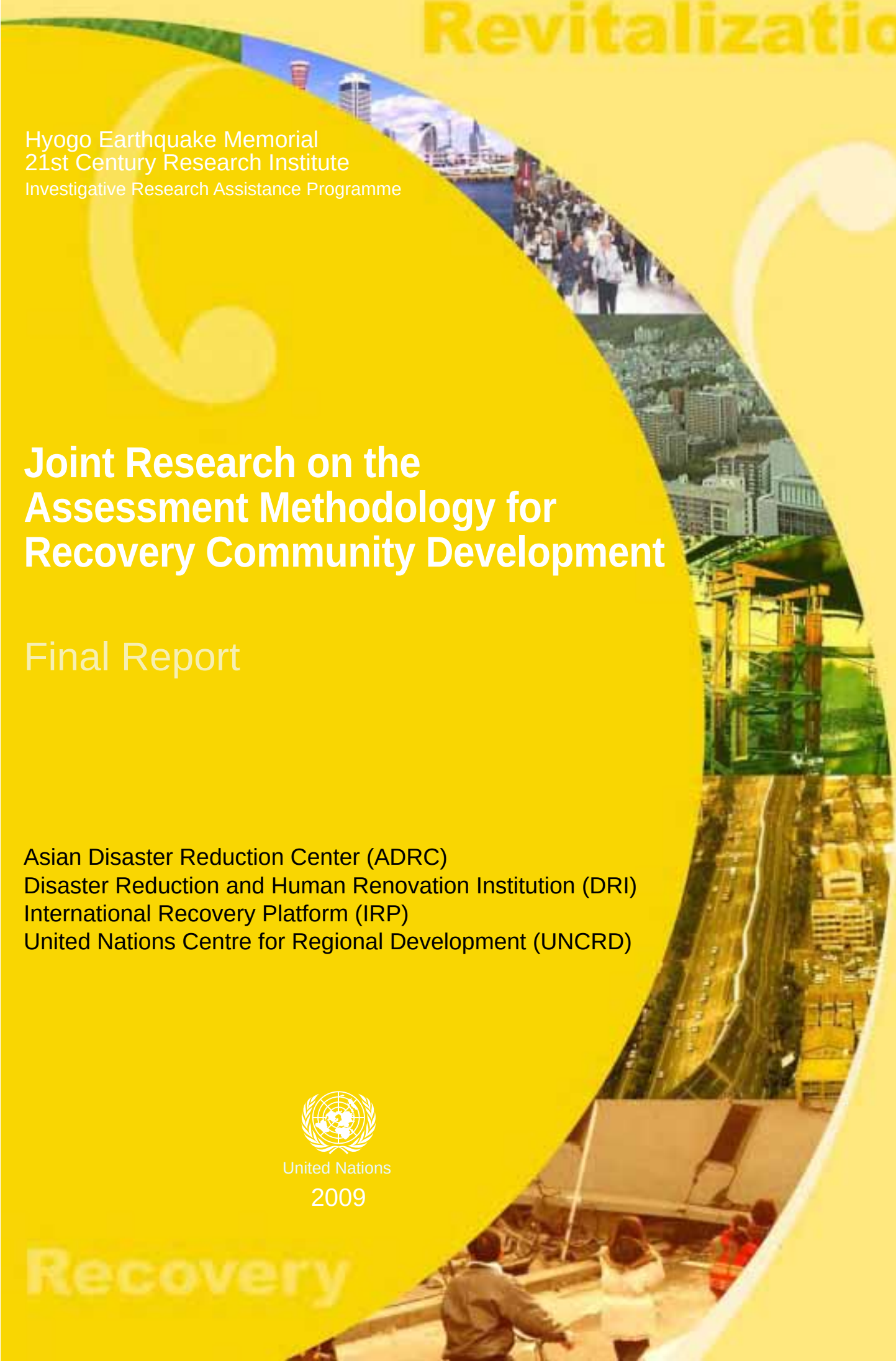
Revitalization

Hyogo Earthquake Memorial
21st Century Research Institute
Investigative Research Assistance Programme



Joint Research on the Assessment Methodology for Recovery Community Development

Final Report

Asian Disaster Reduction Center (ADRC)
Disaster Reduction and Human Renovation Institution (DRI)
International Recovery Platform (IRP)
United Nations Centre for Regional Development (UNCRD)

United Nations
2009

Recovery

Joint Research Project on the

Assessment Methodology for Recovery Community Development

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Mission Statement of UN/DESA

The Department of Economic and Social Affairs of the United Nations Secretariat is a vital interface between global policies in the economic, social and environmental spheres and national action. The Department works in three main interlinked areas: (a) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and to take stock of policy options; (b) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (c) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into the programmes at the country level and, through technical assistance, helps build national capacities.

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Foreward

Recovery community development following large disasters incorporate many initiatives towards realizing a “safe and secure community development”. In the Kobe area in particular, there are many good case studies and examples, including group housing projects for recovery housing in HAT Kobe, disaster management park in the Rokko Michi area as examples of “hardware” initiatives and Disaster-Safe Welfare Communities and Community Development Committees as an example of “software” initiative. Furthermore, 14 years since the earthquake, these initiatives have been mostly completed and we can now observe the outputs and results.

The Asian Disaster Reduction Center, United Nations Centre for Regional Development, International Recovery Platform, and the Disaster Reduction and Human Renovation Institution are committed to the long-term objective of internationally disseminating and widely applying these lessons and experiences. The four groups therefore cooperated with Hyogo Prefecture, Kobe City, Urban Renaissance Agency towards the objective of conducting an investigation, research, and verification of a strategy to objectively and holistically assess recovery community development and received financial support from the Hyogo Earthquake Memorial 21st Century Research Institute for fiscal year 2008 to implement a joint research project.

With regard to “Community Development Assessment” there have been several previous researches conducted. Among these, an investigative research implemented by the Prefectural Land Management Department of the Hyogo Prefecture in 2004 entitled “Research on Community Development Assessment Strategy Towards Community Development based on Participatory Planning and Joint Implementation” was focused solely on community participation models, but various assessment strategies were investigated including community development following the Great Hanshin Awaji Earthquake and although the outcome of the research has not been elevated to practical use, foundation laying research and investigation has been implemented.

Aside from this, methods for assessing community development from social, economic, and environmental perspectives have been applied in individualize categories such as demographic surveys for population trends, hedonic analysis of land value, and environmental impact assessments, but these have not been designed in a way that can be readily used by local administrations and NGOs. In this regard, the “Checklist Method” for community development assessment designed and proposed by Hyogo Prefecture is better suited in terms of its holistic nature and the practical applicability for the assessment of recovery community development than individualized methods. The “Community Disaster Management Capacity Assessment” proposed by the Fire and Disaster Management Agency of the Ministry of General Affairs and

Communications is focused mostly on preventive measures, but it has been used as reference for the assessment of recovery community development.

Meanwhile, international agencies have made “sustainable development” a big theme and are looking towards the implementation from multiple viewpoints of economic, social, and environmental considerations. In this regard, for developing countries that are prone to experiencing large damages even with medium hazards, an overall benchmark to measure the progress of development has been set by the Millennium Development Goals (MDG) and this has become the output objective of many projects. In order to disseminate the process of recovery and development after the Great Hanshin Awaji Earthquake, we must consider the compatibility to such assessment methodologies as well.

Also, internationally, the role of communities and NGOs are becoming increasingly important as government or public institutions for implementing development. Therefore, even if the regulatory framework and financial foundations for development activities are public (national, Prefectural, and municipal), international interest is high regarding the role that communities and NGOs have played in the planning and implementation stages.

Therefore, in assessing recovery from the Great Hanshin Awaji Earthquake, this research project investigated whether assessment is indeed possible, and if possible, define the structure of assessment by conducting seminars and hearings inviting academic researchers and NGO members who have been involved in post-Hanshin Awaji Earthquake recovery. We offer our sincere thanks to the specialists and those who participated in the hearings. We would also like to thank all those who participated in the seminars.

Chapter1 **Proceedings of Recovery Assessment Seminar**

Below are proceedings from the Assessment Seminars conducted between July 30th and December 5th, 2008

1.1 The Objectives and Assessment of Recovery City Planning

Seminar convened on July 30th, 2008

Venue: Earthquake Disaster Mitigation Research Center (EDM), Kobe

Lecturer: Yoshiteru Murosaki

Profile:

Yoshiteru Murosaki
Professor, School of Policy Studies, Kwansei Gakuin University

After graduating from the School of Engineering, Architecture Department at Kyoto University, he completed graduate studies in 1969 at Kyoto University Graduate School. Later, he was involved in architecture and disaster management research at Kyoto and Kobe Universities and worked as a lecturer. He has also held the position of Chief Representative at the National Research Institute of Fire and Disaster as Center Chief, expert committee member of the Central Disaster Management Forum (Cabinet Office) and expert committee member of the Hyogo Prefecture Disaster Management Conference and Kobe City Disaster Management Conference. He was also the first Director of the Japan Society for Disaster Recovery and Revitalization, which was established in 2008 and has been active in the field of disaster management and architecture over many years.

I would like to talk to you by organizing various thoughts from my investigation over the last 10 years about what recovery community development is. I am told that there will be a foundation made for recovery community development at the end of this research project, but I will not directly talk about this and instead present the entry-point to this subject about what “recovery community development” is. When talking about assessment, the Plan, Do, Check, Act (PDCA) cycle is most popular these days and I think that the last two parts of this cycle, Check and Act are the assessment portion. At this time, I will not be talking about the Check and Act phases but instead talk about the Plan phase or where recovery planning is conducted and the Do phase or objectives and processes.

① <u>What is Assessment of Recovery Community Development?</u>
What becomes important here is to acknowledge the difference between “community development” during normal times and “recovery community development”. Recovery community development has a specific and explicit objective of implementing optimal recovery. Community development during recovery may be subject to various limitations (such as lack of human resources) or instead, unlike normal community development, may give rise to support funds or emergency budgets.

Community development can be interpreted from both the point of view of output or method. When viewing community development as a method, whether that community development was implemented correctly or not will be judged on its process. For recovery community development, as an output, whether recovery objectives have been met or not will be the benchmark for assessment. Whether the objectives have been successfully met or not will be based on the principles and strategies applied to recovery as a method. If it has not been implemented successfully, the method or process (principles/strategy) has a problem and whether the process was appropriate or not, will be the benchmark for assessment.

When viewing community development as an output, with the Great Hanshin Awaji Earthquake, community development has a record of giving rise to a new social system (new citizen society or new system of urban structure). To assess current community development as an output for recovery community development, the issue at hand will be the viewpoint of disaster reduction. First of all, whether to willfully pursue the integration of the viewpoint of safety and security in the society of the community has been ingrained or not is one measure of assessment. Second of all, whether a partnership has been established between government and citizens is another point.

② What is Community Development?

The "community" in community development includes both the hardware and software aspects of "community". A community includes both software structures such as community based organizations and hardware aspects such as roads and infrastructure. Based on this, the following four points are necessary for community development.

- Holistic-ness: Software considerations are important and consideration must be made as to how the system can be built up (e.g. Cleaning roads together every morning). If residential areas and small factories are converted to a nice building, it might be good in terms of the community's hardware aspects, but if the people inside are suffering from loans, then there is a problem with the software aspect so we must investigate the content.
- Voluntary: "Development" in community development refers to handmade development, just like handmade sake breweries. In other words, we must think how we can develop the system to create an environment that takes to advantage the characteristics of the community.
- Cooperation: This refers to implementing development with everybody. With regard to who "everyone" is, the importance is not participation rate but the connection of different types of people of different backgrounds.
- Sustainability: Recovery community development during recovery has to continue and be sustained as development during daily life. In Kobe, the nearly half of the 100 Community Development Committees have ceased operation after land readjustment projects.

I said that it is important for community development to incorporate the viewpoint of disaster reduction, but disaster reduction is calculating the sum of negative damages with positive initiatives. When we put this addition in terms of community development, the positive portion concerning spatial considerations (large public plus small public) becomes an issue.

- Large public: e.g. Construction of major roads (The responsibility of the central or local government)
- Small public: Decision making at the town or ward level (overcrowded urban areas, anti-seismic strengthening of aging buildings, concrete walls, narrow alleyways, environment), issues that can only be solved through community development, voluntary/endogenous action by community members are necessary.

There is a need to combine both large and small public spheres and how to take back the delays in small public becomes an issue.

③ What is Recovery?

When we look at urban planning around the world, all those that are noted to be good examples of urban planning are those made after disasters (such as Rome, London, Chicago). Especially after disasters, there will be momentum towards recovery and its implementation. In recovery, there must be a strong will present to make better plans, rather than to simply return to how it was before. However, it is easy for everybody to agree to return things to as they were, but when one tries to make things anew, people's sense of ownership causes opposition. When returning things to as they were, there is no need for

acknowledging lessons. However when making things anew, there will be a need for acknowledging the lessons. In Japanese culture, “lessons” tends to mean identifying those responsible, so this becomes more often avoided. Because of this, plans move towards fixing things as they were before (status quo recovery). To make things anew, “taking into account the lessons” thus becomes an important point.

In the Sichuan recovery case, how to establish the citizen society becomes an important point. In the case of Kobe, in the immediate aftermath of the earthquake, the importance of volunteers was not fully understood. However, the power of volunteers was important. In a recent lecture in Beijing, I also talked about how volunteers are important. Using this earthquake as a starting point, how to directly address the current “software” issues that Chinese society is experiencing and creating new values ought to be thought about.
In recovery, momentum is as necessary as acknowledging lessons. For recovery momentum, I theorize that there are three types:

- Momentum from lessons: The Rafaelo Recovery Model (disaster utopias and its recovery requires a rehabilitation process), momentum occurs after destruction. According to how momentum is applied, things will be better or worse than before. The momentum from lessons becomes important.
- Momentum to rebound from a crisis: People’s fundamental feelings to overcome difficulties, like “darn it but I’ll get over this!”
- Project momentum: The energy from support by the concentration of global assistance and projects.

If these momentums are mistakenly applied, it might result, for example, in the talk of building more highways. It is thus important to correctly apply momentum.

④ The Objectives and Challenges of Recovery

The principle objective of recovery is to “create new values” by learning from lessons. In order to arrive at the “creation of new values”, there are three points to be made.
1) To immediately work towards disaster recovery
2) Whether it has become safer than before
3) To solve the contradictions and issues faced by the subject community

Here, the first issue becomes the relationship between 1, 2, and 3 and next the relationship between 2 and 3. With regard to 1, 2, and 3, the basis relationship becomes returning to as it was before and to create a better society. In this case, it is more common for things to return to as was before and just finish. It becomes hard to move forward from there. In order to first return things to as it was and then move on to the next step: 1) A system for human relationships like community development committees; 2) Sharing of visions can be raised as two points. This can be thought of as “going off the trajectory” or moving towards the objective on a different path.

The next relationship between 2 and 3 is hard. In he recovery of Kobe, water is thought to become the testing point. Kobe does not have water so we thought we would like to store water and make it a town of water. From the Hanshin water source, an east-west gridline of water will be extended to Kobe and released from Nagata Ward. In some parts, this was realized as the creeks in Yamamoto Street. This is a part of environmental engineering. Water is necessary for a safe city and environmental co-existence becomes an amenity. Planning theory for the relationship between a water compatible environment and safety must be thought out.

The Third Issue With Recovery and Pursuit of Dreams

To solve the three issues of society is equivalent to the pursuit of dreams. With regard to the dreams, the following three can be identified.

- Citizen Co-Creation of Society: After the great earthquake, a new form of social system and a way

for cooperation was created

- Global Environment: No answer has been made yet. It is important for future buildings to co-exist with nature. (regional air conditioning, environmental infrastructure, rooftop greenery for recovery housing, biotopes for the interior of recovery housing, etc.)
- Low Birthrate and Aging Population: Some answers have been found (a system for keeping watch on elderly citizens)

These issues should be properly discussed in recovery and even if the results cannot be yielded within recovery, the discussion can be put to use in future community development.

⑤ The Recovery Process

Recovery requires the elements of heart, skill, and body as in Sumo.

Heart: First, those involved in recovery must stand on the side of the victims. This is because the power relationship between victims and government is not 50-50 but perhaps around 30-70 or less. By having those related to recovery stand on the side of the victims, this power relationship becomes 50-50. There is a need to promote recovery through the logic of the victim. The Ojiya Method (Disaster Victim Certificate) is logical but it is the logic of government. It emphasizes government's effectiveness and promptness and I feel that it lacks sensitivity to victims.

Skill: Skill for recovery: Hardware skills (anti-seismic strengthening, construction techniques) and software recovery skills (vision for recovery, financial sources strategy) are both important. To aim for the advancement of disaster management planning is also skill. 70 percent of current community disaster management plans consist of measures for emergency aid and prevention and recovery measures are still weak. Regarding recovery, there are only scant mention about it, such as the distribution of assistance funds. There is a pressing need to develop planning logic for recovery.

Body/System: Securing systems and members for Community Development Committees and Prefectural or City Recovery Steering Committee. With regard to the Recovery Steering Committee, assessment is necessary as it influences the next position. In the case of Kobe City, there are 300 Steering Committee members and it was very hard to sum-up various opinions and what was organized became very general.

Principles of Recovery as a Norm

These principles are international. When investigating disaster recovery plans from around the world made before the Great Hanshin Awaji Earthquake, we can see several common points that we can learn from. By viewing holistically internal experiences, it is important to see how we can make the lessons universal. I want to emphasize the importance of the following three rules:

- Local Characteristics: Importance of taking into consideration the needs and current conditions of the locality. The sustainability of the community, passing down the community culture (In the case of Sichuan, historic heritages, wooden structures, the lifestyle and practices of indigenous minorities. In the case of Kobe, the stone walls of Mikage and roofing tiles of Awaji.), taking advantage of local resources (Mikage stones, housing designed in the Noto styles)
- Complementary: Cooperative Creation (The Individual (self-help), Community (mutual help, cooperative help), and State and Government level (public help) supplementing each other) is imperative. It is important to think that the public must, in the end, take responsibility of helping people who cannot become independent. "Until the last remaining person" is part of the rules of being complementary to the needs of the community.
- Holistic-ness: Economic recovery, cultural recovery, natural environment, livelihood (job, dalily life, reasons for living [e.g. religion]) recovery must be holistically implemented.

Individual Recovery Assessment

There is a tendency to make recovery assessment from the overall regional standpoint, for example, from

the viewpoint of Kobe City. There is a tendency to make an assessment for the entirety of the affected areas. We must not forget to measure assessments as the sum of the individual standing point of each victim. We must not forget to take into account the pain that those who are not returning to the affected areas are feeling and also the turnover rate based on those who come back. That said, individual level assessment is difficult and cannot be taken into account with opinion polls.

Recovery Strategy as a Skill
With regard of recovery strategy, we must think of progressive recovery, holistic recovery, and focus area recovery. These three points were learnt from the recovery plan in Tangshan, China. In this, residence recovery was identified to be a priority.

Cooperative Recovery: This is Kobe's lesson. Also, we must not forget about the importance of prioritizing overall discussion and focusing on individual points.

Prioritizing overall discussion and consideration of individual points: This is from the Santa Cruz recovery plan. While making the plan, each point is thought out separately. In the overall discussion, the ultimate objective of how to develop the community in the future will be thoroughly discussed and this will be decided at an early stage. After this, time will be taken on such issues like what to do with individual plots of land. In Kobe, individual issues instead of overall discussion (such as reducing the ratio of individual plots of land for urban readjustment) were implemented. As a successful example, Amagasaki took ample time to implement recovery.

Recovery Structure as a System
Lastly, as an issue related to the recovery process, I would like to address the subject of structure and systems.
Cooperative System: Roundtables (An open forum without hierarchy), Cooperation
Disaster Area Recovery Assistance Conference: In the case of Kobe, the Disaster Victim Recovery Assistance Conference took on an important role. A neutral body established itself between government and citizens and it became a roundtable where everybody's opinions gathered.
Proposal-style Holistic Assistance Fund: A fund that preserves the flexibility and freedom of recovery.

Question and Answer Session

Question 1: From examples around the world about disaster recovery, are there any success stories about relocation of cities?
Murosaki: In Italy, there is a village that completely relocated following an earthquake. In Tangshan, China, a complete relocation was proposed by it ended up as a partial relocation. It is not possible to judge whether it is a success, but because the disaster area lay on a seismic fault line, part of the village was relocated. The height of buildings was also limited in vulnerable areas. There were also relocations in Turkey and Okushiri Island (Japan). Relocation was implemented because it was dangerous to keep on living in a disaster-struck area. Whether these relocations were successful or not cannot be assessed.

Question 2: Can the rapid construction of temporary houses, which was completed with 10 times the speed of the Japanese case, be commended? In the case of Kobe, the disposal of 50,000 temporary houses became an issue but do such problems also exist (in China)?
Murosaki: This depends on the process of housing reconstruction and the needs and seeds. It's better to make use of existing stocks as much as possible. In the case of smaller scale disaster, everything can be demolished and rebuilt, but in the case of large disasters, it is better to make use of existing stock and

maintain and repair these. Also from a cost-performance point of view, I don't think temporary housing is always the answer. As with relief distribution in disaster areas like material or cash distribution, if there are resources (stock of remaining housing), these should be put to use and if not, temporary housing can be constructed. Also, in consideration of the quality of housing, it is hard to make an assessment.

Question 3: With regard to the point that the assessment of recovery community development should be based on individual assessment, have there been surveys in the past and individual surveys in the past?

Murosaki: I was in Tokyo for four years and so there is a blank period for my research within the Hanshin Region so I do not know about recent examples of citizen level assessment. However, it remains questionable where assessments can be made with surveys. As with workshops, it is important to listen to the opinions of citizens, but it is also more important for citizens to think and join in discussions to join the process of change. Perhaps it is prudent to think of a communication-based assessment.

Question 4: Please tell me about lessons and responsibility for the government.
Murosaki: It took too much time for recovery development planning. They were applying day-to-day project methodology while normal land readjustment projects are different from recovery land readjustment projects. I think there should be a separate regulation for recovery land management.

Ando (UNCRD): I have previously been involved in the re-development project implemented in Kita-Kyushu City, but it is the norm for redevelopment to span ten years and readjustment 20 years. Also, redevelopment is planned under the assumption that the budget will be balanced, but one of the objectives is to make a good face for the city to raise its status. For the redevelopment project in those days, it was deemed a success as long as a structure of the city was completed. However, there arose issues of filling vacant spaces so there must be more attention to the management after construction.
Murosaki: Although redevelopment is different from that necessary in recovery, normal redevelopment project methods had also been applied here. Factors necessary for post-disaster redevelopment projects and readjustment projects should be identified and well organized.

