

Transformation of Mountain Villages in Post-war Japan

— Peripheralization and Development Process —

OKAHASHI Hidenori

- I. Introduction
- II. Depopulation and deprivation
- III. Expanded local labor market
- IV. Unfavorable living conditions
- V. Development for mountain villages
- VI. Concluding remarks

I. Introduction

Japan is a mountainous country. Mountain areas account for about 60% of the national land area and are widely distributed throughout the country. These vast mountain areas have been inhabited since ancient times and numerous villages are situated therein. The Japanese mountains are not so high as the Himalayas or the European Alps being generally below 2,000m above sea level, except for those of the Chubu region (central Japan) which reach heights of 3,000m. Most of the mountain villages are situated at an altitude below 1,000m and generally at distances not so far away from neighboring cities, but steep physical features have hindered these villages from interacting with the outside world and therefore kept them on relatively isolated.

In the postwar rapid economic growth period (approximately from 1955 to 1975), the mountain villages became closely integrated functionally with the national economy, and spatially with cities, as the development of transport networks and mass media advanced. Urban life styles were

rapidly diffused among the mountain villages with the extensive spread of durable consumer goods, mostly manufactured in the metropolitan regions. The integration, thus advanced, of mountain villages into the nationwide market economy exerted a great influence on both the production and consumption spheres of the household economy of mountain farmers. In order to earn cash income, they sought for alternative job opportunities, but the off-farm jobs available in the mountain areas were absolutely insufficient. Young people therefore began migrating to the cities, leaving the aged behind in the mountain villages. This led to rapid depopulation.

It is important to note that the process of depopulation has led to the decline of mountain villages and also to their increased dependency on the core metropolitan regions. Therefore mountain village have been integrated into the national settlement system in which major metropolitan cities occupy the top of the hierarchy. Mountain villages became to play a role as the periphery in the nation-wide regional system, mainly organized by manufacturing industry. As a result, mountain village economy lost the close relationship with the local ecosystem because of the decline of agriculture and forestry based on the local natural resources. Such dramatic change has occurred only in this thirty years, though the process had already started in Meiji Era one hundred years ago.

This paper use 'peripheralization' to express the entity of this process (Okahashi, 1989). Nowadays most of mountain areas in the advanced industrialized nations are experiencing such process and form one of the typical periphery. The situation of modern mountain areas should be understood not only as depopulated areas or remote places, but also as peripheral areas. Skeldon (1985) proposed an attractive

Table 1 General Schematic Representation of Characteristics of Mountains in the Core

Mountains in the core	
Population change	Total depopulation of large areas but repopulation or stabilization of a few areas for recreation, second homes, and dormitory suburbs
Mobility	Immigration of outsiders, commuting around dormitory and recreation areas
Economy	In context of national economy, dynamic, only vestiges of traditional local economy remain
Status	Niche in modern urban economy
Example	Alps ; Scottish Highlands

source : Skeldon (1985)

schematic representation on characters of mountain environments in a global scale. Mountains are divided into two types according to the core-periphery relationship in the world system. That is, mountains in the core and those in the periphery. The characteristics of the former is summarized in Table 1, most of whose characteristics are shared with Japanese mountains.

Based on the concept of peripheralization, this paper attempts to describe the socio-economic changes of the mountain villages in postwar Japan and explain that transformation proces.

Mountain villages in this paper are defined mainly by forest area rate (above 80%) in the administrative unit (shi-cho-son). Several

villages (Inabu-cho in Aichi pref., Kake-cho in Hiroshima pref., Asa-cho in Hiroshima city, Irihirose-mura in Niigata pref. and Ohyama-cho in Ohita-pref.) are selected for detailed explanation. Their location is shown in Fig. 3.

