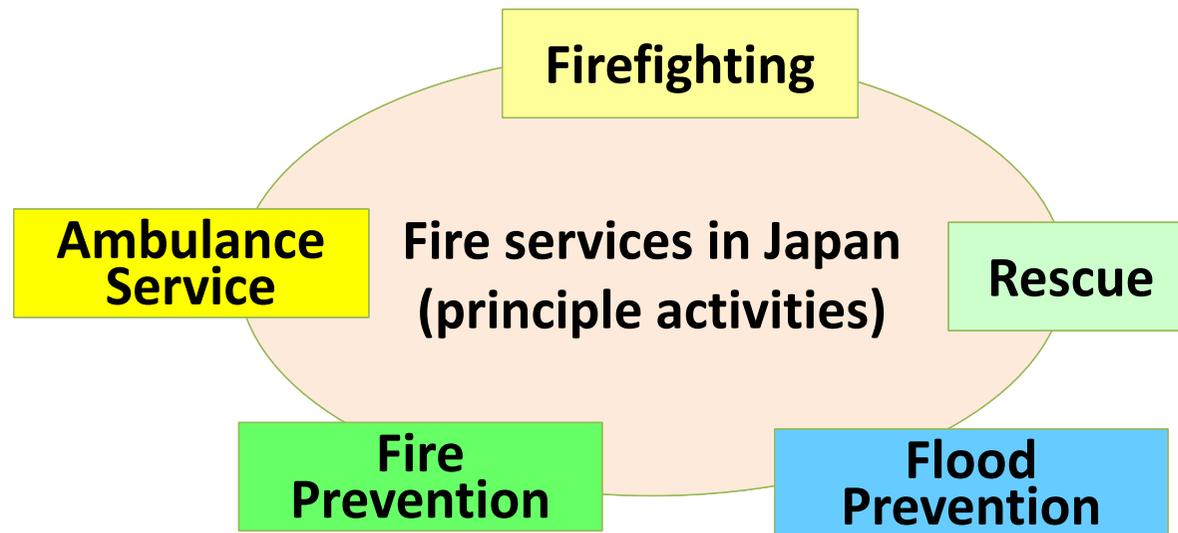
The History of Firefighting Law and Disasters

	Regarding permanent firefighting	Regarding volunteer firefighting corps	Major disasters
《Pre-war》 1894.2 (enforcement)		Fire Brigade Regulation Enacted (fire brigade formed)	
1939.4 (enforcement)		Civil Defense Unit Order Enacted (civil defense unit formed, fire brigade disbanded)	
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《Post-war》 1947.4 (enforcement)		Volunteer Fire Corps Regulations Announced (volunteer fire corps formed, civil defense unit disbanded)	(Number of dead, missing, etc.)
1948.3 (enforcement)	Fire Defense Organization Act Enacted (firefighting services)	↓	1959 Typhoon Vera (5,098)
1948.8 (enforcement)	Fire Service Act Enacted (+ preventative services)	[placed in the Fire Defense Organization Act in 1951]	1964 Niigata earthquake (26)
1962.7 (enforcement)	Disaster Countermeasures Basic Act Enacted (+ disaster management services)		1976 Great Sakata fire *1 (1)
1964.4 (enforcement)	Fire Service Act Amended (+ ambulance services)		1983 Hotel New Japan fire (33)
1995.6 (enforcement)	(national fire service team established)	← Triggered by the Great Hanshin earthquake in January 1995	1993 Okushiri earthquake (230)
2004.9 (enforcement)	Fire Defense Organization Act Amended (national fire-service team legalized)		1995 Great Hanshin earthquake (6,437)
2004.9 (enforcement)	Civil Protection Act Enacted (+ civil protection services)		1995 Tokyo subway sarin attack (12)
2013.12 (enforcement)		"Act on Enhancing and Strengthening Regional Disaster Prevention Capabilities Centered around Volunteer Fire Corps" enacted	2001 Myojo 56 building fire (44)
			2004 Chūetsu earthquake (68)
			2005 Amagasaki derailment (107)
			2007 Chūetsu offshore earthquake (15)
			2008 Iwate-Miyagi Nairiku earthquake (23)
			2011 Tōhoku earthquake and tsunami (22,252)
			2016 Kumamoto earthquakes (273)
			2016 Great Itoigawa fire *2 (0)
			2017 Northern Kyushu flood (42)
			2018 2018 Japan floods (245)
			2018 Hokkaido Eastern Iburi earthquake (42)
			2019 Typhoon Hagibis (107)
			2020 2020 Kyushu floods (84)
			2021 Atami landslide (27)
			2021 Osaka building fire (25)
			<burned area> *1 : approx. 152,000m ² *2 : approx. 30,000m ²

Regarding the Fire Defense Organization Act

Fire Service Duties

- To safeguard the lives, physical well-being, and property of the people.
- Protecting against and reducing the damage from disasters such as floods, fires, and earthquakes.
- Transporting those sick or injured as a result of a disaster



Characteristics and structure of the fire service system

- Separate from the police
- Fire service principally based on local governments (cities, towns and villages)
- Cooperation between the national government and local governments (prefectures and municipalities)

