

How to realize the regional revitalization of Hokkaido
taking into account measures
against the Great Eastern Japan Earthquake

Kiyozumi, OHTA

Research course for Regional Management
Sapporo Gakuin University graduate school

ABSTRACT : SGU(Sapporo Gakuin University)'s project team has been designing regional plans which enable decentralization in Hokkaido. The concept of the plans is sustainable area management, which is based on a symbiosis between nature, environment, and economy. We assume responsibility to engage in developing a framework for the road to recovery in the devastated eastern Japan where a precedent triple disaster, earthquake, Tsunami, nuclear crisis, has attacked on March 11. When we trace Hokkaido's history we learn that about 3000 evacuees in Totsukawa village, Nara prefecture immigrated to Hokkaido in 1880's due to floods which attacked their village. All the villagers left the village heading Hokkaido and developed it. Hokkaido, a northern island, is a vast land with the lowest population density in Japan. We are going to make a presentation of the more concrete regional design which would contribute greatly to not only revitalization of eastern Japan making use of the historical background of Hokkaido but also decentralization in Hokkaido.

KEYWORDS : decentralization, regional plan, symbiosis, disaster, historical background, sustainable development

Introduction

It was analyzed that the present Japanese society is facing with the third steady state by Yoshinori Hiroi, professor of Sociology, University of Chiba. In other words, we are required to adjust ourselves to the state that we should reconstruct our regional societies. Further more, the Japanese society experienced an unprecedented event of

earthquake in March this year. It gave the society a huge impact. I would like to discuss how we could apply Hokkaido's land plan cooperating with the solution of housing for evacuees. I am going to present my plan aiming the realization of the regional revitalization in Hokkaido

I . National Land Plan

as the superordinate plan and its shift

1) The first paradigm shift

In National Land Plan the limitation to develop the national land of Japan under the uniform concept has been recognized. Then the paradigm was shifted from “National Comprehensive Development Planning” to “National Land Formation Basic Plan (NLFBP).”

Figure 1 National Land formation Basic Plan

	1st.	2nd.	3rd.	4th.	5th.
Name	National development plan (ZENSOU)	NEW National development plan (SHIN ZENSOU)	The third National development plan (SAN ZENSOU)	The Fourth National development plan (Yon ZENSOU)	Grand Design for the 21st Century -Promotion of Regional Independence and Creation of Beautiful National Land
Cabinet decision	1962.10.5	1969.5.30	1977.11.4	1987.6.30	1998.10.31
Cabinet at decision	IKEDA Cabinet	SATO Cabinet	FUKUDA Cabinet	NAKASONE Cabinet	HASHIMOTO Cabinet
Background	1.Shift to the high economic growth 2.Excessive urban problem and expanding income disparities 3.Income-doubling plan (Pacific Ocean belt zone plan)	1.The high economic growth 2.Concentration of population and industry on large city 3.Development of Informationization, internationalization, and technological change	1. A stable economic growth 2.Regional, decentralized tendency to population and industry 3.Actualizing of limited of country resource and energy, etc.	1.Centralization to the Tokyo metropolis of population and various functions 2.Aggravation of regional employment problem by rapid changing industrial structure etc. 3.Progress of a full-blown internationalization	1.The earthy period (global environmental problem, large competition, and exchange of Asian nations) 2.Population decrease and aging period 3.Advanced information period
Long-term plan	—	—	—	—	Grand Design for the 21st Century - From 1 pole 1 axis to the multi- axial national land structure
Performance target year	1970	1985	1977-1987	2000年	2010-2015

The essential feature of NLFBP is firstly to divide our country into 9 blocks and secondly to form 82 living urban areas in each block targeting to form two-layer wide regions.

Figure2 Shift of national land plan(1)