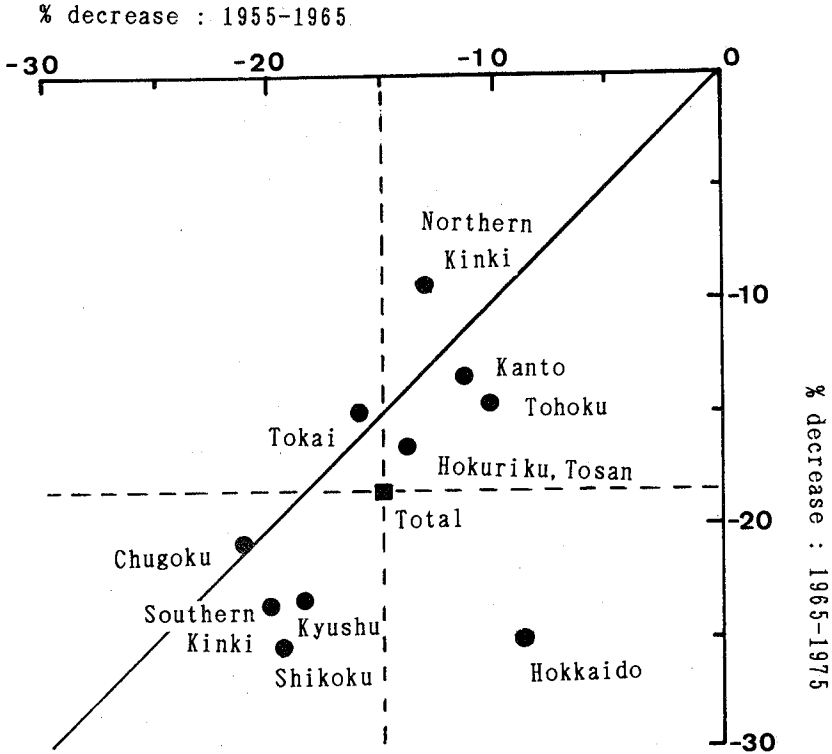


Figure 1. Population Decrease in Mountain Villages, by Region : 1955-1975

Note : The mountain villages for this analysis are 750 administrative units (shi, cho, son) with the forest land rate of over 80% in their area.

Source : Population Census of Japan

II. Depopulation and deprivation

1. Depopulation and its background

Mountain villages in Japan have experienced serious depopulation over the last thirty years. Depopulation is an important symptom of the peripheralization. The process of population decrease has generally been explained by such economic factors as the decline of the village economy and the increased demand in the metropolitan areas for labor force. The mountain villages immediately after the Second World War were still in a state of overpopulation, partly because of evacuees from cities and repatriates from abroad. After the mid-1950s, temporary residents went back to the cities as the reconstruction of war-damaged areas progressed. Then the cityward migration began to take place first among the young and then among middle-aged people. Out-migration of the latter category of people involved an exodus of entire families, and thus posed a life-or-death question for many mountain villages.

As shown in Fig. 1, the total population of mountain villages declined at a rate of 15 per cent during the period from 1955 to 1965 (first half of the postwar rapid economic growth period) and 19 per cent between 1965 and 1975 (the latter half of the postwar rapid economic growth period). Since 1974, however, the population decline has tapered off as the Japanese economy entered a slow growth stage.

Fig. 1 also reveals that the population change did not necessarily take place everywhere to the same extent. Between 1955 and 1965, the rates of depopulation showed a marked regional difference between eastern and western Japan. Populations in such regions as Chugoku, the southern part of Kinki, Shikoku, and Kyushu declined at rapid rate well above the average for the whole mountain areas. Compared with

