(Provisional Translation)

Towards Reconstruction

"Hope beyond the Disaster"

25 June 2011

Report to the Prime Minister
of the Reconstruction Design Council
in response to the Great East Japan Earthquake

Seven Principles for the Reconstruction Framework

Principle One:	For us, the surviving, there is no other starting point for the path to recovery than to remember and honor the many lives that have been lost. Accordingly, we shall record the disaster for eternity, including through the creation of memorial forests and monuments, and we shall have the disaster scientifically analyzed by a broad range of scholars to draw lessons that will be shared with the world and passed down to posterity.
Principle Two:	Given the vastness and diversity of the disaster region, we shall make community-focused reconstruction the foundation of efforts towards recovery. The national government shall support that reconstruction through general guidelines and institutional design.
Principle Three:	In order to revive disaster-afflicted Tohoku, we shall pursue forms of recovery and reconstruction that tap into the region's latent strengths and lead to technological innovation. We shall strive to develop this region's socioeconomic potential to lead Japan in the future.
Principle Four:	While preserving the strong bonds of local residents, we shall construct disaster resilient safe and secure communities and natural energy-powered region.
Principle Five:	Japan's economy cannot be restored unless the disaster areas are rebuilt. The disaster areas cannot be truly rebuilt unless Japan's economy is restored. Recognizing these facts, we shall simultaneously pursue reconstruction of the afflicted areas and revitalization of the nation.
Principle Six:	We shall seek an early resolution of the nuclear accidents, and shall devote closer attention to support and recovery efforts for the areas affected by the accidents.
Principle Seven:	All of us living now shall view the disaster as affecting our own lives, and shall pursue reconstruction with a spirit of solidarity and mutual understanding that permeates the entire nation.

The "Seven Principles for the Reconstruction Framework" were formulated as a set of recognitions shared by all its members in the Reconstruction Design Council at its 4th session held on May 11 ahead of the issuance of its report of recommendations and serve as the guiding philosophy in the report of the Council.

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Prologue

The destruction came all of a sudden. The time was 2:46 pm (5:46 am GMT) on March 11, 2011. The ground shook, the seas rose and people fled in confusion. Before the undulating onslaught of first the earthquake and then the tsunami the very fabric of the nation and the landscape itself was torn asunder. The disaster continued to unfold as Japan was assaulted by a third tragedy. This, it goes without saying, was the accident at the nuclear power station. After the instant of horror that was the earthquake and tsunami came a further terror, which we had no means to control. This was the genesis of an unprecedented situation. Thus it was that the certain "something" that has sustained Japan throughout the post-war years came crashing down around our ears.

The epicenter of the earthquake was located off the Sanriku Coast, approximately 130km east-south-east of the Ojika Peninsula. It had a depth of 24km and registered a moment magnitude of 9.0. This was the largest earthquake in the recorded history of Japan and the fourth-largest earthquake in the world during the 110 years since the start of the 20th century. The earthquake intensity was measured at 7 in the north of Miyagi Prefecture and 6 or more in eight prefectures in the Tohoku and Kanto regions, which experienced strong tremors. With a focus on eastern Japan, the entire Japanese archipelago shook, from Hokkaido down to Kyushu.

The earthquake was an oceanic-trench earthquake that struck on the boundary of the Pacific Plate and the continental plate, creating an enormous tsunami. The maximum height of the water level was recorded as 9.3m and the run-up height was 40.5m, the largest ever recorded in Japan.

The human cost of the disaster stands at more than 23,000 people dead or missing. The direct cost of the disaster is expected to reach approximately 16.9 trillion yen in terms of the tangible assets of residents and the disaster-affected regions (estimate by the Cabinet Office). No-one yet knows the cost of the nuclear accident including the damage caused by harmful rumors that resulted from the accident.

The Great Kanto Earthquake and Great Hanshin-Awaji Earthquake, which should be used for comparison, were earthquakes that caused damage due to the collapse of buildings and subsequent fires. In contrast, the Great East Japan Earthquake presents a totally new type of disaster in which the damage from the tsunami was compounded by the nuclear accident.

In view of the fact that the Great Kanto Earthquake was an urban-based disaster, a journalist at the time, described it in these words: "September 1 was a red day," "…the people who endured the earthquake and fires on that day have a profound image of everything being red that is so deeply ingrained in their memories it obliterates thoughts of any other colors."

This begs the question, what color would the people affected by this recent disaster associate most strongly with their experiences? It would perhaps be a deep color reminiscent of the swirling torrents of water that lashed the coastal regions so relentlessly. Or rather, it might be the color of the debris left behind after the tsunami had withdrawn. For the people affected by the disaster, who have dealt so stoically with the situation without falling into a state of panic, it is perhaps not the color that matters, but rather the fact that the disaster has been tinged with a sense of profound sadness. The sheer goodness of these people's actions and behavior in the wake of the disaster is

what has surprised the international community and thus attracted such admiration. This also prompted an outpouring of assistance from the international community.

Into this situation there then looms the damage from the nuclear accident, so difficult to fully comprehend as it is both colorless and odorless. This disaster thus demonstrates aspects of a compound disaster[1], including the harmful rumors that have spread domestically and overseas. Accordingly, this is a disaster for which there is also no single path towards reconstruction, but rather many intricate paths that must be created to be commensurate to the task of resolving comprehensive issues.

So how do we resolve comprehensive issues in the context of a compound disaster? These recommendations present solutions to these comprehensive issues. In actual fact, from whichever way we look at it, behind the specific prescription for the disaster-affected regions, we can clearly see a number of issues that have remained unresolved throughout Japan's post-war period. We are also reminded of the fact that in the face of the threat from nature and the hubris of human arrogance, this disaster revealed in one fell swoop the inherent vulnerability of modern civilization. Does this not question the very character of our civilization? What are we to do in the face of such a leviathan disaster? The only thing we can do is take a deep breath and face up to the situation. The range of issues we face is truly vast and at times the situation may seem hopeless. At such times, on one level or another, we must recognize that the only thing to do is work towards solutions from our own immediate experiences, and assess what it is that we have learned as a result of this unprecedented disaster.

Our experiences of the disaster should prompt us to give conscious thought to who it is that has supported us in our lives to date, and accordingly, who it is that should be assisted in this current situation. We should heed what our conscience tells us.

It is likely that we will discover what our conscience is telling us through "linkage" activities to other people and things. Linkage comes in many forms: people to people, community to community, company to company, municipalities to prefectural and national governments, local communities with other communities at home and abroad, eastern Japan with western Japan, and country to country. Whether it is large or small in scale "linkage" is the one of the activities that helps us discover the realities of "support," which in turn lights the way to a path towards reconstruction.

It is just such "linkage" activities that will help the people in the disaster-affected regions to first work to achieve "harmonious coexistence" between humanity and nature, from which they can engage in "disaster reduction.[2]" Such an approach will generate independent efforts to revitalize local communities and local industries. This, in turn, will elicit "hope." The capacity to live through this disaster with "hope" will become a testimony to the reconstruction process.

The same can be said for other regions not directly affected by the disaster. For

[1] A compound disaster refers to multiple disasters happening at the same time or in sequence. In such disaster scenarios there is a tendency for damage to be magnified as the disasters are interrelated. For example, in places where an earthquake has caused ground subsidence, subsequent torrential rains could cause a large-scale land-slide disaster. This would be termed a compound disaster.

[2] "Disaster reduction" is an approach that seeks not to completely prevent or guard against a natural disaster, but rather focuses on minimizing the impact of such a disaster. Disaster reduction requires both infrastructure-related measures (development of seawalls and coastal levees, etc.) and people-oriented measures (disaster reduction-related training and education, etc.) to be implemented in a multi-layered approach.

example, people in Tokyo should realize just how much they were supported by the Tohoku region, and seek to repay that support in kind through various linkages. In the context of preparing for a future disaster, it will also be necessary for western Japan to move to support the Tohoku region. This expanding series of links and support will result in an ever-growing wellspring of “hope” to be nurtured in the hearts and minds of all people.

The way in which so many people, including the members of the Self-Defense Forces, came from around the country to engage in dedicated relief activities is truly an inspirational example of linkage and mutual support being put into practice. If all the people of Japan join in ongoing efforts to support the reconstruction of the Tohoku region, it will serve to nurture “hope” for the revitalization of Japan and make it easier for everyone to identify with. “Hope” is the seed from which “harmonious coexistence” grows, through linkage between people. This is not limited to Japan, but has the potential to spread on a global scale. Consider for a moment just how this disaster prompted an outpouring of assistance from around the world. This is something we accepted with great emotion.

Thus, just as our appreciation of “harmonious coexistence” strengthens, our heartrending thoughts of those who lost their lives in the disaster may coalesce into an understanding akin to “being at one with those who perished.” By commemorating and remembering the countless lives that were lost in the instant of disaster, we will come to cherish the preciousness of our own lives.

We believe that after the destruction, we can assuredly create a firm and unwavering path to reconstruction that is filled with “hope.”

Recommendations

Chapter 1 A New Concept for Rebuilding the Region

(1) Introduction

It is necessary to focus on “local communities” and “people who will provide linkage with other people” when engaging in regional construction in the disaster-affected areas. This should be based on a concept of “disaster reduction,” rather than envisioning communities that can be completely immune to large-scale natural disasters. Until recently Japan had not given any thought to an initiative clearly premised on the ways in which regions and the nation itself should function in times of disaster. Is it not rather the case that we have studiously avoided such initiatives, continuing to take refuge in the myth of safety that the benefits of post-war peace have provided?

To make a new concept for rebuilding regions, we must start from an idea that accepts the possibility of disaster. In a disaster situation the fundamental concept is self-aid, with each person taking it upon themselves to “escape.” This equates “escape” with “survival.” In order to enable people to “escape” and therefore survive, it is important to develop conditions that will promote the spread of “mutual-aid” and “public-aid.” There is not one single way to achieve these conditions and these recommendations present a combination of various methods. In addition, the “recommendations” also set out a new structural response that will be required for regional revitalization.

We must work to devise ways that bring people together rather than split them apart when creating various measures. “Linkage” is equally important when developing infrastructure in the form of various facilities and people-oriented measures such as community development.

When considering the revitalization of regions that have lost everything, it is first and foremost essential to listen to the voices of the people who have actually been affected and provide them with “linkage” that will empower them to realize their aspirations. The job of accurately and promptly conveying the diverse wishes and ensuring communication lines to the appropriate locations will be borne by people who will lead these wishes through to fulfillment. These people will continue to link people to people and people to organizations, gradually forming a communication network and continuing to develop and grow as people who play a role in revitalizing the local community.

These people could be volunteers or others from outside the disaster-affected regions and in their activities, as well as ensuring people-to-people “linkage” they could also work to nurture other people in the disaster-affected regions who would assist in such activities. In this way, it would also be a natural progression for volunteer activities to develop into job opportunities.

It will be desirable to have people with expert knowledge and skills in people-to-people “linkage” in order to revitalize the disaster-affected regions. People from outside the region should be called upon to provide their skills, whether they be experts in medical, welfare or nursing care, or possess specialist scientific and technical knowledge that can be put to use locally. These people will also be useful in

developing local human resources. Furthermore, as a means of providing the necessary knowledge and skills for regional construction as widely as possible, we must create an inclusive structure that draws on the knowledge of urban planners, architects, attorneys and government officials.

Local communities will be supported through the development of diverse human resources linked laterally and vertically in various networks, who will ensure that disaster victims are not left in isolation.

We believe that as the people who establish these various methods of "linkage" in the disaster-affected regions visit various other regions of the country, a concept of "disaster reduction" will be thus spread nationwide. This will lead to the further nurturing of people who will develop "linkage" models in line with the needs of each region and boost the utility value of such models.

(2) Concept for Rebuilding the Region (Rebuilding Towns and Villages)

① Concept of "Disaster reduction"

The recent tsunami transformed existing concepts relating to natural disasters. The regions flooded by the tsunami extended over an extremely wide area, the scale of which was so enormous as to be almost unbelievable. This taught us of the existence of tsunami that are physically impossible to defend against. It has become clear that frontline defenses alone, focused on tsunami breakwaters, coastal dikes and tide barriers, cannot provide protection from a tsunami of this magnitude.

As we engage in reconstruction, a concept of "disaster reduction" will be paramount. Such a concept should not be based on the premise that a large-scale natural disaster can be completely contained, but rather that the damage from such a natural disaster should be minimized. Based on this concept, we must make preparations for disaster from the perspectives of prioritizing efforts to ensure that even if disaster strikes it will not result in the loss of human life, and also working to minimize economic damage as much as possible.

If we base our efforts on a concept of "disaster reduction," we must certainly focus on people-oriented measures that move away from an exclusive reliance on waterside defensive structures. Instead, we must engage in thorough disaster prevention education founded on the fundamental concept of "escape" and develop hazard maps. Furthermore, in addition to breakwaters, the functions of inland setback levees must be enhanced, utilizing transport infrastructure and other means. Land will also need to be raised on man-made earthworks, where areas, routes and buildings for evacuation can be developed. Moreover, it will be necessary to mobilize both infrastructure-based and people-oriented measures in tandem, including the integration of land use and building regulations that pay due heed to disaster risks. Regional construction requires that we also solidly refocus on valuing the links that bind people together and ensuring a cohesive sense of community.