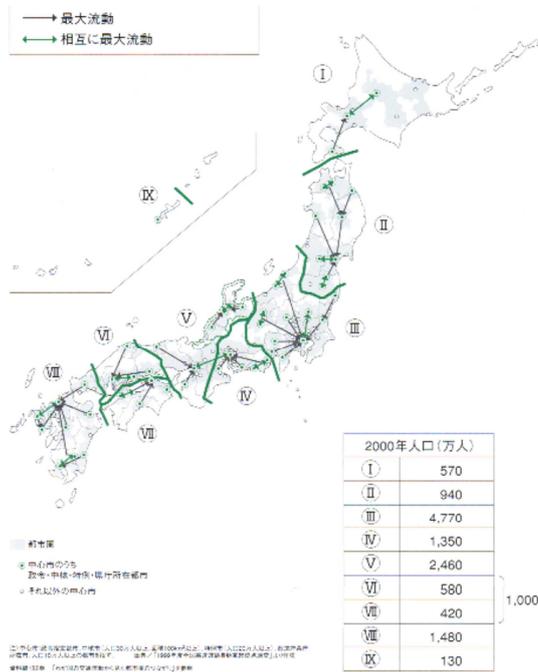
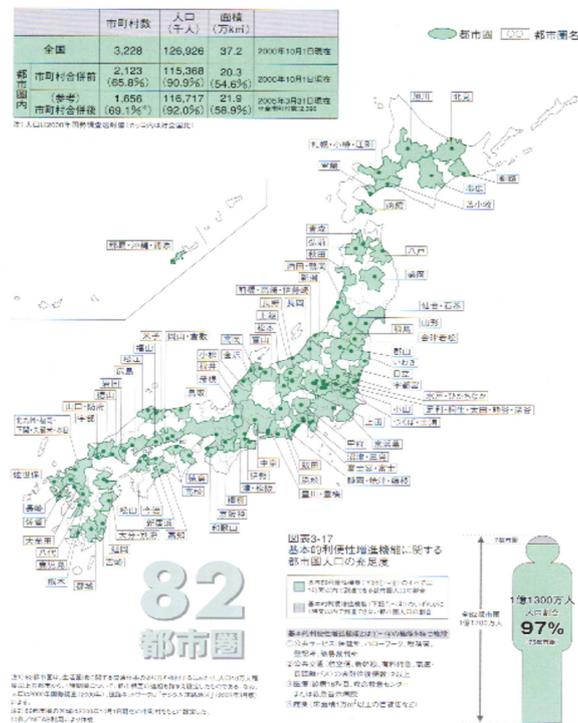


Figure3 Shift of national land plan (2)



It is essential for each region to set out a self-directed and sustainable regional structure (grand design). This is definitely what we need to

read from the plan. The following is the outline of what the concept of two-layer wide region targets.

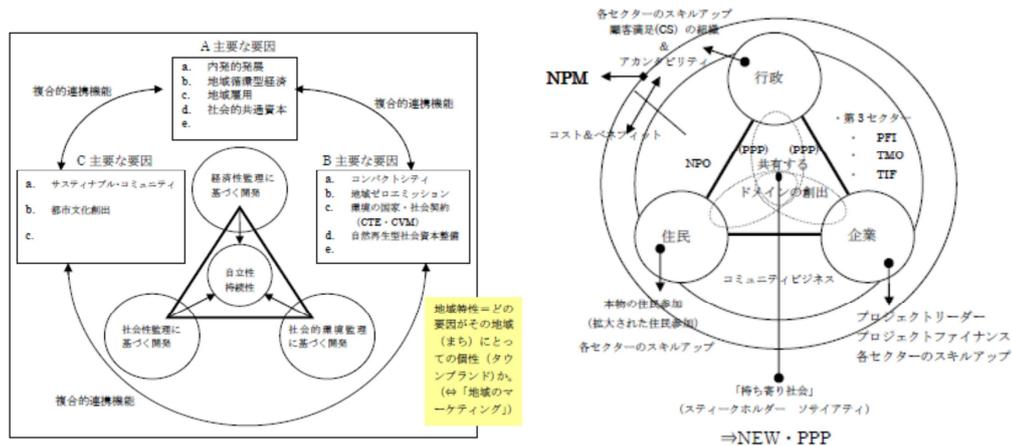
2) The second paradigm shift

It is sovereign power of the region, in a strict sense, the current of decentralization. Political settlement has kept straying and the first plan of this time is not satisfactory. However, there is no doubt that the shift from centralization to decentralization is an important key. Dividing into blocks and living region=two-layer wide region