Question 5: Are there any specific past examples of the relationship between environment and disaster management in the context of recovery?
Murosaki: In the case of Tangshan, it is a coal mining town so they create energy through steam and have implemented a system of regional air conditioning. In the case of recovery in Sumatra, they have tried planting trees in coastal areas, but I do not know if they have no money to make wave-breakers or if this is based on environmental consideration. The recovery in Noto has some consideration for environment. I do not know if this is because wooden houses are part of the local view or if it is utilization of local resources. In the existing recovery plans there are not many examples where environmental problems come first. I have not gone to Sichuan and so I do not know, but China must try to plant more trees all over the country. Greenery should be more protected. I wonder how this will appear in recovery planning.

Q6. I think there is a need for environmental stewardship of mountains and rivers to become connected with recovery planning.
Murosaki: I think this is very important. Forestry is probably the biggest disaster management activity. Step paddies also have a natural dam capacity. Instead of creating large dams, it would be more beneficial for agriculture, forestry, and environmental co-existence to allocate funds to implement initiatives to develop step paddies. There was a disaster at Toga river in Kobe on the 28th of July, 2008, but we must think both in terms of watershed management, disaster management, and amenity space in which children can also play.

Question 7: I think the momentum from lessons learnt; not only regarding physical lessons but also that which help augment community capacity is what leads to citizen capacity. I want to know what kinds of

lessons were learnt in the case of Chuetsu. The example of Chuetsu reflects the issues faced by valley communities throughout Japan so I would like to know what lessons aught to be learnt from to engage in recovery.
Murosaki: To live in a valley area means that the natural environment and view are important. To be able to continue on living in that area and keep on working, not only the locals but the state and region must also support them. In the case of Sichuan, there is a fundamental hierachy between city and rural villages. That is the biggest lesson to focus on.

Follow-up (Chuetsu assistance personnel): In the case of Chuetsu, I think instead of lessons, while previously there were attitudes such as “should we keep on living here?” but the earthquake changed the people who became able to voice their opinion with conviction that “I want to live here”. This is one of the driving forces or momentum for recovery.

Further Follow-up: In the case of Chuetsu, there was a review of the community as a system. For example, meetings that were previously only once or twice a year became monthly and normal times have become a reason for happiness.

Murosaki: Before the earthquake, because of local culture, there was a patriarchal system and there were not so many opportunities for youth and women to voice their opinions. A new system where decisions are made based on participatory discussion is a big step. By creating a system in which everybody can discuss, youth and women began to voice their opinions and there are now examples where recovery is going well for villages in which women are active.

Question 8: How can you assess things that have been implemented and those that haven’t?
Murosaki: Software skills for recovery still lack the accumulation of previous knowledge and viewpoints. There is no standard for recovery process. Even when an assessment is attempted, measurements are different according to experts and there is no way to discuss. The case of Kobe, even in world standards, is said to be a good recovery case and can be a model. For housing recovery, there are researchers, but there are very few people who research recovery planning for the entire city.

The Objectives and Assessment of Recovery City Planning

Yoshiteru Murosaki
Kwansei-Gakuin University

Prospectus

- What is recovery community development?
- What is the community development?
- What is recovery?
  - Objectives of recovery
  - Process of recovery

Introduction

- Evaluation of recovery community development・・Objective of assessment
  (1) To identify key principles to make smooth future recovery - assessment of the objectives of recovery
  (2) To identify key principles to improve current community development - assessment of the implementation of community development

① What is "Recovery Community Development"?

Recovery Community Development is - Community development for recovery (objective framework), community development during the recovery period (implementation framework)

(1) Recovery for tomorrow・・Community development as a method for recovery
Have the objectives of recovery been achieved?
Have the principles and strategies of recovery been consistently applied?

(2) Current Community Development・・Community development as the fruits of recovery
Has the viewpoint of disaster reduction been consistently applied?

② What is "Community Development?"

- Community ・・Software (community) and Hardware (city)
- Development・・who and how
  Community development is assessed on its whether it is holistic, endogenous, collaborative, and sustainable.
  Holistic-ness・・Includes "software" considerations
  Voluntary/Endogenous ・・Handmade
  Cooperation・・With all members
  Sustainability・・Without a limit

③ What is "Recovery"?

While recovery refers to reconstruction and revitalization, it does not signify a return to status quo. It is a process of creating new values based on the lessons learnt ・・・Making correct use of the "Spring/push/resilience for recovery"

The spring/push/resilience is derived from lessons learnt, spirit to overcome hardships, and for recovery projects

A push to strive for improvement always comes into action during recovery and whether we can properly apply this push is dependent on how recovery is implemented

④ The Objectives and Challenges of Recovery

Recovery can be termed as the "creation of new values", but the content of the objective and the process towards the goal will be put to test.

1) To achieve holistic recovery from a disaster
2) To develop a safer community by fixing the causes of disasters
3) To realize an ideal future by identifying impending issues of the community for future generations

How can we capture the relationship between 1, 2, and 3 or 2 and 3? ・・We need timely strategies and identify holistic issues

The Third Issue in Recovery・・ The Pursuit of Dreams

Recovery as the creation of new values = Striving to solve "Outstanding issues in the 21st Century"

For instance, ・・

(1) How can we respond to global environmental problems?
(2) How can we overcome the issue of aging society with declining birth-rate?
(3) How can we build a society created by citizens?

Aside from these, we are pressed with finding solutions for the problem of the one-pole concentration and widening social gaps.

⑤ The Recovery Process

The process of recovery consists of the stages of management of people, resources, and structure on the way to reaching the objectives of recovery. For this management, there are "Three Prerequisites for Recovery" that cannot be left out.

The three prerequisites for recovery

1) Heart/Spirit of Recovery・・tenacity for improvement and norm in recovery →how we can foster hope and trust?
2) Skills for recovery・・planning skills and recovery strategy→ both hardware (physical) and software (human) considerations
3) System for Recovery・・participatory collaboration and creative recovery→ developing partnerships and community

Principles of Recovery as Norm

As a principle of recovery, we cannot leave out the locality and complementarities

Locality refers to;

1) To sustain local society;
2) To carry on local culture;
3) To utilize local resources.

Complementarities refer to;

1) To promote cooperative coordination;
2) To encourage self-help of the affected; and
3) To prioritize local autonomy.

・・ The importance of connections between humans, employment, locality, and history.

Recovery Strategy as a Skill

Planning Strategy

- Prioritizing general ideas then detailed examination of partial ideas
- Consensus making and sharing objectives

Implementation Strategy

- Gradual Recovery・・Timely Strategy ex. Building temporary shelters first
- Holistic Recovery・・ Issue-oriented strategy ex. Addressing housing and economic issues first
- Base Location Recovery・・ Spatial strategy ex. Building up outside first
- Cooperative Recovery・・Systematic Strategy ex. Promoting autonomy first

Recovery Structure as a System

A "System" and "Structure" that can promote recovery by revitalizing the disaster area and victims

1) Cooperative System・・Roundtables, co-management and mutual help
2) Support System・・Financial resources, knowledge and information

Thinking how the region as a whole can rapidly revitalize
Proposal-based comprehensive subsides and recovery support committee for affected areas, etc.

Chapter1 **Proceedings of Recovery Assessment Seminar**

1.2 Earthquake Recovery in Kobe City and the Roles of Local Government and Residents

Seminar convened on August 8th, 2008

Venue: UNCRD Disaster Management Planning Hyogo Office

Lecturer: Hisanori Nakayama

Profile:

Hisanori Nakayama

Director General, Urban Re-Development Department, Kobe City Government

Born in 1949 in Hyogo Ward, Kobe City. After graduating from the Engineering Research Department, Osaka University Graduate School, he started work with Kobe City. In 1994, he became head of the Promotion Department for community development of Hyogo Ward, followed by posts such as head of Kobe City Planning Department Planning and Statistics Planning Department, Kobe City Planning Central Department Ward Maintenance Planning Section, and City Development Section, culminating with the current post of consultant for Urban Re-Development.

① The Damage Situation from the Great Hanshin Awaji Earthquake

As a notable case, there were many deaths and completely collapsed buildings. Many elderly residents in completely collapsed houses died. The important point to address in recovery community development would be the buildings that were either half or completely burnt. What I'm distributing today is a publication by Kobe Technical Experts Co-operative Association for the Prevention against Disasters and a book written by myself, which I shall use as references today.

Scale of burnt-out areas disaggregated by point of fire outbreaks: Water did not reach the hydrants due to leaking mains. Even fire trucks could not put out the fires. Also, because the area was a very densely built-up urban area, the fires continued to burn even over few thousand squared meters. Therefore, a need arose to redevelop such areas have risen.

② The Initial Response Structure of the Government in the Immediate Aftermath of the Earthquake

Amongst the different roles and responsibility, there is that of the government as well. Despite the magnitude of the earthquake, an emergency disaster response headquarters was not setup and only a major disaster response headquarters was setup. The then Prime Minister Murayama tried to setup an emergency disaster response headquarters, but the administrative office was opposed to this move. The headquarters were originally designed for disasters in the Kanto and Tokyo area and never expected a large disaster in the Hanshin area.

With regard to economic recovery, before the earthquake, Kobe ranked fifth in the world for the volume of shipping containers handled at its ports but after the earthquake, most of these containers were directed to other ports. There was no recovery achieved to take back the volume of cargo handled. Kobe was dependent on its port, so it should have implemented such policies. Although not their specialty, such economic recovery and the issue of the reconstruction of the mid and small scale enterprises may be difficult to address through the sectoral administrative system of the ministries.

③ National Regulations Regarding Disaster Recovery Projects

The national regulation maintained that the national government would not be involved in personal property. Now, with the Disaster Victims' Livelihood Reconstruction Assistance Law enacted, this has somewhat changed, but back then, they were not involved so government did not offer assistance for financial development. Financial support was limited to special assistance funds and loans and they directed the reconstruction of destroyed urban infrastructure to be implemented as a public works. This position may have been sufficient for normal disasters, but for such a large-scale disaster, it was very difficult. Disasters concentrating on one area such as floods can normally be attended to with the Disaster Countermeasure Basic Act, but because everything was destroyed, it was very difficult. Response should have been implemented under direct control, but because the ministries and departments are organized in a sectoral hierarchy, the local governments of the disaster-struck areas were responsible as with the usual strategy. Therefore, no special laws were enacted for financial support for livelihood recovery.

④ National Regulations Regarding Disaster Recovery Projects

There were several areas in which fires over 1 hectare broke out. These occurred mostly in areas that had vulnerable urban infrastructure and lacked roads and parks. When pursuing the underlying cause, fires were concentrated in areas where the post-World War II, War Disaster Recovery and Land Readjustment Project were not implemented. In other words, damages were concentrated in areas that were not subject to war disaster recovery projects and had vulnerable foundations. Fires broke out over 5,000 to 10,000 squared meters in areas even where war disaster recovery projects were implemented, but it is thought that because they had infrastructure in place, fires did not extend beyond 10,000 squared meters. We think this was really because of the existing infrastructure.

It is said that all over Japan, there are over 8,000 hectares of areas described to be vulnerable dense urban areas. With the current laws, roads must be at least 4 meters wide, but in the previous law, the minimum road width was 2.7 meters. In reality, the width was only about 1 meter and in such areas, when buildings collapse, it would spread fires. Because of such characteristics, fires occurred. Such heavily damaged areas had to be recovered.

⑤ The Need for Recovery towards a Community with Safe and Secure Life

Previous recovery signified returning to the status quo before the disaster occurred and the government were in charge of infrastructure recovery and the residents responsible for their housing recovery, but with only that kind of arrangement, there was anticipation that dense urban areas would be regenerated. Therefore, in areas that experienced great damages, there was a need for area-wide disaster recovery community development.

Disaster areas that are subject to a combination of civilian projects for individual recovery and public projects such as roads become the target of recovery community development. If the scale of disaster struck area is just a few hundred square meters it is no problem, but if it exceeds 2,000 meters squared, there is a need for recovery community development that involved redevelopment projects and zoning readjustment.

Even with large disasters, areas with urban infrastructure needs resident-led community development and can be described as a “White Area”. Areas with widespread damages and little urban infrastructure need government-led community development and these were categorized as a “Black Area”. There is information regarding this categorization in the reference materials.

⑥ The Selection of the Disaster Recovery Project Area and Method

To decide the project target area and method, the city, prefecture, and central government decided within two weeks. With regard to urban redevelopment projects, these were implemented in the south of Rokkomichi and Shin Nagata.

⑦ The Characteristics of Decision-Making for Urban Planning

To develop a plan, negotiations must be made with the central government to decide where to install public infrastructure. Then, discussion with local residents will take a few months and in some cases a few years. However, if too much time passes, people involved in entrepreneurs and merchants will start rebuilding in their own areas and dense urban areas will be regenerated. Therefore, limitations for construction become necessary, but the maximum period for applying such measures are two months. According to the law, the period for limitations is two months from when the disaster occurs. Kobe city asked the central government to make a special provision for this law but this was not accepted.

These two months becomes subject to assessment. According to the Urban Planning Law, when an area’s urban plan is decided as a urban development plan, construction limitations can be applied to that area. Therefore, limitations can be applied by deciding land readjustment projects and urban redevelopment project areas within the first two months since the earthquake. Afterwards, time can be taken for such

planning as road placements with resident participation. This is the “two-step urban planning”.

The media often pointed out that in the first step of deciding the areas, resident opinion was never sought for. However, doing that would have necessitated many more months, so only the areas were decided within the two months.

⑧ New Financial Support Strategies for Earthquake Recovery Projects Implementation by Disaster-Struck Local Government

The central government did not directly engage in the projects and the responsibility was given to disaster-struck local government. Because local governments were also disaster victims, the Prefecture and cities and towns applied to the central government for financial support. In usual public projects, financial assistance is limited to half of the project cost, but with the application of the Severe Damage Disaster Law, areas recognized to be heavily damaged by the disaster were granted more than 90% support for the recovery of public infrastructure. With regard to the special provisions for the use of national assistance funds for recovery community development, no special laws were enacted, therefore support funds were limited to 50% and the remaining half must be funded by Kobe City. Therefore, it was decided that loans could be granted for 90% of the remaining costs. A further 80% of these costs were granted assistance from the central government as part of the regional grant funds and therefore an additional 36%, or a 86% of the total costs became the responsibility of the central government. During the Great Kanto Earthquake of 1923, central government took on 90% of the costs and local government 10% and so something close to this arrangement was realized.

In order to lighten the financial burden of disaster victim landowners, there is a need for special laws to be enacted for tax breaks and widen the assistance target, as well as the purchase of land at an early stage to promote rapid and independent reconstruction. As of January 24th (a week after the Great Hanshin Awaji Earthquake), the then Prime Minister Murayama declared the establishment of the law. On January 28th, the framework towards the enactment of the special law that included land swaps and purchases was cemented.

⑨ (Special Law) The Significance of the “Disaster Area Urban Recovery Special Measures Law” (Enacted on 26/2/1995)

The assistance target area will be expanded if the disaster urban recovery implementation area can be specified through the urban plan. The restrictions for land readjustment project areas were also lightened (from 5 hectares and above to 2 hectares and above), as well as that for road width in urban planning (from minimum 12 meters to 8 meters). Also, the target areas were decided even if there are no roads, assistance money can be taken from both the general budget and the special road budget for land acquisition.

(Because the urban plan had to be decided within 2 months) It became and issue as to when the law should be enacted.

⑩ Decision on the Urban Plan for the Earthquake Recovery Project

The target area was announced on January 31st, 1995. These were disaster-struck areas that covered more than 5 hectares and more than two-thirds of the buildings were completely destroyed.

The Special Measures Law was decided on February 17th.

From public consultation to discussion at the deliberative council, at least 2 weeks are necessary.

The Recovery Urban Plan was announced on February 21st.

The law was enacted on February 26th.

Between February 28th and March 14th was exactly the two weeks and the Critical Path (In the process of production or project implementation, the critical path is the process which cannot be delayed in order to avoid the delay of the output).

With the announcement of the Urban Planning Deliberative Council and its publicizing the next day, this was exactly 2 months from the construction limitation set forth by the Article 84 of the Building Standards Law and with Article 53 of the Urban Planning Law, a new construction limitation was applied to the urban development project area. While there was nothing on paper as of January 31st when Kobe City announced the target areas for land readjustment, but during the inspection period, urban planning was applied with the designation of the Disaster Area Recovery Implementation Area through the enactment of the special law. All of this was implemented with a deadline that wouldn't have been possible to meet without a special situation like the earthquake. While the central government was not directly involved, the law was created to indirectly offer assistance. The role of the central government ended here.

⑪ The "Two-Step Urban Planning" Method

The announcement of large-scale disaster area and project methodology.

Case Example from Matsumoto Area in Hyogo Ward: Decisions made for the target areas for the Urban Disaster Recovery Implementation Area and the Land Readjustment Project Implementation Area. Limitations applied through the land readjustment area project implementation. At this time, the Matsumoto Street [Line] (width: 17 meters) was the only plan decided upon as an urban infrastructure as part of the urban planning road scheme. Beyond March 17th, 1995, as the second step of urban planning, a resident-led deliberation was initiated for the planning of the scale and location of roads and parks.

⑫ Collaborative Community Development through Resident Participation for the Second Step of the Urban Plan Implementation

Initially, in response to the plan from March 17th, there was big opposition from the media and disaster

victim residents. However, there was demand from the disaster-struck residents to also avoid the regeneration of densely built-up areas and to construct anti-seismic houses and parks. For this, the residents are also required to take on some of the burden.

⑬ The Three Pillars for Community Development with Resident Participation

Kobe City prepared local consultation centers, Community Development Council, and sending in consultants.

Local Consultation Centers: Because it was impossible to talk at length at evacuation centers, the city made ready local consultation centers.

Community Development Council: Because it is better to organize as a group rather to act individually, the Council is established. If the Council collects the needs of the community, government will listen. In the case that there were neighborhood committees from before the earthquake, it was determined that there could be up to 10 areas within the communities.

Dispatching Consultants: The government did not enforce this one-sidedly and residents could choose consultants and these could also be academics. Consultant fees were paid for by the government (i.e. from the fund created by the central government and Hyogo Prefecture). Most communities hired consultants who they were accustomed to from before. Up to here are the large pillars and from this point forward becomes the resident participatory strategy.

⑭ The Community Development Council Established by the Kobe City Community Development By-Law

On page 191 in the reference materials, I explain what the Community Development Council is. In English, it is translated as a Council, but in reality, it is more a conference or association. Councils are a place for debate and a place for discussion regarding community development. It is also not for community development representatives but for people who want to develop their community and residents can freely participate. In the Council, there is no set participation rate and it could be 10 or 50 people and the number should set to make discussion possible. However, it is necessary to gain the support of the most members and to ensure that there is minimal opposition. Things cannot just be decided by the majority alone.

⑮ The Role of the Community Development Council

Center of Earthquake Recovery Community Development = The establishment of the Community Development Council

Residents participate in the council and talk freely.

Specialized knowledge and plans will be prepared by the consultant and the residents' opinions will be reflected.

The organization of resident opinions will continue until most residents agree.

The plan based on resident opinions will be submitted to the mayor as a “Community Development Proposal”.

The Mayor will develop a project plan based on the “Community Development Proposal” and recovery community development will be implemented.

⑯ The Significance of the “Community Development Proposal”

Limited local authorization of public designation: The public nature of certain plans and installations are usually discussed in a council and discussed based on evidence and whether the people of the community all use this service or installation and jointly protect it becomes the basis for a recognized, locally specific public asset (such as limiting building height).

Case: Matsumoto Area

A proposal was submitted to the Kobe City Mayor on December 18th, 1995. On March 27th, 1996, the second step of the urban plan was decided upon (2 community parks and 15 planned area roads).

The roads and such that were decided upon through the urban plan were implemented as government public works and other roads were explained to be the responsibility of local residents.

Road area ratio: 14.37%→37.15%; Park area ratio: 0%→3.19%; Public land increase ratio: 26.69%;

Resident financial responsibility: 7.31% (Individual residential land area was provided with an 8.5% reduction); Public financial responsibility: 18.38%

There is a “Seseragi” waterway/creek on the symbol road of Matsumoto Street (See details on P. 60).

⑰ The Effect of Resident Participatory Method for Earthquake Recovery Community Development

• The Effect of Cooperative Community Development

The method of utilizing Community Development Councils allowed for the realization of a direct and democratic urban planning strategy. Project planning did not become too general and the realities of cultural and historic characteristics of the local area were reflected in the plan. There was also success as in the case of Matsumoto area to combine amenities and participatory management methodology through resident-led management. A sustainable community was regenerated that is easy to live in for both children and the elderly.

• Pre and Post-Disaster Population Ratio

Public land area increased by 25% and residential areas decreased, but the population density is almost the same as before. But if the same amount of people from before the earthquake comes back, the density would have gone up so population has actually decreased. Population to residential area ratio has mostly recovered and the community has become more compact and equipped with infrastructure.

• Three Concepts of the Compact City (Index)

1. Compact City (A city in which you can live by traveling on foot)
2. Communities Positively Act in the City (Diverse communities are vibrant and active in the city)
3. Communities Compact with the City (Citizens and communities form a social contract as an autonomous city)

Laws are applied evenly throughout the country and cities cannot be dealt with as special zones.

⑱ The Roles of Government and Residents for the Earthquake Recovery Community Development in Kobe City

In this way, I think the central government and Prefecture (Decision making for Urban Planning), and the city finalized the implementation of recovery projects in combination with the two-step approach to realize a residents participatory community development.

Question and Answer Session

Question 1: I think the point about the recovery of population density is very interesting. Has this ratio of population density per residential area been used in other recovery community development studies?

Nakayama: This was used for internal reporting and has not been authorized or publicized. It is a very difficult process, but if we measure the area and refer to neighborhood level population statistics, it can be done. We did this because it is often said that the population has decreased from before the disaster, but in terms of population density, it has not decreased much. It is natural for population to decrease. Roads haven been increased and there has been measures to decrease densely built-up areas, so population will decrease. In terms of land readjustment, the population is at an appropriate rate, or that an appropriate scale of residents are living on habitable land. Because infrastructure is being developed, this generally forces population to decrease. If we force a return to the previous population, density will increase too much. In Kobe, it is a little too dense if the ratio exceeds 250 to 300 people per hectare. In terms of urban redevelopment, there is vertical development and higher stories so population increases.

Question 2: Including areas that were burnt down, it seems it is better if population goes down in highly densely populated areas.

Nakayama: There are also political issues. If the population of the electorate decreases, this may cause problems for the number of representatives during elections.

Question 3: Perhaps it would be good to have data on how population is decreasing in underdeveloped areas?