Ministries

National Government Organization

Cabinet Secretariat

Cabinet Office

National Public Safety Commission
National Police Agency

Digital Agency

Reconstruction Agency

Ministry of Internal Affairs and
Communications

FDMA

Ministry of Justice

Ministry of Foreign Affairs

Ministry of Finance

Ministry of Education, Culture, Sports, Science and Technology

Ministry of Health, Labour and Welfare

Ministry of Agriculture, Forestry and Fisheries

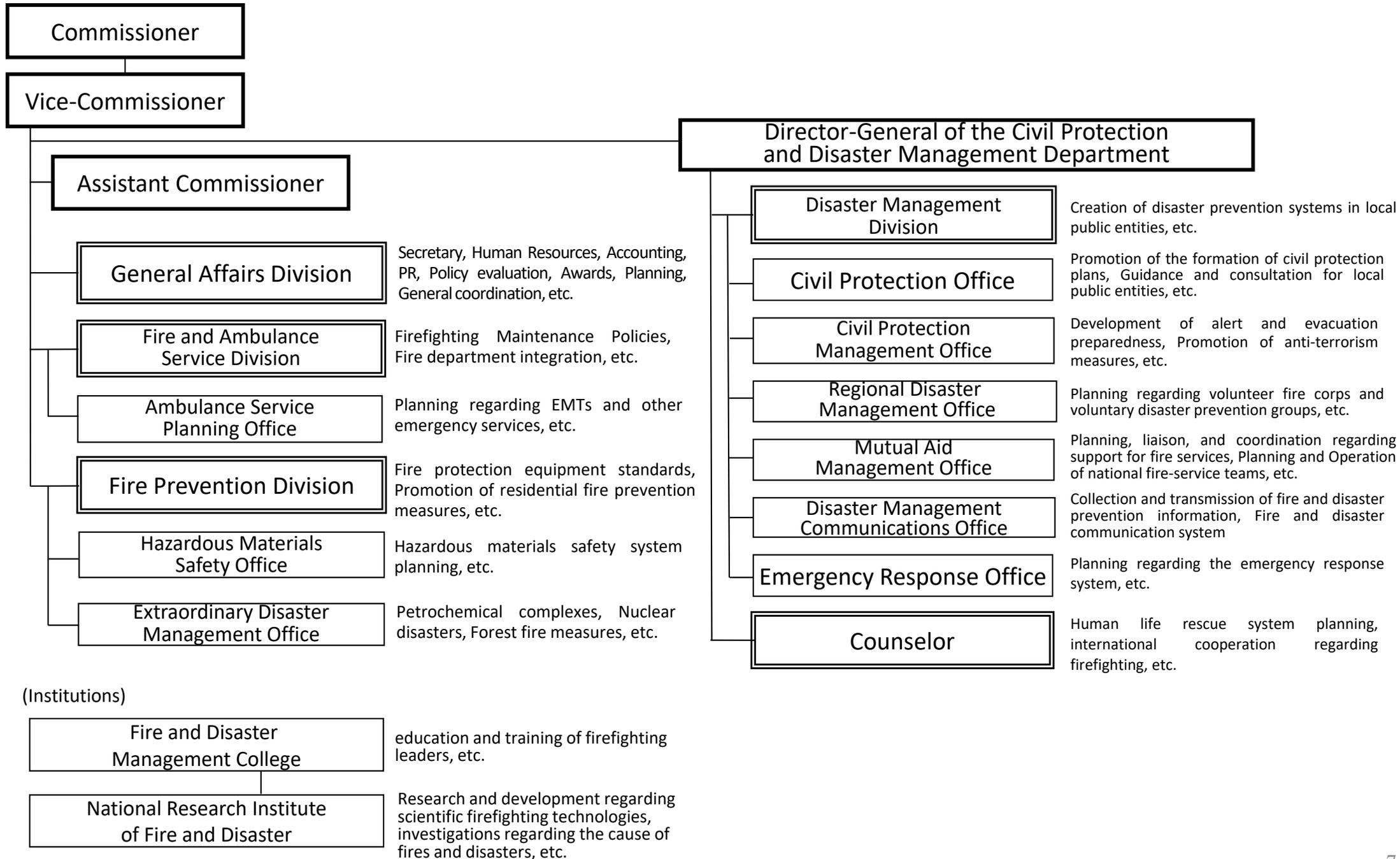
Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure, Transport and Tourism

Ministry of the Environment

Ministry of Defense

Organization of the FDMA



The Roles of National Government and Local Governments in Fire Service System

National government and local governments (prefectures and municipalities) both take on their own share of responsibility for firefighting, while cooperating and coordinating in order to respond to large scale fires and natural disasters.

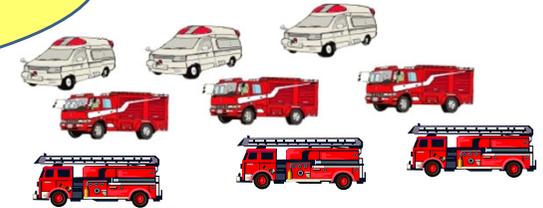
National Gov. (FDMA)

- Planning of firefighting systems, drafting of firefighting policies, supporting municipalities, etc.
- Supporting activities during large scale disasters that span a wide area covering multiple prefectures
- Education and training for the entire nation through the Fire and Disaster Management College

Local Gov.

Prefectures

Municipalities



- Possesses fire academies that offer firefighting education and training
- Possesses and maintains fire and disaster prevention helicopters

* Major cities possess and maintain their own helicopters and establish their own fire academies.

- Establishes professional and volunteer firefighting agencies and possesses actual fire squadrons
- Carries out every day fire services

<Principally local fire services>--- Fire Defense Organization Act Article 6
On location fire, rescue, ambulance, fire and disaster prevention, etc. activities

Japan's Fire Service System

Along with the nation's FDMA, in the local public entities, on the front lines of a scene, the municipal firefighting organizations (professional and volunteer) are responsible for the every day fire services.

National Government

FDMA

- No. of personnel (Fixed): 174
- Budget of FY2023 : ¥12.6B (General Account)

As of April 1, 2022

Local Governments
(Prefectures)

- Fire and disaster management expenditures for the prefectures totaled ¥166.2B for FY2021

**Professional
(full-time)
Departments**

- Fire Depts.: 723
- Firefighters: 168,000

As of April 1, 2022

- *The professional fire service system covers 99.9% of Japan's total population

Local Governments
(Municipalities)