II. View on the basic subject of regional revitalization

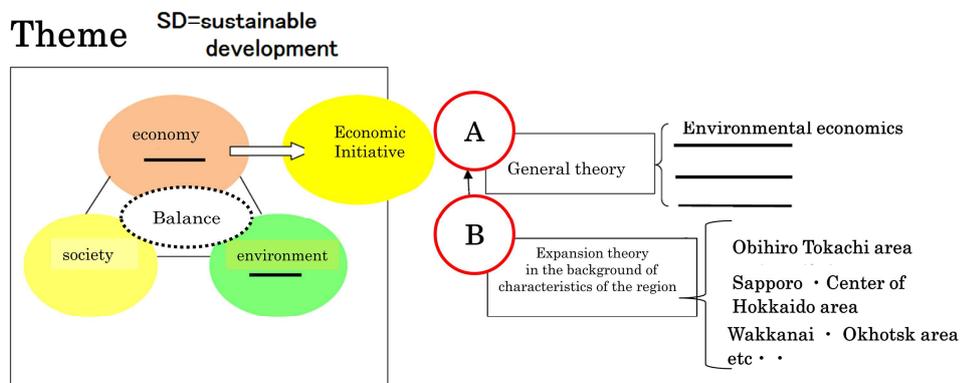
My opinion is that each region should be responsible in setting out a grand design for regional revitalization. We can easily imagine that measures of approach naturally vary from region to region because each region has its own characteristic. However, I think the essential philosophy and structure are common to regions. They are “sustainable development” and “PPP (Public, Private, and Partnership)”.

Figure4 SD (sustainable development) and PPP (Public, Private, and Partnership)



Therefore, it is vital for each region to concentrate all ideas on formulating a grand design for regional revitalization based on the concept of “sustainable development” and “PPP”. In addition, “sustainable development” is derived from a balance between economics, environment, and society. Through my experience I have become more aware of the importance of economic initiative.

Figure5 Sustainable development and economic initiative



It is very important to raise regional GDP for the success of revitalization. But I have also acknowledged that the degree of regional economic independence is significant.