When engaging in comparisons of the various choices that present themselves for the formulation of reconstruction plans, consideration should be given to the effects of disaster prevention, paying due heed to topographical characteristics, the costs involved and the time that will be required. Furthermore, consideration must be given to what constitutes an appropriate "combination" of measures for each region, including tsunami breakwaters,[3] coastal dikes,[4] and setback levees,[5]

[3] A "tsunami breakwater" refers to a structure that is built in the sea to protect harbors and fishing ports from waves from the open sea and also to protect inland areas from tsunami.

"area-based" development including relocation to higher ground, and land use and building construction regulations.

It is undoubtedly the case that "creating safe and secure regions" will take time to accomplish. At the same time the people affected by the disaster have a compelling desire to "return to their former lives as soon as possible." It is necessary therefore to harmonize these two requirements when advancing regional development. Efforts should be based on the premise of phased reconstruction, including the prioritized development of safe and stable core areas that will form a base for the further advancement of reconstruction efforts.

② Reconstruction plans incorporating a future vision for the regions

Community needs must be prioritized when implementing reconstruction. At the same time, reconstruction must also be in accordance with a long-term outlook and future-oriented insight. While taking into account the structural changes in Japan's economic society, including the aging society and shrinking population, we must also seek out the areas with economic potential in the Tohoku region, in which the region can take a leading role in the coming years.

Rebuilding the regions must therefore proceed with a view to creating compact towns or villages that also give due consideration to the elderly and the vulnerable, and take into account other factors, including ease of living, landscapes, environment, public transportation, energy conservation and anti-crime measures. Above all, with regard to landscapes, it would be preferable to rebuild the regions that have a sense of unity, based on thorough discussion and consensus among local residents.

Furthermore, such efforts should seek to construct regions that are self-sufficient and which create value. Such an approach should be combined with regional development efforts that capitalize on renewable energy resources and local ecosystems, as well as industrial promotion through a focus on next-generation technologies, and the utilization of local resources and business cycles that are internalized within the region. This could be achieved by considering assistance through the "top runner" approach that responds to local needs.

We hope that these efforts will result in a regional construction model that will be instrumental in the path to reconstruction.

(3) Types of Regions and Measures for Reconstruction

This disaster has been characterized by the tremendous diversity of the disaster-affected regions, including topographical, industrial and everyday living circumstances. From the perspective of contributing to deliberations on reconstruction in all of these areas, we present here a number of representative models concerning regional features and the overall points for reconstruction measures that each region would require.

[4] A "coastal dike" refers to a structure building on land (in coastal areas) to provide inland areas from large waves caused by typhoons, etc., and tsunami.

[5] A "setback levee" is a type of construction built further inland than coastal dikes for the purposes of defense. For example, the raised earthworks of roads and rail lines fulfill a role as protective embankments.

In all of these cases the fundamental concept for regional construction is premised on "escape," although in the actual reconstruction process it will be necessary to implement comprehensive measures, including for the recovery or relocation of rail lines, arterial roads, public facilities and commercial facilities. Furthermore, for the reconstruction of wide-area infrastructure it will be important to ensure that the reconstruction plans of the various municipalities are suitably interconnected, and that development and rebuilding is advanced in due consideration of "substitutability through multiplexing" (redundancy).

In addition, individual reconstruction projects should be assessed from their planning stages from the perspectives of cost-vs.-effect and efficiency to ensure that only the projects that are truly necessary and effective will be implemented.

(Type 1) Regions with urban functions located in low-lying areas that were almost entirely affected by the tsunami

In regions with urban functions located in low-lying areas that were almost entirely affected by the disaster the aim should be to relocate homes and core urban functions to a safe location on higher ground. This will require integrated support for the entire community. However, due to issues of procuring land for relocation sensitive consideration should also be given to possibility that residents who were formerly neighbors could be moved to different locations.

Although in principle the aim should be to relocate to higher ground, given issues of procuring suitable land and commercial needs, such as those of the fisheries industry, it will still also be unavoidable to utilize low-lying areas. In these cases, given the possibility of damage in the event of large-scale tsunami it will be important to implement integrated land use and building regulations that stipulate that only such industrial functions that are absolutely required to be located in such areas are reestablished there. It is also necessary to given active consideration to raising land on embankments and developing and improving the functions of evacuation routes based on appropriate evacuation plans, as well as the development of evacuation buildings, among others.

(Type 2) Regions where low-lying areas were affected and areas on high ground escaped damage

In regions where low-lying areas were affected and areas on high ground escaped damage, while the first priority is to concentrate urban areas on high ground and use such areas effectively, as it is anticipated that it will be difficult to coordinate various land and other rights it could prove impossible to relocate all low-lying areas of urban settlements. In such scenarios it will be necessary to utilize low-lying areas while ensuring that their safety is improved.

In these cases, given the possibility of damage in the event of large-scale tsunami it will be important to implement land use and building regulations that stipulate that only such industrial functions that are absolutely required to be located in low-lying areas are reestablished there. In addition, efforts should be made to raise land on earthworks and improve evacuation measures, including evacuation routes and buildings.

(Type 3) Regions built on hills running down to the coast with few low-lying areas and settlements

In regions built on hills running down to the coast with few low-lying areas and settlements, there is an overall possibility of large-scale tsunami damage. In

such locations the fundamental principle should be to relocate homes by creating residential areas in the areas on the high ground beyond the coastline. For the low-lying areas land use regulations should be introduced that designate such areas as land for commercial purposes and restrict the building of residential homes. In addition, facilities should be constructed in such low-lying areas that will assist evacuation of business people working there.

Furthermore, it is likely that a further challenge will be the reorganization of settlements, in view of the difficulty in sustaining some areas due to the advanced age of the residents. Also, consideration should be given to concentrated redevelopment in areas where it is deemed to be easier to implement disaster prevention measures, due to topographical conditions.

(Type 4) Coastal plains

The expansive coastal plains region suffered great damage due to flooding from the tsunami, with the impact being hardest felt by agriculture-related businesses. In such areas it will be necessary to not simply construct huge-scale coastal levees, but instead implement a combination of measures, including the development of new sand hill embankments along the coast and also in the interior, as well as land use restrictions.

Such measures would be based on improvements to the functions of setback levees, utilizing transport infrastructure and other means, and the relocation of housing and other facilities to safer inland areas beyond such setback levees. In the event that homes are built on the coastal side of the setback levees it will be necessary to build these homes in safe locations. It will naturally be necessary to consider the development and improvement of the functions of evacuation routes and the development of evacuation buildings, based on appropriate evacuation planning.

In addition, consideration should be given to community support measures and to ensuring the revitalization of agricultural areas and the safety of existing settlements in an integrated manner.

(Type 5) Inland areas and regions that were damaged due to liquefaction

In inland areas where sections of large-scale man-made embankments and earthworks collapsed, or where homes and residential areas experienced widespread damage due to liquefaction of landfill sites, support must be provided to promote “countermeasures to prevent reoccurrence” in the areas affected, and to strengthen urban infrastructure, rebuild homes and recover residential land.

Although there are already a number of support systems in place for all of the types described above, including the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims, it will be necessary to give consideration to the following points: i) that the burden placed on local residents is not too excessive; and ii) that the burden placed on local governments for community development is not too focused on a given point in time. Furthermore, in anticipation of mass relocations in disaster-affected regions it will be necessary to take swift action to monitor land transactions, thus preventing speculative land and property investment ahead of such relocations.

(4) Improving and Developing Existing Reconstruction-related Projects

Future countermeasures against tsunami will have to be transformed from "lines" of defense, such as coastal dikes and tide barriers, to "multiple defenses" that are "area-based," encompassing rivers, roads and urban planning. For this purpose comprehensive countermeasures must be advanced that break away from existing frameworks. For example, public infrastructure such as roads and rail lines that are built on raised earthworks should be designated as setback levees, which serve a purpose as disaster prevention facilities. Efforts must be made to heighten regional safety levels, incorporating concepts that have not been considered to date, including "disaster reduction" perspectives when developing school buildings and railways, etc.

In addition, the various existing methods of disaster reduction, including development projects for breakwaters and coastal levees, projects to promote mass relocation for disaster reduction, and land use regulations, each need to be verified and examined to see if they can be applied to reconstruction from this disaster. If necessary, such existing methods should be improved or modified.

Tsunami breakwaters, coastal dikes and tide barriers should be rebuilt, in view of the protection they provide to inland areas against relatively frequent tsunami, and storm surges and waves caused by typhoons. It will be essential to reassess technologies for robust structures that will not collapse in the event that they are overcome by water, such as a large-scale tsunami like in the recent disaster.

It will be necessary to comprehensively reassess the "projects to promote mass relocation for disaster prevention" that currently only apply to the relocation of residential areas. The scope of such projects will have to be widened to allow for local circumstances to be taken into account and enable relocation for other purposes, thus developing a system that empowers appropriate community development. Furthermore, In order to relocate residential areas to higher ground and rebuild low-lying areas with mid- to high-rise buildings, comprehensive support must be provided for the formation of residential areas, the provision of housing with reasonable rents, and the development of public facilities and infrastructure, among others. Naturally, it will also be important to provide assistance for independent efforts by citizens to rebuild their homes.

With regard to land use regulations it will be necessary to add to the existing regulations stipulated in Article 39 (designation of areas at risk from disaster)[6] and Article 84 (building limitations in disaster-affected built-up areas)[7] of the Building

[6] "Article 39 of the Building Standards Act" stipulates that for areas where there is a high danger of tsunami, high tides or flooding, the local government may designate such areas as being "at risk from disaster" by local government ordinance and for areas designated as such may impose building restrictions, including prohibition of the building of residential structures, or setting limits on building height or the height of foundations.

[7] "Article 84 of the Building Standards Act" contains the following stipulation. In order to prevent the construction of buildings that would obstruct robust reconstruction measures in built-up areas affected by disaster, for a period from the day of the disaster up to one month thereafter, the designated administrative agency (the head of the local government given "authority over construction," who engages in work to confirm building structures) may designate an area, which, for a limited time may be subject to building restrictions or prohibition of construction. Under this provision this period may be extended for a maximum of two months, but for designated administrative agencies that have jurisdiction over the urban areas that have suffered enormous damage due to the Great East Japan Earthquake, it shall be possible to restrict or prohibit the construction of buildings in designated areas for a period of six months from the

Standards Act, and ensure the realization of "multiple defenses" through a combination of land use regulations and various other programs. To this end various new structures should be considered that will ensure the harmonization of regional and urban planning with such regulations and also that the content of regulations can be reviewed flexibly and smoothly.

With the exception of the cases in which land is acquired, we should give due consideration to two difficult points when considering public works projects: i) the problems associated with a public body buying up disaster-affected land at taxpayer expense, only to acquire land with little utility value; and ii) the problems arising from relocation of disaster-affected residents, which will not lead directly to community revival and reconstruction.

In this way, in order to promote reconstruction-related projects it will be necessary to mobilize both infrastructure-based and people-oriented measures, and consider systems that will ensure safety for entire regions against tsunami.

(5) Challenges Relating to Land Use

① Integration of the existing land use planning procedures

Reconstruction will require the coordination of various existing land use planning systems. However, if undue time is required to engage in such coordination there are concerns that this may delay community reconstruction.

In order to proceed smoothly and quickly with reconstruction projects, it will be necessary to integrate the procedures required for the implementation of reconstruction plans in municipalities, including those relating to the City Planning Act, the Act on Establishment of Agricultural Promotion Regions, and the Forest Act, among other legislation. A structure must also be created that will help to realize the swift reorganization of land use and other matters.

② Adjusting land use through land use planning projects and land improvement projects

In cases where projects are being implemented as part of large-scale changes to land use, such as the mass relocation of settlements to higher ground, it may be necessary to transfer land use from residential use to agricultural use, in cases where existing methods have not been able to be sufficiently used, including land use planning projects and land improvement projects. Consideration must also be given to the development of mechanisms that would facilitate these kinds of adjustment and transfer processes.

③ Land use rights in the disaster-affected regions

Land registry surveys have already been completed in many of the disaster-affected regions. However, it will also be necessary to collate data relating to land where the situation has changed dramatically due to the disaster (including ownership and demarcation issues, etc.) and disclose such data.

In addition, in the entire disaster region, including the area flooded by the tsunami there are many cases in which land ownership rights and issues of demarcation, etc., are unclear. We must therefore consider what measures will be

day of the disaster (or eight months in the case of an extension).

necessary to deal with this situation, so as not to obstruct rebuilding the regions towards reconstruction.

(6) Actors for Reconstruction Projects and Consensus-based Processes

① Municipality-led reconstruction

The fundamental principle for reconstruction is that the main actors should be the municipalities themselves, as it is the residents who are closest to their communities and understand local characteristics best. Each municipality must work in cooperation with residents, NPOs, local businesses and others to formulate a reconstruction plan and promote measures that are autonomous, comprehensive and attentive to detail.

The national government should set the overall policy for reconstruction, including a vision, ideals, and types of assistance, etc., and make efforts to make maximum use of the abilities of municipalities, which are the main actors in reconstruction. The government should provide appropriate assistance and establish the required systems in terms of human resources, knowledge and financial resources, based on local wishes. Prefectural governments will take on the role of responding to wide-area administrative issues, as the government body that encompasses the various municipalities.

