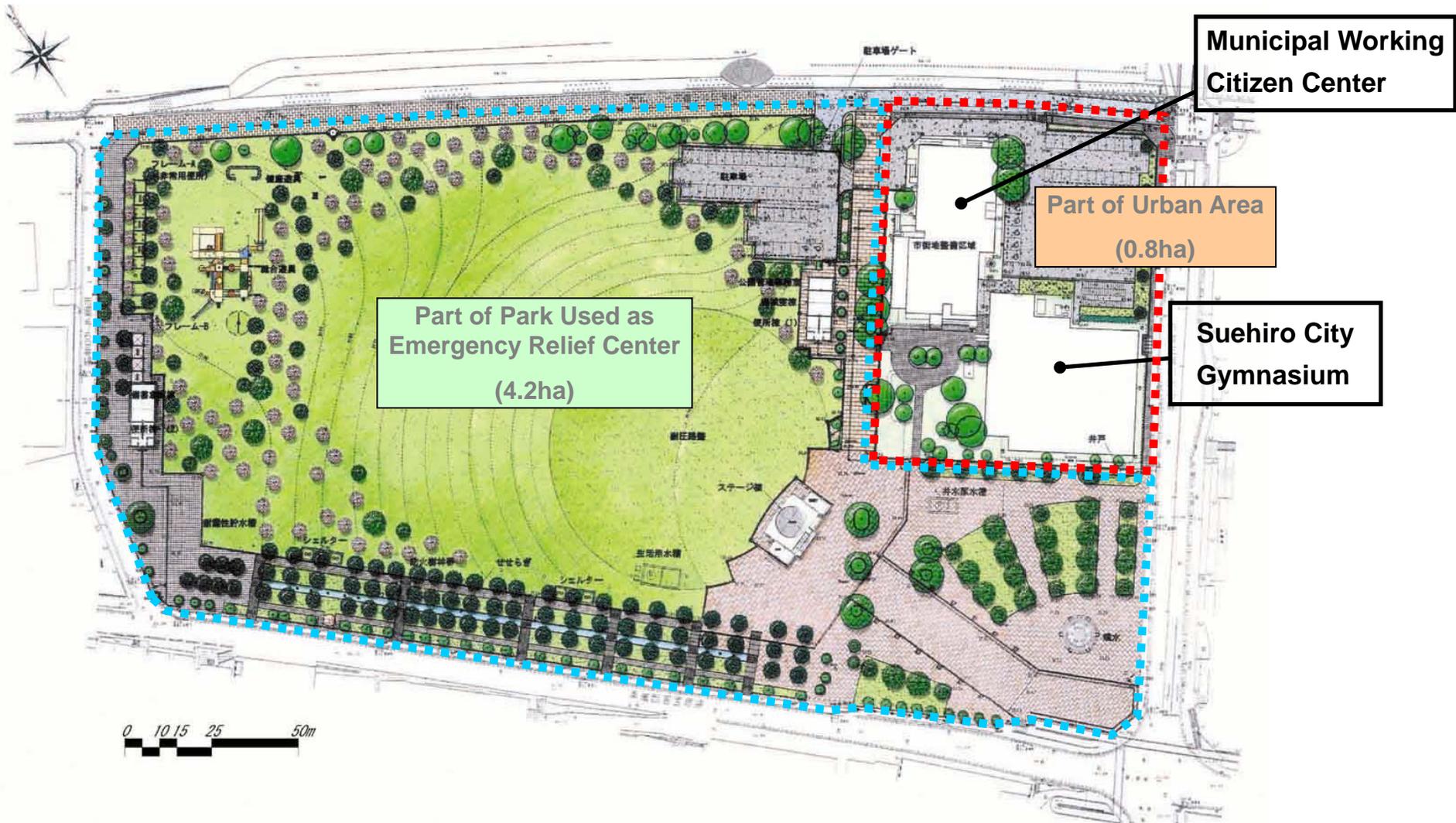


5. Examples of Developing Parks and Green Spaces

- Parks Used as Emergency Relief Centers
- City Parks Making the Most of Nature
- Examples of Rooftop Greening, etc.
- City Parks Addressing Declining Birthrate and Aging Population Problem





