

Kobe, Japan

Disaster Risk Management Profile

Last Update, April 2006

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1 Introduction

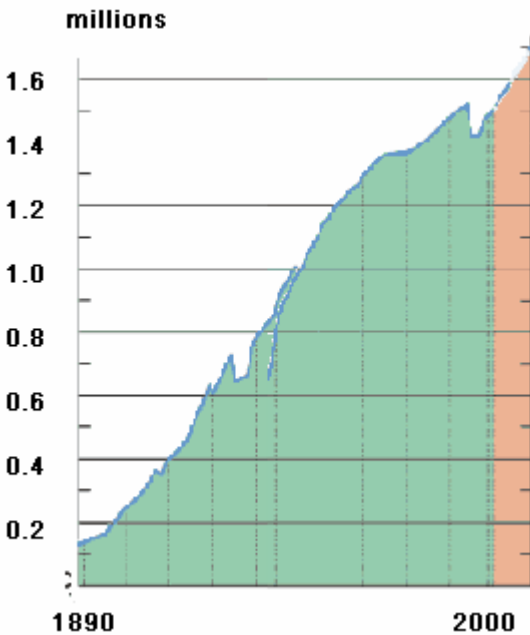
Demographic, economic, social and cultural characteristics

Japan is located in eastern Asia, an island chain between the North Pacific Ocean and the Sea of Japan, east of the Korean Peninsula. In 2003 Japan's population was 128 million, and the City of Kobe represents 1.2% of the total. Most of the country's population is urban, accounting for the 78.8% of the total, with a density of 341 persons per square kilometer. Almost 15% of the population is under 15 years old and 23.6% is over 60 years old. In the year 2000 there were 46.78 million households, 58.4% of which were nuclear family and 27.6% one-person households. In 2002 the country GDP was \$38,160 per person.

Kobe City history goes back to 1868 when the Port of Kobe opened as an international port. The city developed gradually by merging with neighbouring towns and villages. Kobe currently covers an area of 550.72 sq. km (36 km from east to west and 30 km north to south).

Despite having to recover from two devastating periods, World War II and the 1995 earthquake, its population has surpassed 1.5 million, turning it into the sixth largest city in Japan. The population density of the urban area is almost 6,000 people per sq. km.

Figure 1, Population growth in Kobe



as compared to the average of 2,750 people per sq. km. Kobe is known for its international flavor, provided by a large foreign population from as many as 115 different countries.

Kobe's economy is diverse. Tertiary industries, such as wholesaling, retailing and services cover 70% of all income. In 2001 citizens' income per capita was about US \$26,000¹. The Port of Kobe has played a leading role in the city's development by attracting port-related industries, including steel production, shipbuilding, foodstuffs, and warehousing.

Governance style

Japan is a constitutional monarchy with a parliamentary government. According to Japan's constitution, there are three main branches of government: Diet (Legislature), Cabinet (Executive) and Supreme Court (Judiciary). Each branch is equipped with a separate set of agencies and personnel. Figure 2 shows its organization.

Local government affairs are conducted at two levels in Japan: by the prefectures and by the municipalities within each prefecture. As of April 1, 2004, Japan has 47 prefectures, within which are 3,123 municipalities (including 23 wards (ku) of Tokyo-to) Between April 2003 and April 2004 the number of municipalities decreased by 90 as a result of mergers. The merging of municipalities is being promoted by law in the last few years in order to strengthen the administrative foundation of municipalities.²

¹ Kobe City, Income (accessed September 17, 2004) available at <http://www.city.kobe.jp/cityoffice/06/013/toukei/contents/pocket.html>

² Ministry of Public Management, Home Affairs, Posts and Telecommunications (2004) Statistical Hand Book of Japan 2004. Tokyo P: 204

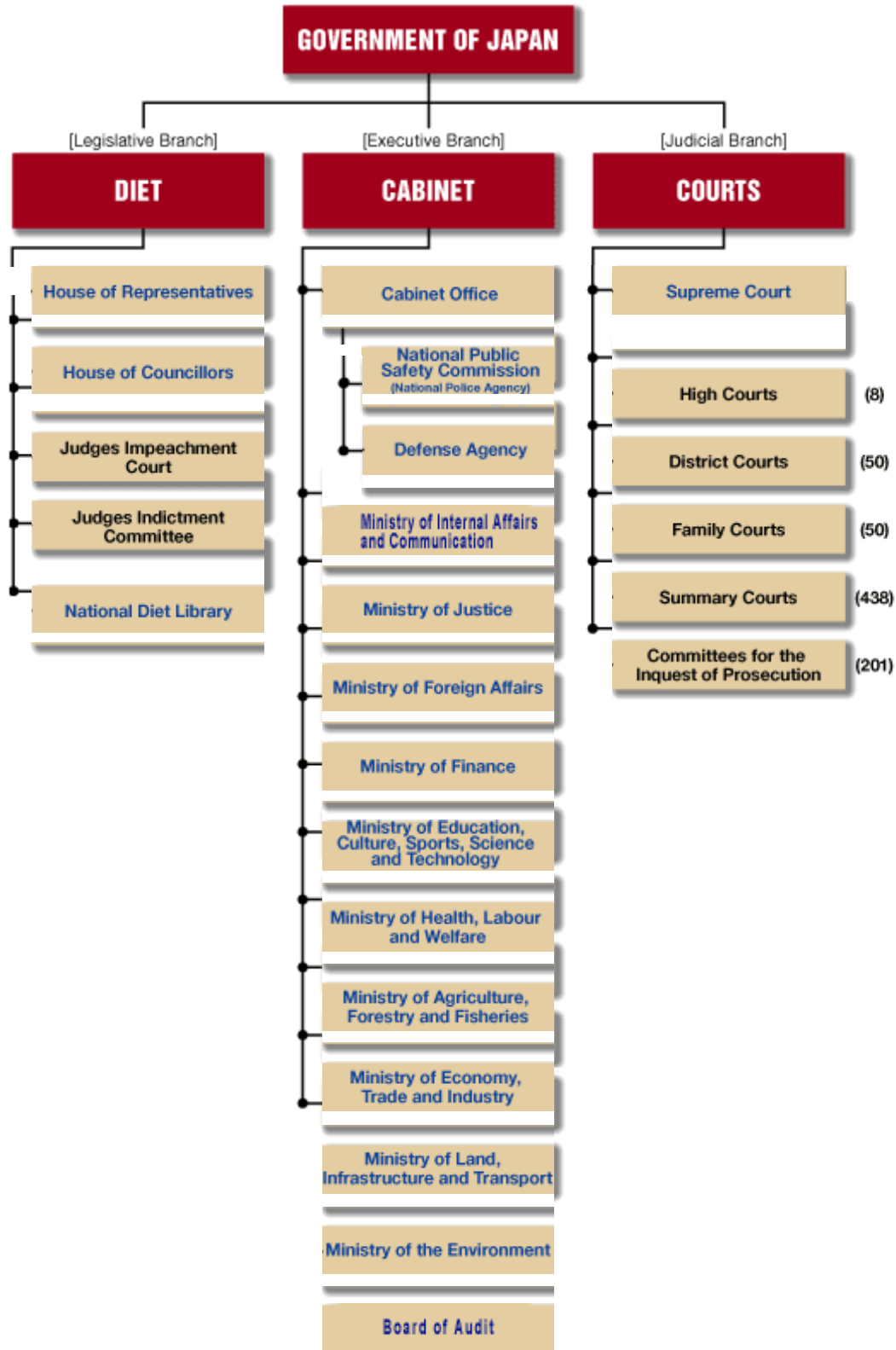
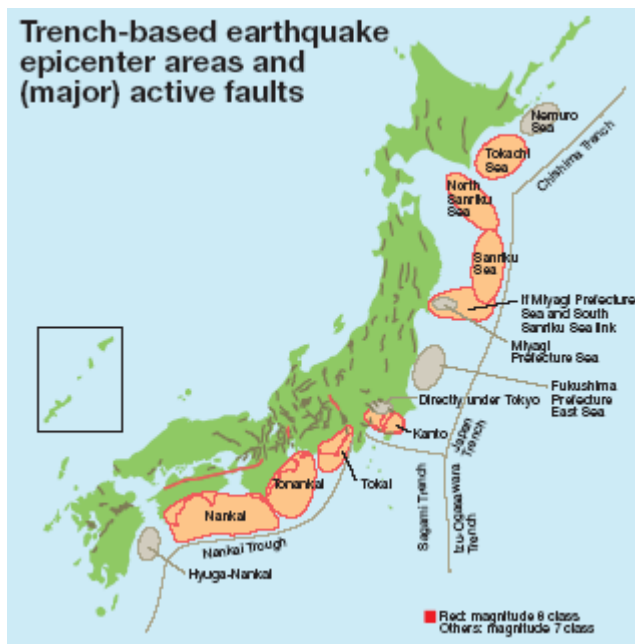