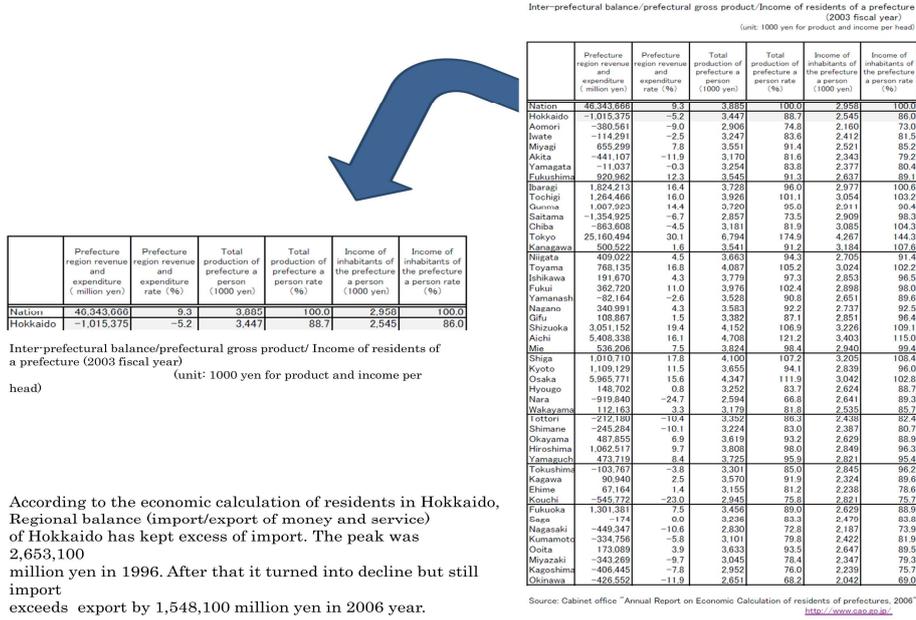
III. Grand Design of All Hokkaido

Regional Structure of Self-Direction and Sustainability

1) Regional Payment Balance and the Position of Hokkaido

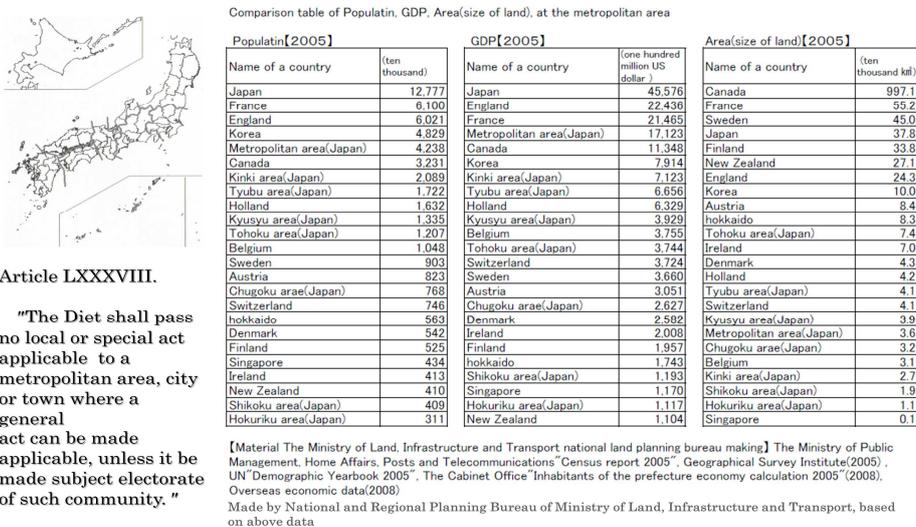
The project members mainly from the Society of City and Local Region in Hokkaido have been devoted themselves to try to formulate the self-directed and sustainable regional structure (grand design) of Hokkaido. This is block number 1 out of blocks shown in the Figure2 incorporated in “National Land Formation Basic Plan”. The problem of regional payment balance has always been taken up whenever the regional self-direction, particularly that of Hokkaido is discussed. I think it impossible to create the true grand design for regional revitalization without breaking this spell. The deepened theory structure and political decision will be essential toward the building of consensus among Hokkaido residents.

Figure6 Regional Balance of Hokkaido



I believe that this is an unavoidable prerequisite. Regarding the regional payment balance, there are researches titled "Measurement of Regional Payment Balance in Livelihood Zones and Implication for Regional Policy" by Koki Shibata etc. Let me show you the position of Hokkaido on the international level as the conductible reference to deepen the theory. The outline is abstracted in Figure 7.

Figure7 National Spatial Planning Act and Regional Revitalization Grand Design of Hokkaido



2)

① Grand design of Hokkaido

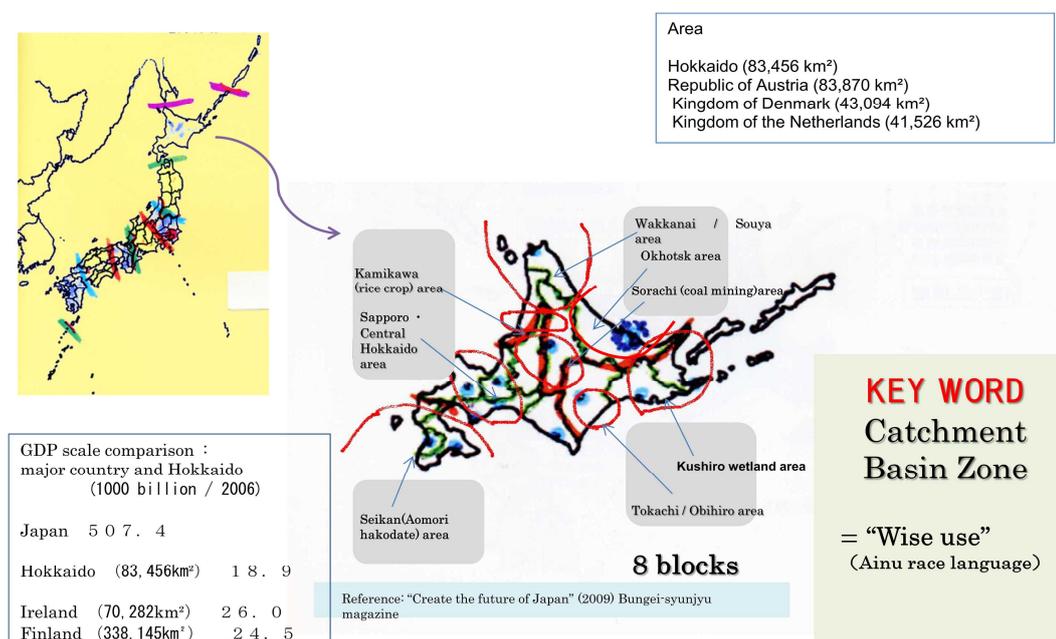
Stage-1 Divide whole Hokkaido into 8 blocks as shown in the figure-8. The grand philosophy of dividing into blocks is based on the concept of catchment areas (to live in harmony with nature, wise use) that is the philosophy of Ainu, indigenous people in Hokkaido.

