Lessons Learned From The Great Hanshin-Awaji Earthquake Case

December 11, 2008

The City of Kobe
Outline

1. About Kobe City
2. The Great Hanshin-Awaji Earthquake Damages
3. Kobe City Restoration Plan
4. The Recovery Projects
5. Review and Examination in the 5th & 10th year from the Earthquake
1. About Kobe City

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Population</th>
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<tbody>
<tr>
<td>1</td>
<td>Tokyo</td>
<td>8,483,140</td>
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<td>2</td>
<td>Yokohama</td>
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<td>Osaka</td>
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<td>Sapporo</td>
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<td>Kobe</td>
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<td>7</td>
<td>Kyoto</td>
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<td>8</td>
<td>Fukuoka</td>
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Geography

- **Area:** 552.8 km$^2$
  - East-West 36 km
  - North-South 30 km
- **Population:** 1.5 million
  (as of Sept. 1, 2008)
- **South of Mt. Rokko**
  - City center
  - Man-made islands
- **North of Mt. Rokko**
  - Farmland, forests, etc.
  - “New-towns”
2. The Great Hanshin-Awaji Earthquake Damages
Details of the Earthquake

- **Date**: 5:46 a.m.
  January 17, 1995
- **Depth**: 16 kilometers below the earth’s surface
- **Force**: 7.3 on the Richter scale
- **Ground motion**: Vertical and horizontal shaking occurred simultaneously
Outline of Southern Hyogo Prefecture Earthquake

- First earthquake in Japan directly over an urban area
  - Extensive damage to city center
- Damage in Kobe City
  - 4,571 fatalities, 14,678 injured (crushed by house, burnt, etc.)
  - 67,421 buildings totally collapsed, 55,145 buildings partially collapsed = approx 82,000 houses destroyed
  - 6,695 buildings totally burnt
  - Utilities shut off
    (electricity, phone, water, gas, garbage)
  - Severed transportation network
    (highways, railways, monorails, etc.)
  - Complete paralysis of city functions
  - Liquefaction of reclaimed land
- Total Damage—approximately 7 trillion yen
Much and simultaneous fire damage

Total fires 175
Completely burned 6,965 structures
Partially burned 270 structures
Burned area 819,108 m²
Half burned 80 structures
Small fires 71 structures
Destroyed or burned buildings
Road closed by a fallen building
Building 2 of City Hall, showing the crushed 6th floor
Crashed City Hall N0.2 Building

6th Floor
Traffic Congestion, just after the quake

Too many cars...
Damage to infrastructure (Port Facility)
Damage to infrastructure (Roads)
Damage to infrastructure (Railways)
Emergency Responses

- Rescue activity
- Medical Services
- Evacuation Center (Temporary Shelter)
- Water and Food Delivery
- Temporary housing
  and any other supports are required…
Evacuees
Rescue operations were performed by neighboring people
Emergency Water Supply

- Tank Delivery
- Pipe supply

Limit to time and volume

No limit to time and volume
Volunteers more than 1.20million (person-day)

Various activities in Evacuation Shelters
Temporary housing
32,346 units constructed

March, 1995 - December, 1999 (Closed)
3. Kobe City Restoration Plan

Kobe City Restoration Plan Formulation Process

Jan. 17, 1995  Great Hanshin-Awaji Earthquake
Jan. 26       Earthquake Restoration Head Office established
Feb. 7        First meeting of the Committee for Restoration Planning
               Subcommittees
               Urban Infrastructure Subcommittee
               Citizens' Affairs Subcommittee
               Safe City Standards Subcommittee
Mar. 27       Kobe City Restoration Plan Guidelines published
April 22      First meeting of the Kobe Council for Restoration Planning (100 members)
               Subcommittees
               Citizens' Affairs Subcommittee
               Urban Revitalization Subcommittee
               Safe City Subcommittee
June 30       Restoration Plan formulated
Necessity to Formulate Restoration Plan as Soon as Possible

→ Important to present citizens with a vision for the restoration process ASAP

→ Need to meet the national budget appropriations deadline (Essential to obtain financial support from the government because the damage was too extensive for the city to handle on its own)