For municipalities that have experienced a weakening of administrative functions due to the disaster and yet are required to implement an enormous package of reconstruction-related programs, manpower cooperation should be provided by national and prefectural governments. This could include the dispatch of human resources with specialist knowledge in required areas and human resources who can offer assistance in community reconstruction, thus ensuring that appropriate administrative services can continue to be provided.

Municipal, prefectural and national governments should engage in mutual cooperation for reconstruction of the disaster-affected regions, clearly laying out the specific roles and measures that each government body is responsible for, and implementing programs systematically and on the basis of due liaison and consultation. The utilization of consultative organizations for concerned parties should also be considered for the purposes of implementing programs.

Municipalities should show to the local residents the various options for community development and reconstruction, including the merits and demerits associated with each option. They should then determine a direction for reconstruction and community development based on a broad range of opinions from local residents and other concerned parties.

② Forming consensus among residents and utilizing community development corporations, etc.

In order to respect the needs of local residents it is essential to create a system that duly reflects their various opinions in government administration. It could be advisable to utilize “town and village community development associations” or similar bodies, comprised of local residents, business owners and other related rights holders as a means of engaging in region planning.

When collecting the opinions of residents, due attention needs to be paid to ensure the opinions of women, children, the elderly, the disabled, and foreign residents, among others, are appropriately reflected and that the process considers

future generations also.

The implementation of reconstruction projects will not be performed by government bodies alone. We should make efforts to promote a "New Public Commons," through which other actors may take a leading role in post-disaster reconstruction, including through public-private partnerships (PPP) that utilize private sector funding and knowledge, and civil society activities by volunteer groups, NPOs and others. Furthermore all effective means should be mobilized combining both public interest and business concepts, including the utilization of community development corporations that would take on the publicly minded projects that government or the private sector alone would find difficult to implement effectively. In agricultural areas too, thorough community-based discussions among the concerned parties could be employed to engage in land use coordination, including the use of land not only for agriculture but also for residential purposes.

While taking into account the needs of local residents it would also be beneficial for the appropriate body to consider methods of land use for the purpose of realizing a future vision for communities, including establishing land lease rights based on consensus among land owners.

③ Human resources assistance to support reconstruction and measures to secure human resources

It would be preferable for residents of municipalities to participate actively in reconstruction projects. To this end consideration should be given to ways of empowering residents to engage in such projects to the greatest extent possible. It is necessary to devise means of enabling residents to engage in jobs that require specialist knowledge, through enhanced job training, or other means. Furthermore, human resources who would fulfill a "linkage" role, referred to as coordinators or facilitators, in supporting the formation of consensus among residents should be nurtured, if possible from among local residents, from the perspective of constructing smooth relations with residents.

In addition, in order to support resident-focused community development, the roles played by advisors will be important, including town planners, architects, university scholars and attorneys. It will be important to receive assistance from related academic associations and to build networks as a means of utilizing the skills of such experts from Japan and overseas.

In the face of such an enormous disaster it is difficult for each municipality to formulate reconstruction plans and implement projects in an expedited and effective manner. In such cases it will be necessary for national and prefectural governments as well as other municipalities or the Urban Renaissance Agency and others to dispatch expert personnel who can provide appropriate technical support for the formulation of local government reconstruction plans and project implementation. In such cases, it will be essential for all people concerned to work closely together in order to advance wide-area, integrated reconstruction. The role of a "master planner" will also be important in coordinating the overall regional construction plan.

Active assistance should be provided for mechanisms for reconstruction assistance personnel who can reside in the affected municipalities and engage in a wide range of locally inspired activities as well as caring for and observing the people affected by the disaster. This is because the placement of human resources

who can play a role in various "linkage" activities will be essential for reconstruction of communities.

(7) Assistance Measures for Reconstruction

① Establishment of a disaster response structure

When considering the systems and programs to respond to the disaster we should seek to create usable and lasting measures nationwide that would also be useful in reconstruction efforts following potential future disasters.

To date various laws have been formulated in response to a number of disasters. This legislation includes the Basic Act for Disaster Countermeasures, which was created in response to the Ise Bay Typhoon of 1959; the Act on Special Measures concerning Reconstruction of Urban Districts Damaged by Disaster, formulated following the Great Hanshin-Awaji Earthquake of 1995; and the Act for Promoting Prevention Measures against Sediment-related Disasters, created in response to the disaster caused by torrential rains in Hiroshima Prefecture in 1999. However, there is still no general system or structure in Japan that has been created to respond to a tsunami disaster.

It is necessary for the national government to create a new general structure that will become the basis for efforts to promote the rebuilding of regions that are resilient to tsunami disasters, and also to present a concept for the development of such communities. Such a structure and concept could then be utilized by local governments that endured catastrophic damage in this tsunami, which was spread over a wide area, and could also be adopted by local governments where there is the potential for a large-scale tsunami disaster in the future.

② Special measures in response to the disaster

In the process of reconstruction following this great disaster, the national government is required to provide robust assistance, based on the necessity and content of individual projects. Preparations should be made for a broad menu of programs that can respond to the diverse needs of the region, including the provision of the necessary human resources and knowledge, fiscal measures, deregulation and special measures based on existing systems. In addition, appropriate and prompt responses should be made with regard to additional measures, depending on the status of reconstruction in the various affected regions.

Above all, it would be effective to adopt measures for "special zones"[8] for the purpose of integrating and accelerating land use planning procedures.

[8] The "measures for 'special zones'" here refers to the application of special regulatory measures for specific areas, as well as other special measures, on the basis of proposals received from local governments in the disaster-affected areas.

Chapter 2 Restore Life and Livelihood

(1) Introduction

The revival of the region becomes possible only when the conditions are in place for ensuring livelihood and employment. From the perspective of livelihood, "comprehensive community care services" and the "expansion of school functions" are critical.

Health and medical and nursing and welfare services will be integrated in order to "link" those people who are affected by the disaster, as well as contribute to employment creation. Professionals in highly sophisticated medical fields will be trained in the disaster region, and will play a role in the development of the new communities. This initiative in the disaster region will serve as a "model for comprehensive community care services," and be eventually implemented across the country.

From the standpoint of the "disaster reduction" concept, strengthening the functions of "school facilities" is also important. These facilities of course serve as evacuation centers and disaster prevention stations in times of disaster. In this light, schools need to have enhanced functions as core facilities of the new communities. Through "disaster reduction and disaster prevention education," teachers, as well as children and students and local residents, must be reminded of the characteristics of their communities and learn the "escape" route in the case of an emergency. This education will foster strong "*kizuna*" or interpersonal bonds in the region. Moreover, it has the potential to contribute to the restoration of culture in the region. The development of schools as focal facilities of the communities also holds potential promise for the wide scale implementation of this education.

Next, from the perspective of employment, efforts to revive various industries indeed need to begin with the active utilization of existing schemes and frameworks. For the reconstruction, new initiatives will offer applicable models for each community. In this process, also with regards to infrastructure development and energy diversification, attention should be given to combining a number of elements, which are best suited for generating greater impacts, and ways will be devised to this end.

This in fact is another example of the "linkages" notion. Rather than have each and every element stand alone, it is important that the elements are indeed functionally "linked" together.

(2) Community Mechanisms for Mutual Support and Learning

① Starting from the provision of relief to affected persons

The earthquake disaster devastated a range of facilities in the affected areas, including medical institutions, social welfare facilities, and day-care centers. For some time to come, it will be necessary to restore these facilities, as well as newly establish temporary medical clinics and pharmacies and hubs for nursing care and disability services, among others. In addition, in the context that local residents support and learn from each other, it will be effective to establish a forum where residents will be able to discuss the future of their communities.

In the affected areas, assistances which are strongly requested primarily by those who are living in evacuation centers and temporary housing and relevant evacuation locations are mental care and health management, food and nutrition

management, and sanitation management. In providing these assistances, extra attention must be paid to socially vulnerable persons, including persons with disabilities. In addition, the foundation for health and medical and nursing and welfare services must be further developed. At the same time, coordinated efforts by the relevant stakeholders are necessary. Also, steps should be taken to prevent crimes in the disaster-affected areas, beginning with the evacuated area, as well as the refuge areas.

A good quality child-rearing environment also needs to be maintained for all children affected by the disaster. In particular, it is necessary to establish counseling services, including mental care services, as well as an education environment from a long-term perspective. Long-term support also needs to be provided to children who lost their parents, or children whose parents are missing, including the utilization of the foster family system.

② Development of health and medical and nursing and welfare system which focuses on providing comprehensive community care services

For the reconstruction of the affected municipalities, a system of comprehensive community care services will be developed. While the basis is the traditional system of community-centered support, the new system will integrate the provision of health and medical, nursing and welfare, and livelihood support services. Keeping in mind the factors of convenience and disaster prevention, attention will be given to developing integrated facilities and promoting the shared use of facilities such as housing, health and medical facilities, welfare facilities, business offices providing nursing care and welfare, and educational facilities.

In particular, with regard to medical services, medical functions should be consolidated and coordinated in view of the shortage of physicians, etc. in the affected municipalities. In this process, efforts should be made to promote the use of home medical care, provide seamless services to address the medical needs of patients, and to facilitate the early recovery and burden reduction of patients. In addition, enhancements need to be made to other health-related services, including the use of private companies. Information and communication technologies, etc. will be used be to coordinate health and medical and nursing and welfare services. At the same time, steps need to be taken to facilitate the sharing of clinical information, including patient medical records, for the purpose of future crisis management.

Furthermore, these sectors will generate significant employment. In this respect, these sectors may be identified as one of the key industries for a region on the road to reconstruction. In addition, an education system will be developed for fostering physicians whose practices are centered at university hospitals and professionals in highly sophisticated medical fields. Through the provision of vocational training, etc., which utilizes a diverse range of training institutions, including universities, vocational schools, and other schools and learning institutions, human resources development in these sectors will be promoted. This will secure employment for people in the disaster region, including young people, women, the elderly, and the disabled, and is expected to further deepen *kizuna* in the region.

In the reconstruction process, residents will newly help each other out in the course of living at evacuation centers and temporary housing, etc. This is expected to encourage residents to further watch over each other and advance social participation. By extension, assistance should be provided to promote mutual

support in the newly rebuilt communities as well as in the existing communities.

These initiatives in the disaster region will serve as model initiatives for Japan's declining birthrate and aging society in the future. Thus, in non-disaster affected regions, too, it would be desirable to shift to the "model of comprehensive community care services."

③ Ensuring learning opportunities

With respect to the rehabilitation and development of schools affected by the disaster, various ways should be devised so that schools can fulfill their roles as emergency evacuation centers and important disaster prevention stations in times of disaster. For example, disaster prevention functions need to be further strengthened, including the relocation of schools from their current locations. Schools are as such often used as evacuation centers and must be prepared for such circumstances. Also, principals and teachers, etc. should be ready to take appropriate responses from the perspective of protecting local residents. In terms of the rehabilitation of schools and community centers, etc., it is necessary to strengthen not only their disaster prevention functions but also their functions as community focal centers. In addition, the rehabilitation of kindergartens and nursery schools should take into account that some of these facilities are financially fragile. Bearing in mind the wishes of the relevant stakeholders, it would be desirable to provide assistance to reopen these schools as integrated facilities which combine kindergartens and nursery schools (Certified Children's Center).

In order to strengthen *kizuna* in communities where schools, etc. have a central role, disaster prevention education, etc. needs to be promoted with the participation of a wide range of residents and which draws on the characteristics of the communities. At the time of the Great Hanshin-Awaji Earthquake, numerous lifesaving measures were carried out through the mutual-aid of the neighborhood people in areas where many community events such as festivals took place regularly at elementary schools and community centers. Using information and communication technologies, learning will be transmitted through various activities implemented by the residents in the disaster region. Furthermore, ways will be devised to set up a network and provide forums for communication in order to allow residents to put their skills to use in times of disasters.

Consideration will also be given to ensuring that children and young people, who incurred large economic losses due to damages suffered by their parents and relatives in the wake of the earthquake disaster, will not face difficulties enrolling in schools and ensuring that opportunities for education will be widely available to them. To this end, assistance including scholarships and financial assistance needs to be appropriately provided, bearing in mind the needs and situation of the affected areas. This will have a large significance in the context of maintaining social fairness. In addition, in order to ensure that the studies and livelihood of the children in the affected areas are not disadvantaged by the effects of the disaster, teachers and school counselors, etc. will be appropriately assigned.

From a longer-term perspective, the development of human resources aimed at reconstruction in the affected areas requires the development of a new education environment which will promote the advancement of science and technology, internationalization, and informatization. At the same time, in the disaster region, in order to develop human resources in the future through partnership among industry, academia, and government who will pursue the sophistication of the region's

industries, create new industries, and revive local industries, as well as human resources who will meet the needs of globalization, it is necessary to make efforts to enhance the capacity of human resources in universities and colleges of technology, etc., and fully establish such programs in the region.

