

**The Great Hanshin-Awaji Earthquake  
The Report of the 10-Year Reconstruction  
Overall Verification and Recommendations**

**[Summary Edition]**



The Report of the 10-Year Reconstruction Overall Verification and Recommendations [Summary Edition]

The Office of the 10th Year Restoration Committee

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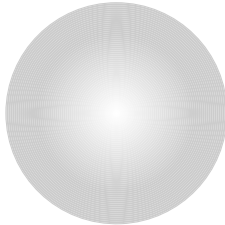
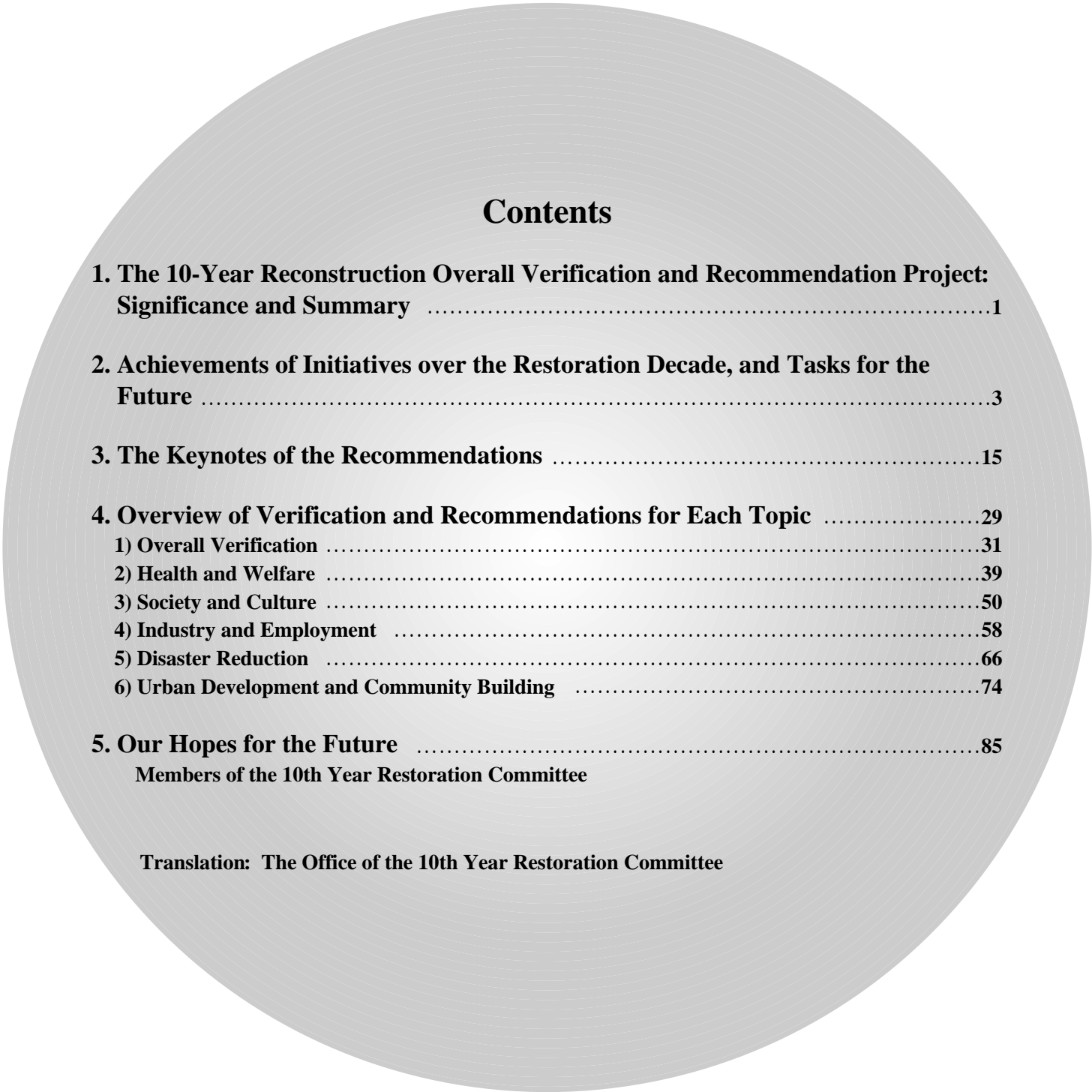




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- Members of the 10th Year Restoration Committee	

\* Translation: The Office of the 10th Year Restoration Committee



# 1. THE 10-YEAR RECONSTRUCTION OVERALL VERIFICATION AND RECOMMENDATION PROJECT: SIGNIFICANCE AND SUMMARY

## 1. THE SIGNIFICANCE OF THE 10-YEAR RECONSTRUCTION OVERALL VERIFICATION AND RECOMMENDATION PROJECT

The region stricken by the Great Hanshin-Awaji Earthquake is morally obliged to pass on to succeeding generations the experience gained and lessons learned in the process of reconstruction, and to put this knowledge to good use in mitigating the effects of and recovering from large-scale disasters in the future. Therefore, by carrying out a comprehensive verification of the efforts made over the last decade, and by disseminating the results and lessons learned widely within Japan and overseas as recommendations for those who come after us, we hope to help create a society where people can live safely and with peace of mind.

## 2. A SUMMARY OF THE 10-YEAR RECONSTRUCTION OVERALL VERIFICATION AND RECOMMENDATION PROJECT

### (1) Verification Implementation System

#### a. Establishment of the 10th Year Restoration Committee

The 10th Year Restoration Committee (Office: The Great Hanshin-Awaji Earthquake Memorial Research Institute), constituted by representatives of various groups involved in post-earthquake reconstruction work, academic experts and others, was established in August 2003 to facilitate the 10-Year Reconstruction Overall Verification and Recommendation Project.

In implementing this work, the Committee established a Verification Planning Subcommittee whose role was to decide on the verification methods and topics and compile a final draft report, under the Committee's own direction. For the purpose of carrying out concrete verification in each field, six field-specific verification panels were established: Overall Verification; Health and Welfare; Society and Culture; Industry and Employment; Disaster Reduction; and Urban Development and Community Building. Additionally, a Housing Subcommittee was established within the Health and Welfare Panel, and an Education Subcommittee was established within the Society and Culture Panel.

#### b. Implementation system within the prefectural administration

The Restoration Decade Project Internal Promotion Council was established to facilitate the verification process by ensuring coordination between the Hyogo Prefectural Government and the relevant District Administration Offices. Its membership consists of the concerned Prefectural Bureau Directors General, and the Executive Directors General of the District Administration Offices.

A Panel Coordination Council was also established, comprised of key personnel from the departmental units responsible for the administration of the panels, to ensure coordination between the field-specific verification panels.

Verification Assistants (at the Prefectural Bureau Director level) and Deputy Verification Assistants (at the Prefectural Bureau Section Chief level) were appointed to provide support for the verification work carried out by the Panel member responsible for verification of each topic. A Verification Assistants' Council, comprised of the respective Verification Assistants for each of the fields, was established to facilitate the verification work within the panels.

## **(2) Basic Approach to Verification**

Progress made with regard to matters prioritized by the public administration, prefectural citizens, industry, non-profit organisations (NPOs), non-governmental organisations (NGOs) and other groups, and general tasks to be tackled in the course of the reconstruction, was tracked from the initial response phase to the fully-fledged restoration phase, and classified as “achieved” or “not achieved”. Reasons and results were analysed and evaluated. The efforts made over the restoration decade were subjected to a comprehensive verification, giving special attention to:

- Overall verification of tasks regarding post-earthquake reconstruction
- Verification from the perspective of harmonious coexistence and from the standpoint of the prefectural citizens
- Verification focused on the fields and processes of the restoration

The findings were used to draft recommendations to be used in the mitigation of and restoration following future earthquakes, and towards the establishment of organisations to provide guidance for a new era.

## **(3) Verification Topics**

As we saw it, the purpose of the verification was to provide information to be used not only in the mitigation of and reconstruction after future disasters, but also to help realize a better society for the 21st century. In line with this approach, we selected 54 restoration topics, covering the 6 fields assigned to the panels. Our selection of topics was based on the high-priority initiatives of the restoration process, and the systems and mechanisms underpinning a mature society (see Section4: “OVERVIEW OF VERIFICATION AND RECOMMENDATIONS FOR EACH TOPICS”).

## **(4) Verification Techniques**

Care was taken to facilitate the participation of the residents of the prefecture and to work in partnership with them; their opinions were elicited through discussions at workshops, and through local surveys and interviews. Verification was carried out as follows:

### **a. Organisation of verification documents and data**

Based on discussions between the Panel member responsible for verification and the Verification Assistants, the organisation of the verification documents and data was overseen by the staff members of the departmental units respectively assigned to the verification topics.

### **b. Verification by Panel member responsible for verification**

Using the verification documents, and guided by the findings of workshops held by each District Administration Office in the area affected by the earthquake, and by local surveys and discussions held by the verification panels, the Panel member responsible for verification carried out specialized analysis and assessments. Recommendations based on their findings were compiled and presented to the panels.

## **(5) Summary of Findings**

The Verification Planning Subcommittee compiled a summary report of the by-category findings submitted by the panels, which was reviewed and approved by the 10th Year Restoration Committee.

## 2. ACHIEVEMENTS OF INITIATIVES OVER THE RESTORATION DECADE, AND TASKS FOR THE FUTURE

In the reconstruction following the Great Hanshin-Awaji Earthquake, from the initial response phase immediately after the earthquake to the full-fledged restoration phase, diverse efforts were undertaken in a range of fields, and much was done towards the goal of “creative reconstruction”. However, it has become clear through the initiatives carried out over the last decade that many tasks remain to be addressed, not only in the stricken region but in Japanese society as a whole.

### Principal achievements

The Great Hanshin-Awaji Earthquake, which directly hit a large city with an aging population, opened our eyes to all sorts of tasks never properly addressed under the existing scheme of things. Therefore, in the process of reconstruction following the earthquake, new systems and mechanisms transcending existing frameworks have been created: these include the establishment of the Great Hanshin-Awaji Earthquake Reconstruction Foundation, the drafting and expansion of the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims (the establishment of the Residential Stability Assistance System), the enactment of the Ordinance on the Promotion of Prefectural Residents’ Participation and Cooperation and the Ordinance on the Promotion of Industrial Recovery through the Formation of New Industrial Base Districts (expanded into the Ordinance Concerning Invigoration of the Economy and Employment Through Attraction of Businesses), among others.

Exceptional operation and expansion of existing systems and projects has also been carried out: examples include the preferential measures concerning taxation and similar matters provided by 16 items of special legislation (for example, exceptional provisions under the national tax law), the expansion of the local government finance measures, support in forms such as special eligibility criteria for emergency temporary housing and rent reductions for residents of disaster reconstruction public housing, and implementation of decisions made during the two-step urban planning in the Restoration and the Urban Environmental Improvement Project.

Furthermore, the lessons learned from the earthquake have been put to use in developing pioneering initiatives based on new perspectives. Examples include the collaborative establishment of the Hyogo Forum for Advocating Individual Recovery, and projects jointly tackled by prefectural residents, regional organisations, NPOs and NGOs, industry, public administration and other parties. Other collaborative efforts include the building of Collective Housing and other new residential accommodations, initiatives such as the Phoenix Citizens’ Recovery Network and the Hyogo Volunteer Plaza, the spreading of new ways of working such as community businesses, community building spearheaded by local residents through Society Creation Conferences, the creation of bases for wide-area disaster reduction, the establishment of polycentric and multiplexed general traffic systems, and the opening of the Disaster Reduction and Human Renovation Institution.

### Principal tasks for the future

Nevertheless, running through the reconstruction process are two comprehensive and cross-sectoral problems: the fact that the concept of “reconstruction” has not yet been given institutional status, and the fact that there is no institutional or financial security for regionally-spearheaded reconstruction. Other tasks that need to be addressed are the enhancement of the system of disaster measures headquarters, the building of a wide-area risk management system in readiness for a large-scale disaster occurring over a wide area, such as the Tokai, Tonankai and Nankai Earthquakes anticipated in the near future, and the improvement of mechanisms for emergency aid and support for the rebuilding of lives and homes in such an eventuality, along with the reinforcing the earthquake resistance of housing and public facilities. Pioneering initiatives prompted by the earthquake, such as voluntary activities, also need to be established and carried out.

In parallel with this, an ongoing response is also required regarding the tasks that remain outstanding after ten years of reconstruction, such as helping elderly disaster victims live independently, regenerating the stricken region’s urban areas and helping to revitalize communities, drafting strategies for the redemption of loans, reinforcing the earthquake resistance of housing and public facilities, and so forth. Also, through initiatives aimed at disseminating the results of this verification and our recommendations throughout Japan and the wider world, extending comprehensive research on major earthquake disasters based on the above, at applying new systems and frameworks, and ensuring that “January 17 shall never be forgotten”, we need to ensure that the experience gained and lessons learned from the earthquake are passed on, studied and disseminated.

## I-1. Principal Achievements (Overview)

### 1. NEWLY CREATED SYSTEMS AND MECHANISMS TRANSCENDING EXISTING FRAMEWORKS

- (1) Local Leadership in Reconstruction and Government Assistance
- (2) Publicly Funded Demolition of Damaged Premises and Public Funding for Repairs of Retaining Walls
- (3) Establishment of the Great Hanshin-Awaji Earthquake Reconstruction Foundation and Promotion of Expeditious Measures for Reconstruction
- (4) Creation of the Socioeconomic Rehabilitation Aid System
- (5) Advocacy of a National Assurance Program for Victims of National Disasters and Enactment and Expansion of the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims
- (6) Enactment of Law to Promote Specified Nonprofit Activities (NPO Law), Ordinances Promoting Voluntary Activities and "Participation and Cooperation"
- (7) Proposed Enterprise Zone Concept, Enactment of Ordinances to Promote Industrial Reconstruction, Etc.
- (8) Creation of an Emergency Disaster-Relief Specialist Volunteer System, Including the Hyogo Emergency heArtful Rescue Team (HEART-PHOENIX)

### 2. SPECIAL OPERATION AND EXPANSION OF EXISTING SYSTEMS AND PROJECTS

- (1) Preferential Measures and Expansion of Local Government Financial Measures Through the Enactment of 16 Items of Special Legislation (Special financial assistance, exceptional issuance of publicly offered bonds, tax reductions, exemption from insurance premiums, construction restrictions in urban areas, employment measures, extension of payment deadlines, etc.)
- (2) Provision of Emergency Temporary Housing and Establishment of Special Criteria, Etc.
- (3) Supply of Disaster Reconstruction Public Housing and Assistance for Residents
- (4) Offering Loans and Extending Funding and Deferment Periods for Disaster Recovery Funds for Small and Medium-sized Firms
- (5) Decisions Made During Two-Step Urban Planning Concerning Restoration and the Urban Environmental Improvement Project

### 3. PIONEERING INITIATIVES FROM NEW PERSPECTIVES LEARNED FROM THE EARTHQUAKE

- (1) Projects Jointly Tackled by Prefectural Residents, NPOs, NGOs and Other Organisations, Industry, Public Administration and Other Parties  
(Hyogo Forum for Advocating Individual Recovery, NPO-led and public administration-led forums for cooperation, Hyogo Prefecture Trilateral Employment Conference, etc.)

#### Health and Welfare

- (2) Development of an Elder Watch System and Initiatives to Support Independent Living (LSAs, SCSs, community plazas, etc.)
- (3) Promotion of New Residential Accommodations such as Collective Housing
- (4) Promotion of Measures for Mental Health Care/Emotional Support and Establishment of the Hyogo Institute for Traumatic Stress
- (5) Establishment of the Hyogo Emergency Medical Center as the Central Pillar of the Disaster Emergency Medical System

#### Society and Culture

- (6) Establishment of the Phoenix Citizens' Recovery Network and Organisation of the Hyogo Volunteer Plaza
- (7) Promotion of "New Disaster Education" Including Assignment of Teachers Specializing in Educational Reconstruction
- (8) Development of Cultural Facilities such as the Hyogo Prefectural Museum of Art as Symbols of Reconstruction

#### Industry and Employment

- (9) Hanshin-Awaji Economic Revitalization Organization and Other Organisations and Mechanisms for Promoting Industrial Reconstruction
- (10) Promotion of Livelihood Support through Employment Measures
- (11) Support for New Business Models such as Community Businesses

#### Disaster Reduction

- (12) Establishment of a 24-Hour Monitoring and Instant-Response System and Enhancement of Coordination with the Self-Defence Forces (SDF) and other Related Organisations
- (13) Development of Bases for Wide-Area Disaster Reduction
- (14) Concentration of International Organisations in Kobe New Eastern City Center

#### Urban Development and Community Building

- (15) Development of a Multiple, Comprehensive Transport System Including Construction of a High Standard Highway Network
- (16) Promotion of Community Building Spearheaded by Local Residents, through Society Creation Conferences
- (17) New Urban Development Emphasizing Local Features, as in Nishinomiya-hama and South Ashiya-hama
- (18) Progress of Rokko Mountain Range Green Belt Development

#### Passing on and Disseminating the Experiences Gained and Lessons Learned from the Earthquake

- (19) Progress of Initiatives Aimed at Passing on and Disseminating the Experiences Gained and Lessons Learned from the Earthquake
- (20) Establishment of the Great Hanshin-Awaji Earthquake Memorial Disaster Reduction and Human Renovation Institute

## I-2. Principal Achievements (by Field)

<b>Overall Verification</b>	<b>Initiatives Promoting Reconstruction</b>	(1) Local Leadership in Reconstruction and Government Assistance (2) Establishment of the Great Hanshin-Awaji Earthquake Reconstruction Foundation and Promotion of Expeditious Measures for Reconstruction (3) Preferential Measures and Expansion of Local Government Financial Measures Through the Enactment of 16 Items of Special Legislation (Special financial assistance, exceptional issuance of publicly offered bonds, tax reductions, exemption from insurance premiums, construction restrictions in urban areas, employment measures, extension of payment deadlines, etc.) (4) Projects Jointly Tackled by Prefectural Residents, NPOs, NGOs and Other Organisations, Industry, Public Administration and Other Parties (Hyogo Forum for Advocating Individual Recovery, NPO-led and public administration-led forums for cooperation, Hyogo Prefecture Trilateral Employment Conference, etc.)	A A B C
<b>Health and Welfare Society and Culture</b>	<b>Living Conditions</b>	(1) Creation of the Socioeconomic Rehabilitation Aid System (2) Advocacy of a National Assurance Program for Victims of National Disasters and Enactment and Expansion of the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims (3) Enactment of Ordinances Promoting Voluntary Activities and "Participation and Cooperation" (4) Establishment of the Phoenix Citizens' Recovery Network and Organisation of the Hyogo Volunteer Plaza (5) Promotion of "New Disaster Education" Including Assignment of Teachers Specializing in Educational Reconstruction (6) Development of Cultural Facilities such as the Hyogo Prefectural Museum of Art as Symbols of Reconstruction	A A A C C C
	<b>Elderly/Vulnerable Disaster Victims</b>	(1) Development of an Elder Watch System and Initiatives to Support Independent Living (LSAs, SCSs, community plazas, etc.) (2) Promotion of New Residential Accommodations such as Collective Housing (3) Promotion of Measures for Mental Health Care/Emotional Support and Establishment of the Hyogo Institute for Traumatic Stress (4) Establishment of the Hyogo Emergency Medical Center as the Central Pillar of the Disaster Emergency Medical System	C C C C
	<b>Housing</b>	(1) Publicly Funded Demolition of Damaged Premises and Public Funding for Repairs of Retaining Walls (2) Provision of Emergency Temporary Housing and Establishment of Special Criteria, Etc. (3) Supply of Disaster Reconstruction Public Housing and Assistance for Residents	A B B
<b>Urban Development and Community Building</b>	(1) Decisions Made During Two-Step Urban Planning Concerning Restoration and the Urban Environmental Improvement Project (2) Development of a Multiple, Comprehensive Transport System Including Construction of a High Standard Highway Network (3) Promotion of Community Building Spearheaded by Local Residents, through Society Creation Conferences (4) New Urban Development Emphasizing Local Features, as in Nishinomiya-hama and South Ashiya-hama (5) Progress of Rokko Mountain Range Green Belt Development	B C C C C	
<b>Industry and Employment</b>	(1) Proposed Enterprise Zone Concept, Enactment of Ordinances to Promote Industrial Reconstruction, Etc. (2) Offering Loans and Extending Funding and Deferment Periods for Disaster Recovery Funds for Small and Medium-sized Firms (3) Hanshin-Awaji Economic Revitalization Organization and Other Organisations and Mechanisms for Promoting Industrial Reconstruction (4) Promotion of Livelihood Support through Employment Measures (5) Support for New Business Models such as Community Businesses	A B C C C	
<b>Disaster Reduction</b>	(1) Creation of an Emergency Disaster-Relief Specialist Volunteer System, Including the Hyogo Emergency heArtful Rescue Team (HEART-PHOENIX) (2) Establishment of a 24-Hour Monitoring and Instant-Response System and Enhancement of Coordination with the Self-Defence Forces (SDF) and other Related Organisations (3) Development of Bases for Wide-Area Disaster Reduction (4) Concentration of International Organisations in Kobe New Eastern City Center (5) Progress of Initiatives Aimed at Passing on and Disseminating the Experiences Gained and Lessons Learned from the Earthquake (6) Establishment of the Great Hanshin-Awaji Earthquake Memorial Disaster Reduction and Human Renovation Institute	A C C C C C	

### [ Note ]

A: Newly created systems and mechanisms transcending existing frameworks

B: Special operation and expansion of existing systems and projects

C: Pioneering initiatives from new perspectives learned from the earthquake

## II. Principal Tasks for the Future

### 1. ENSURING THAT DISASTER-PREPAREDNESS AND PIONEERING INITIATIVES TAKE ROOT

- (1) Legal Status and Institutional or Financial Security for the Concept of "Reconstruction"
  - Passing the Reconstruction Basic Act
  - Institutionalizing the framework of the Reconstruction Foundation
- (2) Building a Practical Wide-area Risk Management System
  - Developing a more practical risk management system, including the enhancement of the system of disaster measures headquarters, the training of human resources to support disaster reduction measures, the development of various other kinds of training, and other measures
  - Establishing a wide-area risk management system crossing prefectural boundaries
  - Promoting quick collection, transmission and sharing of accurate information about disasters
- (3) Improving Emergency Aid and Support for Rebuilding Lives and Homes
  - Rethinking emergency aid systems
  - Bundling public reconstruction support systems for presentation in "package form" to the recipients.
  - Instituting mechanisms for supporting the actual building of housing and for benefit systems-based mutual assistance
  - Fulfilling basic lifestyle needs such as ensuring water supplies and processing disaster waste
- (4) Reinforcing the Earthquake Resistance of Housing and Public Facilities
  - Using a reliable inspection system to support the promotion of improvements in the earthquake resistance of housing and the methodical improvement of the earthquake resistance of public facilities
- (5) Establishing and Putting in Place Pioneering Initiatives Prompted by the Earthquake
  - Establishing and encouraging activities by volunteers, community-building activities, and community businesses

### 2. TASKS STILL OUTSTANDING AFTER 10 YEARS OF RECONSTRUCTION

- (6) Helping Elderly Disaster Victims Live Independently
  - Establishment of systems for helping elderly disaster victims live independently such as new local health care systems and systems to facilitate mutual support between regional residents
- (7) Regenerating Urban Areas and Revitalizing Communities
  - Working toward the swift completion of the unfinished Restoration and Urban Environmental Improvement Project
  - Continuing to support the rebuilding of homes in keeping with delays in the project
  - Promoting the usage of redeveloped buildings and readjusted land
  - Encouraging revitalization and community-building through the promotion of shopping arcades and the like
- (8) Strategies for the Redemption of Loans
  - Strategizing the redemption of Disaster Relief Fund Loans and Living and Welfare Fund Loans
  - Strategizing the redemption of disaster recovery fund loans for small and medium-sized firms

### 3. PASSING ON, STUDYING AND DISSEMINATING THE EXPERIENCES GAINED AND LESSONS LEARNED FROM THE EARTHQUAKE

- Disseminating the lessons learned from the earthquake throughout Japan and the rest of the world
- Applying the new systems and frameworks derived from the lessons learned and the experience gained during the earthquake
- Acting to promote comprehensive research into the Great Earthquake and to mitigate the effects of and aid the reconstruction process following large-scale disasters in the future
- Putting in place initiatives to ensure that January 17 shall never be forgotten



## Principal Achievements

### 1. NEWLY CREATED SYSTEMS AND MECHANISMS TRANSCENDING EXISTING FRAMEWORKS

#### (1) Local Leadership in Reconstruction and Government Assistance

- Taking into account the proposals of the government's Hanshin-Awaji Reconstruction Committee, reconstruction has been promoted within the framework of local leadership, including the formulation of reconstruction plans by local entities.
- The intention to support the implementation of local authority reconstruction plans to the greatest possible extent was outlined in meetings at the government's Great Hanshin-Awaji Earthquake Reconstruction Headquarters as the Policy on Efforts to Support the Reconstruction of the Hanshin-Awaji Area. Up to the second supplementary budget of fiscal year 1999, a total of 5.02 trillion yen in budgetary allocations had been implemented.

#### (2) Publicly Funded Demolition of Damaged Premises and Public Funding for Repairs of Retaining Walls

- Public funding for dealing with rubble had previously been limited to its collection, transport and disposal, but implementation was extended to cover the demolition of damaged premises.
- The existing system of measures for steeply sloping land was significantly relaxed, and the restoration of retaining walls on private residential property was carried out by the prefecture as a publicly funded project.

#### (3) Establishment of the Great Hanshin-Awaji Earthquake Reconstruction Foundation and Promotion of Expeditious Measures for Reconstruction

- To proceed with comprehensive measures for the reconstruction of stricken areas in a stable, expeditious, and flexible manner, a fund totalling 900 billion yen was established (April 1995), and over ten years of projects worth a total of 354 billion yen have been developed.

- Livelihood Restoration Fund loans and interest support for funding of the rebuilding and purchasing of homes
- Rent reduction subsidies for residents of private rented housing
- Assistance for voluntary activities
- Assistance for events to revitalize shopping arcades and community businesses
- Assistance for reconstruction and community-building
- Interest support, etc., for funding housing construction in areas designated for Restoration and the Urban Environmental Improvement Project

#### (4) Creation of a Socioeconomic Rehabilitation Aid System

- The Socioeconomic Rehabilitation Aid System was established (April 1997), making use of the Reconstruction Foundation to assist victims in rebuilding independent livelihoods after they have moved into permanent housing.
- In particular, to assist households headed by middle-aged or elderly persons in making the smooth transition to permanent housing and independence, the Middle-Aged and Elderly Victims Self-help Assistance system was also established (December 1997).

#### (5) Advocacy of a National Assurance Program for Victims of National Disasters and Enactment and Expansion of the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims

- A National Assurance Program for Victims of National Disasters was proposed and gained the support of over 25 million people, accomplishing the enactment of the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims (May 1998).

- On the basis of an ancillary resolution to this Act, the Victims Self-help Assistance Fund system was established (July 1998) to unify and expand the two systems described above as a measure to ensure assistance at a level commensurate with the law.
- Expansion of the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims paved the way for the creation of the Residential Stability Assistance System (March 2004). An independent prefectural supplementary system has also been implemented (April 2004).

#### **(6) Enactment of Law to Promote Specified Nonprofit Activities (NPO Law), Ordinances Promoting Voluntary Activities and “Participation and Cooperation”**

- In response to the enactment of the Law to Promote Specified Nonprofit Activities (March 1998) in line with the spread of voluntary activities nationally that took off as a result of the earthquake, Japan’s first Ordinance on the Promotion of Voluntary Activities by Prefectural Residents has been implemented (December 1998).
- An Ordinance on the Promotion of Prefectural Residents’ Participation and Cooperation has been implemented (April 2003) to promote the accomplishment of the common good in the local community, as well as cooperation and participation in the administration of the prefecture.

#### **(7) Proposed Enterprise Zone Concept, Enactment of Ordinances to Promote Industrial Reconstruction, Etc.**

- Learning from examples in the UK, the concept of Enterprise Zones with advanced preferential tax mechanisms, relaxation of regulations, and the like has been proposed.
- The Ordinance on the Promotion of Industrial Recovery through the Formation of New Industrial Base Districts has been enacted (January 1997), and since April 2002 this has been expanded as the Ordinance Concerning Invigoration of the Economy and Employment Through Attraction of Businesses.
- Eight districts in the quake-stricken area are government-designated Special Zones for Structural Reform, including the Advanced Medical Industry Special Zone.

#### **(8) Creation of an Emergency Disaster-Relief Specialist Volunteer System, Including the Hyogo Emergency heARTful Rescue Team (HEART-PHOENIX)**

- An emergency disaster-relief specialist volunteer system has been established (January 1996), and the securing and training of volunteers with specialist skills and knowledge is in progress (951 people in 2004).

## **2. SPECIAL OPERATION AND EXPANSION OF EXISTING SYSTEMS AND PROJECTS**

#### **(1) Preferential Measures and Expansion of Local Government Financial Measures Through the Enactment of 16 Items of Special Legislation**

- Sixteen items of special legislation were enacted, including laws concerning revisions to the local tax law and exceptional provisions under the national tax law, as well as the Special Measures for Reconstruction of Urban Areas Stricken by Disaster. Measures to reduce national and local taxes, including income tax, residency tax, and property tax were put in place, as were special measures for exemption from medical insurance co-payments and insurance premiums, as well as for construction restrictions in urban areas.
- To prevent the financial situation of local public entities in earthquake-stricken areas from deteriorating, local government financial measures were expanded on the basis of the Great Hanshin-Awaji Earthquake Special Financial Assistance Law. This included the expansion of projects eligible for state subsidies concerned with the restoration of public facilities, an increase in subsidized disaster reconstruction project bonds, and an increase in the ratio of local tax allocations.

#### **(2) Provision of Emergency Temporary Housing and Establishment of Special Criteria, Etc.**

- The prefectural government oversaw the construction of temporary emergency housing, and it was decided that this should be provided to everyone according to their needs. By seven months after the earthquake, 48,300 units

had been constructed (within five years all residents had moved into permanent housing).

- Special criteria were set, including an increase in floor area and a rise in installation expenditures, the installation of air conditioning, and an extension in the time during which the housing was provided (previously limited to up to two years, it was made extendable to cover the period until permanent housing was ready).
- Communal spaces were provided, and as well as building local emergency temporary housing for elderly people and the disabled to which Living Support Advisors (LSAs) were assigned, social centres were built and Lifestyle Assistance Advisors deployed.

### **(3) Supply of Disaster Reconstruction Public Housing and Assistance for Residents**

- The target of 38,600 units set in the Hyogo Three-Year Housing Reconstruction Plan was exceeded and 42,137 units of disaster reconstruction public housing were supplied.
- To secure equality of opportunity for applicants and fairness when accepting applications for residency, the region was divided into four blocks. In addition to centralizing applications for prefectural and municipal housing alongside housing managed by public corporations, a priority framework for those vulnerable to disasters such as elderly people and the disabled was established, as well as a framework for residents of emergency temporary housing.
- To assist victims in rebuilding their lives, a special system of rent reduction was implemented (for ten years).