☐ Deadline: End of JUNE 1995
In Order to Formulate Restoration Plan

1. Gain an accurate understanding of the situation in which we are placed
   - Vast numbers/amounts of victims, damaged buildings, and damaged urban foundation
   - Chaos even at the formulation of restoration plan

2. Gain an accurate understanding of the situation of the city
   - Big city with the population of 1.5 million
   - Various sectors suffered damage, including urban foundation, residential buildings, industry, and civic life
Comprehensive Restoration Plan Consisting of Various Aspects

- Infrastructure Reconstruction (roads, lifeline, railway),
- Housing Reconstruction,
- Urban Planning,
- Economic Vitalization,
- Life Recovery, and
- others
2-Stage Plan Formulation

1st stage

Indicate a direction of restoration in a form of guidelines

Discussion was held with a limited number of experts. A high-level proposal was issued as quickly as possible.

2nd stage

Based on the guidelines, details of the plan were discussed.

Discussion members were selected from a wider range of fields (100-member committee)

Select a symbol project which provided a framework of restoration
Outline of Restoration Plan Guideline

1. Gave primary to Kobe’s restoration and regeneration as an advanced disaster prevention model city based on experience and lessons learned from the earthquake.

2. Set restoration goal year of 2005.

3. Set restoration goal of “safety,” “vitality,” “attraction,” and “cooperation,” and develop measures for each goal.

4. Indicated a concept of safe city construction vision (safe city standards) in order to set an original guideline for planning disaster-proof community.

5. Analyzed the structure of Kobe City, and proposed a distinct plan for each district.
Formulation of Kobe City Restoration Plan

1. Establishment of the Council for Kobe Restoration Planning
   Council members were selected from a wide range of fields
   - academic experts: 40 members
   - members of Kobe City assembly: 6 members (1 member from each faction)
   - representatives of various private organizations: 43 members (representatives of civic bodies, business entities, labor groups, etc.)
   - Administrative bodies of state/prefecture government: 8 members
   - Municipal officers: 3 members (deputy mayors)

2. First meeting of the Council was held on Apr. 22
   Discussion was held in three subcommittees
Basic Viewpoints of Restoration

1. Urban Conveniences Well-balanced with Safety precautions

The earthquake revealed the vulnerable points of a modern city when faced with a major natural disaster. In the restoration process, emphasis should be placed not only on restoring urban functions but also on maintaining a balance between functionality and comfortable living.

2. Awareness of both Benefits and Hazards of Nature

Although Kobe, nestled between the mountains and the sea, is a beautiful city blessed with an enviable natural environment, it has also suffered from occasional natural disasters, the earthquake being the most recent example. Therefore, we should create a city that permits sustainable development by paying careful attention to the urban environment and fully recognizing nature's threats as well as its benefits.

3. Human-to-human Contact and Interchange

The city's residents overcame innumerable trials and tribulations by helping and encouraging each other after the earthquake. The support extended by an unexpectedly large number of volunteers was also deeply appreciated. Therefore, learning from this experience, we should encourage more interpersonal exchange.
Basic Themes of Restoration

1. Return the local people’s daily lives and the city’s infrastructure back to normal ASAP to facilitate fuller-scale restoration work.

2. Make the best of the lessons learned from the recent earthquake in order to build a disaster-proof city.

3. Build a welfare society that ensures secure and comfortable lives for all who live in it.

4. Revitalize the Kobe culture characterized by diversity and open-mindedness.

5. Create a city that ensures environmentally-friendly, sustainable development.

6. Revive and rebuild a cosmopolitan city that leads the world in the 21st century.

7. Rebuild the Port of Kobe quickly so that it can function as a “Mother Port” in Asia.

8. Build a society where information networks play an important role.

9. Work together to create our communities.

10. Support volunteer activities and facilitate the network of cooperation among volunteer groups scattered over broad area.