Nakayama: This is true, but very difficult. The total population of Kobe is between 1.52 and 1.53 million

and not too different from before, but the breakdown has changed. Pre-existing urban areas have almost all experienced population decreases, but this is because they were originally already too densely populated.

Question 4: In implementing urban planning and redevelopment projects, I have heard of strategies that focused on the development of critical points in order to create good effects to the surrounding areas. In terms of land and zone readjustment, even with decreased population, it becomes good residential areas and the population of surrounding areas and popularity might increase, but what kind of findings are there for positive effects to surrounding areas?

Nakayama: It is difficult to present numerical indicators. These projects have been implemented in areas without the basis of the war disaster recovery and so the difference is significant between those areas. Overall, Kobe was greatly improved (Especially with regard to dense urban areas)

In Tokyo and Osaka, there are densely built-up urban areas exceeding 2,000 hectares, but these continue to face issues and there is still no path towards solving them. In the case of Kobe, because land and zone readjustment was conducted due to the Earthquake, many of these issues were largely resolved. There are prevailing issues in areas where war disaster recovery was not implemented and did not experience damages from the earthquake, but overall, issues have been resolved. Therefore, there are no specific numbers to be presented.

Question 5: Is the viewpoint of population density a good one? Kobe seems to be an appropriate size city and its population integrated. I also felt that the Community Development Council was an important process.

Nakayama: The population density is reaching levels between 180 to 200 people per hectare. As you said, I think the population density is approaching an appropriate level. Before, it was about 300 people per hectare and thus quite dense. With regard to the second point, as you say, it is a process. For local residents to discuss amongst themselves and promote the change from defiant opposition to passive opposition. Again, what also made this possible was the construction restrictions. Time is also an important essence.

Nagano (Kobe City): In Shin Nagata, there were about 400 people per hectare, so it was even denser. However, as mentioned before, people left so it became and appropriate density of around 200 people per hectare. Landowners and renters came back on their own will.

Nakayama: What is often mentioned as an urban issue is the problem of landowners and renters, but unlike in agricultural areas, there are many problems of residential tenants. We cannot understand the behavior of the tenants. Because we provided cheap and high-quality recovery housing, people who used to be living in old long houses now felt that if they were going to rent houses and pay rent, it would be better to live in recovery housing.

Question 6: Don't such people join in the Community Development Council?

Nakayama: There are some people who want to return, but when they move into temporary housing, most just leave. Without ownership rights, people feel that there is no point even if they do something. People who are involved in the Community Development Council are mostly landowners and people who have a very strong connection with the community.

Reference Materials:

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Earthquake Recovery in Kobe City and the Roles of Local Government and Residents

Urban Re-Development Department,
Kobe City

Hisanori Nakayama

Damage by the Great Hanshin-Awaji Earthquake

		Total damage by the Earthquake	Damage in Kobe City	Share of Kobe City
Dead		6,434 Casualties	4,571 Casualties	71%
Injured		43,792 Casualties	14,678 Casualties	34%
Buildings	Fully collapsed	104,906 Structures	67,421 Structures	64%
	Partially collapsed	144,274 Structures	55,145 Structures	38%
	Fully burned	6,982 Structures	6,965 Structures	99%
	Partially burned	89 Structures	80 Structures	90%

Damage by fire concentrated in Kobe City.

System of response applied by the Central Government in the immediate aftermath of the Earthquake

- "Emergency Disaster Management Headquarters" headed by the Prime Minister, defined in the Disaster Countermeasures Basic Act, was not established.
- Special Laws and Preferential Measures for Emergency were not adopted.
- The Central Government did not get beyond establishing "Major Disaster Management Headquarters" headed by the Director of National Land Agency.
- Application of conventional laws, vertically administered by the each ministry, based on the Disaster Countermeasures Basic Act and the Disaster Relief Act
- As in the past, local governments damaged by the Earthquake are those responsible for the implementation of the reconstruction projects.

National Regulations Regarding Disaster Recovery Projects

- The national principle of no-intervention in private properties
- Urban infrastructures damaged by the Earthquake are to be reconstructed urgently through public works.

▼

- The Central Government is not directly involved in the reconstruction projects which are to be implemented by the local governments.
- Conventional methods are applied to the reconstruction projects.
- In order to provide financial support, the Central Government will enhance the support through the establishment of special laws and the expansion of the subsidies framework.

Features of Heavily damaged Areas by the Earthquake

- Areas where large-scale fires broke out
- Areas with poor urban infrastructure (lacking roads and parks etc.)

⇩

- Damages concentrated in the areas that were exempted from the land readjustment projects after the WW Ⅱ.

⇩

- Densely built-up area with old wooden houses

It is necessary to reconstruct safe and secured city.

Generally, reconstruction means returning back to the condition before the disaster.

Government reconstructs broken roads and infrastructures.

Citizens reconstruct their damaged buildings.

⇩

Densely built-up areas might be reconstructed.

⇩

Urban reconstruction through area-wide development is necessary.

Urban Reconstruction Project Areas and the Selection of their Project Methods

- Public project implementation area
  ①The scale of damage is massive. (number of collapsed and/or burnt down buildings＞2/3 of the total number of buildings in the area, and damaged area＞5ha)
- Area-wide project method (decision with enforcement power according to urban plan)
  ①Principle: Land readjustment project
  ②Hub Areas: Urban redevelopment project

Particularity of the Timing of Urban Plan Decision with Enforcement Power

- It is a condition in introducing subsidies from the Central Government that urban reconstruction projects are stated in urban plan with enforcement power.
- It takes several months to prepare a specific plan for area-wide development.
- It is necessary to regulate disorderly buildings during the preparation period.
- According to the Building Codes Act, building restrictions can be applied only for 2 months.
- After the designation of urban development project area in urban plan with enforcement power, another building restriction can be applied according to the governing laws of each method of projects.

▼

- Within 2 months after the break of the Earthquake, first decisions of urban plan with enforcement power are made, defining only the urban development project areas.
- After gathering people's opinions with the participation of the citizens in the damaged areas, second decisions of urban plan with enforcement power are made, defining the location of public facilities necessary for the projects.

The New Financial Assistance Policy for the Implementation of the Recovery Projects by the Local Governments in the Damaged Areas

- The designation of the Earthquake an "Extremely Severe Disaster" according to the "Act on Special Financial Support to Deal with Extremely Severe Disaster" for the reconstruction of damaged public facilities (January 25th)
- The expansion of the framework of bond issue by the local governments and the budgetary arrangements by the Central Government for block grants to local governments which cover a certain share of the repayment of bond, in order to reduce the share to be borne by the local governments in introducing subsidy scheme for the implementation of projects
- The expansion of targets of subsidies in order to reduce the burden borne by the landowners and leasehold owners in the areas of the area-wide urban reconstruction projects
- Quick response to the request of the purchase of real properties from the landowners in the urban reconstruction project areas for the rapid reconstruction of their lives by themselves

▼

- Necessity of new special laws to support the reconstruction of the damaged areas

The Significance of (Special Law) "Disaster Area Urban Recovery Special Measures Law (in force on February 26th, 1995)"

- The only law for the promotion of recovery projects enacted after the Great Hanshin-Awaji Earthquake
- The expansion of framework for subsidies from the Central Government through the designation of "Disaster-stricken Urban Areas Reconstruction Promotion Area" in urban plan with enforcement power
- In consideration of the reconstruction of lives of the victims, the local governments can purchase land in the reconstruction project areas according to the Land Appropriation Act even before the preparation of the project plan (It is possible to apply the measures that 50 million Japanese Yen can be deducted from the profit on the sale of real properties in calculating the amount of profit subject to taxation, which is normally applicable after the preparation of project plan.)
- It is necessary that the Act come in force before the procedures (public inspection) for the designation of urban recovery project areas in the urban plan with enforcement power.

The Process of the Decision of the Reconstruction Projects in Urban Plan with Enforcement power

- January 17th The Great Hanshin-Awaji Earthquake
- January 31st Target areas for recovery projects identified by the City of Kobe
- February 1st The Designation of areas where building constructions are restricted according to the article 84 of the Building Codes Act (for 1 month)
- February 17th The extension of the building constructions restriction according to the article 84 of the Building Codes Act for 1 more month
- February 17th The decision of the "Disaster Area Urban Recovery Special Measures Law" by the Cabinet, deliberations in both chambers of the Diet
- February 21st The announcement of the urban plan with enforcement power for reconstruction (8 project areas)
- February 26th Enforcement of the Disaster Area Urban Recovery Special Measures Law
- February 28th Public inspection of the draft urban plan for recovery with enforcement power
- March 16th Holding of the Local Council for Urban Planning in Hyogo Prefecture
- March 17th The designation of "Urban Disaster Recovery Implementation Area"
  The decisions of land readjustment projects for reconstruction and urban redevelopment projects
  The start of building construction restriction in the urban development project areas according to the article 53 of the Urban Planning Law

"Two-step Urban Planning" Method

- The 1st step of urban planning (17th, March, 1995)
  The government decides the areas to be developed , project methods of development and urban facilities to be developed.

  Another building construction restriction

- The 2nd step of urban planning
  ①Citizens in the project areas discuss about the necessity of roads and parks in the areas and prepare drafts by themselves.
  ②The government inspects the drafts prepared by the area residents and decides on urban plans with enforcement power and project plans.

Collaborative Community Development through Resident Participation for the Second Step of Urban Planning

Hope of citizens
Reconstruction of safe and secured community
Development of necessary urban infrastructures (roads and parks)
Construction of firm housing

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Preparation of draft through the participation of citizens

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Bearing fair share by inhabitants and stakeholders

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Attainment of urban reconstruction

The Three Pillars for Community Development with Resident Participation

①Establishment of Local Consultation Centers

②Community Development Council

③Dispatching Consultants

The Community Development Council Established by the Kobe City Community Development By-Law

- (Definition) An association established by inhabitants and stakeholders for the exclusive purpose of promoting better community development in the area
- (What are "inhabitants and stakeholders"?) Inhabitants, business holders and real property owners in the area
- The conditions for the approval of "community development council" by the mayor

①The activities of the association is recognized by most of the citizens in the area.
②The association consists of persons with academic knowledge and/or experiences on community development, including inhabitants and stakeholders in the area.
③ It is acknowledged that the activities of the association are supported by most of the citizens in the area.

The Roles of the Community Development Council

- Center fo Earthquake Recovery Community Development = Establishment of the Community Development Council
- Inhabitants and stakeholders participate in the meetings of the council and have unrestrained discussions.
- Dispatched consultants to the council provide expertise and prepare draft development plans, then the opinions of inhabitants and stakeholders are reflected on the draft plans.
- Discussions to gather opinions of inhabitants and stakeholders should be continued until most residents accept the result of discussions. (Decision by majority vote should be avoided as much as possible.)
- Opinions of inhabitants and stakeholders are gathered.
- The plan based on the residents' opinions will be submitted to the mayor as a " Community Development Proposal".
- The mayor prepares a project plan according to the proposal for the implementation of recovery community development

The Significance of the "Community Development Proposal"

- It is a proposal supported by most of the inhabitants and stakeholders in the area of the Community Development Council
- The proposal is not just a collection of demands, but a representation of what the residents in the subject area are prepared to do
- The mayor who received the Proposal can designate a "locally specific public asset" towards the limitation of land use and the management of zone readjustments
- The declaration of intent of the residents include the limitations that they will enforce on their own actions and to take on part of the burden for the implementation of the projects

The Effect of the Resident Participatory Method for Earthquake Recovery Community Development

- It contributed to the realization of a safe and secure recovery community development that reflected the actual condition of the area.
- It has created an environment in which consensus on community activities can be reached more easily.

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- It heightened the understanding of the importance of urban planning and citizens' daily activities and efforts for safe community development.

Chapter1 **Proceedings of Recovery Assessment Seminar**

1.3 Reviewing Earthquake Recovery – Future Visions of Community Development

Seminar convened on Augst 21st, 2008

Venue: Earthquake Disaster Mitigation Research Center (EDM), Kobe

Lecturer: Professor Kunihiro Narumi

Profile:

Kunihiro Narumi
Professor, Kansai University

Honorary Professor, Osaka University. Visiting Professor, Kansai University. Kyoto University PhD completed. Hyogo Prfectural Engineer, Kyoto University Assistant, Osaka University Graduate School Professor, leading to current position. Planner with special focus on urban planning and urban environmental design. Former Director of the City Planning Institute of Japan. He has been conducting research on recovery from the Great Hanshin Awaji Earthquake over ten years and has investigated recovery community development. Also conducted investigation on urban planning in Indonesia and other Asian countries.

① 13 Years of Earthquake Recovery

At the university, we have produced a “Recovery File” over the last 10 years in 9 disaster area locations. In the first three years, students who had experienced the earthquake right after their admittance carried out the investigation very enthusiastically in their senior year. However, in the 7th to 8th years, the students had experienced the Earthquake during elementary school, so they did not clearly remember. 12 years is a long time ago but now it has been 13 years and it is hard for the students to relate. So we take such students to investigations and pass on the experiences from the earthquake. Disasters are always occurring in real-time, but from these experiences, we recognized that memories of specific earthquakes gradually fade.

② Involvement with Earthquake Recovery

1. Approximately 1000 students and instructors participated in building damage surveys.

10. As it is important to implement disaster resilient community development even in areas that were not damaged, we produced the “Guideline for Hyogo Prefecture Disaster Resilient Community Development” but this is not being used.

③ The Concept of Recovery Planning and Realities ① The Standpoint of this Lecture

As I was part of the Recovery Planning Steering Committee, I organized the findings as a message to the government.

④ The Concept of Recovery Planning and Realities ② The Gap Between Government and Residents

Recovery had become a row of government projects and activities. Recovery plans that were drawn up by laypersons were reviewed and redrawn by professionals in the government. Furthermore, these were then presented in difficult languages and newspaper reporters directly reported these so nobody could understand. Prefectural and national citizens are all laypersons so if the government does not explain, the projects just begin without anybody knowing what they are about.

We were shocked that temporary houses were only built on remote, publicly acquired land. It may have changed now, but back then, this was the case. In the initial stages, there was a gap between public and private recovery situations.

⑤ The Concept of Recovery Planning and Realities ③ - Following Existing Plans

The opinions of Mr. Shimokobe was an important point that we would not have thought of during the earthquake. Pre-existing plans were recognized to be a realistic opinion because people were used to implementing actions that have been tried and everybody was comfortable with it. “Two-step urban planning decision” and “Community development council Participatory Method” were new initiatives and therefore aught to be approved.

⑥ The Concept of Recovery Planning and Realities ④ - The Role of Urban Planning

What can be done with urban planning is that a recovery plan should be built based on the urban plan and therefore we recommended the “The Establishment of a Recovery Urban Development Master Plan and Assistance System”. However, in the recovery plan developed by the Prefecture, this was simply mentioned as one measure. We felt that urban planning had less influence within the government.

⑦ The Concept of Recovery Planning and Realities ⑤ - Points that Must be Learnt 1

We should be accustomed to community development. When recovery takes off, the cityscape changes and people become concerned with particular points and many different opinions are raised. There is no Japan-wide image that is a role-model for what a community should be like. In the case of Hyogo Prefecture, there are only about 10 communities with regulations concerning the cityscape and most communities lack such provisions. Just as people relate for the first time with regulations and laws when meeting with misfortunes such as traffic accidents, people do not think about their own community in normal times. This is the same with the government so the residents are unaccustomed and vulnerable.

⑧ The Concept of Recovery Planning and Realities ⑥ - Points that Must be Learnt 2

The development of a “Hyogo Disaster Resilient Community Development Guideline” with regard to the daily engagement in community development and disaster management. The developers thought that

something excellent was produced, but I think no cities and villages used this to guide their community development. We need to investigate why this was so.

⑨ Issues Recognized through Activity Implementation - In relation to Housing Recovery ①

The disaster situation report by the police and fire department lists the number of buildings affected, but what is important for housing recovery is the number of households. There are many investigation results, but we need data on loss in terms of financial assets and damage report on the number of buildings and households. Because report results are different in each region, there is a need to arrange for a standardized investigation method. With regard to what the situation is abroad, I think there is no such standardization in developing countries.

⑩ The Immediate Aftermath of the 2006 Central Java Earthquake

During the 2006 Central Java Earthquake, there was a request for aerial photos and maps for damage investigation. However, even though we sent the data, there were no colour printers or large-scale printers so even though the information could be seen on screen, it was not useful. Therefore, we provided GPS and digital cameras. Local researchers and professors had already observed damage investigation methods during the Great Hanshin Awaji Earhtquake, so they were able to immediately apply the same methods in Yogyakarta. Where they excelled was that aside from housing, because the community' local industry was pottery and the center of livelihood, they conducted damage investigation of pottery production facilities at the same time. I think they intuitively recognized the importance of identifying buildings (housing) and jobs. At the time of the Great Hanshin Awaji Earthquake, we emphasized industrial recovery but buildings and jobs were not jointly discussed. With regard to that point, we must also learn from the lesson. Housing was discussed as a housing issue and industrial recovery as an industrial recovery issue. Joint discussion only occurred in shopping arcades and there were not enough interest to discuss with regard to individual businesses and small and production facilities of middle-scale industries from an urban viewpoint.

⑪ Damage Situation in Kangan Village

Mr. Ikaputr of Gadjah Mada University (UGM) in Yogyakarta had been involved in community involvement within this area from before the earthquake, so he thought about where to begin for earthquake recovery and started with damage investigation. As previously mentioned, he had been thinking about community development and universities together from before the disaster and this can be taken as a case. The community members through their own capacities initiated housing recovery along with pottery industry recovery, or in other words livelihood recovery. It is important to consider the meaning of recovery within each community.

⑫ Issues Recognized through Activity Implementation - In relation to Housing Recovery ②

While many houses were destroyed, nobody really knows exactly how many buildings collapsed. The numbers are estimates. Because additional housing was supplied apart from disaster recovery, within two years 278 thousand households worth of buildings construction was initiated while 137 thousand households were reported to be destroyed. A separate need for houses apart from earthquake recovery, or investment in housing is occurring. This is a characteristic of a large city. As a result, there are many vacant buildings in the Kobe Hanshin area and there is a need for research, but I feel that this is stymieing economic recovery. In Nishionimya, Ashiya, and Higashi Nada, there is a demand for housing for people commuting to Osaka so there are not many open houses, but in Nagata and the west of Kobe city, there are vacant houses remaining.

⑬ Issues Recognized through Activity Implementation - In relation to Housing Recovery ③

In developing countries, emergency temporary shelters won't be built and there is a need for independent construction of temporary housing on one's own land with one's own resources.

⑭ The 2006 Central Java Earthquake Housing Reconstruction Assistance

There is a big difference in between the statistics provided by magazines, government, and the World Bank regarding the number of destroyed houses. Meanwhile, because the government made a verbal announcement regarding housing reconstruction assistance for all disaster victims, assistance applications increased and became great pressure for the government. There is a fundamental problem if exact numbers of necessary buildings are not known.

⑮ Issues Recognized through Activity Implementation - In relation to Housing Recovery ④

In the case of Java, self-recovery becomes the case. However, because they do not know how to construct earthquake resilient houses, owners and builders must take responsibility to be able to build safe houses. Without the securing of safe houses, communities will not be safe. In the case of Japan, houses are properties to be bought, but in Indonesia, there is a recognition that houses are to be built by themselves. In the case of government assistance in which they only receive building materials, there is no way to teach safe building methods. There arises a need for the residents to learn such safe construction methods. In the university, I hear that there once was a project in which they built each house in a village. This difference between "buying" and "building" is a point that is markedly different with regard to disaster recovery between Japan and developing countries.

⑯ Issues Recognized through Activity Implementation - In relation to Housing Recovery ⑤

Apartment buildings cover a large percentage of recovery housing, but from the view of the people in foreign countries, high-rise housing projects were not commended. This is because they differed greatly

from the houses in their community that they originally live in.

⑰ Issues Recognized through Activity Implementation - In relation to Housing Recovery ⑥

From the results, there is evidence that too many buildings have been built.

⑱ Issues Recognized through Activity Implementation - With regard to the Scenery 1

In Ashiya and Nishinomiya, old buildings without historic value are lining the cityscape. By the release of public funds, many buildings that were not damaged by the disaster were also demolished. As in the example from Yoygakarta, when there are funds available, people become very enthusiastic.

⑲ The Southern Bali Earthquake of 1917

There arises a problem when discussing recovery from the viewpoint of culture and scenery. There is a discussion about traditional Balinese culture versus a Bali that is composed of other values. Then it becomes a question of what the value of original culture and other characteristics.

⑳ Cases from the 2006 Southern Java Earthquake

Scenery and cultural recovery are issues related to livelihood recovery. There is a need to holistically address these issues. Without such an approach, the community and livelihood cannot recover. Important cultural assets receive support funds, but for anonymous cultural assets, there will be no assistance funds do the regulatory difficulties. There is a need for advances regarding this matter.

21 Issues Recognized through Activity Implementation - With regard to the Scenery 2/3

The future vision in relation to each community's characteristics should be discussed at least once every year. In communities where damages were great, about half of the residents have already changed. The cityscape of Ashiya is also quite different between the houses built by new residents (abundant green and a high level of openness) and the old-style houses (abundant green with low levels of openness) and there is a possibility that the cityscape will change.

22 Issues Recognized through Activity Implementation - With regard to the Scenery 1/2

There are activities for neighborhood committees to clean and maintain gutters and there is a tradition of maintenance of the city through cooperative assistance. These kinds of activities can become the basis for community development councils.

23 Implementation of Recovery

- Houses are being sold during recovery. Recovery is also housing development.
- Areas that could not be reconstructed are empty plots of land. The lots still do not disappear.

- Rumor spread that houses collapsed because of heavy tiles and houses with tiles disappeared from the Hanshin area. As Awaji produces tiles, many houses with tiles were built. But the influence of newspaper articles that said houses collapsed because of tiles were big and the responsibility of newspapers were grave.
- The increase of apartments through recovery projects contributed to increased house numbers but there is a need to investigate this further.
- Community development advanced due to assistance funds for cityscape conservation and greenery projects.

Question and Answer Session

Question 1: How can we incorporate considerations for scenery when developing a recovery plan?
Narumi: One way is when the government provides funds for implementing retrofitting and land rearrangement, such opinions are reflected during the process in which specialists (architects and planners) make the plan. Also, with regard to designated cultural assets, complete restoration was conducted. With regard to attractive yet normal spaces, it took a while for them to be restored and they were only noticed later on. When thinking about what to do in Java, Indonesia, where they lack financial capacity, while trying to rebuild housing and livelihood, we can try to incorporate local culture and history by using local materials. In the case of China, while the government provides money, there is a way for the community members to cooperate with local builders to implement reconstruction. If the government just provides money, monitoring will be insufficient so when construction companies are in charge of housing reconstruction, there is a problem that housing quality may become low.