### **(4) Offering Loans and Extending Funding and Deferment Periods for Disaster Recovery Funds for Small and Medium-sized Firms**

- To assist small and medium-sized firms, which suffered greatly as a result of the earthquake, in getting back on their feet, the prefectural government, the city of Kobe, and state financial institutions offered loans as disaster recovery funds.
- In consideration of businesses whose reconstruction was not progressing as planned owing to the economic recession and other factors, funding and deferment periods were extended, and interest payments on the debt were also deferred.

### **(5) Decisions Made During Two-Step Urban Planning Concerning Restoration and the Urban Environmental Improvement Project**

- In the context of reconstruction after the earthquake, while on the one hand it is necessary to initiate well planned rebuilding under the policy of engaging in urban reconstruction as early as possible, the full agreement of local residents is also needed. For this reason, a two-step system of decision making on urban planning was implemented, with the first stage consisting of decisions on the overall framework and the second on roads, parks, and other elements intimately connected with people's daily lives.

## **3. PIONEERING INITIATIVES FROM NEW PERSPECTIVES LEARNED FROM THE EARTHQUAKE**

### **(1) Projects Jointly Tackled by Prefectural Residents, NPOs, NGOs and Other Organisations, Industry, Public Administration and Other Parties**

- Prefectural residents, organisations, industry, public administration, and other entities have together developed new mechanisms for proposing, investigating and implementing initiatives such as the Hyogo Forum for Advocating Individual Recovery and the Conference on Reconstruction Assistance for Disaster Victims (since 2001 a joint conference organized by NPOs and the government), the Prefectural and Municipal Socioeconomic Support Committee, the Hyogo Prefecture Trilateral Employment Conference, and the Phoenix Citizens' Recovery Network.

#### **(Health and Welfare)**

### **(2) Development of an Elder Watch System and Initiatives to Support Independent Living**

- In addition to the development of an elder watch system which assigns support workers such as Living Support

Advisors (LSAs) and Senior Citizen Supporters (SCSs) to disaster reconstruction public housing projects, initiatives have been launched to support independent living by promoting health, positive living, and the formation of friendships.

**\* Support Staff for Disaster Reconstruction Public Housing Projects**

- Living Support Advisors (LSAs)
- Senior Citizen Supporters (SCSs)
- Prefectural Housing Life Supporters
- Minsei-iin (community volunteers)
- Jido-iin (child welfare volunteers)
- Assistant Minsei-iin and Assistant Jido-iin
- Information Counselors
- Volunteer nurses at Mobile Health Care Rooms
- Public health nurses
- Dietitians
- Caseworkers and others

**(3) Promotion of New Residential Accommodations such as Collective Housing**

- New residential accommodations that offer comprehensive lifestyle support to enable elderly people and others to live with peace of mind have been developed, including Silver Housing, Collective Housing, and group houses.

**(4) Promotion of Measures for Mental Health Care/Emotional Support and Establishment of Hyogo Institute for Traumatic Stress**

- To promote mental health care/emotional support for disaster victims suffering from post-traumatic stress disorder (PTSD) and other problems, 16 mental health care/emotional support centres were established in stricken areas. (Since 2000, Emotional Recovery Counseling Room and Emotional Recovery Research Centers have been set up in local Health and Welfare Offices to continue the work of these centres.)
- The Hyogo Institute for Traumatic Stress was established (April 2004) to act as a national focus for mental health care/emotional support.

**(5) Establishment of the Hyogo Emergency Medical Center as the Central Pillar of the Disaster Emergency Medical System**

- The Hyogo Emergency Medical Center was established (August 2003) as the first local government emergency medical centre in Japan, to act as the core base of the disaster emergency medical system for responding to a large-scale disaster.

**(Society and Culture)**

**(6) Establishment of the Phoenix Citizens' Recovery Network and Organisation of Hyogo Volunteer Plaza**

- The Phoenix Citizens' Recovery Network is a network that orchestrates the wide-ranging energies of different types of organisations, such as NPOs/NGOs, among others, as well as businesses and individuals. It organised a campaign among prefectural residents for lifestyle reconstruction, and carried out a wide variety of initiatives such as the establishment of local activity stations.
- Hyogo Volunteer Plaza was organised as a base for support networks for voluntary activities throughout the prefecture.

**(7) Promotion of "New Disaster Education" Including Assignment of Teachers Specializing in Educational Reconstruction**

- "New Disaster Education" has been promoted in ways that include assigning teachers specializing in educational reconstruction and counsellors, developing school-specific disaster response manuals, using lessons learned from the earthquake, and promoting education that fosters the will to live.

## **(8) Development of Cultural Facilities such as the Hyogo Prefectural Museum of Art as Symbols of Reconstruction**

- As cultural centres that have also become symbols of reconstruction, the Kobe Art Village Center (opened April 1996) and the Hyogo Prefectural Museum of Art (opened April 2002) have been built. Construction of the Hyogo Performing Arts Center is also in progress, with opening scheduled for fall 2005.

### **(Industry and Employment)**

## **(9) Hanshin-Awaji Economic Revitalization Organization and Other Organisations and Mechanisms for Promoting Industrial Reconstruction**

- The Hanshin-Awaji Economic Revitalization Organization (HERO) and the New Industry Research Organization (NIRO) have been established. They have developed a variety of initiatives aimed at industrial revitalization of the stricken region, including support for business start-ups, the creation of new industries, and collaboration between industry and academia.

## **(10) Promotion of Livelihood Support through Employment Measures**

- Livelihood support has been provided in forms such as autonomous support for elderly disaster victims, through development projects specific to stricken areas, and education that fosters positive living, through Iki Iki Classes.
- The Hyogo Job Information Plaza and other local labour consultation and job information plazas have been established. These offer information and consultations concerning work, as well as assistance in finding a job.
- To protect the livelihoods of employees of businesses forced to suspend their operations by the earthquake, exceptional measures for the employment insurance system were implemented. These included extraordinary payments of basic allowances, on par with unemployment benefits, as well as retrospective application of the employment insurance system for a time limit of two years for businesses that had not joined the system.

## **(11) Support for New Business Models such as Community Businesses**

- Initiatives to support new business models have been developed that include offering assistance to community businesses as they get started and information and consultations offered by the IkigaiShigoto Support Center.

### **(Disaster Reduction)**

## **(12) Establishment of a 24-Hour Monitoring and Instant-Response System and Enhancement of Coordination with the Self-Defence Forces (SDF) and other Related Organisations**

- The specialist position of Japan's first Superintendent for Emergency Management was established under the direct jurisdiction of the prefectural governor as of April 1996, as part of efforts towards the formation of organised structures related to disaster and risk management at the prefectural and national government levels. Further, the Disaster Management Center, which holds a key role in times of disaster, as well as standby accommodations, has also been established along with the 24-hour monitoring and instant-response systems.
- Coordination between prefectures and municipalities, police and fire departments, the SDF, and other organisations has been stepped up by the Phoenix Disaster Management System, which enables the sharing of information on disaster reduction and facilitates rapid decision-making in times of disaster, as well as related training, etc.

## **(13) Development of Bases for Wide-Area Disaster Reduction**

- Progress is being made on the development of bases for wide-area disaster reduction to act as centres for emergency aid and rescue activities during disasters, and service has begun in the Nishi-Harima Block Base (March 1999) and the Tajima Block Base (August 2001). An Emergency Management & Training Center has been established (April 2004) in the education and training zone of Miki Earthquake Disaster Memorial Park, which will act as the base for operations for the entire prefecture, and work is in progress on the comprehensive disaster management park zone with the aim of opening during 2005.

## **(14) Concentration of International Organisations in Kobe New Eastern City Center**

- The Kobe New Eastern City Center is home to an increasing concentration of international organisations dealing

with disaster management, humanitarian assistance, healthcare and medicine, the environment, and other issues. These include the Disaster Reduction and Human Renovation Institution and the World Health Organization Kobe Centre.

\* International organisations and others in Kobe New Eastern City Center:

- Disaster Reduction and Human Renovation Institution
- Asian Disaster Reduction Center
- WHO Kobe Centre
- Japan International Cooperation Agency Hyogo International Center (JICA)
- United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Kobe
- United Nations Centre for Regional Development (UNCRD), Disaster Management Planning Hyogo Office
- Earthquake Disaster Mitigation Research Center
- International EMECS Center
- The Asia-Pacific Network for Global Change Research (APN)
- Institute for Global Environmental Strategies (IGES), Kansai Research Center
- Hyogo Emergency Medical Center
- Japanese Red Cross Society Hyogo Chapter
- Hyogo Institute for Traumatic Stress

#### **(Urban Development and Community Building)**

### **(15) Development of a Multiple, Comprehensive Transport System Including Construction of a High Standard Highway Network**

- To coincide with the opening of the Akashi Kaikyo Bridge (April 1998) several expressways were also opened to traffic, including the Seishin Expressway and sections of the Kita-Kobe (Ikawadani junction-Arimaguchi) and Wangan (Myodani junction-Tarumi junction) Routes within the Hanshin Expressway Network. The subsequent opening of the entire Kita-Kobe Route (April 2003) and the Yamate Route (Shirakawa junction-Kobe Nagata junction) within the Hanshin Expressway have contributed to progress in developing a high standard highway network possessing both speed and interchangeability.
- Conversion of the Sanda Line (Okaba-Taoji) of the Kobe Electric Railway to double track (March 1998), electrification and increased speed of the JR Bantan Line (Himeji-Teramae) (March 1998), and the opening of the Kobe Municipal Subway Kaigan Line (July 2001) have all promoted the development of multiplicity within an interchangeable system of railways.
- Strengthening of the functions of the Port of Kobe continues, including the development of Japan's first container terminal with a deep-water (15m) berth, and the joint commencement of services at the Kobe International Distribution Center and at the Rokko International Distribution Center.

### **(16) Promotion of Community Building Spearheaded by Local Residents, through Society Creation Conferences**

- In stricken areas, community building has been spearheaded by local residents through Society Creation Conferences and the like. Aid has also been provided for initiatives intended to revitalise the local culture, landscape, areas of greenery and so forth.
- Prompted by the earthquake, initiatives aimed at revitalising shopping areas, within the framework of community building, have been carried out. These include arcade clearance resulting in the redesign of shopping areas and the creation of public plazas, along with the holding of various public events and the creation of new sites of interest.

### **(17) New Urban Development Emphasizing Local Features, as in Nishinomiya-hama and South Ashiya-hama**

- High-livability cities, revolving around residential accommodation, are being developed in locations such as Nishinomiya-hama and South Ashiya-hama. Urban development of the Port Island 2nd Stage district has created a cluster of research bodies and businesses, including the KIMEC Center, the Kobe International Business Center (KIBC), and the Institute of Biomedical Research and Innovation (IBRI). In the Amagasaki Seaside District, an urban development project aimed at creating harmony between the community and the environment is in progress, based on the Forest of the 21st Century in Amagasaki Project

### **(18) Progress of Rokko Mountain Range Green Belt Development**

- The Rokko Mountain Range Green Belt Development Project-aimed at building a continuous belt of forest to protect against landslides along the mountain slopes adjacent to the urban areas in the foothills of the Rokko Mountains is now in progress.

## (Passing on and Disseminating the Experiences Gained and Lessons Learned from the Earthquake)

### (19) Progress of Initiatives Aimed at Passing on and Disseminating the Experiences Gained and Lessons Learned from the Earthquake

- Initiatives aimed at drawing attention to the post-earthquake reconstruction and passing on its lessons to future generations have been undertaken. Examples include the Kobe Luminarie, which has become a firmly-established highlight of Kobe's winter calendar, the International Gardening and Landscaping Exhibition Japan Flora 2000, the See Hanshin-Awaji Campaign and the 1.17 Hyogo Memorial Walk.
- The 10-Year Reconstruction Overall Verification and Recommendation Project has been carried out to verify the achievements of initiatives undertaken over the decade of restoration and offer proposals to the next generation, while the Hanshin Earthquake 10th Anniversary Commemorative Project has been implemented to affirm its achievements and express the region's gratitude for all the support and encouragement it has received.

### (20) Establishment of the Great Hanshin-Awaji Earthquake Memorial Disaster Reduction and Human Renovation Institute

- The Institute has been established in order to pass on the experience gained and lessons learned from the Great Hanshin-Awaji Earthquake to future generations, to contribute to disaster reduction both in Japan and the wider world, and to promote a message of the preciousness of life and the importance of coexistence. It carries out practical research and personnel training, and also sends specialists to disaster areas such as the site of the Niigata Chuetsu Earthquake.

## Principal Tasks for the Future

### 1. ENSURING THAT DISASTER-PREPAREDNESS AND PIONEERING INITIATIVES TAKE ROOT

#### (1) Legal Status and Institutional or Financial Security for the Concept of "Reconstruction"

- The enactment of a special law clarifying state financial support for reconstruction projects has not yet been carried out.
- Although a certain amount of institutional security for disaster emergency countermeasures and disaster recovery has been provided by the Disaster Countermeasures Basic Act, the very concept of "reconstruction" remains legally undefined to this day.
- Institutional and financial security for regionally-spearheaded reconstruction needs to be provided by passing the Reconstruction Basic Act and institutionalizing the framework for the Reconstruction Foundation, among other things.

#### (2) Building a Practical Wide-area Risk Management System

- Although Japan has reasonably well-formed risk management systems based on experience gained and lessons learned from the earthquake, a more practical risk management system needs to be established. Steps that should be taken include enhancing the system of disaster measures headquarters including the authority of the headquarter directors (the governor) at the prefectural level, training human resources to support disaster reduction measures, developing other various kinds of training, establishing a management system for disaster reduction volunteers, and other measures.
- A wide-area risk management system crossing prefectural boundaries needs to be established in readiness for large-scale disasters that extend over wide areas, such as the Tokai, Tonankai and Nankai Earthquakes, which are anticipated in the near future.
- In order to control and reduce damage in the event of disaster, the formation of an organisation should be promoted by which information can be collected, transmitted, and shared quickly and accurately between disaster reduction agencies, the public administration and private citizens.

#### (3) Improving Emergency Aid and Support for Rebuilding Lives and Homes

- Emergency aid systems currently based on supplying goods should be rethought, taking into consideration the country's socioeconomic circumstances and the needs of disaster victims. Consideration should also be given to the bundling of public reconstruction support systems for presentation in "package form" to the recipients.
- Thanks to the enactment and expansion of the Act Concerning Support for Reconstructing Livelihoods of

Disaster Victims (Residential Stability Assistance System), progress has been made in creating mechanisms to support the rebuilding of disaster victims' lives and homes. However, further improvement is required with regard to systems and mechanisms for supporting the actual rebuilding of housing for disaster victims, and for benefit systems based mutual assistance by home-owners.

- Systems should be put in place to ensure the fulfilment of basic lifestyle needs for victims in times of disaster, including ensuring food and water supplies; the speedy restoration of water and sewage systems, electricity, gas, information and communications facilities; quick installation of provisional toilets; processing of disaster waste ; smooth operations of evacuation sites; timely securing of housing, and so on.

#### **(4) Reinforcing the Earthquake Resistance of Housing and Public Facilities**

- Progress has been made in diagnosing the earthquake resistance of houses and public facilities. In the future, however, more needs to be done to support improvements in the earthquake resistance of housing, and to improve the earthquake resistance of public facilities in a methodical manner, based on a reliable inspection system.

#### **(5) Establishing and Putting in Place Pioneering Initiatives Prompted by the Earthquake**

- Pioneering initiatives prompted by the disaster and supporting a truly mature society need to be helped to become more firmly established, and to develop further in the future. Examples of such initiatives include activities by volunteers, Society Creation Conferences, and voluntary disaster management organisations, and also new ways of working and living made possible through community businesses and Collective Housing.

## **2. TASKS STILL OUTSTANDING AFTER 10 YEARS OF RECONSTRUCTION**

#### **(6) Helping Elderly Disaster Victims Live Independently**

- The Elderly Victims Watch System implemented by Life Support Advisors (LSAs), Senior Citizen Supporters (SCSs) and various other support personnel have been established. However, building on their achievements, systems for helping elderly disaster victims live independently designed for the rapidly aging society of the future need to be established. This could be done by setting up new local health care systems and systems to facilitate mutual support between regional residents.

#### **(7) Regenerating Urban Areas and Revitalizing Communities**

- While the regeneration of urban areas in the stricken region has progressed steadily, efforts should be made towards the swift completion of unfinished Restoration and the Urban Environmental Improvement Project, such as the Shin-Nagata Station South Area. Ongoing support for the rebuilding of homes needs to be provided as the project is delayed, and efforts should be made to promote the use of redeveloped buildings and readjusted land.
- Due to the earthquake, the stagnant economy, changes in consumer needs and other factors, shopping arcades are now contending with a harsher business climate. There is a need for initiatives and support for revitalization by motivated and enthusiastic shopping arcades, and for the enhancement of their community function.

#### **(8) Strategies for the Redemption of Loans**

- In view of the difficulties experienced by disaster victims and entrepreneurs in repaying Disaster Relief Fund Loans, Living and Welfare Fund Loans, petty cash loans or disaster recovery fund loans for small and medium-sized firms, redemption strategies are needed such as extension of the period of deferment, coupled with extension of the period of the loan.

## **3. PASSING ON, STUDYING AND DISSEMINATING THE EXPERIENCES GAINED AND LESSONS LEARNED FROM THE EARTHQUAKE**

- The lessons about the earthquake learned through the General Review of 10 Years' Reconstruction, and Promotion of Proposed Projects must be disseminated throughout Japan and the wider world. Efforts also need to be made to apply new systems and frameworks based on these lessons.
- It is vital that comprehensive research on the Great Earthquake based on these findings and recommendations continues to be expanded upon, and that such findings are put to good use in mitigating and carrying out reconstruction following large-scale disasters in the future.
- As the region stricken by the Great Hanshin-Awaji Earthquake, it is our duty, through the work of the Disaster Reduction and Human Renovation Institution and initiatives to ensure that January 17 shall never be forgotten, to publicize tirelessly the experiences gained and lessons learned from the earthquake, sharing this knowledge with the rest of Japan and the rest of the world and with the generations who will live after us.



### 3. THE KEYNOTES OF THE RECOMMENDATIONS

The Panel member responsible for such carried out verification and made recommendations on a total of 54 topics covering the 6 fields of the creative reconstruction efforts made over the decade since the Great Hanshin Awaji Earthquake. These fields were defined as Overall Verification; Health and Welfare; Society and Culture; Industry and Employment; Disaster Reduction; and Urban Development and Community Building. This section summarizes the basic ideology and direction common to all the individual verifications and recommendations, presenting them as the keynotes of the Recommendations for the Future.

The Overall Verification brought home to us the importance of promoting the kind of urban development that creates communities where everyone can live safely and with peace of mind, and of creating a “symbiotic society” in which all the citizens have a solid sense of belonging to a community. This ideal image, drawn from the experience of and lessons learned from the earthquake, would be a fitting model for community building in the future.

In order to create a symbiotic society where everyone can live safely and with peace of mind, it is crucially important that we make further progress. In normal times, administrative decentralization should be carried out, enabling the provinces to advance further towards autonomous and creative regional development with active participation by local residents. In times of disaster reconstruction should be spearheaded by local organizations. It is also crucially important to create a real partnership among Hyogo Prefecture residents, and between the residents of prefectures and the public administration, so that regional development is underpinned by the participation and cooperation of the citizens.

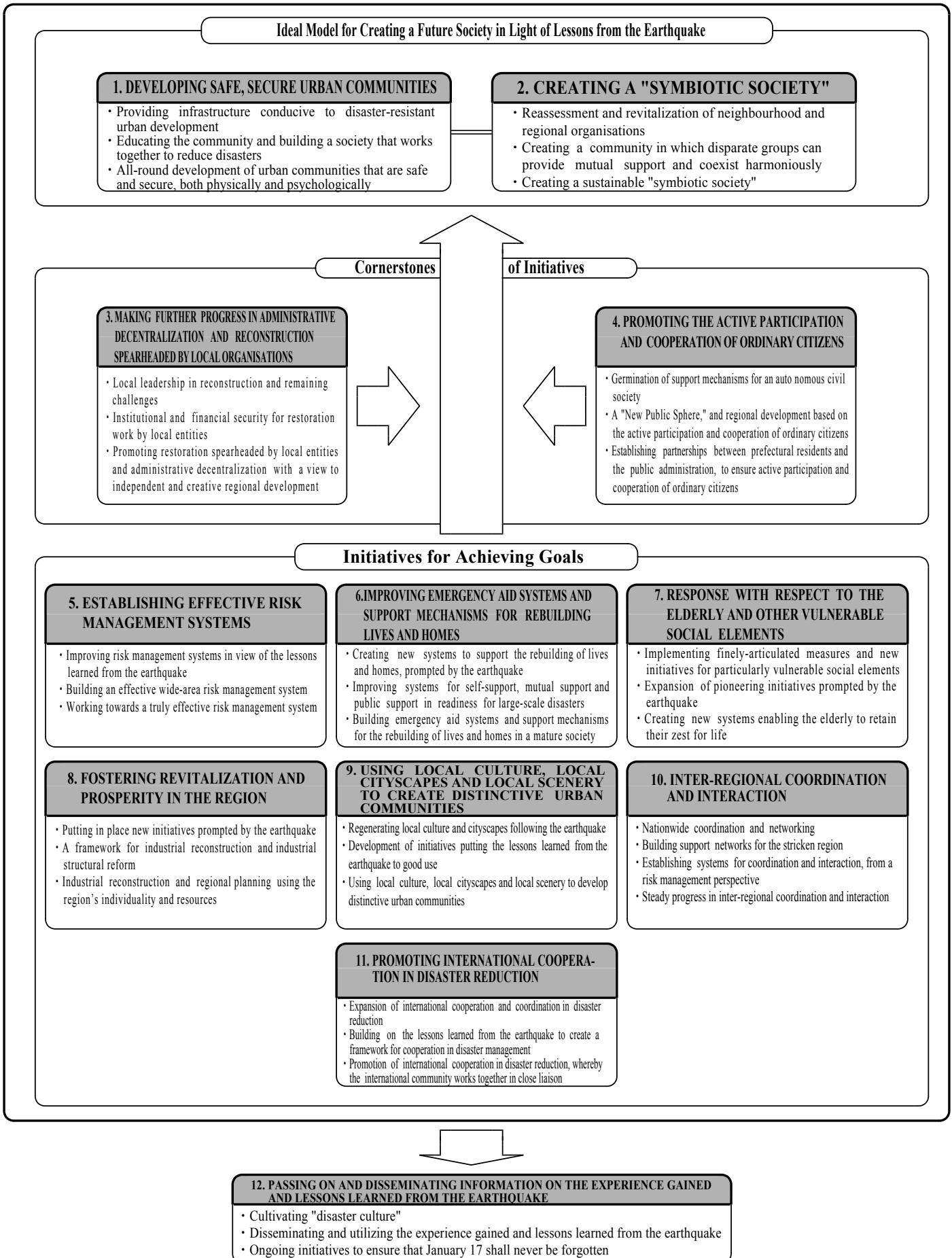
One tangible measure that needs to be undertaken in the effort to build a symbiotic society is to build a pragmatic risk management system based on the lessons learned from the earthquake. We also need to improve our mechanisms for emergency aid and for support for rebuilding lives and homes following large scale disasters in mature societies, and to work towards the further development of measures pioneered in the restoration process to protect the elderly and other particularly vulnerable social elements.

We should also press ahead with measures designed to revitalize local communities, maximizing the benefits of new initiatives prompted by the disaster, and maximizing the potential of the local community. We need to promote the kind of urban development that brings out the best in the local culture and cityscape, creating distinctive urban communities.

In times of disaster, and at all other times as well, we need to promote coordination and interaction between regions, and international cooperation in disaster reduction.

We see it as our duty, as the region stricken by the earthquake, to pass on and disseminate our experience of the earthquake and the lessons we learned from it, so that people in other times and other places might benefit from this knowledge.

## Keynotes of Recommendations



The Great Hanshin Awaji Earthquake provided a huge wake up call, alerting us to the fact that our urban planning until that point had focused on convenience, efficiency and growth, while neglecting safety and security. The “safety myth”, hitherto widespread among the populace, was destroyed instantaneously along with many modern city buildings. The fragility of the urban lifestyle, with its attenuated sense of being part of a community, was also laid bare. In the stricken region, these realizations prompted initiatives aimed at developing safe, secure urban communities equipped with a solid yet flexible urban infrastructure, mechanisms for rescue through self support, mutual support and public support, and regional “safety nets”.

### **Providing infrastructure conducive to disaster resistant urban development**

In urban development, it is important that all types of infrastructure “networks” have built in “multiplexing” or interchangeability to ensure that they still function in the event of a disaster or major accident. Meanwhile, we must make the transition to sustained, long term disaster resistant urban development by means such as the following:

- Reinforcing the structural disaster preparedness of transport infrastructure, lifeline services and other urban amenities
- Creating multi core networks designed from a wide area perspective
- Making housing and public facilities more earthquake resistant and improving building inspection systems
- Providing disaster reduction facilities and emergency medical centres
- Implementing urban development to a universal design
- Creating “networks” of water and green spaces

It is therefore a matter of urgency to address these issues in a systematic and strategic way, by drafting an action plan setting clear targets for disaster mitigation and, more specifically, to establish an effective campaign to analyze and improve the earthquake resistance of existing buildings.

### **Educating the community and building a society that works together to reduce disasters**

It is also important that we, as individuals, build into our daily lives an awareness of the need for disaster mitigation, and that we all cooperate in building regional communities that are strong on disaster preparedness. To that end, we need to increase the capabilities of each region and each city, and foster communities capable of handling risk management and welfare issues through means such as sharing disaster reduction information, stepping up public education and training about disaster mitigation, training human resources to support regional safety and security. We also need to create a society that works together to prepare for disasters, in which there is coordination between the various bodies such as voluntary disaster management organisations, Society Creation Conferences and other governmental entities, companies, regional groups, NPOs, NGOs, and so on that support our regional communities.

### **All round development of urban communities that are safe and secure, both physically and psychologically**

In recent years, the increase in crime and juvenile delinquency, the rising tensions in international affairs due to terrorism, ethnic disputes and other factors, and the multiple occurrences of earthquakes, floods and other natural disasters all over the world, has deepened the atmosphere of turmoil and unease that surrounds our own society. 2004, the tenth year since the earthquake, saw an unusually frequent incidence of disasters including storm and water damage from a run of typhoons and the Niigata Chuetsu Earthquake. There are also fears of large scale disasters in the near future, in the form of the anticipated Tokai, Tonankai and Nankai Earthquakes.

Against the eventuality of natural disasters such as these, not only in disaster reduction but also in a wide range of fields such as medicine, nursing and welfare, we must blaze further trails towards the development of safe, secure urban communities. In tandem with this, we must press ahead with sustained efforts promoting both physical and psychological well being, with the participation and cooperation of all kinds of organisations.

## KEYNOTE 2: CREATING A “SYMBIOTIC SOCIETY”

Immediately after the Great Hanshin Awaji Earthquake, many victims saved each other's lives at the scene of the disaster, and many more were saved by the encouragement and support they found at the evacuation centres and elsewhere. This mutual assistance also helped many of the victims recover their mental and physical stability and health. Help also arrived from various other sources, such as the 1.38 million or so volunteers who rushed in from all over Japan, and those in Japan and overseas who lent their support in other ways.

In the post earthquake reconstruction, we began to work towards a “symbiotic society” where people could live in harmony with nature, with others, and with their community, in an aging and maturing 21st century society. This ideal society is characterized by the following:

- It combines individual autonomy and freedom with harmonious community living
- It is firmly rooted in the cultural climate unique to the Hanshin Awaji region, yet open to the world beyond Japan
- It is respectful of nature, enabling its citizens to live in harmony with the natural world, yet still providing an amenity rich environment designed to protect and foster human life

### **Reassessment and revitalization of neighbourhood and regional organisations**

We recognised that in the process of recovery and restoration, the solidarity and cooperation of neighbourhood associations, women's societies, fire fighting associations and other local community organisations proved effective in providing help at the site of the disaster, at evacuation centres and elsewhere. We also confirmed that creating a feeling of connection between individuals within the community increases safety and peace of mind, and makes life seem worth living. Besides reassessing the role played by local communities and local organisations, we need to make efforts to reenergize their endeavours.

### **Creating a community in which disparate groups can provide mutual support and coexist harmoniously**

It is important to create mechanisms aimed at encouraging the activities of the NPOs and NGOs, which have broadened their remit in response to the earthquake. It is also important to involve community organisations in urban development through Society Creation Conferences and other means, and to promote the activities of local residents in the voluntary disaster management organisations which mushroomed dramatically following the earthquake. Another vital requirement is that we factor in the importance of normalization and universal design in the creation of a society that empowers people of different ages, sexes and nationalities to give one another active and unhesitating support.

### **Creating a sustainable “symbiotic society”**

The importance of mutual help, mutual support and harmonious coexistence is one of the chief lessons we learned from the Great Earthquake. As the needs of the prefectural residents become increasingly pluralistic and complex due to trends such as Japan's falling birthrate and aging society, globalization and global environmental problems, mutual help, mutual support, and harmonious coexistence are the social principles that support a truly mature society, and therefore, they also lead to the development of safe, secure urban communities.

In the future too, we need to work toward achieving “water and greenery network,” environmental conservation, and the creation of a recycling oriented society where self motivated citizens collaborate across regions, generations, races and cultures. We also need to achieve a sustainable “symbiotic society” in which everyone has a real sense of being part of a community.

### **KEYNOTE 3: MAKING FURTHER PROGRESS IN ADMINISTRATIVE DECENTRALIZATION AND RECONSTRUCTION SPEARHEADED BY LOCAL ORGANISATIONS**

In the restoration following the Great Hanshin Awaji Earthquake, a policy was adopted based on a recommendation by the national Hanshin Awaji Restoration Committee, whereby, instead of orchestrating the reconstruction centrally as at the time of the Great Kanto Earthquake of 1923, the government provided support for reconstruction work by local organisations.

#### **Local leadership in reconstruction, and remaining challenges**

Therefore, the reconstruction planning was spearheaded by the prefectural authorities and the affected municipalities, while the national government provided large scale financial support for the recovery and restoration work, and implemented a variety of preferential measures. The Great Hanshin Awaji Earthquake Reconstruction Foundation, established after the earthquake, has played a major role in the restoration of the stricken region as a mechanism enabling livelihood and housing support for disaster victims to be provided on a responsive and flexible basis.

On the other hand, no special legislation has been passed to clarify the provision of national aid for restoration projects, and although a certain amount of institutional security for emergency measures and post disaster recovery has been provided in the form of the Disaster Countermeasures Basic Act and other legislation, there has been no legal clarification even of the definition of “restoration”. This has proved to be a stumbling block, both institutionally and financially, for creative restoration efforts by local organisations.

#### **Institutional and financial security for restoration work by local entities**

In the restoration following a large scale disaster, urban development should resurrect the stricken region with its former individuality and charm intact, retaining the affection of its residents. It is therefore vitally important that, rather than conforming to uniform standards set by central government, restoration work by local entities should be granted institutional and financial security, taking into account the circumstances of the disaster and the features of the locality.

For this reason, it is desirable that, building on our experience of the Great Hanshin Awaji Earthquake and the lessons learned from it, “restoration” should be given legal status, and the Reconstruction Basic Act should be passed to clarify the responsibilities and powers of the state and the regional authorities, apportion their roles, and so on. Measures should also be taken to give institutional status to the establishment of reconstruction foundations and the like.