*Tokyo is organized according to the Tokyo Fire Department

**Volunteer
(short-time)
Corps**

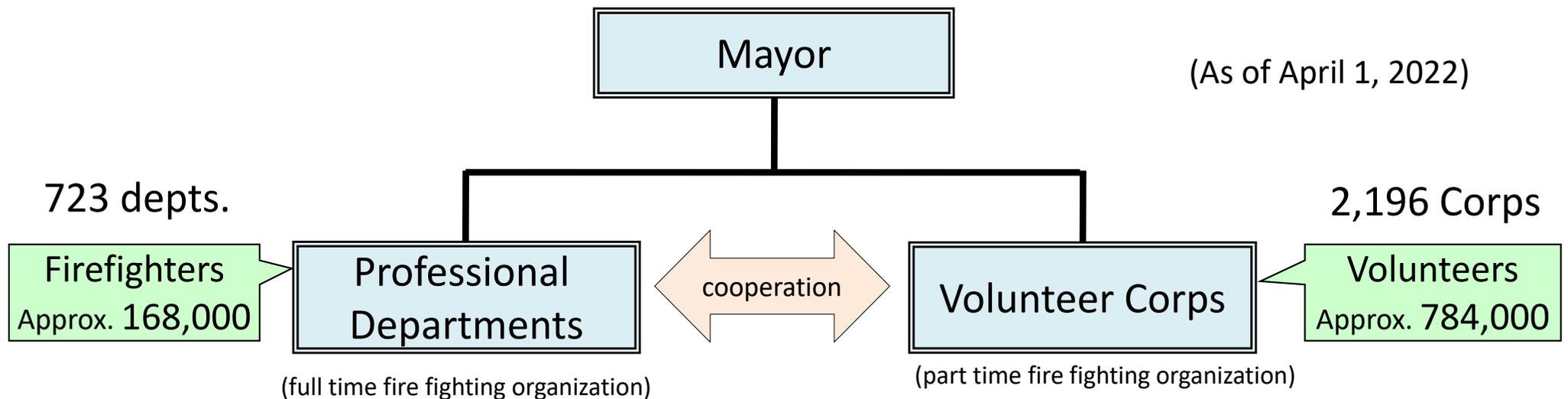
- Volunteer Corps: 2,196
- Volunteer Firefighters: 784,000

As of April 1, 2022

- Fire service expenditures for the municipalities (including the Tokyo Fire Dept.) totaled ¥2.04T for FY2021

Regarding Volunteer Fire Corps

- Japan's fire services are carried out through the cooperation of the professional (full-time) fire departments and the volunteer (part-time) fire corps established by local governments (municipalities).
- All of the municipalities have volunteer fire corps, and the number of those is 2,196.
- Based on the mentality of "protecting our own land ourselves" volunteer firefighters have other livelihoods while being part time local public employees with the authority and responsibility to carry out firefighting activities. There are approximately 784,000 volunteer firefighters.



- Volunteer fire corps, as their principal activities, carry out firefighting activities, rescue operations, disaster prevention activities, and resident evacuation measures during disasters, as well as fire prevention awareness activities, firefighting and disaster prevention training, wellness checks on the elderly, and first aid instruction during normal periods.

System for Protecting Safety and Security of Regions (complete image)

Firefighting Organizations
in local governments

Under the jurisdiction of the fire chief and operating in all areas in their jurisdiction

Professional Fire Departments
Approx. 168,000 Firefighters

Volunteer Fire Corps
Approx. 784,000 Volunteers

Of which are female volunteers:
28,000

Voluntarily respond to disasters in their own areas

Voluntary Disaster Prevention Groups
Approx. 45,390,000 Members

(as of April 1, 2022)

Resident Volunteer Disaster Prevention Activities



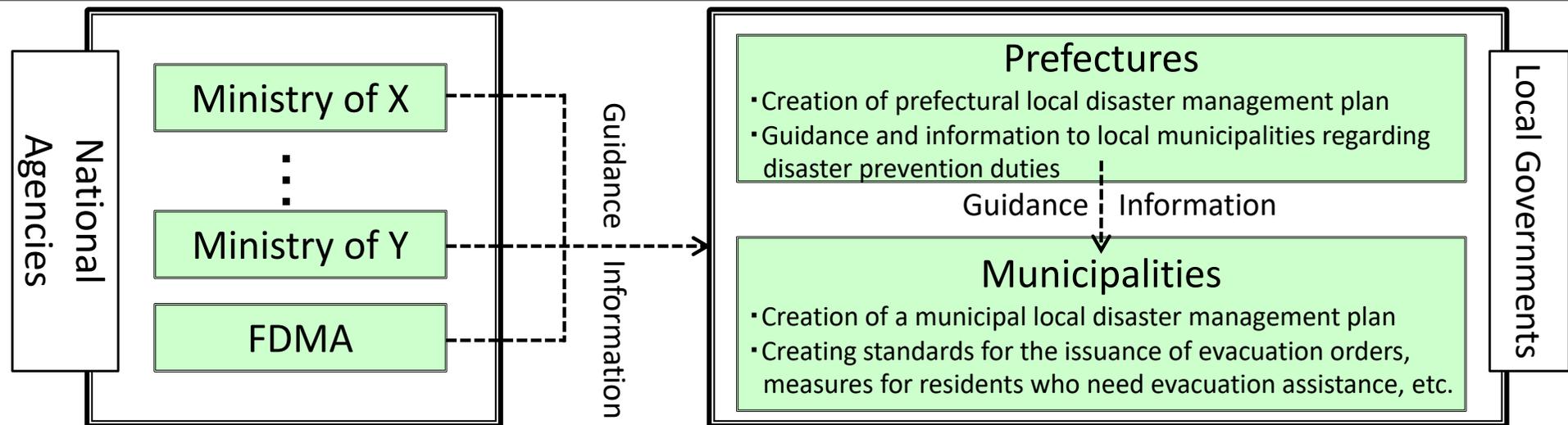
- In order to prevent disasters such as fires before they start and to minimize the damage caused by disasters such as earthquakes and downpours it is extremely important for each citizen to be deeply aware of the important of fire and disaster prevention on a daily-basis, and to make adequate disaster and fire prevention preparations in their area.
- That's why, in addition to full time firefighting agencies, the expansion and strengthening of voluntary disaster prevention groups, women's fire prevention clubs, and youth firefighting clubs is being promoted.

Class	Description	No. of Orgs.	Approx. No. of Personnel
Voluntary Disaster Prevention Groups	Disaster prevention groups that work voluntarily as a unit of neighborhood associations, etc. (organization activities cover 84.7% of all households)	166,833	45,390,000
Women's Fire Prevention Clubs	Organizations that work to acquire knowledge about fire prevention in the home and to raise fire prevention awareness throughout the community.	6,966	1,050,000
Youth Firefighting Clubs	Organizations comprised of boys and girls aged 10 to 18, that teaches fire and disaster prevention in everyday life.	4,150	390,000
Children's Firefighting Club	Organizations comprised of children 9 and younger, that teaches how to properly handle fires and about firefighting jobs.	13,308	1,050,000

Voluntary disaster prevention groups and women's fire prevention clubs as of April 1, 2022; youth fire fighting clubs and children's fire fighting clubs as of May 1, 2022