Stage-2 Configure the main subject for these 8 blocks

For example, the main subject of Middle Hokkaido block (farm area of mainly large scale rice producing) is “to enact the law of City and Countryside Planning (special ward concept).

On the other hand, the main subject of Obihiro · Tokachi block(farm area of mainly large scale upland farming) is “to establish the environment governance”. In any blocks, I intend to make a basis of main subject “environment”.

Figure 8 Basic Structure of Grand Design



② Set out grand design of the block(set out a model plan)

The project team has been trying to set out the grand design of Wakkanai block as a trailblazing model plan.

Figure9 Outline of Block Model Plan

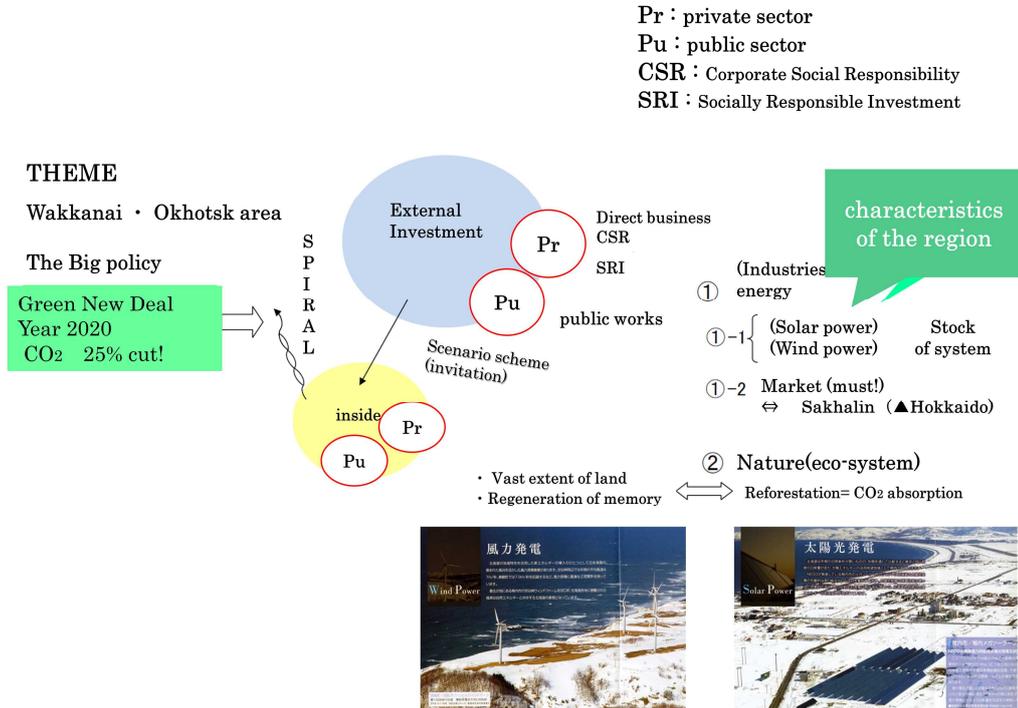


Figure10 Wakkanai soya · Okhotsk area



The main subject of Wakkanai block is “natural renewal energy and recovery of vegetation in the catchment area”. The feasibility of this

plan depends on if we can draw up the scenario (scheme) that can attract much investment from outside (people, materials, money, and information). In this area local private firms launched eco-business of the generation of electricity by wind power. And a demonstration experiment of mega solar system fully supported by the national government have got into orbit. The landscape of Soya Hill is easy to be confused with original landscape but it was originally deep forests. Some trees were used for shipbuilding and fuel, but the main reason for trees being lost now became clear. The people who were illegally cutting trees and feared being detected by government officials at the time of inspection fired the forest for the destruction of evidence. If nothing were done, the situation would have stayed at the stage of promotion of local industry or of demonstration experiment unfortunately. However, we can create a scheme to attract investment from outside (people, materials, money, and information) that has the sense of value above the idea of industrial economics by sending out a clear message indicating to maintain integrity of the river system by recovering the vegetation and to secure the biodiversity including sea area. Regarding this structure/scheme, the agreement in principal has been obtained from local governments and enterprises through symposiums.