#### **Promoting restoration spearheaded by local entities and administrative decentralization with a view to independent and creative regional development**

The so called “trinity reforms” were implemented to forge a new relationship between the central and regional governments, but further progress must be made in administrative decentralization so that, in normal times regional governments can implement regional development in an independent and creative way with local community organisations participating actively in the process, and in times of disaster, reconstruction can be spearheaded by local organisations.

## **KEYNOTE 4: PROMOTING THE ACTIVE PARTICIPATION AND COOPERATION OF ORDINARY CITIZENS**

Immediately after the Great Hanshin Awaji Earthquake, disaster victims helped one another. Neighbourhood associations, fire fighting associations and the like exchanged help and support across regional communities, and 1.38million volunteers rushed into the stricken region from all over Japan. In view of this fact, 1995 was designated the “Year of the Volunteer” in Japan, and a Disaster Management Volunteer Day (January 17) and Disaster Management Volunteer Week (January 15-21) were instituted.

### **Germination of support mechanisms for an autonomous civil society**

Subsequently, there was a nationwide upsurge in activities mobilizing “regional power” and “citizen power”, spearheaded by the NPOs and NGOs which sprang up and flourished in the wake of the earthquake. In December 1998, this led to the implementation of the Law to Promote Specified Nonprofit Activities (NPO Law). An institutional framework for specified nonprofit activities is still under construction. In April 2003, the Hyogo Prefectural Government also passed municipal bylaws regarding the promotion of active participation and cooperation by the residents of the prefecture, and efforts are being made to encourage prefectural residents to participate actively and cooperate in working for the mutual benefit of the regional community, and in projects run by the prefectural administration.

We have seen the emergence of systems for needs assessment and proposed initiatives, taking a practical, hands on approach and based on cooperation between the administrative authorities and the private sector. A good example is provided by the Hyogo Forum for Advocating Individual Recovery, which bridges the gap between the earthquake victims and the authorities as well as other forums for cooperation between NPOs and the public administration. Other initiatives include the Phoenix Citizens’ Recovery Network which has developed into a finely articulated clearinghouse that began to take shape after various types of organisations, such as NPOs/NGOs, and others, formed and then became a prefectural citizens movement promoting the reconstruction of people’s lives. In addition, regional development consensus building mechanisms were formed, driven by cooperation between public administration and the Society Creation Conferences. In ways such as these, efforts are being made to facilitate the kind of liaison between the public administration and the people that a civil society requires.

### **A “New Public Sphere,” and regional development based on the active participation and cooperation of ordinary citizens**

Initiatives and mechanisms like those described above were prompted by the earthquake, and rooted in the consciousness of a civil society. In future regional development in a mature society, it is vitally important to build further on initiatives and mechanisms of this kind, empowering the prefectural residents as individuals to become involved in the development of their region, joining forces to create a “new public sphere.” It is also of crucial importance that vigorous efforts are made to ensure the active participation and cooperation of ordinary citizens in regional development, in order to resolve the challenges faced by the region.

To this end, efforts must be made with regard to the following:

- Provision of support for networking and intermediary support organisations, in order to establish partnerships between regional NPOs, NGOs and other regional groups
- Appropriate liaison and apportionment of roles between the prefectural and municipal authorities
- Rebuilding of mechanisms for the support for community building activities, targeted not at the organisations but at the activities themselves
- Promotion of mechanisms and standards for the formulation and implementation of prefectural government policy in a form that is transparent to the residents of the prefecture

### **Establishing partnerships among Hyogo Prefecture residents and between prefectural residents and the public administration to ensure active participation and cooperation of ordinary citizens**

Through initiatives of the kind described above, partnerships among Hyogo Prefecture residents and between prefectural residents and the public administration, in which the prefectural residents play a key role, must be reinforced even further. Cooperation must be extended on a wide range of fronts between individuals and between regions, and regional development must proceed with the active participation and cooperation of ordinary citizens.

At the time of the Great Hanshin Awaji Earthquake, the initial systems of the central government and regional public bodies, liaison with the Self Defence Forces and other disaster reduction agencies, and other aspects of Japan's risk management system were called into question. From this Great Earthquake, we learned many lessons on subjects ranging from emergency response and recovery to restoration measures. The most important of these lessons was that unless adequate systems are in place under normal circumstances, when a disaster actually happens, it is difficult to respond quickly and appropriately.

### **Improving risk management systems in view of the lessons learned from the earthquake**

In Hyogo Prefecture, we bore these lessons in mind as we carried out a radical review of our regional disaster reduction plans, established a central coordination point for disaster countermeasure activities in the form of our own Disaster Management Center (the first local government office anywhere in Japan to be dedicated solely to disaster management), and set up a 24 hour monitoring and instant response system. We also set up standby accommodation to be used in the event of a disaster, created the General Information Network System for Disaster Countermeasures which enables the relevant organisations to share disaster information, and built the Hyogo Emergency Medical Center, the Emergency Management & Training Center and other infrastructure. We are now implementing urban disaster preparedness drills, map reading drills and other effective disaster management exercises.

### **Building an effective wide area risk management system**

In the future, bearing in mind the response to disasters in 2004 such as Typhoon No.23 and the Niigata Chuetsu Earthquake, we need to work towards the construction of a more effective risk management system. This should be done by measures such as the following:

- Improving liaison and sharing of information between the prefectural and municipal government on the one hand and the police and fire departments, and Self Defence Forces on the other
- Establishing a guidance system for rapid evacuation
- Improving emergency transportation routes and emergency land, sea and air transport networks
- Establishing a management system for disaster reduction volunteers
- Training human resources to support disaster reduction measures

We need to prepare for large scale disasters that extend over wide areas and are accompanied by tsunamis, such as the Tokai, Tonankai and Nankai earthquakes, disasters that are very likely to occur in the first half of this century. In preparing for such disasters, we must also consider, from a variety of viewpoints, matters such as organisational status and chain of command, inter organisational coordination between relevant bodies, and support systems. In addition to all of this, we need to make efforts to establish a wide area risk management system able to serve multiple prefectures.

### **Working towards a truly effective risk management system**

To make our risk management system truly effective, we must establish a cyclical feedback system in which risk management schedules and manuals are drafted, training and practice exercises are carried out, and reassessing the schedules and manuals in this light, in a never ending cycle of inspection and improvement.

## **KEYNOTE 6: IMPROVING EMERGENCY AID SYSTEMS AND SUPPORT MECHANISMS FOR REBUILDING LIVES AND HOMES**

The Great Hanshin Awaji Earthquake hit a mature, aging society. Because the socioeconomic situation had changed a good deal since the time (1947) at which the Disaster Relief Law was passed, elderly victims, and others placed in difficult circumstances, found it very hard to put their own lives back together in the way we have been discussing.

### **Creating new systems to support the rebuilding of lives and homes, prompted by the earthquake**

Therefore, in order to support the rebuilding of the lives of elderly householders and others placed in difficult circumstances, finely articulated livelihood and housing support activities have been carried out, funded by loans from the Livelihood Restoration Fund and by the Great Hanshin Awaji Earthquake Reconstruction Foundation. In May 1998, the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims was passed, and under a Diet resolution accompanying the enactment of the Act, a Victims Self help Assistance Fund system was set up in the stricken area. The aforementioned Act was revised in April 2004 regarding support for the rebuilding of homes, and a state run Residential Stability Assistance System was established, but support for housing itself remains to be addressed.

### **Improving systems for self support, mutual support and public support in readiness for large scale disasters**

Thus, the Great Hanshin Awaji Earthquake prompted and propelled the formation of new mechanisms to support earthquake victims. However, in readiness for large scale disasters such as the Tokai, Tonankai and Nankai earthquakes, which are expected to happen in the near future, it is a matter of urgency further to improve these systems and mechanisms.

We must therefore rethink our approach to emergency aid (which basically consists of supplying goods), establish a loan system capable of responding flexibly to the speed at which different people rebuild their lives and work towards putting together a bundle of public assistance systems for dealing with livelihood restoration that can be presented to the recipients in “package form” to facilitate understanding and access. More specifically, with regard to supporting the rebuilding of homes, there is a limit to what can be achieved solely through independent efforts such as earthquake insurance plus public assistance, so we need to create a system which integrates self support, mutual support and public support, one example being benefit systems based on mutual assistance by home owners.

### **Building emergency aid systems and support mechanisms for the rebuilding of lives and homes in a mature society**

Bearing in mind the operation of the Disaster Relief Law, the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims and other legislation, and based on factors such as the status of the damage caused by earthquakes and other natural disasters and the needs of the victims, we must continue to focus on the whole of the restoration process in the future, which includes preparing the groundwork for a wide range of possible future choices, and running the systems in a flexible way. We must also establish more appropriate emergency aid systems and mechanisms to support the rebuilding of lives and homes following disasters in a mature society.



## **KEYNOTE 7: RESPONSE WITH RESPECT TO THE ELDERLY AND OTHER PARTICULARLY VULNERABLE SOCIAL ELEMENTS**

Immediately after the Great Hanshin Awaji Earthquake, the elderly and disabled, people in poor health, foreign nationals, and other particularly vulnerable social elements experienced difficulty in evacuating to places of safety and in living at the evacuation centres.

### **Implementing finely articulated measures and new initiatives with regards to particularly vulnerable social elements**

In the reconstruction following the earthquake, a finely articulated response was carried out regarding vulnerable social elements. This included the emergency provision of special care residences for the elderly, nursing care centres, group homes for the elderly and facilities for the disabled, along with the relaying of daily life information and so forth by the prefectural foreign resident information centre.

The emergency temporary housing and the disaster reconstruction public housing provided later posed particular problems in that elderly disaster victims were effectively shut away and isolated, and there were some solitary deaths. Support was therefore provided in the form of care and monitoring activities carried out by Living Support Advisors (LSAs), Senior Citizen Supporters (SCSs), Prefectural Housing Life Supporters, Minsei iin (community volunteers), Jido iin (child welfare volunteers) and other support personnel, and in the form of helping elderly disaster victims make new friends and rediscover their will to live thanks to Mobile Health Care Room related activities by care volunteers, and the work of NPOs and NGOs and other similar groups.

To deal with the trauma and post traumatic stress disorder (PTSD) caused by the earthquake, mental health care/emotional support centres for disaster victims, and Emotional Recovery Counseling Rooms were established at the Prefectural Health and Welfare Offices. Teachers specializing in educational reconstruction were deployed to provide mental health care/emotional support for children, and in April 2004, the Hyogo Institute for Traumatic Stress was established as a national centre for mental health care/emotional support.

### **Expansion of pioneering initiatives prompted by the earthquake**

The earthquake prompted many initiatives that were implemented on an experimental and pioneering basis to pre-empt the problems likely to arise due to Japan's particular demographics (a low birth rate and high proportion of elderly persons). It is important that these initiatives are expanded in the future.

To this end, bearing in mind the results of these initiatives and the challenges remaining, measures such as the following are required:

- The creation of a new local health care system
- The expansion of computerized systems for watching over the mental and physical well being of vulnerable members of the community
- The creation of systems to facilitate mutual support between regional residents and the creation of truly caring communities
- The expansion of mental health care/emotional support measures and the systematic provision of mental health care/emotional support information

### **Creating new systems enabling the elderly to retain their zest for life**

Through initiatives like those mentioned above, we must build new systems making use of the experience gained and lessons learned from the earthquake, to make life easier for the elderly, the disabled and other vulnerable elements, and to help them retain their zest for life, not only in the aftermath of a disaster, but the rest of the time as well. Once created, these new systems must then be helped to take root and develop further.

## KEYNOTE 8: FOSTERING REVITALIZATION AND PROSPERITY IN THE REGION

The industrial community in the stricken area, hit hard by the earthquake, first had to contend with a rush of emergency demand, then the disappearance of that demand and the effects of the stagnation of the national economy. Nevertheless, it has put in solid efforts toward a new beginning, collaborating on various cultural activities in both the public and private sectors and thereby making a significant contribution to reviving the region's old vitality and prosperity.

### **Putting in place new initiatives prompted by the earthquake**

In the industrial reconstruction following the earthquake, efforts were made to bring about the fastest possible recovery and revival of industrial infrastructure in the stricken area. This was done through the support of the General Consultation Office for Small and Medium sized Firms (SMFs), as well as through disaster recovery funds and other financial support from the prefectural and municipal governments and state financial institutions, the establishment of reconstruction support factories, and the creation of infrastructure for stricken shopping arcades, utilizing disaster recovery advancement projects.

At the same time, proposals were put forward for the creation of an enterprise zone, with a view to creating a new industrial infrastructure tailored to the needs of the mature society of 21<sup>st</sup> century Japan. A number of new initiatives intended to lead the way to a better future for the stricken area were also carried out. These included:

- Enacting the Ordinance on the Promotion of Industrial Recovery through the Formation of New Industrial Base Districts (Ordinance Concerning Invigoration of the Economy and Employment Through Attraction of Businesses) and the subsequent establishment of Special Zones for Structural Reform
- Expanding into new fields and innovation in the management of SMFs and local industries
- Rolling out software projects and publicity events to enhance the community function of shopping arcades
- Beginning the top business creation programme in Japan, the New Industry Creation Programme
- Incubating start up businesses, and initiating industry government academia collaboration projects, by the Hanshin Awaji Economic Revitalization Organization (HERO) and the New Industry Research Organization (NIRO)

“Community businesses” set in motion by volunteer activities in the aftermath of the earthquake expanded, and Hyogo style work sharing programmes were initiated by the Hyogo Prefectural Government, Hyogo Local Chapter of Japanese Trade Union Confederation (JTUC Rengo) and the Hyogo Employers' Association. In addition to this, the Kobe Luminarie, an annual event featuring illuminated sculptures first held to commemorate the victims of the earthquake, is visited by some 5 million people from both inside and outside the disaster stricken area, and has become firmly established as one of the highlights of Kobe's winter calendar.

### **A framework for industrial reconstruction and industrial structural reform**

It is important that bearing in mind the experience gained and lessons learned from the earthquake, efforts are made in the future, to promote the formation of systems for industrial reconstruction in the event of potential future large scale disasters, and also that progress is further stepped up on existing initiatives toward industrial structural reform aimed at new development.

It is therefore necessary that, in addition to building comprehensive management systems to support industrial reconstruction and regional financial systems for reconstruction, and also considering measures such as work sharing in times of disaster, we press further ahead with innovations in management and the start up of new business ventures, bring shopping arcades back to the region, make active progress in deregulation, and encourage innovation in the promotion of tourism.

Initiatives are also being undertaken in the stricken localities to help communities regain their former vitality by making good use of the empty spaces dotted around the city streets for purposes such as creating pleasant scenery featuring flowers and greenery, holding public events, and so on. However, creative regional planning initiatives of this sort, spearheaded by prefectural residents, need to be taken even further.

### **Industrial reconstruction and regional planning using the region's individuality and resources**

Through initiatives of this sort, while ensuring a safety net for industry and employment, the region's individuality and resources must be exploited to the fullest, and progress must be made with industrial reconstruction and regional planning which generates vitality and liveliness.

## KEYNOTE 9: USING LOCAL CULTURE, LOCAL CITYSCAPES AND LOCAL SCENERY TO CREATE DISTINCTIVE URBAN COMMUNITIES

The Great Hanshin Awaji Earthquake destroyed cultural assets, facilities, and other cultural resources, and devastated local cityscapes and scenery. However, thanks to the joint efforts of the authorities, local residents and local groups, efforts aimed at their regeneration are now being implemented.

### **Regenerating local culture and cityscapes following the earthquake**

In the stricken area, concerts, theatrical performances and exhibitions for the benefit of the victims began to be organized immediately after the earthquake. Actions supporting the revival of traditional festivals temporarily suspended due to the earthquake, and the expansion of opportunities for participations in arts and culture, which had decreased in number due to the earthquake, offered emotional therapy for the victims, encouraged them, and put them in touch with their hopes and dreams.

The designated cultural treasures and other cultural assets damaged by the earthquake, along with museums, art galleries and other cultural facilities, recovered swiftly. As a cultural centre symbolizing the reconstruction, Kobe Art Village Center was opened in April 1996, and the Hyogo Prefectural Museum of Art was opened in April 2002. The new Hyogo Performing Arts Center is also under construction, and is scheduled to open in the fall of 2005.

In Kobe's Kitano cho, pre earthquake modern buildings are being rebuilt, and historical sites such as the sake brewery in Nada have been revived. The Urban Renaissance and Cityscape Conservation Project and the Cityscape Greening Project are now being implemented. Other initiatives aimed at conserving the region's own distinctive cityscapes and scenery are in progress.

### **Development of initiatives putting the lessons learned from the earthquake to good use**

In the future, it is important that further progress is made with initiatives putting the lessons learned from the earthquake to good use, and that we push ahead with regional development and community development making the most of local arts, culture and cultural assets, and with aesthetically sensitive urban development.

To this end, we need to proceed with tasks such as the following.

- Creating systems to support the activities of human resources and groups undertaking cultural activities
- Promoting plans for the creation of arts and culture facilities, the reinforcement of their disseminative function, and for the participation of prefectural residents, in the running of those facilities
- Pursuing regional development making active use of cultural assets, and improving the disaster preparedness of cultural assets
- Pursuing aesthetically sensitive urban development in which the local residents and the authorities work together

### **Using local culture, local cityscapes and local scenery to develop distinctive urban communities**

Traditional cultural events such as regional festivals, arts and culture in forms such as fine art and music, and cityscapes and scenery unique to the region, are all among the factors that make up the region's individuality. They also contribute to the well being, enjoyment of life, peace of mind and vitality of the residents of the region. Therefore, we must continue to proceed with the comprehensive restoration of regional culture, based on the active participation and cooperation of various regional bodies, and use local cityscapes and scenery in the development of distinctive urban communities.

## KEYNOTE 10: INTER-REGIONAL COORDINATION AND INTERACTION

Immediately after the Great Hanshin Awaji Earthquake, both the central government and local governments all over the country dispatched large numbers of support workers and support teams to the stricken region. Support was also provided using the nationwide networks of the electrical power and gas industries and co ops, making a large contribution to the recovery and reconstruction of the stricken region. Some 1.38 million volunteers also rushed in from all parts of Japan, cooking and serving food at the evacuation centres and providing practical help all over the disaster zone.

### **Nationwide coordination and networking**

After the earthquake, there was a rapid increase in the number of agreements between local governments regarding mutual support, and many of these had been motivated by inter prefectural exchange in non emergency times. In 2004 again, at the time of the floods caused by Typhoon No.23, and at the time of the Niigata Chuetsu earthquake, support teams made up of government workers and specialists from the Disaster Reduction and Human Renovation Institution were swiftly dispatched to the stricken areas, while volunteers, NPO and NGO personnel and others made their way rapidly to the disaster zone to provide support. In ways such as these, the circle of nationwide coordination and networking has been spreading wider.

### **Building support networks for the stricken region**

In the future, we need to make good use of the experience gained and lessons learned from the Great Hanshin Awaji Earthquake. More specifically, we need to create the networks and systems that, in the event of large scale disasters, will enable disaster reduction organisations like the Disaster Reduction and Human Renovation Institution to coordinate their actions, dispatch support teams to the disaster zone, and provide the necessary support.

### **Establishing systems for coordination and interaction, from a risk management perspective**

The agricultural, mountain and fishing villages that had interacted with urban areas provided support during the Great Hanshin Awaji Earthquake by supplying water and food. In recent years, interaction between urban and rural areas has been increasing in forms such as “green” and “blue” tourism, and business links between city shopping arcades and rural farmers. In addition to transient projects such as nature based experiences other efforts which make the most of Hyogo’s regional characteristics and potential must be helped to become firmly established as a framework for ongoing coordination and interaction, from a risk management perspective.

### **Steady progress in inter regional coordination and interaction**

It is hoped that the human and physical networks that are formed in the course of everyday interactions will demonstrate great power in times of emergency. In the future, the establishment of inter regional coordination and interaction in disaster reduction, industry, tourism and other fields must be encouraged.

## KEYNOTE 11: PROMOTING INTERNATIONAL COOPERATION IN DISASTER REDUCTION

Since the Great Hanshin Awaji Earthquake, there have been quite a few large scale disasters around the world. Obvious examples include the major earthquakes in northwest Turkey, Taiwan, south west India and south east Iran. Disaster reduction and post disaster reconstruction is a task shared by the world, transcending the boundaries of time, region and race.

### **Expansion of international cooperation in and coordination in disaster reduction**

In the regions stricken by the earthquakes mentioned above, international disaster reduction cooperation activities were carried out not only by the Japanese government NPOs, NGOs but also by local authorities in the region affected by the Great Hanshin Awaji Earthquake, and other groups. These activities included the following:

- Support in the form of disaster relief funds
- The dispatch of support teams by groups who had taken part in emergency aid, recovery and reconstruction measures following the Great Hanshin Awaji Earthquake, and advice based on the experience gained and lessons learned from that earthquake
- Sending emergency temporary housing which had been erected and served the desired purpose at the time of the earthquake into overseas disaster zones
- The taking in of trainees in disaster reduction, in collaboration with the Japan International Cooperation Agency (JICA)

Also, the Kobe New Eastern City Center, the Disaster Reduction and Human Renovation Institution, the Asian Disaster Reduction Center, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Kobe, the United Nations Centre for Regional Development (UNCRD) Disaster Management Planning Hyogo Office and other organisations are clustered together, forming a base for international disaster reduction and humanitarian support. The Hyogo Prefectural Government has also established disaster reduction agreements with the American states of Washington and California.

### **Building on the lessons learned from the earthquake to create a framework for cooperation in disaster management**

We feel it is our duty, as the region stricken by the Great Hanshin Awaji Earthquake, to build on the experience gained and lessons learned from that earthquake to continue providing positive support for earthquakes and other large scale disasters in all parts of the world. However, systems for disaster reduction and reconstruction vary widely from country to country, and Japan undeniably has much to learn. In addition to the development of human resources and the enhancement of mutual exchange in the field of international disaster management, it is vital to share disaster information by making materials and data on experiences and lessons learned from the earthquake available in several languages, and disseminating in abroad.

To facilitate the smooth and effective handling of natural disasters occurring in all parts of the world, a central contact point needs to be set up for reconstruction and related matters in countries stricken by disaster, and a system for comprehensive support needs to be created.

### **Promotion of international cooperation in disaster reduction, whereby the international community works together in close liaison**

In January 2005, the United Nations World Conference on Disaster Reduction is to be held in Kobe, Hyogo Prefecture. Building on the international disaster reduction strategy for the 21st century (the Hyogo Strategy) to be formulated at this Conference, international cooperation in disaster reduction aimed at the safety and harmonious coexistence of the human race must continue to be actively pursued in ways such as establishing an “International Disaster Reduction and Reconstruction Cooperation Centre” (tentative name), which will act as a coordinating body through which the international community will cooperate to support reconstruction following natural disasters.

## **KEYNOTE 12: PASSING ON AND DISSEMINATING INFORMATION ON THE EXPERIENCE GAINED AND LESSONS LEARNED FROM THE EARTHQUAKE**

Dubbed the “calamitous archipelago,” Japan has a history studded with disasters such as earthquakes and tsunamis, and is visited on an almost annual basis by typhoons, and by storm and landslide damage caused by the frontal systems of those typhoons. For this reason, we are warned that “Japan must never forget for a single day that she is fated to be perpetually under threat from exceptional convulsions of nature”. However, as the old saying has it, “great natural disasters strike as soon as the last one has been forgotten”. Even if people are aware of the possibility of “exceptional’ events such as large scale disasters, as time passes, thoughts of such matters are pushed aside in the course of everyday life, and tend to fade away.

### **Cultivating “disaster culture”**

In order to minimize the damage caused by such natural disasters and to prevent human suffering wherever possible, in the course of our daily lives, we must ensure that precautions such as setting aside emergency supplies of water and foodstuffs and securing furniture become an ingrained second nature. At home, in the neighbourhood, at work, at school, and across all areas of our society, we must cultivate “disaster culture”, firmly rooted in the awareness of the need to prepare for disasters.

### **Disseminating and utilizing the experience gained and lessons learned from the earthquake**

In the area stricken by the Great Hanshin Awaji earthquake, an international verification of the initiatives comprising the creative reconstruction following the disaster was held in the fifth year after the event. We have now carried out an overall verification of the reconstruction decade in which we confirmed what has been achieved through the initiatives implemented over the last decade and what remains to be done, and we intend to pass on to future generations the lessons we have learned in this process.

It is, of course, our duty to disseminate this precious experience and these precious lessons throughout Japan and the wider world. But what is even more important is that the new systems and frameworks born of this experience and these lessons are made manifest in concrete form and propagated. It is also vital that, following on from the verification, comprehensive research on major earthquakes is carried out on an in depth basis, and that the findings of this research are put to good use in disaster mitigation and reconstruction with regard to large scale disasters likely to occur in the future. This is our duty and our mission as a region which experienced a major earthquake.

### **Ongoing initiatives to ensure that January 17 shall never be forgotten**

January 17, the date of the Great Hanshin Awaji Earthquake, has been designated as Disaster Management Volunteer Day. The date is also treated as a special day in the locality of the disaster site, and through the work of the Disaster Reduction and Human Renovation Institution and initiatives to ensure that January 17 shall never be forgotten, we must tirelessly publicize the experience gained and lessons learned from the earthquake, sharing it with the rest of Japan and the rest of the world, and with the generations who will live after us.

## 4. OVERVIEW OF VERIFICATION AND RECOMMENDATIONS FOR EACH TOPIC

### 1. Overall Verification

- 1-1 The Reconstruction Overall: An Overview of the Reconstruction in its Entirety  
(Taketoshi Nojiri, Chairperson, 21st Century Research Organization for Human Care (21ROHC))
- 1-2 Reconstruction Systems: Systems for Implementing the Reconstruction  
(Shigeru Ito, Professor, Waseda University)
- 1-3 Reconstruction Systems: Legislative Provision for Reconstruction  
[ Masaharu Ebisu, Attorney (Hyogo-ken Bar Association) ]
- 1-4 Reconstruction Plans: Formulating and Implementing Plans  
(Kojiro Niino, Chairperson, Kobe Institute of Urban Research)
- 1-5 Promoting the Reconstruction: A Brand-New Social Framework  
(Atsushi Yamashita, Professor, Doshisha University)
- 1-6 Promoting the Reconstruction: Addressing Common Tasks in Policy Implementation  
(Katsuya Yamori, Associate Professor, Disaster Prevention Research Institute, Kyoto University)
- 1-7 Implementing the Reconstruction: Systems for Information Dissemination and Consultation  
(Kazufumi Yamaguchi, Standing Director, (NPO) Hyogo Life Community Research Centre)
- 1-8 Reconstruction Funds: Securing Financial Resources for Reconstruction  
(Toshihiko Hayashi, Professor, University of the Air)

### 2. Health and Welfare

- 2-1 Initiatives in Disaster Emergency Medicine  
(Takashi Ukai, Senior Consultant, Hyogo Emergency Medical Center )
- 2-2 Initiatives in Nursing Care and Welfare to Protect the Lives and Health of Those in Greatest Need of Assistance  
(Aiko Yamamoto, Professor, University of Hyogo)
- 2-3 Promotion of Mental Health Care/Emotional Support  
(Hisao Nakai, Executive Director, Hyogo Institute for Traumatic Stress)
- 2-4 Promotion of Health and Positive Living for the Elderly  
(Keiko Chikata, President, Hyogo Nursing Association)
- 2-5 Development of an Elder Watch System  
(Ichiro Matsuhara, Kansai University)
- 2-6 Methods of Assisting Victims  
(Toshiki Jinushi, Professor, Graduate School, Kobe University)
- 2-7 Promotion of Community Building  
(Shigeo Tatsuki, Professor, Doshisha University)
- 2-8 Initiatives in Housing Reconstruction  
(Mitsuo Takada, Professor, Graduate School, Kyoto University)
- 2-9 Initiatives in Disaster Reconstruction Public Housing  
(Mieko Hinokidani, Associate Professor, Graduate School, Osaka City University)
- 2-10 Initiatives Concerning New Styles of Living  
(Ikuko Koyabe, Professor, Japan Women's University)
- 2-11 Urban Planning Incorporating Universal Design  
(Reiko Ichikawa, Managing Director, Social Welfare Corporation Amagasaki Roujin Fukushikai)

### 3. Society and Culture

- 3-1 Participation and Cooperation of Hyogo Prefecture Residents  
(Yasuo Konishi, Professor, Research Institution for Economics and Business Administration, Kobe University)
- 3-2 New Disaster Education and Disaster Preparedness at Schools  
(Akira Tokuyama, President, Fuji Tokoha University)
- 3-3 Emotional Support for Children Affected by Disasters  
(Reiko Baden, Vice President, Hyogo Society of Certified Clinical Psychologist)
- 3-4 The Promotion of Cultural Activities  
(Nobuyuki Hata, Professor, Kyoto Tachibana Women's University)
- 3-5 Cooperation from the Viewpoints of Both Men and Women  
(Keiko Furuyama, Ex-Editorial Writer, Kobe Shimbun)
- 3-6 Programmes for Youth and Activities of Youth Groups  
(Junichiro Hayami, Standing Director, Children's Association of Hyogo Prefecture)
- 3-7 Establishment of a Support System for Foreign Residents and Globalization of the Local Community  
(Yasuko Takezawa, Assistant Professor, Institute for Research in Humanities, Kyoto University)
- 3-8 Creating a Society with Greater International Involvement, through International Exchanges and Cooperation  
(Kentaro Serita, Professor, Aichi Gakuin University)

## 4. Industry and Employment

- 4-1 Revitalizing Small and Medium-sized Firms and Local Industry  
(Takayuki Satake, Professor, University of Hyogo)
- 4-2 Revitalizing Shopping Arcades and Retail Markets  
(Michio Tanaka, Professor, Osaka Gakuin University)
- 4-3 Activities for the Promotion of Tourism  
(Nobuji Kitano, Professor, Hannan University)
- 4-4 Promotion of New Industries and Support for Growth Industries  
(Shigeki Sadato, Professor, Kwansei Gakuin University)
- 4-5 Encouraging Siting of Domestic and Overseas Companies  
(Yoshimasa Kato, Professor, Executive manager, Institute of Economics and Business Management, University of Hyogo)
- 4-6 Measures to Boost Employment Opportunities, such as Job Creation through Diversified Working Styles  
(Chiyoko Shimosaki, Professor, Graduate School, Osaka City University)
- 4-7 Revitalization of the Agriculture, Forestry and Fishing Industries to Sustain a Reliable Food Supply  
(Kazunori Uchida, Professor, Kobe University)
- 4-8 Promotion of Interaction between Urban Centres and Rural Communities  
(Shigeru Yasuda, Professor Emeritus, Kobe University)

## 5. Disaster Reduction

- 5-1 Undertakings to Improve the Disaster Reduction Capacity of the Hyogo Prefectural Region (Prefecture, City and Town)  
(Yoshiteru Murosaki, President, National Research Institute of Fire and Disaster)
- 5-2 Wide-Area Disaster Reduction System Development Activities  
(Yoshiaki Kawata, Director, Research Center for Disaster Reduction Systems, DPRI, Kyoto University)
- 5-3 Training of Disaster Reduction Personnel  
(Haruo Hayashi, Professor, Disaster Prevention Research Institute, Kyoto University)
- 5-4 Support for Voluntary Disaster Management Organisations  
(Takashi Komura, Instructor, Fuji Tokoha University)
- 5-5 Support for Disaster Management Volunteers  
(Toshiaki Tanaka, President, Nippon Volunteer Network Active in Disaster)
- 5-6 Promotion of Earthquake-Proof Houses and Buildings  
(Kimiro Meguro, Professor, Institute of Industrial Science, The University of Tokyo)
- 5-7 International Disaster Reduction Cooperation Activities  
(Hideki Kaji, Professor, Keio University)
- 5-8 Efforts for the Foundation of Comprehensive Security Systems for the Japanese People  
(Osamu Hiroi, Professor, Graduate School, The University of Tokyo)

## 6. Urban Development and Community Building

- 6-1 Reconstruction and Community-building Work  
(Kohei Doi, Professor, Daito Bunka University)
- 6-2 Reconstruction and the Urban Environmental Improvement Project  
(Ikuo Kobayashi, President, Urban Planning Network for The Citizens of The Great Hanshin-Awaji Earthquake Reconstruction)
- 6-3 The Formation of New Urban Cores  
(Yukihiro Kadono, Professor, Mukogawa Women's University)
- 6-4 The Restoration of Town Landscapes  
(Kunihiro Narumi, Professor, Graduate School, Osaka University)
- 6-5 The Creation of Greenery and Improvement of Park Facilities in Urban Districts  
(Yohei Saito, Professor, Institute of Natural and Environmental Sciences, University of Hyogo)
- 6-6 Preserving and Improving a Rich Natural Environment  
(Isao Nakase, Professor, Institute of Natural and Environmental Sciences, University of Hyogo)
- 6-7 Creating a Recycling-Oriented Society  
(Yasuhiko Wada, Professor, Kansai University)
- 6-8 Infrastructure Improvements for Roads, Harbor Facilities, Railways and Airports  
(Hideo Moritsu, Professor, University of Marketing and Distribution Sciences)
- 6-9 Reinforcement of Rivers, the Seaside, Dams and Landslide Prevention Barriers  
(Takashi Okimura, Professor, Research Center for Urban Safety and Security, Kobe University)
- 6-10 Improving Water and Sewage, Electricity, Gas and the Information and Communications Facilities  
(Shiro Takada, Professor, Kobe University)
- 6-11 Improvements to the Entire Social Infrastructure  
(Kiyoshi Kobayashi, Professor, Graduate School, Kyoto University)



## 1. Overall Verification

### 1-1 The Reconstruction Overall: An Overview of the Reconstruction in its Entirety

(Panel member responsible for verification: Taketoshi Nojiri, Chairperson, 21st Century Research Organization for Human Care (21ROHC))

#### (1) Achievements and Future Tasks

The reconstruction following the Great Hanshin-Awaji Earthquake aims not merely to restore the previous status quo but to carry out a creative reconstruction, adopting a new perspective from which to restore the stricken region. The creation of systems of participatory democracy in forms such as activities by volunteers, the Society Creation Conferences and voluntary disaster management organisations has been methodically pursued, but other proposals, such as more effective utilization of underground space, have not been put into practice. Support for the autonomy of elderly disaster victims, and the restoration of the vitality of urban communities, are among the tasks that remain to be addressed.