Strengthening Regional Disaster Prevention During Normal Periods

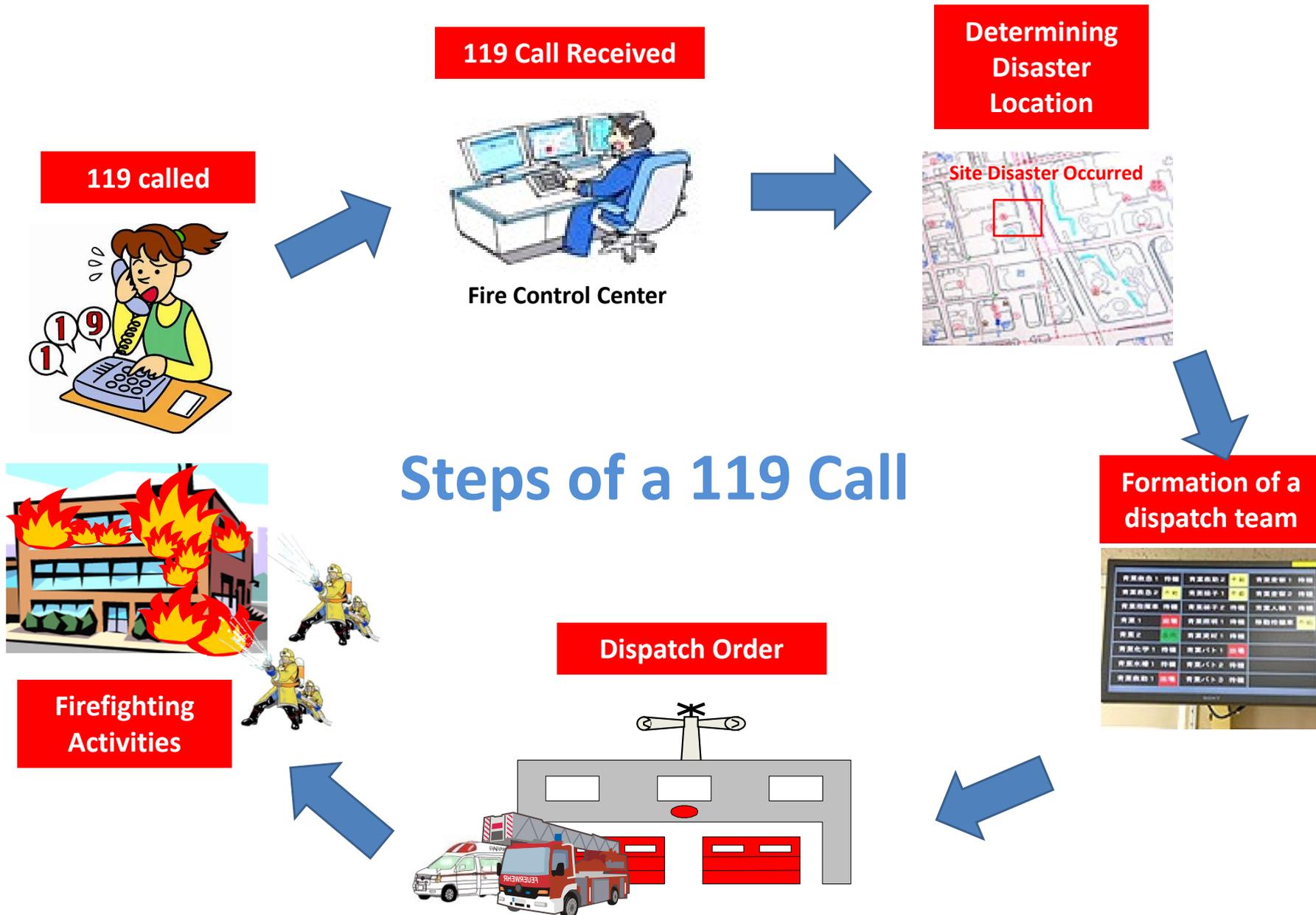
- During normal periods, local governments (prefectures and municipalities) plan to strengthen regional disaster management capabilities based on the basic disaster prevention plan of each region (local disaster management plan, etc.).
- Simultaneously, nationally, the ministries plan to both strengthen disaster management capabilities based on their plans (disaster management operation plan, etc.) and to provide guidance and information, etc. to local governments regarding the matters under their purview.
(Ex: landslide disasters fall under the purview of the Ministry of Land, Infrastructure, Transport and Tourism)
- The FDMA is offering guidance and information regarding the duties of local public entities based on the Disaster Countermeasures Basic Act.



<Duties of local governments based on the Disaster Countermeasures Basic Act>

- Creation and revision of a local disaster management plan
- Creation of concrete standards for the issuance of an evacuation orders by the mayor
- Measures to aid residents who need evacuation assistance (The elderly, those with disabilities, etc.)
- Fire service duties carried out by residents' voluntary disaster prevention groups (voluntary disaster prevention groups)