(3) Restoring Culture in the Communities

① Restoring culture in communities that "link" people

The triple disaster of the earthquake, tsunami, and the nuclear disaster inflicted damage to the culture of the Tohoku region. However, cultures of communities do not generally develop only under favorable circumstances. It is in times of adversity that the underlying strength of the cultures of communities is put to the test. There is an example, for instance, in which a festival in a sparsely populated area was able to attract children from outside of the community and thereby regain vibrancy. Again, the keyword is "linkage."

In this way, Tohoku's natural landscape will show signs of renewal precisely in the face of adversity, while the region continues to receive assistance from of course the local communities, neighboring areas, as well as nationwide. The gentle support of the national, prefectural, and municipal governments of the various modalities of the cultures of the communities will allow the community members to reconfirm the depth of their *kizuna*. In the process of restoring culture in the communities, people will be "linked" once again and regain motivation. In this context, the cultures of communities will help remind people of their roots and historical environments.

② Reviving the traditional cultures and cultural properties of the communities

In order to revive communities which have suffered setbacks due to damages from the earthquake disaster and the evacuation of residents, among other factors, it is necessary to advance the repair and restoration of the cultural properties of "the community's treasures" and "the community's spirit." Furthermore, assistance will be sought for the restoration, preservation, and succession of traditional events such as festivals and dialects. In this way it is important to maintain the community identity by valuing the history and culture of the communities and passing on the cultural heritage. In addition, assistance is sought for the smooth rehabilitation and further enhancement of the facilities which were damaged, including museums, art museums, and libraries. Furthermore, in order to expedite reconstruction, structures will need to be developed, which enable the prompt implementation of studies on buried cultural property.

③ Creating culture through reconstruction

Activities are sought, which will encourage and cheer up the disaster victims and communities, as well as further unite the region. They include the provision of assistance for culture and arts activities, the holding of events such as art and music festivals, and the promotion of sports activities in the region. In addition, international competitions, which give people in the affected region hope and inspiration, should be invited to the Tohoku region and held in the region to symbolize its comeback.

In the wake of the earthquake disaster, many people including prominent artists and athletes have provided voluntary assistance through various activities, including music and sports events. These activities deepen the bonds between the

people providing assistance and the people residing in the disaster-affected areas, and the repetition of these activities may give rise to a new "culture." Moving forward, the active development of this kind of "culture" is desirable.

(4) From Emergency Employment to Employment Restoration

① Employment measures for the immediate period

First, the employment crisis in the disaster region must be addressed with urgency. People who have lost their jobs should be able to swiftly receive unemployment benefits. In light of the severe employment situation in the disaster region, it is necessary that the criteria for receiving unemployment benefits continue to be eased, including the relaxation of the job separation requirements and an extension of the period for receiving unemployment benefits.

At the same time, in order to enable businesses faced with difficulties maintain employment as much as possible, flexible practices are necessary, including the relaxation of the criteria for employment adjustment subsidies. Furthermore, in order to not only maintain existing employment opportunities but also create new employment opportunities, programs of the job creation business fund and the like should also be actively utilized.

Also, attention needs to be given to ensure that the jobs created through reconstruction programs in the affected areas lead to definite employment opportunities for the disaster victims. To this end, it is vital that the municipalities engaged in reconstruction programs and the "Hello Work" employment security offices share information and fully work together. Furthermore, in order to increase employment opportunities for the disaster victims, the Government is encouraged to subsidize companies which have recruited disaster victims. The Government is also called upon to secure jobs as well as offer detailed job-hunting assistance according to the qualities of the job seeker, through the "Japan as One" Work Council[9], among other opportunities. Furthermore, the knowledge and skills necessary for job-hunting must be acquired, and vocational training for career changes needs to be enhanced. To ensure that the jobs offered by employers match the jobs sought by disaster victims in a smooth fashion, efforts need to be made to strengthen the functions and system of Hello Work and enhance the matching functions of the "Shigoto-Joho-net", the Job Information Net.

② Creating full-fledged employment through industrial promotion

Employment is a derived demand from production. For that reason, truly stable employment is generated from industrial revitalization in the affected areas. In this sense, the revitalization of industries which were originally the strengths of this region, i.e., the agriculture, forestry and fishery industry, the manufacturing industry, and the tourism industry, as well as the introduction of new industries such as the renewable energy industry are key to employment restoration. Employment assistance which is integrated with these policies is essential. Furthermore, the rebuilding and withholding of companies in the affected areas

[9] The "'Japan as One' Work Council" is a council led predominantly by the prefectural labor departments, and comprises local government, regional offices of the national government, and other related organizations. These councils are established at the prefectural level nationwide and agree on and promote such matters as the collection of information on companies that have received contracts for recovery programs and the submission Hello Work of job vacancies relating to recovery programs.

which generate employment, as well as policies which promote the employment of disaster victims from outside the region, are extremely important also from the perspective of employment restoration.

In order to ensure that the employment that is restored is stable and its labor conditions are expected to improve, industrial revitalization needs to move forward in the direction of generating additional added value. In this respect, it is also important to support initiatives for the enhancement of vocational training and the development of human resources who will promote the sophistication of industries of the region and create new industries.

In the disaster-affected areas which had a high share of primary industries, it was natural to see employment structures in which females and males, young and old, worked together. In addition to primary industries, the technically advanced small- and medium-sized enterprises in this region have a relatively high share of lifetime employment systems, where the elderly continue to put their skills to use. Against this backdrop, there are cases in which the skills and experiences of the elderly veteran staff have been smoothly passed down to the younger people. The Government is also expected to promote this participatory, generation-to-generation succession-type employment restoration.

Furthermore, in agricultural and fishing communities, it is also not unusual for self-employed agricultural and fishery businesses to provide employment and work to other industries, such as tourism and manufacturing, as associated businesses. Securing stable work and income opportunities through such "integration of skills" will prove to be effective methods depending on the community.

(5) Revival of Local Economic Activities

① Private companies and innovation

- Assistance for private companies

In the Tohoku region the manufacturing industry accounts for a high proportion of the local economy. The manufacturing industry of the Tohoku region also plays an important role in the supply chain for the domestic and overseas manufacturing industries. This disaster had a major impact on Japan's economy.

Looking at the situation nationwide, companies resuming and continuing their business activities as a part of the process of reconstruction after the disaster are increasing their dependence on borrowings and their capital reserves are being damaged. Measures to resolve these problems must be taken. Furthermore, in order to ensure the business continuity of companies, provision of fund-raising assistance and implementation of other measures for companies on a sufficiently large scale is necessary.

- Measures to encourage companies to locate domestically

As a result of the current disaster, there is the possibility that Japan will see the "hollowing out" of its industries and companies moving to relocate their offices overseas, resulting in a loss of employment. Regarding this point, in order to improve the location environment for companies in Japan the government must work actively to reconstruct the local economy, revive Japanese industry, and maintain and create employment by taking measures to encourage companies to locate domestically, including providing assistance for the revival of the supply chain.

Furthermore, as a result of the disaster the importance of companies formulating a business continuity plan has been confirmed once again. The introduction of these plans should be encouraged.

- Small and medium-sized enterprises

In addition to the manufacturing industry, small and medium-sized enterprises play a major socioeconomic role in various other sectors including commerce and the tourism industry, for example they provide many employers. However, they have been serious affected by the disaster. Fund-raising assistance and recovery and development assistance for business facilities has already been provided. However, a variety of assistance measures of a sufficient scale must be ensured so that the assistance that is additionally deemed necessary can reach more enterprises. Furthermore, in order to respond to the harmful rumors caused by the impact of the disaster, it is necessary to work on assistance for opening up new sales channels domestically and overseas as soon as possible.

In addition to the small and medium-sized enterprises affected by the disaster, it is anticipated that people who have taken out business loans and home loans in the agriculture, forestry, and fisheries industries will face problems such as having difficulty procuring new funds because of the burden of their previous debt (the so-called overlapping debt problem) when trying to restart their businesses as they work towards reconstruction. Regarding this, it is necessary for all the interested parties, not only the financial institutions and the people of the disaster-affected region but also including the national government and the municipal governments, to share their pain and work together to handle the problem. Assistance measures should be carried out to the maximum extent possible while taking into consideration fairness with regard to the handling of past disasters.

On the other hand, there are concerns that the disaster will have a variety of effects on the financial institutions that have supported the local economy and the fund-raising of small and medium-sized enterprises. Therefore, it is hoped that the Financial Functions Strengthening Act's disaster special provisions, a framework for strengthening the financial intermediary functions of financial institutions through capital participation by the national government, will be utilized.

- Industry and technology concentration and innovation

Tohoku University and many other universities, university hospitals, technical colleges, research institutes, and private sector companies exist together as important intellectual infrastructure and human resources training institutions in the region. Utilizing these strengths of Tohoku to form the functions of centers of knowledge and technological innovation is important. For this reason, it is necessary to work for the early recovery and further strengthening of education and research infrastructure, particularly the facilities and equipment of universities, university hospitals, and research institutes affected by the disaster. Furthermore, medium- to long-term, continuous, and flexible assistance schemes must be constructed in order to make technological innovation with a sense of speed possible through industry-academia-government cooperation. Moreover, there is a need to meet the various local needs by developing the functions of bases for local reconstruction centered on the universities in the disaster region.

Taking into account previous results, it is expected that new industries and employment, which can in turn become a core for growth, will be created through technological innovation, which can be realized by promoting research and

development, local industry will be revived, and a region with a concentration of industries and technologies will be created in Tohoku.

Specific examples of the creation of new industries and employment through technological innovation in Tohoku could include the following.

* Form a network comprised of universities, research institutes, and private sector companies based in the Sanriku coastal region, investigate the marine ecology that has changed dramatically due to the disaster, and make use of the results to reconstruct the fishing grounds and create related industries.
* Set up new world-class businesses through collaboration between areas in which the manufacturing industry of Tohoku has strengths, such as electronic components, devices and electronic circuits, and areas in which universities in Tohoku have strengths, such as materials, optics and nanotech. Industry-academia cooperation is already underway in technical colleges in areas including materials development and information technology, and it is expected that even more outstanding technicians will be trained.
* In order to reconstruct local medical care services, construct medical professional training systems with university hospitals at their core, convert medical care and health information to an electronic and networked form, and construct next-generation medical care structures utilizing the information in this form. Furthermore, cooperate with local companies to conduct drug discovery and translational research, and endeavor to create a new medical care industry.
* Conduct large-scale empirical research employing cutting-edge agricultural technology, and propose new agriculture as a growth industry to all of Japan.

② Agriculture and forestry

- From rapid recovery to reconstruction

It is necessary to aim for the fastest-possible recovery of farmlands and irrigation/drainage facilities and to assist the joint work involved in recovery with a view to assisting the farmers responsible for getting farm management restarted during the period until they have achieved restart.

It is necessary to restart farm management beginning with the farmlands for which recovery has been completed while considering the future plans in each settlement in parallel with the consideration of the reconstruction plans of the regional municipalities.

- Three strategies

The disaster region includes diverse topography, climates, and cultures, and in consequence of this the direction of agricultural reconstruction is also diverse depending on the region. There is a need to have a thorough discussion on a rural community unit basis, and to think about strategies for the revival of agriculture that utilize local resources. Therefore, in order to encourage that kind of discussion, it is necessary to present a future vision combining the following three strategies for each type of region.

a) Creation of high added-value: Strategy to secure employment and improve incomes by creating one comprehensive industry, so called the “sixth industry” (creating a new business through the fusion of primary, secondary, and tertiary

industries), branding, introducing cutting-edge technology, and so on.

b) Cost reductions: Strategy to improve the incomes of farmers by reducing production costs through the revision and larger subdivision of the land use plans.

c) Diversification of farm management: Strategy to secure new income sources through green tourism taking advantage of the appeal of agriculture and rural villages, biomass energy, and so on.

- Flat plain areas

In regions with large-scale plains and regions with strong community-based farm cooperatives the "cost reduction strategy" should be the central strategy.

In this case adopting local strategies combining the "strategy to create high added-value" and "strategy to diversify farm management" is the most effective approach. Ideally, thorough discussions should be held in rural communities, the farmers for large-scale agriculture chosen and the use of land in the rural communities reorganized. When doing so "cost reductions" should be promoted by entrusting all of the land in a rural community unit to the farmers. On the other hand, the concentration of farmlands can be promoted through the participation of farmers that are not operating on a large scale in protected horticulture, and in revived and newly-attracted food-related industries in the rural communities. The "cost reduction strategy" should be promoted by combining the "strategy to create high added-value" and the "strategy to diversify farm management" in this way.

We should aim for this region to be the top runner in Japan in land-intensive agriculture by using the opportunity of the thorough discussions in rural communities for reconstruction projects to realize a switch to this kind of agricultural structure in the region.

- Along the Sanriku coast and in other areas

In the Sanriku region which has little flat land and in regions in which the branding of fruit and other products is already well advanced, adopting a strategy that appropriately combines the "strategy to create high added-value" combined with local specialty products such as marine products, and the "strategy to diversify farm management" including green tourism and the manufacture of biodiesel fuels is effective.

In inland areas, initiatives should be promoted that are tailored to the characteristics of the region, for example, initiatives that combine the strategies of "cost reductions" and "creation of high added-value" through community-based farm cooperatives.