#### (2) Lessons Learned from the Reconstruction Process

- a. The importance of creating a "symbiotic society"
- b. The importance of establishing and expanding new systems and mechanisms, as well as the community, to underpin a mature society
- c. The importance of ensuring institutional security for the concept of reconstruction
- d. The importance of reconstruction spearheaded by the regional community
- e. The importance of creating a society where people can live safely and securely
- f. The importance of cultivating "disaster culture"

#### (3) Proposals

##### a. Establishing the date as a special "Citizens' Safety Day": Ongoing initiatives to ensure that January 17 shall never be forgotten

As part of efforts to ensure that the disaster date of January 17th will always be remembered, it has been designated by ordinance as "Citizen's Safety Day" at the prefectural level. Furthermore, the lessons learned from the disaster must be passed on and disseminated through initiatives to ensure that January 17 shall never be forgotten, using stable financial resources, such as funds, to implement Memorial Walk projects and create awards schemes to keep that fateful date permanently in the public mind.

##### b. Making our lifestyles more disaster-resistant

In order to build a truly disaster-resistant society reflecting the lessons learned from the earthquake, comprehensive initiatives must be implemented in collaboration with public administration, local organisations, NPOs, NGOs and other organisations in order to share information and make people's whole lifestyles more disaster-resistant. Examples include:

- (i) Establishing a system for sharing disaster-reduction information between governmental, community-led and other organisations, so that vital information can be delivered rapidly and reliably to wherever it is needed
- (ii) Developing and expanding an effective curriculum for education and training in disaster-reduction into school education and lifelong learning
- (iii) Carrying out "safety and security audits" on the daily lives of individuals and running campaigns where improvement targets are set by voluntary disaster management organisations and the like.

##### c. The formulation of a strategy for building a civilization fit for the 21<sup>st</sup> century

The Great Hanshin-Awaji Earthquake threw into stark relief the fragility of 20<sup>th</sup> century material civilization, science and technology. In view of this, and of our increased awareness of the current problems in mankind's relationship with nature and in the individual's relationship with society, we need to face up to the foreseeable shape of things to come, notably the reintegration of ethics into science & technology, and the creation of sustainable regional communities. In parallel, with this, we need to overcome the fragility of modern culture, and forge ahead with the creation of a strategy for building a civilization fit for the 21<sup>st</sup> century, firmly predicated on the primacy of human dignity. Consideration also needs to be given to the formation of a comprehensive and effective think-tank.

## 1-2 Reconstruction Systems: Systems for Implementing the Reconstruction

(Panel member responsible for verification: Shigeru Ito, Professor, Waseda University)

### (1) Achievements and Future Tasks

#### a. Reconstruction spearheaded by the regional community

As is evident from the adoption of the Hanshin-Awaji Restoration Committee system, for instance, there was a framework in place whereby the local community formulates its own reconstruction plan, which is then supported by the government. However, the special legislation proposed by Hyogo with regard to the post-earthquake reconstruction has failed to materialize.

#### b. Coordination of reconstruction implementation systems at the governmental, prefectural and municipal levels

The national government established the Great Hanshin-Awaji Earthquake Reconstruction Headquarters, while the prefectural and municipal governments established their own reconstruction headquarters. In addition to this, short-, medium- and long-term support personnel were dispatched by other prefectural governments. However, at the time of the Great Hanshin-Awaji Earthquake, no advance preparations had been carried out regarding a reconstruction system against the eventuality of a large-scale disaster.

#### c. A system for liaison between the central government and the regional community

The central government established a local headquarters, and liaison between the central government and the regional community was effected through consultative meetings between the central government, the prefectural government and the city of Kobe, and through the establishment of council for liaison with the Kobe Chamber of Commerce and Industry, among other things. However, the central government's local headquarters needs to set up a system to enable things to be handled more dynamically.

#### d. Systems for liaison between the public administration, related bodies, groups and industry

The regional community as a whole was involved in planning the reconstruction, and the opinions of the prefectural residents were canvassed through the Hanshin-Awaji Great Earthquake Hyogo Congress for Rescue and Restoration and other forums. The Hyogo Forum for Advocating Individual Recovery created a system for bringing together the public administration and the disaster victims, while initiatives such as the "new public sphere" and "public participation and cooperation" were rolled out by the Phoenix Citizens' Recovery Network. However, more needs to be done to improve the dialog with disaster victims' groups.

### (2) Proposals

#### a. Standardization of reconstruction systems and organisations at the time of large-scale disasters, and the prior establishment of systems

Advance system preparation needs to be carried out so that reconstruction activities can be launched quickly in the event of a large-scale disaster. Establishing municipal regulations regarding the setting up of reconstruction headquarters organisations is an obvious example.

#### b. Improving the constitution of disaster-reduction organisations

In view of the danger of large-scale disasters occurring in the future, more efficient mechanisms for the running of disaster-reduction systems need to be considered, so that a comprehensive response can be mounted, with all government agencies manifesting their full powers to an even greater extent.

Further, as emergency response measures, it is effective to dispatch large numbers of personnel to assist over wide areas and to increase staff at stricken local government offices on a provisional basis. In order to achieve this, we should consider compiling an assistance manual covering the topics of personnel dispatch, procedures for increasing personnel, and disaster management.

#### c. Assessing needs on a here-and-now basis, and establishing a measures proposal system

Systems for assessing needs on a here-and-now basis, and systems for proposing measures, must be established. This could be done by having the relevant authority-endowed government agencies set up local coordination offices in the event of a large-scale disaster, and setting up third-party bodies to assess on-the-spot needs in the prefecture, and propose appropriate measures.

#### d. Forming a comprehensive and practical research body focusing on building a civilization fit for the 21<sup>st</sup> centuryd.

Comprehensive research findings appropriate to a mature society and 21st-century civilization, based on the experience gained and lessons learned from the earthquake, should be disseminated. In order to accomplish this, we need to consider formulating a policy whereby existing organisations can accomplish their work to the fullest by creating a regional think tank occupying a key role.

#### e. Providing support for the stricken region through internationally-coordinated activities

It is desirable that mechanisms are built to enhance international cooperation systems, such as the International Disaster Reduction and Reconstruction Cooperation Centre (tentative name), for the reconstruction of stricken regions, and to support the creation of disaster education systems in countries stricken by disaster.

We should also create basic systems to assist countries stricken by disaster via United Nations agencies, etc., including facilitating the setup of disaster reduction education systems in stricken countries.

### 1-3 Reconstruction Systems: Legislative Provision for Reconstruction

[ Panel member responsible for verification: Masaharu Ebisu, Attorney (Hyogo-ken Bar Association) ]

#### (1) Achievements and Future Tasks

##### a. Legislative provision in the reconstruction process

Measures taken to promote a speedy recovery included the review of the Disaster Countermeasures Basic Act, the public funding of rubble-clearing and special legislation. The Act Concerning Support for Reconstructing Livelihoods of Disaster Victims was implemented and expanded. On the other hand, legislation prompted by the earthquake has been confined to legislative measures within the framework of existing laws.

##### b. A legal framework in which reconstruction spearheaded by the regional community is supported by the central government

Efforts have been made towards building a reconstruction system spearheaded by the regional community, such as the establishment of the Hanshin-Awaji Restoration Committee. However, the building of a legal framework whereby reconstruction spearheaded by the regional community is supported by the central government, through measures such as the proposed Reconstruction Basic Act, for example, has proved problematic.

##### c. Institutional regulation of the status of support systems

Although finely-articulated support has been rolled out through the use of the reconstruction fund and other moneys, the agenda was not fully clarified at the initial stage, and some support projects dragged on for a long time due to the spotty, inefficient manner in which they were conducted.

#### (2) Proposals

##### a. Strengthening inspection of the Disaster Countermeasures Basic Act and other measures

Further improvements need to be made for disaster preparedness with a view toward clarifying the authority of the director of disaster measures headquarters and the specific coordination between organisations for greater effectiveness, enhancing the performance of local disaster reduction councils during normal times, and giving appropriate consideration to the possibility of large-scale disasters.

##### b. Review of arrangements for disaster relief

Arrangements for disaster relief needs to be reviewed in the light of the expansion of the scope of the discretion of prefectural governors regarding the application of the Disaster Relief Law, and of the roll-out of legislation such as the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims, among other things.

##### c. Curtailment of civil rights in the reconstruction

In order to promote reconstruction and urban development, a certain degree of curtailment of civil rights (property rights), and constraints with regard to land lease rights, tenant's rights and other rights of use, need to be recognised.

##### d. Consideration of the institutionalization of special measures in large-scale disasters

Despite the existence of permanent legislation such as the Special Measures for Reconstruction of Urban Areas Stricken by Disaster, much of this legislation was enacted on an ad-hoc, stopgap basis to accommodate the exceptional case of the Great Hanshin-Awaji Earthquake. With regard to matters such as the use of public funds for rubble-clearing, which are likely to be necessary again in the event of future disasters, permanent legislation needs to be enacted.

##### e. Ensuring institutional security for reconstruction

Now that the concept of "reconstruction" has been clearly defined legally, institutional security for reconstruction needs to be ensured, based on the model of reconstruction spearheaded by the regional community, by enacting the Reconstruction Basic Act.

##### f. Presentation of reconstruction measures in "package form"

Public reconstruction measures should be bundled together for presentation in "package form," ensuring that the full diverse agenda is clear from the outset. However, this should be done only on the condition that measures are taken to share information with disaster victims suffering adversity, and to provide them with support.

## 1-4 Reconstruction Plans: Formulating and Implementing Plans

(Panel member responsible for verification: Kojiro Niino, Chairperson, Kobe Institute of Urban Research)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks in the planning process

The framework for the planning of a reconstruction spearheaded by the regional community has been put forward, based on the proposal made by the Hanshin-Awaji Restoration Committee. Despite the difficulties presented by the race against time, a plan was formulated in which the concept of a creative reconstruction was made clear. Preparatory measures for the reconstruction now need to be stepped up so that these measures can be implemented more swiftly.

#### b. Achievements and future tasks in the implementation process

The implementation plan has been followed up on an ongoing basis, and an auxiliary support framework for reconstruction planning has been provided in forms such as the "participation and cooperation" initiative and the Hyogo Forum for Advocating Individual Recovery. Tasks for the future include introducing techniques for more practical implementation of plans, improving coordination, and clarifying the allocation of roles, between the prefectural and municipal governments regarding the follow-up of the plan in municipal communities.

### (2) Proposals

#### a. Formulation and implementation of reconstruction plans based on liaison and cooperation between diverse bodies

A system to facilitate liaison and cooperation between diverse bodies involved in implementing the reconstruction plans such as public administration, disaster victims' groups, industry, NPOs and NGOs, et cetera needs to be created.

#### b. Summarizing of what has been attained over the last decade, and consideration of what remains to be done when the reconstruction plan has been completed

Local government offices in the stricken region should continue on an open-ended basis with initiatives connected with making use of the experience gained and lessons learned from the Great Hanshin-Awaji Earthquake, addressing reconstruction tasks remaining, establishing systems to support Japan's mature society, and passing on and disseminating the experience gained and lessons learned from the earthquake.

#### c. Formulation of a "Reconstruction Preparation Plan" in anticipation of large-scale disasters such as the Tonankai and Nankai Earthquake

Besides "sounding the alarm bell" to ensure that no local public body anywhere in Japan fails to draw up its own reconstruction preparation strategy, Hyogo Prefectural Government and the municipal authorities in the stricken region should include in their remit the formulation of a "Reconstruction Preparation Plan" in anticipation of large-scale disasters such as Tonankai and Nankai Earthquake likely to occur in the future, and should start work on spearhead initiatives.

#### d. The formulation and implementation of reconstruction plans at the time of a large-scale disaster

In addition to the adoption of the "concurrent method" when formulating reconstruction plans, the formulation of field-specific action programmes, and the establishment of policy-evaluation criteria enabling the formulation reconstruction plans to be followed up effectively, progress must be made in building systems facilitating liaison between prefectural and municipal governments.

#### e. Future steps and follow-up subsequent to completion of the reconstruction plan

Measures regarding reconstruction issues yet to be dealt with, pioneering measures ensuring the popularization and long-term viability of a system that supports the mature society, and measures to pass on and disseminate experience and lessons learned from the earthquake should all be propagated and further developed even after the restoration decade.

In addition to considering the necessary policies and the current status of the above measures, a follow-up organisation of specialists should be created to follow up on the Restoration Decade Overall Verification and Recommendations. This organisation should also have an outreach function similar to that of the Hyogo Forum for Advocating Individual Recovery.

## **1-5 Promoting the Reconstruction: A Brand-New Social Framework**

(Panel member responsible for verification: Atsushi Yamashita, Professor, Doshisha University)

### **(1) Achievements and Future Tasks**

#### **a. The emergence of new protagonists in community building**

While many volunteers rushed to the disaster-stricken region and engaged in various support activities, the creation of systems to accept them and coordinate their activities remains to be addressed. A wide variety of supports were also received, including indirect ones, such as artistic and cultural activities and information provision. Meanwhile, the need for mutual assistance in regional communities has, so to speak, been addressed spontaneously, and close-knit networks have grown up between volunteer groups and individuals, leading to the formation of human relationships which continue to this day.

#### **b. Transformation of administrative techniques in response to today's more autonomous civil society**

The Hyogo Forum for Advocating Individual Recovery has put disaster victims in touch with the public administration, facilitating a swift, organic, cross-sectoral response to problems, and making it possible for proposals to be put into practice. In this sense, a framework was implemented facilitating cooperation between disaster victims, the public administration, specialists and other parties. Organisations such as Phoenix Citizens' Recovery Network have also involved the prefectural residents in their activities, realizing a "new public sphere," in which various groups play an active role in the reconstruction of the stricken region. Our future task is to further develop these innovative attempts and the new framework initiated and created by these groups until they become a lasting system within general society.

### **(2) Proposals**

#### **a. Building of a social system conducive to the fostering of NPOs and NGOs**

Funds should be provided for the establishment and independence of NPOs/NGOs, and premises should be provided where they can base their activities. Support should be provided for their organisational reinforcement, in forms such as management and human resources development. An environment enabling these groups to attract outstanding personnel should be created. Active sharing of information on the groups' activities with municipal citizens should be promoted, and disaster information should be passed on to the groups at an early stage. Support should be provided for initiatives in which citizens are involved in the implementation of measures and projects carried out by these groups.

#### **b. Apportionment of roles between public administration and intermediary support organisations**

In fields where direct support by the public administration is less effective and efficient than support provided indirectly through on-the-spot intermediary support organisations, the apportionment of roles must be proactively decided.

#### **c. Revitalizing the regional community**

Initiatives spearheaded by residents of the stricken region should not end up as transient disaster-reconstruction projects, but should instead be expanded into initiatives whereby the regional community takes the lead in resolving its own general issues.

#### **d. Increasing the public involvement of the regional community**

Regional organisations should promote interactions and develop closer ties with NPOs and NGOs to facilitate information disclosure and ensure democratic management, thus serving local residents better.

#### **e. Designing public policy and projects that encourage disaster victims to act based on their own judgment and sense of responsibility**

Subsidy and other support programmes should be designed in a manner that encourages local residents to act based on their own judgment and sense of responsibility.

#### **f. The incorporation of outreach and proposal functions into the remit of ordinary councils and committees, as standard practice**

Outreach and advocacy functions need to be incorporated into the normal process of policy-making, so that policy-making bodies take on something of the nature of a support forum, facilitating the participation and cooperation of ordinary citizens.

#### **g. Promotion of mutual understanding between the public administration and NPOs/NGOs**

Mechanisms must be created to enable the public administration and NPOs/NGOs to gain an even deeper understanding of one another's perceptions, way of thinking, and ideas, and to help these two sides to share information, cooperate in policies and projects, and be creative.

#### **h. Expansion and strengthening of the practical power of prefectural residents' movements**

It is necessary to create systems with solid administrative and financial bases, similar to the Phoenix Citizens' Recovery Network, which has provided extensive support for the stricken region, and to develop an extensive network involving not only regional organisations but also NPOs and NGOs.

## **1-6 Promoting the Reconstruction: Addressing Common Tasks in Policy Implementation**

(Panel member responsible for verification: Katsuya Yamori, Associate Professor, Disaster Prevention Research Institute, Kyoto University)

### **(1) Achievements and Future Tasks**

#### **a. Setting conditions for the targeting of reconstruction promotion measures**

Needs of disaster victims vary on a number of counts, including the degree of property damage, age, income, location of residence (temporary housing, reconstruction housing or other housing, within or outside the prefecture), just to name a few. Therefore, appropriate requirements have had to be set for reconstruction measures, to ensure that support goes to the disaster victims who need it the most. As a result, some "mid-range" disaster victims, who have received limited support because of their age and income, have been placed in unsatisfactory accommodation, and have found themselves in economic difficulties: consideration needs to be given to support for disaster victims in this group. Due to the difficulty of assessing the situation regarding disaster victims outside Hyogo Prefecture, and other factors, implementation of measures has been delayed. Another problem is that disaster victims living in the prefecture receive a special public housing rent reduction, while those living outside the prefecture do not.

#### **b. Phased expansion of support measures (phased relaxation of conditions for support eligibility)**

In the course of the long reconstruction process, some aspects of various reconstruction measures have been gradually expanded with the passage of time. From the outset, proposals were made for the further relaxation of the conditions for eligibility for the Rent Reduction Programme for Private Rental Housing and similar schemes. However, as the provision of reconstruction housing was rolled out, it was found possible to tighten the conditions in a phased manner, instead.

### **(2) Proposals**

#### **a. A radical review of support eligibility conditions**

In order to provide adequate support for "mid-range" disaster victims, who play a crucial role in the reconstruction, loss of livelihood (unemployment) and reduction in income need to be taken into consideration when setting the conditions for support eligibility. This "mid-range" group tend to have heavy financial commitments in terms of mortgages, school fees and so on, and compared to other generations, they have less leeway in terms of their household finances. Consideration should therefore be given to putting them on the same footing as the elderly, and treating them generously, especially in terms of economic support.

#### **b. Creation of a mechanism for training expert professionals in residential property damage assessment**

To facilitate swift, objective and fair assessment of residential property damage, professionals with specialist training in damage assessment need to be fostered. A mechanism also needs to be established whereby, in the event of a large-scale disaster, expert professionals are dispatched to the stricken region, on a basis that transcends municipal boundaries. As things stand, damage assessment procedures are extremely complicated, so the system needs to be reformed so that the local government office employees who carry out the actual assessments can perform them more easily.

#### **c. Creation of a mechanism for providing nationwide support for evacuees over wide areas**

A mechanism needs to be created whereby, in the event of a large-scale, wide-area disaster, the local government offices of the region to which the evacuees are sent can receive information from the local government offices of the stricken area. The handling of the period of temporary public housing and the countermeasures for subsequent rent reduction also need to be covered by preparing a centrally-coordinated support system covering the whole of Japan and envisaging evacuees distributed over a wide area.

#### **d. Promotion of independence by presentation in "package form" and phased retrenchment of support strategies**

To help disaster victims retain their independence, support strategies accommodating all the processes of the reconstruction should be presented in "package form." The support provided should be designed to guide the recipients smoothly towards independence, by, for example, phased retrenchment of the subsidy.

## 1-7 Implementing the Reconstruction: Systems for Information Dissemination and Consultation

(Panel member responsible for verification: Kazufumi Yamaguchi, Standing Director, (NPO) Hyogo Life Community Research Centre)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks in information dissemination

In the immediate wake of the earthquake, it was nearly impossible to organise a system whereby information could be collected and disseminated in a timely manner due to the paralysis of core functions of government administrative offices and the breakdown of communications and road transport networks. Further, because of widespread damage to mass media functions, assessing the overall situation proved complicated.

In the initial response period, the provision of detailed information about daily life began with the organising of emergency refugee patrol troops, the issuing of "disaster news" bulletins, the setting up of Reconstruction Report FM Phoenix Japan's first emergency FM radio station dedicated to broadcasting information about the disaster and NHK's setting up of an emergency radio studio in Kobe City Hall, among other measures.

In the reconstruction process, the low-tech method of word-of-mouth was used by Phoenix Supporters and other support personnel to disseminate information to disaster victims, and by volunteers to disseminate information to residents of emergency temporary housing. An appeal was made for a national security system in response to the earthquake damage, and 25 million signatures were collected. The "temperature difference" between the stricken region and the rest of Japan widened as time went on.

#### b. Achievements and future tasks in consultation systems

The day after the earthquake, the police headquarters set up a missing persons consultation office, and a 24-hour information centre was set up on January 24. March 15 saw the establishment of the Hyogo Prefecture Disaster Relief Consultation Center, which combined a range of consultation functions, and fielded roughly 130,000 consultations from disaster victims. However, although the needs of the disaster victims and the issues they raised were dealt with, little seems to have been done in the way of analysing the content of the consultations and factoring it into policy.

#### c. Enhancement of the ability to collect, communicate, and share disaster information

The typhoons and other natural disasters that hit Japan during 2004 revealed the absence of mechanisms for communicating disaster information in a timely manner. This points to the necessity of producing hazard maps and otherwise providing hazard information on an everyday basis so that residents will recognise and understand the vulnerability of their local community. Also, we should consider ways and means to promptly provide disaster information in times of emergency, especially to those most likely to be most affected by disasters. In addition, we should prepare for the anticipated onslaught of serious tsunamis caused by the Tonankai and Nankai Earthquakes and other major disasters in the future, and develop systems to issue tsunami warnings and information in a timely manner to local residents, as well as to tourists visiting the seafloor areas.

### (2) Proposals

#### a. Creating a mechanism for assessing overall damage in a timely manner

In order to properly assess the extent of damage in a timely manner in times of disaster, a mechanism for mutual assistance between neighbouring prefectures should be set up, and prefectural-level interaction with municipalities should be agreed upon ahead of time.

#### b. Securing multiple information transmission channels in normal times

It is important to organise multiple information channels when the situation is normal, so that vital information can be disseminated to people at every stage of a disaster, from the emergency countermeasures to the reconstruction.

#### c. Utilizing "people-centred" information transmission channels

A network should be set up, with the cooperation of relevant organisations, etc., to facilitate a locally-based people-to-people information sharing system.

#### d. Addressing information shortfall in normal times with regard to information dissemination in times of disaster

It is necessary to address information shortfall even in normal times by prioritising the dissemination of information to those whose access is most mitigated.

#### e. Developing a mechanism to share disaster information among supporters

It is often the case that people who are appointed or commissioned by the government to support disaster victims who are in emergency temporary housing or other places cannot fully serve their most important purpose, that of protecting life and health of these victims, due to the obligations regarding secrecy imposed upon them. We should devise a mechanism to allow them to share personal information through delimiting areas and times for such information sharing.

#### f. Creation of a system enabling issues raised in consultations to lead to the proposal of measures

Consultation work provides important opportunities to find out about the complaints and circumstances of the prefectural residents on a daily basis. Therefore, a system should be created whereby market-research style techniques are used to analyze issues raised in consultations, and the results are used to formulate proposals for measures.

## 1-8 Restoration Funds: Securing Funding for Reconstruction

(Panel member responsible for verification: Toshihiko Hayashi, Professor, University of the Air)

### (1) Achievements and Future Tasks

#### a. An overview of financing of reconstruction

According to an estimate based on the prefectural government's economic calculations, for the 5-year period from fiscal year 1994 to fiscal year 1998, in which the reconstruction activities were concentrated, if the extra amount added on to the total demand within the prefecture, in excess of the figure for the period before FY 1994, is regarded as reconstruction demand, then its size is approximately 7.7 trillion yen. However, as a total calculated amount, the scale of financing necessary for restoration works out to be 14.4 trillion yen. If restoration funds are broken down into its private-sector and public-sector components, their respective proportions are 7:3. 46% of reconstruction-related investment was supplied by the construction industry within the prefecture, but due to the reduction in the productivity of the wholesale and retail businesses making up 60% of the prefecture's GDP, approximately 90% of the reconstruction demand originating within the prefecture was diverted outside the prefecture.

#### b. The public administration's handling of reconstruction demand

The reconstruction budgeting by the central, prefectural and municipal governments initially focused on the recovery of infrastructure of various kinds, the recovery of the Port of Kobe, and construction recovery such as the building of housing and support for rebuilding homes. It subsequently shifted its priorities to industrial reconstruction, rebuilding lives, disaster countermeasures, and then to addressing "softer" aspects of the recovery.

#### c. The effect on the finances of local government offices in the stricken region

The local government offices in the stricken region were obliged to issue large amounts of local government bonds. Now, ten years on, the extra issue of local government bonds continues to have a strong effect on the local government offices in the stricken region.

#### d. The Great Hanshin-Awaji Earthquake Reconstruction Foundation

In emulation of the Unzendake Disaster Countermeasures Foundation the Reconstruction Foundation was established just two and half months after the earthquake occurred. The fund amassed 900 billion yen along the way, and the return on its assets to date, which is approximately 350 billion yen, has been used for Foundation projects, acting as a qualitative and quantitative supplement to public funding.

### (2) Proposals

#### a. Strengthening the region's financial base

The proportion of funding for reconstruction borne by the private and public sectors respectively was 7:3, so the strengthening of the region's financial base, essentially by industrial measures designed to reinforce the private sector, should be carried out.

#### b. The need for policy options in times of emergency to be different from those applying in normal times

In order to shorten the reconstruction period in the event of an emergency, consideration needs to be given to approaches to strategic investment, such as setting priorities for public funding for reconstruction that differ from those applying in normal times.

#### c. Development of a system for early estimation of the economic damage caused by disasters

It is desirable that system for early estimation of the economic damage caused by disasters is developed, in order to make a rough estimate of the scale of the economic damage in the early stages, before on-the-spot surveys of the disaster zone become feasible.

#### d. Securing the region's supply capacity

It is important that restoration funds are used in normal times to make strategic provisions for improving the region's supply capacity.

#### e. Ensuring sufficient flexibility and discretion in reconstruction budget implementation

In the event of a disaster, there needs to be room for flexibility and discretion in operation and budget implementation.

#### f. Strategies for financial support for local government offices in the stricken region

Consideration needs to be given to new funding measures to ensure that local government offices in the stricken region do not struggle to meet their financial commitments in the subsequent fiscal year.

#### g. Institutionalizing reconstruction foundations

Legal measures need to be put in place to provide a permanently institutionalized framework, so that the establishment of a reconstruction foundation can be handled responsively, rather than waiting for a reform of municipal bylaws.

#### h. Provision for large-scale disasters that could occur in the future

In readiness for large-scale disasters that could occur in the future, there is a foreseeable need for radical innovation in post-disaster reconstruction financing at a national level. We need to prepare for such disasters, envisaging scenarios where funds for restoration cannot be procured solely from the Japanese market, and giving consideration to large-scale funds procurement by means such as issuing foreign bonds.



## 2. Health and Welfare

### 2-1 Initiatives in Disaster Emergency Medicine

(Panel member responsible for verification: Takashi Ukai, Senior Consultant, Hyogo Emergency Medical Center and Director Emeritus, Hyogo Prefectural Nishinomiya Hospital)

#### (1) Achievements and Future Tasks

##### a. Achievements and future tasks in terms of disaster emergency medical systems

Learning from the lessons of the Great Hanshin-Awaji Earthquake, a wide-area disaster and emergency medical information system has been created and the Hyogo Emergency Medical Center established as a base for prefecture-wide disaster emergency medical care. In addition, certain hospitals have been pinpointed as base hospitals for disaster medicine, and disaster medicine coordinators have also been designated. Arrangements for transport of patients in medical cars or emergency helicopters, the development of Regional Disaster Emergency Medicine Manual and the implementation of training for disaster medical staff are other initiatives that are underway in the field of disaster emergency medicine. In future these various initiatives should be fully developed, but questions as to their effectiveness remain.

##### b. Achievements and future tasks in terms of systems for providing medical supplies

In order to secure the supply of medical products during a disaster, the prefectural government has established a system for provision of medical supplies by clarifying the division of roles between the government, civil organisations, medical product sales companies and others. It has also directed all medical institutions to stockpile medical supplies, and distributed portable medical supplies to each base hospital for disaster medicine for use by emergency relief groups. In Hyogo Prefecture, systems of both circulating reserves and direct reserves are in use together. This method is highly efficient economically, but the question remains as to what level of reserves should be maintained in order to withstand a widespread future disaster such as the predicted Tonankai and Nankai Earthquake. The issue of how to proceed here is yet to be resolved.