Figure 2

National hazardscape

Due to harsh natural conditions, Japan is one of the world's countries most prone to natural disasters, particularly from earthquakes, typhoons and floods. Among the main historic hazard events are Great Kanto Earthquake in 1923, Fukui Earthquake in 1948, Typhoon Ise-wan in 1959, Hokkaido-Nansei –oki Earthquake in 1993, Great Hanshin-Awaji Earthquake in 1995, Typhoon Tokage in October 2004 that killed 75 people, injured 294 people and destroyed 382 homes; and the Niigata Earthquake in October 2004 which killed 40 people and caused an estimated \$29 billion dollars.



**Fig. 3 Major active faults in Japan
Cabinet's Office 2005**

The Great Hanshin-Awaji Earthquake of 1995, the most devastating for the city of Kobe, resulted in 4571 dead, 14,678 injured, 67,421 structures collapsed and 6,965 structures destroyed by fire, for a total of 6.9 trillion Yen economic damage³. In Hyogo Prefecture 6400 people died, and 41527 were injured. In 1967 a flood in Kobe City caused 77 deaths. Also in 1938, another flood caused 616 deaths⁴.

³ The City of Kobe (2004), KOBE: An Exciting Place to Work and Live, P: 7, Kobe.

⁴ Interview with Kobe City Officials, August 2004.

National disaster management structure and relevant legislation

“Because protecting the lives, persons, and property of the people from such disasters is government's most important task, the Cabinet Office closely collaborates with relevant ministries and agencies to prevent, respond to, and recover from disasters and works to ensure that the nation prepares strongly for such events.”⁵

Under the Disaster Countermeasures Basic Act of 1961, the Central Disaster Management Council –CDMC- was formed with the main objective of “ensuring comprehensiveness of disaster management and to discuss matters of importance with regard to disaster management”⁶. The Central Disaster Management Council was positioned within the Cabinet Office as one of Cabinet’s major policy councils. Led by the Prime Minister, it comprises the entire Cabinet as well as outside experts. Since the reorganization of ministries and agencies in particular, leaders of local public bodies and experts with practical experience have been incorporated as new participants⁷.

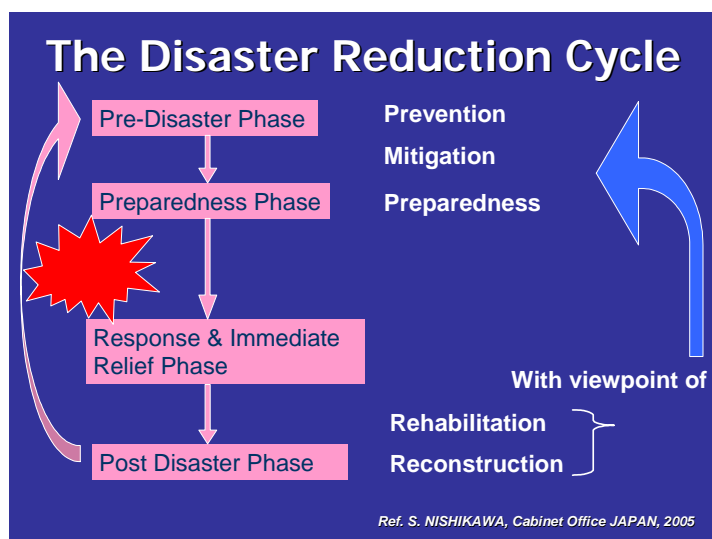


Figure 4 shows the disaster risk reduction cycle concept being used by the Cabinet Office in Japan to pursue specific policies and programs aimed at reducing loss of life and property in Japan, as explained by Mr. Saturo Nishikawa during his presentation at the World Conference on Risk Reduction, January 2005, Kobe, Japan.

