Symposiums
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Mountainous Areas in the 21st Century: Exploring Possibilities in the Future

The Aim and Discussion of the Symposium

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This symposium was planned as part of symposiums related with the International Year of Mountains (IYM) in 2002. The main aim of the symposium was to discuss the socio-economic changes and current problems in contemporary mountain regions and to find the future direction for development, mainly based on the human geographer’s perspective. In Japan, mountainous areas have experienced serious loss of population which led to the decline of old surviving communities in the past 40 years. The central government set policies in line with the depression of mountain villages, investing a large amount of financial funds for improving the backward conditions. On the other hand, the local economy was dramatically reconstructed by the newly located manufacturing and construction industries. However, such a system for sustaining mountain communities becomes difficult to maintain in the 21st century.

In this symposium, the main focus was laid on the following three points. The first was to make clear the transformation of mountainous areas under the globalization of the economy and the structural reforms in the Japanese government. The second point is to pay special attention to the indigenous action for development which has newly appeared in the last ten years. The third point is to find the potential and possibility of mountainous areas based on the experiences in foreign countries.

Seven papers were presented on the above mentioned points. The subsequent discussion was conducted with a lively exchange of opinions in spite of the short time. The participants confirmed the rapidly changing situation of Japan’s mountainous areas and the significance of global point of view which has led to the re-evaluation of mountainous areas in the 21st century.

The Possibility and Conditions for Promoting the Regional Forestry: A Case of Gunma Prefecture

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After the liberalization of wood import completed in 1964, a large amount of wood came to be imported from foreign countries to Japan. The import of wood with a low price had a big influence on the local economy of mountainous areas. In recent times, the self-sufficiency rate of wood in Japan was under 20%. On the other hand, manmade forest which needed proper management reached 57% of the amount of forest accumulation. Therefore, the promotion of forestry and the survival of the mountainous areas are confronted with great difficulty in Japan.

The speaker joined to make a plan for the promotion of forestry in Gunma prefecture. In Gunma, the forest area accounts for 68% of the prefecture area and manmade forest accounts for 43% of the forest area. These figures are nearly equal to the total for Japan. The amount of accumulation of sugi (Cryptomeria japonica) owned privately in this region reaches the maximum level in Japan. However, imported wood occupied 80% of the lumber market in this region.

Under such conditions, the speaker had strong difficulty in making a plan for promotion of the forestry in Gunma prefecture. After
analyzing the past forestry policy in Gunma prefecture, he found that it had lacked the viewpoint of consumers of wood. The prefecture government had no idea of using local lumber in housing construction in this region.

The speaker proposed the following plan. 1) If a house owner uses the timber produced in this region, he can receive subsidy of the amount to be equal to the bank loan’s interest from the prefecture government for ten years. 2) Forest owner’s association, lumbermen, building firms, and designers establish a cooperative.

Gunma prefecture began to subsidize mortgage interest in 1998, and the cooperative for housing supply was established in 2000. The number of houses constructed by this subsidy reached 400 in December, 2002. This policy was successful in the results. The collaboration with consumers in urban areas through the lumber market is one of the most crucial measures for promoting forestry in Japan.

Changing Industrial Structure and Local Labor Market in the Mountainous Area: A Case Study of the Mountainous Area in Miyazaki Prefecture

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The purpose of this study is to clarify changes in the industrial structure and local labor market in connection with the changes that evolve in the location requirements of industry in the mountainous area. The study area was the mountainous area in Miyazaki prefecture, which is one of the less-developed regions in Japan. Since the 1970s, a number of manufacturing plants for, notably, textiles and electronics have been located in this area to take advantage of cheap labor. And a number of construction companies have been located in this area in accordance with increasing public investment. However, it is expected that the local labor market and the employment structure have been affected recently by the changes of industrial location and public investment.

Since the late 1990s, the production from manufacturing and the public investment tended to decline in this area. As a result, these industrial companies reduced the number of their workers and made working conditions worse. Because of such changes, both the proportion of part-time workers and the unemployment rate increased. On the other hand, we can see some growth in the welfare service sector for the elderly in this area in the 1990s. The demand for labor has increased in this service sector. However, this sector can be characterized by such working conditions as low wages and instability of status.

Rural Tourism in the Grasslands of the Tohoku Region

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This study investigates the state of tourism in the Tohoku region’s grasslands and its impact on the area’s grassland conservation. The results are summarized as follows.

First, based on the results of a survey given to all the public pastures in Japan, the annual number of visitors does not correlate with the distance from metropolitan areas, but rather correlates with the stock density. Extensive-grazing grassland, whose stocking rate is under 2 cattle/ha, attracts 1,039 visitors per year on average, while intensive-grazing grassland, whose stocking rate is over 2 cattle/ha, attracts 483 visitors. Most visitors visit grasslands for walking/strolling or picking edible wild plants. Therefore extensive-grazing grasslands that include Zoysia pasture, forests, or marsh attract more visitors than intensive grasslands.