#### (2) Proposals

##### a. Enhancement of medical information system for large-scale disasters and emergencies

Even more thorough training should be given in system operating methods, with the aim of ensuring proficiency in operating the system. In addition, a wireless communication network should be developed to connect base hospitals for disaster medicine with main fire services and local administrations, in readiness for situations in which mobile phones and land lines cannot be used.

##### b. Enhancement of functions of base hospitals during disasters

As well as proceeding with work on preparing facilities such as earthquake-proof construction for base hospitals, it will be necessary to produce practical criteria for activities, strengthen collaboration between base hospitals, organise a Hyogo-version DMAT (Disaster Medical Assistance Team), and strengthen the role of each base hospital within its local area.

##### c. Systems for providing medical supplies

Different sorts of supplies will be needed depending on the type of disaster, and product expiration dates also impose restrictions. This means that it is impracticable to stockpile large reserves of medical supplies, and instead a basic policy of contracting for emergency shipments with manufacturers or wholesale suppliers is unavoidable. However, excessive concentration in the hands of a few wholesale medical suppliers and over-sized distribution centres has rather increased vulnerability to disaster, and it is necessary to encourage networking services with other companies.

## **2-2 Initiatives in Nursing Care and Welfare to Protect the Lives and Health of Those in Greatest Need of Assistance**

(Panel member responsible for verification: Aiko Yamamoto, Professor, College of Nursing Art and Science, University of Hyogo)

### **(1) Successes and Future Tasks**

#### **a. Support for communication with the hearing impaired and others (those vulnerable to the so-called "information shortfall")**

To ensure the availability of and dispatch sign-language interpreters, the Hyogo Sign-Language Interpretation Centre was established as a means of developing a support system for communication with people who are hearing impaired. It also trains emergency disaster-relief specialist volunteers (sign-language interpreters). In April 2005 an Information Centre for the Hearing Impaired is scheduled to open that will assume the function of a base for relief activities during disasters.

One issue for the future is that of safeguarding personal information. As the organisations involved are not highly organized, a mechanism will be necessary to enable a list of those requiring assistance to be compiled with the consent of the people concerned and held in common.

#### **b. Assistance for those suffering from intractable diseases who are highly reliant on medical care**

The regional disaster emergency medicine manual has been created, and the production of a manual of healthcare guidance for patients with intractable diseases has also helped in the preparation of lists of patients requiring priority assistance during emergencies by the prefectural health and welfare office. The launch of the Medical Network Assistance Project for Patients with Intractable Psychiatric Illnesses is also contributing to progress in the development of a system for confirming the safety of these patients and ensuring their appropriate medical care.

As an issue for the future, it will be necessary to clarify practical measures for the coordination of information provision and sharing by providers of medical equipment to related institutions, including those from different types of industries.

#### **c. Support for self care by patients with chronic illnesses**

The amendment of the Medical Care Law and revisions to the medical treatment payment system have meant that patients are now offered full information concerning their treatment and medication, paving the way for them to carry out their own self care.

Issues for the future are discrepancies in the levels of awareness of the importance of self care and difficulties in holding reserves of care products as a result of the shortening of prescription periods set out in the revisions to the medical treatment payment system. As well as promoting education, disaster preparedness must also include plans for developing a system of providing hygiene-related goods.

### **(2) Proposals**

#### **a. Creation of an emergency information system for the hearing impaired and others**

A system should be created for sending emergency information to the hearing impaired and others in need of such assistance that uses multiple means of transmission, such as e-mail to mobile phones, to ensure that emergency information reaches people reliably and answers are received in order to confirm their safety.

#### **b. Development of a disclosure system for patient information, and establishment of strategies for coordination**

Production of a shared list is needed in order to help patients who require assistance in emergencies. Such a list of people requiring assistance consists of personal information that should be obtained at the application counter of the department issuing physical disability identification booklets, certificates of entitlement to benefits as a sufferer of an intractable disease, and so on. A mechanism should be created whereby regional welfare organisations and volunteer groups, as well as local organisations and Minsei-iin (community volunteers), can be made fully aware of this information on a daily basis.

#### **c. Promotion of patient education to enable self care in emergencies**

Medical personnel, in collaboration with patient organisations, should promote patient education and awareness of the importance of primary self care.

## 2-3 Promotion of Mental Health Care/Emotional Support

(Panel member responsible for verification: Hisao Nakai, Executive Director, Hyogo Institute for Traumatic Stress)

### (1) Achievements and Future Tasks

#### a. Establishment of psychiatric first-aid stations

When psychiatric medical institutions were damaged by the earthquake, psychiatric first-aid stations were set up at each health centre (six centres in Kobe, plus Ashiya, Nishinomiya, Itami and Tsuna), and psychiatric medical volunteers from across Japan administered treatment and other aid. It is important for the smooth implementation of the initial framework that the disaster measures headquarters include specialists in mental health care/emotional support, and that the framework be developed within the healthcare system.

#### b. Establishment of mental health care/emotional support centres

As well as dealing with post-traumatic stress disorder (PTSD) suffered by earthquake victims, a mental health care/emotional support centre and 15 branches were set up as community-based centres for psychiatric health care to support the lives of mentally disabled or mentally ill victims of the quake in local areas. They managed a total of 13 group homes and nine small-scale workshops.

As mental health care/emotional support is managed by independent centres rather than as a part of the general health and welfare system, coordination with the local healthcare system is a matter of concern.

#### c. Establishment of Hyogo Institute for Traumatic Stress

The Institute was established on April 1, 2004, to conduct research into mental health care/emotional support not only of earthquake victims but also victims of crime, domestic violence or child abuse. It also carries out personnel training, disseminates information, offers consultations and treatment, and is involved in coordination and exchange of information. In future the Institute will be required to develop a full range of functions and to disseminate information nationwide on mental health care/emotional support. Building on knowledge accumulated from the Great Hanshin-Awaji Earthquake, it established Emotional Recovery Counseling Room within Health and Welfare Offices.

### (2) Proposals

#### a. Incorporate mental health care/emotional support into the regular psychiatric health and welfare system

Under normal circumstances, medical, healthcare and welfare staff other than psychiatric practitioners should be offered information and training on mental health care/emotional support.

#### b. Enhance the functions of Hyogo Institute for Traumatic Stress

- Training for staff other than mental health staff should be improved.
- Staff should be trained so as to be able to offer support in disasters nationwide.
- The provision of information on mental health in disasters should be systematized.
- The Institute should undertake sociopsychological analytical research not only on disasters themselves, but also on events subsequent to disasters.
- The Institute should undertake survey research on long-term problems suffered by disaster victims.

#### c. Development of systems for use when disaster occurs

- When a disaster occurs, specialists in mental health care/emotional support should participate in coordinating organisations such as disaster measures headquarters.
- Effective screening should be carried out of disaster victims suffering from psychological problems.
- For a regular-scale disaster: mental health care/emotional support measures should be incorporated into the local healthcare system during the reconstruction period.

For a large-scale disaster: plans should be made for sufficient numbers of mental health care/emotional support specialists and for the organisation of sufficient staff.

## **2-4 Promotion of Health and Positive Living for the Elderly**

(Panel member responsible for verification: Keiko Chikata, President, Hyogo Nursing Association)

### **(1) Achievements and Future Tasks**

#### **a. Achievements and future tasks in terms of health promotion for elderly people**

The prefectural government carried out a four-year health survey of earthquake victims living in emergency temporary housing, general housing and reconstruction public housing projects from 1995 through 1998, linking this with the development of health promotion measures in disaster-stricken areas. One issue for the future is the need for a system for keeping track of people's destinations when they move from temporary housing to permanent housing, in order to maintain continuity of contact.

#### **b. Achievements and future tasks related to the promotion of positive living for elderly people**

The government has encouraged participation in society through projects to support positive living such as the Iki Iki Classes, and encouraged elderly people to undertake activities of their own accord, particularly as volunteers. Future efforts to create friendships and living spaces will be necessary in addition to dealing with each elderly person on an individual basis.

#### **c. Achievements and future tasks related to investigations into new means of promoting health and positive living**

Nursing volunteers have launched a "Mobile Health Care Rooms" as a space where elderly people can talk at length about their worries concerning moving to a new place as a result of the earthquake, or health concerns arising from their solitary lifestyles, and feel free to come and ask advice. There will be a need in future for healthy community creation through coordination and collaboration with neighbourhood association activities.

### **(2) Proposals**

#### **a. Investigation of a new system for nursing care provided mainly by professional organisations**

In order to promote health and positive living in a highly aged society, and to prevent people from becoming shut in or needing nursing care, accessible "Mobile Health Care Rooms" are needed where people can freely come for advice. Medical workers with an understanding of physical conditions and detailed knowledge of medical information will be needed in a collaborative relationship with LSAs, to provide a link with medical treatment.

#### **b. Investigation of the promotion of health and positive living in light of a highly aged society**

In order to promote health and positive living in a highly aged society, and to prevent people from becoming shut in or needing nursing care, it will be necessary to increase social contact with children and the local community, and to promote a sense of usefulness as well as conscious participation in society amongst the elderly, and the creation of a welcoming community.

## 2-5 Development of an Elder Watch System

(Panel member responsible for verification: Ichiro Matsuhara, Dean, Department of Sociology, Kansai University)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks in terms of the assignment of official assistants to watch over the elderly

A "Silver Housing" system has been introduced in reconstruction housing projects, and Living Support Advisors (LSAs) are carrying out tasks such as confirming the safety of elderly victims, consultations and response in emergency situations. In reconstruction housing projects where the system means LSAs cannot be sent, Senior Citizen Supporters visit to confirm residents' safety and offer consultations and other services. However, as the SCS is a fund programme, the question remains of how to keep a watch on those households that currently come under SCS after the fund closes.

#### b. Achievements and future tasks in terms of support for community activities to keep watch on the elderly

Residents offered each other opportunities for mutual encounter by establishing venues such as social centres in temporary housing and community plazas in reconstruction housing developments. Making use of Projects to Support Independent Living by Elderly Victims, LSAs assist local residents in creating community by arranging a wide variety of social projects such as sawakai (coffee mornings) and health classes, increasing the number of Minsei-iin (community volunteers), and facilitating the establishment of neighbourhood associations. The problem remains, however, that a number of regions lack Minsei-iin, and neighbourhood associations have yet to be established in some reconstruction housing developments.

### (2) Proposals

#### a. Continuation of the SCS and other systems

As households that currently fall under the SCS system cannot be transferred immediately to local protection resources such as Minsei-iin simply because the fund programme will end, the prefectural government should either continue the present SCS system as a general measure, or request the national government to continue the flexible operation of the LSA system.

#### b. Use of existing emergency information systems and development of new watch systems using information technology and other means

As well as making effective use of the existing emergency information systems, new watch systems should be developed that use the gas meter method or new information technology that functions in both directions.

#### c. Creation of a new local care system

Keeping watch on elderly local residents is a necessary and indispensable aspect of progress in local welfare measures undertaken by municipal governments. Such a watch provides the basis for offering comprehensive care that responds to a variety of lifestyle needs, rather than solely nursing care. In future, ways must be found to offer this service universally, not only for the elderly, but also to the disabled, hikikomori (recluses who refuse to leave their rooms) and all those for whom such a watch is necessary. For this purpose, a new local care system should be put in place in coordination with local welfare plans currently under development by municipal governments, while looking closely at the revisions to the nursing care insurance system.

## 2-6 Methods of Assisting Victims

(Panel member responsible for verification: Toshiki Jinushi, Professor, Faculty of Economics, Graduate School of Economics, Kobe University)

### (1) Achievements and Future Tasks

#### a. Disbursement of donations for earthquake victims

The policies for all four disbursements can all be justified, and the first rapid across-the-board disbursement may be highly rated. However, the change in policy after the second disbursement departed from its forecast was overdue, and mistakes were made in the speed of distribution.

#### b. Petty cash loan system

The period of implementation and its purpose were both correct, and it may be conjectured to have had a significant effect. However, even though this was taken into account, at 50% the proportion of bad loans is probably excessive, and the rules for bearing losses are economically illogical in light of the serious problems of inequality involved.

#### c. Disaster Relief Fund loan system

In the absence of other public assistance programmes, it was unavoidable that this system became widely used within the existing framework, and comparison of the benefits between those who used it shows no excessive loss. The rules for bearing losses and the methods of determining interest rates, however, are illogical.

#### d. Socioeconomic Reconstruction Fund loan system

Effective collaboration with private financial institutions meant that the proportion of bad loans was low and user evaluation was high, and the design of the system in itself was therefore excellent. Points on which users might still feel dissatisfaction were that the system was "too little, too late."

#### e. Victims Self-Help Assistance Fund system

The establishment of the Socioeconomic Rehabilitation Aid System overcame the barrier imposed by the government against individual compensation for private property and gained monetary payments for households that were victims of the earthquake. On this point it anticipated the Natural Disaster Victims Relief Law that was subsequently enacted, a matter of great significance. From the users' perspective, one good point was the fact that no limits were placed on its use, making it easy to access. The system is highly rated, but dissatisfaction with it as "too little, too late" still remains.

### (2) Proposals

#### a. Revisions to economically illogical system designs

Problems with existing public loan systems include the lack of connection between deferment periods and repayment periods; the fact that they are administered as loans although there is no investigation of ability to repay; and fixed rates of interest. This economically illogical system design is universally visible and should be urgently rectified.

#### b. Collective presentation of public assistance systems

In the time-line following a disaster, comprehensive information should be offered at an early stage concerning how much and what sort of official assistance is available, even if this is only an approximation.

Offering support to people who are trying to rebuild their lives through their own resources not only speeds up overall reconstruction, but also leads to a reduction in the total cost of assistance. It is therefore necessary to apply incentives to encourage people to rebuild their lives.

#### c. Creating a consensus on risk sharing in lifestyle rehabilitation

As well as encouraging local residents to be prepared for natural disasters, in order to enable a standard menu of official assistance for lifestyle rehabilitation in advance of the actual event, it will be necessary to obtain a social consensus on a broad framework for risk sharing, i.e. who will bear what costs (risk) in the event of a large-scale natural disaster.

## **2-7 Promotion of Community Building**

(Panel member responsible for verification: Shigeo Tatsuki, Professor, Sociology, Doshisha University)

### **(1) Achievements and Future Tasks**

#### **a. Effectiveness of LSAs and Prefectural Housing Life Supporters**

Official assistance staff are LSAs, who are mainly residential staff who have accumulated know-how during their activities, and Prefectural Housing Life Supporters, who have used their know-how specifically for activities to support the community. They have been effective in supporting local activities within housing developments and have contributed to building community in these areas.

#### **b. Issues in small-scale housing projects**

Active relationships within the community are noticeable in large-scale housing developments that have merged with Silver Housing projects and have been assigned LSAs. Small-scale housing developments, however, lack sufficient means of assistance, including official staff. Relationships between neighbours and neighbourhood association activities are both weak, and there is no progress in community building.

### **(2) Proposals**

#### **a. Holding meetings for exchange, study and consultation**

It will be necessary to create opportunities for official staff responsible for community creation such as LSAs, SCSs and Prefectural Housing Life Supporters to share the experience and wisdom they have gained so far in regional meetings where they can exchange views, as well as study groups. Neighbourhood associations in reconstruction public housing projects should also hold meetings to share wisdom and experience with each other, in meetings for exchange of views or consultation.

#### **b. Focused response to housing developments where local activities are weak**

A focused response will be necessary in future for housing developments where neighbourhood relations and local activities are weak. This should be based on the degree to which relationships have formed between neighbours and the level of engagement with neighbourhood activities for each housing project, according to information obtained from community surveys in reconstruction public housing projects.

#### **c. Continuation of policies that involve participation and cooperation assists victims in rebuilding their lifestyles**

Close human relationships increase the sense of "getting back to normal," and encounters with a "significant other" (a person to whom one can open one's heart and speak openly) also helps consign the experience of the earthquake to the past. As one aspect of the creation of society by residents themselves, it will be important for future measures to include consistent initiatives that both deepen a variety of close human relationships within the family and the local area, and encourage and support practical activities in the locality. In this respect, it is important to be aware that the continuation of some policies that involve the participation and of prefectural residents as general projects outside the framework of post-earthquake reconstruction would result in them being of assistance to victims in earthquake-affected areas who are rebuilding their lives.

## **2-8 Initiatives in Housing Reconstruction**

(Panel member responsible for verification: Mitsuo Takada, Professor, Graduate School of Engineering, Kyoto University)

### **(1) Achievements and Future Tasks**

#### **a. Achievements during the initial reaction period and future tasks**

In the short period of about seven months following the earthquake, 48,300 units of emergency temporary housing were constructed, and lifestyle support services for elderly residents were undertaken, such as the establishment of social centres and the placement of Lifestyle Guidance Assistants and Lifestyle Assistance Advisors. However, some of these emergency temporary housing were constructed outside of the stricken region, which resulted in dissatisfaction among the residents who had to leave the community they had lived in before the earthquake.

#### **b. Achievements during the recovery period and future tasks**

The Hyogo Three-Year Housing Reconstruction Plan was formulated to enable early restoration of the housing stock, much of which had been lost. While the Reconstruction Plan, with its single emphasis on disaster reconstruction public housing, was clear enough, the necessity still remains to create mechanisms for obtaining a swift grasp of the damage to housing and for coping with various different reconstruction needs.

#### **c. Achievements during the reconstruction period and future tasks**

Based on the Hyogo Three-Year Housing Reconstruction Plan, disaster reconstruction public housing developments and other reconstruction housing projects were completed. However, the majority of the residents of such public housing were the elderly and/or low-income earners, creating problems regarding community development and management.

### **(2) Proposals**

#### **a. Drastic revision of the public housing policy**

A housing support system intended for those with housing problems should be developed to prepare for the phased introduction of a rent subsidy programme, and public housing stock should be renewed and fully utilized to contribute to local community building.

#### **b. Establishment of a residence assistance system for the elderly and provision of diversified residency options**

Building on the efficiency and effectiveness of the assistance offered by LSAs, the system for assisting elderly residents should be established, while a variety of lifestyle options should be introduced, such as group living combined with social services.

#### **c. Promotion of housing and community building policies focusing on housing stock management**

The local housing and community building process should be facilitated through the effective management of housing stock information; the development and implementation of community empowerment programmes; and the support of industries whose growth can contribute to sustainable residential lot development.



## **2-9 Initiatives in Disaster Reconstruction Public Housing**

(Panel member responsible for verification: Mieko Hinokidani, Associate Professor, Graduate School of Human Life Science, Osaka City University)

### **(1) Achievements and Future Tasks**

#### **a. Achievements and future tasks in terms of provision according to the needs of applicants for residence**

Collaboration with agencies engaged in public projects enabled early large-scale provision of public housing and other options. Services offered to ensure a stable lifestyle for elderly residents included the adoption of specifications designed for the elderly (barrier-free) in all residential buildings; Collective Housing (residences where a number of people live together collectively); and Silver Housing (public rented housing with specifications and facilities designed for elderly people, with services available from LSAs). Problems remained, however, with the accuracy of projected demand for the number of units and with securing building land in existing city centre areas.

#### **b. Achievements and future tasks in terms of applications, selection and management of residents**

The centralized application and group application procedures, special residence and provisional residence systems, measures for priority residence for the elderly victims and other policies were all implemented on the basis of the victims' perspective. However, there were still problems with ensuring a balanced composition of residents and other issues.

#### **c. Achievements and future tasks in terms of building community among elderly residents**

Measures implemented to encourage the growth of community included establishing community plazas, assigning Prefectural Housing Life Supporters, and support staff keeping a watch on elderly residents (LSAs and SCSs). There were problems, however, with the creation of mutual assistance systems among residents, strengthening the shared management functions of neighbourhood associations in housing developments and the utilization of community plazas as a regional welfare resource.

### **(2) Proposals**

#### **a. Use of private housing**

To offer accommodation only through the current public housing system to households that suffer from inadequate housing is both problematic and undesirable. In order to facilitate construction and improvements to private housing, mechanisms should be investigated for enabling the social use of private housing stock as necessary, such as looking at a system of housing allowances that would accommodate the needs of each household and their ability to handle housing costs.

#### **b. Promotion of shared management of housing developments with participation by residents**

To enable the smooth running of shared management of housing developments based on self-government by residents, mechanisms must be devised to encourage participation by residents, and management methods investigated that accord with the actual situation in the housing development, through NPO activities and other means.

#### **c. Utilization of community plazas as a regional welfare resource**

The establishment of community plazas as local welfare centres was highly significant, but mechanisms for sustained management in keeping with the objective of the plan require investigation.

## 2-10 Initiatives Concerning New Styles of Living

(Panel member responsible for verification: Ikuko Koyabe, Professor, Japan Women's University)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks related to the provision of Hyogo Reconstruction Collective Housing and other housing

Taking the characteristics of residents of emergency temporary housing as a microcosm of a highly aged society, a new style of dwelling known as Collective Housing was introduced in public housing projects as the first of its kind in the country. Based on the concept of residents shaping the community themselves, a total of 341 units were provided in ten prefecturally and municipally run housing developments. NPOs and volunteers offered advice and emotional support for collaborative living, encouraging residents to rebuild their lives.

A concern for the future is that acceptance of the value of "new styles of living" is still inadequate, creating a mismatch with motivations for residency.

#### b. Achievements and future tasks related to the system of subsidies for construction projects for Collective Housing and other housing intended for earthquake victims

Subsidies from the reconstruction fund for construction and other costs were disbursed with the aim of supporting the spread of Collective Housing in the private sector, and 336 units of Collective Housing intended for earthquake victims were built in 18 projects.

One issue for the future is that as the development of Collective Housing requires time to get off the ground, it has aspects that are incompatible with the speed demanded by reconstruction. For this reason, an environment conducive to its spread should be developed during normal circumstances.

### (2) Proposals

#### a. Energizing the existing Hyogo Reconstruction Collective Housing and other housing

Plans are needed for reusing the existing housing stock as a model for next-generation Silver Housing (public rented housing with specifications and facilities designed for the elderly people, with services available from LSAs) so as to contribute to even greater autonomy and residential security for the elderly. For this purpose, as expectations of community creation are problematic for groups consisting only of elderly people, support for the management of Collective Housing will become necessary. This may take the form of handing over management and operation to social welfare corporations, NPOs or other private operators.

#### b. Implementation of a genuinely multigenerational Collective Housing model in public housing developments

To present every possibility for future Collective Housing in public housing developments, a model for genuinely multigenerational Collective Housing that also includes younger generations should be implemented.

#### c. Initiatives supporting Collective Housing in private housing developments and creation of a conducive environment

Collective Housing is one answer to the contemporary problems facing families and local areas. Support for its spread to the private sector is necessary, as is the creation of a conducive environment.

## 2-11 Urban Planning Incorporating Universal Design

(Panel member responsible for verification: Reiko Ichikawa, Managing Director, Social Welfare Corporation Amagasaki Roujin Fukushikai)

### (1) Achievements and Future Tasks

#### a. Promotion of the first urban planning ordinances for an inclusive society in Japan

The first urban planning ordinances for an inclusive society in Japan went into effect before the Great Hanshin-Awaji Earthquake. After the quake, the importance of the concept of urban planning for an inclusive society was reconfirmed, and swift additions and amendments to maintenance standards for housing and other purposes contributed to solid urban planning during reconstruction.

In future, even further promotion of superficial improvement in urban areas will be necessary, as well as promotion of development incorporating universal design that sets high standards for the development of facilities that can be used together by everyone.

#### b. Advanced welfare service initiatives

- (i) Welfare facilities became centres for local welfare services immediately following the earthquake. Nursing homes for elderly patients requiring special care functioned as local centres for artistic and cultural exchange, and some incorporated private rooms and care in small units to cater to personal needs in a fashion well in advance of national criteria, becoming model facilities nationwide. This demonstrated that welfare facilities can become regional centres for psychological reassurance.
- (ii) The first regional-based temporary housing to be established in Japan were residences built to barrier-free specifications that offered the services of LSAs, and which operated from the viewpoint that residents were members of the local community. They became the model for the subsequent operation of welfare facilities and residences for the elderly and others such as Silver Housing, leading to the later reevaluation by the government of nursing care for the elderly and the nursing care insurance system.

In future, welfare facilities must promote further communication with local residents. In particular, in an aging society in which overnight nursing care is increasing, they must cooperate with LSAs working in Silver Housing, home nursing care support centres and government bodies to promote the creation of regional centres for psychological reassurance.

#### c. Initiatives in less tangible aspects of urban planning such as information and interpersonal relationships

Initiatives have included research at Hyogo Assistive Technology Research and Design Institute, and making information barrier-free by systematizing the way information is provided to disabled persons. Improvements to Hankyu Itami station during reconstruction involved a large number of people at the design level, including many who use the station, and as a result the station was rebuilt using universal design.

Future support will be necessary for even greater mobility and communication, information support such as the provision of disaster information and offering know-how for the advancement of urban planning through the participation and cooperation of a wide range of people.

### (2) Proposals

#### a. Promotion of urban planning for an inclusive society from the viewpoint of universal design

Universal design should be promoted so that it becomes generally accepted, and existing public facilities should take the initiative in undertaking improvements that incorporate universal design.

#### b. Creation of welfare facilities as regional centres for psychological reassurance

Urban planning should include scattered group-home-style residences that are thoroughly integrated into the community as the main focus for disaster-resistant welfare facilities. The comprehensive regional assistance centres that are currently under consideration should be developed as entities possessing the functions of both LSAs and regional home nursing care support centres.

#### c. Support for mobility and communications using new information technology, and provision of disaster information

#### d. Development of urban planning using universal design

Urban planning that involves the cooperation of a diverse range of users and other people concerned from the initial concept stage is important. Welfare facilities, research institutions, businesses, NPOs and prefectural residents must work together and offer their know-how to develop core base functions that can be offered to local communities in order to support local urban planning initiatives.

## 3. Society and Culture

### 3-1 Participation and Cooperation of Hyogo Prefecture Residents

(Panel member responsible for verification: Yasuo Konishi, Professor, Research Institution for Economics and Business Administration, Kobe University)

#### (1) Achievements and Future Tasks

##### a. Achievements and future tasks in terms of participation and cooperation among Hyogo Prefecture residents

During the year immediately following the Great Hanshin-Awaji Earthquake, a total of 1,380,000 volunteers were involved in activities to support the victims of the earthquake, which gave rise to the concept of a "new public sphere." Since then, various voluntary activities have followed and encouraged public participation, while a network has been gradually formed that interfaces these activities. Now that the reconstruction work is entering the final stage, the public systems to support prefectural residents' volunteer activities are almost completed, with opening of Hyogo Volunteer Plaza and the introduction of Public Participation and Cooperation Ordinance.

As a future task, the government should consider extending more assistance to organisations that offer intermediary support to volunteer activities, and devise measures to better utilize the volunteer funds to encourage support activities for meaningful purposes.

##### b. Achievements and future tasks in terms of participation and cooperation between prefectural residents and the public administration

The active involvement of prefectural residents in developing the "Great Hanshin-Awaji Earthquake Reconstruction Plan" was one of the main factors that contributed to the establishment of the public participation and cooperation system. The "21st Century Hyogo Long-Term Vision," a compass that will lead Hyogo Prefecture to better tomorrow, was established at the initiative of prefectural residents and communities and emphasises the importance of public participation and cooperation as a critical component of prefectural administration. Consequently, the prefectural government has clearly shown its commitment to promoting public participation and cooperation, as is evidenced by the enactment of the Public Participation and Cooperation Ordinance.

One future task will for both the public administration and prefectural residents to take a role in establishing an administrative system that fully incorporates the viewpoints of prefectural residents through public participation and cooperation, while encouraging government officials to change their conventional way of thinking.

#### (2) Proposals

##### a. Establishment of a system to effectively coordinate voluntary activities in times of disaster

A system for supporting volunteer activities in times of disaster must be established. Such a system, which can include a public fund, should extend effective support closely tailored to the needs of disaster victims by, for example, promptly procuring relief materials and equipment, and accepting volunteers and systematically assigning them to tasks.

##### b. The building of a network involving stakeholders active in various fields

In addition to providing support to individual volunteer activities, the government should enhance the serviceability of major organisations that offer intermediary support, thereby building a flexible network (for collaboration and cooperation) involving stakeholders active in many different fields. Specifically, Hyogo Volunteer Plaza, as a prefectural centre of support activities, should be able to strengthen support for community-building activities, while forging cooperative ties with support organisations.

##### c. The introduction of innovative approaches to support community-building activities

Considering that community-building activities require partnership among various types of organisations, the government should be able to provide support focusing not on the nature of such organisations, but on the nature of the activities themselves.

##### d. The development of a new community-building scheme in response to the movement toward cooperative action

It is important that certain local organisations should function as a core of joint activities involving stakeholders from various different fields. Therefore, the government should consider establishing a new community-building scheme through public-private cooperation, while taking into consideration newly emerging community-management systems such as "Community Autonomy."

##### e. The establishment of an administrative system that focuses on public participation and cooperation, to maximize the satisfaction of prefectural residents

The government should develop and implement easily understood public policies through deepened partnership among various stakeholders, while shifting the focus from economy and efficiency to serviceability, in order to ensure that prefectural residents will judge for themselves whether their quality of life is satisfactory.

### 3-2 New Disaster Education and Disaster Preparedness at Schools

(Panel member responsible for verification: Akira Tokuyama, President, Fuji Tokoha University)

#### (1) Achievements and Future Tasks

##### a. The situation immediately after the earthquake and future tasks

When the Great Hanshin-Awaji Earthquake struck, local schools served as shelters for people in the urban areas where serious damage was suffered: people who lost their houses evacuated to nearby schools early in the morning, before the disaster measures headquarters and other response organisations were established. At those schools, teachers assumed a leading role in easing the anxiety of evacuees, restoring order, and administering the sites. Because those schools accommodated over 2,000 evacuees, extreme difficulties were experienced when it came to resuming normal school routines. Learning from this experience, the Hyogo Prefectural Board of Education formulated the Disaster Education Exploratory Committee and established basic policies for three issues, namely, school disaster preparedness, disaster education, and emotional support. The then Ministry of Education followed Hyogo Prefecture in adopting these policies.

There should be continued deepening of ties among schools, local residents and governments so that schools will play a central role as facilities ensuring local safety and security in times of emergency.

##### b. Production and distribution of a supplementary disaster education reader, and a school disaster preparedness manual

Following the proposal submitted by the Disaster Education Exploratory Committee, Hyogo Prefectural Government issued a supplementary reader titled "Living for Tomorrow" in 1996 and 1997, and "School Disaster Preparedness Manual" in 1998 to provide guidelines for disaster education. Schools in Hyogo Prefecture also started to develop their own disaster response manuals. One future task will be to review the contents of existing manuals in order to improve their effectiveness.

##### c. Establishment of the Emergency and Rescue Team by School Staff in Hyogo (EARTH)

Emergency and Rescue Team by School Staff in Hyogo (EARTH) was established in 2000 as a team of school teachers to extend support to schools in disaster-stricken areas outside of Hyogo Prefecture. EARTH consists of four units - the evacuation site administration unit, the school education unit, the emotional support unit, and the school meals unit. So far, the team has been involved in reconstruction activities following the eruption of Mt. Usu in Hokkaido in 2000; the Western Tottori Earthquake in 2000; the Northern Miyagi Earthquakes in 2003; Typhoon No. 23 in 2004; and most recently, the Niigata Chuetsu Earthquake in 2004. In all of these disasters, they have assisted in the administration of school-turned-evacuation sites, provided emotional support to children affected by disasters, and helped with local educational reconstruction efforts.