Figure 4, Disaster Risk Reduction Cycle, Cabinet Office, 2005

⁵ Work of the Cabinet Office, Securing the people’s safety, 2005

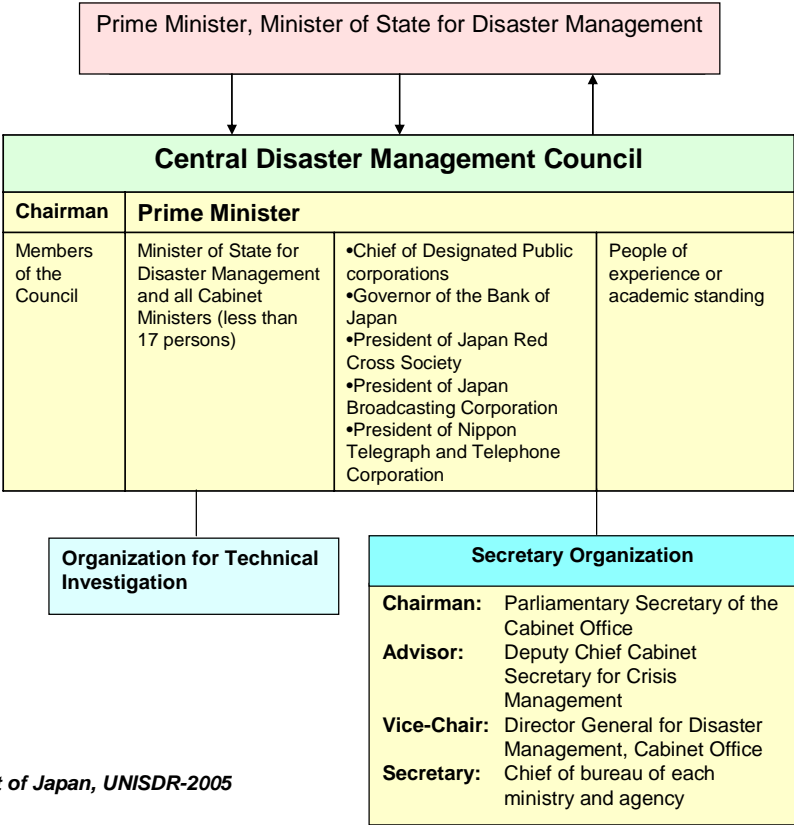
⁶ National report of Japan on Disaster Reduction, UNISDR 2005, www.unidr.org

⁷ Securing the people’s safety (accessed September 2004) available at:

<http://www.cao.go.jp/disaster.pdf>

Within the Cabinet Office, the Minister of State for Disaster Management has been assigned as the Minister of State for Special Missions. Its mandate is to handle planning and central coordination relating to basic policy on disaster risk reduction and disaster countermeasures in the event of a large scale disaster. The Minister is also responsible for information gathering, dissemination and the implementation of emergency measures. A chart depicting the organizational scheme of the Central Disaster Management Council appears on Figure 5.

Figure 5
 Organization of the Central Disaster Management Council



Ref. National report of Japan, UNISDR-2005
www.unisdr.org

Under the Disaster Countermeasures Basic Act, a basic plan for a nation-wide Disaster Management Plan has been drafted, setting long term milestones for disaster risk reduction in the whole country. This document provides the basis for an integral Disaster Management Planning System, which is periodically revised and updated.

The Disaster Management Planning System comprises:

- a) The Basis Disaster Management Plan - BDMP, sets forth the basic activities for each type of disaster management plan, which is the foundation of the nation's disaster management measures. It was entirely revised on the light of the 1995 Great Hanshin-Awaji Earthquake clarifying roles and responsibilities of every administrative body and providing guidelines for preparedness, emergency response and recovery and reconstruction, according to the type of disaster.
- b) The Disaster Management Operation Plan, prepared by different administrative Organizations and Public Corporations according to the guidelines on the BDMP.
- c) Local Disaster Management Plan, prepared by each prefecture and municipal disaster management council taking into account local conditions and the BDMP.

The National Development Plan strongly incorporates aspects related to safety, mitigation and risk reduction countermeasures as one of the five fundamental objectives of the country. The national vision of "making Japan a safe and comfortable place to live"⁸ is prioritized through a well understood criteria of minimizing the damage caused by earthquakes and other natural hazards.

The Government of Japan has made important investments to understand how major hazards can impact the nation. Risk and vulnerability assessment has been carried out throughout the nation with the participation of the public and private sector, scientific organizations, research institutes and universities. Instrumentation to monitor different natural hazards and early warning systems for storms, heavy rain and snow, land slides, tsunamis, and others have been installed throughout the country. The Ministry of Land, Infrastructure and Transport, the Japan Meteorological Agency, local government bodies, the universities, and other private organizations are also engaged in this effort.

The management of knowledge to keep the general public informed and alert is considered to be extremely important to successfully implement concrete reduction and mitigation actions. The government counts on a Disaster Risk Reduction Information Sharing Platform and extensively utilizes different means of communication such as radio, television, on-line over the internet and most recently cellular phones.

A wide spectrum of education and capacity building programs are available not only for professionals in different fields, but also for students starting on their early years at

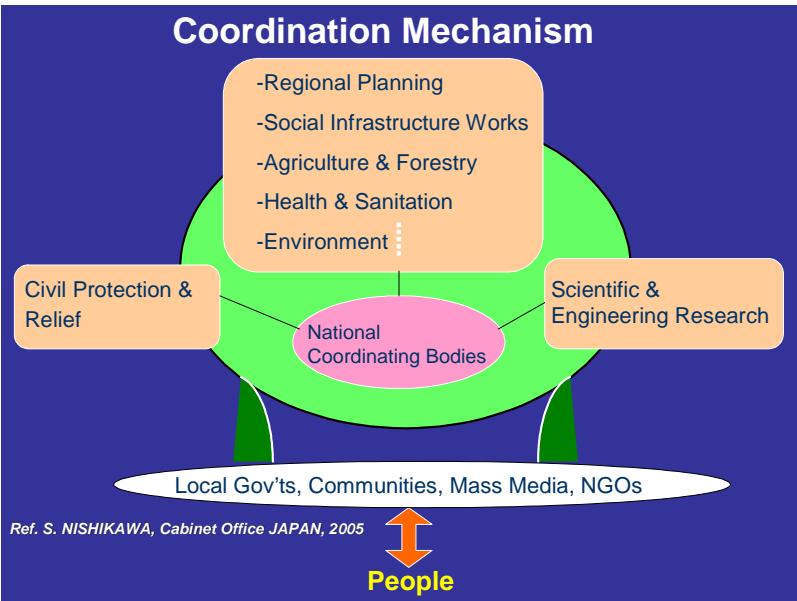
⁸ Ministry of Land, Infrastructure and Transport, www.mlit.go.jp accessed March 2006

school and high school. The Ministry of Education, Culture, Sports, Science, and Technology implements such programs to cover ages from 3 to 18 years. Other options for the general public include a National Prevention Day on September 1 and a National Disaster Prevention Week, on August 30 to September 5, every year where mock drills and dissemination of information is promoted among the general public to increase awareness and improve preparedness at all levels.

The Great Hanshin-Awaji Earthquake of January 1995 in Kobe showed the nation and the world the importance of a community that can provide self support and assistance in case of an event of such magnitude. Therefore, a Volunteer Day on January 17 promotes this key aspect for the society all over Japan.

On the fiscal and financial side, the government and the private sector promote several instruments to facilitate mitigation and also means for coping with the residual risks. For example, disaster risk reduction activities can be promoted via the state budget; in fiscal year 2003, the budget for disaster risk reduction was approximately 2.7 trillion yen, which represents approximately 5% of the total general account budget. Under the Disaster Relief Law, local public bodies are required to set aside disaster relief funds for each Prefecture. Insurance, grants, small short term loans, disaster loans, group loans and other options are available for different sectors of the economy and also at different administrative levels, for instance, national or municipal governments.