Question 2: In the case of China, the government is very strong. To a certain degree, the government is strong in Indonesia, but the individuals may independently start reconstructing.
Narumi: Universities have been involved in community development from before in historic towns and towns that manufacture pottery and so all of it is part of a long process of community development. I think it is necessary for professors and experts to provide support for the residents and their awareness through such systems like the “Community Development Council” in Kobe.

Question3: With regard to the investigation of building reconstruction, have you noted any plenary coordination along the way of the investigations? Specifically, for example instead of just the Ikuta Shrine being rebuilt, I think it is important for the surrounding environment to be reconstructed and if you know any such examples and good practices regarding such plenary effect, please present it to us.
Narumi: Hyogo Prefecture and Kobe City are implementing dissemination activities but the most famous would be the Kyu-Kyoryuchi (19th Century restricted foreign businesses and consulates quarter in Kobe).

I think that is a good example even in world standards.

Question 4: In the case of the Noto Peninsula Earthquake, tourist sites and scenic spots dotted the area and the entire Noto area that connects Wajima and Monzen is wonderful. However, with regard to individualized plans, when one area receives the spotlight, the other receives none. Is it difficult for the central government to think of reconstruction within the entire frame of Noto Hanto? In Lijiang, China, I saw an example of how development activities in the area was restricted and so I wondered whether a plan encompassing the whole of Noto was possible. 70% of Japan is in a valley region and so we should think about such strategies and I think there will be more cases like Noto in the future.
Narumi: I don't think the government will make such plans. Such types of plans should be made by the community. In cases like Yogyakarta, Indondesia, the capacity of the government (leadership/community development) is weak so university professors need to lead the process. With regard to the cultural recovery in valley regions, recovery through the development of a centre for eco/agri-tourism in mountainous regions in Taiwan is an interesting method.

Question 5: The residents created a network in the Taiwanese example to expand the recovery strategy. The residents must lead. In the case of Noto, it seems to me that the connection between each network is low. It seemed that everyone was too busy with their own issues.
Narumi: Perhaps we need to create many village community development councils.

Question 6: As you take pride in having been involved in the recovery from the Hanshin Awaji Earthquake, please give as advice and lessons from what maybe should have been done when being asked to assess your experiences with recovery.
Narumi: I don't have pride – I simply touched upon the recovery planning. The council simply answered consultation requests and the government made the actual plan. It was shocking that while we thought we had made the plan, it was not actually the plan. We did not decide on anything within the council. In reality, we were listening to opinions and government personnel made the plans. What I learnt from the earthquake was that recovery does not proceed without listening to the opinions of the residents and that community development councils are important.

When making the general plan, knowledgeable individuals may voice their opinions, but when it becomes a plan, the results differ. Recently, the voices of residents are becoming stronger. There are such problems in the general plan, but in specific field situations, their opinions are easier to be realized. In between the community development council and supporting groups, the chances that their opinions are realized become higher. The previous examples from Taiwan are specific. It is the same in the case of Noto and in individual field examples, opinions might be reflected, but it is difficult to reflect opinions in the general

plan. If there is relevant opinion, I think it is better to be active near the specific field.

Question 7: In the case of cultural recovery within the recovery of Java, what kind of recovery was it if this does not refer to cultural heritages?
Narumi: This refers to things that characterizes the area such as local industry, cityscape and culture of livelihood. Also in Japan, there is not much financial support for anonymous cultures such as that of livelihood and much less so in developing countries. However, in the case of developing countries, such livelihood culture is often very closely associated to daily life and so without the recovery of such aspects, daily life will not recover as well. How much cultural tourism and eco-tourism can be developed as an industry and how local industry can expand their market is included in my definition of cultural recovery.

When going to Bali, its often thought that the local environs had always been like this since old times, but this is not true. It was once destroyed 90 years ago and in the 1930s, there was a Bali Renaissance movement and there has been many changes. Such initiatives and cooperation have built up.

Reviewing Earthquake Recovery

Future Visions of Community Development

Kunihiro Naruse

13 Years of Earthquake Recovery

-The Earthquake is now a past event

Children born on the year of the earthquake are now 13 years old

>> 1st year of junior high school

- Effort needed to prevent erosion of experience and lessons

Involvement with Earthquake Recovery ①

① As a joint-effort of the City Planning Committee Kansai Headquarters and Architectural Institute of Japan Kinki Headquarters Urban Planning Section, the Special Committee for Disaster Recovery Urban Development was established in January 1995 and have participated as committee member (principally to implement building damage status investigation)

② Between 1996 and 1997, was part of the Urban Recovery Research Section committee member of the Kansai Headquarters of the City Planning Institute of Japan and worked on the implementation of various activities and the production of the reports "A Year of Earthquake Recovery" and "This much achieved in earthquake recovery 1997"

③ Member of the research project committee that was established under the Urban Revival Strategy Development Roundtable that was established in February 1995.

④ Promoted members to gather in the Ashiya Club, a group established in February 1995 to review the proposals for earthquake recovery community development.

⑤ Committee member of the Hyogo Housing Recovery Council that was established in May 1995

⑥ Part of the planning committee and member at large of the Great Hanshin Awaji Earthquake Recovery Plan Development Committee established in May 1995.

⑦ Visited the Hokudan neighborhood in Awaji in August 1995 with first year Masters programme students from Osaka University Graduate School to develop an earthquake recovery community development plan.

Involvement with Earthquake Recovery ②

⑧ Committee member of the Great Hanshin Awaji Earthquake Recovery Plan Development Committee that was established in January 1996 (After the Committee was disbanded, continued to participated in other related committees.

⑨ Played a managerial role of the "Community Recovery Diagnosis" investigation group (Publicized over 10 volumes of plans that have been implemented by 2005)

⑩ Coordinator of the "Hyogo Prefecture Disaster Resilient Community Development Guideline" Development Committee that was established in 1996 ("Hyogo Prefecture Disaster Resilient Community Development Guideline" published March 1997)

⑪ Coordinator of the "Hyogo Prefecture Scenery Recovery Master Programme" Development Committee that was convened in 1998 and published a report in October of the same year

⑫ Coordinator for the public solicitation of "Sceneries that I want to Pass On from my Hometown", an initiative implemented by Hyogo Prefecture in 1998. Published the report in March 1999

⑬ Member of the Investigative Discussion Committee for the Earthquake Disaster Management International Investigation Project, which was implemented 5 years from the earthquake by Hyogo Prefecture in 1999

⑭ Section head for the investigation and advisory report development for the "Community Development Area" of the Hyogo Prefecture's 10 year General Investigative and Advisory Project that was implemented in 2003 to which also committee member.

The Concept of Recovery Planning and Realities

Following Existing Plans

The Objectives of the Great Hanshin Awaji Recovery Plan Development Committee

1) Recovery of those largely affected and hurt by the disaster
2) The development of a new consensus-building method for community development
3) The establishment of new division of responsibilities, functions and risks of citizens and government
4) Balancing trends of low and high density in urban areas
5) The need for strong government assistance
6) Recovery based on participation from Kansai and also from outside
7) A new organization that manages recovery projects
8) The implementation of the Phoenix Campaign

The Concept of Recovery Planning and Realities

However, recovery became a showcase of projects

- "Large-scale projects and infrastructure development projects are often prioritized for implementation because they are specific plans and come under financial assistance schemes and the results are concrete. In contrast, livelihood foundations and soft-systems have a handicap in this respect resulting in delays for materializing the project and it is easy for it to disappear in the worst case scenario." (Shozo Takayose)

- Because they try to decide everything in Tokyo, far away from the disaster area, they do not understand what is wrong. Strategies should have been led locally and various authorities granted to local governments who knew best the realities on the ground." (Yasuko Ichibangase) (This was an opinion directed at the concentration of temporary housing on public land.)

The Concept of Recovery Planning and Realities

Following Existing Plans

Committee Member Shimokawabe Atsushi of the Urban Revival Strategy Development Roundtable:
"Instead of trying to reinvent the vision of the community, it should be a policy to base recovery plans on existing general plans."

>> While everybody was rushing about, this was a very good viewpoint. The thinking behind this is to have confidence in existing plans and engage in recovery projects using accustomed methods.

This suggestion had a large influence on latter plan development and recovery plans were made "on the foundations of existing plans".

>> A new system that was developed in the process of recovery
As an example, the "two-step urban plan decision" for land readjustment projects and participatory plan development by the Community Development Committee.

The Concept of Recovery Planning and Realities

The Role of Urban Planning

"The Great Hanshin Awaji Earthquake Recovery Plan"
>> Part of the "Recovery Reading Project"
>> "Towards the development of the safe community"
>>> As the first of these, the "Recovery Urban Development Master Plan and its Support System Establishment" was proposed.

The "The Great Hanshin Awaji Earthquake Recovery Plan" developed by the Prefecture
>> The "The Great Hanshin Awaji Earthquake Recovery Plan" that is thought to be equivalent to the "Recovery Urban Development Master Plan" ended up as only being recognized as one strategy.

•In the Kobe Hanshin area that covered most of the disaster area, it was the responsibility of each city to develop their individual urban visions and reality at the time was that the urban plan of the Prefecture remained as only a guidance that presented a framework in the context of regulations.

The Concept of Recovery Planning and Realities

Points that Must be Learnt 1

In emergency, to rely on accustomed methodology is a thought that should also be commendable from a risk reduction point of view. In this case, it is best to be accustomed to a multifaceted method.

From discussion with house building companies
"We are professionals, so we feel that we want to build high quality products. However, there is no image of the community that we should be aiming towards. If there is some sort of guidance, then we can make houses based on this.

>> A point to be learnt: The future vision of the community should be constantly thought out in each community organization or street block. Even if it is only once a year during new years or festivals, it is a suggestion that everybody should exchange ideas and put it down even if only on a single piece of paper. Recognizing the "issues of the community and knowing how to address these is imperative.

The Concept of Recovery Planning and Realities

Points that Must be Learnt 2

The Development of the "Hyogo Disaster Management Community Development Guideline" in 1996
>> Leading the way to a diverse community development, this initiative was introduced with the intent of directing the development of safe and secure communities, but in reality, cities and towns that engage in the initiative do not readily emerge.

In areas where the effect of the Earthquake was minimal, there are still densely built-up areas and these also remain in many cities and towns outside of the disaster area. There are many issues still remaining for the development of disaster resilient communities. Including strategies to address this density issue, an urban plan that focusese on the issues of each area should be implemented on a day-to-day basis.

A point to be learnt: Regulations may come to light only when experiencing accidents or disasters. That is too late and so there is a need to be accustomed to regulations from normal times.

Issues Recognized through Activity Implementation

In relation to Housing Recovery ①

① There is a need for a comprehensive framework or system for building damage investigation. In particular, as an indicator for housing recovery, there needs to be clear knowledge in numbers of how many houses have been damaged in terms of the number of households.

>> As a post-disaster damage status investigation, the preliminary emergency danger level diagnosis (whether the building can still be used), police and fire department investigation (remote investigation of the damages), the investigation of building damages by each local government (distribution of assistance funds, property tax break measures, gathering information about the damage status for implementing recovery and revitalization, etc.), earthquake insurance payout appraisal (investigation/appraisal for insurance) are some examples. The investigation of damages in terms of personal assets, investigation of building damages in terms of the number of buildings, housing damage investigation in terms of the number of housing units are all necessary and it is requested that a nation-wide investigation methodology that can be commonly applied is developed.

Requests from Yogyakarta University in the immediate aftermath of the Central Java Earthquake in 2006

- They needed maps or aerial photos for damage investigation
  >> Referred them to the UNOSAT Preliminary Damage Assessment site
  Mailed A0 size printed maps
  (There was no large-scale printers on-site)

- Provided GPS receivers and digital camera

Damage Situation in Kangan Village By Ikaputra

Building Damage Investigation/Including Houses and Small and Medium Sized Industry Facilities

Issues Recognized through Activity Implementation

In relation to Housing Recovery ②

② As areas outside of the disaster area are still in normalcy, there will be an addition to housing supply that is not directly related to earthquake and housing recovery. There needs to be care taken to discuss what should come under assistance.

>> The number of houses in terms of housing units that were destroyed in the earthquake are said to be 136,730 in 10 cities and 10 towns, but since the earthquake and by July 1998, the same 10 cities and 10 towns had 278,000 housing units under construction. There is a reality that reconstruction is being implemented in line with the tendency in normal times to improve land use and creating personal assets, and the housing demand caused by the earthquake prompted investment in real estate while various assistance schemes further encouraged housing development. There can be seen a fundamental issue here with housing development policy.

Issues Recognized through Activity Implementation

In relation to Housing Recovery ③

③ There is a need for assistance with a flexible temporary housing supply

>> There is a need for an assistance plan that "revitalizes people" and is "locally-led". The emergency temporary housing constructed by public entities is different from privately constructed temporary housing. It is thought that it is sometimes more effective to support autonomously or privately built temporary housing.

If there is too much particularity for the concept of emergency temporary housing, it may reduce people's will to recover and limit the development of future recovery.

Issues Recognized through Activity Implementation

In relation to Housing Recovery ④

④ As a system of "mutual help", it is requested that a Housing Reconstruction Assistance Regulation is established.

>> To protect the citizen's financial assets and to secure the financial assets of the citizens is one of the central government's important responsibilities. For victims to autonomously reconstruct housing in the event of a natural disaster, there is a limit with "self-help" such as earthquake insurance and "public help" such as the Housing Stability Assistance System, so there is a need to establish a Housing Reconstruction Assistance Regulation as a system for mutual help.

Magazine "Gatra" June/July

Collapsed Houses

Yogyakarta Special Region	27,327
Central Java State	1,590

Social Ministry Report

Collapsed Houseee	126,326
Damaged Houses	392,414

World Bank Report

Yogyakarta Special Region

Collapsed 88,249 Damaged 98,342

Central Java State

Collapsed 68,414 Damaged 103,689

The 2006 Central Java Earthquake Housing Reconstruction Assistance

After the Earthquake, a high ranking member from the special administrative region verbally promised assistance to all disaster victims for housing reconstruction > increased damage report and assistance requests

Current government estimates

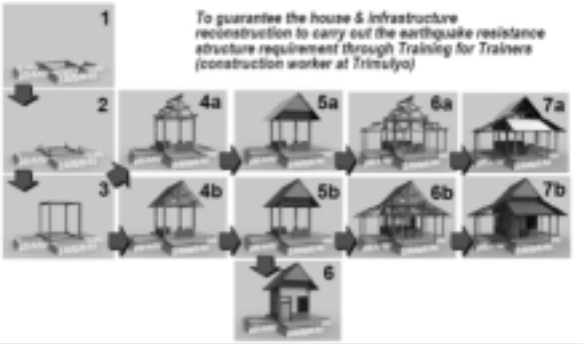
Assistance Target Houses

Special Region: 206,000

Central Java State: 100,000

Program Training the villagers/construction workers through village pilot house

Scheme to work with community for reconstruction activity planning especially for local labor capacity building



Issues Recognized through Activity Implementation

In relation to Housing Recovery ⑤

⑤ There is a need to improve the quality of the plan and design of residential urban areas

>> If it is a rather large-scale group housing area, it necessitates very many different people to mix and live together from the viewpoint of creating a community, and while also applying community components, there is also a need to pursue housing design that fits local characteristics.

Also, leaving large empty plots of land in the community for a long time stymies the vitalization of the community and tends to have a negative influence on the economy of the community and there should be plans made to prevent such situations.

Issues Recognized through Activity Implementation

In relation to Housing Recovery ⑥

⑥ The need to pursue the possibility of "Public housing measures that does not involve construction"

>> There should be measures for included in housing development such as public housing that contributes to the revitalization of cities and communities. For this, methods that allow for such projects to blend into the community should be tested. As part of such a method, there are measures such as public lease of buildings and rent assistance to balance the cost with average rent for public housing.

Issues Recognized through Activity Implementation

In relation to Housing Recovery ⑦

⑦ There needs to be an overall management system established for when the age of the buildings reach 100 years

>> Group housing can be operated as a company and those who move in and possess special rights and developers can hold its stock and renters can rent from this company. Such new systems must be developed for ownership. Also, the job of maintaining and sustaining the building requires using the buildings to its full potential and adding new features and ambience and thus a very creative work, requiring its adoption as a new business of "creative management".

Issues Recognized through Activity Implementation

With regard to the Scenery 1

① Nameless old buildings contributes to establishing an impressive community scenery and public funds applied to their demolition contributed to the erosion of such scenery. More careful response is desired.

>> Restoration of designated historic buildings can expect assistance funds, but what really made an impressive community scenery were not only the designated buildings. Nameless aged buildings are playing such roles. However, as disaster damaged buildings were demolished with public funds, more buildings then expected were torn down. There should be also publicly funded assistance for repairs and restoration.

Scenic and Cultural Recovery in Bali

The Southern Bali Earthquake of 1917 From the essay by Yasuyuki Nagafuchi

60,000 buildings were destroyed. Many temples are also thought to have been destroyed. The Bali Culture Wars erupted with regards to recovery.
Dutch Architect Moen insisted on the need for building reconstruction assistance.

There is a need to direct recovery to use Balinese construction materials and construct according to Balinese references so as to ensure that the reconstructed buildings as a whole matches the aesthetics of Bali.

Counterargument: There is a possibility of the emergence of new buildings that is based on the Dutch interpretation of Balinese culture.

"As was before" >> "What is "as before?" >> As a result "traditional Balinese culture" was promoted. But Balinese culture does not originally consist of only "traditional culture".

With regards to reconstruction, Moen's proposal was accepted, but in the end, even this was said to be terminated.

The 2006 Central Java Earthquake

Scenery and Cultural Recovery

Homes, jobs, and cultural recovery

① Homes can be places for home-based handicraft (Batik, pottery, etc.) or cottage industries

② Even if homes recover, without the recovery of jobs, there can be no recovery of livelihood

③ The recovery of historic environment is also the recovery of homes and cottage industry, and tourism recovery

Issues Recognized through Activity Implementation

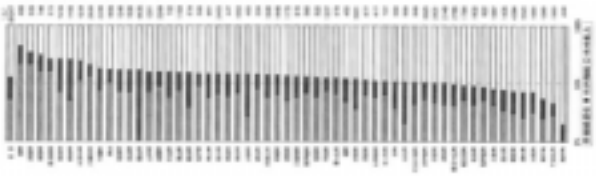
With regard to the Scenery 2

② There is no accessible guidance pointing to the future visions of the community. There is nothing to refer to when the community is going through rapid change. It is preferred that there is something put down on at least one piece of paper from normal times (example on this page include creating a network based on community cultural heritages, community organization methods, and suggestions for incorporating new city-scapes).

Issues Recognized through Activity Implementation

With regard to the Scenery 3

③ In disaster struck areas, especially Ashiya City and Nishinomiya City, and further in the eastern area of Kobe City, it is not uncommon for more than half of the population to have switched out. There is a need to take into consideration scenery issues in community development.



『街の復興カルテ』2004年度版より

The Possibility to Sharing Scenery Assessment and Image by Residents

Looking at Ashiya's cityscape from visual characteristics

The 2006 Central Java Earthquake
Other Issues and Potential of Earthquake Recovery 1

"Goton Loyon"

Voluntary mutual assistance

There is a necessary to enthusiastically take to advantage such local social ties

↓

It could become the basis for a community development committee in Java

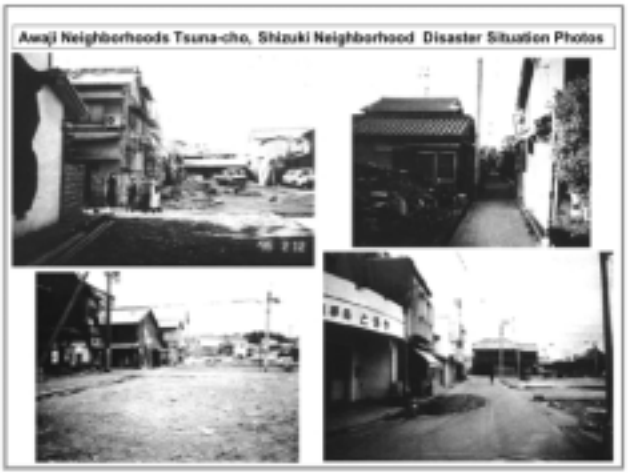
The 2006 Central Java Earthquake
Other Issues and Potential of Earthquake Recovery 1

Need for an evacuation area plan that follows the local Javanese concept of open space >>
Systems proposed by Kyoto University and Southeast Asian Research Center

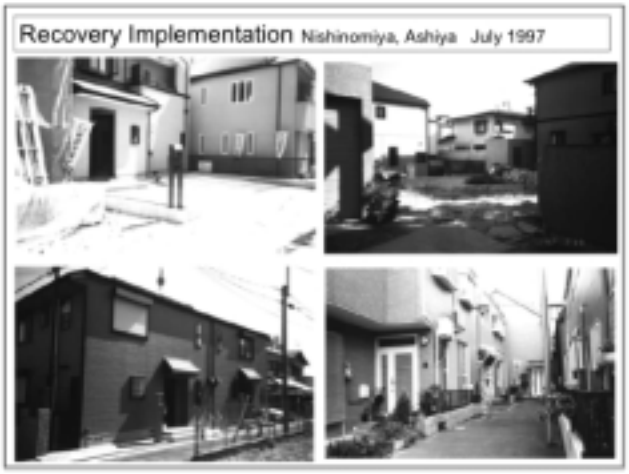
Kobe Nagata Ward Bo-Ouji Area Map Building Damage Level Map


Kobe Nagata Ward Damage Photos


Awaji Neighborhoods Tsuna-cho, Shizuki Neighborhood Building Damage Level Map


Awaji Neighborhoods Tsuna-cho, Shizuki Neighborhood Disaster Situation Photos


Recovery Implementation July 1997


Recovery Implementation Nishinomiya, Ashiya July 1997

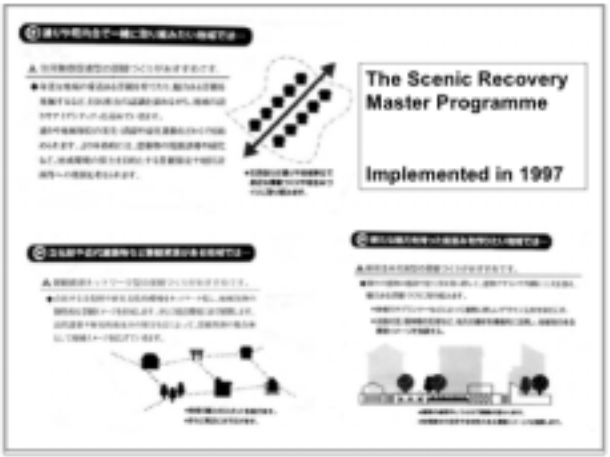

Recovery Implementation Awaji Neighborhoods August 1997

Recovery Implementation Community Development through Recovery Projects




Scenery is Re-Recognized as Recovery Progresses

- Restoration and revitalization of historic buildings were enthusiastically implemented
- While there was a movement to create a good cityscape, there were also new buildings constructed that did not harmonize with the surroundings
- There were some who felt uncomfortable with the new cityscape and those who felt that the old life scenery were lost
- There was emerging thought that there should be guiding principles about roads and neighborhoods, even if only on a single piece of paper



The Scenic Recovery Master Programme

Implemented in 1997

The Earthquake and Recognition of Scenery

Characteristics of Selected Sceneries in 1998

- Hometown imagery of an urban resident
- New sceneries for communities
- Scenes of local culture, livelihood culture
- Familiar nature, amenities, environment, views
- Nearly forgotten scenery
- Scenery with public or city value

Cases of Preserved Scenery: Types of Greens

Scenery Renaissance • Initiatives for Cityscape Preservation Project

- Objective: Recovery of historic cityscape and symbolic buildings
  Assistance for developing cityscape
- Implementation Period: 1997 to 2001
- Assistance Target: 274 Assistance Fund: Approx. 446 mil. Yen


Cityscape Greenery Projects

- Objective: Developing a green cityscape
  Assisting the local resident-led green cityscape project
- Implementation Period: FY1999 to FY2002
- Assistance Target Households: 222 (of which 196 were in disaster area)
- Amount of Financial Assistance: Approx. 33.5 million Yen (of which disaster areas received 30 million)


Manifestation of Recovery Community Development




Manifestation of Building Restoration Results

Recovery Monuments

According to the book "1.17 The Light of Hope", there are 165 earthquake monuments in the disaster area.