#### (2) Proposals

##### a. Promote disaster education in Hyogo Prefecture

The government should promote disaster education more actively and positively to promote the fuller implementation of disaster preparedness plans, thus ensuring that schools will serve as core facilities for local safety and security in times of emergency.

##### b. Enhance the contents of disaster education

To instill the importance of disaster preparedness, it is necessary to promote cross-disciplinary and integrative disaster education by incorporating lessons learned from the Great Hanshin-Awaji Earthquake into the school-wide curriculum. Children should learn about the disasters that hit the region in the past to deepen their understanding of the devastation caused by such disasters and to gain the skills and knowledge needed to protect themselves in times of disaster.

As well, it is necessary to enhance the educational content of the Environment and Disaster Mitigation Course of Hyogo Prefectural Maiko High School, the only high school in Japan that teaches disaster-related subjects, to train future leaders in disaster preparedness activities.

##### c. Improve the school disaster preparedness systems

To further improve and enhance the school disaster preparedness systems, it is necessary to develop disaster manuals, including risk response measures, in closer cooperation with local communities, and occasionally inspect their contents. By doing this, we should be able to ensure that confusion will be minimized when disasters strike.

##### d. Strengthen school disaster preparedness systems through the activities of EARTH

The government should provide training on the use of schools as evacuation sites and enhance the presence of EARTH as a team of disaster management specialists in local communities, while offering guidance for development and improvement of school disaster preparedness systems throughout Japan.

### 3-3 Emotional Support for Children Affected by Disasters

(Panel member responsible for verification: Reiko Baden, Vice President, Hyogo Society of Certified Clinical Psychologist)

#### (1) Achievements and Future Tasks

##### a. Emotional support provided immediately after the earthquake and issuance of guidelines for care

In February 1995, following the Great Hanshin-Awaji Earthquake, a workshop was held to provide a better understanding of the emotional state of children affected by the disaster and the emotional support they needed was held to cope with children in urgent need of care.

Also, in response to the proposal submitted by the Disaster Education Exploratory Committee in 1995, guidelines for care for understanding the emotional state of children affected by the disaster and the emotional support they need were issued to ensure that emotional support would be extended to a greater number of children affected by the disaster.

##### b. Assignment of teachers specializing in educational reconstruction

To provide emotional support to the children affected by the earthquake and to promote disaster education, teachers specializing in educational reconstruction were assigned to schools in the affected areas and they addressed the mental/emotional health issues of children. Focused efforts should be continued toward the enhancing the quality of the educational counselling system as a follow up of the activities of these teachers.

##### c. Establishment of the Emergency and Rescue Team by School Staff in Hyogo (EARTH)

EARTH is a team of teachers that was established to extend support to disaster-stricken areas outside Hyogo Prefecture by utilizing the know-how gained from the earthquake experience, thereby repaying the educational reconstruction support given to Hyogo Prefecture when the prefecture was hit by the Great Hanshin-Awaji Earthquake. So far, EARTH has been involved in reconstruction activities following the Western Tottori Earthquake, the Northern Miyagi Earthquakes and the Niigata Chuetsu Earthquake, where they provided emotional support to the children affected by the disaster and assisted in local educational reconstruction efforts.

One necessary future task will be to enhance the quality of training for EARTH members to improve their care providing skills.

##### d. Providing counselling training to all teachers

Counselling training was provided to all the teachers in elementary schools, junior high schools, high schools and schools for those with disabilities, to ensure that substantial emotional support based on the earthquake experience would be extended to a greater number of children.

#### (2) Proposals

##### a. Enhance the educational counselling system as a follow up to the activities of teachers specializing in educational reconstruction

Follow up and further promotion of the emotional support provided by teachers specializing in educational reconstruction after the Great Hanshin-Awaji Earthquake is necessary, and will enhance the educational counselling system to better cope with children with mental/emotional health issues.

##### b. Extend emotional support to children affected by incidents other than earthquakes

We should continue our efforts to enhance the counselling skills of teachers and the quality of training for EARTH members in charge of emotional support in order to address the needs of children affected by events other than earthquakes.

##### c. Improve the ability of teachers to instruct children on stress management

Special training should be provided to teachers to improve their ability to instruct children on how they can cope with daily stress.

##### d. Promote education focusing on the value of life and other important lessons learned from the earthquake

Since the Great Hanshin-Awaji Earthquake, one of the most important educational goals has become teaching children the value of life and compassion for others. We should continue to pursue this goal.

##### e. Broaden the cooperative ties among schools, specialists and related organisations to better address mental/emotional issues of children

Closer cooperative ties should be forged among schools, school counsellors, clinical psychologists, medical staff and related organisations to promptly address the needs of children with mental/emotional health issues.

### 3-4 The Promotion of Cultural Activities

(Panel member responsible for verification: Nobuyuki Hata, Professor, Kyoto Tachibana Women's University)

#### (1) Achievements and Future Tasks

##### [Shared recognition]

**The Great Hanshin-Awaji Earthquake renewed our awareness that culture is a basic public property that is indispensable for sustaining society and the daily lives of prefectural residents.**

##### a. Artistic and cultural activities

After the Great Hanshin-Awaji Earthquake, various activities were undertaken by cultural and artistic groups and new NPOs which were significant in helping to revitalize the disaster-stricken areas and in encouraging and comforting those affected.

Today, however, some of the cultural and artistic facilities are experiencing difficulties in funding and attracting visitors. Their very survival is threatened because of financial and other problems arising after the earthquake.

##### b. The opening of new cultural facilities

After the earthquake, several new cultural facilities were opened such as the Hyogo Prefectural Museum of Art and the Hyogo Performing Arts Center, which play a key role in local cultural activities as symbols of recovery from the disaster. One future task will be to build a network connecting these new facilities.

##### c. Protecting our historical and cultural heritage, both tangible and intangible, from disaster

Programmes to protect cultural properties, support historical architecture restoration, and revitalize local traditional cultures were launched as the first attempt in Japan to restore historical and cultural heritage sites that were affected by the disaster. These efforts led to the establishment of Committee to Protect Cultural Properties through public-private partnership in times of serious disasters as well as to the introduction of the Cultural Property Registration System to protect familiar historical and cultural properties. Met with a lack of human resources, we launched training for "heritage managers"-personnel with expertise to protect and effectively utilize historical and cultural heritages.

#### (2) Proposals

##### a. Create more opportunities to present performances that will encourage and comfort those affected by disasters, and to invite them to join in local cultural activities

We need to promote outreach activities to create opportunities for people with fewer chances to enjoy cultural and artistic events. We also need to continue to support cultural and artistic programmes even after termination of Subsidy Programmes for Cultural and Artistic Activities in Disaster-stricken Areas.

##### b. Create an environment where artists and artistic groups can play an active role in promoting cultural activities in disaster-stricken areas

We must forge partnerships (cooperative relationships) among NPOs engaged in artistic activities, governments, and businesses, and promote cooperative ties with educational institutions, including heritage managers, in order to encourage cultural activities by individuals and groups.

##### c. Encourage creative activities at core cultural facilities and facilitate public participation in their management

The government should enhance the ability of core cultural facilities such as the Hyogo Prefectural Museum of Art and the Arts & Culture Center, to lead creative activities and serve as a source of cultural information, while building a network connecting these facilities. Public participation in the management of such facilities should also be encouraged.

##### d. Increase public awareness of the importance of disaster preparedness to protect cultural properties and build a damage risk reduction system

The government should provide comprehensive guidelines to enhance the seismic resistance of individual cultural properties and create an environment, including social conditions, where the risk of damage to cultural properties is minimized, by training personnel who can act as heritage managers.

##### e. Promote human resource development and community building through effective use of cultural properties

The government should promote human resource development and community building efforts by encouraging cultural activities based on the "Art and Culture Promotion Vision" and the "Plan to Make Effective Use of Local Historical and Cultural Heritage Sites (draft)."

##### f. Build a system to encourage comprehensive regional culture promotion

The government should seriously consider building a system to enhance the cultural competence of the entire region by effectively networking regional cultural facilities, educational institutions, artists and businesses.

### 3-5 Cooperation from the Viewpoints of Both Men and Women

(Panel member responsible for verification: Keiko Furuyama, Ex-Editorial Writer, Kobe Shimbun)

#### (1) Achievements and Future Tasks

##### a. Achievements and future tasks: the activities of local women's groups

Soon after the Great Hanshin-Awaji Earthquake, local women's groups began energetic activities at the grass-roots level. In doing so, members of these groups renewed their awareness of the value of those groups and of themselves. Their activities were also backed by men.

Since the earthquake, various women's groups have been working together to address local issues, especially those related to child-raising. If these groups are to continue their cooperative activities, they should continue to make their organisations vital and active, develop human resources, enhance the ability to make their initiatives known publicly to garner greater understanding and cooperation from the local community, and call for more support from the government.

##### b. Achievements and future tasks: group activities under specific themes, and new regional activities undertaken by men

Since the earthquake, an increasing number of groups have been strongly involved in cooperative activities to extend support to disaster victims and address welfare and environmental issues. A new trend has also emerged: men have begun to take part in regional activities and act in cooperation with women.

In the future, there should be more opportunities for women to participate in society's decision-making process. At the same time, employers (businesses), and the society at large should change the way of thinking to make it easier for men to join regional activities, and there should be a conducive environment in which this can happen. So far, governmental support has encouraged activities of these groups. As a future task, the government should evaluate the effect of its support and continue to appropriate follow-up after the completion of such programmes to maximize the effect of its assistance to such activities.

##### c. Achievements and future tasks: issues affecting women, men and families that arose after the earthquake

Immediately after the earthquake, the Hyogo Women's Centre, as well as other public and private organisations, played a leading role in addressing the mental/emotional problems of both men and women that resulted from the earthquake, and in managing and organising the flood of information. In this process, new problems regarding employment and family also became visible.

We must renew our awareness of the seriousness and importance of these problems that arose in the aftermath of the earthquake, and government and society should extend support to those with problems and create opportunities for them to cope with the problems on their own.

#### (2) Proposals

##### a. Extend support to activities geared toward local community revitalization: women and men acting on their own

Women should be given more opportunities to participate in a wider range of social activities while the government should flexibly provide needed support to ensure that women and women's groups will act independently. At the same time, there should be a social system and a conducive environment that allows men to participate in regional activities more freely. Furthermore, a new, equal partnership (cooperative relationship) should be forged with the government to achieve regional revitalization through cooperation with both men and women.

##### b. Realize a gender-equal society

To overcome the problems resulting from the earthquake, it is desirable to realize a gender-equal society where men and women can freely develop their own interests and talents, help each other as equal partners, share responsibilities, and act positively at home, community and workplace. Such a society respects the many different types of families which became visible after the earthquake.



### **3-6 Programmes for Youth and Activities of Youth Groups**

(Panel member responsible for verification: Junichiro Hayami, Standing Director, Children's Association of Hyogo Prefecture)

#### **(1) Achievements and Future Tasks**

##### **a. Involvement of youth in volunteer activities**

When the Hanshin-Awaji Earthquake struck, many young people joined volunteer activities at evacuation and temporary housing sites, and distributed rescue materials, cleaned toilets, and cared for those with emotional problems. They not only contributed to regional reconstruction, but also discovered meaning in their lives and grew increasingly aware of their responsibilities.

In the future, it will be important to provide mental health care/emotional support to young people suffering from the loss of family members and friends, and to encourage young people to participate in various real-life activities.

##### **b. New activities undertaken by youth groups**

Since the earthquake, various groups have been engaged in support activities, which have led to creation of scholarship programmes and establishment of facilities specializing in emotional support for disaster-stricken school children.

One future task will be for youth groups to forge closer ties with local communities, so that community-wide efforts will be directed toward the healthy growth of young people.

#### **(2) Proposals**

##### **a. Ensure the healthy growth of young people**

###### **(i) To address emotional problems of children and adolescents**

We need to offer places where counsellors can deal with children and adolescents with mental/emotional problems, and where children and adolescents can discuss their problems with their peers openly. Children and adolescents should also be given more opportunities to interact with adults active in the local communities to learn from their experience and skills.

###### **(ii) Offer more opportunities for youth to enjoy real-life activities**

We need to create playgrounds like "Adventure Squares" for children throughout the community; encourage the involvement of children and adolescents in community activities; and offer more opportunities for them to enjoy recreational and outdoor activities with their family members.

###### **(iii) Create spaces for children and adolescents to relax**

There should be more places where children and adolescents can drop in to enjoy casual interaction with their peers.

##### **b. Strengthen a community-wide commitment to children and adolescents**

###### **(i) Encourage children and adolescents to participate in community activities**

We need to revitalize community activities to encourage children to develop new community programmes. Leaders in each age group also have to be trained to facilitate the participation of the younger generation in disaster preparedness efforts in the community.

###### **(ii) Create a community-wide system to address the issues facing children and adolescents**

Regional coordinators must be assigned to the community to broaden partnerships among organisations, schools and the government; encourage participation of the elderly in community activities; establish a community-wide cooperative system to ensure the smooth operation of facilities and organisations involved in youth issues; strengthen support of youth groups by assisting in human resource and programme development; and encourage children to spend more time with their families.

### 3-7 Establishment of a Support System for Foreign Residents and Globalization of the Local Community

(Panel member responsible for verification: Yasuko Takezawa, Assistant Professor, Institute for Research in Humanities, Kyoto University)

#### (1) Achievements and Future Tasks

##### <Achievements>

##### a. Emergence of a variety of NGOs and NPOs that support foreign residents

When the Great Hanshin-Awaji Earthquake struck, people who had been individually engaged in supporting foreign residents joined efforts and established NGOs and NPOs to help these foreign residents in a variety of ways. Without their involvement, the foreign residents living in the earthquake-stricken areas would have been left unattended for a longer period of time.

##### b. Increase of information and counselling services for foreign residents

Immediately after the earthquake, the prefectural government extended service hours of its foreign resident information centre, while NGOs and NPOs started to offer consultations in foreign languages. Since then, more and more information has been offered in foreign languages at counselling centres and through a newly opened FM radio station and websites.

##### c. Introduction of a system to listen to foreign residents of Hyogo Prefecture

Various venues were organized for foreign people living in Hyogo Prefecture to discuss local issues, such as the "Conference of Foreign Residents for the Creation of a Multicultural Society," which stemmed from the "Reconstruction Conference of Foreign Residents of Hyogo Prefecture."

##### <Future Tasks>

##### a. Provide information and follow-up during the initial reaction period

A system should be in place to promptly provide information in foreign languages in times of widespread disaster. Even if foreign residents are provided with necessary information, in many cases administrative services are offered only in Japanese and this situation needs to be addressed through the development of follow-up systems that would enable foreign residents to effectively utilize the information they receive.

##### b. Creating support programmes for foreign residents who have overstayed their visas and are affected by disasters

After the Great Hanshin-Awaji Earthquake, some foreign residents of Hyogo Prefecture who had overstayed their visas had to pay a large amount of the medical expenses themselves because they were not covered by the health insurance programme or by the Disaster Relief Law. Condolence money was not paid to foreign residents who overstayed their visas and those with short-stay visas. However, in times of catastrophe, emergency support should be provided more flexibly from a humanitarian point of view, and some measures have to be taken to improve the situation.

#### (2) Proposals

##### a. Discuss measures to provide information to foreign residents more efficiently in times of disaster

In times of disaster, immediate information must be provided in foreign languages through as many media as possible, including TV and radio. In addition to information, means of interactive communications should be provided to enable affected foreign residents to record messages in their own languages to communicate their whereabouts and condition.

##### b. Extend educational support to international students in their native languages

Non-Japanese children who cannot fully understand Japanese should be provided with education in their own languages. This will enhance learning, help to develop self-respect in children, and give them psychological encouragement.

##### c. Encourage the self-support efforts of international communities

The self-support efforts of the local communities of Japanese-South-Americans, Vietnamese and other foreigners should be encouraged so that these communities will be able to offer assistance that closely fit their members' needs.

### **3-8 Creating a Society with Greater International Involvement, through International Exchanges and Cooperation**

(Panel member responsible for verification: Kentaro Serita, Professor Emeritus, Kobe University and Professor, Aichi Gakuin University)

#### **(1) Achievements and Future Tasks**

##### **a. Efforts to build a multicultural society**

The "Basic Guidelines to Promote Regional Internationalization" established in 1994 emphasises the idea of a multicultural society where people of different backgrounds live in harmony. This idea was put into practice in various ways in the recovery and reconstruction process. In particular, consultations on daily life affairs in foreign languages for foreign residents of Hyogo Prefecture were introduced and the "Reconstruction Conference of Foreign Residents of Hyogo Prefecture," was established and later taken over by the "Conference of Foreign Residents for the Creation of a Multicultural Society."

However, there is still room for improvement in terms of relief measures for foreign residents of Hyogo Prefecture, as indicated by the fact that condolence money was not paid to international visitors with short-stay visas.

##### **b. Invitation of international organisations to locate in Hyogo Prefecture**

In response to the invitation and preferential measures of Hyogo Prefecture, four United Nations agencies and eight international organisations are now located in Kobe New Eastern City Center. These groups form a base for international contribution activities in terms of health, welfare, global environment, disaster reduction and humanitarian support. One future task will be to build a network interfacing these organisations to maximize the effect of their concentration.

##### **c. Support to disaster-stricken areas overseas by Japanese citizens**

Activities to support overseas disaster-stricken areas have been promoted by citizens who experienced the Great Hanshin-Awaji Earthquake: they feel it their responsibility to use the lessons learned from their experience to help disaster victims. In response to the commitment of numbers of NGOs and NPOs to overseas support activities, a permanent civil centre, "Citizens towards Overseas Disaster Emergency (CODE)" was established in 2002. In the future, partnerships must be created and there must be more cooperation between the government and the NGOs/NPOs that have become more of a presence recently.

#### **(2) Proposals**

##### **a. Train personnel to play an active role in international society**

Hyogo Prefecture has a wealth of experience and expertise in disaster response and reconstruction work as well as a concentration of international organisations. To fully utilize these advantages, Hyogo Prefecture should invite the "International Peace Cooperation Support Centre" (tentative name), which will serve as a base of training personnel who can contribute to international society in the fields of disaster reduction, humanitarian support and reconstruction and development.

##### **b. Build a network of international organisations**

We must implement the plan of Hyogo Prefecture to establish the "International Disaster Reduction and Reconstruction Cooperation Centre" (tentative name) to build a network which will maximize the effect of the concentration of international organisations, thereby contributing to international society in the fields of disaster reduction, humanitarian support, health, welfare and global environment.

##### **c. Promote international exchanges and cooperation through the full commitment of citizens**

The ability of NPOs and NGOs to cope with emergencies has steadily improved from their involvement in reconstruction and recovery works following the Great Hanshin-Awaji Earthquake. NGOs and NPOs should cooperate with the government to promote international cooperation and exchange activities by jointly carrying out projects and creating alliances with international organisations. By doing so, a system can be established for citizens to fully contribute in international cooperation and exchanges.

## 4. Industry and Employment

### 4-1 Revitalizing Small and Medium-sized Firms and Local Industry

(Panel member responsible for verification: Takayuki Satake, Professor, School of Economics, University of Hyogo)

#### (1) Achievements and Future Tasks

##### a. Achievements and Future Tasks relating to Financial Support

To stabilize operations and restore production facilities of small and medium-sized firms and local industries affected by the earthquake, the Emergency Fund for Disaster Recovery was set up, they were given access to disaster loans from government financial institutions, and measures for exemption from loan guarantees were put in place.

Furthermore, in order to lighten the burden on recipients, interest payments were covered by the Great Hanshin-Awaji Earthquake Reconstruction Foundation. These measures helped with the restoration and reconstruction of small and medium-sized firms, but about 15% of the emergency fund for disaster recovery is still outstanding and it is hoped it will be smoothly repaid.

##### b. Achievements and Future Tasks relating to Restoration and Reconstruction of Small and Medium-sized Firms and Local Industry

###### • Setting Up General Consultation Office

After the earthquake, national and local governments coordinated their activities to open a general consultation office, which was effective for assessing the magnitude and extent of the damage and what was needed from the authorities. The Prefectural General Advisory Office for Small and Medium-sized Firms, which played a central role at the time in its capacity as a consultation body, has since been abolished, and so a new system needs to be put in place.

###### • Obtaining Premises

For firms that lost their premises in the earthquake, temporary rental factory space was built and rental assistance provided for those switching to commercial rental factory space. These measures helped affected businesses restart their operations. However, during the initial recovery period there was insufficient space provided due to difficulties in obtaining land-lots, and rental assistance for using commercial rental factory space was implemented only in the later recovery period.

###### • Promotion of Efforts to Obtain Orders/Find New Sales Routes

To re-establish steady business, commercial fairs were held to mediate deals to obtain or restore orders and promote business. Assistance was also provided in the form of subsidizing systems designed to assist in the opening up of new sales routes, the development of new products, and the improvement of the corporations' images. However, local industries such as sake, synthetic shoes, and Awaji rooftiles, have not yet recovered to pre-earthquake levels, in part because of Japan's ongoing recession.

#### (2) Proposals

##### a. Recommendations deriving from Past Activities

The following is a list of recommendations for the revitalization of small and medium-sized firms and local industries affected by a disaster, based on the achievements and ongoing issues associated with past efforts:

- It is necessary to create a manual for setting up general consultation offices at times of emergency, and to establish a network for providing feedback, etc., regarding information gained from consultations with the local authorities involved.
- Early display and implementation of a "menu" of assistance available to those unable to restart business operations will be effective.
- When deciding on the usage of land in emergency circumstances, consideration should be given to provision of land for industrial purposes.
- Swift support of an appropriate scale is needed for the restoration of lost sales routes and orders.
- Active networking among support organisations is needed.
- Support to help local industry respond to structural changes in the business environment is needed.
- Support for technical upgrading is needed for the development of high value-added products and new technologies.
- Ongoing efforts are needed following the dissolution of the reconstruction foundation.
- Measures are needed to ensure smooth repayment of the Emergency Fund for Disaster Recovery.

##### b. Three-point approach for the revitalization of small and medium-sized firms and local industries

Hyogo is said to be Japan in miniature, with diverse yet geographically concentrated small manufacturing businesses and local industries. As a result of this, and also with ongoing changes in the business environment, a three-point approach is needed in addition to the above recommendations, to promote further reconstruction and development: "management innovation (start-up of new business ventures)" and "networking" undertaken by private sector firms themselves, and the "formation of industrial clusters" initiated from the private sector.

## 4-2 Revitalizing Shopping Arcades and Retail Markets

(Panel member responsible for verification: Michio Tanaka, Professor, Osaka Gakuin University)

### (1) Achievements and Future Tasks

#### a. Main achievements during the recovery process

Projects that were helpful in the initial restoration and reconstruction period included: support for building communal temporary retail space, assistance in the reconstruction of commercial infrastructure facilities, a mobile general advisory service, and a shopping arcade check-up system. After restoration reached a certain stage, a community revitalization project was put in place. This project brought shopping arcades in as local organisations which play an important role in remaking the local community scene and bringing the community together. A number of events held under the auspices of the project became popular, but effective ways of strengthening relations between shopping arcades and the community are still being sought.

#### b. External environment issues in the restoration process

With regard to the socioeconomic environment, the after-effects of Japan's economic bubble affected restoration activities, and a point has been reached where future redevelopment projects are being reconsidered due to the fall in land prices. We are presently at a turning point with regard to attitudes affecting commerce, as small commercial firms switch from uniform to more multifarious activities, and the belief is that the efforts of shopping arcades and retail markets to overcome their problems on their own should lead to the revival of their relationship with the local community. With regard to changes over time to the competitive environment, as restoration has proceeded small businesses have faced many problems, and it is important to support commerce as an industry rooted in the local community.

#### c. Internal environment issues in the recovery process

Issues for parties such as commercial proprietors, prefectures, towns and cities and their intermediaries include the need to adopt policies that will maximize the vitality of commerce, which is central to urban development, by taking advantage of the proprietors' own awareness of the significance of both their commercial and social functions, and their enthusiasm for them. Issues relating to systems such as capital provision, include the importance of flexible support for shopping arcade facilities, which are assets to the community environment, addressing the plight of commercial businesses suffering underlying financial difficulties as a result of the disaster. Issues relating to the application of know-how and technology include the necessity of a flexible policy system that does not allow policy adjustments made to suit the needs of the moment to obstruct the handing on between the generations of restoration know-how after a disaster.

### (2) Proposals

#### a. "Disaster zoning" system of emergency response

Application of "disaster zoning" (a "menu" of special case policies that can be applied automatically in an affected area upon its designation as a severe disaster or damaging earthquake, should be systematized in advance.)

- Measures relating to a locality's own financial sources that would allow responsive, flexible countermeasures to be swiftly decided on and put in motion.
- Support by means of expanding existing measures and policies dealing with infrastructure, thereby making it more flexible.
- Reduction of existing debt, and easier conditions for new loans.
- Establishment of manpower input system of specialists for restoration and reconstruction.

#### b. Revival of shopping arcades within local community

- Financial support for shopping arcades and retail markets etc. should be increased to support their revival within the community (revival of their social function, which is regarded as essential to the health of the local community).
- Links between the community and shopping arcades or retail markets contributing to the community should be encouraged.
- Relation between shopping arcades and the community should be made public through an urban development accounting system.

#### c. Overcoming current structural problems affecting shopping arcades and retail markets

- Rebuilding of local commerce by means of such projects as boosting vitality in shopping arcades and retail markets and setting up of new focuses of attraction for customers.
- Supporting individual stores' self-help efforts that prioritize "soft" aspects of the recovery process.
- Strengthening support for ambitious, active shopping arcades and retail markets.

### 4-3 Activities for the Promotion of Tourism

(Panel member responsible for verification: Nobuji Kitano, Professor, Hannan University)

#### (1) Achievements and Future Tasks

##### a. Achievements and tasks relating to response in the initial and reconstruction periods

Importance was placed on the restoration of tourist facilities. There was no time to think strategically about tourism, which tends to be seen as non essential and not urgent, and confronted with the standard thinking desiring conventional types of promotions, an ad hoc, hasty campaign for image restoration took precedence. As part of this, Kobe Luminarie became established as a symbol of Kobe in winter.

##### b. Achievements and tasks relating to response in the initial reconstruction period

The completion of the Akashi Kaikyo Bridge saw rapid growth in the number of incoming tourists. Kitano Meister Garden became popular as an urban tourist attraction, and Arima hot spring resort has reconstructed. On the other hand, the campaign to create 100 Famous Attractions in the Hanshin-Awaji Region did not break the bounds of conventional tourism thinking. No progress has been made in dealing with new issues such as evaluation of the role of commercial facilities in tourism, and how statistics on tourism are provided.

##### c. Achievements and tasks of the primary reconstruction period

The International Gardening and Landscaping Exhibition "Japan Flora 2000", See Hanshin-Awaji Campaign and Kobe 21<sup>st</sup> Century Reconstruction Memorial Project were all effective in attracting visitors, but issues were also raised: the effect of these attractions did not last, there has been no development of new promotions that break conventional bounds, and the power of local people has not been adequately harnessed. More and more tourist facilities have been beset with financial difficulties, closure, or abandonment, highlighting the structural problems of the tourist industry. Against this, Hyogo Tourism Vision was formulated, and projects that facilitate "tourism" are currently being developed. New tourism ventures are on the horizon, with the main facility of "earthquake tourism": Disaster Reduction and Human Renovation Institution, the designation of special zones for tourism, and wide regional linkage with Okayama and Tottori prefectures, etc.

#### (2) Proposals

##### a. Preparing statistics on tourism and setting up an institution for research and training in tourism

A means should be found to ascertain accurate figures for numbers of tourist visitors, in line with the statistics on tourism produced by major tourism countries. Also, a research and training organisation should be created to further the study of the nature of "tourism", "tourists" and the "tourist industry", and the strategic marketing and management of tourism.

##### b. Introduction of Strategic Marketing, Management and Process

Even when tourism is recovering after a major disaster, marketing strategies based on market awareness, such as macro and micro conditions, visitor satisfaction, etc., should be built into the tourism promotion plan. Also, targets for project evaluation should be set and an evaluation system established.

##### c. Redefinition of Attractions

Old attractions should be withdrawn from the market, and a new market of multiple attractions should be recognized. Also, human resources that can gain high status for attractions should be better evaluated.

##### d. Innovative Tourism Promotion and Creation of New City Festivals

The era of mass promotions has ended, and promotions that focus on individual visitors must now be created. Also, explorations should be made into the development of new "state-fair"-type city festivals that regularly feature those aspects that the locality is most proud of.

##### e. Encouragement of Urban Tourism and Regional "Branding"

The appeal of urban zone as "model life-style zones" should be exploited, and the creation of attractive scenery and spatial design, as well as the "branding" of the life style and special talents of the local residents, should be promoted.

##### f. Re-organisation of Government Tourism Offices

Since tourism is a "community activity" for local people that spans many fields, it requires new cross-cutting organisations matched to tourism functions. Also, medium- and long-term visions superseding the single-year budgeting approach are needed, and the training of professionals in government tourism offices should be hastened.

#### 4-4 Promotion of New Industries and Support for Growth Industries

(Panel member responsible for verification: Shigeki Sadato, Professor, Kwansei Gakuin University)

##### (1) Achievements and Future Tasks

###### a. Support for start-up businesses

A full range of financial supports in the form of subsidies, investments, and loans, was set up in a systematic way. The support system for new start-ups is better than in other prefectures. It has no weaknesses and is well consolidated. However, although there are individual success stories, we have yet to see new industries starting up.

###### b. Promotion of industry-academia-government collaboration, such as in the application of seed technology held by universities or private companies.

In a scheme run by the private sector and supported by government, the New Industry Research Organization (NIRO) aims to provide comprehensive support for new product development that fuses industry-academia-government resources, business start-ups, and technical innovation in small and medium-sized firms. This is a unique model found nowhere else in Japan, and if NIRO's various functions can work together organically, it has the potential to become a nationwide model for future industry-academia-government collaboration.

###### c. Fostering growth industries

In the IT industry, IT literacy training is being promoted to make use of the Hyogo Information Highway and so that everyone resident in the prefecture can enjoy the benefits of IT. The environment industry is seeing success in the form of moves by the industrial conglomerates along the coastal belt into resource-recycling-type environmental business, and efforts to promote recycling projects through activities of research groups. The future tasks are that companies operating in new fields such as data imaging have not developed sufficiently, and that time is needed for the creation of environment-related business, and it is hoped that future efforts will be successful.

##### (2) Proposals

###### a. Support for start-up businesses

Such measures as better guidance in management and technical skills for those starting new businesses, greater matching of business start-ups with university resources, a better system to provide investment to business start-ups, and creation of new priority industries making use of strategic local resources, are needed to overcome problems.

###### b. Promotion of industry-academia-government collaboration, such as in the application of seed technology held by universities or private companies

With regard to industry-academia-government collaboration, what is needed is support for various spin-off ventures, upgrading of system that provides long-term management support to leading companies, cooperation with universities, and assistance for regional revitalization that makes use of resources in universities not just technical, but humanities-centred universities in city centres and the locality.

###### c. Fostering growth industries

Planning to foster new industries such as robots, health, nanotechnology, biotechnology, and environment-related, making use of and linking together market-competitive local resources, and also planning to foster new service industries in the culture, arts and entertainment fields.