IV. The Happening of the Great Eastern Japan Earthquake

An unprecedented disaster attacked the eastern area of Japan on March 11, 2011. It was when we were going to start to deepen our discussion by presenting systematic, self-directed and sustainable regional structure of Hokkaido (grand design) to relevant organizations based on the above-mentioned achievement. Let me omit the detail of the East Japan Disaster, because it has already been reported in many occasions.

Figure11 Complete projection of disaster



Appearance of Iwate Prefecture Otsuchi-cho after 2011 Tōhoku earthquake and tsunami in Japan

I asked myself if, as the leader of this project, I should push ahead to create the self-directed and sustainable regional structure (grand design) of Hokkaido according to the existent program by drawing the line between the Disasters, or I should stop for some time to consider.

V. Grand Design for Support of Affected Areas

There are two ways of our commitments

Approach1

Applying know-how learnt by the experience in the Okushiri Island Earthquake

Approach2

Reconstruction of Grand Design

I conceive that the second one to be more significant. When I have been

working on the grand design, I have acknowledged the natural disaster and Hokkaido's history. In the history Hokkaido itself have been playing the role as a promised land for Honshu people who were forced to abandon their homes after natural disasters such as earthquakes, floods, and droughts. We particularly focused on two historical disasters. One is " the Okusiri island Earthquake " in 1993. The other is large-scale immigration of flood victims from Totsukawa village in Nara prefecture in 1889. The floods covered their village with water.

Figure12 Immigration of flood victims in Totsukawa village

Totsukawa village (Yoshino county of the Nara Prefecture) was attacked by a large-scale flood in August, 1889. The downpour overcame a Nara Prefecture Yoshino county region . . .

The storm lasted for several days			The river was dammed and new lakes appeared.
People discussed how to reconstruct their lives in future.			Injured person of Landslide victims and doctors
Took a farewell look of home province and went into Hokkaido			Arrived at Otaru by ship
Advanced in snow helped by prisoners			The first harsh winter has come
Crossed the river Ishikari on board and advanced to Tokku wasteland			Made a survey of virgin forests and zoned them

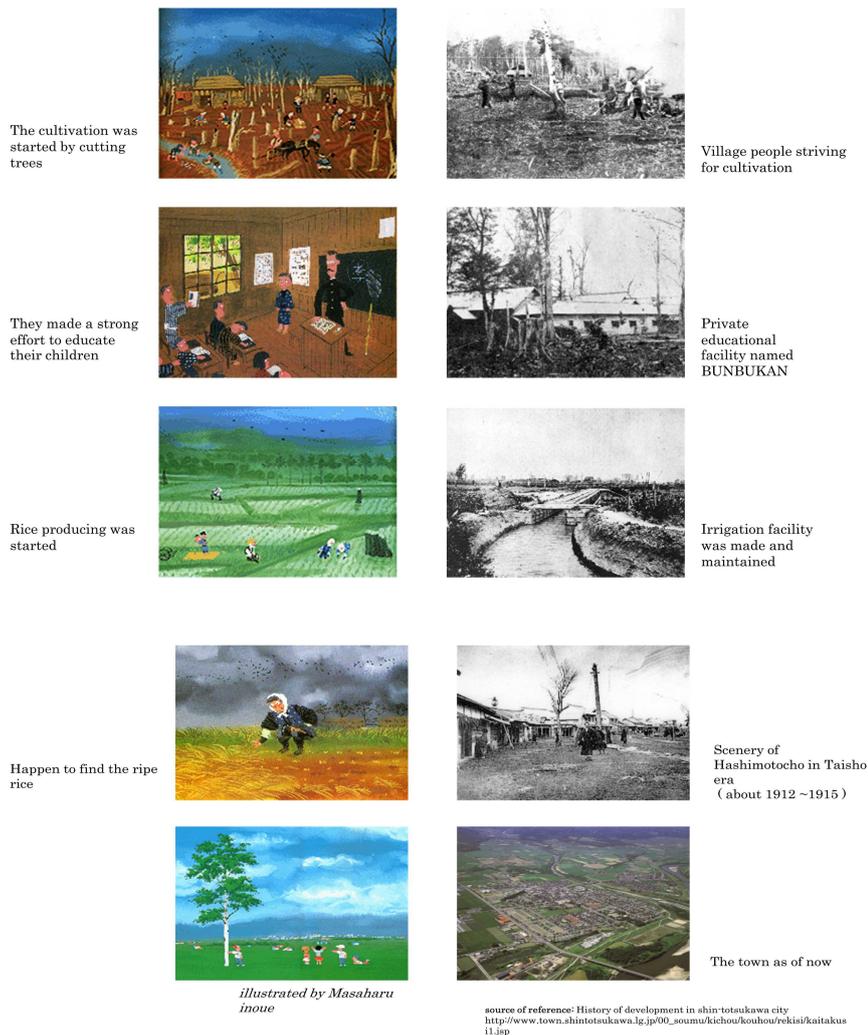
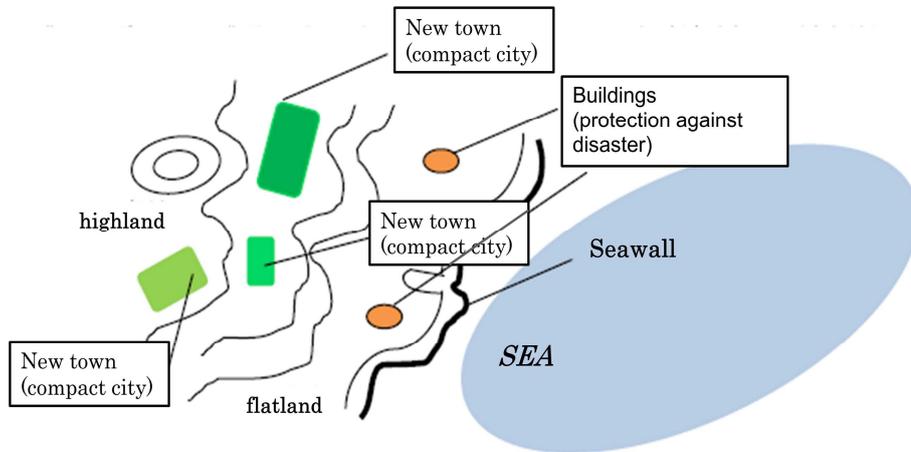