An artist called for the preservation of the "Wall of Kobe". It is currently preserved at Tsuna in Awaji.

Kobe Port Earthquake Memorial Park (Meriken Pier) The preservation of the destroyed quay. →

From the Survey of Recovery Scenery

Chimiya-cho, Ozaki Neighbourhood, Awaji Island

After the earthquake, buildings have not yet been reconstructed but permission has been granted from the land owner for community members to make a flower garden.

In Awaji, there are notable temples and shrines, which to the locals are seemingly a source of great pride.

A shrine in Ichimiya-cho, Ozaki neighbourhood

Proposal for Future Scenic Community Development

① Special regulations for community development that takes into consideration scenic development

② Dispatching, training, and sustaining scenic advisors (specialists)

③ Assistance and promotion for the designation of scenically important buildings

④ Thorough guidance and advice for the new construction, renovation, and extension of buildings

⑤ Public solicitation and awards for resident activities, cityscape, buildings, etc.

⑥ Promotion of cityscape development guided by public works

Chapter 1 **Proceedings of Recovery Assessment Seminar**

1.4 Recovery Assessment from the Great Hanshin Awaji Earthquake from an Economic Perspective

Seminar convened on December 1st, 2008

Venue: UNCRD Disaster Management Planning Hyogo Office

Lecturer: Toshihisa Toyoda

Profile:

Toshihisa Toyoda
Professor, Department of Economic Sciences, Hiroshima Shudo University

Honorary Professor, Kobe University. Completed a doctorate from the Graduate School of Economic at Kobe University in 1963. In 1971, also completed a doctorate course at the Industrial Management Studies Research Department of the Carnegie Mellon University Graduate School. Later, became Professor at the Graduate School of International Cooperation Studies (GSICS) Kobe University, before assuming the current position.

I will introduce cases and analysis of recovery assessment from economic and international perspectives. I have been living in Hiroshima for the last four years, but until then, my home and job used to be in Nada Ward in Kobe and also experienced the Great Hanshin Awaji Earthquake 14 years ago. Today, I will first introduce economic data on the status of recovery. Next, I will reaffirm the meaning and importance of direct and indirect damages based on the data. I think these are important keywords when thinking about recovery. In the aftermath of the Great Hanshin Awaji Earthquake, there was little recognition of direct and indirect damages and damages were only focused on direct damages estimated to be around 10 trillion yen. However, in our country and also abroad, the concept of not only direct but indirect damages has taken root. For example, it is estimated that damages will amount to 112 trillion yen when an earthquake strikes the Tokyo Metropolitan area, but this estimate includes both direct and indirect damage estimations.

Recently, indirect damages are also being put into consideration in the Sichuan Earthquake. Recovery policy assessment is he theme of this seminar, but from an economic perspective, even if the overall recovery policy cannot be assessed, I would like to point out the problems and history of Japanese recovery policies in the context of economics. Next, I would like to think about the problem of recovery budgets, or in other words the role and issues of public funding for the recovery efforts following the Great Hanshin Awaji Earthquake. Finally, I will point to how the Great Hanshin Awaji Earthquake was a disaster that gave us big lessons. After the disaster, although the magnitude has varied, there are frequent occurrences of disaster within Japan. Regional recovery budget is becoming a very important issue, but the current situation is that this problem has not been solved yet. However, the limitations set by the government that prevented the use of public funds for housing reconstruction, a vital factor towards livelihood recovery, was overturned by the reform of the Disaster Victims Livelihood Recovery

Assistance Act in November 2007 and this became a turning point for which we must think of appropriate funding sources.

① Standard

Unlike other fields of social sciences, economics places an emphasis on the logical structure that emerges from a particular structure. To put it simply, structures refer to the most effective use and distribution of given resrouces to achieve the best objective. Natural disasters are normally exogenous of such structures and considered as direct impact that is not based on presumptions. However, economics is about the system based on people, things and money and because disasters are greatly related to people, things and money, it should be considered a subject for economics. The reason why economics did not consider natural disasters to be the subject of analysis is maybe related to the establishment and development of economic studies. In other words, in the UK where the framework for economics was established and in the eastern coastal area of the U.S. where economics was developed in the 20th century, there are few natural disasters such as earthquakes. Recently, however, due to findings that disaster damages measured in financial terms is gradually increasing, economic academic journals have begun to feature articles on disasters. In the U.S., it may be receiving more attention because of worries for large- scale hurricanes and terrorism.

There are many types of resources, and in the case of recovery, this refers to recovery funds. Once the resource is delivered and when thinking about how effectively this can be distributed for various use, in the case of disasters, resource distribution is implemented slightly differently at each disaster management cycle. Today, we will focus on resource distribution in the recovery step. Basically, resources need to be effectively and efficiently distributed, and the “efficiency” of resource distribution during disaster recovery may be substituted by the notion of “speediness”. The next important standard is “fairness”. However, both efficiency and fairness are standards that are also applied as economic standards during non-emergency times. Many emergency situations are occurring during disasters and there will always be vulnerable communities or individuals in such a situation so the standard should be based on the relief of that community and its people (this could be described as the standards for “human security”). Specifically, instead of thinking about recovery funds within the terms of the standardized budget framework for normal times, identifying the means to allocate recovery funds for the relief of disaster struck areas should be targeted.

② The Progress of Recovery as Viewed from Economic Indicators

Objective data is needed in order to objectively comprehend and assess the status of disaster reconstruction and recovery or for government departments to draw up response policies. First, the cope of the humanitarian and building damages are understood. Money is the resource needed for relief,

reconstruction, and recovery from damages against things and people. Damage data decides the amount of resource input (money) that is necessary. Much time is necessary in order to comprehend the status of damages in a macroeconomic (holistic) manner even during the recovery stage. Therefore, the following types of data will be used for a chronological understanding of the recovery status:

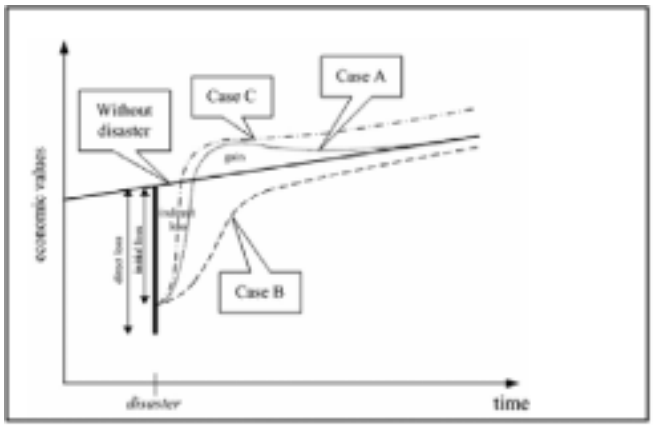
Supply Indicators: Data that can be accessed from normal times, such as productivity index, demographics, vacancy in buildings, etc.

Demand Indicators: Consumer related statistics, number of construction projects started, number of incoming tourists, hotel reservation rates, etc.

These were used as important indicators to understand and assess the status of recovery in both Hanshin Awaji and New Orleans. We must pay attention to the fact that each indicator reflects a certain attribute of each data.

Objective and holistic data cannot be yielded until a little time has passed. The above types of data were also used in the case of the Great Hanshin Awaji Earthquake to understand the recovery status. For example, there were analysis made based on demographics, and population is actually a factor that influences both supply and demand and it also affects labour capacity and consumption. Also with regard to production rate and number of businesses, these drastically decreased in the aftermath the earthquake. There was a considerable recovery-led demand for the first three years, especially regionally, and this was thought to directly lead to sustained recovery, but this demand later declined. In comparison to 1993, construction orders were up for a few years after the earthquake in order to reconstruct damaged private and public buildings. In the 5 years after the earthquake, there were more private than public construction orders according to the 10 year investigative report conducted by Hyogo Prefecture. In other words, recovery through construction was mainly led by the private sector.

③ Direct and Indirect Loss



Next I will talk about direct and indirect losses. The chart shown here was originally drawn up by S. Chan and S. Mills to show the value of indirect damages over time to which I have added direct and indirect losses. Direct damages refer to the amount of loss (stock) directly induced, such as to homes and buildings. However, most engineers include into these direct damages the losses from the initial flow. For example, in the case that trade is stopped for a few days because a bridge is destroyed, the losses arising from this, profits, production, and income that

are part of what is measured by the concept of “flow” are said to be direct damages. In terms of economics, however, stock and flow are strictly distinguished and flow should be part of indirect damages. This is because stock and flow have separate economic functions. In the production stage, resource stock and labour flow will be the input and the output will be the products and services, which are flow. In the case of a disaster, direct damages to stock can be visualized through photos, but indirect damages to the flow cannot be seen a images. All the more so, it is not easy to understand indirect damages.
In the chart, assuming there is no disaster, economic activity lies above the trend line due to benefits from recovery demand and the economic activity lower than this reflect losses. In Case A, economic activity rises in the immediate aftermath of the disaster with the increase of benefits led by recovery demand, and this will be sustained for a while before it gradually decreases back to the pre-disaster economic level. Case B is the unfortunate case in which there is no positive affect of post-disaster recovery demand and economic activity remains at a plateau. Case C is a situation in which economic activity temporary declines but ends up being better than before the disaster. In the case of recovery demand, it becomes important from where economic activity exceeds previous levels and how much recovery demand actually exists.

The cost assessment by Hyogo Prefecture and the central government was that “direct damages amounted to 10 trillion yen”. A great majority of this cost accounts for damages to buildings. Further dividing buildings into homes and commercial buildings, homes account for a greater amount. But is this figure alone correct? It seems that recovery objectives and analysis are always the tacit objective for recovery. As for myself, I have been receiving support from Kobe Chamber of Commerce to conduct surveys one year and two years after the earthquake. Of the 1,100 replies we received from businesses, we measured indirect damages in addition to direct damages. According to this, the manufacturing industry accounted for the largest direct damages. Damages for all businesses amounted to 13 trillion yen. With regard to indirect damages, it was not as significant in large-scale manufacturing businesses, but commercial and service industry production and income declined and exhibited the largest damage costs.

The Gross Regional Product (GRP) embodies the holistic, macroeconomic status in terms of the flow concept. This is the regional equivalent to the Gross Domestic Product (GDP) and it provides the sub-total of the values of each sector. We will present below the cost of indirect damages calculated by the GRP of Hyogo Prefecture. First, the expected GDP growth rate based on pre-disaster trends and national economic situations is calculated assuming that no disasters occur. We apply recent chronological analysis methodology for this calculation. By comparing the estimated GRP and actual GRP, if the current GRP is lower than the estimated GRP, the difference accounts for the indirect damage costs. In this model we see that the benefits from recovery demand was only evident in the second year. In the initial three years, the loss was not so large with the effects of recovery projects, but later in the long term, indirect

damages were sustained. About 12 years from the earthquake (fiscal year 2006), losses finally started to decline and the Hyogo economy seems to be back on track. However, this may be interpreted as not being a national trend but influence from the economic downturn that was more severe in the Kansai region, which led to an overall decline. Despite such views, when analyzing Osaka, it was certainly experiencing a heavier downturn than the national trend, but it was always at a higher level than Hyogo. Thus Hyogo's economic downturn cannot be explained to be rooted in a Kansai-wide recession and therefore the effects of the earthquake is quite evident.

④ Recovery Policy Assessment

When assessing the outcome of recovery, engineers focus on visible subjects such as structural infrastructure and buildings. In my case, assessment is based on subjects that are not visible in the progress of recovery such as economy, industry, and livelihood. The progress of recovery can be assessed on point based observations but these are based on things that can be captured by photos such as buildings and cityscapes, or visible, engineering subjects. Because I am focused on invisible social realities, I am very interested in the actual process of recovery. Also, there needs to be analysis on recovery budget and policy, but three years following the earthquake, there were large-scale projects and two years after that, the projects were implemented on a smaller scale and after the five years, national projects decreased. The recovery budget within the five years was 5.22 trillion. Of this, recovery of public infrastructure formed the majority and 1.1 trillion was allocated to housing related recovery projects. Allocation of the expenses to software considerations such as interest payment support, business startup assistance, and livelihood assistance amounted to a mere 12%. This is our nation's policy characteristics. From an international perspective, it would probably assessed as wrong.

As is noted in the "White Paper on Disaster Prevention", about 20% of public investment is related to disaster management. This is unique even from an international perspective. Because Japan is called "Department store of disasters", a greater budget for preparing for disaster and disaster management amongst developed nations. During disasters, this budget will be allocated to recovery and in the absence of disasters, this will be used towards environmental stewardship of rivers and mountains. I think it is an advanced system built upon history. It will of course be beneficial as well for socioeconomic development. However, there is very little budget for software considerations and livelihood. In comparison to other countries, we can see a difference in what is emphasized when engaging in disaster recovery. The base for livelihood is a house, and livelihood recovery assistance that does not enthusiastically support housing reconstruction is out of the question in other countries. When speaking with foreign experts, they find it hard to understand the logic of Kasumigaseki (central government) which restricts the use of public funds for the reconstruction of private houses. In our country, until the amendment of the Disaster Victim Livelihood Recovery Assistance Act in November 2007, it was not legal for national funds to be

appropriated to the reconstruction or repair of homes. Hereafter, there is a need to improve this Assistance Act and develop a funding basis.

In the 10 year investigative review of the recovery budget of Hyogo Prefecture, there is a focus on positive aspects such as recovery projects, but there is no mention of negative issues, or the damage cost. The net cost of national and regional recovery related projects is projected to be 9.1 trillion yen. Of this, 5.4 trillion yen were appropriated through special measures and 4 trillion were appropriated through the regular budget scheme towards recovery. Social infrastructure carries a big weight in Japanese disaster recovery, but perspectives for the livelihood recovery of individuals was weak.

⑤ The Assessment and Issues of the Recovery Budget

The current condition that there is no regulation for securing a budget in response to large-scale disasters is an issue. Perhaps it's misleading to say that there is no regulation, but there is no system for local governments in disaster struck areas to engage in recovery at their own discretion. The national budget measure for large-scale disasters is based on the "Disaster Response Basic Act" to which the "Disaster Relief Act" decides on the national share of expenditures. When a disaster is designated as having caused sever destruction, for damages affecting sectors such as public construction works and agriculture that exceeds a certain threshold, budgetary measures are implemented to exceed normal disaster recovery projects. For the Great Hanshin Awaji Earthquake, "The law for special financial aid and support in response to the Great Hanshin Awaji Earthquake" allowed for parks and public social educational institutions, police, and fire department projects that are usually not included in the "Severe Damage Disaster Act" in order to increase national assistance rates. However, these measures are possible only when the prefecture (Hyogo) requests such support from the central government. In other words, each ministry responds to the requests from regions (prefecture) and the government responds with financial aid and tax subsidies, and such tripartite methods are also applied to recovery. The recovery plan for Hyogo Prefecture consisted of 600 projects and it was initiated as a highly publicized creative recovery plan called the "Phoenix Plan". The total project budget was described to be 17 trillion yen, but in reality, plans were enthusiastically proposed first and the budget arrangements initiated later. A coordinating committee was established and took an advisory role in various projects. Because projects were not backed up with a budget, many were simply pretty on paper. Among these, the healthcare industry development plan succeeded later on and it led to a blooming healthcare related industry in Port Island. There were also plans for enterprise zones, but the Ministry of Finance that did not accept a one state two system approach at that time blocked this plan and it was regrettably halted. There were also recovery plans drawn up in Niigata and Ishikawa, but in the case of Niigata, unlike the case of the Great Hanshin Awaji Earthquake, because valley and midland areas were affected by disasters, livelihood recovery was emphasized. More recent recovery plans place more emphasis on livelihood recovery.

If national budgetary measures are not sufficient, regional budgets must meet the remaining costs and public bonds would have to be issued to raise funds. As a result, regional, Prefectural, and municipal debt soared. Three years from the earthquake, debts rose to double the pre-disaster level. After the earthquake, the local governments affected by disasters in Hyogo Prefecture and Kobe City are at a very difficult position from declined tax revenues and payment of bond interests. When observing the primary balance without bond interest payments, the Kobe City account balance is rapidly improving 13 years from the earthquake, but Hyogo Prefecture is still facing a very harsh budgetary management.

The recovery budget for the Great Hanshin Awaji Earthquake that was established as an emergency budgetary measure by the cooperation of Hyogo Prefecture and Kobe City should be commended as having played an important role. However, by receiving support from the central government for interest payment, they became subject to national regulations for financial management, which could not be conducted by the free management of local government.

⑥ The Importance of Recovery Financial Planning

Budgetary measures for when a disaster happens in the capitol still do not exist. If a large disaster occurs, nothing can be done about the fact that there is not enough financial resources. Disasters may not occur frequently, but they occur when they occur. Budgetary framework and plans for how to secure additionally necessary funds should properly integrated into the recovery plan. Putting aside funds before the disaster is hard to implement from human psychology. But when the disaster occurs, just as donations gather, it is possible to gather funds during disasters. How to gather such funds? For example, I am thinking whether it is possible to collect emergency special purpose taxes after disasters. Private donations are individual choices, but taxes will be a duty. Otherwise, financial plans cannot be made. With the adoption of the Disaster Victims Livelihood Recovery Assistance Act, there are some measures for support targeting totally destroyed or equivalently partially destroyed houses, and the support for individual housing has been changing. However, funds appropriated through current assistance laws do not provide enough financial resources in the event of the Great Hanshin Awaji Earthquake or earthquakes striking the capitol and other large earthquakes.

This is only my personal opinion, but recovery financial planning should be integrated in the overall recovery plan. Recovery planning should not only be decided by engineers but also by jurists and economist. As I was thinking these things, the Sichuan Earthquake occurred. I learnt a lot from the pairing plan that was included in the Sichuan Earhtquake recovery plan, in which areas designated to be severely damaged were paired up with cities and prefectures from other states that were in charge of assisting its recovery. This system was not established for the first time in response to the recent disaster, but it was based on a year 2000 strategy for “Concrete Proposal from the State Council on the Development of

Western Areas" in which richer coastal areas will assist the development of inland states. Those on the supporting side will appropriate 1% of last year's revenue shortfall through this scheme and this is applied as a system to acquire outstanding funds. There needs to be legislative measures in order to properly integrate financial resource acquisition in the recovery plan.

⑦ Establishment of a Disaster Recovery System

In order to implement the standardization of a recovery fund and the establishment of a disaster recovery system (A holistic recovery plan that balances both social infrastructure and individual livelihood), I think it is necessary to have some sort of a disaster recovery standard legislation. Also, the experience from Kobe that individual livelihood recovery was delayed due to national policy is regrettable. In the 5 basic principles that were adopted in 1992 part of the Overseas Direct Assistance (ODA) outline, "Assisting Self-Help of Developing States" followed by "The Viewpoint of Human Security" were emphasized. This was a reflection of the basic policy of Japan with regard to the relief of the vulnerable. The same principles should be applied to the relief of the vulnerable (community and individuals) that arise from large disasters. By replacing "developing countries" with "disaster areas" in the ODA outline, the same national policy should be yielded. As with the ODA policy, the opinions from disaster areas should be considered in disaster recovery and assistance for autonomy and the recovery of people should be made possible.

Question and Answer Session

Question 1: When the Noto Penninsula Earthquake occurred in Ishikawa Prefecture, the Ministry of Economy Trade and Industry (METI) at that time appropriated their own funds for recovery projects, but are objective based assistance funds a possible method?

Toyoda: Just as it was not possible in the case of Ishikawa to use recovery funds for housing reconstruction, assistance from the state will lead to restrictions on how the fund will be used. It is possible though, to assist housing reconstruction if like in the case of Totori Prefecture, a fund independent from the state is established. However, with the adoption of the Disaster Victims Livelihood Recovery Assistance Act, there are still restrictions, but regulations for assistance is changing and so there is possibility of further change in the future. But it is a problem that such discussion is not being done regularly and it is only discussed during or after disasters. These topics should be talked about before disasters.

Question 2: Regarding the funds for recovery, I am hoping that there will be special regulations applied to disaster areas in relation to the deregulation policy, such as the establishment of enterprise zones. What do you think about this point?

Toyoda: Easing regulations won't be too much pressure for the state, so I think it is possible. After the earthquake, various ideas were suggested including tax exemption, casinos, and enterprises. As a catalyst for growth, casinos have been established in specific areas in Cambodia and Laos.

Question 3: With regard to special purpose taxes, I think there is a need to create special funds and specific funds for Japan, for Asia, and such special disaster funds should be established and developed. It seems to be still in the research process at the Asian Development Bank (ADB), but they seem to be debating on creating a fund pool for disasters.

Toyoda: Japan, unlike Asia, experiences low death rates in comparison to damage costs so it has a high level of skills for protecting human lives. In Asia, there are only Japan, Korea, and China that can be on the assisting side, so these three countries should cooperate to work on disaster assistance through public funds. There are some examples of activities in developing countries by China that cannot necessarily be shared, but with regard to disaster recovery, China has a learning stance and with the progress in transparency and public information dissemination since the Sichuan earthquake, I think there has been made progress towards the possibility of cooperation with our country.