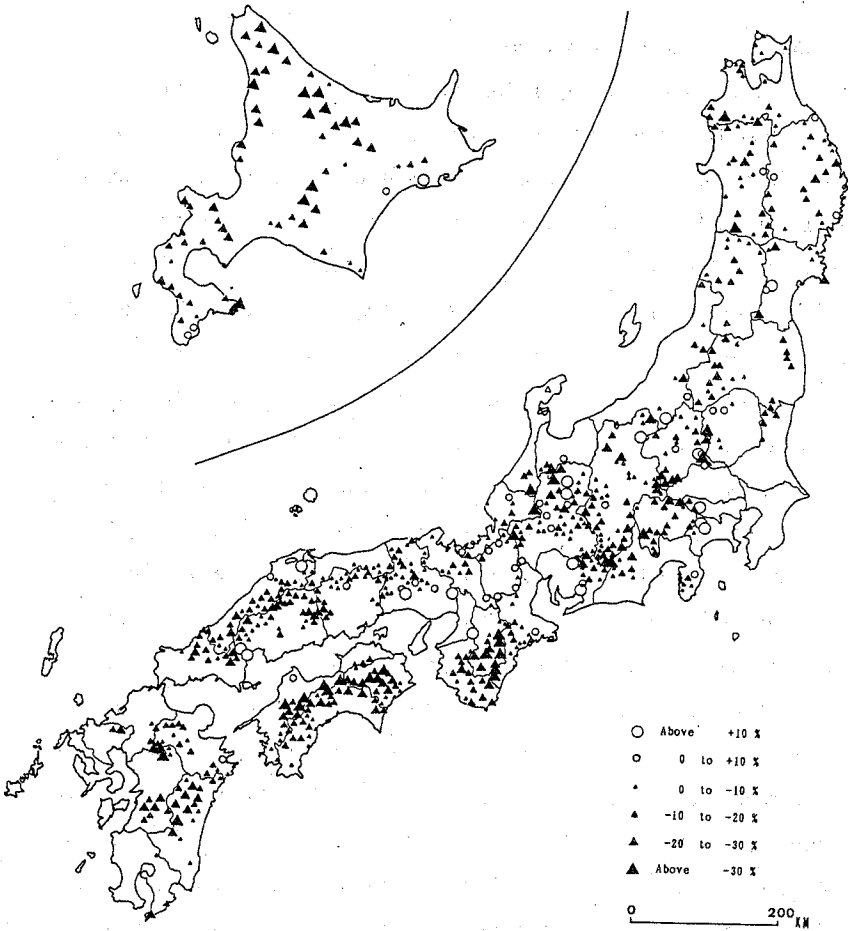


Figure 2. Population Change in Mountain Villages by administrative unit (shi, cho, son): 1970-1980

Note : The mountain villages for this analysis are 683 administrative units. From 750 villages used in figure 1, We excluded 67 villages due to their urban cahraacteristics (having D.I.D.)

Source : Population Census of Japan

western Japan, population decrease in eastern Japan, especially in Hokkaido and Tohoku, remained at lower levels.

In the following decade (1965—75), the spatial pattern of depopulation underwent a change, and a concentric pattern around the three major metropolitan areas emerged. The most dramatic change took place in Hokkaido which recorded the highest rate of depopulation, followed by Shikoku and Kyushu. In contrast with these regions, the mountain village around the three major metropolitan areas experienced only a slight depopulation. However, Tohoku maintained lower decrease rate in spite of remoteness from metropolitan areas. Its unique position was confirmed by a quantitative analysis (Okahashi, 1981).

According to Fig. 2 which shows the recent spatial pattern of population change, the population decline in the mountainous areas as a whole in Japan began tapering off, with a slight increase in some mountain villages around the metropolitan areas. However, depopulation has still been a prevalent phenomenon in the peripheral mountain regions.

In addition, it is important to note that the aging trend of population and the falling of fertility is becoming more and more conspicuous, particularly in the mountain villages of western Japan. Accelerating this trend is the increase of unmarried male, which has become a crucial social issues as it has led to the increased difficulty of maintaining the family as well as the village community as a whole. As a result, The natural decrease in population due to death may cause serious depopulation in the mountain villages in the near future.

2. Dimensions of deprivation

The problem of Japanese mountain village is composed of a number of different facets which are closely interrelated. For examining

Table 2 The Component Loadings (varimax rotation)

Component	Variables (in the order of loadings)	Loadings
Component 1 (21.8%)	Households depending on pension	0.903
	Households of single aged person	0.884
	Fulltime farmhouseholds lacking 15-65years male	0.844
	Population per household	-0.767
	Population over 65	0.663
	Natural increase 1979-1980	-0.643
	Floor space per household	-0.618
	Population 0-14	-0.541
Component 2 (11.0%)	Population change 1970-1980	0.827
	Household change 1970-1980	0.808
	Change of No. of pupils in primary school 1977-1982	0.783
	Social increase 1979-1980	0.766
Component 3 (10.3%)	Labor force in total population	-0.812
	Unemployment rates	0.700
	Households depending on allowance	0.600
	No. of households per agricultural settlement	0.506
Component 4 (7.2%)	Employees in total employed person	0.820
	Income per person	0.747
	Recent immigrant in population	0.600
	Higher educated person	0.589
Component 5 (5.3%)	Settlement conducting cooperative road work	0.654
	Settlement with higher percentage of paved road	0.609
	Households depending on the livelihood protection	-0.562
Component 6 (3.9%)	Access to medical facilities	0.742
	Access to town hall	0.675
	Settlement with factory	0.544
Component 7 (3.4%)	Density of medical facilities	0.691
	Density of primary school	0.633
Component 8 (3.1%)	Density of retail shop	0.710
	Density of dental hospital	0.634
	Density of restaurant	0.588

Note: Parenthesized parts mean relative importance
Only variables over 0.5 in loadings are indicated

such kind of rural problem, it is appropriate to adopt a quantitative approach based on the concept of rural deprivation which has been developed in British rural geography. In this paper, principal component analysis is employed to extract fundamental dimensions of deprivation in 683 mountain villages (municipalities) using 36 variables in 1980 and cluster analysis is adopted to the component scores obtained in the above analysis for classifying mountain villages (Okahashi, 1986).