- Forestry

When reconstructing forestry, it is necessary to contribute to the reconstruction of the disaster region by aiming to ensure a stable supply of timber beginning with the rebuilding of the large-scale plywood factories, and at the same time to aim for the independence of the industry by establishing sustainable forest management. To achieve this, the development of forest roads and the concentration of forest management must be promoted further.

There is a need to use the wood-based, disaster-related waste generated in the reconstruction process for electricity and heat generation, and to form a center for an energy supply using wooden biomass power. In the future sustainable forestry

management and energy supply structures must be constructed by switching this center to an energy supply using wood procured from thinned forests.

③ Fisheries

- The importance of fisheries

Major damage occurred over a wide area primarily in the seven prefectures that account for 50% of Japan's fisheries production (Hokkaido, Aomori, Iwate, Miyagi, Fukushima, Ibaraki, and Chiba). The Sanriku region, Japan's leading fishing region, suffered particularly serious damage in the tsunami.

The fisheries are strongly tied to related industries and they also play an important role in terms of the local economy and employment. In particular, in the Sanriku region there are several fishing cities, and in addition a number of settlements with economies largely dependent on fishing.

- Coastal fisheries and regions

Coastal fisheries supply diverse and fresh marine products as the core industry in fishing communities. There are many small-scale fishery managers, and in many cases self-recovery by individual fishery managers alone is difficult, so it is necessary to combine and concentrate production infrastructure such as fishing boats and fishing equipment through the establishment of subsidiaries by fisheries cooperatives and the creation of joint-venture businesses by fisheries cooperatives and fishery managers. At the same time, there is a need to reconstruct distribution and processing structures that look towards the creation of a comprehensive industry, encompassing primary, secondary and tertiary industries, which utilizes local specialty marine products such as abalone.

Many of the fishing ports that constitute the infrastructure of the coastal fisheries are small-scale fishing ports. The offshore fishing grounds, coupled with fishing communities and fishing ports, work together to form the venues for the production and daily lives of the residents. When reconstructing the fishing ports, it is necessary to take the views of the local residents sufficiently into account, and consider in an integrated manner the concentration and role division of fishing port functions in each sphere and the nature of fishing communities. In this case, projects should start with the fishing ports because they have a strong need for recovery and reconstruction projects.

- Off-shore and distant water fishing and fishing bases

Off-shore and distant water fishing not only produces a large catch and is handled in large volumes in the markets; it is also supported by a broad base of related industries. In addition to structural reforms of the fishing industry including the promotion of appropriate resources management and the modernization and rationalization of fishing boats and fishing fleets, efforts to streamline and upgrade distribution and processing industries integrated with fishery production are necessary.

Because ties with the related industries are strong, it is necessary for the related industries such as the processing and distribution industries and the shipbuilding industry to coordinate their reconstruction efforts.

The fishing ports which provide the infrastructure for off-shore and distant water fishing are base ports and at the same time they are hub fishing ports in which the fishing products caught by the fishing boats of other regions and the

marine products from neighboring fishing ports are concentrated. They have markets and seafood processing centers, form fishing cities, and play a major role in the nationwide distribution of fishing products. Therefore, recovery projects should be urgently implemented and consideration given to further upgrading the distribution functions of the ports so that fishing can be resumed as soon as possible.

- Recovery of fishing grounds and resources, and promotion of cooperation between fishery managers and private sector companies

The marine ecosystem including the fishing grounds changed dramatically due to the tsunami, so scientific findings should be utilized to work for the recovery of the fishing grounds and resources, and this opportunity should be taken to promote resources management more actively.

It is also effective for fishery managers to voluntarily cooperate with private sector companies to utilize the funds and wisdom of the private sector in order to revive fishing. With the understanding of the local community as the foundation, the national government and the local governments should cooperate to ascertain the local needs and the intentions of the private sector companies, and promote mediation and matching so that the local fishery managers are able to independently cooperate with the private sector companies in a variety of forms. In regions where it is necessary, the following efforts should be realized through utilization of "special zone" measures. Specifically, adopt a mechanism under which corporations run by local fishery managers are not subordinated to fisheries cooperatives and can obtain fishing rights. However, adopt a mechanism that does not use this approach in the case that a private sector company seeks a license alone and takes into consideration the preservation of the livelihood of the local fishery operators. When doing this, the required measures should be undertaken, including setting up a third-party institution that carries out consultations and coordination among the related parties.

④ Tourism

- Utilization of local tourism resources and creation of new tourism styles

The tourism industry produces broad-based economic benefits, and together with agriculture, forestry, and fisheries it is a major industry supporting reconstruction. It is expected that local tourism resources including natural views of the beautiful sea, etc., the rich local food culture, indigenous cultural assets such as festivals and shrines and temples, and brands including national parks and World Heritage sites will be widely utilized to create new tourism styles that are only possible in Tohoku and transmit the "Tohoku" brand to the entire country and the entire world.

When doing this, it is important to carry out community development that takes beautiful views into account and turns them into tourism resources in the reconstruction process. Furthermore, there is a need to incorporate a tourism perspective into local industries such as agriculture, forestry, and fisheries, and to devise creative new methods such as forming new tourism routes with an awareness of approaches from the sea.

Moreover there is a need to form structures (platforms), through human resources development and other methods, for the acceptance of tourists by everyone in the community, including not only the people involved in the tourism

industry but also a wide-range of related people in the region working in local industries such as agriculture, forestry, and fisheries or in community development NPOs, etc.

- People-to-people links and tourism promotion through reconstruction

In the short term, urgent measures should be taken for the recovery and stimulation of domestic and overseas travel demand through the transmission of accurate information to prevent harmful rumors and the strengthening of tourism campaigns, among other measures.

Furthermore, valuing the *kizuna* that were born out of the disaster and sharing the reconstruction process with people outside the disaster region are also important.

(6) Strengthening of the Infrastructure that Supports Local Economic Activities

① Transport and logistics

- Disaster resilient transport network

Regarding transport in daily life, a model for disaster resilient local transport, including the addition of disaster prevention functions to transport facilities, should be constructed in combination with the reconstruction policies for the region and taking into account social trends in the regions such as the falling birthrate, aging society, and depopulation.

Furthermore, going forward the disaster prevention functions of the trunk transport network must be strengthened further by strengthening earthquake resistance, enhancing resilience, and ensuring "substitutability through multiplexing" (redundancy).

Regarding the railways, while strengthening disaster prevention and "disaster reduction" functions, the railways for which utilization of existing facilities is sufficiently feasible should be restored to their pre-disaster routes. On the other hand, the railways in areas that suffered massive tsunami damage must be reconstructed in a manner that is integrated with community development, including changes to the present routes. Regarding ports and harbors, "disaster reduction" functions should be strengthened, including the construction of evacuation structures, taking into consideration the number and types of companies located on the waterfront areas. Regarding roads, the development schedule for the urgent development of the Pacific coast axis (Sanriku longitudinal expressway, etc.) and the strengthening of the transverse axis connecting the Pacific coast and the Tohoku expressway should be clarified first, and then the benefits in terms of disaster preparedness evaluated appropriately, and the work undertaken with priority given to the more beneficial projects. Furthermore, it would be best to proceed with the development of emergency evacuation routes to roads at high altitudes, etc.

- Upgrading of logistics systems

For the reconstruction assistance for the disaster region, the first priority will be the early recovery of logistics infrastructure such as roads, ports and harbors, seaside railways and so on. Then visualization of the overall supply chain, reestablishment of production and logistics centers, multiplexing of transportation

routes including coordination between the Pacific side and the Sea of Japan side, and stable maintenance of ocean shipping should be promoted in order to increase the appeal of Japan as a site for the location of industry and prevent the hollowing out of Japanese industry.

From the perspective of preparing for future disasters as well, "disaster logistics," a disaster resilient logistics structure with strengthened software components, should be constructed. In other words, aim for logistics structures combining utilization of private sector know-how and the securing of private sector logistics facilities through cooperation agreements for times of disaster, so that the emergency relief supplies from areas around the country to the disaster region are delivered to the evacuation centers at the end of the chain smoothly and accurately.

② Promotion of the use of renewable energy and improvement of energy efficiency

- The potential for renewable energy in the disaster region

Renewable energy (such as solar power, wind power, hydraulic power, biomass power, and geothermal power) is important for the diversification and decentralization of energy sources, measures to combat global warming, and the creation of new industries and employment. Therefore, it is necessary to accelerate introduction of renewable energy while also working to overcome issues such as the instability and high cost of output, location restrictions, and other issues.

The Pacific coast of the Tohoku region receives about the same hours of sunshine as the Kanto region, and its air temperature is low meaning that the energy loss resulting from raising the temperature of the solar panels in solar power generating systems is small, so the region is well suited to solar power generation. Moreover, geothermal power resources, forest resources and water resources are also present in abundance in the region, so it has a strong latent potential in the areas of geothermal power generation, biomass power, and small hydraulic power generation. Furthermore, compared to the rest of the country the Tohoku region has a large number of locations in which the wind conditions are good, so it has a strong latent potential for wind power generation as well.

- Regionally independent energy systems

When reconstructing the infrastructure in the disaster region, it is necessary to introduce cutting-edge independent and decentralized energy systems in accordance with regional characteristics. Those systems comprehensively combine firstly efficient utilization of energy-saving systems, and next the use of diverse energy sources including renewable energy, a solution to output instability based on the introduction of storage batteries, and utilization of cogeneration (combined heat and power) that utilizes gas and other fuels.

These kinds of independent and decentralized energy systems (smart communities, smart villages) are highly energy efficient, and resilient in the face of disasters, so there is a need to develop them in Japan in the long term. Therefore, it is required to take the lead in introducing these systems in the reconstruction of the disaster region.

Introducing these systems in an integrated manner in parallel with other plans related to disaster prevention, community development, etc. is more effective in reconstruction and revival of the region.

- Renewable energy as an industry

The installation and introduction of renewable energy systems first of all contributes to creating new employment in the reconstruction process. In addition, the production of the equipment and systems contributes to the growth of industry in the Tohoku region where the electrical machinery industry, which has a strong industry ripple effect, accounts for a larger part of the economy than in other areas of Japan. Therefore, the concentration of the industries related to these areas must be encouraged through assistance for attracting companies to the area and other measures.

③ Utilization of Information and Communication Technology that Involves People

The information and communication infrastructure that links people to each other has suffered major damage, so its recovery should be advanced in order to ensure that the next generation of the technology is developed. In particular, after the disaster occurred it became very difficult for mobile phones to connect to the network, so efforts should be made to improve that situation.

When engaged in reconstruction, diverse media should be utilized to firstly provide accurate and prompt information about assistance to the people of the disaster-affected region, including residents who have evacuated to a geographically separated place. Moreover, an environment in which the local governments and the local residents in the disaster region can communicate smoothly should be secured. Doing this will enable many victims and residents in the disaster-affected region to freely participate in the reconstruction process and it can therefore be expected that the local community will be revived.

Furthermore, there is a need to promote the transmission of accurate information to people both in Japan and overseas, including "greater transparency" of policy through a web site enabling the public to read about the progress of reconstruction on the Internet or other networks, and provision of the data held by the government in a form that is easy to use.

Moreover, taking into account the fact that administrative data and data from other fields that support local communities, including medical care, education, etc. was lost or destroyed in the disaster, in these fields information should be digitalized further, and the introduction of cloud services[10] should be strongly promoted.

In addition, efforts should be made to revive the industries in the region that suffered a serious setback in the disaster and to create new industries, including advancing the use and utilization of information and communication technology, information sharing about local medical care and to strengthen cooperation between medical care and nursing care, creation of a comprehensive industry consisting of agriculture, forestry, and fisheries, and rebuilding of small and medium-sized enterprises and expansion of their sales channels.

These efforts will be maximally effective if they are implemented in an integrated manner. At the same time, it would be desirable for the people in the disaster region to become proficient users of information and communication

[10] "Cloud services" refers to services which enable the use of the various resources of computers through the Internet and other means "from anywhere, when necessary, and to the extent necessary."

technology and become the main actors in reconstruction. This is because *kizuna* between people in the disaster region are secured and their ability to utilize information and communication technology improves as a result of these efforts.

(7) Utilization of "Special Zone" Measures and the Independence of Regional Municipalities

In order to achieve revival of the economy of the disaster region through the concentration of industries that are well-suited to the characteristics of the region and the creation of new industries, it is necessary bring out the abilities of the regional municipalities as much as possible.

In the current reconstruction, in order to utilize private sector funds and know-how while implementing meticulous assistance measures, it will be effective to specifically consider the various assistance measures that are necessary, such as special provisions for decentralized regulations and authority, simplification of procedures, and economic assistance and, after limiting the zone and period, utilize "special zone" measures that can carry out these measures in an integrated (one-stop) and rapid way.

Furthermore, it is required for the local governments, who are the bodies implementing the reconstruction, to ensure efficiency and transparency while advancing projects that are truly useful for reconstruction in accordance with the reconstruction plans they have formulated themselves. For this reason, there is a need for an easy-to-use and highly flexible grant system that enables the handling of new community development in combination with development of the various measures necessary for reconstruction. Furthermore, the establishment of a fund making it possible to receive the assistance of the national government and the prefecture while filling in the gaps in the current system and flexibly implementing the necessary projects should be considered in the region, with reference to previous cases at times of disaster and cases of utilization of private sector donations.