Open Ground (Turfed)

Functioning as an Evacuation Site from its Surroundings in Disaster Situations

- Pressure-tight Subgrades (the South Part)



Open Ground (Paved)

Functioning as an Evacuation Site from its Surroundings in Disaster Situations

- Main Entrance
- Water-permeable Brick Pavement
- Waterscape Facility (Fountain)





Frames

Securing Living Space by Covering Them
Setting Emergency Night-soil Reservoir
Underground

Shelter

Securing Living Space by Covering Them
Equipment to be Stored inside Benches





Belt of Trees Planted as Firebreak “Seseragi (= Brook)”

Planting for Preventing the Spread of Fire and Blocking Radiant Heat

Waterway Available for Water for Household Use and for Fighting Fires

Stage

Functioning as a Base to Handle a Pile of Goods Like Relief Supplies, etc. in Disaster Situations

Electric Power Generation Available through Roof-mounted Solar Photovoltaic Panels





Municipal Working Citizen Center

Functioning as Base for Livelihood Support and Volunteer Activity Support in Disaster Situations



Suehiro City Gymnasium

Serving as Temporary Evacuation Site and Base for Medical Volunteer Activities in Disaster Situations



Background/purpose

Development of parks and green spaces effective in mitigating tsunami damages are reviewed in many reconstruction plans, however, there is no technical knowledge on planning/designing etc. useful for municipalities. Also, technical knowledge for effective utilization of disaster wastes is much needed in times of developing parks and green spaces, so that municipalities can effectively treat disaster wastes. In response to the situation, the government develops/announces “**technical guideline for the improvement of parks and green spaces related to the reconstruction in the wake of the Great East Japan Earthquake**” to provide technical assistance to disaster affected municipalities.

◆ Structure of technical guideline

Summarize as technical guideline regarding the development of parks and green spaces equipped with disaster prevention function of tsunami etc. and utilization of disaster wastes by gathering/summarizing the existing knowledge, engineered verification of tsunami simulation and site surveys/tests and hearing from experts.

1. Basic concept of plans for parks and green areas etc. for city development in reconstruction

• Position functions of parks and green areas to counter tsunami disaster as “**one of multiple defense functions**”, “**evacuation routes/places**”, “**recovery/reconstruction support function**” and “**disaster prevention education function**”

2. Concept of planning/designing etc. of parks and green areas

- Verify the **function of forests etc. to attenuate the energy of tsunami** through tsunami simulation.
- Summarize **the technical guideline for planning/designing etc. of forests etc. to attenuate the energy of tsunami parks and green areas which serve as evacuation routes/places.**
- Summarize **the type of trees strong against salt breeze and seawater** for the development forests in coastal areas of Tohoku and North Kanto regions.

3. Basic concept of disaster wastes utilization in the development of parks and green areas

• **Summarize the idea and concerns on the use of concrete scraps, wood scraps and tsunami sediments which are generated huge in amount and broadly utilized,** as disaster wastes utilized in the development of parks and green areas

Assistances according to the reconstruction steps

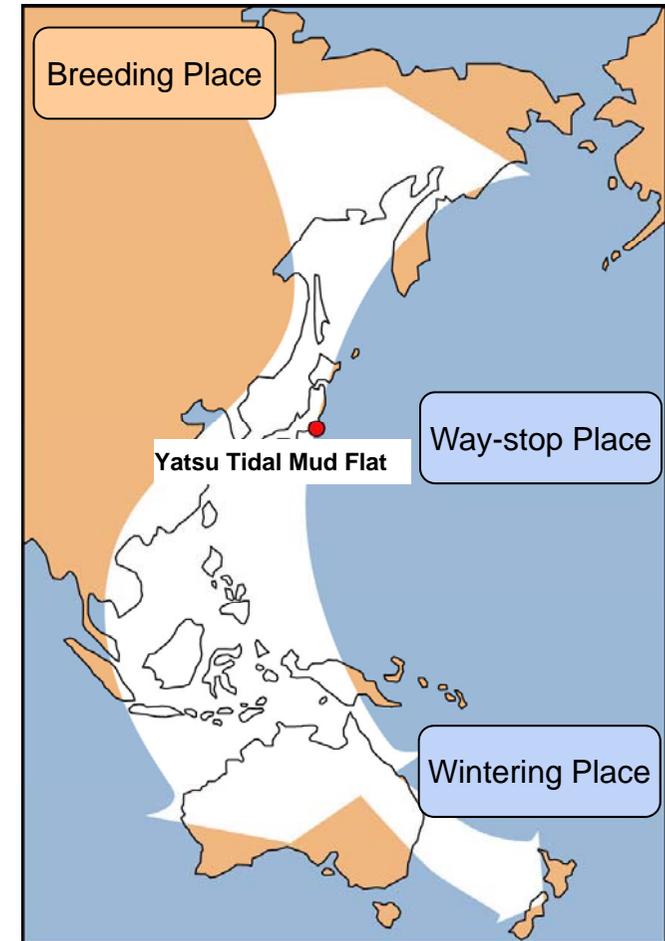
Oct. 6, 2011: Announcement of basic concept of developing parks and green areas related to reconstruction from the Great East Japan Earthquake (interim report)