11. Hand down for posterity the lessons learned from the natural disasters that hit Kobe and contribute our know-how to global disaster prevention efforts.
The damage brought by the earthquake touched almost every aspect of daily life. For this reason, in the process of restoration, we must strive to build a city where people can live, work, and study in safety, a city that is bursting with creative energy, and a city that is individualistic and attractive. Therefore, we set as our target the pursuit of these three themes while promoting close coordination among the city's residents, businesses, and government.
Specific Goals of the Restoration Plans

*Restore “Citizens’ Livelihood”*

1. Securing high-quality housing
2. Developing a living environment compatible with the local area’s Character
3. Upgrading health/medical care and welfare services
4. Preparing a Good Nurturing Atmosphere for Our Children

*Restore the “Vitality of the City”*

1. Revitalizing Industry
2. Restoration of Kobe Port
3. Development of Transportation Networks
Restore the “Appeal of Kobe”
1. Campaigns to advertise Kobe’s Restoration
2. Promoting cultural activities and sports that provide recreation for citizens
3. Creating a more international city
4. Creating a more communication-oriented community
5. Creating an environmentally friendly city abundant in water and greenery

Promote “Community Creation by Working Together”
1. A kind and gentle community built through close cooperating among its people
2. Creating a unique and attractive community
3. Promoting creative volunteer activities
Creating a Safe City

Important Aspects in Creating a Safe City

□ Create an independent living zone
Living areas are positioned in a multi-tier structure from the daily life level to the ward level, aiming at creating living areas where the residents play an independent, active role in promoting safety while maintaining close ties with neighboring areas in the event of a disaster.

□ Secure safety in case of disaster while providing for normal daily life
Many things that are useful solely in the event of a disaster are useless in daily life while many things that are used in daily life may also prove useful during a disaster. Therefore we should aim to integrate daily life and emergency preparedness in such a way that we can take advantage of those things that afford us comfort and convenience in daily life even during times of disaster.

□ Divide up work tasks and foster close cooperation among citizens, businesses, and city government
To create a city that is able to withstand disasters, we need to maintain close ties between the municipal government and the private sector, while clearly defining what role each party is to play.
**Systems for Providing a Safe City**

**Disaster-preventive Living Zone**
We will promote the building of a safe city of three living zones, according to the spheres of life.

**Disaster-preventive city infrastructure**
We will construct a disaster-resistant infrastructure and build a city that can exercise disaster-preventive operations over extensive areas.

**Disaster-preventive management**
We will be well prepared for disasters, and provide adequate systems that function appropriately in case of emergency.
Symbolic Projects

1. **Quality of life restoration plan**
   A plan for restoring housing

2. **Creating a safe and pleasant urban area**
   Formulating policies covering certain areas, such as land readjustment projects and urban redevelopment projects.

3. **Creating a welfare-minded city for the 21st century**
   Improving the support mechanism for self-sufficiency and services for the elderly and the handicapped.

4. **Safety network**
   Pursuing measures for creating safer communities.

5. **New eastern city center (HAT Kobe)**
   A large amount of land along the shore to the east of downtown Kobe, which was once industrial land, will be redeveloped as a new city center with new urban functions. Although this project had been planned before the earthquake, certain changes have been introduced, including an increase in the number of housing units to be built. The WHO Kobe Center will be built there as the core facility. This will be a land readjustment project (120 ha, population 30,000).

6. **Kobe entrepreneurial zone concept**
   Establishing support for venture businesses and creating areas to attract private businesses.
7. China & Asia exchange zone concept
Promoting the recovery of Kobe as an international port city by providing a base for exchange with the other nations of Asia, especially China, which is expected to continue developing at a rapid pace.

8. Creating a Mother Port in Asia for the 21st century
Pursuing measures to create a new, comprehensive point of exchange called "A Mother Port in Asia", befitting a cosmopolitan city of the 21st century and speeding Kobe's restoration.

9. Promoting Kobe's culture by making the best of its cosmopolitan and modern nature
Promoting "Musical City Kobe" and supporting the creation and rejuvenation of civic culture.

10. Creating a transportation
Creating a grid system road across the city, promoting the implementation of a railway network, and promoting multi-modal traffic via land, sea, and air.

11. Implementing an infrastructure for studies on next-generation information & communications
Building the Kobe City Disaster-Preparedness Information & Communications Network Center and promoting the Kobe International Multimedia & Entertainment City (KIMEC) concept.