Principal component analysis extracted eight components, all of which had eigenvalues of over unity (Table 2). Each component is characterized by the major component loadings. The first four components represent social and economic dimensions and the rest four relate to the living conditions. The higher ranked four components could be termed as follows: the level of aging of the society (eigenvalue; 7.8, percentage of the total variance explained; 21.8%), the trend of depopulation (4.0, 11.0%), occupational situation and household economy (3.7, 10.3%), employment opportunity and income level (2.6, 7.2%). These results indicate that the most fundamental dimension of deprivation is the increasing share of aging population which has been caused by continuous out-migration of younger generation and its effects on mountain village society, and the next important one is the labor market conditions which determine the non-agricultural employment opportunity and income level.

Cluster analysis (Ward's method) enables us to classify the mountain villages into six types according to socio-economic component scores (the first four components). The most serious category is found in type IV which is characterized by the highest level of aging and worse occupational situation. Type III belongs to another worst one which is characterized by the less favored economic condition. On the other

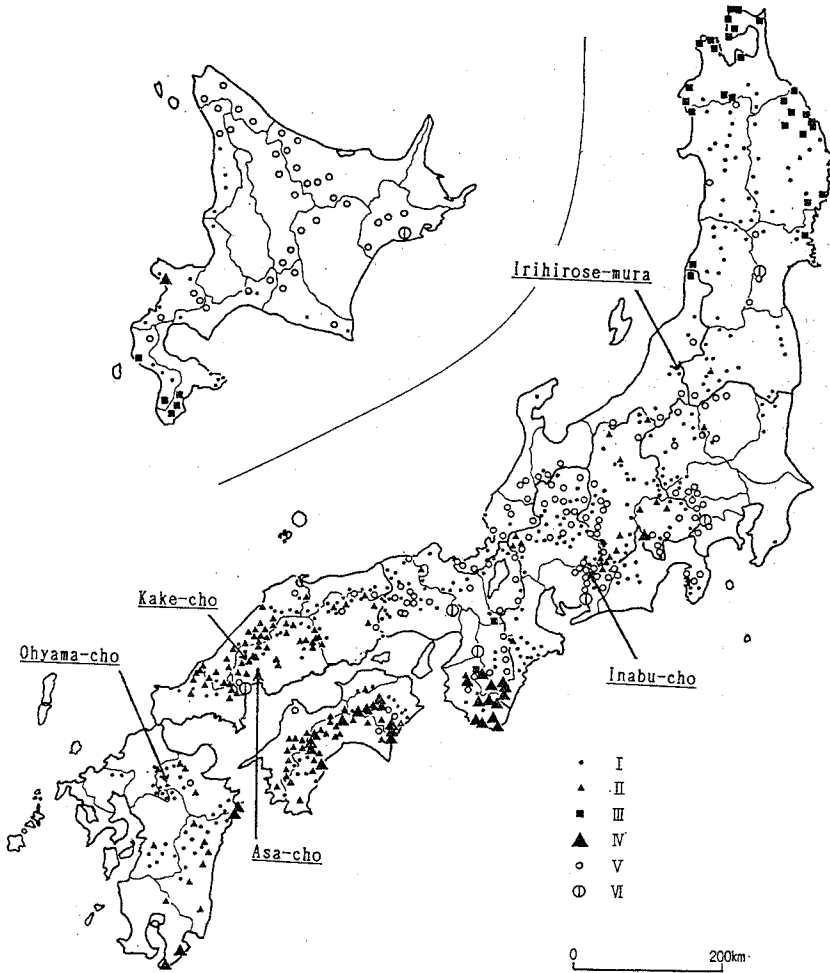


Figure 3. Distribution of the Six Types of Mountain Villages

Note: The mountain villages for this analysis are 683 administrative units (shi, cho, son). The mountain villages with D.I.D. are excluded.