Mar. 27, 2012: Announcement of the technical guideline for the improvement of parks and green spaces related to the reconstruction in the wake of the Great East Japan Earthquake

Utilized for the review of reconstruction plan/project plan etc. of disaster affected cities

Example of Park Making the Most of Nature Still Thriving in Urban Areas





Black-winged stilt



Eurasian curlew



Little ringed plover

Participating in
“Shore Birds Protection Network in the
East Asian and Australian Areas”

**Commitment to Biodiversity in Kasumigaseki District
Biological Network Formation by Greening the Imperial Palace, Parks, Green Spaces in
Sites, and Rooftops**

The Number of Species of Living Things Confirmed in Six Years after Starting Development Beginning in 2001

Insects: 170 kinds (Butterfly, Dragonfly, Grasshopper, etc.)

Bird Species: 11 kinds (Daurian Redstart, Water Wagtail, Blue Rock Thrush, Dusky Thrush,
Oriental Greenfinch, Swallow, Sparrow, etc.)



**Roof Garden of Ministry of Land, Infrastructure and
Transport Office Building (Above)
Examples of Species Confirmed There (Right)**



Kasumigaseki Central Government District (Status of Rooftop Greening Development) March, 2008



Combined Central Government Offices
The Third Building



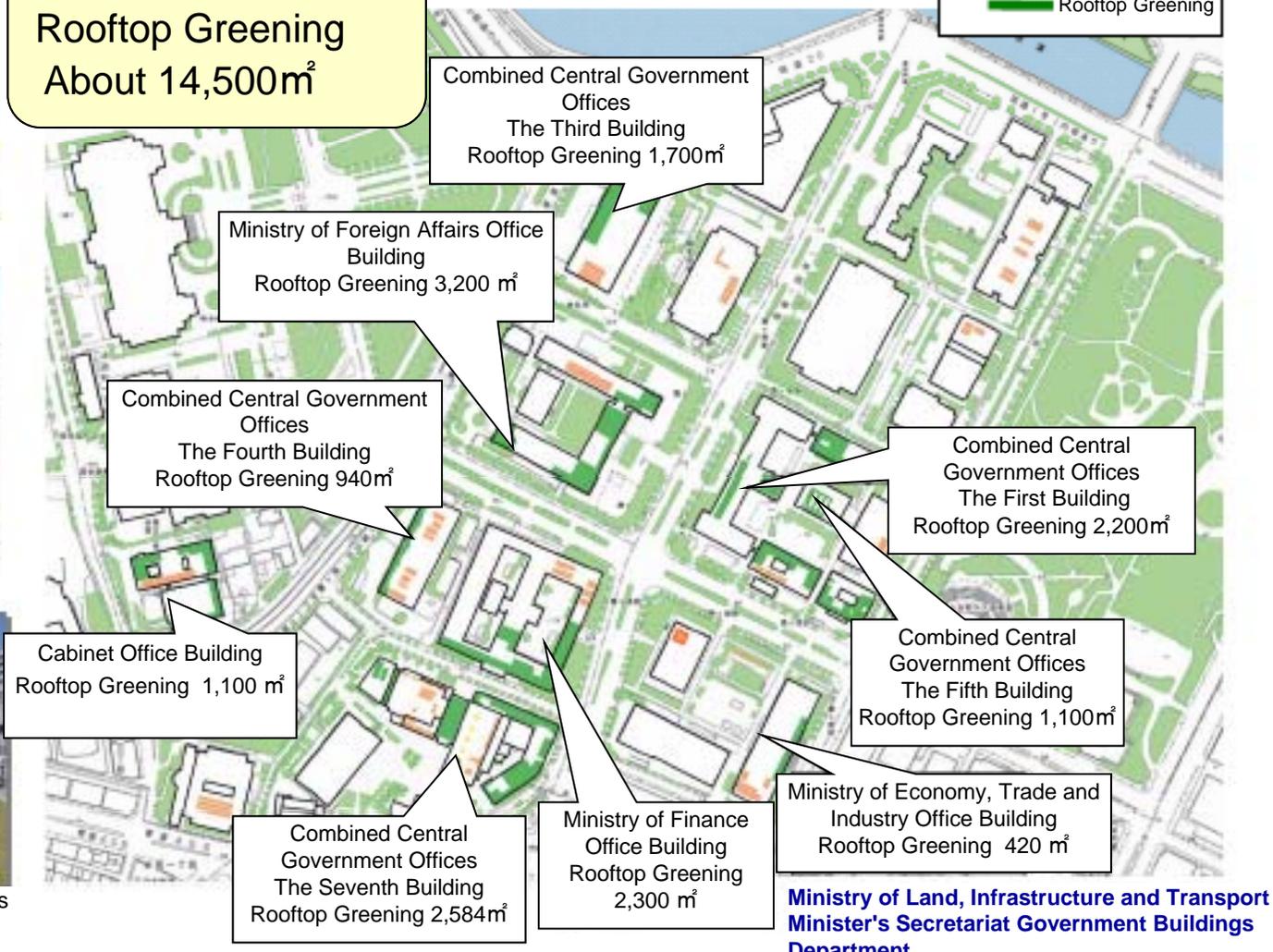
Ministry of Finance Office Building



Combined Central Government Offices
The First Building

**Total
Rooftop Greening
About 14,500m²**

Legends
 Rooftop Greening



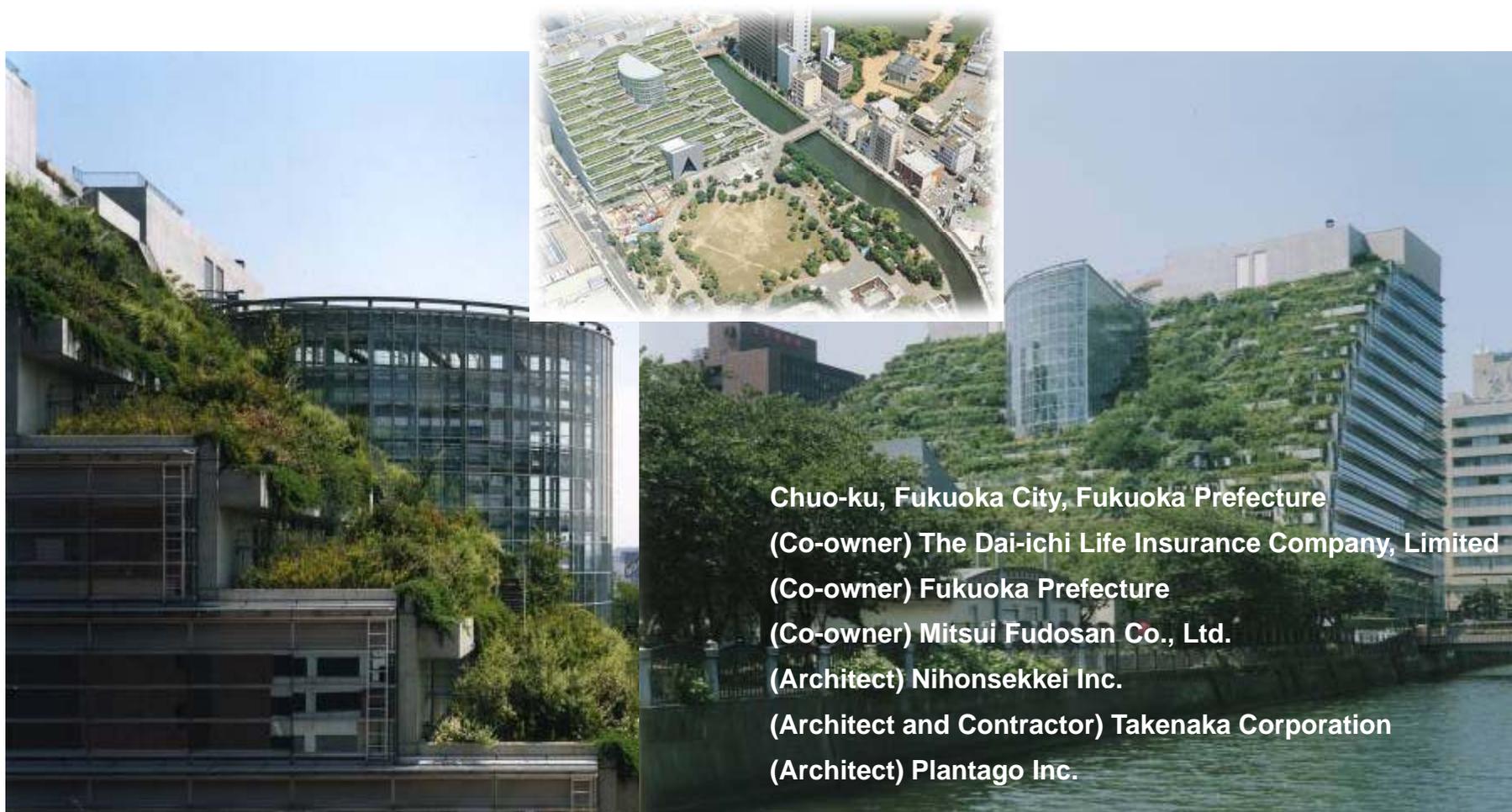
**Ministry of Land, Infrastructure and Transport
Minister's Secretariat Government Buildings
Department**

Example of Rooftop Greening

“Across Fukuoka Step Garden”

Awarded Rooftop Greening Grand Prize and Minister of Land, Infrastructure and Transport Prize (The First Competition)

Realizing lush open space becoming an integral part of Tenjin Central Park next to it by arranging greens on its terraced roof from the part around the top floor of this high-rise building (14-floor) toward the ground



Example of Rooftop Greening

“NAMBA PARKS Commercial Wing the First Period Parks Garden” Awarded Rooftop Greening Grand Prize and Minister of Land, Infrastructure and Transport Prize (The Fourth Competition)

Lush and lively space created by developing terraced roof of commercial wing as park straight from the ground to the 8th floor, with multistoried structure combined with commercial space



Name : NAMBA PARKS Commercial Wing the First Period Parks Garden

Location : Osaka City, Osaka Prefecture

Co-owner : Nankai Urban Development Co., Ltd.

Takashimaya Company, Limited

Architect : Obayashi Corporation

Site Area : 33,729m²

Building Area : 16,371m² (the First Period)

Roof Area : 14,545m² (the First Period)

Greening Facility Area on Roof : 8,022m²

Greening Area on Roof : 3,274m²

Construction Completed Date : August 31, 2003

Major Planting : Camphor Tree, Michelia Compressa, Flowering Dogwood,
Japanese Zelkova, Konara Oak, Kobus Magnolia, Dogwood,
Neolitsea Sericea, Loblolly Magnolia, Japanese Snowbell, Indian Lilac, etc.



- Renewal of children's park to be suited for elderly people's exercising and rehabilitation, bearing in mind that they use it



Shintomi Refresh Park (Otawara City)

- Playground equipment for infants installed in one corner of existing park by accepting mothers' opinions



(Kita-Kyushu city)

Example of Park Redevelopment Working on Together with Community Residents

- Taking on tasks of providing materials and sending directors as well as bearing the cost of insurance necessary for actions concerned
- Park reinvigorated through residents' eager actions with sharp eyes for detail



(Hiroshima City)