12. Forming regional disaster-preparedness bases
Preparing living necessities, strengthening disaster-preparedness functions, integrate schools and parks.
13. Creating a city rich in water and greenery resources
   Creating river and greenery corridors and landscaped areas, and creating areas
   with water and greenery as symbols of each community.

14. Creating a commemorative area within the city center
   Creating parks commemorating the restoration of disaster-preparedness bases in
   the area stretching from Shin-Kobe to the waterfront, passing through Sannomiya,
   the heart of Kobe.

15. Implementing disaster-resistant utility lines
   Building joint-use ducts and large-capacity water supply pipes and establishing a
   sewer treatment system that will be able to continue functioning even in the event
   of a disaster.

16. Recording the earthquake experience for posterity
   ~ Inheritance of the “Disaster Culture” ~
   Maintaining a record of the earthquake experience to be passed on to future
   generations and to offer the general public the opportunity to learn from it.

17. Promoting the concept of the Natural Disaster Science Museum and the 20th
   Century Museum Cluster.
Achievements and Issues of Restoration Plan

- “Community-based Restoration Planning”
  (Restoration plan for The Great Kanto Earthquake led by Central government)
- Legal Support and Budget: Local governments requested constitution for special legal support to secure budget for Restoration, but this request did not materialized.
- Formulation Methods for Restoration Planning: Formulation of Restoration Plan by combining wisdom and enthusiasm from internal and external parties
- Milestone and target: No clear numeric targets in the plan resulted in weakening people’s ambition to achieve the target over time. → 「Shimin Shiawase Shihyo (Index of happiness of Kobe citizens for Partnership-based (Kobe city and its citizens) City Development」 created in 2001
4. The Recovery Projects

Basic structure of the recovery projects

- Economic vitalization
- Measures for small and medium-sized companies
- Housing Reconstruction
- Urban planning

Life Recovery

Infrastructure Reconstruction
4-1. Housing Reconstruction

   - Number of units planned: 82,000
   - (Empty house and starting construction: 10,000)
   - (new construction: 72,000)

   - The elderly and low-income earners accounted for a large proportion of the disaster victims.
   - The number of public housing units was increased to 16,000.

   1) Smooth transition from temporary housing to permanent housing
      Provision of public housing and support for daily living for the disaster victims
   2) Housing and urban development towards the coming 21st century
      Cooperation with the welfare division, housing and urban development based on the regional characteristics and utilization of the resources of Kobe
Municipal Restoration Housing

• **Consideration for the elderly**
  - **Barrier-free** Elimination of differences in the levels of the floors, provision of handrails and emergency buttons
  - **Silver Housing**
    Municipal housing for the elderly
  - **Collective housing**
    Creating a community through communal living

• **Rent reduction**
  For the purpose of stabilizing the living of low-income earners, the rent is to be reduced according to the amount of their income or other factors.

• **Consolidated management**
  Consolidated management as to application for rental housing provided by the Kobe municipal housing, the Hyogo prefectural housing, the Kobe City Housing Supply Corporation and the Urban Renaissance Agency.
4-2. Urban Planning

- Municipal Framework for the Reconstruction of Quake-hit City Areas

Emergency Earthquake Reconstruction Ordinance (February 16, 1995)

Objectives

(1) Emergency recovery/provision of streets and housing

(2) Construction of a disaster-resistant and vibrant city and provision of good quality housing
(District designation)

(1) Disaster recovery promotion districts
    Districts subject to city restoration measures: ca. 5,900 hectares

(2) Priority recovery districts
    Districts subject to immediate comprehensive measures for the recovery
    of city functions, housing reconstruction and urban infrastructure
    renewal: 24 districts (1,225 hectares)
    - City planning project zone (land readjustment projects, urban renewal
      projects, etc.)
    - Voluntary project schemes to support improvement/reconstruction of
      the residential environment
Damaged Areas and Project Districts for Reconstructive City Planning
Procedures for Community Development in view of Seismic Disaster Restoration

Employment of “2-Stage City Planning” Method

- **1st Stage of city planning**
  Government defines regions and urban facilities to be improved