Extensive-grazing grasslands tend to be more active in accommodating tourists; 30% responded that they “had or would like to make a system or facilities to accommodate tourists,” compared to 15% for intensive-grazing grasslands.

Second, we conducted surveys and interviews of visitors and local residents. Study areas were Appi grassland and Katsu grassland, which are extensive-grazing grasslands attracting more than 10,000 visitors annually. We found that they have not prepared to receive visitors. Therefore the economic effect is limited, and more than half of the visitors were
unaware of grazing’s grassland conservation effects. However, visitors were highly satisfied with their visits and were willing to pay money to support conservation.

As to grassland conservation, Appi has decreased its grassland area 45% as a result of the decline in beef cattle breeding. Although some local residents and visitors have begun volunteer grassland conservation work, its effect is limited. At Katasu, grazing had been continued by the efforts of the pastoral cooperative. In its operation, subsidies are indispensable, but direct payment is provided only for improved pasture, and not for the Zoysia pasture or grassland forest which is important for visitors.

In conclusion, measures including the charging of admission, wholesale direct marketing of agricultural products, and visitor support of grazing appear necessary. However, measures such as grassland improvement or the construction of facilities for visitors might have a negative impact on tourism. Thus, before any measures are taken, there must be coordination of the differing opinions held by the agricultural, visitors’, and the tourism industry sides.

Forest Land Use in Nichi’nan Town in Tottori Prefecture: On “Forest Commons” for an Experiment

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Traditional agricultural villages in Japan have had their bases of social ties in the common possession and use of water and forest. It is said that the rice paddy field needs three to five times wider area of forest land: the local forest supplies timber, fire wood, green manure, grass feed and so on. Such indispensable forest has been owned and used commonly in a village to maintain life and agriculture there under control by community. The rapid modernization process in Japan has broken the relationships between people and forest. People have come to buy timber, fuel, fertilizer and feed with money, leaving the ties between people and forest to be cut away. But after the 1990s, conservation problem of water has come to light, and people started to discuss forest as a new concept of “commons.”

Here the reporter introduced one example of forest in a drainage basin, to examine the problem of forest commons in this new century (the case at Nichi’nan town in Tottori prefecture). It involves several problems of forestal resources: interaction among people in the drainage basin, thinking on the revitalization of forestry, education on the environment, biomass to generate electricity, considering of water source tax, etc.

Life Strategy of Elderly People in a Depopulating Mountain Village: A Case Study of Iwami Town, Shimane Prefecture

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Aging of the population is one of the most crucial issues in present Japan, especially in the depopulating areas of the Chugoku Mountains. The purpose of this paper is to examine the mechanism of sustaining life of the elderly people in a depopulating mountain village, focusing upon the life strategy and the process of structuring the elderly and others (actors) network. The author selected their children who live separately and friends/acquaintance, neighborhood as others.

The study area, Iwami Town in Shimane prefecture, which has many communities where the elderly stay put, is now facing severe depopulation and rapid aging. It is not easy for the elderly to stay put because of socio-economical constrains (deprivation). All of these conditions seem to encourage them to migrate out of the town. Based on interviews with 80 elderly villagers, the author tries to examine the reason why they do not leave Iwami Town in spite of such conditions.

In studying the mechanism of staying put for elderly, the author relies upon “the concept of strategy.” This concept is used to analyze the elderly and others’ (actors) response to structural constraint. It has been able to describe the repertoire of available adaptations and patterns of behavior to structural constraints. “Life strategy” is a framework which brings the elderly in as active participants in the larger society, actors responding to, reworking, or re-framing external and internal constraints and opportunities.

The result was summarized as follows. The elderly and actors (children, friends/acquain-
tances, neighbors) have constructed networks, they take social relations and interaction. The relations between elderly parents and their children are difficult to transform by aging, but spatial distance affects them. The frequency of visits by the children represented the index of social relationship. On the other side, the friends/acquaintances relationships tend to reduce and extinct with aging. However, the old-elderly keep the close friend relationships, because interaction through lengthy telephone conversations becomes increasingly significant as face-to-face contact decreases. Neighborhood is most stable in these relationships and is hard not to be influenced by aging. Social acts with the elderly, which neighbors give, are necessary to sustain their life. Therefore, the elderly form the networks through the social relations with others (actors).

The sustaining life of the elderly in this depopulating mountain village consists of flexible transformations of organizing networks. Eventually, the elderly stay put in Iwami Town rather than move out.