(8) Securing Financial Resources for Reconstruction

It is impossible to discuss reconstruction without addressing financial resources, and without a vision for reconstruction we cannot have a discussion about financial resources. This is the basic attitude when thinking about reconstruction after this disaster, which caused unprecedented damage.

In this major disaster, many public facilities were destroyed by the tsunami, and only liabilities were left behind. There were also many local governments who suffered massive damage. Given this context, people are desperate to rebuild these facilities in the regions, and large amounts of funds are necessary for the reconstruction. In order to achieve reconstruction as soon as possible while ensuring accountability to the citizens and transparency, measures that are truly useful and necessary for reconstruction must be carefully built up based on the requests from the disaster region and rapidly implemented. At the same time, the responsible attitude is to explain not only the measures but also a clear philosophy regarding the financial resources for the measures.

Japan's fiscal situation has dramatically deteriorated since the time of the Great Hanshin-Awaji Earthquake, and an enormous debt caused by the increase in social security expenditure and other factors will be left as a negative legacy for future

generations. Moreover, Japan's working population is expected to largely decline by as much as 10 percentage points over the next 10 years, and the per-capita burden of the next generation is also expected to dramatically increase. Overseas credit rating agencies are also showing concern about the approach to the reconstruction and Japan's efforts to achieve fiscal consolidation.

In light of this situation, the financial resources for recovery and reconstruction must be secured by the entire currently living generation coming together to share the burden themselves rather than shifting the burden to the next generation. While formulating concrete reconstruction assistance measures, the government should review existing expenditures, as well as rapidly implement multifaceted studies and take specific measures for a temporary increase in taxes, especially centered on key taxes, for the period during which the reconstruction demand of the national and local governments is increasing. This point is particularly important from the perspective of maintaining the confidence of the markets in Japanese government bonds in the case that "reconstruction bonds" are issued as a temporary link to cover preceding demand.

While the fiscal situation of the national and local governments continues to be severe, many of the local governments that were affected by the disaster are organizations with weak financial capability, and there are also many regional municipalities in which the entire town, including administrative functions, suffered a catastrophic blow. It is expected that, when full-scale projects for reconstruction are implemented in these local governments going forward, there will be a burden on the local area even after assistance using national government funds is offered. The local financial resources for reconstruction should also be reliably secured through the aforementioned temporary tax increase measure and other measures so that these temporary demands can be met. In this process, the financial resources should be reliably provided through an increase in local allocation tax and other measures in order not to unnecessarily affect the burden of the local governments outside the disaster region.

Note that the utilization of private sector funds, other than government funds, is expected to be possible in areas in which the utilization of loan and capital investment can be expected because the reimbursement of the funds is possible, and areas in which cooperation with the voluntary funding assistance of the private sector and individuals, such as study assistance, etc. can be expected. There is a need to consider active utilization of these private funds after considering that there are limits to their scope and the amount of funds available.

Chapter 3 Work towards Reconstruction after the Nuclear Accident

(1) Introduction

There is an unquantifiable fear in the size and reach of the nuclear accident. In addition people are seeing the events as if they are a flashback, on a single historical axis, of the atomic bombs in Hiroshima and Nagasaki that marked the beginning of the postwar period and of the nuclear accident at Fukushima that is marking the beginning of the post-disaster period. We can discover in this the same way of thinking that considered the earthquake and tsunami damage this time to be something that could not occur and pushed it outside of consideration.

Or rather people were told only about the myth of the "safety" of nuclear power and the doubting voices also tended to get drowned out. In that sense, the belief that a nuclear accident could not occur had an even more closed structure than in the case of an earthquake and tsunami disaster, due to the addition of some outside force.

There is much discussion now on how to best respond to the nuclear accident, which has yet to be resolved. We find ourselves forced to compare the response to this accident with the response to the earthquake and tsunami, in which the methods to be used to mitigate damage were immediately clear. The nuclear accident, however, is not the kind of problem that can be resolved through the application of previously envisaged strategies. The situation is similar to that in which all of the evils of the world were visited upon the human race following the opening of Pandora's Box.

However, there was one thing in Pandora's Box that was overlooked. What was that? It was "hope." From that time onwards the human race existed in amongst all of the world's evils, and endured painful days with this "hope" as their bedrock. "Hope" ― that is probably an incredible word that the people of Fukushima who have suffered the nuclear accident cannot believe in yet. However, here too the meaning of "linking" people with other people emerges again. Finding "hope" or grasping onto "hope" in the region affected by the nuclear accident can provide a way to "link" people both inside and outside the disaster region. Or rather it is through the fact of people linking with other people itself that they will be able to live in the Fukushima of tomorrow bathed in the light of "hope."

Therefore, the reconstruction of Fukushima is already undoubtedly beginning to bloom in the hearts of the people who have "hope."

(2) Resolution of the Situation as Soon as Possible and the Duty of the National Government

It is impossible to consider reconstruction following the disaster without also addressing reconstruction of the areas affected by the nuclear accident. A major premise for reconstruction is that the national government should responsibly bring the nuclear accident to a conclusion as quickly as possible.

The national government should be responsible for emergency, recovery, and reconstruction measures in response to the nuclear disaster.

Furthermore, a thorough investigation into the cause of the nuclear power station accident, along with an assessment of its impact and verification of the appropriateness of the response, should be conducted so as to gain international trust.

(3) Assistance for the People and Municipal Governments of the Disaster-Affected Region

Compensation should be paid to the people of the disaster-affected region (including employers) quickly, fairly and appropriately; furthermore provisional payments of the funds that are initially necessary should be made quickly.

The national government should pay full attention to this issue until the end, inter alia by swiftly introducing, as a legal framework, the "bill to establish an organization for supporting the nuclear disaster compensation payments." Moreover, assistance should be provided for employers suffering from harmful rumors that have spread due to the nuclear accident to enable them to maintain employment levels.

Special measures are necessary to maintain local communities for those people who have evacuated and are unable to return to their home towns and villages. Institutional and fiscal responses aimed at maintaining administrative service functions for residents in local government areas who were forced to move due to the establishment of the evacuation areas are also important.

(4) Measurement and Disclosure of Radiation Dosages

It is important to give the people of Fukushima Prefecture and all of the Japanese people a sense of security and trust and to restore international trust in Japan by transmitting accurate information about the nuclear accident through continuous information disclosure, including the release of primary data that has a strong scientific grounding.

To achieve this, it will be necessary to quickly conduct monitoring of radiation volumes in an integrated, planned, and continuous manner based on a unified national policy and standards.

(5) Response to Soil Contamination, etc.

Efforts should be made to treat and decontaminate irradiated waste and land in an expedited manner. When doing so, it will be necessary to work to gather and provide integrated information in addition to conducting ongoing expert assessments on the radiation contamination situation of soil.

Sufficient knowledge of methods for the elimination of radioactive substances has yet to be acquired, so the expertise of the related research institutes should be gathered together and decontamination methods should be swiftly established and steadily implemented while conducting verifications on the local level.

(6) Health Management

In order to dispel the unease of the residents regarding radiation, work on the problem of health management should commenced urgently based on assistance from the national government, and measures related to health maintenance should be implemented continuously.

Moreover, a long-term survey of on the impact of environmental radioactive contamination on human health should be undertaken, and after considering the future role of medicine, facilities engaging in long-term health management and cutting-edge research and medicine related to the impact of radiation should be developed in Fukushima Prefecture.

(7) Working towards Reconstruction

Fukushima Prefecture has been placed under extremely difficult conditions with respect to the revival and reconstruction of the region. The national government should continuously and responsibly work on revival and reconstruction from a long-term perspective, including the integration of the national government's systems for handling reconstruction after the nuclear accident and the development of the necessary legislation.

Given the need for highly specialized discussions and the need for a long-term perspective when reviving and reconstructing the region, the government should establish forums for consultation for reconstruction and revival focused only on the nuclear accident, while also taking into account the status of the recovery.

It is necessary to eliminate contamination by radioactive substances in Fukushima Prefecture. Through cooperation between universities, research institutes, private sector companies, and others, centers for open research need to be formed that accumulate domestic and overseas expertise. In these centers it will be important to promote internationally cutting-edge environmental restoration efforts.

Moreover, "special zone" measures should be utilized in order to concentrate the medical care industry in Fukushima Prefecture, and make the prefecture a center for the research, development and manufacture of world-leading pharmaceuticals, medical equipment and medical robots. As a part of this process, implement research and development of cutting-edge pharmaceuticals and medical equipment and develop cutting-edge medical institutions through industry-academia cooperation.

In addition, in the process of reconstruction the promotion of industries related to renewable energy is important for recreating the employment lost in the nuclear accident. Centers for open research into renewable energy should be established in Fukushima Prefecture, and support for the concentration of industries related to renewable energy should be provided to make the prefecture a pioneer in the dissemination of renewable energy in Japan.

Compared to other disaster-affected regions, it is necessary to maintain a more long-term perspective for the reconstruction process for the area affected by the nuclear accident. The public should understand that this disaster will not truly have come to a conclusion until Fukushima recovers.

Chapter 4 Open Reconstruction

(1) Introduction

The concept of open reconstruction involves the dissemination of various creative reconstruction activities not only in the affected areas, but also throughout Japan and around the world. The processes of reconstruction after a disaster in mature and developed countries can serve as a strong model of survival for people around the world.

Moreover, words such as "volunteer," "mutual-aid," "social inclusion[11]," and "New Public Commons" now really point to the emerging reality. Individual and social benefits as well as new ways of social contribution that cross national boundaries are becoming even clearer day-by-day.

The idea of "linkage" is embedded in all these words. In linking people with others, the opportunity also arises for the inclusion of those who do not have a "place and role" and were thus previously excluded. The significant improvement in both the quantity and quality of volunteer activities has also been made possible through the emergence of coordinator-type volunteers who serve as links between volunteers and the areas affected by the disaster.

Archiving activities aimed at leaving behind memories, images, and records of the disaster for future generations also help people to find "hope" in the reconstruction process. Not only do people become more connected to those they are already acquainted with through speaking about their own experiences of the disaster, they also establish linkages with people whom they do not know. There are also people out there who can help a person weave together his or her memories. Here, again, people are repeatedly carrying out the act of "linkage" many times over.

(2) Local Socioeconomic Revival

① Ensuring a stable supply of electricity and reviewing the energy strategy

In order to prevent international companies from leaving Japan as well as the hollowing out of industries due to overseas relocation, it is vital to accord the highest priority to the problem of ensuring a stable supply of electricity, and to tackle the problem as such.

To that end, steps will be taken to investigate the cause of the nuclear accident and assess its impact, as well as to verify the appropriateness of the response to the accident, in order to gain international trust. On that basis, Japan should take concrete steps to formulate new safety standards.

There is a need to review the energy strategy in a comprehensive manner, from the perspective of promoting the implementation of renewable energies, energy conservation, stable supply of electricity, and cutting greenhouse gas emissions. As such, it is essential to establish and implement a feed-in tariff system[12] as soon as

[11] "Social inclusion" is a political idea that seeks to re-include into the society people whose links with the community, workplace, and family have become strained, who have become isolated from the society, and thus face difficulty in life.

[12] A "feed-in tariff system" is one in which power companies purchase all the renewable energy

possible. There is also a need to take steps to conserve energy and implement renewable energies, such as by introducing storage batteries to ensure stabilized output.[13] In the medium to long term, it is necessary to make radical improvements in power efficiency and to reduce cost through efforts to develop breakthrough technologies in efficient renewable energy and energy conservation.

② A society valuing lifelong activity and the creation of high value-added industries

The Great East Japan Earthquake is a crisis that has occurred during a time of economic stagnation in Japan, against a background of structural change in Japan's economic society. The disaster may have triggered the accelerated hollowing out of industries such as the relocation of production bases from Japan to other countries. There is thus an urgent need to improve the business environment in Japan. It is important to take steps towards reviving the Japanese economy in tandem with reconstruction of the areas affected by the disaster.

To begin with, as part of its response to the problem that the Japanese workforce is aging at an unparalleled rate, Japan was already aiming to become a society that values lifelong activity, in which people with the motivation and the ability to work are able to exert their abilities regardless of age. In that sense, the creation of an employment model in the disaster-affected region based on lifelong activity would pave the way for an ideal state of affairs in Japan in the future. In short, the reconstruction model for the areas affected by the disaster serves as a guide for the future of the entire country. Furthermore, the development of the areas affected by the disaster also serves as a model for the eradication of regional differences.

The economy of the disaster-affected areas was not in good shape prior to the disaster. It was one of the first areas to show signs of a shrinking population. The impact of the earthquake served to make such issues more acute. Determination is needed to reverse this situation, led by strong reconstruction efforts. One of the keys to achieving that would be the realization of a society that values lifelong activity.

A vibrant Japanese economy achieved in this way is supported by improvements in productivity aimed at high added value. To that end, in addition to concentrating industries and technologies, it is also important to revitalize related industries through branding lifestyles that are ahead of the times. For instance, tourism in developed countries is supported by aspirations to wealth. When tourists bring products related to basic needs of life which match the local culture and the tastes of the people out of the region, these products become brands. The Tohoku region, which has been supported by traditions going back to the Jomon era, has the basis and foundation to generate such new lifestyles.