Municipal Fire Services – Call and Dispatch

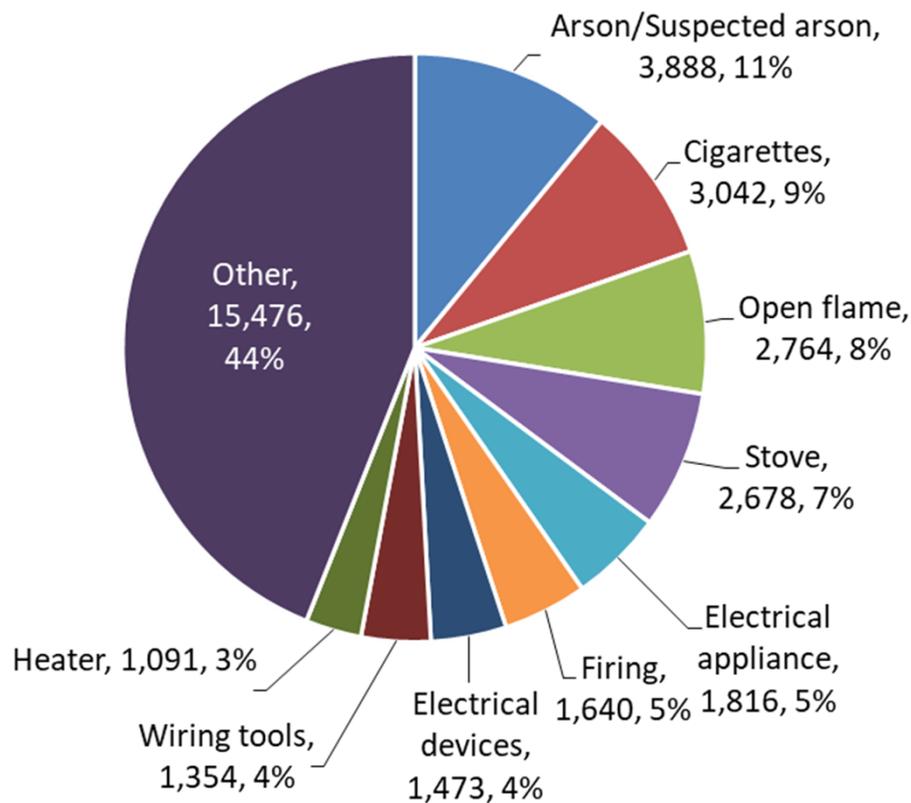


Municipal Fire Services - Firefighting Activities -

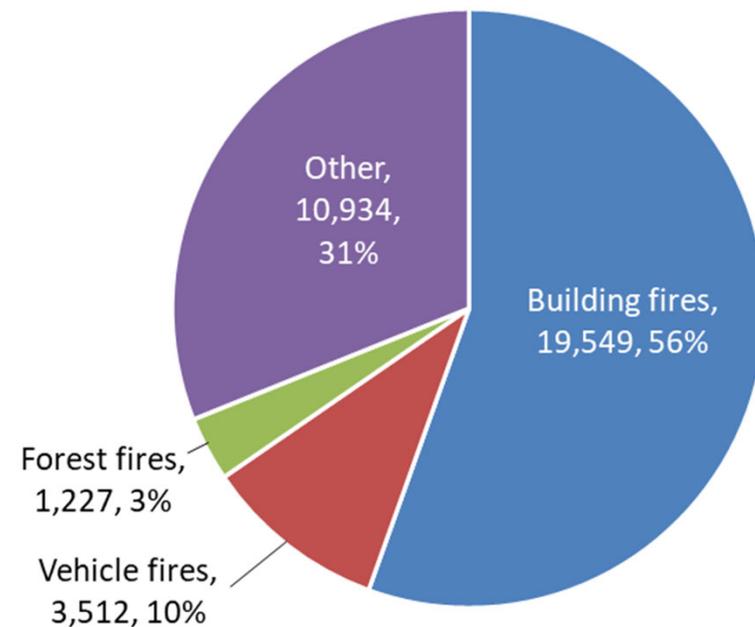
Number of fire incidents in 2021: 35,222

- Compared to 10 years ago (2011), the number of fire incidents (50,006) and deaths (1,766), the number of fire incidents was reduced to 70.4% (35,222) and the number of deaths to 80.2% (1,417).

Breakdown of Fire Causes



Class of Fire

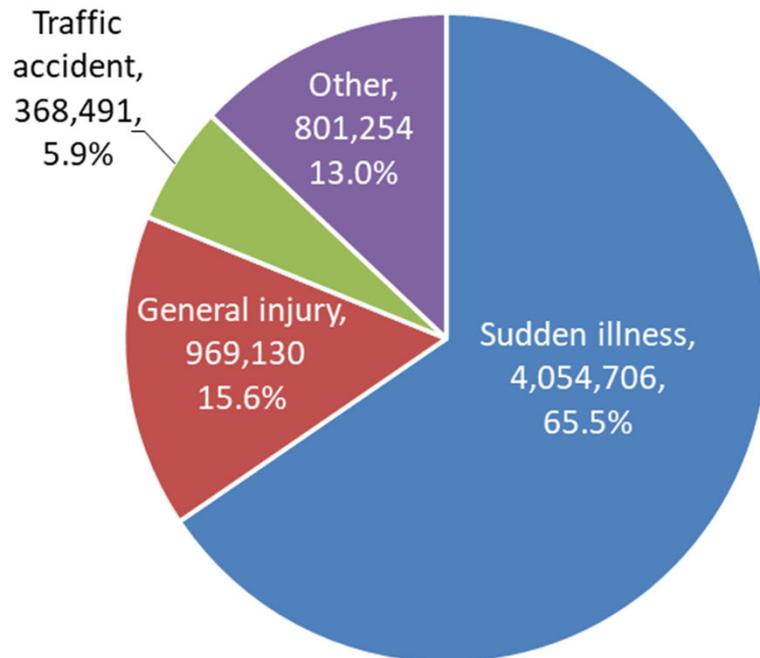


Municipal Fire Services - Ambulance Services -

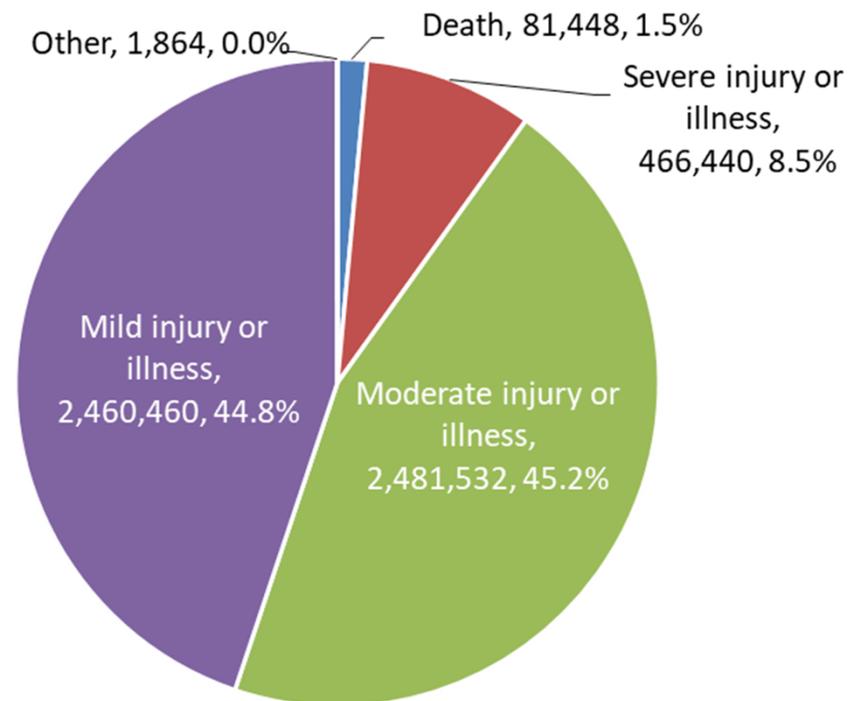
Number of ambulance service dispatches in 2021: 6,193,581

- Ambulance service activities have increased over the years. Compared to 10 years ago in 2011, the number of ambulance service dispatches (5,707,655) and people transported (5,182,729), increased by 8.5% to 6,193,581 dispatches and the number of people transported by 6.0% to 5,491,744 in 2021.
- The average time needed from a 119 call to arrival at on location was 9.4 minutes. An increase of 1.2 minutes compared to 10 years ago.