**New Developments in Mountain Village Areas: The Situation in Europe**

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The image of mountain villages in Japan is closely connected to depopulation and a high percentage of senior citizens. This is not always the case in Europe. Rather than natural conditions, the geographic position in the economic network of the EU and the political and administrative structure of each country influence the situation of mountain villages. Some mountain areas have established themselves as a tourist area; however, patterns of tourism are changing fast, and they constantly have to adapt to new trends in tourism. Other settlements rely on industries that developed from traditional industry or have been attracted by recent regional development strategies and now face severe crisis as their industrial base is declining. On the other hand, areas that became the target of second house development or retirement migration have experienced a process of gentrification.

This paper takes up examples from the Alps and lower mountain areas in German speaking countries to examine how mountain villages in Europe adjust to new developments in agriculture and tourism, two fields that experience a rapid globalization. Central themes are the development of organic farming, sustainable tourism and the process of gentrification through migration from urban areas. Organic farming has been supported by EU agricultural policies and has drawn increasing attention among consumers due to the BSE scandal. It is closely connected to sustainable tourism development as it helps to preserve traditional agricultural landscapes and ecological variety in mountain areas while at the same time offering visitors high quality food. Interest in organic farming has also been raised by migrants from urban areas who move to the mountains in search of a healthier environment and a life close to nature.

**Mountainous Areas in the 21st Century: A Proposal Based on the Endogenous Self-Organization Framework**

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Since the 1960s Japan has experienced rapid rural depopulation and wide collapse of local communities. Japanese scholars call these phenomena *Kaso*, which means, “very scarce and/or too depopulated.” At the same time, the Japanese government enacted the “Urgent Measures for Depopulated Areas Act” (in Japanese, *Kaso-ho*), and started to pour investments into *Kaso* areas. The total amount of investments during the period 1970–1990 was more than 25 billion yen, and almost half of it has been used for the improvement of roads. Despite declining depopulation rates, one third of municipalities in Japan remain as *Kaso* municipalities. These trends suggest that while tremendous investments in *Kaso* areas since 1970 have played a key role in decreasing the depopulation rates of these areas, they could not solve the regional problems of rural Japan.

The institutional intervention resulted in two conflicting phenomena, namely strengthening of the financial autonomy of municipal governments and weakening of the self-reliance capabilities of communities. As a result, most of the traditionally endogenous organizations of a
community have been disorganized or reorganized under the leadership of the municipal governments. The endogenous self-organizations changed roles to a pseudo-organization of the local government.

How did this institutional intervention result in weakening of the self-reliance capabilities of communities? The main causes can be found in the three aspects. First, there was a lack of an idea of what a so called Kaso area ought to be. The target of policy has been focused on population matters, which was a sort of reminiscence of pre-Kaso periods. Therefore, little attention has been devoted to empowerment of communities. This was caused by the inadequate definition of Kaso. In the strict sense of the word, Kaso does not mean merely depopulation itself. Kaso should be defined within a structural perspective: regional problematic situations, arising from rapid depopulation of local communities, make it difficult to maintain a national standard level of life quality in rural areas; the depopulation must be qualified as one which is induced by rapid industrialization through city-oriented national policies. Secondly, the means of policies was inadequate. Most of the policy means have been designed to keep a fair distribution of resources such as subsidies with little attention to who could do that and how it could be done.

The author argues that social vitality should be a new criterion for empowerment of Kaso areas, rather than economic aspects. An endogenous self-organization which functions as a substantial social unit for rural development can be one of the criteria to measure social vitality. Moreover, there is a very special sphere that exists in communities which does not exist at market and/or administration level. This sphere is the distribution of benefits by policy implementation or the mediation of social conflict. That is why in rural development the role of endogenous self-organization is so important.

Present Situation and Problems of the Geoeological Studies on Japanese Mountains

The Aim of the Symposium

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The term 'landscape ecology' was devised by Carl Troll (1939). Later, he coined the word 'geocology' to describe the same field of study (1968). These studies made advances in Europe from the 1960s. In Japan, S. Sugita (1974) and H. Yokoyama (1979) introduced the studies of landscape ecology and geocology. These studies in Japan made advances in the disciplines of geography, ecology and landscape architecture from the 1990s.

In April 1996, we established a research group on 'geocology' in the Association of Japanese Geographers. The geocological studies of our group members was mainly researches of mountainous areas, as in Europe and USA. We conducted research on the analysis of the geosystem of mountains in Hokkaido and central Japan.

This symposium was organized by our research group. The aim is to demonstrate the present situation of geocological studies on Japanese mountains, and to discuss the problems of these studies.

A Perspective on Vegetation Patterns and Processes as a Basis for Managing Mountain Ecosystems

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This paper examined origins and spatiotemporal changes in vegetation patterns as a basis for managing mountain ecosystems with special reference to environmental resources and disturbance regimes.

Environmental resources and natural disturbances are the essential factors that create a patch-mosaic structure of vegetation. Environ-