Regardless of the aging society and the disaster, the Japanese economy, which shall rise from the ashes like a phoenix, can become a model for Asian countries that will increasingly face problems brought about by aging societies. The difference between reconstruction and recovery lies in the aim to revitalize the

generated by business operators.

[13] "Stabilized output" is essential as output through solar and wind-powered generation, among others, is dependent upon climate and weather conditions, and is thus intermittent.

Japanese economy through such developmental strategies. There is a need to take active steps to change crisis into opportunity.

③ Using the reconstruction as an opportunity to take the lead in tackling environmental issues

Environmental issues are common problems faced by countries around the world. Through the reconstruction, Japan is anticipated moving to the forefront of those countries tackling environmental issues. Japan will achieve this through its efforts to turn the Tohoku region into a sustainable, environmentally advanced region that is the first of its kind in the world.

Taking pioneering steps to introduce in-house and dispersed power systems that are highly resistant against crises, and which make use of the abundant renewable energy resources in the Tohoku region, would contribute to the realization of a low-carbon society and would also stimulate and accelerate similar efforts in other regions.

Furthermore, by facilitating the recovery of nature's disaster prevention functions and the linkages between the ecosystems of forests, Sato (countryside) and sea, as well as the utilization of wonderful scenery as tourism resources, Japan shall achieve an economic society that is in harmony with the natural environment. The wisdom of coexisting harmoniously with natural environments rooted in the community will thus hold great significance.

Furthermore, other than taking thorough steps to recycle the large quantities of waste debris generated in the processes of recovery and reconstruction, Japan shall also aim to create an advanced sound material-cycle society that links the manufacturing and recycling industries. Japan is well-versed in the practice of such recycling measures, but hopes to make use of the opportunities offered by reconstruction to achieve even greater heights.

(3) Reconstruction Open to the World

International aid, including assistance from United States Forces, played a significant role after the Great East Japan Earthquake and we are filled with profound gratitude for this assistance. Based on the compassion shown by the international community, Japan must move forward strongly and quickly on reconstruction efforts, becoming an even more attractive country. The disaster wrought great damage on international supply chains, and once again raised awareness among people within and outside Japan of the deep linkages between Japan and the world. In light of this, Japan must strengthen *kizuna* with the international community, and aim for reconstruction not inward-looking but open to the international community.

① Promoting understanding of Japan's revival within and outside Japan

The Great East Japan Earthquake renewed recognition of the limitations of scientific technology, and demonstrated the importance of scientific technology through examples such as buildings that did not collapse and bullet trains that did not derail even during a severe earthquake measuring 7 on the Japan Meteorological Agency seismic intensity scale.

While seeking the early resolution of the nuclear accident, efforts should be made to prevent the spread of harmful rumors through the dissemination of accurate information, including the disclosure of primary data based on scientific evidence, and the continued disclosure of information.

With regard to progress in the recovery and reconstruction process, and the safety of Japanese products and travel to Japan, there is a need to be even more active and detailed in disseminating accurate information in a speedy manner to other countries.

In addition, it would be desirable for efforts to be made to restore faith in the "Japan Brand", by putting out a call to people all over the world emphasizing Japan's appeal as a safe country, the quality of its products and its advanced scientific technology, as well as promoting "Cool Japan."

In order to maintain and develop the links that were established through the crisis among people around the world, it is important to promote exchanges between the affected areas and other countries in fields such as youth exchanges and economic activities. As such, other than establishing a framework for the centralized handling of requests from the affected areas and other countries, support will be enhanced to provide appropriate disaster information to international students, who imbue educational institutions with an international character.

② Economic revitalization open to the world

In reconstruction, it is important to absorb the vitality of other countries in various ways.

One of the means of achieving that is through promoting foreign direct investment. In particular, it would be desirable to encourage global companies to establish research bases and Asian headquarters functions in Japan, by developing an environment that has international appeal.

There are concerns that the Great East Japan Earthquake might have triggered the departure of international researchers and engineers from Japan. Japan should promote the development of an environment to employ and accommodate foreign nationals as well as the introduction of a points-based incentive immigration system for foreign nationals who possess exceptional technical skills and knowledge.[14] Japan should thus promote the acceptance of foreign nationals who can contribute to the revitalization of Japan.

At the same time, markets for Japanese products must be sought not only within Japan, but also from across Asia and the world. Japan will make its efforts to ensure a level playing field in the world for Japanese enterprises and Japanese products through the continued promotion of the free trade system, as well as seek to generate employment and develop the economy in disaster-affected areas through the expansion of overseas sales routes for products from the affected areas.

(4) Linkage and Mutual Support

① Promoting regional comprehensive care and social inclusion

Recovery from the Great East Japan Earthquake is profoundly intertwined with the social security system. Seeing disaster victims helping each other and volunteers from all over the country offering their support was a reaffirmation of the underlying strength that exists in this country and its people, representing

[14] A "points-based incentive immigration system" is one that awards points for career and research achievements, and grants incentive measures to foreign nationals who have acquired the requisite number of points, such as allowing them to prolong their period of residency in Japan.

"*kizuna* and linkage among people."

Developing a new framework for comprehensive support and participation based on "mutual-aid" will provide a foundation for the future of Japanese society.

By developing a system in the disaster areas that centers on regional comprehensive care through mutual support, services such as healthcare, medical care, elderly care and welfare can be integrated. This will greatly encourage people towards a future in which Japan overcomes the problems of the aging population and falling birthrate. It is greatly expected that models developed through various forms of personal exchanges will be adopted by and spread to the rest of the country.

In order to work towards reconstruction by responding to the wide range of issues aimed at the rebuilding of disaster victims' lives and the reconstruction of the disaster-affected regions, we must create a system that enables disaster victims and regional communities to maximize their strengths. Additionally, it is hoped that through the reconstruction process, the warm *kizuna* that currently extend beyond local communities will spread throughout the entire country.

As we work towards reconstruction, we must build an inclusive society that does not leave anyone out by being mindful of those who are not able to easily voice their views, and we must promote various measures based on this principle.

For example, it is important that young persons who thus far have not been able to find their place in their communities, the elderly and persons with disabilities who tend to be isolated, and women who have difficulty voicing their opinions, use this great disaster as an opportunity to proactively participate in local regional development. Above all, we must always maintain the viewpoint of gender equality. By giving everyone his or her "place and role," it is preferable that the voices that have never been heard in the past will be incorporated in local communities and serve to heighten regional vitality. By realizing such social inclusion through the reconstruction process, it is hoped that new ties among people will be built leading to the further development of Japanese society.

② Reconstruction and the "New Public Commons"

The Great East Japan Earthquake has greatly encouraged cooperation among the Japanese people, as a large number of volunteers have come forth to offer their help, and a substantial amount of donations and grants have been collected from both within the country and abroad.

In the wake of the Great Hanshin-Awaji Earthquake in 1995, many volunteers including those who had never volunteered before gathered from all over the country to participate in various relief activities, and the year came to be called *volunteer gannen* ("first year of volunteerism"). Since then, many volunteers have participated in relief efforts in other disaster areas around the country.

This disaster has led to new developments that were not seen on the occasion of other disasters. These include: i) disaster relief-related NPOs and NGOs establishing nationwide networks; ii) implementation of activities to offer logistic support to disaster areas; and iii) prefectural governments, disaster volunteer centers, the Self Defense Forces, and the Government local response headquarters coming together to hold "Four-Party Meetings to Support Disaster Victims" on a regular basis. Such developments are indicative of the further advancement of Japan's NPO and volunteer activities.

As we continue to work towards the reconstruction of the disaster areas and Japan's recovery, it will be important for all to engage in areas that they are most familiar with and for various entities to work with a spirit of mutual-aid. To back such efforts and to ensure that the power of a "New Public Commons" is realized to the fullest, we must work on such efforts as developing systems and frameworks from the viewpoint of the actual locations where the activities are taking place. In doing so, we should aim to build a society in which each and every citizen has his or her own place and role, and one that values the joy of helping others.

(5) Building a Disaster Resilient Nation

① Disaster-related academic research

The Great East Japan Earthquake was a super-extensive disaster, on a scale that is rare to be found in the history of Japan or the world. As such, it is of utmost importance that we engage in thorough research in all areas regarding this disaster as a way to figure out how best to develop future countermeasures against disasters.

In the process of doing so, we must engage in both short and long-term reexamination of our past disaster countermeasures, including analyses of earthquake and tsunami generation mechanism, the efficacy of structures such as coastal dikes and tide barriers, and the effects of human capacity building such as disaster education, exercises and training. Additionally, information from disaster victims (e.g., information of their evacuation behaviors) is vital for developing future training. It is also important to conduct surveys of disaster victims while being thoroughly considerate of their feelings, frequency of the surveys, and the protection of personal information.

Various agencies are currently planning or implementing many types of investigative research. It is necessary that we make considerations so that these investigations are organically coordinated and compiled into integrated research. Furthermore, the findings of the research should be placed into a database that is widely accessible not only to researchers but also to the general public across the world.

We should also promote international joint research projects to study earthquakes, tsunami and the process of reconstruction from large-scale disasters based on the experiences of the Great East Japan Earthquake.

② Preparing for future earthquake and tsunami disasters

Japan is located on a plate boundary, and therefore, earthquakes and tsunami causing extensive damage could occur anywhere in the country. Furthermore, because most of Japan's population and major resources are concentrated in low-level coastal areas, there is a great potential for damage caused by tsunami. We must recognize once again that Japan does face serious risks in the form of earthquakes and tsunami and work towards strengthening national readiness for such disasters so that, when they do hit, the country will be able to deal with these disasters flexibly and engage in necessary economic activities and other activities in a streamlined manner. Nation building based on a concept of "disaster reduction" will become one of Japan's strengths.

The Japanese Government must present a direction with regard to the modalities of anticipated damages and countermeasures against earthquakes and tsunami, and reflect this in the revision of the Basic Plan for Disaster Prevention. With regard to the measures against the possible "Tokai Earthquake," "Tonankai Earthquake," and

"Nankai Earthquake" that could possibly occur in the first half of this century and be accompanied by major tsunami, we must incorporate what we have learned from the Great East Japan Earthquake and set a direction for new measures. Additionally, given the concerns that an earthquake may occur directly under Tokyo, we must reinforce preparedness measures by taking fully into consideration not only the impact such an earthquake would have on Japan, but the impact it would have on the rest of the world as well. We must enhance our earthquake and tsunami monitoring systems and investigate methods for tsunami forecasting.

When faced with a large-scale disaster, the following concepts are all of vital importance: "public-aid" offered by the central and local governments; "self-aid" taken on by individual citizens and private corporations; and "mutual-aid" whereby individuals, corporations and organizations of local communities work together and support each other. Given Japan's aging population and falling birthrate, as well as the advancement of globalization, we must also consider those who will assist groups of people such as the elderly and foreigners in times of disaster. In such scenarios we should also promote community development that is robust against crime, including anti-crime measures for residential and commercial areas, so as to avoid problems relating to law and order in times of disaster. Furthermore, the overwhelming role that Japan's police force, firefighters, Coast Guard, Self Defense Forces and others played in the latest relief operations indicated the vital importance of reinforcing the link between the national government and local governments.

③ Disaster prevention, "disaster reduction," and national land use

To ensure that, even in the face of such an unprecedented great disaster as the Great East Japan Earthquake, nationwide socioeconomic activities are carried out smoothly, we must examine the modalities of national land use. In doing so, it is necessary to be fully consider safety measures to protect lives, human health, and property based on the concept of "disaster reduction,"

To this end, it is necessary to tackle such issues as the development of disaster prevention facilities; wide-area traffic and information communication networks; petroleum, gasoline and other energy supply networks and facilities; and social infrastructure such as water and sewerage systems. We must enhance disaster prevention measures for each of these facilities themselves while at the same time integrating further the networks among these facilities. Furthermore, with the aim of preventing the hollowing out of the Japanese industrial sector, it is essential that we build a supply chain that is highly resistant to disasters.

From the viewpoint of enhancing Japan's disaster prevention capabilities and in consideration of the possible earthquake that might occur directly below Tokyo, we must deliberate on broad-based national land measures that address ways to back up, reassign and reallocate various functions.

④ Recording the disaster and passing on lessons learned

Japan has faced disaster many times in the past, and each time, it has learned from the experience to enhance its disaster countermeasures. On the other hand, there is a tendency for disasters to be forgotten with the passage of time. In order to prevent damage of a similar nature in the future, we must share the lessons learned from the Great East Japan Earthquake with all regions and generations.

Many overseas media outlets highly praised the conduct of the Japanese people

following the Great East Japan Earthquake. As Japan received assistance from overseas sources, it is necessary to share the lessons of this disaster internationally as a shared global knowledge asset. It is Japan's responsibility to proactively contribute to the international community in the fields of disaster prevention and "disaster reduction." Japan should, by making use of the lessons learned through its recovery and reconstruction efforts, actively promote international cooperation that places value on *kizuna* between people, through such activities as capacity building in developing countries in Asia and other regions. From this standpoint, we must also consider holding domestic and international conferences in the disaster areas.