I will make one last additional comment. Tax propositions are specifically regarding public help, but it is also something that touches upon mutual help. It is a proposition for which disaster areas receive assistance from areas that have not been struck by the disaster through mandatory assistance funds. In the case that recovery funds cannot be secured domestically, acquiring the funds from abroad can also be considered. There is an example in which the state of Louisiana in the U.S. requested assistance from the Inter American Development Bank (IADB). In the case of China, they have made it a policy to secure funds by the paring-up of rich coastal provinces and designated disaster areas, but the reality is that it is still not sufficient. However, in the case of Japan, presently there are no considerations for pre-disaster arrangement, with only the post-disaster recovery plans open-ended and so there is a need to think of a way to arrange the budget.

Recovery Assessment of the Great Hanshin Awaji Earthquake from an Economic Perspective

Toshihisa Toyoda

Today's Topics

1. Looking at the realities of recovery through data
2. Re-affirmation of the importance and meaning of direct and indirect damages
3. Assessing recovery policy incorporating lessons from our country's recovery response
4. Assessment of the recovery finances
5. The Great Hanshin Awaji Earthquake yielded large lessons with regard to recovery response and opened paths towards new strategies, but issues with securing a financial base remains unsolved. New ideas that transcends existing economic frameworks are necessary

Standard

- Response in Normal Times:
  - ① Efficiency (Speediness)
  - ② Fairness

In addition:

- Response in large disasters:
  - ③ Relief for vulnerable individuals

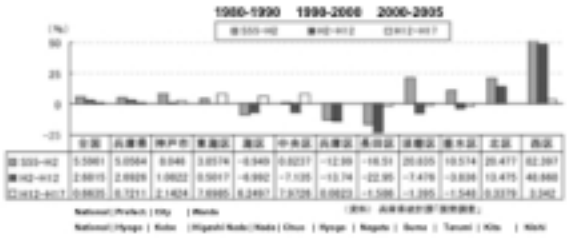
These should be the standards upon which assessments should be made.

The Progress of Recovery as Viewed from Economic Indicators

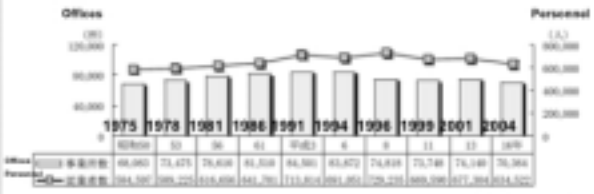
- Supply Indicators
  - (1) Productivity Rate
  - (2)Population and Employment
  - (3)Vacancy Rate of Buildings
  - (4)Bankruptcy rate, etc.
- Demand Indicators
  - (1)Consumption Related Statistics
  - (2)Construction Projects Initiated
  - (3)Number of Tourists and Hotel Reservation Rates, etc.

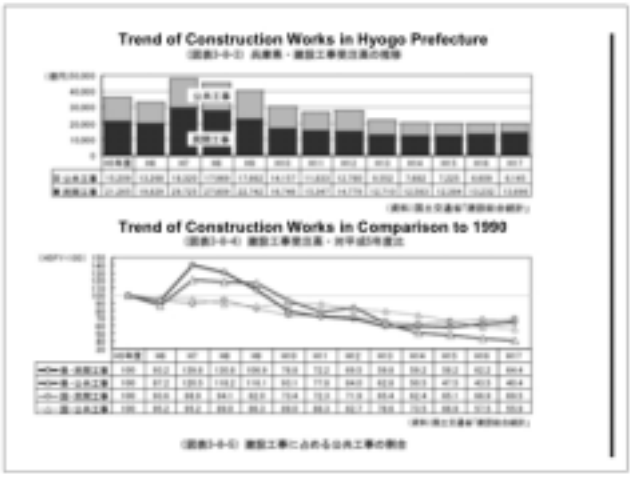
Kobe City Population Trends by Region

(National Census)

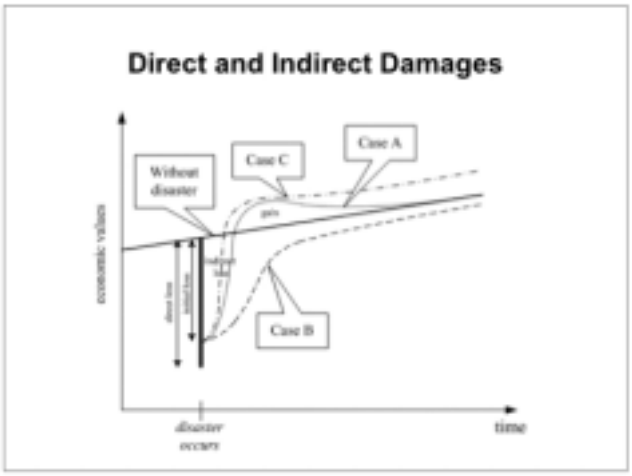


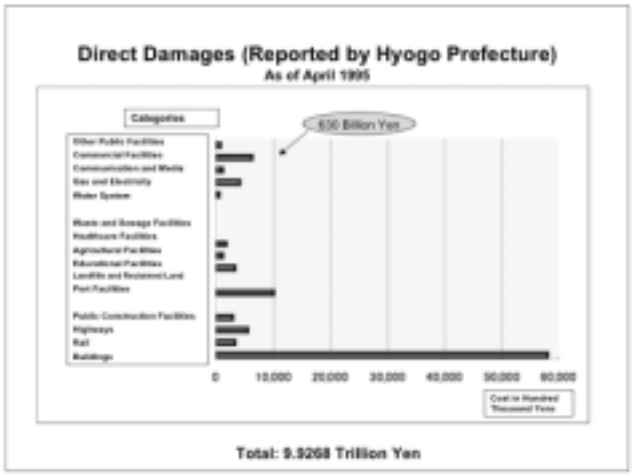
Kobe City Project Office and Personnel Numbers

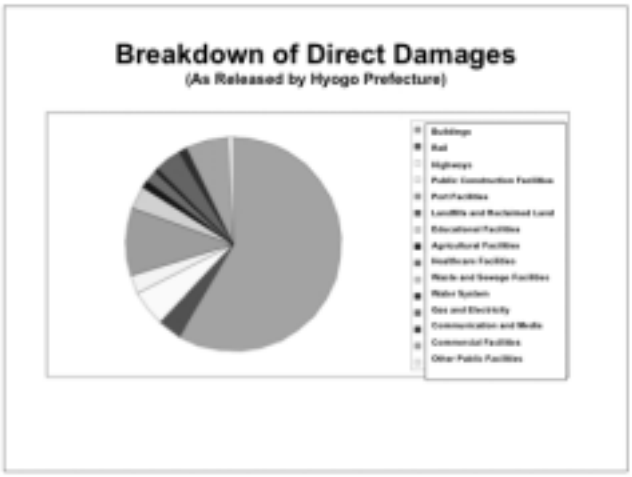



Trend of Construction Works in Hyogo Prefecture
Trend of Construction Works in Comparison to 1990


Hotel Reservation Rates in Kobe City between 1994 and 2003
City Hotel | Business Hotel | Average | Amount of Tourists


Direct and Indirect Damages
Without disaster
Case C
Case A
Case B
economic values
disaster occurs
time


Direct Damages (Reported by Hyogo Prefecture)
As of April 1995
Categories
630 Billion Yen
Total: 9.9268 Trillion Yen


Breakdown of Direct Damages
(As Released by Hyogo Prefecture)


Direct Damages
(In case Buildings are included in the Industrial Sector)
Categories
2.94 Trillion Yen

Breakdown of Direct Damages

(Calculated by Toyoda)

The Definition of Indirect Damages

- "Indirect Damages" can be defined as the difference between the estimated gross production rate of Hyogo Prefecture in the absence of an earthquake with current real gross prefectural product

Formula for the Recovery of Normal Conversion and Regional Gross Productivity Rate

$$\Delta HGRP = -1070.9 + 212.41\,\hat{Y}$$
$$(-2.83) \qquad (4.03)$$

$$+189.03\,T$$
$$(3.43)$$

$R2 = 0.87 \quad DW = 1.79$

Indirect Losses

Recovery Policy Assessment

1. Recovery Policy favoring public facilities

The total recovery budget between 1995 and 1999 was 5.2 trillion yen

- **Funds appropriated to public facilities were 3.3 trillion yen**
- **Housing-related funds were 1.1 trillion yen**
- **Funds for "soft" issues such as condolences, welfare, education, and small and mid-sized industry policies only amounted to 12% of the total.**

2.Limited by the estimated direct damage costs

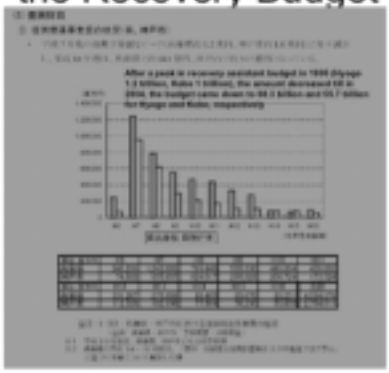
- **Central Government・Region: Net related project cost = 9.1 Trillion Yen** (Ten-Year Review)

- **Additional Costs were 5.4 Trillion Yen**
- **The amount of funds appropriated from the normal budget scheme amounted to 4 Trillion Yen**

The Characteristics and Limits of Our Country's Disaster recovery Policy

1. There was great emphasis on social infrastructure development and maintenance and less focus on the viewpoint of individual livelihood recovery
   ⇒Gradually improving
2. Local government at city and prefectural level are the main actors for recovery project implementation
3. Recovery projects led independently by different ministries and departments
4. There is no specification for securing funds in response to large-scale disasters

The Assessment and Issues of the Recovery Budget



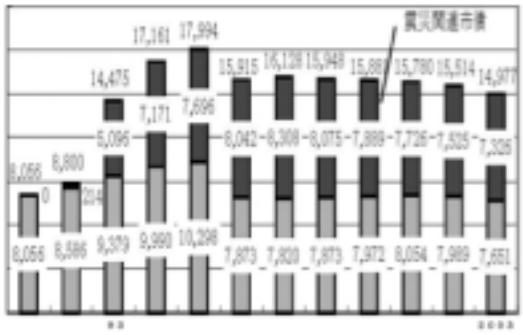
1. Rapid increase of regional debt balance

   (It became twice the amount from before the Earthquake in the first three years)

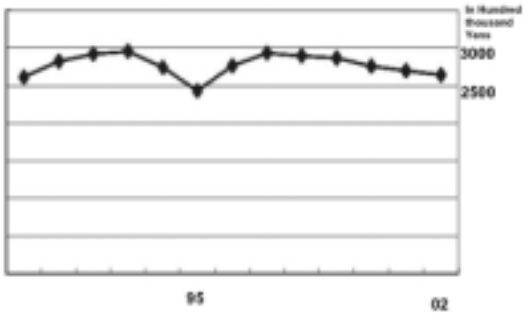
   → **Financial Pressure** (Limitation on bond issuance exceeded by a rate of 20%. Publicly funded debt increased to 30% (in FY '04).

2. **Declining tax income**
3. **The central government implemented financial assistance through the"Disaster Response Basic Act" and "Extreme Disaster Damage Act", but were bound by the limitations of assistance funds (usual methods of fund request)**

Trend of City Debt Balance (General Accounting)



Trends of City Tax Income



The Importance of Recovery Financial Planning

A "Recovery Financial Plan" should be included in a disaster area recovery plan to respond to large-scale disasters. With regard to fund shortages, new viewpoints are necessary to identify methods to access funds.

e.g. "Emergency Special Purpose Tax"
Reference: "One-on-one Regional Support

Systemization of the Recovery Fund

It is ideal to have a system in place rather than ad-hoc special provisions for each disaster, so as to be able to rapidly establish funds in response to the scale of the disaster

Establishment of a Disaster Recovery System

- Clarification of national responsibilities and securing a fund base
- Attempting to unify responses that are divided by ministries and departments
- Social infrastructure and livelihood
- An economically balanced recovery

(Improving the "Disaster Victim Livelihood Recovery Assistance Law")

Chapter 2 **Recovery Assessment Expert Hearing Sessions**

The following are transcripts of hearings conducted by UNCRD Researcher Saito with individuals who have been involved to this day in recovery community development, since the Great Hanshin Awaji Earthquake.

2.1 Interviewee: Masakiyo Murai

Date of Hearing: September 22nd, 2008

Profile:

Masakiyo Murai

Director/Secretary General, Citizens towards Overseas Disaster Emergency (CODE)

After the Great Hanshin Awaji Earthquake, he was involved in relief operations as Secretary General and later as the Chief Representative of the "Chibikuro Assistance Group (currently "Group En") while also serving as Chief Representative of the Great Hanshin Awaji Earthquake Temporary [Housing] Assistance NGO Coordinating Association (currently Disaster Area NGO Cooperation Center), which became independent from a study group within the Great Hanshin Earthquake Local Disaster Area NGO Assistance Coordination Council. Since the Earthquake, he has been involved in disaster assistance domestically and also abroad over 43 occasions as coordinator. He is also Director/Secretary General of the Citizens towards Overseas Disaster Emergency (CODE) and consultant for the "National Network Connected by Earthquakes" and vice director of the Japan Society for Disaster Recovery and Revitalization. Since April 2006, he is Visiting Professor at the Kobe Gakuin University and since 2007, Steering Committee member for the student support group "Community based learning from People for Co-Living Human Capacity".

① About the Recovery Community Development Assessment Indicators

1) Do you think the Hanshin-Awaji area has become easier to live in after the earthquake?

I am afraid it will take some more time to see the results of recovery efforts. Now 13 years later, we can make real assessments from different perspectives and find out what was wrong by hearing from people through this kind of research project. And we have to discuss what to do from now.

2) What is Recovery Community Development?

Citizen-Centered

After all, citizen-centered recovery is fundamental. Ideally, we should talk about what citizens want to do, whether it is possible or not, and if not, why it is not possible, and design a plan with a long-term vision. "Citizen-centered" development is a basic way to develop cities around the world, regardless of disaster. But, I believe it was rare in Japan, at least Kobe City, at the time of the Great Hanshin-Awaji Earthquake to revitalize or implement community development in such a way. Recently, with the effect of decentralization efforts among other factors, revitalization of local areas has been receiving more attention and therefore a concurrent rise in new case examples of community development. In successful cases, opinions and ideas from citizens have been sought patiently with support from local governments. Although citizen-centered development described as a "utopia" existed for a short while after the earthquake, the reason why it could not sustained was probably because of weak citizen capacity.

There may be some opinions that cities have recovered from the earthquake on the whole, but for example, what about people who killed themselves in the shadows of the recovery? If we stop discussing such issues, those people's souls cannot rest and so we must think about this. Can we really call this recovery? Can we, the citizens and government, say that we can bear responsibility for the future of civil society? Aichi Gakuin University Professor Kentaro Serita (Professor Emeritus at Kobe University and representative of CODE) described this challenge with the phrase "up to the last person". In the past society, the standard was based on 51 out of 100 people and the 51 people who made up the majority became well off. We are on average quite well of so we should not continue to focus on the 51 people, if 99 are well off, then we must think about what to do about the last person. Making considerations up to the last person may be tiresome. However, when addressing this issue while conducting small workshops for the management of evacuation points, everybody easily understands how important the concept of "up to the last person" is. For example, they try to solve together the issue of healthcare for family and about what to do with financial issues. By introducing cases in which how this process may, for example, develop into a citizen bank, they learn how it is not impossible to think "up to the last person". But without such simulations, it would be impossible to act when something actually happens.

At the World Conference on Disaster Reduction (WCDR) that was convened in Kobe in 2005, the Hyogo Framework for Action (HFA) was adopted. It contains some wonderful passages. However, I think how these wonderful passages might be implemented and the lack of cooperation with the NGOs, who will bear responsibility for the implementation, is a problem. There is no flow in which those who bear responsibility can understand. How citizens and NPO/NGOs can bear this responsibility must be thought out. In the end, with the current situation, only a top-down approach is being implemented and the first most value that we learnt through the earthquake of solving issues raised from the voices of the people in disaster areas, or the value of principle rights resting in the hands of citizens was not sustained. We must think about why this why this value cannot take root.

Separate but Together

Attention should not be paid to people or issues but to relationships among people or issues. Rather than people forcing others to move, by talking about a relationship to others and they sympathizing with it, another relationship is born. This is not a relationship among three people but an existing relationship spreading a little to the neighbour. I found "Six Degrees of Separations" by Stanley Milgram, which is quoted in Masachi Osawa's "*Fukano no Jidai* (The Era of Impossibility)" (2008), very interesting. This refers to how in order to connect two completely unrelated people A and B, if there six people are identified in between the two, an indirect connection should be established between person A and B. If you think in this way, if you connect one person after another, everybody will not be the same but this

person will connect with another person and therefore be separate but not separated at the same time.
The “disaster reduction cycle” which I often mention refers to how in the emergency response period following a disaster, we work to see “whether we can save another life” and in the following recovery and revitalization period, work to “save till the last person to the final stage”. And while working on this, to be able to implement the solutions for the prevalent issues to “save even only one life”, there is “damage reduction and mitigation period” through which we think about what we need to do daily, and this is the cycle that connects to what must be engaged as a daily form of preparation. A society in which good outcomes can be gained from each of these three post-disaster stages (Emergency Response Stage, Recovery and Revitalization Stage, and Pre-disaster Damage Reduction and Mitigation Period) maybe an alternative society. An alternative society is one which can accept alternative ways of thinking, a society that accepts diversity, a voluntary society, and such a society will definitely lead to disaster reduction. “Voluntary” is often taken to mean autonomous, but taking into consideration the root word “Voluntus” which in Latin means to be free and to support, I think the meaning leans towards helping others with care and supporting each other. “Voluntary” cannot just be explained by the definition of autonomy or autonomous.

Professor Emeritus Kamon Nitagai of Tokyo University implemented a series of hearings over the 12 years following the earthquake. The results were included in the book “Practical Knowledge of Independent Assistance – Cooperative Civil Society and the Great Hanshin Awaji Earthquake” (2008). In this, the Professor noted that there is a limit to individual utility. There are also various invaluable lives of disaster victims and a connection was made between the value of individual volunteers and the invaluable lives of disaster victims, and the practical understanding of support was said to be replicated many times over during the Great Hanshin Awaji Earthquake. This has been deemed to be impossible to universalize and therefore each example has to be taken up. When volunteers are systematically organized, it is no longer a volunteer. The conclusion was that what is necessary in the future world is to think about how to capture and observe each separate entity.

3. What is the Assessment Method?

Can Volunteerism be an Indicator?

I think how much volunteer activities became active in the region following the earthquake can be an index. In Kobe, previously non-existent volunteer activities became very active. However, although volunteerism was idealized at that time, volunteerism is not commended at all now. Even if most buildings have been built now, can that alone lead to the conclusion that recovery has been made? We made a presumption through the Kobe Declaration that the force necessary to build a civil society is the power of volunteerism. If we are to identify the Kobe Declaration as an immediate goal for recovery, currently there is no existing capacity. If we were to have made the utopian society of mutual assistance as a goal, which was embodied by the society immediately after the earthquake, perhaps a different

society would have been realized. We have to now look back at the reason why this did not happen.
On the other hand, based on the amount of systematically organized volunteers alone, we cannot say that the quality of volunteerism has improved. Currently, there are many assistance being implemented in Kobe City, such as “Smile Net” and “Hummingbird Net”, and while many such new initiatives are being implemented, I think each individual’s capacity and quality will improve. As for myself, I have always been saying from the start to value each individual and respecting each person and until the last person, so there is always an initial thought of beginning with one person. Each individual capacity will add on to each other and in disaster management and reduction, it will be important how much capacity can be applied in emergencies. This is because if one thinks about the whole issue, the result becomes the acceptance of an average standard, creating an Achilles Heal in which a certain level of average capacity can be relied upon but that exceeding the average will not be available.

However, it is not possible to explain everything with voluntarism. This is an issue here, but it is a fact that the 27,000 victims were rescued by great effort from the survivors. I don’t think there is anything more voluntary than this and this needs no explanation. In two months, 1 million volunteers worked to fill the gap left by government on lifeline issues among others. Perhaps there were some problems here. Perhaps there was no problem at all. Why has it been talked about as if there has been a problem for more than 10 years? This is not a big problem such as the lack of equality in relief supply distribution. Now there are policies such as refusing relief supplies. But it was the media that created this inequality and definitely not the volunteers.

Oe Kenzaburo, who was the keynote speaker at the World PEN Forum entitled “Disaster and Culture” that was convened in February 2008 said “People are sometimes attacked by disasters that can only be described as absurd. We may collide with such an event and may fall, but we immediately stand back up and try to recover. That we are such an entity became the basis of my novel.” It is said to be that people exhibit a recovery capacity following a disaster and energy for reconstruction is born. If we can measure this recovery capacity, perhaps we can discuss about whether the proceeding recovery is fast or slow.

Symbolic recovery

In September 2008, I went to see the Okuma Kabuto festival in Noto Peninsula, which experienced earthquake damage in 2007. This festival is nationally designated to be an intangible folk cultural asset. Up till now, women were not allowed to participate, but as there were not enough bearers of the Mikoshi (portable shrine) so a women-only Mikoshi was secured, along with other creative means to secure bearers in 19 other villages. I felt it important to observe the effect of having a women-only Mikoshi, but in reality, during the war when there were not enough men, women had also worked to protect the tradition. This was the same for women water disaster response teams, which protected the villages while men went out to the seas to fish.

Mr. Yasu Yama of the Kwansei Gakuin School of Human Welfare Studies uses the phrase “Creative Recovery” and noted how the recovery of community festivals and shrines help the progress of overall recovery. This particular festival was not convened in the middle of a disaster struck area, but if it was, I felt that people will join forces if such festivals are revived, even if houses have not been constructed yet.

② Domestic and International Dissemination of the Experiences and Lessons from the Great Hanshin Awaji Earthquake

When the earthquake occurred in the Sichuan area, we received an interview from a Chinese newspapers and groups with regard to how confusion and panic can be avoided and what NGOs can do, based on experiences from the Great Hanshin Awaji Earhtquake, as they heard that there was also panic at the time. But were there really such confusion? Volunteers gathered in an orderly fashion and food was distributed to victims. How was this a panic? The situation becomes distorted because some people casually use the word “confusion”. In Kobe, 1 million volunteers arrived within 2 months, but 60 to 70 percent of these individuals had never volunteered before. The remaining 30 to 40 percent were organized volunteers. In China, 1.3 million volunteers gathered in 40 days and about 60% of these were individual volunteers. I feel that it is good if at least one or two people out of this group were awoken to the opportunities. During the Great Hanshin Awaji Earhtquake, it was an issue that there were volunteers waiting for directions, but now, waiting for directions have become a norm. Even though they are participating in disaster vicitim assistance, a situation develops in which they cannot go to disaster areas and are controlled at volunteer centers. There are still voices that there are not much demand for volunteers and that they are not much necessity to go to the field. However, there is simply no phone call asking for volunteers and whether there is a need/demand or not is another story. Volunteer culture does not signify that if there are 10 volunteers, all of them are regulated to look the same way, as this is not voluntary. Each individual should use their heads and apply their creativity, and identify a viewpoint as to what is important and what needs assistance. I think that should be the assessment guide.