#### 4-5 Encouraging Siting of Domestic and Overseas Companies

(Panel member responsible for verification: Yoshimasa Kato, Professor, Executive manager, Institute of Economics and Business Management, University of Hyogo)

##### (1) Achievements and Future Tasks

###### a. Assistance for corporate facilities siting through the Ordinance on the Economic and Employment Regeneration by Attracting Businesses to Hyogo (Ordinance on Industrial Reconstruction)

Without implementation of the Enterprise Zone concept, but with the provision of sites by prefectural or city governments, companies have been encouraged to site their facilities with assistance in the form of real estate acquisition tax exemptions, employment support, and low interest loans.

###### b. Post-earthquake activities to attract foreign and foreign affiliated companies

Foreign and foreign affiliated companies were encouraged to set up in the region through the creation of an International Economic Zone and services provided at the one-stop Hyogo Investment Support Center in Kobe.

###### c. Special zones for structural reform designated for earthquake-stricken areas

In regard to national government designated zones, this scheme has been successful in attracting companies and opening farm plots for citizens, etc. There has been no preferential treatment on national taxation, nor any subsidy systems put in place for these zones.

##### (2) Proposals

Extension of Enterprise Zone policy and policy for next-generation corporate siting  
(Theory)

###### a. Limited-term case sensitive corporate siting policy

Enterprise Zones set up with the aim of attracting companies on the basis of a limited-term arrangement.

###### b. Siting policy for strategic industries and business clusters

Setting up zones that focus on urban industrial structural reform and include strategic deregulation incentives.

###### c. Siting policy for regeneration of existing city centre areas

Setting up economic regeneration zones on existing city centre area on a limited-term regeneration arrangement.

(Specific Recommendations)

###### a. Active promotion of deregulation

If zoning is a policy intended for areas with individual problems difficult to deal with under general policies, then to resolve the problems, incentives must be offered such as drastic deregulation or tax breaks.

###### b. Case sensitive provision of industrial infrastructure through regional cooperation

On the provision of industrial infrastructure, such as establishing industrial support facilities, use should be made of a framework of regional cooperative ties established through long-term business contracts such as PFIs etc. among local governments.

###### c. Strengthening system to attract firms

Networks should be formed with local government offices, chambers of commerce etc., a format created for information-sharing about industrial land and offices, and programmes utilizing experts should be run to attract companies.

###### d. Establishing an intermediary organization to promote corporate siting

At clusters aiming to create innovation, an intermediary organization should be established to be the focal point of information sharing and to manage knowledge creation, and it should have a risk-reduction function for newly participating companies.



#### 4-6 Measures to Boost Employment Opportunities, such as Job Creation through Diversified Business Models

(Panel member responsible for verification: Chiyoko Shimozaki, Professor, Graduate School of Business, Osaka City University)

##### (1) Achievements and Future Tasks

###### a. Employment Stabilization

- Through the swift and flexible application of special measures for Employment Adjustment Subsidies and flexible implementation of employment insurance, the unemployed and temporarily unemployed obtained cost-of-living support and employment was maintained.
- As a cooperative effort by government, labour unions and businesses to eliminate anxieties surrounding employment opportunities and security, the "Agreement on Hyogo-style Work-sharing" (or the Hyogo Agreement) was formalized (December 17, 1999) and became the basis of employment stabilization policy.
- Job training to keep pace with changes in the industrial structure is needed.
- If the number of semi-employed, including non-regular employees, community business leaders, and independent workers (those who are self-employed [SOHO] or freelance workers doing subcontracted work) continues to grow, new laws and systems will have to be put in place to supplement existing laws and systems that cannot address these working categories adequately.
- Unemployment and job-switching rates among young people are high and the proportion of non-regular employees has risen. The job market must adapt accordingly to eliminate mismatches between employment policies and the needs of the potential work force.

###### b. Job diversification

- Assistance was provided for job diversification by creating industries based on local needs and people's preferences, by setting up community businesses as a way of fostering entrepreneurs, and other similar efforts.
- The unemployment rate needs to be lowered by encouraging business models based on a semi-employment system.
- Since post-war baby boomers are expected to reach retirement age starting around 2007, elderly people excelling in skills and experience should be utilized as part of the labour force. (Responding to the "2007 problem")

##### (2) Proposals

###### a. Employment Stabilization

- Some income guarantee at times of emergency should be arranged for those not paying into employment insurance, such as non-regular employees or semi-employed people (NPO/CB/SOHO workers), by building a mutual aid-type of income guarantee system (a modern version of the "Tanomoshiko": a type of mutual financing association) and setting up at the community level agencies with information on openings for job-seekers.
- In the event of a large-scale disaster, an emergency work-sharing system should be set up whereby large corporations not affected by the disaster are requested to accept unconditionally one or two persons for employment in order to enable the maintenance of steady employment.
- In the period immediately after a disaster, different sorts of businesses are needed. A system should be readied that allows anyone to easily start up (or run) a business at such a time, e.g. making places such as parks or streets available for informal commercial businesses, or allowing agents who take on workers for construction etc. to set up at public halls etc.
- Recently, a growing number of young people are not taking regular jobs, and stimulating an awareness of the importance of employment from a young age is most important from the viewpoint of Japan's long-term economic development. Also, many locations should be found for job training, and improved job training organisations that can respond flexibly to community needs are required.

###### b. Job diversification

- Many needs remain unfulfilled in the community, and exploiting them by turning them into business opportunities will stimulate the local economy, helping it to recover. Uncovering these community needs, fostering human resources to shoulder community businesses, and providing support for business activities are all necessary.
- By work-sharing across generations, skilled and experienced elderly people can continue to be employed, the size of the work force can be maintained, and skills and experience can be passed on to the younger generation. At the same time, it is hoped that entrepreneurs will set up community businesses to respond to local needs. (Responding to the "2007 problem")

#### 4-7 Revitalization of the Agriculture, Forestry and Fishing Industries to Sustain a Reliable Food Supply

(Panel member responsible for verification: Kazunori Uchida, Professor, Faculty of Agriculture, Kobe University)

##### (1) Achievements and Future Tasks

(In the sections below, " " denotes an "achievement", while " " denotes a "future task")

##### a. Farmland and agricultural facilities

Agricultural water supply obtained for crops, eliminating farmers' worries.

Late reporting of earthquake damage from those managing irrigation reservoirs.

##### b. Agricultural products, commercial horticulture and livestock

The opening of emergency shipping routes across water, etc. allowed the timely shipping of fresh vegetables through peak harvest periods to take place.

Processing plants accepting fresh milk deliveries were rearranged so that fresh milk could be sold and did not have to be thrown away.

It took time to assess the extent of damage to agricultural products and livestock, and to find the necessary transportation routes.

##### c. Distribution to consumers (wholesale markets)

Wholesaling was quickly restarted through the building of temporary wholesale markets, and brisk business resumed as foodstuffs were obtained.

##### d. Forest conservation, forestry and logging

The Forest Conservation Phoenix Plan was agreed upon.

Authorities were slow to grasp the extent of damage to mountainous areas immediately after the earthquake.

##### e. Fishing ports and the fishing industry

Evacuation routes and safe zones were established through modification of fishing ports and fishing villages.

Failure to thoroughly eliminate overcrowding of houses.

##### (2) Proposals

##### a. Urban residents' participation in conserving local resources

- A greater awareness of risk management with respect to disaster reduction and re-confirmation of the role of irrigation reservoir managers is needed.
- Maintenance and management of reservoirs should be developed with the participation of local residents and urban residents.

##### b. Strengthening measures to supply agricultural produce at times of emergency

- An understanding of emergency transportation routes for each production area is needed, and measures should be explored to deal with disasters.

##### c. Strengthening market and retail functions at times of emergency

- Transportation simulations that assume particular levels of damage are needed.

##### d. Strengthening of disaster reduction measures in mountain areas

- Efforts are needed to increase residents' awareness of how to reduce the effects of disaster, such as informing them of the degree of danger as judged from the local topography and ground quality and from examining past disasters that affected the locality.

##### e. Making fishing ports and fishing villages more earthquake-resistant

- A comprehensive village environmental infrastructure system, that includes reinforcing individual homes, needs to be made.

#### **4-8 Promotion of Interaction between Urban Centres and Rural Communities**

(Panel member responsible for verification: Shigeru Yasuda, Professor Emeritus, Kobe University)

##### **(1) Achievements**

**a. Where regular interaction already occurred on a daily basis, swift assistance was provided to localities affected by the earthquake.**

**b. Numbers of people involved in interaction grew as a result of the promotion of "Agri Life" etc.**

- (i) Providing more facilities for interaction (farm lots for urban residents, etc.)
- (ii) Assisting further opportunities for interaction (support for running buses for green tourism, etc.)
- (iii) Creating organisations and training people to support interaction (training "Agri Life" leaders)
- (iv) Growing safe and reliable agricultural products (creation of a system for certification as "Hyogo Reliability Brand")

##### **(2) Future Tasks**

**a. It was difficult to respond adequately with food supply assistance etc. on the basis of local government bodies' mutual assistance agreements alone.**

**b. Interaction between regions/people/production sectors did not have the continuity required for it to grow into an everyday activity.**

**c. The significance of purchasing locally grown farm produce was not sufficiently understood by consumers.**

##### **(3) Proposals**

**a. Promotion of urban/rural interaction from the standpoint of crisis management**

- (i) Interaction should immediately be encouraged that would allow people to get to know each other, such as through direct sales of vegetables for example. This will lay the groundwork for swift, independent and heartfelt assistance to earthquake-stricken regions even in circumstances where no information is available and local government functions are curtailed.
- (ii) With the aim of building a wide-ranging human network to save lives at times of crisis, interaction should be encouraged that strengthens relations between individuals and persists well beyond single visits to the countryside.

**b. New viewpoints on urban/rural interaction**

**(i) Creating systems to accept applicants from urban areas for employment in the agricultural sector, etc.**

To revitalize rural communities and provide a deeper sense of purpose for urban residents, etc., interaction should be encouraged between those from urban areas seeking jobs in agriculture and those rural communities that are able to accept them.

**(ii) Creating a more sympathetic environment for elderly urban residents**

For elderly urban residents who cannot drive out to large discount stores, interaction should be encouraged that will allow shops selling a wide range of safe, reliable fresh and processed foods to open in shopping arcades close to people's homes.

**(iii) Creating local-production-local-consumption systems**

Interaction should be encouraged that will promote the creation of local-production-local-consumption systems to provide safe, reliable food at minimum cost.

**(iv) Creating systems promoting education about nutrition, food production, and farming practices**

In order to increase understanding that food and farming are fundamental to human life and growth, interaction with the education system should be encouraged.

**(v) Creating local farming assistance systems**

Interaction should be encouraged to help local farming to continue and preserve rural scenery, such as assistance to areas where landowners are having difficulty keeping their farmland sustainable.

## 5. Disaster Reduction

### 5-1 Undertakings to Improve the Disaster Reduction Capacity of the Hyogo Prefectural Region (Prefecture, City and Town) (Panel member responsible for verification: Yoshiteru Murosaki, President, National Research Institute of Fire and Disaster)

#### (1) Achievements and Future Tasks

##### a. Achievements and future tasks for improving the prefectural disaster response capacity

Enrichment of the disaster response system has been conducted mainly in the fields of peacetime defences and the response system, through organisational reinforcements such as the appointment of Superintendent for Emergency Management, improvements to the Disaster Management Center and 24-hour monitoring and instant-response systems. In addition, cooperation between disaster reduction agencies has been strengthened and the foundations for disaster reduction have been reinforced.

It will be necessary to review the disaster reduction system by establishing medium- to long-term targets, in addition to strengthening the support systems for cities and towns.

##### b. Achievements and future tasks for improving the disaster response capacity of cities and towns

Disaster response systems have been modified in all cities and towns in Hyogo Prefecture, based on the lessons learned from the Great Hanshin-Awaji Earthquake. Peacetime preparedness has been significantly upgraded. For example, organisations (sections) dealing exclusively with disaster response systems have been established in a total of 10 cities and towns.

However, gaps have been noted in the progress of disaster reduction systems and improvements to facilities between cities and towns. As a result, further upgrading is required in the disaster reduction systems of those cities and towns where work has been delayed.

#### (2) Proposals

##### a. Preparation of an action programme for disaster mitigation and preparedness

The standards of improvement required for disaster reduction facilities should be clarified, along with preparation of an action programme specifying a target of  $x\%$  to be achieved by a given year, in order to periodically ascertain the current state of development. In the meantime, progress should be disclosed annually, as a responsibility of the administration.

##### b. Prefectural support for the disaster reduction systems of cities and towns

Due to their size, difficulties may arise, when attempting to carry out organized, well-planned improvements to the disaster reduction systems of given cities and towns, and improvements are therefore necessary to the prefectural support systems in these locations.

## 5-2 Wide-Area Disaster Reduction System Development Activities

(Panel member responsible for verification: Yoshiaki Kawata, Director, Research Center for Disaster Reduction Systems, DPRI, Kyoto University)

### (1) Achievements and Future Tasks

#### a. Regional cooperation between prefectures

Systemic improvements are underway as the result of various programmes including joint disaster reduction drills (which have been conducted by prefectures of the Kinki district since 1995) and the conclusion of a number of mutual assistance agreements (including inter-prefectural assistance on a national scale, blocs of prefectures, groups of neighbouring prefectures, and so on). Based on these agreements, staff are reciprocally dispatched by each prefecture to disaster-stricken areas, such as Fukui Prefecture, hit by torrential rain in the summer of 2004; Niigata Prefecture, badly damaged by the Niigata Chuetsu Earthquake in the fall of 2004; and those areas hit by Typhoon No. 23 in the summer of 2004. Staff were dispatched to these locations according to, respectively, the agreements between seven prefectures in the Kinki district, the national inter-prefectural agreement, and an agreement between seven prefectures in the Kinki district. The conditions for mutual prefectural assistance on the national scale were established during the early stages of these disasters, using the lessons learned from the Great Hanshin-Awaji Earthquake to full advantage.

#### b. Activities relating to the improvement of national government systems and nation-wide institutions

Coming into effect on April 1, 2004, a law has been enacted in regard to fire fighting staff, establishing an Emergency Firefighting Support Team. Improvements, such as the implementation of prompt, wide-area support, have been observed in response to subsequent disasters.

In addition, at the time of the Niigata Chuetsu Earthquake, each government agency coordinated the dispatch of staff from both national and prefectural governments to meet, as required, the demands for medical and mental health care/emotional support, as well as emergency risk assessment of the disaster area. Judging from these coordination activities, the national government's response to emergencies has made progress, but further work is still necessary in order to realize greater improvements with regard to the wide-area dispatch of staff.

### (2) Proposals

#### a. Sharing and standardization of fundamentals

The sharing and standardization of basic points should be further promoted in order to implement wide area cooperation.

#### b. Ensure thorough bilateral communication between national and prefectural governments

The bilaterality of reciprocal communications in regard to disaster information should be thoroughly implemented between national and prefectural governments.

#### c. Promoting the development of bases for basic wide-area disaster reduction

At the time of a large-scale disaster, it is generally difficult as well as ineffective to conduct rescue activities from the ground. It is therefore necessary to develop basic wide-area disaster reduction bases in coastal areas.

### **5-3 Training of Disaster Reduction Personnel**

(Panel member responsible for verification: Haruo Hayashi, Professor, Disaster Prevention Research Institute, Kyoto University)

#### **(1) Achievements and Future Tasks**

##### **a. Efforts to bridge the difference between ideal personnel (both in terms of quality and quantity) and the reality in local government**

Development of disaster reduction organisations and systems has progressed as a result of the increase in disaster reduction specialist positions in the national and prefectural governments. Training of personnel is also being carried out through the implementation of practical disaster reduction drills such as large-scale drills with the use of maps. However, the development of organisational control is still insufficient on some aspects, especially at the city, town and village level.

#### **(2) Proposals**

##### **a. Securing of personnel from the early stages through to reconstruction, in accordance with various conditions such as the size of local governments and particular weaknesses of the local area**

Each local government should endeavor to train and educate personnel specialized in disaster reduction according to their particular conditions, based on a quantification of the ideal personnel required.

##### **b. Introducing a System of Emergency Disaster-Relief Specialist Volunteers**

- A system should be established which will allow personnel specialized in disaster reduction to respond, even in the event that he/she had been transferred to another section.
- A system should be established in Hyogo Prefecture whereby retired firefighters, police officers, and administrative staff can be mobilized in the event of a disaster, and similar systems of emergency disaster-relief specialist volunteer deployment should be put in place in other prefectures, cities, and communities as well.

It is also necessary to establish an organisation of retired staff in the fields of various administrative affairs relating to disaster reduction, recovery and reconstruction.

- The employment of civilian engineers from fields such as information technology should be explored as part of a system by which civilian engineers competent to and skilled in information technologies and the operation of various types of equipment can be utilized as emergency risk assessors or the like.

##### **c. Strengthening of the management functions of disaster reduction personnel**

A function should be established for integrated personnel management of mobilization plans during a disaster, the peacetime rotation of disaster reduction personnel, and training programmes.

#### **5-4 Support for Voluntary Disaster Management Organisations**

(Panel member responsible for verification: Takashi Komura, Instructor, College of Environment & Disaster Research, Fuji Tokoha University)

##### **(1) Achievements and Future Tasks**

##### **(1) Support for voluntary disaster management organisations**

The rate at which voluntary disaster management organisations formed reached 93.8% in April of 2004, showing a remarkable increase in comparison to 27.4% in April of 1995, immediately after the Great Hanshin-Awaji Earthquake. Thus, voluntary disaster management organisations have been increasing satisfactorily. Our future task will be discovering how to extend the lasting activities of these organisations.

##### **(2) Proposals**

##### **a. Improvement of local disaster reduction capacity focusing on limiting the extent of damages**

###### **(i) Prior education concerning the stage of protecting lives immediately after the occurrence of a disaster**

Education regarding initial fire extinguishing activities, investigation and rescue works, management of stock material/equipment required for investigation and rescue works, and effective know-how in mutual support activities by local residents during the period of recovery and reconstruction should be further enhanced.

###### **(ii) Extension of the activities of voluntary disaster management organisations**

Voluntary disaster management organisations should be encouraged to provide assistance to local residents in the fields of seismic diagnosis, retrofitting, and prevention of furniture from falling, which are the most basic areas of earthquake disaster reduction in the households.

##### **b. New directions for local disaster reduction ability - living in the local community based on good understanding**

###### **(i) Upgrading of the "ability of the local community"**

The abilities of the local community, which are not limited to disaster reduction, should be further upgraded through various activities which enhance the sense of unity of the local community, including festivals and diverse types of events.

###### **(ii) Good understanding of the local community**

Residents should be encouraged to learn the history of disasters which have occurred in the local community where they live.

##### **c. Development of "Jizamurai" (provincial samurai who held local military power in the medieval period in Japan)**

In order to help upgrade the comprehensive ability of the local community to deal with the crisis (e.g. disaster, aging, business depression, etc.), "Jizamurai" types of leaders, who aim high and devote their lives to the local community, should be fostered.

## 5-5 Support for Disaster Management Volunteers

(Panel member responsible for verification: Toshiaki Tanaka, President, Nippon Volunteer Network Active in Disaster)

### (1) Achievements and Future Tasks

#### a. Cooperation between administration and volunteer groups

In Hyogo Prefecture, various examples of active cooperation between administration and volunteer groups can be seen. For example, Hyogo Emergency heArtful Rescue Team (HEART), which is an association of voluntary disaster relief rescuers, was established in cooperation with related organisations. Also, the systems for supporting active cooperation/coordination between municipal governments and volunteers were constructed both in Kobe City and Nishinomiya City. However, when the Northern Miyagi Earthquake struck, some cities, towns and villages were confused about receiving volunteers. Thus, significant differences can be seen in the awareness of local governments which receive volunteers.

#### b. Organisation of a volunteers' network

Education/training of leaders of volunteers (coordinators) has been advanced. In parallel to that, it is necessary to promote relationships which allow face-to-face communications among coordinators as well as among volunteers during peacetime.

#### c. Expansion of measures to develop volunteer organisations

We now take it for granted that volunteers play an active role during disasters since the occurrence of the Great Hanshin-Awaji Earthquake, and we recognize their importance through various occasions such as the Disaster Management Volunteers Day/Week. However, in some cities, towns and villages, there is still confusion in regard to cooperating with volunteers. Therefore, it is necessary to further enhance the social recognition of volunteers.

### (2) Proposals

#### a. Maintenance of the Hyogo Emergency heArtful Rescue Team (HEART) and securing of members

- In order to help maintain the members' motivation, it is very important to hold various types of study/training sessions and drills and to encourage the active participation of the members.
- It is essential to understand the needs of the disaster-stricken area for volunteers during the early stages after the occurrence of a disaster, and to promote active dispatch of required personnel.

#### b. Organisation of a network of disaster-related NPOs

During peacetime, it is necessary to promote a network of various NPOs, such as the encouragement of active participation in disaster reduction activities held in local communities.

#### c. Preparation of a volunteer centre operation manual

In order to make clear Guidelines for Supporting the Activities of Disaster Management Volunteers, prepared by Hyogo Prefecture, it is necessary to compile diverse information such as the know-how of the operations of volunteer centres and the construction of a mechanism which enables us to easily retrieve the concerned information when required.



## 5-6 Promotion of Earthquake-Proof Houses and Buildings

(Panel member responsible for verification: Kimiro Meguro, Professor, Institute of Industrial Science, The University of Tokyo)

### (1) Achievements and Future Tasks

#### a. Seismic retrofitting of existing houses

Hyogo Prefectural Government has provided subsidies for seismic diagnosis to approximately 39,000 houses since 1996 in order to promote seismic retrofitting of private housing. From 2003, the government also started to provide subsidies for preparation of the repair/improvement plan and seismic retrofitting work. The results of the first year (2003) showed that a total of 119 houses (30 applications) received the subsidy for preparation of the repair/improvement plan and a total of 17 houses (17 applications) were retrofitted. In 2004, the government started to develop an easier and lower-cost seismic retrofitting engineering method, and is now in the planning stages for making it a target of subsidised grants.

In parallel to these efforts, it is necessary to identify districts where a large number of old houses built according to the former seismic standards remain, and to give priority to making those houses earthquake resistant.

#### b. Enhancement of the earthquake resistance of facilities owned by the prefecture, cities and towns

Hyogo Prefectural Government is planning to complete the seismic analysis of facilities owned by the prefecture by the end of 2004, and to start the enhancement of the earthquake resistance of those facilities with seismic retrofitting and other engineering methods.

Among all the facilities owned by the prefecture, the government is planning to complete repair/improvement work in all of the 90 prefectural schools which have been assessed as requiring seismic retrofitting, in the next 10 years.

Among all the facilities owned by cities and towns, it is necessary for local governments to ensure that all school facilities located within their jurisdictions are made earthquake resistant in a prompt and balanced manner, based on the Guidelines for the Promotion of Earthquake-proof Public School Facilities, which were proposed by the Ministry of Education, Culture, Sports, Science and Technology.

### (2) Proposals

#### a. Foundation of self-support, public support and mutual support systems

- Public support: A reconstruction support system using public expenses, on a limited basis if seismically retrofitted houses are damaged by a disaster.
- Mutual support: (Nationwide) A mutual benefit provisions system among the owners of seismically retrofitted houses.
- Self-support: A new type of earthquake insurance for seismically retrofitted houses, which covers only "fire which breaks out after an earthquake".

#### b. Cost-benefit evaluation of seismic retrofitting

In order to clarify the effects of seismic retrofitting in private housing, the reduction of damages expected due to retrofitting work should be evaluated and explained in an easy-to-understand manner, based on long-term earthquake prediction information.

(Example of explanation)

The damages caused by the Tonankai and Nankai Earthquake are estimated to come to more than 300 trillion yen. If you average the damages over a period of 30 years, in which the probability of earthquake occurrence is estimated to be approximately 50%, it is calculated that 10 trillion yen of damages may be predicted to occur annually.

#### c. Promotion of seismic diagnosis

In order to promote the seismic diagnosis of a total of approximately 780,000 houses which were built according to the former seismic standards, it is necessary to expand the system of the home ownership retrofitting promotion project.

## 5-7 International Disaster Reduction Cooperation Activities

(Panel member responsible for verification: Hideki Kaji, Professor, Faculty of Policy Management, Keio University)

### (1) Achievements and Future Tasks

#### a. Showing appreciation for international support

Hyogo Prefecture has sent emergency rescue materials and contributions to disaster-stricken areas in foreign countries such as Taiwan and Turkey, and extended support for recovery and reconstruction by dispatching prefectural government staff in cooperation with the national government and the city of Kobe.

It is necessary for Hyogo Prefecture to transmit valuable information based on the lessons learned from the Great Hanshin-Awaji Earthquake and to extend support which meets the needs of disaster-stricken areas.

#### b. Compilation and sharing of the experience of the disaster and lessons learned thereof from a global point of view

It is essential to share the experiences of the Great Hanshin-Awaji Earthquake with all the countries in the world, by making best use of international disaster reduction agencies such as the Disaster Reduction and Human Renovation Institution, which was founded in the Kobe New Eastern City Center.

#### c. Contribution to the reduction of future disasters and crises through transmission all over the world of the experiences and lessons learned from the disaster

Hyogo Prefecture has concluded disaster reduction cooperation agreements with the State of California, which experienced the Northridge Earthquake just one year before the Great Hanshin-Awaji Earthquake, and also with the State of Washington, which is Hyogo Prefecture's sister state. Through these agreements, the prefectural government dispatches its staff for training and sends lecturers. Hyogo Prefecture also assumes the role of coordinator in the disaster reduction sectional meeting of the Association of North East Asia Regional Governments and tries to convey the experiences and lessons learned from the disaster.

For the future, it is necessary to foster disaster reduction cooperation with local governments in foreign countries.

### (2) Proposals

#### a. Extending appropriate support which meets the needs of disaster-stricken areas overseas

It is important to investigate methods which allow precise understanding of the needs of disaster-stricken areas and the agency, which acts as a coordinator for receiving support.

#### b. Establishment of personnel dispatch systems

It is necessary to establish a system to proactively dispatch from the prefectural government personnel who experienced recovery and reconstruction, regardless of requests from the national government.

#### c. Materialization and concretization of cooperation based on the disaster reduction cooperation agreement

It is necessary to discuss how to establish effective disaster reduction cooperation with the local governments overseas.

#### d. Promotion of future international cooperation in the field of disaster reduction, taking the opportunity of opening the United Nations World Conference on Disaster Reduction

It is important to investigate how to enhance international cooperation by making the best use of the combined forces of international disaster reduction agencies and networks. Also, the concept of the International Disaster Reduction and Reconstruction Cooperation Centre (temporary title) should be promoted based on the international disaster-reduction strategy for the 21st century (the Hyogo Strategy), which will be adopted during the United Nations World Conference on Disaster Reduction.

## **5-8 Efforts for the Foundation of Comprehensive Security Systems for the Japanese People**

(Panel member responsible for verification: Osamu Hiroi, Professor, Graduate School, The University of Tokyo)

### **(1) Achievements and Future Tasks**

#### **a. Support for the rebuilding of living**

Systems for financial assistance have been improved through the implementation of various types of measures for supporting the rebuilding of lives by utilizing the Great Hanshin-Awaji Earthquake Reconstruction Foundation, and also through the establishment of Act Concerning Support for Reconstructing Livelihoods of Disaster Victims.

In particular, the framework for supporting victims by utilizing the reconstruction fund may become one of the model measures to support the livelihood of disaster victims in the future. Agencies related to the recent Niigata Chuetsu Earthquake are now considering the introduction of a similar measure.

On the other hand, the deficiencies of the existing system were also clarified, showing that the funding system has some limitations as regards low-income groups and senior citizens.

#### **b. Support for rebuilding of houses**

It was a great achievement that a security of residence support system was founded in order to support the reconstruction of houses and that the way was paved for official support for housing. However, there remain some deficiencies in the system that the main body of housing construction costs is not included in the subject of official support.

### **(2) Proposals**

#### **a. Foundation of a Disaster Protection System**

A system to provide financial support for a certain period of time should be founded in terms of "disaster response measures", rather than in terms of "social welfare" for those households which lost their source of income due to the disaster.

#### **b. Introduction of self-choice support system for rebuilding housing**

Appropriate self-choice support should be extended to disaster victims in order that they may independently rebuild their livelihoods by depicting an image of their own way of reconstruction.

#### **c. Implementation of a nationwide mutual aid system for rebuilding housing**

The national government and other local governments should quickly promote the investigation of a nationwide mutual aid system, taking the mutual aid system for rebuilding housing considered by Hyogo Prefecture as a leading model.

## 6. Urban Development and Community Building

### 6-1 Reconstruction and Community-building Work

(Panel member responsible for verification: Kohei Doi, Professor, Daito Bunka University)

#### (1) Achievements and Future Tasks

##### a. Achievements and future tasks observed in the process of drawing up a reconstruction and community-building work agreement

In the districts designated for urban planning projects such as the Land Readjustment Projects, a large number of councils were established that helped to promote agreement among local residents. As a result, local resident-based reconstruction and community building has significantly advanced.

In some areas, there were confrontations between the local residents and the administration immediately after the earthquake, and it took a long time for the residents to reach an agreement. Taking this as a lesson, in the future, new will need to promote community-building activities which are mainly run by local residents, not only during emergencies but also on a daily basis. We need to bring in experts in the field of community building who can play a key role in bringing about agreement among all of the local residents.

##### b. Achievements and future tasks related to the support extended by the community-building experts

A system to dispatch experts by utilizing the reconstruction fund has been put into place. Experts such as community-building consultants were dispatched to the "white districts" or areas designated for reconstruction not by the municipal government but mainly by the local residents' own planning and efforts. Those experts helped to promote the joint housing reconstruction programmes, the rebuilding of condominiums and decision-making in district planning.

However, relatively speaking, the community-building activities in the white districts have been somewhat lacklustre and the number of experts to support the local residents was insufficient. Therefore, we must continue community-building support policies well into the future as well as fostering community-building experts.

##### c. Achievements and future tasks of the community-building projects

The Hyogo Prefecture Government established the Basic Community-building Act, in consideration of the lessons learned from the Great Hanshin-Awaji Earthquake. Through that Act, reconstruction and community-building projects were expanded throughout the prefecture. As a result, the community-building activities which are mainly run by the local residents have become very active not only in the earthquake-stricken areas, but also in those areas which were not seriously damaged by the earthquake, and Society Creation Conferences were founded in many areas throughout Hyogo Prefecture.

Nevertheless, approximately half the municipal governments have yet to introduce a system to support the community-building activities by the local residents. In the future, it will be necessary for the municipal governments in Hyogo Prefecture to institute an act to promote community building and to set up a support system.

#### (2) Proposals

##### a. Experts who can respond to the initial period of disorder should be fostered and a support network should be constructed

A system to dispatch experts who can act as mediators between the local residents and the administration during the initial period of disorder in the aftermath of a disaster should be set up. These experts should be educated and trained and a network of these community-building experts should be established.

##### b. Community-building activities primarily run by local residents on a daily basis should be put into place

The local residents in each district should share their own vision of the district. Therefore, the agreements related to the district planning and community building should be concluded. At the same time, efforts toward fostering the experts, crime prevention, public welfare, tree-planting and landscape preservation should be promoted in order to stimulate community-building activities run primarily by the local residents on a daily basis.