Fig. 6, Disaster Risk Management coordination scheme in Japan



In order to put in place the described activities, an important effort to coordinate and engage different stakeholders is needed. Figure 6 shows a schematic representation of the coordination process endorsed by the Cabinet Office and the Central Disaster Management Council as presented by Mr.

Saturo Nishikawa in the World Conference for Disaster Reduction held in Kobe, Japan in January 2005.

Aside from the 1961 Disaster Countermeasures Basic Act, there are several specific laws and regulations to complement the legislation for risk reduction and management; a few of them are listed here:

http://www.adrc.or.jp/nationframe.php?URL=./management/JPN/Japan_Org.html&Lang=en&NationCode=392

- Flood Control Law;
- Disaster Relief Law, 1947,
- Building Standard Law, 1950,
- Large-scale Earthquake Countermeasures Act, 1978⁹.
- Act for Promotion of Earthquake Proof Retrofitting for Buildings, 1995
- Comprehensive National Development Act, 1998

National land use management system and relevant legislation

The Ministry of Land Infrastructure and Transport (MLIT) was established in 2001, through the consolidation of the former Ministry of Construction, Ministry of Transport, National Land Agency and Hokkaido Development Agency. MLIT's responsibilities include collectively promoting national land planning policies, infrastructure policies, social fund maintenance and transport policies. The Ministry's overall responsibility is to conceive and implement a concrete vision of how to comprehensively harmonize and develop the physical, economic and social infrastructures of Japan. Its purpose is to maintain the viability of the country's land, while ensuring a mobile environment that enables both the government and private sector to develop their potential.

MLIT has established the following five objectives in order to carry out these goals:

1) Supporting Joyful Life, 2) Enhancing Global Competitiveness, 3) **National Safety**, 4) Preserve and Create a Beautiful and Benign Environment, and 5) Enhancing Regional Diversity.

⁹ National Land Agency (accessed October 15, 2004) available at: <http://www.icdo.org/National>

National and regional development plans and land use plans based on necessary research are developed every 5 years.

Among the different policies that the Ministry promotes, two have been taken as good examples of comprehensive land use and management practices:

- **Building a favorable urban environment**

MLIT pursues zero emissions of waste in metropolitan areas. To this end, the ministry strives to reduce, reuse, and recycle waste to “close the loop” of resource circulation. To revitalize urban environment infrastructure, MLIT implements a number of measures including: (i) conserving, regenerating or creating precious natural environments in metropolitan areas, (ii) creating green zones in waterfront areas and expanding green zones in urban areas, and (iii) reviving rivers and seas.

- **Promoting urban development initiatives by the private sector**

A total of 63 areas (as of the end of December 2004) have been designated as “the Prompt Development Area for “Urban Renaissance” under the Special Measures Act for Urban Renaissance. In these areas, various projects are well underway. For example, business and commercial buildings opened one after another in the area surrounding Tokyo and Yurakucho stations. A basic plan has been developed to build a hub for international business and cultural exchange in the area around Osaka Station, the Nakanoshima area and the area in and around Midosuji. A redevelopment project has been completed in the area centering on Takamatsu Station and the Marugame-town area.

The National Institute for Land and Infrastructure Management (NILIM), which is part of the MLIT, performs research that contributes to the planning and enactment of technology policies to achieve the goal of creating a beautiful national land with safety and vitality in order to increase the satisfaction of the people who are the end users of housing and infrastructure. To accomplish this goal, NILIM promotes the following:

- Creation of a beautiful national land to support sustainable society in Japan and one that is safe against natural disasters
- Creation of a comfortable living environment
- Regional management interacting with public involvement

- Creation of a comfortable housing market
- Creation of society with vitality and regions with individuality
- Achievement of smooth exchange of people and efficient flow of goods, revitalization of activity in the city and the region
- Improvement of methods of managing housing and infrastructure, technological standard and contract methods and options for evaluating policies and public service
- Creation of society with vitality utilizing IT (Information Technology)
- Response and contribution to international society Promotion and international standards

Significance of the city to the nation

“Surrounded by mountains, the sea and the countryside, Kobe is blessed with an abundance of beautiful natural surroundings. It is a city with wide ranging appeal, where vibrant city life goes hand in hand with history and culture”¹⁰.



Located just to the west of center on the main island of Honshu in an area known as the Kansai Region, the port city of Kobe is easily accessible to for most domestic and international destinations by land, sea, or air. Travel time from Tokyo takes 1 hour 20 minutes by plane and 2 hours 50 minutes by Shinkansen Bullet Train. From Osaka, train travel takes 30 minutes and Airport Limousine Bus service from Kansai International Airport takes one hour. In addition, even the most remote points in Japan, as well as the neighboring countries of Korea and mainland China, are but one and a half to two hours by air. Its ideal location allows Kobe, together with Osaka and culturally-rich Kyoto, to serve as the focal point for the economy of western Japan.

The Port of Kobe is located on main shipping routes and at the gateway of East Asia so

¹⁰ Tadsuo Yada, Mayor of Kobe, 2006 www.city.kobe.go.jp

the Port is linked to various countries through regular liner services and feeder networks. Kobe is a port-of-call for liners serving North America, Europe, Central and South America, Africa, Oceania, Southeast Asia, and China. The Port boasts an extensive service network, ranking amongst Asia's leaders in terms of the number of liner routes served and frequency of sailings. Fishing has been undergoing a conversion from traditional methods of catching fish to aquaculture in order to increase fish stocks. Kobe has also long been renowned as a traditional centre of sake brewing. Sake from Kobe is generally held to be the very best in Japan. The growth of fashion-related industries such as apparel, pearls, shoes and furniture owes a great deal to the lifestyle and culture unique to Kobe. The unemployment rate is 6.4% ¹¹.

Geographical setting of the City

The city can be roughly divided into two sections by the Rokko Mountain Range. The southern portion facing Osaka Bay forms the urbanized area, and the north-west areas that have become the scene of large-scale new towns. Stretching 30 km east to west and 2 to 4 km north to south, the southern urban area occupies roughly 30% of the city but is home to 60% of the population in an area about 190 km². Developmentally, Kobe is built upon a 3-tier structure: a port and industrial zone along the coast, residential areas on the hillsides, and mixed residential and commercial areas in the intermediate zone between the mountains and the sea. With the mountains on one side and the ocean on the other, Kobe has a mild climate averaging 17.1°C (62.8°F).