- **2nd Stage of city planning**
  (1) Residents have talks and determine roads and parks necessary for improvement of the region by themselves.
  (2) Government draws up city planning and restoration project plan according to proposal submitted by residents.
First Stage: City Planning
- Determining region for which land readjustment and redevelopment project in view of seismic disaster restoration will be attained

Eleven places where an area of more than 10,000 m² was burned
For Moving to Second Stage
Community Development with Residents Participation

Desire of victimized residents
Restoring community that ensures safe and comfortable living
Improving urban infrastructure (roads and parks)
Constructing durable houses

↓

Drawing up plan with residents

↓

Equal burdens on residents and landowners

↓

Community development in view of restoration is realized.
Major Reconstructive City Planning Projects

(1) Reconstructive land readjustment project
   (5 districts, ca.143.2 hectares)
   1) Integrated improvement of (a) roads, parks and other urban infrastructure, (b) essential services (water supply, sewage, gas, power, etc.) and (c) housing lots
   2) District-wide comprehensive improvement is possible, instead of sporadic or linear direct acquisition of public facilities (road widening, etc.)
   3) Flexible implementation including combination with other project schemes (like housing provision)

(2) Reconstructive urban renewal projects
   (2 districts, 26.96 hectares)
   1) City centers on the east and west (Rokkodo district, Shin-Nagata district)
   2) Land use segmentation, ownership convergence
   3) Disaster evacuation spaces, disaster prevention bases

(3) HAT Kobe (New Eastern City Center) (120 hectares)
   Symbolic project of city restoration after the earthquake
   Use of the former site of a large manufacturing plant
• Reconstructive land readjustment project (Shin-Nagata Minami District)
“HAT Kobe” (New Eastern City Center)
4-3. Economic vitalization

- Industrial Measures Taken
  1. Emergency measures
  2. Measures for commercial promotion
     - Provision of block grants
  3. Measures for tourism revival
  4. Measures for new industries’ creation
  5. Measures for industrial location
     - Enterprise zones
  6. Measures for employment
     - Community business/social enterprises
  7. Measures for agriculture and forestry
(2) Industrial location measure for restoration of the devastated area (Enterprise zones)

Key events

- March 1995  Hyogo Revitalization Study Group (private)
- May 1995  Kobe Enterprise Zone Study Group (Kobe City)
- June 1995  Establishment of an enterprise zone was included in the Restoration Plan devised by Kobe City and Hyogo Prefecture
- December 1995  Research on infrastructure for new industries (research on establishment of an enterprise zone) (MITI)

--------------------------The government of the time persisted in the policy, “one country, one system.”

Enterprise zones initially planned turned out difficult to establish.

Hyogo Prefecture and Kobe City partially established enterprise zones.

- Jan. 1997  Kobe Enterprise Zone Ordinance (Kobe City)
- Apr. 2002  Hyogo Industrial Accumulation Ordinance (Hyogo Prefecture)
4-4. Life Recovery

- Support for volunteers
  - Ward Volunteer Centers
    - A Volunteer Center was established for each Ward Council of Social Welfare since 1995 to support volunteer activities
  - Subsidies for community volunteer activities
    - In 1996, the Hanshin-Awaji Earthquake Reconstruction Fund started to provide subsidies to volunteers who assisted the victims with their self-support activities
  - Volunteer Information System
    - A computer network was formed in 1996 to connect the city volunteer centers of the City Council of Social Welfare and ward volunteer centers of the Ward Council of Social Welfare to reinforce coordination work
  - Volunteer insurance (February 1 - March 1, 1995)
    - Registered volunteers were covered by this insurance scheme
Support for communities

• **Construction of temporary housing**
  - Temporary housing was constructed on reclaimed land and in new towns in the suburbs, based on the Disaster Relief Law. Housing for 29,178 households was constructed.

• **Establishment of the *Fureai* (Interaction) Center**
  - Fureai (Interaction) centers were established at 236 places, supported by the central government. The purpose was to help form communities in the temporary housing areas and to use the centers as bases for volunteer activities.