Five villages indicated on the map are case study areas

hand, relatively better one is represented by type V and VI. The spatial distribution of those types is shown in Fig. 3. Type IV is concentrated on southern part of Kinki and Shikoku. Type III is found in northern part of Tohoku. Type V distributes in the broad area of central part of Honshu island, especially around the three major metropolitan areas. The fundamental pattern is summarized as the contrast of eastern and western Japan and then the concentric pattern around the three major metropolitan areas. The former pattern is related to the extent of depopulation continued until now and the latter is caused by core-periphery disparity of the national economy. In recent years, the latter has become more important and prominent than the former. At any rate, mountain villages under the most serious problem are found in outer zone of western Japan, especially in Kii and Shikoku mountain range.

III. Expanded local labor market

The process of peripheralization involves a fundamental change in the economic structure of mountain villages from a traditional, subsistence economy to a market-oriented one, closely integrated with the national economy. The traditional mountain village economy no doubt had some commercial activities such as charcoal production, mining and transportation, but the nature of mountain village life itself remained predominantly subsistence. A more characteristic feature of the traditional mountain village economy is the fact that it was closely linked with the local ecosystems. Mountain villages today, however, have lost the basis for such linkages due to the decline of agriculture and forestry.

During the first decade after 1945, mountain villages contributed to the reconstruction of the Japanese economy by serving as the source of supply of agricultural produce, timber, hydropower, and water resources. But after the mid-1950s, as the national economy began taking off, mountain village economies began to decline, due to the fact that traditional commercial activities in the mountain areas such as charcoal production became stagnated. This was one of the factors responsible for depopulation in the mountain areas (Takeuchi, 1976). In this period, mountain village economy was strongly affected by the backwash effect rather than the spread effect (Myrdal, 1957).

In the second decade up to the 1973 oil crisis, the mountain village economies grew gradually. This growth was stimulated not by indigenous forces but by external forces manifested in the reorganization of mountain village economies. This reorganization was promoted by two major forces. One is the relocation of factories from metropolitan areas to the mountain areas for cheap labor force. Another is the growth of construction industries which grew as a result of increased public investment in road improvement, forest conservation and anti-disaster works. Most of investment has been promoted by newly enacted regional policies such as the "Mountain Villages Development Act" in 1965 and the "Urgent Measures for depopulated Areas Act" in 1970, which aimed at improving the economy and the welfare of the residents to prevent further depopulation. As a result, the road condition and public facilities has been much improved and the forest conservation and anti-disaster works has advanced in mountain areas. In recent years, because of aging in population, the significance of pension which is direct transfer of income to individuals from the government, has played an important role in the economy. A schematic

representation of the change in mountain village economic structure is shown in Fig. 4.

Economic growth contributed to the expansion of job opportunities as well as to a rise in income levels. However, the dependency and instability of the mountain village economies were intensified because of the fact that economic growth in the mountain areas was stimulated primarily by such external factors as urban-based capital and government finance. As a consequence, the employment structure underwent a dramatic change, as shown in Table 3. The proportion of workers in the agriculture and forestry sectors declined, while these in the manufacturing, construction and service sectors increased. The rapid growth of the manufacturing sector took place particularly in those areas along Pacific Belt. The expanded local labor market therefore enabled the mountain village people to engage themselves in non-farm jobs, available within the villages or in nearby towns, and provided jobs in small factories for female workers and construction jobs for male workers.

We shall show an example of employment change in Inabu-cho which is located near a famous automobile industrial city—Toyota (Okahashi, 1978). Dramatic change in employment opportunity emerged in this village after about 1965. Many small industries like automobile parts, textiles and electronics moved to this area for the acquiring of women's cheap labor. On the other hand, many male workers began to commute a long way to automobile factories in Toyota-city by special company buses. The structural change of labor market in Inabu-cho, may be diagrammatically illustrated, as shown in Fig. 5. Regular employment in Toyota which is provided mostly by automobile factories and regular employment I which is limited to a small number