Japan should record and preserve the lessons of what it has learned from the earthquake, tsunami and nuclear disasters by first creating a core facility and then establishing solid links between that facility and entities such as local governments and universities. Furthermore, a structure for preservation and disclosure of records should be developed, utilizing public-private consortiums. Moreover, Japan must promptly gather information materials and tsunami heritage information and develop a system to allow anyone, whether they be in Japan or abroad, to access, store, and use this information in an integrated manner. In doing so, Japan must also work at digitizing related materials, videos, and other data to promote the establishment of a field museum that uses new information technology.

Furthermore, to ensure that the Great East Japan Earthquake is not forgotten, it is hoped that tree species native to the disaster-affected regions will be selected to create a "Memorial Forest" through the participation of many people and on the initiative of local communities.

Epilogue

Achieving people-to-people linkage will enrich the processes of reconstruction. However, it is not the case that reconstruction will progress uniformly. There will be ups and downs, just as there are in human life. What we should closely focus our attention on in the early stages of reconstruction is making sure that in the wake of the trauma and hardship that Japan has faced the "wings of reconstruction" will definitely open and take flight. In the midst of shock-induced stupor and sorrow, once a specific target has been established in terms of "what we must do first," the people of Japan will stand up with resolve to take up the challenges we face. We can then contribute heart and soul to the realization of reconstruction. Before we recognize it, we may find that the path from the initial tragedy towards revival has been illuminated by rays of "hope."

It is still a reality that reconstruction will be painful. Although we may believe that we can bear the pain, there will come a time when we may seek to rely on "public-aid" and "mutual-aid." However, in such situations we must uphold a spirit of "self-aid" and move forward with confidence along the path to reconstruction, where along the way we will once again see the shining beacon of "hope." Seeking to make linkages with people yourself is good, but to find yourself tethered to others before you even notice it is a cause of sadness. It is exactly in the midst of the trials and tribulations towards reconstruction that people regain their independence and seek out "hope" from that independence.

The "hope" that we find must be conveyed as a positive message to the younger generation of Japan. The message that we must seek to nurture in the hearts and minds of the youth of today will be borne from the fruits of participation in reconstruction, in whatever form they may take, be it a desire to continue to live in Japan or make the country a better place. This will depend on whether the youth of today will find it in their hearts to like Japan and to seek "harmonious coexistence" with Japan. Looking beyond reconstruction we seek to find a way to make this country one in which the younger generation play a leading role.

An old adage states that, "Once on shore we pray no more." This raises the question of whether a concept of "disaster reduction" can really take hold in "post-disaster" Japan. A scholar of seismology, Torahiko Terada, put it this way, writing 12 years after the Great Kanto Earthquake: "Rather than worrying about a tsunami, which we have no idea about when it will come, it is more realistic to concern ourselves with where our next meal is coming from tomorrow." We may find that we give in to the same temptation.

However, what we must not forget is that there is still a formidable situation hanging over us that goes beyond the aphorisms of Torahiko. That is none other than the ongoing situation at Fukushima, where the nuclear accident continues to cause hardship and worry with no decisive moves towards resolution. The nuclear accident tells us clearly that we can never return things to the way they were before.

Based on the premise that earthquakes and tsunami remain an ever-present threat for the future, we will advance a concept of "disaster reduction." What, however, are we to do in the face of the nuclear accident?

The more you try to listen to the various clamoring calls for revival of Fukushima, the less you seem to hear. The rest remains lost in a colorless, odorless pall of fear and

apprehension. It is for this reason that our anger over the accident must be tempered. We sincerely hope that the day is near when we can celebrate the revival of Fukushima with the people of the world.

This concludes our "recommendations."

They comprise in the first instance proposals concerning a number of methods for locally-inspired and locally-led efforts to develop new communities, based on the concept of "disaster reduction."

Secondly, they present directions towards the revitalization of various industries and ultimately regional revival.

Furthermore they set out response measures for the damage caused by the nuclear accident and propose new directions for Japan's energy structure, through the promotion of renewable energies.

We have also proposed a path to reconstruction that is open and based on linkage and mutual-aid.

It is our most profound wish that the reconstruction efforts following the disaster will reverberate around Japan, leading to revival of the entire country.

These "recommendations" have been conceptualized with the wish that the people in the disaster-affected regions will join together, united by tragedy, and, supported by nationwide unity and assistance, will shine the light of "hope" on the disaster-affected regions.

We strongly urge the government to take these "recommendations" with the utmost seriousness and to implement them conscientiously and expeditiously.

(END)

Annex I : Member List of the Reconstruction Design Council in response to the Great East Japan Earthquake and its Study Group

Member of the Council

Chairman:	IOKIBE Makoto	President, National Defense Academy Professor Emeritus, Kobe University
Vice-Chairman:	ANDO Tadao	Architect Professor Emeritus, The University of Tokyo
Vice-Chairman:	MIKURIYA Takashi	Research Center for Advanced Science and Technology, The Universityof Tokyo
Member:	AKASAKA Norio	Professor, Gakushuin University Director, Fukushima Museum
	UCHIDATE Makiko	Scenario writer
	ONISHI Takashi	Professor, Graduate School of Engineering, The University of Tokyo (Urban and Regional Planning)
	KAWATA Yoshiaki	Dean/Professor, Kansai University (Safety Science) Executive Director, The Great Hanshin-Awaji Earthquake Memorial / Disaster Reduction and Human Renovation Institution
	GENYU Sokyu	Priest of Rinzai Zen Fukujuji Temple Author
	SATO Yuhei	Governor of Fukushima Prefecture
	SEIKE Atsushi	President, Keio University
	TAKANARITA Toru	Professor, Sendai University
	TASSO Takuya	Governor of Iwate Prefecture
	CHUBACHI Ryoji	Vice Chairman, Sony Corporation
	HASHIMOTO Goro	Senior Columnist, Yomiuri Shimbun (Daily News Paper Company)
	MURAI Yoshihiro	Governor of Miyagi Prefecture

Special Advisor (Honorary Chairman):

	UMEHARA Takeshi	Philosopher

Member of the Study Group

Chairman:	IIO Jun	Professor, National Graduate Institute for Policy Studies
Vice-Chairman:	MORI Tamio	Chairman, Japan Association of City Mayors Mayor, Nagaoka city
Member:	IGARASHI Takayoshi	Professor, Hosei University(Law)
	IKEDA Masahiro	Managing Executive, Collaborative Support Network for the Great East Japan Earthquake, Community Life Support Center(NPO)
	IMAMURA Fumihiko	Professor, Disaster Control Research Center Graduate School of Engineering, Tohoku University
	UETA Kazuhiro	Professor, Kyoto University(Economics)
	OTAKE Kenichiro	Vice Chairman, Representative Director, Otsuka Holdings Co., Ltd
	GENDA Yuji	Professor, Institute of Social Science, The University of Tokyo
	KONO Ryutaro	Head of Economic Research Department, Chief Economist, BNP ParibasSecurities (Japan) Limited
	SAIGO Mariko	Urban designer
	SASAKI Keishin	President&CEO, e-solutions,inc
	SHOBAYASHI Mikitaro	Professor, Gakushuin Women's College
	SHIRAHASE Sawako	Professor, Graduate School of Humanities and Sociology, The University of Tokyo
	SHINJO Atsushi	Associate Professor, Faculty of Environment and Information Studies, Keio University
	TAKEMURA Shinichi	Professor, Kyoto University of Art and Design
	DANNO Hisashige	Assistant General Secretary, Japanese Trade Union Confederation (JTUC-RENGO)
	BABA Osamu	Professor, Tokyo University of Marine Science and Technology
	HIROTA Junichi	Professor, Iwate University(Agriculture)
	MOTANI Kosuke	Senior Vice President,Regional Development Group,Regional Planning Department ,Development Bank of Japan Inc.

(Provisional Translation)

Annex II Cabinet Decision on 11 April 2011 on the formation of the Reconstruction Design Council

On the Formation of the Reconstruction Design Council in Response to the Great East Japan Earthquake

(Cabinet decision
April 11, 2011)

1. Purpose

In order for Japan to reconstruct itself successfully in the wake of the unprecedented devastation brought by the Great East Japan Earthquake, it is essential that all citizens living in this nation—not just the disaster's survivors and the residents of affected regions—play their own roles in the recovery efforts, guided by a spirit of mutual support and solidarity. At the same time, it is also vital that the process of recovery not be limited to simply picking up the pieces, but instead be geared towards creative reconstruction that looks ahead to the future. For these reasons, the nation must quickly formulate a roadmap for reconstruction that will provide residents of the disaster areas with courage and hope for the future, and will lead to the rebirth of a prosperous and dynamic Japan shared by all its people.

Accordingly, the Government shall convene an advisory panel of intellectual figures under the name of the Reconstruction Design Council in Response to the Great East Japan Earthquake (hereinafter, "the Council") for engaging in broad discussions of a framework for formulating reconstruction guidelines, and shall apply the Council's opinions and recommendations to the development of reconstruction guidelines.

2. Composition

(1) The Council shall be composed of members who possess expert knowledge of post-earthquake reconstruction, and shall be convened by the Prime Minister.
(2) The chair of the Council shall be appointed by the Prime Minister. The Prime Minister may also appoint deputy chairs to assist the chair.
(3) The Council may, if necessary, form study groups. Study groups shall be composed of members possessing expert knowledge of post-earthquake reconstruction who are appointed by the Prime Minister.
(4) The head of study groups shall be appointed by the chair of the Council.
(5) The Prime Minister may appoint a special advisor to provide advice to the Council where needed.

3. Miscellaneous

The Cabinet Secretariat shall administer general affairs of the Council.

(Provisional Translation)

Annex III Request for Consultation from Prime Minister to the Reconstruction Design Council

April 14, 2011

To: Chair of the Reconstruction Design Council in Response to the Great East Japan Earthquake
From: Naoto Kan, Prime Minister of Japan

Request for Consultation

I hereby request your Council's advice on the following subject.

Subject

Framework for formulating guidelines on reconstruction in regions affected by the Great East Japan Earthquake

Reason for request

The Great East Japan Earthquake was an unprecedented natural catastrophe that not only devastated an extremely large area of eastern Japan together with the following massive tsunamis, but was also compounded by a nuclear power plant accidents. Moreover, the disaster continues to have far-reaching impacts on this nation's society, economy, and industries.

The disaster's aftermath is not a problem for the people of the affected regions to solve on their own; instead, it is a challenge that must be addressed by all of us living in this nation.

Together, we must move forward to surmount this national crisis so that we can promptly rebuild the ravaged areas and the livelihoods of their residents, and so that we can overcome the disaster's effects on our society, economy, and industries and thereby restore Japan into a prosperous and dynamic nation.

To those ends, we need to take creative, future-oriented actions that go beyond restoration—action that is driven by a national spirit of mutual assistance and solidarity; action that is founded upon appropriate role-sharing and collaboration among national and local governments, private businesses, NPOs, and other organizations, and upon cooperation among local governments; and action that respects wishes of local residents, pools together our wisdom, and wields the full power of our economy.

As we pursue this mission, we must constantly give consideration to the communities that directly suffered from the disaster and still struggle to operate their administrative functions effectively.

The most important focus for reconstructing the affected regions is to implement firm community planning aimed at minimizing the risk for similar tragedies in the future and at creating an environment where people from all walks of life can live in safety and with peace of mind.

At the same time, we must look closely at each community's uniqueness and use it as a guide as we revitalize the local economy and employment opportunities through the creation and placement of new industries and home-grown industries that make use of

local resources, and as we strive to preserve each community's longstanding traditional culture and strong bonds of its people.

Furthermore, as a new endeavor, it is vital that we seek to create trailblazing communities that will lead our country with their bold initiatives for tackling challenges like population aging and shrinkage, and with their systems for environmentally friendly living.

Since the day of the earthquake, we have worked at full steam to conduct search and rescue operations, implement emergency repairs, assist those living in evacuation shelters, and make other immediate responses to the disaster. Now, while firmly maintaining those forms of support, we must also strive to put the affected communities on a smooth path toward future-oriented reconstruction.

In the case of areas affected by the nuclear accidents, this first means alleviating public anxiety by taking thorough measures to ensure the safety of the nuclear power plants and prevent the dispersion of radioactive material. Our full attention to this matter is an indispensable precondition for recovery.

It is also necessary for us to bear in mind that the disaster has exerted immeasurable impacts on not only the devastated regions, but also the foundation of Japan's industries and economy.

Our nation's economy cannot be restored unless we rebuild the disaster areas. And, the disaster areas cannot be truly rebuilt unless we restore our nation's economy. Accordingly, we must overcome the catastrophe's far-reaching impacts on our society, economy, and industries so that we can revive both the afflicted regions and Japan as a whole. In order to accomplish this mission, it is necessary that a framework for formulating reconstruction guidelines be hammered out based on a broad range of perspectives.

I ask that all the distinguished members of the Council engage in unfettered discussion to draw up a robust blueprint for our path to the future.

This is the reason why I am soliciting your advice.

This report was submitted to the Prime Minister by the Reconstruction Design Council in response to the Great East Japan Earthquake on 25 June 2011, as an advisory framework for formulating governmental guidelines on reconstruction in regions affected by the Earthquake.