Since 1907 the development of reclaimed land from the sea has been a feature. At the time of the Hanshin Earthquake the reclaimed land area had reached 2,300 ha. These areas also comprise Kobe Port and Rokko Island (1,400 ha) both of which are located on the southern part of Kobe City, one of the most important projects by the Kobe City local government to secure residential space and strengthen the economic activity of the area. ¹²

¹¹ Kobe City, Employment (accessed September 17, 2004) available at <http://www.city.kobe.jp/cityoffice/06/013/toukei/contents/pocket.html>

¹² United Nations Center for Regional Development (1995) Comprehensive Study of the Great Hanshin Earthquake P:2, Nagoya

2 Inter-City Linkages

Internal division of the City

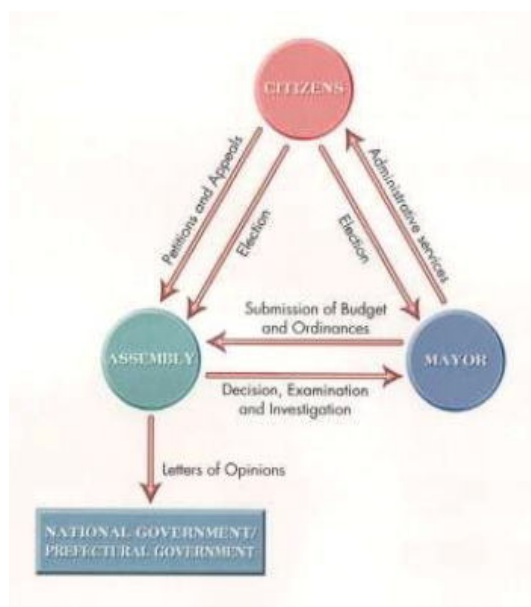


Figure 7. Wards in Kobe City

Kobe City comprises 9 wards including Higashinada Ward, Nada Ward, Chuo Ward, Hyogo Ward, Kita Ward, Nagata Ward, Suma Ward, Nishi Ward and Tarumi Ward.

Governance/management style

Fig. 8 City Management Components



Kobe is regarded as a “Designated City”. Designated cities are authorized to administer governmental jurisdiction similar to their encompassing prefectures.¹³ More information about “Designated cities” will be explained in “Formal Arrangements”. The designation gives them administrative and fiscal authority equivalent to those prefectures.¹⁴

Kobe like other ordinary local authorities consists of an Executive branch and a Legislature. The

¹³ The City of Kobe (2004), *KOBE: An Exciting Place to Work and Live*, P: 6, Kobe.

¹⁴ Ministry of Public Management, Home Affairs, Posts and Telecommunications (2004) *Statistical Hand Book of Japan 2004*. Tokyo P: 204.

Legislature (the elected council) is comprised of the Municipal Assembly, and it determines budgets, enacts local legislation, and makes decisions on its policies. The Executive Branch implements the policies decided by the Legislature. It includes mayors and their executive committees. Local government in Japan is based on a system where mayors and councillors are directly elected, and it functions on the principle of a separation of powers and internal checks and balances to ensure domestic local administration.

The Mayor is directly elected to serve a four-year term and is not permitted to simultaneously serve as a Member of the local Councillor, or to be a regular official. The Mayor is responsible for ensuring the overall consistency of the local authority's services and functions and is authorized to represent the authority externally. Important powers given to the Mayor include the rights to enact regulations, draft budgets, introduce bills, and appoint members of administrative committees as well as Deputy-Mayors, a treasurer, and other officials of their respective local authorities.

The City Assembly consists of 72 members who are directly elected to serve four-year terms. Decision making on the city's major policies is the principal task of the city assembly, while the implementation and supervision of the municipal administration is the task of the Mayor. In addition to the decision making tasks, the city assembly actively performs other important functions, such as checking the city administration's operations.¹⁵

Formal arrangements

In Japan local governments have their own basis in the nation's constitution, adopted in 1946, which recognises local government as essential to democracy and establishes it as part of the nation's system of governance.¹⁶ Under the heading "Local Autonomy", Chapter 8 of the Constitution contains the following four articles:¹⁷

¹⁵ The City of Kobe (2004), *KOBE: An Exciting Place to Work and Live*, P: 6, Kobe.

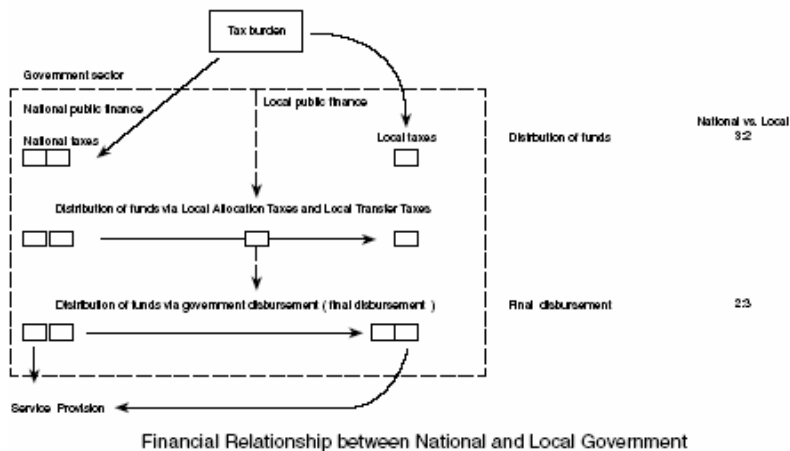
¹⁶ Council of Local authorities for International Relations (2002) *Local Government in Japan*, Tokyo P: 1.

¹⁷ Council of Local authorities for International Relations (2002) *Local Government in Japan*, Tokyo P: 1.

- Opens with a declaration of respect for local autonomy and its basic principles;
- Provides that members of the Legislative and Executive branches be selected by direct public elections;
- States clearly that local authorities should have a broad range of authority over a broad range of administrative functions, and grants local legislative authority;
- Imposes restrictions on the enactment of special legislation application only to a given local authority.

“Local government in Japan is more strongly characterised as the governing entity based on the local community under its jurisdiction, rather than as an administrative body performing specific functions. In this sense it is strongly oriented to the local community.¹⁸ Governors, mayors and members of local assemblies are directly elected by the communities they serve.”¹⁹ Although the central government’s ministries and agencies have regional branch offices, they are set up separately, without any coordination between them. There is no body that represents the central government as a whole in any region.

Fig. 9 Financial relationship national/local government



The Local Autonomy Law, amended in July 1999, resulted in a clarification of the division of responsibility between central and local government, the abolition of the agency delegated function arrangement and the resultant restructuring of

functions and a review of participants by the central government. Local governments’ responsibilities are extremely broad and cover all aspects of the country’s domestic life

¹⁸ Council of Local authorities for International Relations (2002) Local Government in Japan, Tokyo P: 5.

¹⁹ Council of Local authorities for International Relations (2002) Local Government in Japan, Tokyo P: 5.

other than diplomacy, national security, trial and prosecution.