• **Community Watching Over System**
  - Advisors to support people’s daily lives were appointed. They went around visiting the victims and held consultations with them.
5. Review and Examination in the 5th & 10th year from the Earthquake

5-1. Basic concept

- In the advancement of the Kobe City Restoration Plan, constant follow-up and unprecedented verification were carried out in order to deal with the social and economic conditions that were changing every moment.

- The PDCA method was adopted for the advancement of the restoration plan.

In the advancement of the Kobe City Restoration Plan, constant follow-up and unprecedented verification were carried out in order to deal with the social and economic conditions that were changing every moment.

The PDCA method was adopted for the advancement of the restoration plan.
## Overall Situations

<table>
<thead>
<tr>
<th>Elapsed time from the earthquake</th>
<th>Overall situations</th>
<th>Measures and policies</th>
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<tbody>
<tr>
<td>Emergency response/ emergency rehabilitation stage</td>
<td><strong>The day – 3 days later</strong></td>
<td>Rescue effort - placing maximum priority on lifesaving -</td>
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<tr>
<td></td>
<td>- <strong>End of January</strong></td>
<td>Life as evacuees, Relief effort - Emergency and rescue teams were active -</td>
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<tr>
<td></td>
<td>- <strong>End of March</strong></td>
<td>Temporary housing, Reconstruction on one’s own, Disaster relief activity - Interest in personal assets and property -</td>
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<td><strong>April -</strong></td>
<td>Convergence of problems caused by the earthquake - Polarization in people who can start rebuilding house on their own and people who have to face difficulties do so</td>
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<tr>
<td>Early stage of recovery</td>
<td>- 2 years</td>
<td>Revision - Reformation - Employment - Economic issues, Normalization of the life of the citizens -</td>
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<tr>
<td>Later stage of recovery</td>
<td>3-5 years</td>
<td>New movement, recommencement of general measure, Demolishing temporary housing, Economic recovery (80%) - Identification of deep-seated structural vulnerability and problems (other than direct causes of the earthquake) affect on the recovery</td>
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<td>- 10 years</td>
<td>- Early stage of recovery completed - Making special recovery measures to general measures</td>
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5-2. Review and Examination in the 5th year from the earthquake

- **Purpose:** Analysis of the state of completion of each project and remaining issues as well as the study of effective measures taken over the previous five years

- **Overview:** The urban infrastructure, such as the port and roads, had been restored over two or three years. The material basis for the daily lives of the citizens had almost been restored over the five years since the earthquake. For example, the construction of public housing had been completed to replace the temporary housing.

- **Remaining issues**
  - (a) Restoration of the daily lives of the citizens
  - (b) Economic recovery
  - (c) Creation of safe housing and communities

**Drawing up a promotion program for the rehabilitation plan**

**Policies:** Development of policies based on communities
  - Development of policies based on people
  - Development of comprehensive policies through partnerships
  - Development of policies from a wide-area and medium-term and long-term viewpoints
  - Promotion of improvements in the administration and finances
The 1999 Grass-root Assessment
Workshops on Life Recovery
(5 years after EQ)
Seven Critical Elements for Life Recovery
(Jul. to Aug., 1999)

1. Housing
   - Housing Damage
   - Various Temporary Housing
   - No. 1 Priority

2. Social Ties
   - I've been helped
   - Understanding & Empathy through ties
   - New Relationship Emerged
   - Self-Governance & Comm. Solidarity

3. Community Rebuilding
   - Holistic Reconstruction Not Yet Completed
   - Built Environment Only
   - Creative Use of Urban Commons Needed

4. Physical & Mental Health
   - Physically Yes
   - Mentally No
   - Need for Stress Care Programs
   - Various Coping Resources
   - Struggle for Meaning

5. Preparedness
   - Individual Preparedness
   - Community Preparedness
   - Many Lessons

6. Economic & Financial Situation
   - Regional Economic Slump
   - Damage to Small Business
   - We Lost Affluence

7. Relation to Government
   - Rigid & Paternalistic Bureaucracy
   - Discrimination Against Those Who Left Town
   - Gratitude With Request

- Individual
- Community
- Recovered
- Not Yet Recovered
Number of Opinion Cards for Each Life Recovery Category