Types of incidents serviced by ambulance by number (6,193,518)



Number of patients serviced by ambulance by severity of injury or illness (5,491,744)

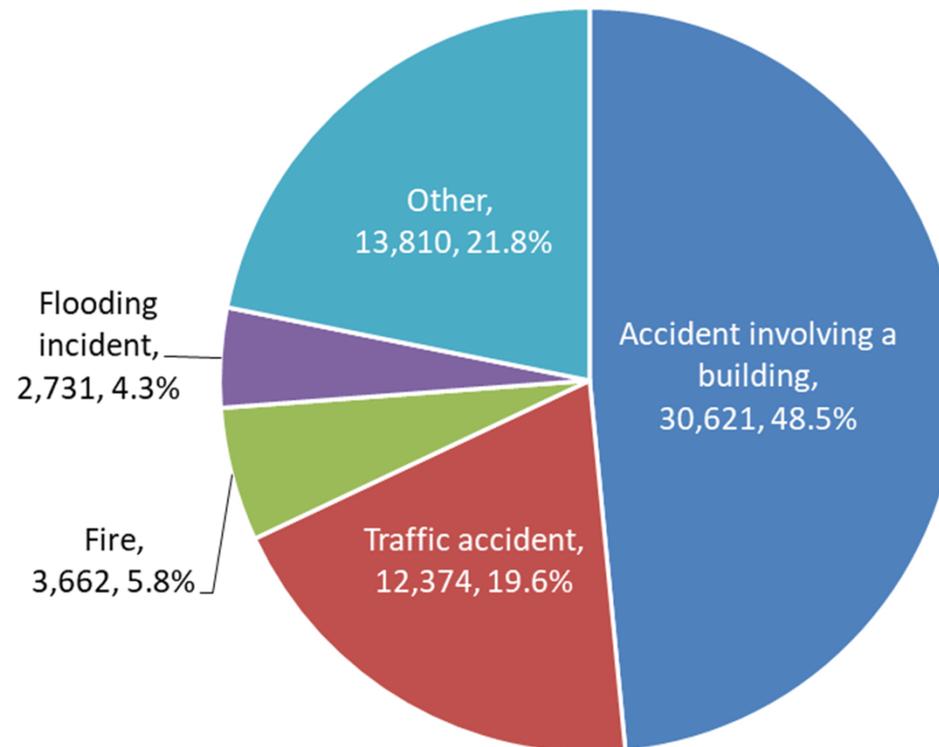


Municipal Fire Services - Rescue Activities -

Number of rescue activity cases in 2021: 63,198

- The number of rescue activities for 6 since starting from 10 years has remained around 57,000 cases, but has recently exceeded 60,000 cases, and further increase to 63,198 cases in 2021.

Breakdown of Incident Type



Municipal Fire Services - Fire Prevention -

○ Various types of regulations according to building usage

- ✓ Common fire prevention properties such as department stores, hotels, office buildings, etc.
- ✓ Residences (mainly detached houses)
- ✓ Facilities handling hazardous materials such as gasoline tanks and petroleum tanks
- ✓ Facilities handling explosives such as gunpowder, or pressurized gases such as liquefied petroleum gas

Regulations based on the Fire Service Act pertaining to common fire prevention properties

Tangible Measures

- Fire Extinguishers
- Automatic Sprinkler System
- Fire Alarm System
- Emergency Exit Lights
- Escape Equipment etc.



Intangible Measures

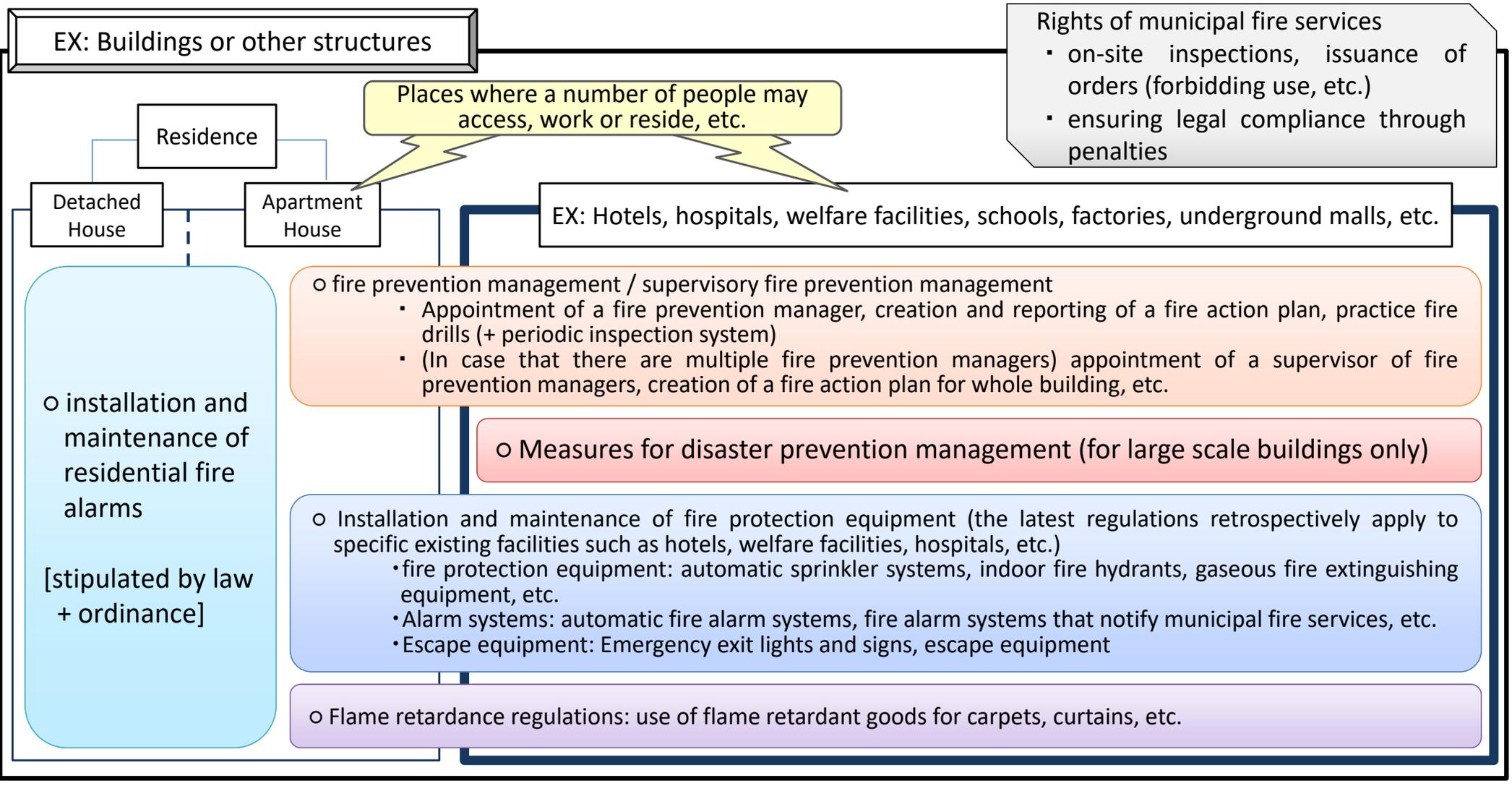
- Appointment of a fire prevention manager
- Creation of a fire action plan
- Composition of an In-house firefighting team
- Inspection of the status of fire prevention management and fire protection equipment
- Practicing firefighting and evacuation drills