Local government expenditures are correspondingly high, with the combined expenditures of local authorities in Japan almost equalling those of the central government's general accounts. While the central government takes in roughly half more tax revenue than local government, the enormous financial transfers from central to local in the form of the Local Allocation Tax, Local Transfer Tax, and national government disbursement support a level of local government spending nearly half more than that of the central government.²⁰ (Fig. 9)

Local authority functions include: planning, registration (residents registration, family registration, foreign national registration and certification of personal seals), social services (public financial assistance, child welfare, services for the elderly, services for physically/mentally handicapped), social insurance (medical insurance, pension insurance, unemployment insurance, employee accident insurance, nursing insurance), Health and hygiene services, waster collection and disposal, environmental services, agriculture/forestry/fisheries services, services for commerce and industry, urban development, infrastructure and public housing, police services, fire services, education, local public enterprises, and third sector companies²¹.

More information on formal arrangements for local governments in Japan is shown in (Appendix A)

Relevant legislation/regulations

To be completed

²⁰ Council of Local authorities for International Relations (2002) Local Government in Japan, Tokyo P: 5-6.

²¹ Council of Local authorities for International Relations (2002) Local Government in Japan, Tokyo P: 10-28.

3 Land Use Management

Relevant legislation

In June 1998, the Kobe City Restoration and Rejuvenation Promotion Council was established to discuss both urgent restoration issues after the Great Hanshin-Awaji earthquake of 1995, and also long-term structural issues relating to Kobe's future development²². The council decided to undertake its job through a participatory process, through workshops, a survey of 10,000 people, and interviews with related people, the Council has created at least two major reports to the Mayor, which contain main policy recommendations in different areas aiming to utilize the lessons learned in the earthquake and restoration process in the future development of Kobe. In particular, for housing and urban development, the Council has suggested the following:

- (1) Restoration programs have promoted local development, therefore lessons learned from this process should be applied in the future.
- (2) Promote citizens participation, consider their issues and have them manage facilities created in their local area.
- (3) Efforts towards safe residential and urban development should be enhanced as basis for earthquake-proofing residences.
- (6) Pay particular attention to those urban areas that remain overcrowded to reduce its vulnerability by incorporating local actors in the process.
- (7) Look for incentives to preserve the environment within the local community and promote public transportation.
- (8) Working towards self-sufficient local "compact towns," enhance citizen autonomy to solve local issues comprehensively.

The 1998 Japanese Building Standard was amended after the Hanshin Earthquake to improve safety. One amendment is "Adoption of procedures for building regulations that

²² Kobe City Restoration and Rejuvenation Promotion Council, "Proposal to the Mayor", January 2004

promote effective land use".²³ The rationale for this point is because urban renewal work in Japanese cities must deal with many small building sites and poor infrastructure, it is difficult to create a good urban environment through effective land use if only individual building sites are regulated. The main points of this revision is in order to permit rational building plans based on intensive and effective land use, a special exemption system is created so that multiple buildings are regulated as a single unit to ensure coordinated design of all buildings to be built on adjacent sites.

Responsible agents and their relationship

Regarding national level and city level agencies relationship in Kobe City, the city government prepares the general master plan and its general outline should be confirmed by national government. Then the plan is prepared in detail and publicized to get residents' opinions, but local government has the power to change the plan.

After the Hanshin Earthquake some changes occurred in:

- Getting residents' agreement
- Providing more open/green spaces and access to water.

The project approving process is based on a double check system:²⁴

1. Kobe City Planning Committee: prepares the master plan and sends it to national government. This plan is rather general and does not include all details. After national government approves, the city government prepares the detailed plan and publicizes it to the residents. If residents object with its contents modifications can be made.
2. Hyogo Prefecture City Planning Committee: this is usually not so strong and is rather a formality. When a project is approved at the national level, the prefectural government does not refuse it.

It can be said that Kobe City Government and Hyogo Prefecture Government are

²³ The Building Center of Japan (1998) Law for Amendment of the building Standard Law P: 8, Tokyo.

²⁴ Interview with Dr. Ohnishi, (October 2004) Graduate School of Science and Technology, Kobe University.

somehow equal in policy making. In such big cities, they are used to having monthly meetings between mayors and governors.

Effectiveness of current arrangements

After the Hanshin Earthquake changes in the urban planning system were made:²⁵

1. Building Code Revision: inspection system has changed and a mid-term inspection has been added as well. Actually the final inspection in most cases is not done because there is no follow-up. Now in Tokyo about 70% of constructions receive completion certificate but in Kansai area it is less.
2. Misshu Act: The Misshu Act was approved in 1996 and activated in 1997. Its content is upgrading urban areas to reduce the risk of urban fire. If an area is designed by this Act, it can get several subsidies for:
 - Reconstruction of all housing
 - Prefecture/City government can order the owner to dismantle his building to prevent fire and owner can get support to enter public housing or receiving moving costs. (Usually governments do not use this power).

Seismic Retrofit Act: the title is “Accelerate Seismic Act” that has been prepared by the Ministry of Construction. According to this Act public building need to be checked for seismic safety e.g. schools, hospitals and offices. There are some low interest loans for seismic upgrading.

Urban redevelopment projects

At least to major re-development programs have been designed and implemented by the city authorities:

²⁵ Interview with Dr. Ohnishi (October 2004) Graduate School of Science and Technology, Kobe University, Interview with Dr. Maki (October 2004) EDM.

Kobe Harborland

Kobe Harborland is a large-scale redevelopment project on the site of a former JR freight yard. Construction was completed in 1992 and aimed at revitalizing the inner city and bringing new life by creating a cultural city center by the sea. Located in the western area, Harborland attracts about 100,000 visitors every day.



HAT Kobe

The HAT Kobe Project utilizes a former major industrial site to create a new center for the city's various functions as well as to develop a housing complex for those who suffered from the 1995 earthquake.

A portion of the area was launched in the spring of 1998 with the opening of public apartments, a waterfront park, schools, and the International Health Development Center Building, which contains the WHO Kobe Center. HAT Kobe is now also home to the Hyogo Prefecture Museum of Art and the Earthquake Museum. Ultimately, this new city center in Kobe is designed to accommodate as many as 30,000 residents and 40,000 workers.



4 Vulnerability Issues

To be completed

5 Disaster Risk Management Arrangements

Functional arrangements

At the prefecture and municipal levels, there are prefecture and municipal Disaster Prevention Councils. Membership comes from local government agencies, local offices of designated government agencies, police departments, fire departments, designated public institutions and other organizations. These meetings are responsible for implementing disaster-reduction programs according to the Local Plans for Disaster Prevention which they also prepare, and other plans.

Should disaster strike and conditions warrant, the municipal government will first create a Headquarters for Disaster Countermeasures to provide emergency relief. If conditions warrant action at the prefecture level, a Prefecture Headquarters for Disaster Countermeasures will also be created. At the national level, should the scale of the disaster or other conditions warrant designation as a major disaster for which national emergency measures is required, a Headquarters for Major Disaster Countermeasures Basic Act will also be activated.