- Housing: 489
- Social Ties: 407
- Community Rebuilding: 197
- Physical & Mental Health: 154
- Mitigation/Preparedness: 154
- Economic & Financial Situations: 13
- Relation to Government: 0

N = 1623 Statements
5-3. Review and Examination in the 10th year from the earthquake

(1) Purpose of Review and Examination

- Understanding the level of recovery reached, analysis of the remaining issues, and reflecting these in the completion of the recovery

- Passing on and further developing new efforts and systems created in the process of coping with the earthquake disaster for the future creation of Kobe

- Passing on the experience and lessons obtained through the earthquake disaster and the recovery process to the next generation and disseminating information on these both inside and outside Japan as the responsibility of the victims in order to utilize their experience to minimize damage in future disasters
(2) Partnerships and participation in the process of the summarization and verification

- Workshop involving the whole city and workshops for each ward
- Questionnaire survey targeted at 10,000 citizens
- Interviews
- Collection of proposals from university students in the city
- Opinion exchange meetings with various types of organizations
- Policy proposal meetings
- Informal gathering for discussions with the presidents of universities
- Workshops with NPOs and the citizens
(3) Ward workshops and a workshop involving the whole city

- **Ward workshops**
  A workshop was held in each of the nine wards.
  June 7-July 20
  Total number of participants: 254
  (16 of these participants were those who responded to a public invitation.)

- **Workshop involving the whole city**
  A workshop was held. July 26
  Participants: 34
  (Representatives of the participants in the ward workshops)
What was the recovery after the earthquake to you?

I understand what is important, such as people's ties within a community, family ties, mutual assistance and voluntary work.

The local economy, work, and daily lives have not been restored yet, and the business forms have changed.

The creation of the community needs to be carried out based on the initiative of the residents.

The city landscape has changed, and vacant lots still remain here and there, which shows the uncompleted reconstruction of the city. In addition, the characteristics of Kobe have been lost.

My view of life and sense of value have changed, and my way of life has become more positive.

The rehabilitation needs to be carried out so that the elderly and socially disadvantaged people can restore their daily lives.

It is important to present the characteristics and charm of Kobe again.

Some people want the administration to make more efforts for the restoration of individual households, and others want to review the relationship between the administration and individuals.

The rehabilitation means physical and mental restoration.

Information on the experiences and lessons from the earthquake should be sent out to the world because the memory has begun to fade away.

Awareness of disaster prevention has risen, and it is important to pass on this awareness before it fades away.

My house has become dilapidated.

My behavior and awareness of activities did not change after the earthquake.

The number of rooms for rent at low rates for students has been decreasing.

Some groups hold on to sectionalism, and their activities are not being carried out effectively.

I feel it is luxurious. (Life just after the earthquake is not convenient.)

I feel safe because I believe no earthquake will occur again in Kobe.
(5) Result 2 of the workshop involving the whole city

• What is your vision for Kobe?

July 26, 2003

I want Kobe to be economically thriving and to provide many employment opportunities. I want to strengthen ties among people individually and between people and the community. I want to recover the charms of Kobe, including the sea, mountains, port, green areas, culture, history, and city life. I want Kobe to be a city where people can enjoy lives. The resources of the city should be utilized and the characteristics of the city should be respected. I want Kobe to be a city of high civil culture. The citizens should play leading roles in creating a new city. Let's cooperate in the creation. Let's make Kobe a beautiful city where nature is rich, the trees are growing, and many flowers are blooming. Let's pass on our experience of the earthquake disaster to the next generation. I want Kobe to be an international tourist city where people can enjoy smart and fashionable streets, the sea, mountains and the port. Let's make Kobe a safe city by utilizing our experience of the disaster. I want Kobe to be a city where the welfare of the elderly people, people with disabilities, and children is fully considered. Public facilities need to be improved so that the citizens can use them more easily. I want Kobe to be a city where children are brought up in environments that encourage the child to become involved in child rearing. Let's build up new relationships between the citizens and the municipal administration.
(6) Questionnaire survey targeted at 10,000 citizens

- **Effects of the earthquake**

  What is the daily life of your household like compared with that before the Great Hanshin-Awaji Earthquake occurred (on January 17, 1995)?