Overview of the Fire Prevention Administration System

Securing fire safety from both fire protection equipment and fire prevention management aspects

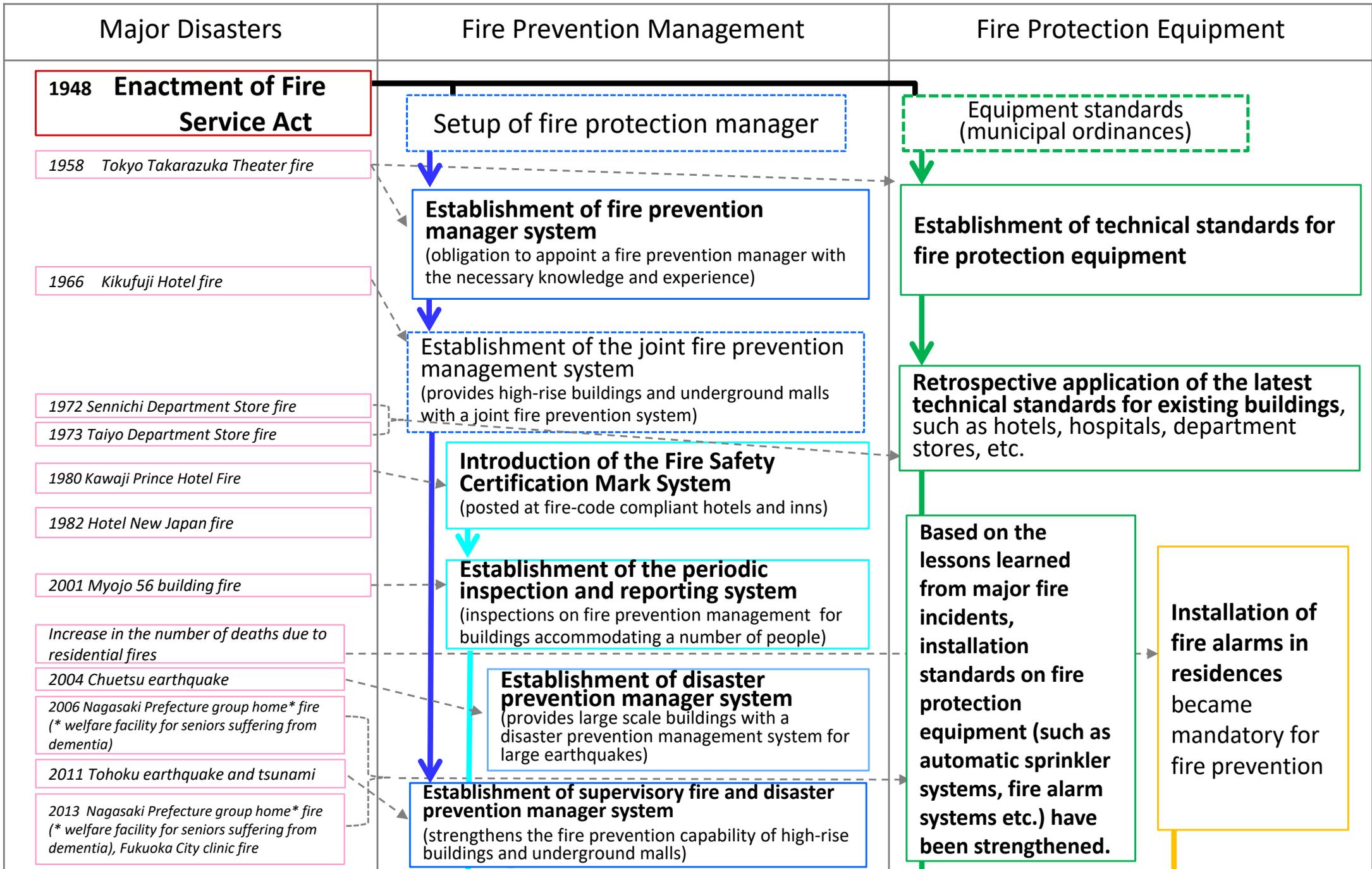
[Fire prevention properties]: forests, vessels or vehicles, ships moored at a dock or pier, buildings or other structures or properties belonging thereto.



○ Regulations regarding equipment and tools that utilize fire: the structure, installation locations, etc. of stoves, boilers, etc.
[stipulated by law + ordinance]

*In addition to these above, the regulations also provide for fire prevention management for outdoor events (guide regulations for municipal ordinances), standards for the handling of hazardous materials such as gasoline, etc.(Chap. 3 of the Fire Service Act), and other things.