Risk Assessment, Management and Communication

On the city safety side, the Kobe City Restoration and Rejuvenation Council suggested the following:

(1) In order to respond to hazards, accidents, disasters, and other crises, continuing to work collaboratively with citizens, businesses, and the municipal government, preparation for preliminary actions should work in conjunction with those for initial response.

(2) Intermittently work towards preventing citizens' disaster awareness levels from slipping, in particular those citizens who have never experienced an earthquake.

(3) Formation of "Disaster Prevention Welfare Communities" has advanced.

Qualitatively and fully work towards letting those activities take root in the local community and letting them be active.

(4) Accumulate disaster-related information and publicize and communicate it in an easy-to-understand format, using every means available. Carry this information on to the future.

(5) Intermittently promote a safe urban infrastructure. For the future, advance effectively and comprehensively considering anti-disaster and disaster reduction policies.

(6) With schools as a first priority, continue earthquake-proofing public buildings.

(7) Prepare for floods that could occur due to Kobe's natural conditions. Have different policies to deal with various forms of natural disasters.

(8) In regards to the Nankai and Tonankai Earthquake predicted to occur in the first half of this century, along with considering the kind of damage that could occur in an oceanic trench earthquake, publicize possible damage and formulate countermeasures.

Kobe city hosts a number of important higher education and research centers which assist the city with capacity building and risk communication programs at different levels. Kobe University for example has implemented several academic and research programs through its Research Center for Disaster Mitigation Studies. In 1996 it established the RCUSS (Research Center for Urban Safety & Security), with the main goal of developing the best ways to create a safe and secure urban society.

Multi-disciplinary teams of researchers that include engineering, science, medicine, information technologies and town planning integrate related works within the University and interact with outside Societies both locally and internationally.

Models that promote a good understanding of hazards and risks relating not only to technical issues such as: fault rupture, ground condition, local site effects, structural damage, lifeline network, casualties, etc, but also a good understanding of the socio-economic impacts on the population, its psychological effects, are available.

Likewise, risk communication strategies including disaster Information and emergency communication linked to the technical aspects, and another piece that looks more into building a resilient community through disaster education, culture of disaster, and

people's awareness and preparedness, have been implemented.

Kobe University in alliance with the Japan International Cooperation Agency (JICA), created a Group Training Course on “**Mitigation Strategy for Mega-Urban Earthquake Disaster**” of which the main objective is to train specialists in various earthquake related subjects and to create leaders of disaster mitigations by exposing them to three basic components of mitigation: **risk assessment, risk management, and risk communication.**

The Great Hanshin-Awaji Earthquake Memorial Center in Kobe, which opened in the year 2002, houses a museum where the July 17, 1995 earthquake and its impacts are vividly recreated. Also a display of educational models to understand soil liquefaction, seismic resistant features of buildings and a special section for children is available.

The Earthquake Disaster Mitigation Research Center (EdM) and other national and international organizations, such as the Asian Disaster Research Center (ADRC), UNCRD, UNOCHA and WHO, based in Kobe provide an important dynamic to the city and its community in aspects related to disaster risk reduction and management.

6 Disaster Risk Management Vision

“The aim of urban planning is to improve urban life by making the most rational use of land, while maintaining a harmonious relationship with the natural environment”²⁶.

The massive devastation caused by the Great Hanshin-Awaji Earthquake resulted in the planning and implementation of a wide range of projects to revive and redevelop areas such as those around major railway stations and those hardest hit by the quake. The city has utilized this opportunity to refocus its efforts towards urban planning and even greater care than before is being taken to respond to individual communities' needs

²⁶ Kobe city, planning and development, (accessed March 2006, available at <http://www.city.kobe.jp/cityoffice/17/020/en/urbanplan/index.htm>)

while maintaining the ultimate goals of the city to make Kobe the most attractive and convenient city possible.

7 Issues

According to the Kobe City Restoration and Rejuvenation Promotion Council, major issues that the city needs to face are:

1. Continue to support individuals and business who are still feeling the effects of the earthquake with general measures and policies.
2. Kobe has experienced some significant changes thus the municipal government should also deal with non-earthquake related problems, basing policy development on these changes in the socioeconomic situation and population structure, such as increases in new residents and the aging of new communities.
3. The autonomous activities of people and businesses that arose in each area during the restoration process need to be highly valued and enhanced. It will be important to the future development of the city to utilize and enhance these new efforts as the Kobe citizens' "social capital" (i.e. social connections and the rules and trust borne from them.)

8 References

Primary data source:

Results of the questionnaire survey of disaster risk management practices conducted by the EMI and EdM between May and August 2004, personal interviews and literature search have provided the basis for this draft version of Kobe City Profile.

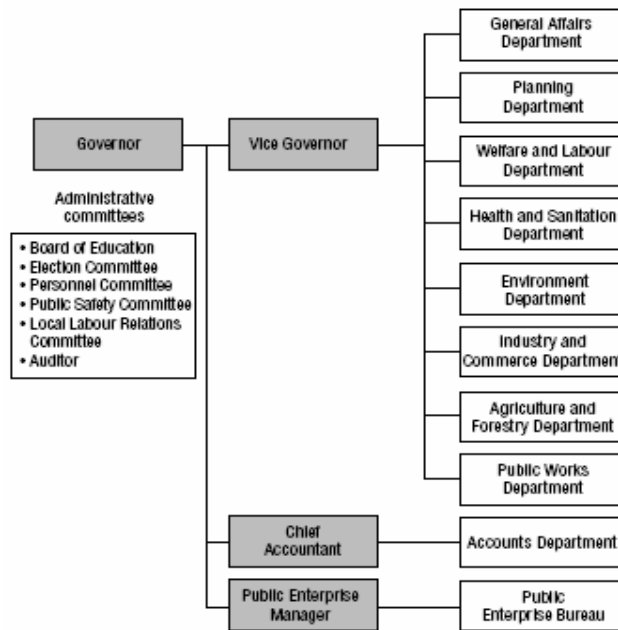
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ANNEX 1

Local Governments Formal Arrangements

In Japan, the formal arrangements for local governments classify them as:¹

1. **Ordinary local authorities:** share a common organisation, area of responsibility and power and are present throughout Japan. Prefectures and municipalities are ordinary authorities.
 - 1.1. **Prefecture:** is a local government public entity covering a wide area, encompassing multi municipalities. There are 47 prefectures in Japan. Prefectural responsibilities are as follows:
 - Functions over a wide area such as drafting comprehensive local development plans, forest conservancy and river improvements;
 - Functions involving communication between the central government and municipalities or entailing advice and guidance for municipalities such as making recommendations on streamlining organisation and management;
 - Functions whose scale of operation is deemed inappropriate for municipalities such as the establishment and management of upper secondary schools and hospitals. Fig 1 shows the organisation of a typical prefecture.