(Question to those who answered “On the decline” to the above question)

What is the main reason for the decline in the daily life of your household?

- Effects of the recession: 57.6%
- Personal reasons such as illness and retirement: 22.4%
- Effects of the earthquake: 15.1%
- Other reasons: 4.9%
(7) Aspects of Kobe 1

- Population of Kobe City

Pre-earthquake: 1,520,365

2004.11. 1,520,581

2008.11. 1,533,852
(8) Aspects of Kobe 2

- Restoration of the ward population (Comparison between the population before the earthquake and the current population)
Aspects of Kobe 3

- Trends in the proportion of people aged 65 or over of the whole population

Note: Based on the national census. The data for 2003, however, were based on the basic register of residents (including the registration of foreigners).
(10) Aspects of Kobe 4

- Current Kobe citizens’ residential areas before the earthquake

Composition of the Kobe citizens’ residential areas just before the earthquake as of August 1, 2003
(11) Aspects of Kobe 5

- Loss of construction according to the year of completion

(Based on a survey by Kobe City)
(12) Aspects of Kobe 6

- Total number of starts in housing construction
(13) Aspects of Kobe 7

- Proportion of construction built before the new earthquake resistance standards were established

Proportion of construction built before the new earthquake resistance standards were established (%)

Area where the number of construction sites is less than 20

- 0 - 25
- 25 - 50
- 50 - 75
- 75 - 100

1995

2003

(Based on a survey by Kobe City)

<table>
<thead>
<tr>
<th>Items</th>
<th>Budget (JPY 100 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Expenditure</td>
<td>20,507</td>
</tr>
<tr>
<td>Total Revenues</td>
<td></td>
</tr>
<tr>
<td>National treasury disbursements</td>
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<tr>
<td>Prefecture tax grant</td>
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<tr>
<td>City bond</td>
<td>9,815</td>
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<tr>
<td>Others</td>
<td>1,616</td>
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<tr>
<td>City Tax</td>
<td>2,260</td>
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</table>
(15) Findings from citizens’ opinions and data
- Relationship between the current state of Kobe and the earthquake disaster -

- Awareness among the citizens has developed from recovery issues to various other fields.
- It has become difficult to identify the relationship between the current state of Kobe and the earthquake disaster.
  - Changes in the socioeconomic situation throughout Japan, such as the aging of the population combined with a declining birth rate
  - Effects of the long-term recession
  - Structural issues, such as a shift in the industrial structure
These three have become intertwined.
(16) Issues concerning the current state of Kobe

- Citizens and businesses that have not recovered from the earthquake disaster need to be supported through general measures.

- Measures to deal with issues other than the aftermath of the earthquake need to be developed with an understanding of the current situation.

- Voluntary activities by the citizens and businesses need to be utilized and developed as common assets of Kobe citizens.
(17) Lessons from the earthquake disaster

- The concept of a reduction in the damage caused by disasters needs to be added to the concept of the prevention of disasters. -

• The earthquake disaster reminded the citizens of the severity of nature.
  Natural disasters inevitably occur at some time.

• Communities protect the lives of their community members.
  Taking preventive measures should begin in fields close to the citizens.

• It is impossible to do in a devastated situation what the citizens do not do on a daily basis.
  It is necessary to develop community creation activities on a daily basis.
Lessons from the recovery process

- Autonomy and partnership -

• The meaning of recovery has been changing as the time passes.

• Cross-sectional and flexible recovery is required.

• Communities are created by the autonomous efforts of individuals.

• Communities are developed through daily partnerships and participation.

• Recovery is an attempt to form a new system.
5-4. Post-restoration plan
Related to integrated Basic Planning

- Related to integrated Basic Planning
- New Kobe City Basic Concept
- The 4th Kobe City Idea
- Ward Plan
- New Vision (Midterm plan)
  - Kobe 2010 Vision
  - Midterm ward plan

- Related to restoration plan
  - Restoration plan
  - 1999 fiscal year Generation overview validation of reconstruction
  - Restoration planning promotion programs
  - 2003 fiscal year Generation overview validation of reconstruction

Target year: 2010 fiscal year
Thank you for listening.