In disaster areas, there are things that have not been talked about and those involved may change their way of thinking as days go by. Therefore, I think there is a need to identify what can be said in these kinds of opportunities and communicate them. Obviously Kobe is not the only disaster area, but I think it is important for disseminating various viewpoints to the world by everyone keeping on communicating and disseminating in each field and then identifying common points in research groups such as these.

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Chapter 2 **Recovery Assessment Expert Hearing Sessions**

2.2 Interviewee: Yuko Kuroda

Date of Hearing: September 29th, 2008

Profile:

Yuko Kuroda

Director, Hanshin Network of Assistance for Elderly and Physically Differently-Abled

Specializes in permanent team nursing, nursing management and terminal care and working across the country as an educator and trainer of nurses. After the Great Hanshin Awaji Earthquake, while she worked as a volunteer at temporary recovery housing projects, she has received requests from various regions and groups to lecture on disaster time nursing and volunteer and NPO roles. She is also recognized to have established the field of nursing in disaster situations (disaster nursing) and she conducts lectures and training. She is also Director of the non-profit organization Hanshin Network for Eldery and Physically Differently Abled and the Citizen's Fund Kobe, and Vice Director of the Disaster Nursing Assistance Agency among others.

The Establishment of the Hanshin Network of Assistance for Elderly and Physically Differently-Abled

The "Hanshin Network of Assistance for Elderly and Physically Differently-Abled" was established by the will of those who observed the rapidly deteriorating health of the elderly, some who were crouching on park grounds, in the aftermath of the Great Hanshin Awaji Earthquake of January 17th, 1995. The Network first began as the "Kobe Nagata Elderly and Physically Differently-Abled Assistance Network" when they opened an emergency evacuation centre with health care support. Later, the group decided to assist the largest temporary housing group at West Kobe Seventh Temporary Housing (1,060 households, 1,800 people). Although the elderly and disabled were given priority to move here, there were no volunteers or government apparatus in place and we found out that the support was inadequate. For example, people in wheelchairs had to move along in unpaved, uneven roads, and a visually impaired couple were wandering around to find where they could throw away garbage. As such, under our current organization name, we decided to setup a large tent called "Algerian Tent" in this area so that we can establish a 24-hour assistance structure. This activity was continued until the last temporary housing resident left, four years and three months later. After the disaster, it was important for the old people to have a place to go and voice their worries. These activities are being sustained today in the West Ward of Kobe City at Ikawadani with many activities such as mini-day care service and living support, household errands support, care for terminal patients, job creation for the elderly, visits by psychiatric patients on recommendation from their doctors.

① About the Assessment Indicators for Recovery Community Development

1) Do you think the Hanshin-Awaji area has become easier to live in after the earthquake?

With regard to recovery, the opinions on whether the area has become easier to live in may differ between age groups. I am at the viewpoint of the elderly, so in comparison to before the disaster, I feel that there are many things that have become inconvenient. Before the earthquake, for people who lived downtown, shopping and going to the hospital could all be done within a short distance. In addition to aging, people have become sick and by looking at the living environment, I cannot say that the community has become easier to live in. Chauffer service to drive us to shop finished after a short period. Even if they were taken by car, people don't know if what they want is being sold there and even with helpers, they do not come every day, so in the end, even if we want something and if that's not available, the elderly just have to bear with it. They can bear with it for a bit, but if the situation is sustained, this becomes stress. Because of stress, the parasympathetic nerve is cut and it causes health effects. In addition, when recovery houses a re built on the hill, people must climb slopes, though they walked around flat streets before. It also gives stress to their heart. Such negative influences can be observed after reconstruction (recovery community development) in Kobe.

2) What is Recovery Community Development?

Community development that does not leave out people is essential. While it may not be possible to listen to each individual opinion, to be able to decide where to live by holistically considering age groups, health issues, family issues, and living environment is important. It is also critical to coordinate the decision-making. Many of the people who were living in West Kobe 7th Temporary Housing could not go to where they wanted to and many including the aforementioned couple with visual impairments made many requests, but in the end, they were only assigned a very inconvenient place. These people should especially be given consideration to be able to live in a place that is more convenient or where they are more familiar with the environment. However, there might be many slopes or they might be moved to a place they have no acquaintance with and they must study their environment all over again or lead to lack of interest in going outside. Many of the elderly wished to go back to their old land or nearby. However, not all lotteries for recovery housing gave the elderly preference and there were many who did not win preferable housing.

Also when examining recovered communities, we must also think whether recovery has been achieved in living considerations. For example, a spiral path might be beautiful for the view, but from the point of view of the elderly, we must think whether this road is easy to pass. From a rehabilitation point of view, one might say the road should bend a bit, but if we think about cardiac pressure, a straight road is better and they will venture out less for shopping. As such, living considerations must always be preserved as a starting point.

When I always talk about community development, I always ask, “How would you like to die?” This is because the issues of death are the issues of how one lives. When one says that he or she wants to die in a certain way, I say that unless the community is made in a way that one can live in certain ways, such a death is impossible. The issues of living refer to the fact that there exist livelihood considerations. To have livelihood considerations means that it is connected to an existing community. This means that a solitary death means that there was a solitary life before it.

3) What is the Assessment Method?

Conditions such as health issues, age differences, and environmental issues in relation to the individual may be examined. The viewpoint of health issues should be part of the indicators. However, architects lead the recovery model for community development and the views of nurses and health care specialists are not included. But in order to make a community with various kinds of residents, architectural views alone will not constitute community development. How community development had been executed as a whole, whether there were considerations made towards a future aging society, the characteristics of illnesses in Hyogo Prefecture are all things that connect, such as what sorts of materials were used in buildings and what kind of trees were planted in the community. If the viewpoint of health care is not included regardless, it leaves considerable doubt.

For example, it has become a normal practice to equip toilets that are friendly to physically differently-abled individuals, but it is only designed so that wheel chairs can enter and if it is really meant for these people, it would be designed so that they can easily slide from their wheelchair to the toilet seat. This is because when moving to the toilet seat or back to the wheelchair, considerable physical strength is needed. Such strenuous physical exertion leads to heart problems and health issues. This is not only a problem of the differently-abled, but also becomes related to the health issue of their caregivers. We have to think from such a viewpoint. From the viewpoint of community development, barrier-free considerations are progressing, but when desining and building slopes, there are no deep discussion on the width of wheelchairs or the necessary clearance when the wheels are grasped by both hands and these slopes are not really easy to use. There is no investigation from the viewpoint of how much the community has become easy to live in. This is why I say people are left out. To avoid leaving people out, it is necessary to hear the opinions from various people including healthcare related people.

<u>Daily Emergency Preparation</u>

The problems that emerge during disasters have their roots in problems that existed in normal times. The issue of healthcare and caregivers in relation to the elderly is something that the community must come together to support, but this is not the case. However, if the Tonankai-Nankai Earthquake occurs, it is said

that a tsunami of maximum 2.5 meters high will strike Kobe. So I talk at lectures about how we can help our families and community. These days, community development that is inclusive of considerations for how to help the vulnerable in need of assistance is slowly becoming realized. For example, just circulating a neighborhood notice will help one get to know their neighbours and a relationship is established where they can ask for help in times of need. This becomes the basis for helping each other in emergencies.

Also, in the case that schools become an evacuation point, even if people know where the school is, it is not clear who has the key. They may only be able to answer vaguely that some teacher might have it, but there is no knowledge about the details of the evacuation point. It's as if everybody knows, and they do not. Now, there are some community councils that are in possession of the key of the school. This is because of one of the lessons that have been passed on since the Great Hanshin Awaji Earthquake and going to check out the evacuation point is becoming one of the emerging initiatives for voluntary disaster management organizations.

② Domestic and International Dissemination of the Experiences and Lessons from the Great Hanshin Awaji Earthquake

The other day, I had an opportunity to give a lecture to nurses at a university in China. There, I talked to the nurses about "looking at living considerations before health issues". In order to look at health issues, you have to first look at the living conditions, and to look at the living situation means to look at the community development and that is to look at the community environment. I learnt from our assistance in the temporary housing community that one must first look at what kind of support exists within the community environment and determine what problems exist in the current living conditions and then examine health issues. By following this entry process, people will not be left out. However, it was unfortunately the case that the hospital related personnel were not going to the disaster struck areas. It might also be a case of national characteristics, but I think that it is impossible to provide care without going to the field.

It is also important to think about recovery in consideration of the realities and culture of the community. Even within Japan, there are completely different living conditions between Kobe and Niigata, for example, in Kobe, how many cups of coffee did we drink in Kobe even in temporary housing? I think this was part of the local characteristics of Kobe. I think these are all connected to the starting point of "living conditions". Therefore, recovery has to be initiated from living conditions/styles and considerations. In this way, the issue of health care will automatically be included.

Chapter 2 **Recovery Assessment Expert Hearing Sessions**

2.3 Interviewee: Ikuo Kobayashi

Date of Hearing: October 2nd, 2008

Profile:

Ikuo Kobayashi

Senior Researcher, Disaster Reduction and Human Renovation Institute (DRI)

Chief Representative of the non-profit organization "Kinmokusei" and also professor at Kobe Yamate University. Graduated Kobe University and Osaka City University Graduate School and then worked at Urban Planning and the Design Research Center Corp. and Community Development Company "Co-Plan" before assuming the current post. Also advisor for the Hanshin Earthquake Recovery Citizen Machizukuri Assistance Network, Senior Researcher at the Disaster Reduction and Human Renovation Institute (DRI), and Chair of the non-profit organization Kobe Machizukuri Research Center. He is an urban planner that covers a wide range of topics from regional planning and urban development to citizen led community development.

① About the Assessment Indicators for Recovery Community Development

1) Do you think the Hanshin-Awaji area has become easier to live in after the earthquake?

It has not become a comfortable place to live in. To illustrate the point, when you receive a massive injury or break your born, the wounds will heal and the cuts will heal by itself. However, the marks will remain and it will never become better than that. Just like this, the rich living culture that had been sustained in Kobe from the Taisho and early Showa periods were lost and we cannot say that these have returned. Some say creative recovery, but what has become better than before is like making it harder to have another fracture by gaining a little muscle and fat and it's not as if plastic surgery was applied to make everything nice.

2) What is Recovery Community Development?

The city of Kobe was heavily damaged by the earthquake and as areas such as Nagata and Rokko were heavily damaged by fires. However, if the city is rebuilt on those grounds in the same way as before, there is no point. To change the basic structure of a city is something that does not happen in the absence of a large-scale disaster, as in past examples of urban planning from other large cities in the world such as London and Chicago. But in Japan, we failed to change the basic strcture. Despite the fact that Tokyo has experienced both the Great Kanto Earthquake in 1923 and widespread fires due to massive bombardments during World War II, in reality, it has recreated a vulnerable city. Furthermore, despite the fact that an earthquake directly targeting the urban centre is predicted, the facilities and capabilities are still concentrated in Tokyo and skyscrapers and tall apartments continue to be constructed. If a large earthquake strikes, water, electricity, and gas may stop and they cannot escape damages. In this event, how will somebody living on the 30th floor lift and bring water? Offices face the same problem and many

companies have their headquarters situated in Tokyo. When all of these cease to operate, it will affect not only Japanese but also the global economy, but there is no move to change the current concentrated situation. Perhaps there is a lack of imagination.

The situation is the same in Kobe and in some cases, there were area-wide reorganization in places such as Takatori/Shin Nagata and Rokko, but more should have changed in this opportunity. For example, base parks should have been developed as urban evacuation points in several areas, or securing open space in front of stations and in high-density areas, or since the highway collapsed, they might as well have given up and moved the highway underground or alongside normal roads. Although during the first three months when government capacity had been paralyzed, such talk was exchanged between government, volunteers, and academics without any distinction, after six months passed, government capacity was once again consolidated and recovery was to be implemented by previous urban planning system and legislation, then no fundamental reform was implemented. This may also apply to the construction of temporary housing, change will take a lot of time even if there are plenty of funds and time. This is the same with the livelihood support fund, which has finally been approved. However, was there anyone who drew the designs for fundamental change? There was no one.

In any case, each individual worked in their individual fields and communities to help those who were suffering in front of their eyes. I think that this should be something we should disseminate now. From this, the Community Development Council rose, and this is something we must pass on to the future generations. I define community development as “Autonomous and sustainable environmental reform movement in a community by the citizens”. In other words, “community development is a movement”. Therefore, “Disaster Prevention Community Development” is an environmental reform movement and activities led by the citizens (civilian) and their own initiatives for disaster management in certain communities and areas. The important points are “in the community” and “by the citizens”. The community residents will autonomously and sustainably implement a disaster management movement for safety and security. Then, what is a city’s disaster management capacity? What are the capacities needed to withstand large earthquakes? What we learnt from the recovery community development in the Great Hanshin Earthquake was that the three capacities “Community Capacity, Citizen Capacity, Locational Capacity” are the fundamentals for cities resilient against large-scale disasters. Community capacity is what helps reduce disaster damages to a minimum. The accumulation of daily community development becomes the response capacity in times of disasters. Rescue and relief operations during and immediately after large earthquakes and floods and even large-scale terrorist attacks are based on nothing but the cooperation within the affected community. Therefore, this refers to “Doing what you can do by yourself” and “What hasn’t been done cannot be done” in an emergency situation.

3) What is the Assessment Method?

The recovery of a community might be assessed based on indicators such as population, the profits made by local shopping arcades, and number of visitors. In Nagata and Mikura, these indicators have only recovered to 80% and 50 to 60% respectively in comparison to pre-disaster levels. However, not all of these can be attributed to the effects of the earthquake so we cannot infer everything from these numbers. Assuming that there were 100 chemical (synthetic materials) shoes related companies in Nagata before the earthquake and if there are only 60 right now, perhaps the earthquake may have just been an opportunity for those 40 companies to close their business. It is difficult to close businesses and even if they want to quit, there are relationships with trading partners and employees and even if they want to quit, there are cases in which they must continue. But in the case of an earthquake, Kobe city may buy their land for rezoning purposes or in the case of companies that want to expand their business, they may apply to Kobe city to have their land swapped and move their business elsewhere. So moving businesses may not always turn out negatively. Observing shopping arcades in the city yields the same results. For somebody who owned a shop to sell it and live his or her latter life in a mansion (condominium) may not be a bad alternative from an individual's point of view. This issue leads to the discussion of whether tax money should be applied to revitalize shopping arcades. However, when looking holistically at the shopping arcade, it plays an important role in terms of security, health support, and child rearing for the local community. In the end, it is up to how the people in the community want to live. It will be important to think together with police, schools, shopping arcades, and others in terms of each community. However, there are some issues that these people alone cannot make decisions, and for sustainability and opportunities of development, there are obvious problems. For example, with regard to environment, housing, waste management, and the (virtual) international economy, these problems transcend communities and the cooperative assistance of community based non-profit organizations and volunteers that deals with universal issues is imperative.

② Domestic and International Dissemination of the Experiences and Lessons from the Great Hanshin Awaji Earthquake

What I often emphasize in lectures is the importance of creating a network or platform for individuals to think about their own community on a daily basis. In the case of the Great Hanshin Awaji Earthquake, the Community Development Councils were active in Kobe City and the Kobe City Community Development Ordinance had designated councils in 12 areas from before the earthquake. Many of these Community Development Councils were very quick to stand up to initiatives towards recovery and this reaffirmed the importance of daily activities towards community development. Therefore, without restricting the focus on disasters or disaster management, creating the practice of discussion within the communities through bazaars and summer festivals are sufficient. The daily system that leads to planning is important.

Sustaining daily community development activities was very effective in the abnormal situation of disaster recovery. The real reason for the existence of the “Community Development Council” lies here. Using the Matsumoto neighbourhood Seseragi (creek) as an example, 80% of the Matsumoto neighbourhood burnt down in the large-scale fire caused by the earthquake and it caused critical damage. “If there was water during the fire…” With these words from the residents the Seseragi was created, giving the community beauty, colour and charm and also supplying emergency water sources for preliminary fire fighting and water for living needs. By having this Seseragi, this might become a place for fire fighting or relaxation, but more important is the fact that the residents must clean it once a month. If the residents no longer clean it and abandons the Seseragi, then it is dangerous. Even if it is a chore, if they join together for cleaning, community members will face each other and form a basis for helping each other (Details noted in Interview 2.4 with Katsumoto Nakajima, pp. 68-70).

What the residents who live in the westernmost area of Nagata ward, the northern Noda neighbourhood, where wooden long rental houses are densely packed downtown, when an earthquake strikes, the people they will first seek to rescue will be their family and relatives. Next, they will help their neighbours and close friends. This is normal up to here, but next are the people they have fought with and then lastly people they don’t know. Even if they fought with each other, it is important for them to have known each other. Otherwise, you become somebody they don’t know. In this neighbourhood, the “Noda North Hometown Network” supports the community’s coordination, general reference point, and information sharing and such autonomous and sustainable citizen-led networks are particularly effective in disaster management and risk reduction. Perhaps the people are not entirely conscious about this, but it is very important in terms of disaster prevention community development.

Next I want to express the importance of passing on experiences by systems such as the TeLL-Net. This is the International Disaster Transfer Live Lessons Network is a movement (http://tellnet.jp/). Things are meant to be forgotten. There are many people who remember the Great Kanto Earthquake as a historic fact, but there are very few people who know the lessons from the disaster. Keeping in mind that even museums grow old, it is important to think how we can pass on the information by also using movies, stories, and songs. In this sense, just as in TeLL-Net, by extending the lessons from disasters among communities and nations over boundaries, we must work towards preparing for future disasters and reducing disaster victims.

Chapter 2 **Recovery Assessment Expert Hearing Sessions**

2.4 Interviewee: Katsumoto Nakajima

Date of Hearing: October 21st, 2008

Profile:

Katsumoto Nakajima

Matsumoto Ward, Urban Planning Committee

Born in 1955. Graduated Azabu University in 1978 and became a veterinarian and open for business at Nakamichi Dori in Hyogo Ward, Kobe City in 1982. In 1995, the Great Hanshin Awaji Earthquake struck and his house at Ooi Dori in Hyogo Ward (Part of Matsumoto area) and his veterinarian clinic completely burnt down. In 2001, he opened a new clinic in Shinkaichi. He has been Chair of the Matumoto Community Development Council and since 2006, the Chair of the Kobe City Veterinary Medical Association. He has also taken on various committee member positions since the earthquake, including the Kobe Community Development Council Coordination Committee as Chief Representative, Hyogo Ward Residents Council as General Management executive staff, and others in Kobe City and Hyogo Prefecture.

① About the Assessment Indicators for Recovery Community Development

1) Do you think the Hanshin-Awaji area has become easier to live in after the earthquake?

This is abstract and it is an issue of what we base the feeling of ease of living on, but from the viewpoint of the disaster management infrastructure, I think it has become more comfortable to live in. I think that the basic condition for a comfortable place to live in is how advanced disaster management considerations and convenience in terms of daily life are, but satisfaction and pride in being a resident is also important.

（Source: Urban Re-developmen Department, Kobe City Government）

The “Seseragi” creek idea in Matumoto neighborhood is based on the experiences during the earthquake when fire fighting vehicles could not enter the area and even with some community level firefighting groups, there was nothing they could do without water and 80% of the entire area burnt down. From this experience, if there was water, they might not be able to fight large fires, but preliminary fire fighting may have been possible. The “Seseragi” construction plan came from the belief that they cannot depend or pray for outside intervention, and that they must do things that are within their capacity. However, where they will then draw the water from became an issue. A Kobe City staff talked to the Kobe City Water Department and it was suggested that maybe treated water from the sewage

treatment plant in Suzurandai that was currently being released into Minato River might be diverted for this project. Ground water will give rise as to who will pay the electricity bill and so on, but this would allow them to gain access to free water. However, in the beginning, because it was recycled water, local residents could not agree to the plan since they feared that sewage might come out. So, in the following two years, they went around and studied from various examples. In the end, a stream waterway (Seseragi) of over 600 meters spanning 6 blocks between street blocks number 3 and 8 was completed.

Then, when water was actually released, because the treated water was very rich in nitrogen and phosphorus and because the waterway was very shallow, the water received direct sunlight and algae proliferated. If they did not effectively get rid of the algae, the smell was bad and it did not look good, so the community started cleaning activities. Even now, about 70 to 80 people participate in cleaning activities twice a month. In all, about 2000 people are involved every year. This became the community's symbol. If this cleaning activity stops, the water will become murky and if there are stray garbage, it becomes apparent to everyone that community capacity is declining. 13 years since the Earhtquake, the reason why many people are referencing Matsumoto's example is because through this cleaning activity of the "Seseragi", there is a "software" system being sustained. Because of this, a previously non-existent community level committee was established and committee fees began to be collected. The committee membership rate in Matsumoto neighborhood surpasses 90% and although this is based on voluntary membership, it marks an impressive number. Because of this, they are able to address other daily problems such as waste management.

However, there are now people joining the community who do not know the Earthquake. There are also many people who do not know the previous circumstances. However, even if such people rent an apartment, the owner of the apartment have already talked to the real estate agent and the new residents join the committee when signing their contract. There is an issue with the aging of the members of the cleaning activities, but elementary and junior high school students are helping out and the initiative is being continued within the community. Many of these children also do not know the experiences of the Earthquake. Through cleaning and flower planting, we have to continue to disseminate the experiences.

2) What is Recovery Community Development?

Recovery and revitalization has an image in that longs for the return to status quo, recreating the former cityscape, however I do not think this is correct. What is most important should be to determine why the earthquake damage became so large and identify the community's disaster vulnerability. With regard to disaster management, the renovation of immobile, non-burnable assets such as roads and parks are often identified as the priority, but this is insufficient and the view from daily life should not be forgotten. In the case of Seseragi in Matumoto neighborhood, it is commended as a symbolic infrastructure development. I

think that the process for making plans for the development of the Seseragi and the latter management system really reflect how the Matsumoto neighborhood has greatly changed after the earthquake. People become relaxed through the gentle sounds made by the Seseragi and their heart becomes at ease. On the other hand, because it uses recycled water, daily cleaning activities cannot be forgone. In other words, this daily cleaning activity is “community activity” and the act of good will influences people in and out of the community. In summary, the ultimate goal of earthquake recovery is not infrastructure development and I feel that the ultimate goal is to rehabilitate the hearts of the residents of the community.