Organisation of a Typical Prefecture

Figure1 Organization of a typical prefecture

1.2. **Municipality:** at the lower tier of local government, municipalities provide the basic services most familiar to the public. As of April 2002 there were 3218 municipalities nation wide. A municipality must satisfy certain conditions to be considered a city, including a population requirement of at least 50,000. Towns and villages are usually found in so-called counties. Municipalities provide the following services:

- Functions related to day-to-day matters such as resident and family registration, residence designation and various certificates;
- Functions concerned with public health and safety and environmental conservation such as fire services, refuse and swage disposal, water supply and public parks;
- Functions connected with urban development such as city planning, construction and maintenance of roads, rivers and other public facilities;
- Functions concerning the establishment and management of various municipal facilities including public halls, nurseries, primary and lower secondary schools and libraries.

Fig 2 shows the organisation of a typical municipality.

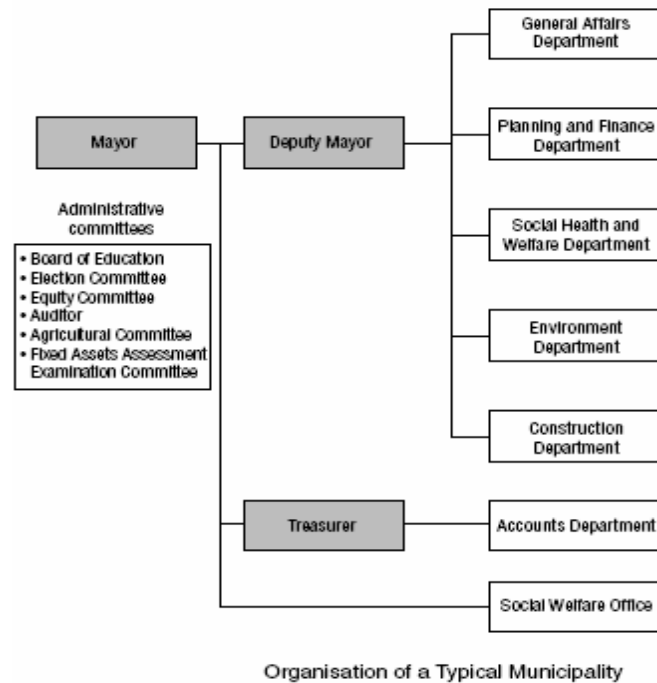


Figure 2 Organization of a typical municipality

Prefectures and municipalities are mutually independent entities. The legal relationship between them is not one of superior and subordinate. The scope of their functions differs however because of the difference in their basic nature. While a prefecture is a regional public entity covering a wide area that includes multiple municipalities within that area, a municipality is a basic unit of local government closely related to people's daily life.

- 1.3. **Designated cities:** cities that have more than 500,000 population and are designated by cabinet order are known as designated cities. There are 14 designated cities: Sapporo, Sendai, Saitama, Chiba, Yokohama, Kawasaki, Nagoya, Osaka, Kyoto, Kobe, Sakai, Hiroshima, KitaKyushu and Fukuoka. Designated cities are authorised to administer the same level of government jurisdiction as prefectures in 19 policy areas including social welfare, public health and urban planning. Some laws also delegate to the designated cities

authority in areas such as national road management and compulsory education.

- 1.4. **Core cities:** cities that have population over 300,000 and land areas of over 100^{sq} and are designated by cabinet order are known as core cities. There were 35 core cities in April 2004. Core cities undertake establishing public health centers and also may undertake all of the functions delegated to the designated cities with the exception of those which may be more efficient if handled in an integrated manner by prefectures.
- 1.5. **Special case cities:** cities that have population over 200,000 and are designated by cabinet order are known as special case cities. The system for special case cities took effect on April 1, 2000 and there were 39 such cities as of April 2004. Special case cities are delegated the same functions as core cities with the exception of those that may be more efficiently handled in an integrated manner by prefectures such as granting permission for development projects in accordance with the City Planning Law.
2. **Special local authorities:** so called because of their special nature and circumstances. The following types of special local authorities exist.
 - 2.1. **Special wards:** these are found only in Tokyo-Chiyoda or Shinjuku Ward for example and there are 23 totally. Their functions are similar to municipalities but there are exceptions such as fire services. Mayors and councillors of wards are directly elected.
 - 2.2. **Municipal cooperatives:** are usually formed by two or more municipalities to carry out functions that would be more effective and efficient than if provided alone such as wide area unions formed to plan and provide services over a wide area in a comprehensive manner.
 - 2.3. **Property wards:** are special authorities formed by certain property-owning areas or districts within a municipality for the purpose of property management. Property wards are fairly common in farming or mountain villages but less so in urban areas.
 - 2.4. **Local development corporations:** formed by two or more ordinary local authorities, local development corporations are set up specifically to acquire and

prepare sites for the construction of public facilities in areas subject to comprehensive development plans.

Local authority classification is shown on Figures 3 and 4.

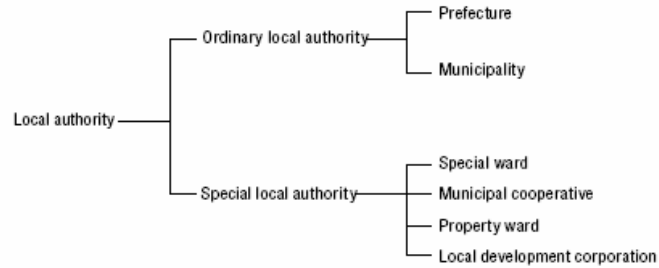


Figure 3. Local authority classification

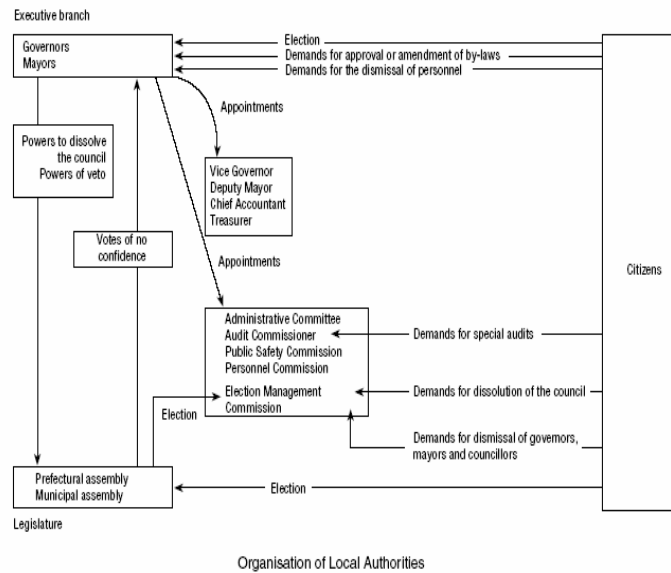


Figure 4: Organization of local authorities