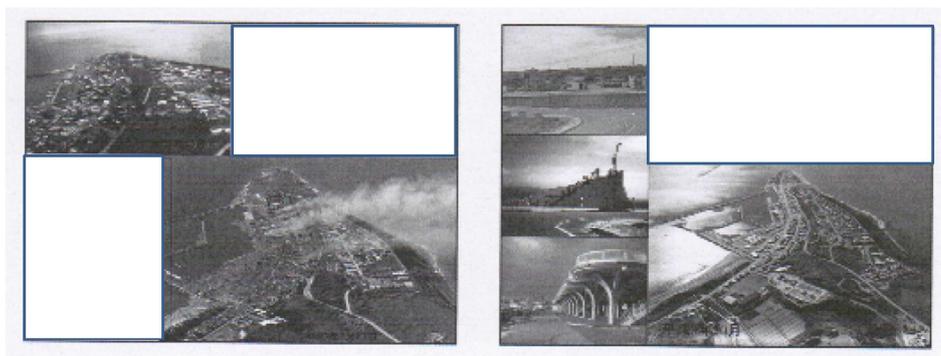
Figure12 are from the website of Shintotsukawa- chou (English version) Now, in the East Japan area damaged by the disaster, the sense of hopelessness or frustration over the national government has been widely spread, because the definite recovery program has not been formulated. But, at least, some tentative plans have been proposed regarding the outline of the city to be revitalized. One of them is shown in Figure 13.

Figure 13 Recovery program



This plan is combination of a strengthened tide wall, construction of disaster-prevention buildings in the existing city district and the new city district on a hill as a compact city. These plans are believed to be effective looking at the disaster-prevention plan actually carried out in Okushiri Island once damaged by Tsunami.