3) What is the Assessment Method?

The small number of crime in the Matsumoto neighborhood may indicate that it is safe. However, community development cannot be assessed based on attributes like in a beauty contest or a baseball game. There is no way to compare and there is no standard for what is good and bad. Furthermore, it must be different by community. Matsumoto neighborhood receives praise from practitioners around Japan. However, it is not something that can be replicated by each community. Each has unique characteristics. What is important is whether the people living in the area feel satisfactory about living there. If there is a common way of thinking, it should not be something enforced only to that community and they should benefit even if only a little bit. To benefit does not only mean financially, but for example, to share the “feeling” of goodness by cleaning. Even for people who do not know the Earthquake, by sharing a sense of “feeling good”, they will want to participate in the cleaning.

② Domestic and International Dissemination of the Experiences and Lessons from the Great Hanshin Awaji Earthquake

Disasters are completely different according to its type and the community that was affected by it. The people who have become active as leaders in the community will face various problems. There should be an opportunity provided to listen to the hardships of the community leaders. This was the objective of creating a Cooperation Committee of the Community Development Council. Many people say many things. There must be a conference or opportunity to share how the community created an agreement structure and overcame issues in this situation. This is something we can share across the world.

It is ideal to have a perfect social security system for large scale natural disasters, but this is not the current case. All the countries in the Pacific Rim are equally faced with the risk of large scale natural disasters. Against the threat of a large scale natural disaster that has the power to instantly destroy daily economic activities, we must gather best knowledge and create a new social system. Instead of a country initiating this process alone, multiple countries should cooperate. I believe that highly advanced economic activities should be able to absorb this and change it to new business opportunities.

Chapter 2 **Recovery Assessment Expert Hearing Sessions**

2.5 Interviewee: Tomohide Atsumi

Date of Hearing: November 13th, 2008

Profile:

Tomohide Atsumi

Associate Professor, Communication Design Center, Osaka University

Dropped out of the post-graduate programme at the Graduate School of Human Sciences Osaka University and attained a doctorate on psychology from the University of Michigan Graduate School in 1993, specializing in group dynamics. Worked at the Literature Department at Kobe University during the Great Hanshin Awaji Earthquake and lived in Nishinomiya. Continued research while participating in disaster volunteer activities. Since 1997, Associate Professor for the Osaka University Department of Human Sciences, Volunteer Human Sciences Seminar, Community Co-Living Theory. Also Associate Professor at the Osaka University, Communication Design Center and Director of the Japan Disaster Assistance Volunteer Network (NPO).

① About Assessment Indicators for Recovery Community Development

1) Do you think the Hanshin-Awaji area has become easier to live in after the earthquake?

Regarding assessment, as a conclusion it is important fore whom the assessment is. Of course, assessments have to be for the disaster victims. As to whether it has become easier to live, it may depend on the definition of easier, but I think there is more arguments that it is hard to live. I also feel the same. I think there is a case that there is an unnatural positioning of humans. There is recovery housing in the middle of the town and it seems like only in this location there is a multistoried “marginal village”. In this place, there were voices that people could not find friends and were lonely. Just by thinking about the spatial positioning of human relationships, it seems that is difficult to live.

2) What is Recovery Community Development?

Recovery community development means for the victims of the disaster and those who assist them to feel that it was good for them to live there (in the community) and to feel hope and pride. Also, it is important for them to not only to have such feelings but also to feel that they can work by this hope.

I’m involved in the recovery of the Great Niigata Chuetsu Earthquake of 2004. However, when looking back at myself, during the Great Hanshin Awaji Earthquake, before I could understand what was happening, the collapsed highways were reconstructed and temporary houses were distributed to victims by lottery, and just as we settled down, we were directed to move to recovery housing. Without knowing who were making these decisions, even if we felt that these were something wrong, it was a situation in which we did not know who was wrong. Getting involved in the Recovery Assistance Council was much later on from these times. Therefore, I cannot properly make a comparative analysis of Kobe with Niigata,

but when observing recovery assistance in Niigata, there is a big difference from Kobe. First of all, community development is implemented by village level in Niigata. There is a marked division between active villages and those that are not and because snow is also part of life, there is a “rhythm” that does not exist in Kobe, and people tend to work hard on what can be done during the summer and think thoroughly through the winter. It seems that the Prefecture and mid-level assistance groups help balance out the village level recovery community development and come up with plans that matches these considerations. In contrast, in Kobe there were no clear boundaries and a great many people worked in many different places. Of course, it is not that I wish to say either is better.

People in the Niigata villages that I work with do not think that everything will change with recovery, but they have expressed anger against being designated “marginal villages”. Who decided that they were “marginal”? 20 minutes from the village there is a large shopping mall and it is not like they are living an old lifestyle oblivious of the world. Instead, there should be greater promotion that a mere 20 minutes into the mountain there is a wonderful world that is better than an overcrowded city. They feel that such mountain billage lifestyles should be more appreciated. Instead of current recovery funds that relies on appropriating funds, they would rather use their ideas to increase fans who would pay money to come to their village.

It is important for recovery community development to allow people to live with pride in their community. Instead of having a conclusive affect of a recovered community, I think it is better to look at it as a community in which recovery is happening.

3) What is the Assessment Method?

An assessment may be possible based on whether a project have been realized towards dreams and pride, but its progress should not be measured off-handedly. This is because in the Great Niigata Chuetsu Earthquake, a Ward Chief who also was a victim wrote a letter to one of the disaster struck villages called Kariwa. In this letter, he wrote “please do not panic”. In other words, please wait. We are accustomed to making plans and responding immediately when something happens. However, there is no option in these plans to “wait”. Of course, you cannot stop the time that you are living, but value should not be placed solely on marching straight ahead to hope and dreams. There are cases too in which a slower pace is better. As in a marathon, there could be joy for completion as well as for receiving water at rest points along the way and these should also be part of the assessment. In assessment, there are points marked as to where the starting and ending points are with a line in between and to reach the endpoint alone is not the assessment standard. Each individual’s scrutiny assessment views and satisfaction should also be important. For example, the assessment was expressed in numbers as 4. In this case, one should not just look at the resulting assessment “4” but whether to reach this conclusion, 4 came from 1 + 1 + 1 + 1 or 2

+ 2 or 2 x 2 as there are many methods. Just like this, to have 4 as an answer is not the goal and the process assessment must be important. Of course, it is more important for whom the assessment is. And we must also keep in mind, who is going to conduct the assessment. Whether disaster victims or those who were related to aftercare think, “that was good” must be the general goal. What was good and when they think are vulnerable factors that can be destroyed in an instance. It is as if everybody is holding on to a helium-filled balloon and it can end when everybody lets go. If everybody can say that it was good to hold on and when they get tired, there must be a system in place for somebody else to hold on. This might be taken as a green comment, but we must keep on saying what is important is important.

② Domestic and International Dissemination of the Experiences and Lessons from the Great Hanshin Awaji Earthquake

Ten years since the earthquake, some said there was no more to learn from Kobe. However, when the Great Niigata Chuetsu Earthquake occurred in 2004, there were people who wanted to learn from Kobe. I think this is why it was easier for me to get involved as well. With regard to disseminating Kobe’s lessons, for example, how to move into temporary housing and the establishment of the recovery fund, many lessons were passed on to Niigata. However, when looking at Niigata, what was implemented in the areas affected by the Great Hanshin Awaji Earthquake over a period of 10 years were implemented in 3 to 4 years and it is almost like watching a fast-forwarded video. Of course, the method applied in Niigata is being implemented by trial and error for recovery and revitalization, but I think we have also communicated to them what happened in the case of Kobe in certain cases. Because it is a lesson, we communicated with the thought that the same mistakes should never be repeated, but I myself, sometimes felt if this was really the right way when something was implemented successfully. What is it that we should really be communicating? What were the lessons from Kobe? What we should really be communicating is how we should worry and think with the victims and to form a proper relationship. I think it is since Niigata that I started feeling that I can truly learn from them instead of being able to do something for them. I would like to continue to really face up to the victims in the future.

Chapter 3 **Conclusions**

3.1 Characteristics

Based on the above proceedings and hearing transcripts that reflect various viewpoints, this chapter will seek to identify the common points, possibility of assessment, and assessment guideline.

The characteristics or definition of recovery community development can be given as below:

- The objective is clarified and specific as community development for optimum recovery (Murosaki);
- The target disaster area is a combination of individual reconstruction implemented privately and public works such as road construction (Nakayama);
- A community where recovery is happening (Atsumi);
- The baseline should be the relief of the people in the community (this could be described as the baseline for human security) (Toyoda).

Community development is “independently sustainable environmental improvement implemented by the community, citizens” (Kobayashi) and for this, a “community development that does not leave out people” (Kuroda) is important.

3.2 Lessons

It was pointed out that for recovery, recovery that takes into account the lessons is important (Murosaki), but what are some of these lessons?

- In the case of the Great Hanshin Awaji Earthquake, although it aught to prioritize overall planning and detailed securitizations of individual points, individual plans (such as rezoning and land plot reduction ratio) came first before overall planning. Overall planning should be prioritized (Murosaki);
- Vacant plots of land have appeared where reconstruction could not be implemented, but although vacant plots remain, the number of houses sold have increased and recovery led to housing development (Narumi);
- Of the 5.22 trillion yen appropriated as a recovery budget over 5 years, most were allocated towards public infrastructure followed housing related expenditures while support for software considerations such as interest subsidy, business start-up assistance, livelihood support amount to a mere 12%. From an international perspective, this is unbalanced (Toyoda);
- There were greater emphasis on social infrastructure and considerations for individual livelihood recovery was weak (Toyoda);
- The value most learned by the Earthquake to entrust leadership in citizens by attending to issues raised in disaster areas was not sustained (Murai);
- It was said to be that elderly citizens were given priority also when moving from temporary housing to recovery housing, but this was not uniformly applied to all recovery housing and in some examples, the

elderly and physically differently-abled were moved to very inconvenient locations (Kuroda);

- During the first three months when government capacity had come to a halt, there were many recovery ideas talked amongst government, volunteers, and academics without boundaries, but after six months, all of these were absorbed into government apparatus and it was decided to implement recovery through pre-existing systems for urban planning and law, and fundamental reform was not implemented (Kobayashi).

3.3 Good Practices

While there are many lessons to be learnt, 14 years from the Great Hanshin Awaji Earthquake, there are some points that are being reviewed as valuable lessons and many new initiatives.

- In the Great Hanshin Awaji Earthquake, community development itself created a new social system (new citizen society/new system to form urban structure) (Murosaki);
- "Two-step urban planning decision making" and "participatory community development committee system" can be commended as they were institutionalized after the earthquake (Nakayama, Narumi);
- Community development projects supported by assistance funds such as cityscape conservation and increasing greenery and foliage have moved ahead (Narumi);
- As marked in the "Disaster Management Whitepaper", the fact that 20% of public investment is related to disaster management is unique even around the world. A greater disaster management budget is maintained even amongst other high-income states and this is appropriated to recovery in times of disasters and towards environmental stewardship for rivers and mountains and forests in the absence of disasters. This would a very advanced system arising from historic lessons (Toyoda);
- Amongst the roughly 600 project within the Phoenix Plan, which aims towards creative recovery, the health care industry development plan is currently showing fruit at Port Island where many such industries have gathered (Toyoda);
- Initiatives such as the "Smile-Net" and "Hachidori (Hummingbird) -Net", which Kobe city is supporting since the earthquake, may help increase the capacity and quality of each individual volunteers (Murai);
- Community development that incorporates considerations for those in need of assistance is coming to be realised (Kuroda);
- Lessons from the Great Hanshin Awaji Earthquake is being passed on, for example by local government committees being in possession of the door keys of evacuation points such as schools (Kuroda);
- What we learnt from the recovery from the Earthquake was that "Regional Capacity, Citizen Capacity, Location Capacity" are three capacities that make cities resilient to large-scale disasters and "community capacity" is what keeps disaster damages to a minimum (Kobayashi);
- Rectifying disaster vulnerability of the community to identify why damages from the disaster became so big is important. For example, the process in which Matsumoto neighborhood made plans to develop "Seseragi (creek doubling for emergency water source) and later developed management structure

(Nakajima);

- The lesson of thinking thoroughly and carefully with disaster victims (Atsumi).

3.4 Conclusion

As seen above, for the assessment of recovery community development, there are many subjective qualities that cannot be simply measured such as individual satisfaction and happiness that also changes over time so many investigators have found that surveys and implementation speed are not enough to assess outcomes. Therefore, with regard to assessment methodology for recovery community development, assessment guidelines such as the one suggested below focusing on process assessment is a possibility, but this does not equate to outcome assessment. Recovery is the creation of new values (Murosaki) and we cannot say that it ends at some point in time. Therefore it is sought that recovery community development will gradually lead to regional development and to sustainable development.

3.5 Proposal for Assessment Guideline

As a system for the assessment of recovery community development, the system outlined below may be proposed. This is a provisional system that was drawn up at our research group as of March 2009 and there are points that need review. If there are future opportunities for joint research, we would like to engage in further research.

Model Society	Factors for Realization (Mainly Processes)	Assessment Method
Citizen Co-creation Society	Disaster reduction community development	Whether considerations for security and safety to be consciously integrated into community society have taken root. Whether a partnership had been established between government and citizens
	Quality improvement of volunteer activities	How much volunteering has become active in comparison to pre-disaster times (Not the amount of institutionalization ratio)
A society that attends community to global environmental issues	Developing co-existence of buildings and nature	Community energy management, environmental infrastructure, rooftop foliage covers for recovery housing, biotopes for the interior of recovery housing, etc.
	Agriculture, forestry, environment, and disaster management	Water friendly environmental stewardship, preservation of step paddies

A society that can attend to low birthrate and aging population	Environmental development of the community from a livelihood viewpoint	Whether there are selection rights for residential locations that are matched to family structure and age. Whether there are considerations for health issues (local characteristics for diseases, materials used for buildings, trees planted in the community). Whether the community has been made barrier-free from the viewpoint of handicapped and elderly citizens. Whether there is a system to look out for elderly citizens.
A society that respects local characteristics	The capacity of citizens in the community, increased community capacity	Whether community development can be sustained even when the government staff in charge changes
		Whether livelihood recovery can be achieved that includes industrial recovery on the community members' own capacity (Utilization of local resources)
		Whether cultural spheres have been recovered (sustained local culture)
Vitalized Society	Application of public funds	How much has been appropriated for livelihood recovery
	Community vitalization	Production standards and population, amount of vacancy rate in buildings Statistics related to consumption, amount of construction initiations, number of tourist arrivals, hotel reservation rates Profit of shopping arcades Number of visitors, etc.
Society that is easy to live in	Satisfaction, happiness, hope and pride in the community (individual values and satisfaction)	A process of subjective feelings that surpasses discussion Whether assessments based on communication (for those factors that cannot be measured alone by surveys and workshops) Whether concrete projects or projects towards dreams and pride exist (Not to be measured by the speed of implementation)

Reference Materials

Project Overview of Earthquake Recovery Land Readjustment Project Areas (As of Jan. 07)

	Area Name	Area	Project Plan Decision	Total Approx. Project Cost (Jp Yen)	Readjustment Implementation	Time since earthquake to readjustment
Kobe City Execution	Mori-Minami 1	6.7ha	25/09/1997	5.7 billion	14/02/2003	8 yrs 1 month
	Mori-Minami 2	4.6ha	05/03/1998	2.3 billion	14/02/2003	8 yrs 1 month
	Mori-Minami 3	5.4ha	07/10/1999	21 billion	14/03/2005	10 yrs 2 mths
	Rokko-Michi Station North	16.1ha	06/11/1996	35.3 billion	29/03/2006	11 yrs 2 mths
	Rokko-Michi Station West	3.6ha	26/03/1996	10 billion	24/07/2001	6 yrs 6 mths
	Natsumoto	8.9ha	26/03/1996	25 billion	24/12/2004	9 yrs 11 mths
	Misuga East	5.6ha	06/11/1996	10.5 billion	11/04/2003	8 yrs 3 mths
	Misuga West	4.5ha	14/01/1997	10.2 billion	24/03/2005	10 yrs 2 mths
	Shin Nagata Station North	59.6ha	09/07/1996 (426ha) 03/03/1997 (17ha added)	99.8 billion	-----	-----
	Takatori Higashi 1	8.5ha	30/11/1995	10 billion	21/02/2001	6 yrs 1 month
	Takatori Higashi 2	19.7ha	05/03/1997	36.1 billion	-----	-----
Cooperative Execution	Shinzen-cho 2 North	0.5ha	17/12/1996	0.2 billion	11/12/2000	5 yrs 11 mths
	Minatogawa-cho 1-2	1.5ha	07/11/1996	0.3 billion	12/09/2002	7 yrs 8 mths

Source: "People, Community, Kobe – Towards a Bright Future"
Kobe City Department of Urban Planning, 2007

Matsumoto Neighbourhood

Matsumoto neighborhood is a hub for commerce and leisure and a residential area surrounding the park. However, because there were many narrow and dense residential areas, old buildings remaining from before the War, it was faced with such issues like the lack of roads and parks.

80% of the buildings in the area burnt or collapsed in the Earthquake. For rapid recovery and developing a safe and secure community, the Earthquake Recvoery Land Readjustment Project was implemented.

Progress of Recovery Community Development:

1995

May 7th: Matumoto Neighbourhood Community Development Council established

December 18th: 1st Community Development Proposal submitted to Kobe City

1996

March 26th: Project Plan Decided

July 15th: 2nd Community Development Plan submitted

November 5th: Neighbourhood Plan Decided

November 30th: Land adjustment area designations

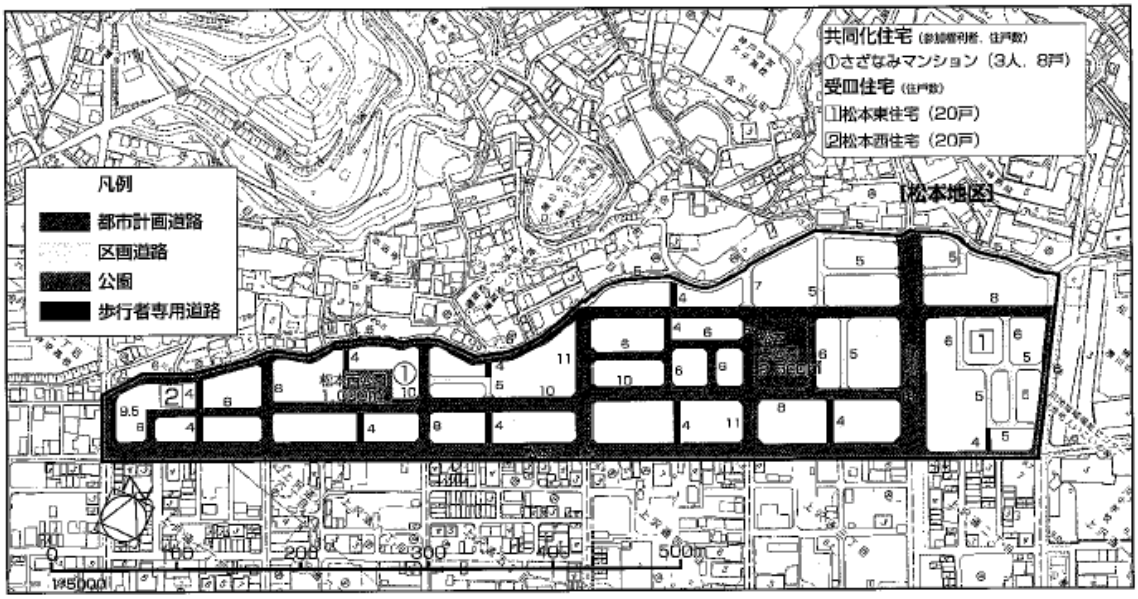
1997

December 24th: Land adjustment

震災前　平成6年5月

震災後　平成7年5月

		Matsumoto Area
Area of Matsumoto Neighbourhood		8.9ha
Pre-Earth-quake	Population • Households	2,367 ; 1,206
	Number of buildings	641
Post-Earth-Quake	Completely Destroyed Buildings	429
	Partially Destroyed Buildings	88
	Percentage damage by fires	81%
Project Decision		26/03/1996
Percentage decreased		9%
Project Budget		25 Billion Yen



Source: "Towards Safe and Comfortable Community Development" Kobe City Department of Urban Planning, 2005

Matsumoto Neighbourhood

• Current Situation of the Neighbourhood

Matsumoto area is surrounded by greens and is a hub for commerce and leisure.

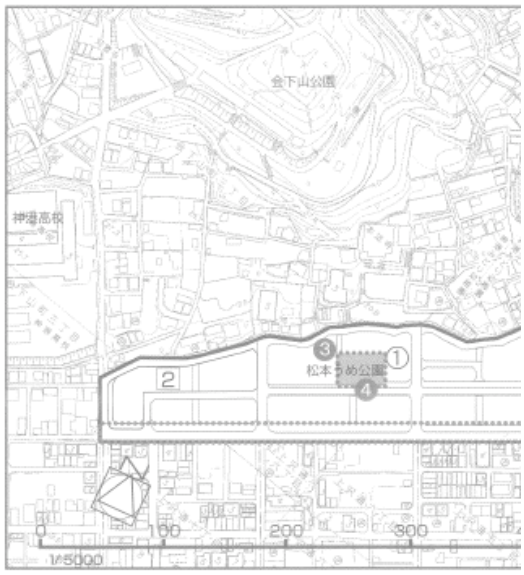
80% of the area burnt or were destroyed by the Earthquake

• Voiced from the Community

At first there was opposition to readjustment projects because the victims had already lost so much, but in the end they chose to accept the plan to move forward and prevent conflict.

1 松本せせらぎ通り（松本線）

The “Seseragi” (creek) was completed in September 2003 as a cooperative community development effort in response to the residents’ voice “if only there was water during the fire”.
It is a community amenity during normal times and an emergency water source and uses recycled industrial water from 3km north of the neighborhood.
It received the Beautiful Cityscape Award in FY 2002.



Source: “People, Community, Kobe – Towards a Bright Future”
Kobe City Department of Urban Planning, 2007

Immediately after the Earthquake | After Implementation

鷹取東第一地区

地区東西に整備されたコミュニティ道路（幅員10m）

六甲道駅西地区

再建された建物の状況

御菅東地区

地区中央に整備された南北のコミュニティ道路（幅員10m）

新長田駅北地区

整備された区画道路（幅員8m）

Source: “Towards Safe and Comfortable Community Development”
Kobe City Department of Urban Planning, 2005

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Joint Research on the Assessment
Methodology for Recovery Community Development
Final Report

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