##### c. Diverse systems to support community building primarily run by the local residents should be set up

Each municipal government should promote the establishment of its own community-building act, and clarify the position and role of the Society Creation Conferences. At the same time, the municipal governments should reinforce the system to support community building and institute various systems needed to stimulate community-building activities mainly run by the local residents.

## **6-2 Reconstruction and the Urban Environmental Improvement Project**

(Panel member responsible for verification: Ikuo Kobayashi, President, Urban Planning Network for The Citizens of The Great Hanshin-Awaji Earthquake Reconstruction)

### **(1) Achievements and Future Tasks**

#### **a. Achievements and future tasks in the process of project planning**

A two-step urban planning system has been adopted: first, a general framework including the areas involved in the project and trunk roads in the city was adopted; second, precise road planning and facilities such as urban parks were decided on, taking into consideration the suggestions of the local residents.

In the future, we will have to work out a system which helps the local communities remain and prosper in the original area and to reinforce the system of dispatching experts in order to understand the local residents' opinions and to help them reach agreement more quickly.

#### **b. Achievements and future tasks in the process of promoting the project**

The urban environmental improvement project has been developed based on the special measures related to earthquakes, the two-step urban planning system, the earthquake reconstruction fund and a combination of multiple projects, and also by the flexible revision of planning promoted in various urban development proposals from the local communities. Consequently, public facilities such as roads and parks have been improved and the urban environment and disaster reduction system has been significantly upgraded.

In the future, it will be necessary to promote the project based on a suitable evaluation of the make up of the residents in each district and the constantly changing commercial environment. Also, there are some districts where the urban environmental improvement was not greatly advanced, especially among densely-populated urban districts, which was not so seriously damaged by the earthquake.

### **(2) Proposals**

#### **a. Promotion reconstruction projects effectively using the key elements of speed, flexibility and diversity**

- Implementation of the project via the two-step urban planning decision-making system should be referred to not only during emergencies but also when there are no emergencies.
- A variety of options should be proposed to residents so they can successfully rebuild their lives which could include moving.

#### **b. Employ a support system which would include sending experts to assist Society Creation Conferences**

- A system must be established for dispatching experts in the earliest stages by putting the right person in the right place.
- A funding system must be set up that can flexibly respond to the needs of various projects in earthquake reconstruction.
- We have to make use of the experiences of the public sectors including public corporations.
- A system should be established to assist the disaster victims remain in the same community that they lived before the disaster and to enhance community building by making the best use of the characteristics of each district such as its history, culture and urban landscape.

#### **c. Integrate community building and housing development**

- We must respond to changes in the environment of the local community and enhance development unique to each community in Reconstruction and the Urban Environmental Improvement Project.
- In order to reconstruct the areas hit by disaster and assist the victims, it is not only large-scale projects such as urban redevelopment that are effective, but also systems such as joint reconstruction projects for structures affected by the disaster which assist victims to help each other with housing reconstruction.

#### **d. Use of the community development centre for secure, safe community development**

- We must evaluate the disaster risks in densely-populated urban districts and publish the findings.
- A community development centre should be established to help the local residents to promote community development on their own. The platform could serve as an information exchange centre where people from various districts can discuss their problems; as a workshop; and also as a training facility to assist in the development of community leaders.

### 6-3 The Formation of New Urban Cores

(Panel member responsible for verification: Yukihiro Kadono, Professor, School of Human Environmental Sciences, Mukogawa Women's University)

#### (1) Achievements and Future Tasks

##### a. Achievements and future tasks based on how the new urban cores have contributed to earthquake restoration

Among the 17 new urban development projects included in the Great Hanshin-Awaji Earthquake Reconstruction Plan, Rokko Island, Seishin District, Ohkubo Station South District, Kobe New Eastern City Center, Nishinomiya-hama District and South Ashiya-hama District have successfully played a role by supplying housing and receiving new residents. In addition, Kobe New Eastern City Center, Naruo-hama District, Port Island 2nd Stage District, Kobe Compound Industrial Estate and Amagasaki Seaside District have played a role by receiving the business functions of various companies.

However, in Takarazuka New Town, East Harima Media Garden City and Ono (Yamada) District, there were many uncertainties in the new urban planning when those projects were views in the entire framework of the Earthquake Reconstruction Plan, and no progress has been made so far. The projects in the Tojo-Nanzan District, Hokudan-cho Asano District and the Sumoto New City Centre have made some progress. However, these projects are not so strongly connected to the mainstream reconstruction projects because of their physical distance from the disaster-stricken area and also because of the delay in the start-up of housing supply programmes.

##### b. Achievements and future tasks in the development of ideal new urban cores

Among the 17 new urban development projects, those districts in which project planning underwent timely revisions have played a role by accepting emergency temporary/public housing, acting as an urban development model, and by adopting the idea of universal design.

However, the original goal of an urban structure based on a "multiple core network" as set out in the Great Hanshin-Awaji Earthquake Reconstruction Plan was not achieved due to uneven development in the business sectors of the 17 new towns, and because a greater than expected number of private houses for installment sale were supplied on the seaside and the east side of the disaster-stricken area, and also because there was insufficient discussion of conceptions of the multiple core network in the broader Keihanshin metropolitan area and Osaka Bay area.

#### (2) Proposals

##### a. Set up requirements that will enable the new urban districts to contribute to reconstruction

We must be sure that we have the ability to respond quickly to plan revisions from the very beginning of the planning stage and to establish a system which can immediately cope with the needs of temporary land use and the revision of the entire project. It is will also be essential to quickly secure measures for receiving people as well as companies, to invite short-term tenants, and to provide uniform information.

##### b. Take measures that will enable a smooth economical and psychological transition

In the new residential urban districts, it will be necessary to take measures to mitigate the great sense of loss and the anxiety of the new residents as well as to help them gradually acknowledge the change in their living environment. In the new business urban district, we will need to discuss the funding system to help the companies to transfer to the new area smoothly, and to discuss an official support system for the companies if they have to change their type of business due to the transfer to the new area.

##### c. Acknowledge the need for developing a unique, attractive core

It will be necessary to introduce universal design more widely and enhance amenity levels, as well as increase the appeal of a new urban centre through the temporary use of undeveloped and vacant land and other means.

##### d. Construct a large multiple core network

It will be necessary to construct a closely connected network covering a large region in the Keihanshin metropolitan and Osaka Bay areas.

## 6-4 The Restoration of Town Landscapes

(Panel member responsible for verification: Kunihiro Narumi, Professor, Graduate School of Engineering, Osaka University)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks in the restoration and preservation of urban landscape

In the districts where the rules for landscaping had been well-established, a landscape development point of view was successfully incorporated in the recovery and reconstruction at a relatively early stage after the earthquake. However, in the general disaster-stricken urban districts, where there were no particular rules for landscaping, the method of coping with the changing landscape was inadequate, and as a consequence, the number of stone walls and hedges that had once been a familiar sight was significantly reduced, as was the number of traditional houses.

We must expand and improve the Urban Landscape and Community Development District System in the future, and promote landscaping development by the residents even in the general urban districts. At the same time, we need to make the local residents more conscious of the importance of landscaping.

#### b. Achievements and future tasks: support for the repair of historically valuable buildings

Certain achievements have been made in the repair of designated cultural assets with historical and cultural significance and other historically valuable building through assistance projects. However, a number of historically valuable buildings were lost because of excessive dismantling of those buildings by public funds and a lack of recognition by the residents of the significance of those buildings in the landscape of their districts.

In the future, it will be necessary to provide maintenance and repair subsidies not only to the designated cultural assets but also to more general types of buildings which are significant to the development of the landscape.

### (2) Proposals

#### a. Establish district planning that takes landscape development into consideration

Establishment of the Urban Landscape and Community Development District System (a system for preserving/developing the unique landscape of streets with shops and houses) and the Urban Landscape and Community Development Agreement should be promoted. To this end, landscape advisers (experts) should be dispatched to provide appropriate instructions and guidance to the residents for the district planning, run primarily by the local residents. At the same time, we must expand and improve the system to give sufficient financial support for the cost of maintenance and repairs of buildings that are important in each district's landscape development.

It is also important to take measures to make the residents more conscious of the importance of developing and preserving the landscape of their own district by giving awards for outstanding community building activities related to landscaping.

#### b. Promote and assist in designating buildings important to the district's landscape

We must promote the designation of the buildings which are important to the landscape of each district and give sufficient financial assistance to maintain and repair those buildings. In addition, we have to establish a system for environmental landscape development, in which those significant buildings play a main role.

## 6-5 The Creation of Greenery and Improvement of Park Facilities in Urban Districts

(Panel member responsible for verification: Yohei Saito, Professor, Institute of Natural and Environmental Sciences, University of Hyogo, Hyogo Prefectural Awaji Landscape Planning and Horticulture Academy)

### (1) Achievements and Future Tasks

#### a. The role of parks and greenery in a disaster

Based on the lessons learned during the Hanshin-Awaji Earthquake, the effect of greenery was again acknowledged by the citizens. As well, the idea of a disaster reduction base was created as one use for parks in times of disaster.

The restoration work on the urban parks was completed in March 1997. Following that, the urban parks became the subject to a law that states that the expenses required for the restoration of public engineering facilities from disasters are to be paid by the government, as of April 1998.

#### b. Achievements in creating new disaster reduction parks and recreational green spaces

Reconstruction and community-building activities have been advanced through the cooperation of local residents and local government. As a result, various types of parks and green recreation facilities were established by the local residents, reflecting the characteristics of each district. Based on the lessons learned from the earthquake, the "Project for Environmental Improvement of Disaster Reduction Parks" was planned to improve the institutional system. However, the disaster reduction parks have yet to be fully developed. In Hyogo Prefecture, the Miki General Disaster Reduction Park was created, which is Japan's first prefectural base for disaster reduction of this kind. While much difficulty was experienced in rescuing disaster victims left in isolated mountainous villages after the recent Niigata-Chuetsu Earthquake and Typhoon No. 23, the Miki General Disaster Reduction Park is expected to prove effective in extending prompt support to victims left in such remote areas.

#### c. Achievements in the restoration of the local community and planting trees along the streets

Citizen's groups have carried out a variety of activities for the restoration and reconstruction of the local community through the addition of greenery. Those groups include the Hyogo Green Network and the Hanshin Green Network. With these movements as a background, a training and education programme for people to become involved in helping to create of green spaces was launched in the Awaji Landscape Planning & Horticultural Academy, the Museum of Nature and Human Activities, Hyogo, and Arima Fuji Park.

### (2) Proposals

#### a. Promote the creation of recreational green spaces along with urban restoration

- Disaster reduction parks should be developed and improved not separately but together with other public facilities such as schools so that a disaster reduction base of a certain size can be established.
- In order to establish an integrated network of wide-area disaster reduction bases between the Miki General Disaster Reduction Park and other disaster reduction bases throughout the prefecture, the disaster reduction parks need to be upgraded so that they can serve as bases for wide-area disaster reduction in urban districts. Also it is necessary to produce operation manuals, including guidelines for coordinating the activities of municipalities and related organisations.
- In order to help mitigate the risk of large-scale fires in the urban districts, there is a need for improving the basis for integrated disaster reduction so that the water, greenery and urban infrastructure are organically arranged and to establish a basis for safe, comfortable urban districts.
- Creation of parks with enough space for helicopter take-offs and landings is needed to rescue victims left in isolated areas in times of disaster.

#### b. Reinforce the emergency management system for recreational green spaces

- During non-emergency periods, we should cooperate with local residents to establish a system for utilizing the functions of the disaster reduction parks in times of emergency, and to train "disaster reduction park's civil leaders" on initial rescue operations and evacuation control.
- A flexible system should be set up that will enhance the disaster reduction functions of recreational green spaces rather than just restoring them. We also need a management system to provide technical support to the disaster stricken districts.

#### c. Encourage green community building efforts carried out by the residents

- Governmental support should be extended so that the new cityscape greening initiative aimed at restoration and reconstruction of the local community will continue to be pursued and contribute to creative community development.
- Training and education programmes for people who can act as coordinators in supporting local residents' greening activities should be reinforced. A mechanism for increasing greenery through the indirect support and management of local residents' activities should be created and promoted in close cooperation between residents and local governments.
- Research should be promoted looking into the disaster reduction effects of greenery, and the importance of greenery should be communicated widely to the public. Greening activities should be implemented not only to improve the cityscape and environment, but also to enhance disaster preparedness.



## 6-6 Preserving and Improving a Rich Natural Environment

(Panel member responsible for verification: Isao Nakase, Professor, University of Hyogo)

### (1) Achievements and Future Tasks

#### <Achievements>

##### a. Changes resulting from the Great Hanshin- Awaji Earthquake

Disaster reduction effects of greenery have been proven. The natural environment of the disaster stricken area has deepened people's appreciation of pure water and for the seaside or riversides which provide sense of security and safety as well as peace and healing.

The earthquake renewed our awe and reverence for nature and made us recognize the importance of co-existence with nature. The scope of activities to create and restore greenery in the disaster stricken area was broadened based on our experiences of working together and volunteering. Because of this, people's consciousness and actions have changed, and movements for creating a more mature society have accelerated.

##### b. Recovery, reconstruction, and the development of governmental measures

During the recovery period, great efforts were made in carrying out emergency measures such as setting up signs with clear warnings that Mt. Rokko hiking routes were impassable. Restoration work and emergency investigations into the status of greenery by experts were also carried out.

Throughout the entire recovery process, general measures were developed and implemented, based on the Act Related to Environmental Preservation and Improvement, and on the Hyogo Biotope Plan.

Several large-scale projects including the Restoration & Creation of Greenery as part of the Rokko Mountain Range Greenbelt Development Project and the Revival & Restoration of Nature and the Environment, based on the Revival Plan for Hyogo's Forests, Rivers and Ocean were promoted. The programme, Citizens' Activities for the Creation of Greenery, was also advanced by citizens' groups such as the Hanshin Green Network and the Hyogo Green Network.

#### <Future tasks>

##### a. Countermeasures for the natural environment during a disaster

Emergency countermeasures are essential as a response to the vulnerability of the natural conditions of each district.

##### b. Investigation of suitable methods for helping nature to recover

We must select suitable plant and animal species and look into the best way of preserving and reviving the ecosystem of each area.

##### c. Importance of maintenance/management

It will be necessary to conduct appropriate maintenance, management, monitoring and adaptive management.

##### d. Practical use of the natural environment both inside and outside the city

It is important to coordinate the use of parks, shrines and temples, schools and vacant land in the city and as well as the forests and *satoyama* (wooded lands located close to towns that, traditionally, the residents of the area feel a close attachment to).

##### e. The promotion of activities and coordination of various groups

The promotion of the training and education of people to lead the citizens' activities, the founding of organisations, the set up of an effective information exchange system, and the coordination of diverse citizens' groups are all necessary.

### (2) Proposals

##### a. Investigate and promote a balanced relationship between people and nature

The work toward the restoration of the natural environment, which has been started in many places, should be actively promoted. At the same time, management of a desirable ecosystem, including measures against certain species that have been introduced, based on the concept of preservation of ecological diversity as well as the cooperative management of green spaces (such as parks and *satoyama*) should be strengthened.

##### b. Raise consciousness of and keep in mind the experiences of preserving and improving the natural environment

More opportunities should be given to Hyogo Prefecture residents to experience the natural environment through environmental education and to improve the consciousness of the preservation and improvements to the environment.

##### c. Expand participation and cooperative projects to preserve and improve the natural environment

We must reinforce the activities of NPOs and volunteers in creating green spaces and preserving living creatures. A wide variety of measures should be employed, including ones encouraging organic coordination and information exchange between implementation entities, as well as ones providing for the education and training of leaders.

##### d. Promote activities which preserve and improve the environment, and which are suitable for the characteristics of each district; create a network of these activities

We need to promote activities that will preserve and improve the environment, and which are conducted in accordance with the characteristics of each district such as forests, rivers, the ocean, towns and farms. As well, mutual coordination and exchange among a variety of districts should be carried out.

## 6-7 Creating a Recycling-Oriented Society

(Panel member responsible for verification: Yasuhiko Wada, Professor, Department of Engineering, Kansai University Graduate School)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks: lessening the environmental burden during the recovery stage

An enormous amount of waste resulting from the disaster was processed into rubble ending in 1997 by the Councils for the Promotion of Waste Disposal founded by the national and municipal governments, by temporary waste storage areas rapidly created on reclaimed land, and also through rapid dismantling granted by special measures including dismantling carried out at public expense. In the process, certain problems were encountered. For example, final disposal was extended over a long period due to insufficient separation of waste according to categories, and some waste had to be burned at a temporary waste storage areas.

As a countermeasure against air pollution, measures to prevent the dispersion of dust and asbestos were taken that included the dissemination of the guidelines for dismantling and removal work, and other rules and regulations. Also, chlorofluorocarbons (CFC) were correctly recovered and disposed of through the recovery/disposal projects operated by the CFC Recovery/Disposal Promotion Council and through restriction of CFC release based on regulations. However, there were problems, including the need for building an emergency monitoring system because the agency in charge of analysis was damaged in the earthquake.

#### b. Achievements and future tasks: measures to build a recycling-oriented society

Reduction of waste and the promotion of recycling has been accelerated based on the waste disposal plan. However, efforts made by households and offices are still insufficient. In order to solve the global environmental problems, Hyogo Prefecture has encouraged an initiative to introduce what it calls "green energy" into public facilities and to popularize the installation of photovoltaic power generation units for household use. As a result, the rate of propagation of photovoltaic power generation units is at an all-time high in all prefectures.

### (2) Proposals

#### a. Lessen the environmental burden during the recovery stage

When disposing of an enormous amount of waste after a disaster, the waste should be separated as much as possible at the site where dismantling takes place, and temporary waste storage areas should be secured. Waste separation techniques developed through the experience of the earthquake should be shared so that it becomes well known. Mechanisms for efficient waste disposal in times of disaster should be established. The transportation of waste can be conducted more efficiently by promoting well-organized dismantling works.

As for anti-air pollution measures, an emergency monitoring system should be built in cooperation with universities and other self-governing bodies. The degree of disaster preparedness of factories should be checked by giving instructions and conducting on-the-spot inspections, and a cooperative CFC recovery system should be established to prepare for emergencies. Also, the use of materials such as CFCs that can harm the environment in a disaster should be reduced.

#### b. Take measures to build a recycling-oriented society

To reduce waste and promote recycling, local residents' and companies' independent environmental preservation activities as well as an environmental education system should be encouraged along with the promotion of eco-business. In regard to global environmental problems, the effective utilization of energy as well as the introduction of natural energy sources such as photovoltaic, wind and biomass energy should be promoted.

## 6-8 Infrastructure Improvements for Roads, Harbour Facilities, Railways and Airports

(Panel member responsible for verification: Hideo Moritsu, Professor, Faculty of Information Science, University of Marketing and Distribution Sciences)

### (1) Achievements, Future Tasks and Evaluation of the Reconstruction Work

#### a. Achievements in the initial earthquake response period

- (i) Emergency transportation routes and landing wharves for unloading emergency assistance goods were secured. The airport (Osaka International Airport) was used as a base for the transportation of emergency goods.
- (ii) Buses were used in place of railway transportation and railway detour routes were secured (e.g. Fukuchiyama Line, Kobe Electric Railway, Hokushin Kyuko Railway routes).

#### b. Achievements during recovery and reconstruction

- (i) Emergency transportation routes were established. (An emergency transportation network plan was developed.)
- (ii) The Port of Kobe and harbour facilities under the management of Hyogo Prefecture were restored earlier than expected. On the whole, the facilities were restored within two years. At the same time, seismic reinforcement was conducted on some parts of the wharves in conjunction with the restoration work.)

#### c. Major tasks for the future

- (i) Road improvements in which grid-type high standard highway will be introduced have been delayed or not yet begun. (e.g. the Western extension of the Osaka Bay expressway)
- (ii) Part of the Kobe Port redevelopment project has not yet begun. (e.g. the Western district of the new port)

#### d. Summary of the past decade

The traffic infrastructure was evaluated from the aspects of status of use, contribution to the reconstruction of local communities, and improvements of functions and characteristics.

- (i) Road reconstruction was accomplished with the improved convenience in the road network and seismic reinforcement of structures. The restoration of the sidewalks removed a hindrance to everyday life.
- (ii) In 1997, the amount of freight handled in the Port of Kobe returned to approximately 90% of the 1994 level which indicates that the reconstruction of harbour facilities has been achieved.
- (iii) The number of passengers using the affected railways, including private railways, marks a return to the previous long-term level which indicates that reconstruction has been achieved.
- (iv) In order to further upgrade the disaster reduction awareness in relation to the traffic infrastructure, we have to continue our work so that everyone concerned, including the main body in charge of improving the traffic infrastructure, local residents and users, will recognize the importance of securing the traffic system.

### (2) Proposals

#### a. Adopt the best method of restoring the traffic infrastructure

Restoration to the original status is not the best measure in every situation. It is important to upgrade traffic infrastructure to an ideal level by taking advantage of the earthquake recovery measures.

#### b. Use the existing plan and reconstruction plan

In order to avoid making the purpose of reconstruction ambiguous, the reconstruction plan should be composed of the existing plans, which should be promoted along with the reconstruction plans as well as those plans which are necessitated by the earthquake.

#### c. Establish an advance reconstruction plan

In order to make the traffic infrastructure as ideal as possible and take advantage of the earthquake recovery measures, we have to come up with a reconstruction plan before the next earthquake strikes.

## **6-9 Reinforcement of Rivers, the Seaside, Dams and Landslide Prevention Barriers**

(Panel member responsible for verification: Takashi Okimura, Professor, Kobe University)

### **(1) Achievements and Future Tasks**

#### **a. Achievements and tasks in the promotion of recovery and reconstruction projects**

Generally, the recovery projects were completed quickly; nearly all the projects, including disaster reduction and recreational river facilities, as well as the reinforcement of major rivers as disaster reduction spaces for large areas, were completed as scheduled. Upgrades to the seismic reinforcement of buildings have also been made. However, the investigation for the impact of Tonankai and Nankai Earthquake has just begun.

#### **b. Achievements and tasks in the soft measures which make the best use out of the reinforcement of hardware**

Besides the river monitoring system and designation of the important flood control points, the fire extinguish drills by using the river water with the participation of the local residents have also been performed. In order to further enhance this movement, it is necessary for the local communities to voluntarily participate in these events. It is also necessary to discuss about the evacuation measures against tsunami.

#### **c. Achievements and tasks in the creation of disaster reduction space by the network of urban development**

Close coordination of rivers and parks have been actively advanced. However, there remain some undeveloped areas due to the priority given to the flood control projects. Also, there are many problems such as how to secure the water resource and who to bear the expenses in order to realize the Hanshin canal concept.

### **(2) Proposals**

#### **a. Steadily promote forestry conservancy and river improvement projects in preparation for natural disasters**

Projects for the recovery and reconstruction from the earthquake have made significant progress. However, the standard of river improvements is still inadequate. Measures must be taken against damage from storms and floods in order to be prepared for the natural disasters such as Typhoon No. 23.

#### **b. Make preparations geared for the characteristics of the Tonankai and Nankai Earthquake and tsunami could produce**

A method of evaluation must be established and discussed that will take into consideration the characteristics of the Tonankai and Nankai Earthquake such as recurring tremors over a long period; sustained tremors; and the occurrence of two earthquakes with a time lag. For tsunami, soft measures such as remote monitoring, information transmission and an evacuation system need to be put into place in addition to hard measures.

#### **c. Promote soft measures which can take optimal advantage of the infrastructure**

If the infrastructure should be destroyed, the expansion of damage must be minimized. Therefore, we must improve the hazard maps and the information transmission system, as well as the soft measures for evacuation. It is also important to periodically carry out realistic drills by using the river facilities, spaces and river water.

#### **d. Work together toward disaster reduction**

In order to prepare for natural disasters, we have to work together through an integrated system of public support, mutual support and self-support. Measures taken only by the administration are limited, especially in the management of infrastructure, preventing the spread of damage and lifesaving.

#### **e. Promote improvements to the water and greenery network**

In order to reinforce the functions of disaster reduction spaces such as emergency evacuation centres, spaces for lifesaving and the preventing the spread of damage, we need to actively improve river facilities and to encourage programmes such as the Mt. Rokko green belt concept and the designation of landslide warning zones. It is also important that we enhance the water and greenery network in which individual facilities work in close cooperation with each other.

## 6-10 Improving Water and Sewage, Electricity, Gas and the Information and Communications Facilities

(Panel member responsible for verification: Shiro Takada, Professor, Faculty of Engineering, Kobe University)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks: soft measures (emergency response system)

All lifelines were restored within three months. The reason that such fast restoration was possible was because of the input of a large number of aid organisations and teams. However, some problems arose in relation to the lack of systematic control of those aid groups. As a result, the system in the initial stage of emergency response has been reviewed and mutual assistance agreements have been concluded.

It will be necessary to establish a function to coordinate diverse types of organisations in order to adopt more efficient emergency response system.

#### b. Achievements and future tasks: hard measures

In order to minimize and prevent the spread of damage, progress has been made in the adoption of seismic-resistant structures, the upgrading network reliability, and the enhancement of system control. However, there are still certain aspects where the improvements in the hardware system are not insufficient due to budgetary limitations.

For the future, priority investment in the most important facilities such as lifesaving lifelines should be promoted to make the best use of the limited budget through the concerted efforts of all concerned organisations. Effective utilization of existing facilities is also an effective measure.

### (2) Proposals

#### a. Hyogo Prefecture should establish a means of coordinating all the lifelines

The government of Hyogo Prefecture should commit itself to the coordination of all lifeline operators, integrated information management, establishment of a bilateral information exchange system with local residents, joint use of material and human resources owned by each organisation and the performance of general disaster reduction drills with the participation of all relevant organisations.

#### b. Establish a disaster information management system and a disaster recovery assistance system

We need to set up both a disaster information management system which can collect real time data and transmit the analysis and results to each lifeline operator, and a recovery assistance system which can analyse restoration strategies, organize recovery teams, distribute material and equipment required for restoration work, and systematically deliberate the arrangement of aid parties.

#### c. Promote the adoption of seismic-resistant structures in accordance with the significance of the building

We should promote priority investment for the adoption of seismic-resistant structures in those facilities which could cause damage over a large area, as well as in facilities that are part of the lifesaving lifelines (such as fire departments, hospitals, disaster reduction bases and evacuation centres). As well, the electricity and communication backup system in the significant facilities should be reinforced. In addition, for those towns and villages whose residents have relatively low awareness of the importance of seismic-resistant structures for their basic facilities, a programme for improving their risk management awareness should be conducted.

#### d. Enhance lifelines and a health monitoring system (daily risk management)

A system should be set up which can routinely detect problems and take measures to shut down when problems are encountered.

## 6-11 Improvements to the Entire Social Infrastructure

(Panel member responsible for verification: Kiyoshi Kobayashi, Professor, Graduate School, Kyoto University)

### (1) Achievements and Future Tasks

#### a. Achievements and future tasks of recovery work

Considering the tremendous damage caused by the earthquake, we can say that the mitigation of indirect damage (such as the financial aspect) through early recovery period was successful. However, the understanding of the total amount of damage, important in consideration of disaster reduction investment, was hardly sufficient.

In the future, we need to establish a guideline for large-scale natural disasters by which to calculate the total amount of damage based on a certain standard.

#### b. Achievements and future tasks of risk control and risk finance

Although risk control progressed remarkably in the process of recovery and reconstruction, certain limits were imposed by budgetary restrictions. Therefore, the risk finance must also be improved. However, a system for doing this has not yet been sufficiently established in Japan. It will be necessary to discuss the risk finance for the future.

### (2) Proposals

#### a. Introduce asset management to effectively reduce the risk of disaster to the infrastructure

As the existing infrastructure becomes outdated and obsolete, an efficient maintenance/repair and renovation approach (asset management) should be introduced in order to effectively utilize the facilities, taking the disaster risk into consideration.

#### b. Establish sound risk communications between the government and local residents

Risk control information related to earthquake, flood, landslide and tsunami should be promoted and shared with the local residents.

#### c. Reinforce disaster reduction investment evaluation by the real option approach

In the benefit analysis of disaster reduction investment, not only an analysis based on the estimated amount of damage at the time improvement work is conducted, but also the economical value that the three options of optimum implementation time, possibility of development and growth will bring about should be evaluated.

#### d. Establish a disaster accounting system

A disaster accounting principle consistent with the accumulated accounting of 93SNA, should be established, and well-planned disaster reduction investment should be implemented. In addition, by the improving the disaster accounting system, the preparation status of the disaster recovery costs based on the disaster response fund and reservation of insurance premiums should be disclosed to the residents of Hyogo Prefecture. At the same time, it is also important to consider how to place damage due to natural disasters on the Japanese balance sheet as an increase/decrease of the people's stock of money.

#### e. Construction of overall risk management

An effective risk control system should be constructed based on a combination of the risk control approach and the risk finance approach.

## 5. OUR HOPES FOR THE FUTURE

The Great Hanshin-Awaji Earthquake was the first near-field earthquake in the history of mankind to strike a large city with highly-concentrated socioeconomic functions and a high proportion of elderly residents. In the subsequent reconstruction, various initiatives were carried out with a view to pre-empting the anticipated problems of the mature society that is 21<sup>st</sup>-century Japan.

In our verification of the long reconstruction process that has spanned the last decade, it is vital that we not only summarize the results of the initiatives carried out so far, but also provide an overview of the problems that have become clear in the course of the reconstruction process, and consider how we are going to solve these problems and ensure that the experiences gained and lessons learned from the earthquake are reflected in future actions.

Based on our verification operation, we have compiled a list of 459 recommendations regarding matters such as the following:

- The addressing of the outstanding problems in the reconstruction following the Great Hanshin-Awaji Earthquake
- The establishment and rolling-out of new support systems for the mature society of 21<sup>st</sup>-century Japan, which have grown out of the reconstruction process
- The creation of systems and frameworks in readiness for future large-scale disasters

It appears that no other verification of post-earthquake reconstruction initiatives on this scale has ever been carried before, anywhere in the world. However, what is important is that we not only summarize lessons learned and recommendations made, but also ensure that this information is actually shared across organisational, regional and generational boundaries, and that it is utilized in meaningful ways, and used to realize the vision of a truly safe, secure and symbiotic society.

We firmly believe that the findings of this verification, gained as a result of over a year's cooperation between the Panel member responsible for verification and those involved in the verification work, comprise a valuable asset collectively owned by mankind, and that they will certainly make a contribution to disaster mitigation and reconstruction with regard to future large-scale disasters in Japan and overseas, and to regional and urban development in mature societies.

We hope that the region stricken by the Great Earthquake will continue to feel a moral duty to pass on and disseminate the experiences gained and lessons learned from that disaster, and that the recommendations covering each topics set out in our "Recommendations for the Future" will be made use of and put into practice by all sorts of organisations in Japan and overseas.

No two disasters are alike. The Great Hanshin-Awaji Earthquake was an urban disaster that taught us many lessons. However, with regard to the subsequent Niigata Chuetsu Earthquake, and 2004's Typhoon No.23, Japan urgently needs to find out what happened and what new lessons have been learned. We strongly recommend that the process of amassing verification findings continues on an open-ended basis, and that these findings are shared and serve to help make human societies safe, secure and symbiotic.

## Members of the 10th Year Restoration Committee

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