Figure14 Recovery policy from tsunami disaster in Okushiri Island
 = Reconstruction of regional structure



*Hokkaido-Nansei-oki Earthquake was generated on July 12, 1993(1993).
 There was big damage by the tsunami in Okushiri Island near the hypocenter.
 Therefore, it is called "the Okushiri Island earthquake".*

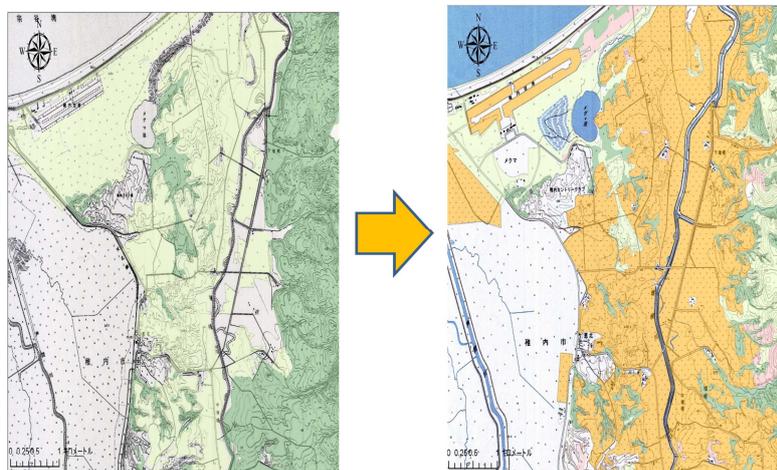
source of reference: Reconstruction Process of the okushiri Island Damaged by 1993 Hokkaido Nansei-Oki Earthquake
 Shin-ichi Minami Local Independent Administrative Agency Hokkaido Research Organization Building Research Dep.

On the other hand, in parallel with the recovery plan concerning the revitalization of the damaged region, I believe that the massive and community-based immigration plan is worth to consider learning the lesson of history. We realized that the immigration to Hokkaido has been carried out by the ex-legionary system or by private associations

such as Bansei-sya in Obihiro district and Hokko-sya in Kitami district. Most of people did not know the history of immigration on the ground of disaster. Even the people of this place did not know, so I think maybe vast majority of the country don't know this fact. By this reason also, to introduce this historical fact widely will be significant. We have developed some designs for Hokkaido as our research field. Out of that, the grand design for regional revitalization of "Wakkanai Block" had almost been structured. Now at this stage, I am thinking that we should return this plan to the start point and should add the plan of community-based immigration. This grand design obtained agreement, in principle, with the responsible officials of the Society of City and Local Region in Hokkaido, the Society of Mayors in Hokkaido, and Wakkanai City at the venue for "Hokkaido Urban Problem Conference". However, I am planning to restructure this grand design for regional revitalization taking this issue as the pressing one.

Figure15 and 16 are the data relating to GIS hurriedly collected for this work. It shows the rapid development of urban area in a short period.

Figure15 Outline of Block Model Plan Wakkanai · Okhotsk area

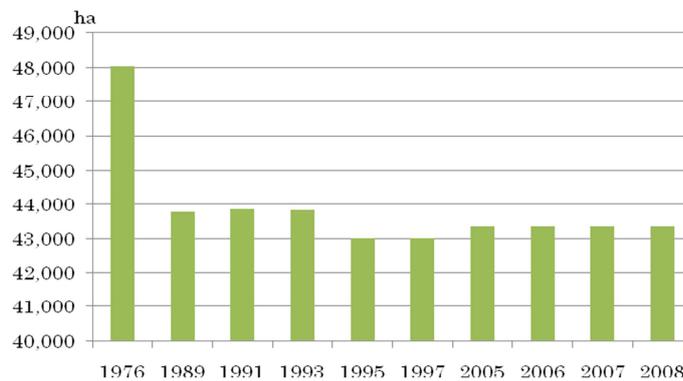


Forest and meadow zone in 1976

Forest and meadow zone in 2008 This figure was made by using Arc GIS

By Daichi nanri & Hajime oshitani : RAKUNO GAKUEN UNIVERSITY

Figure16



Area of forest of Wakkanai City

By Daichi nanri & Hajime oshitani ; RAKUNO GAKUEN UNIVERSITY

We can interpret this is because no decisive stress was there in spite of the situation without control by a large framework. Though we cannot finally determine yet, the potential capacity of this region seems to be fairly high to accept large scale of immigrants. We are going to shift our plan from the grand design for regional revitalization once agreed in principle to the one taking the viewpoint of large scale immigration.

First of all, the following works will be necessary as the pressing issues

① To confirm the history of the activity of immigrants after the large scale immigration in Shintotsukawa-cho, which has not been fully made clear.

② To plot potential sites for inhabitation and industry(including large-scale dairy) using GIS etc. Based on the results from 1 and 2, we are going to rebuild promptly the grand design for regional revitalization, to present to the relevant organizations and to verify the feasibility of the new plan.

References included in the text of this report