History of Fire Prevention Administration and concerning Fire Incidents



*! items surrounded by dotted lines, since abolished

Wide Area Firefighting and Disaster Relief Support System and the National Fire-Service Team

In the case of typical fires, accidents, and disasters

○ Responded to by the municipality for a call for services

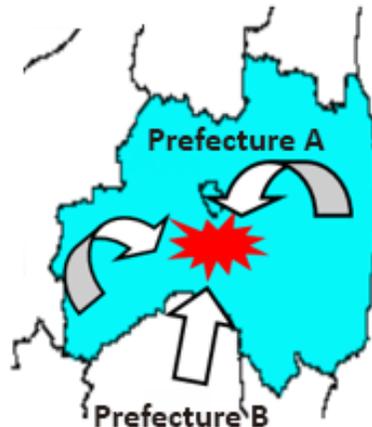
No. of fire depts. nationwide: 723
No. of firefighters nationwide: 168K
No. of volunteer firefighters nationwide: 784K
 (as of April 1, 2022)



In the case of large scale fires, accidents, and disasters

○ Firefighting support is sent from neighboring municipalities (including those outside the prefecture) and municipalities in the prefecture based on mutual firefighting aid agreements

Presently, all prefectures in Japan have reached mutual firefighting aid agreements including all municipalities and municipal administrative associations.



In the case of massive scale fires, accidents, and disasters

National Fire-Service Team (6,606 teams and 25,476 individuals registered as of April 2022)
 Provides a national firefighting support system that effectively and rapidly saves lives in the event of a large scale or special disaster

[Details regarding formation]

- Founded in 1995 in response to the lessons learned from Great Hanshin earthquake
- Through an amendment to the Fire Defense Organization Act in June 2000, the National Fire Service Team was clearly placed into law, and it became possible to dispatch the team at the commissioner of the FDMA's command

Governor of affected prefecture requests help

Commissioner of the FDMA's approval or command

Dispatch of the National Fire-Service Team
 (Depending on the level of damage, the prefectures to be dispatched may be expanded.)

In the case of a localized disaster: neighboring prefectures are dispatched

In the case of a Tokai earthquake: the entire nation is dispatched

- In the approximately 26 years since their launch, they have been deployed 43 times
- Breakdown: Earthquakes x18, storms and floods/landslides x16, storage tank/factory fires x4, volcanic eruptions x3, avalanches x1, train accidents x1

Deployment of Japan Disaster Relief Team

The international rescue team* formed from the FDMA and fire departments, is a member of the rescue team under the “Act on the Dispatch of the Japan Disaster Relief Team” and is dispatched during large scale disasters, based on that law, in response to a request from the government of a country affected by said disaster, contributing to international emergency relieves. To date, it has been dispatched to foreign disasters 22 times.

*The International Rescue Team (International Rescue Team of Japanese Fire-Service : Abbreviated “IRT-JF”: and affectionately known as “Ai aru te” (愛ある手/The loving hand)



JICA提供

–Search and rescue operations in Kahramanmaraş; earthquake in Turkey (February 2022)
(Courtesy of JICA)



JICA提供



Supporting search and rescue operations in Hualien County; Eastern Taiwan earthquake (February 2018 Dispatch)
(Courtesy of JICA)



Search and rescue activities in Tlalpan; Mexico earthquake (September 2017 Dispatch) (Courtesy of JICA)

International
Emergency Relief

Human Aid
[Japan Disaster Relief Team]

Material Aid

Financial Aid

Rescue Team

FDMA / Fire department (IRT)
National Police Agency / Prefectural Police depts.
Japan Coast Guard
Ministry of Foreign Affairs,
JICA (Japan International Cooperation Agency)

Medical Assistance Team

Infection Control Team

Specialist Team

JSDF

Education and Training and Technical Support at the Fire and Disaster Management College

The Fire and Disaster Management College provides **high level education and training** necessary for cadres to personnel involved with national or prefectural fire service duties and to municipal professional and volunteer firefighters and provides the necessary **technical support** regarding education and training to prefectural fire academies

1. High Level Education and Training

- High level education and training utilizing a variety of facilities
 - Increased efficiency and sophistication of education and training utilizing ICT such as e-learning, remote classes, and the large scale disaster training system.
 - Training for responding NBC disasters, large numbers of sick and injured, etc.
 - Born from concern regarding recent deaths in the line of duty, safety management education has been enhanced utilizing real firefighting experience training facilities
 - Formation of a social network of fire department leadership staff nationwide
 - Forms a nationwide social network by requiring students to live at the dorms for up to two months for each dept/course
 - The network of graduates contributes to the smooth coordination of firefighting activities during large scale disasters
- *Graduates: 68,020 total (1948 - 2022)

- Overview of the Fire and Disaster Management College
- ◇ Address
 - 4-35-3 Jindaiji Higashimachi, Chofu City, Tokyo
- ◇ Main Campus
 - Main Building
 - Main Building 2
 - 2 Dorms (Total dorm rooms: 224)
 - Training Tower (Height 33m [108ft])
 - Indoor fire prevention area
 - Outdoor training area



Disaster response drills using the large scale disaster training system



NBC disaster Response drill



Large number of Injured response drill



Real firefighting Experience Training facilities



Hazardous material fire response drill

1. Comprehensive Courses (4 Depts.)

- Executive Course
- Top-Level Executive Course
- Newly-Appointed Fire Chiefs and Fire Academy Principals Course
- Volunteer Fire Brigade Leader Course

2. Specialized Courses (8 Depts.)

- Fire Suppression Course
- Rescue Course
- Emergency Medical Services Course
- Prevention Course
- Hazardous Materials Course
- Fire Investigation Course
- Newly-Appointed Local Instructors Course
- Local Instructors Course

3. Practical Courses

- Emergency Fire Response Team (National Fire-Service Team) Education Course (4 courses)
- Risk Management / Disaster Preparedness Education Course (3 courses)
- Gender Empowerment Course
- Fire Inspection Management Course

2. Technical Support for Fire Academies

In response to the diversification and scale of natural disasters, fires, and accidents, etc., there is a need to enhance and strengthen the education and training at prefectural fire academies. In addition to the above education and training courses for fire academy principals and instructors, the college now performs lends instructors to academies, edits firefighting textbooks, and more.

Professional Firefighter's Lifecycle, Education and Training

Relation of Professional Firefighter's Lifecycle, Education and Training (example)