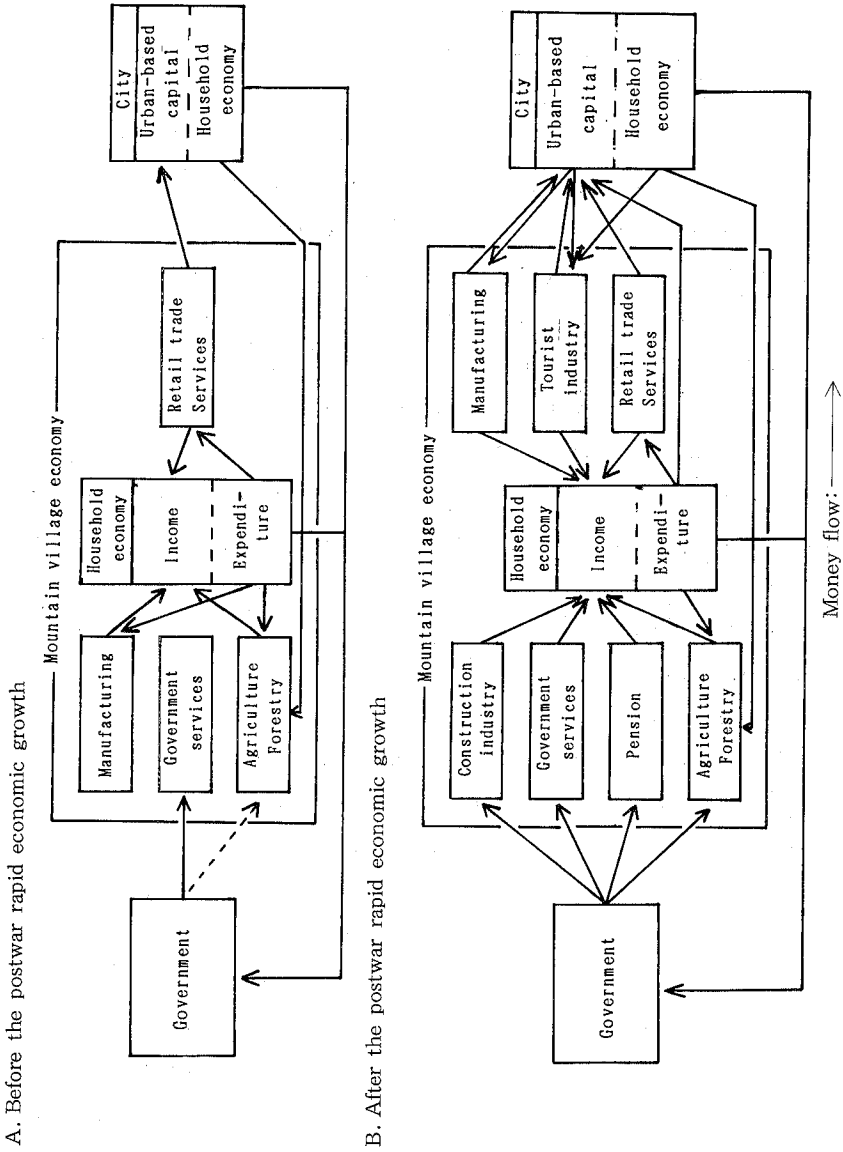


Figure 4. The Structure of Mountain Village Economy

Table 3 Employment Structure in Mountain Villages, by Region : 1965, 1975

(in percentage)

	Agriculture		Forestry		Construction		Manufacturing		Wholesale, Retail		Services	
	1965	1975	1965	1975	1965	1975	1965	1975	1965	1975	1965	1975
Total	44.8	29.6	6.1	4.9	8.8	11.7	9.0	16.3	8.8	10.7	9.6	13.6
Hokkaido	25.8	19.1	7.2	5.6	12.7	14.9	8.6	11.4	9.1	11.5	10.6	15.2
Tohoku	49.2	36.7	5.1	3.6	8.0	11.9	6.1	11.2	8.2	10.3	8.8	11.7
Kanto	38.1	22.3	4.6	2.9	8.4	10.8	14.5	21.3	10.6	13.3	12.4	17.4
Hokuriku, Tosan	44.7	26.0	5.3	3.3	11.3	14.2	11.8	20.6	8.4	10.4	9.5	14.6
Tokai	42.1	23.3	7.2	5.0	8.5	11.4	11.4	22.4	9.1	11.0	9.5	14.2
Northern Kinki	46.2	25.3	2.3	1.8	6.4	9.2	15.4	25.8	9.4	12.1	9.5	13.9
Southern Kinki	29.6	17.9	16.6	15.6	10.4	11.0	8.2	14.0	11.9	11.6	11.5	16.8
Chugoku	59.9	40.2	3.2	2.5	6.0	9.3	6.9	16.5	8.0	9.5	9.3	11.8
Shikoku	48.9	33.5	8.4	8.3	8.8	12.2	5.3	11.3	8.5	9.7	8.9	12.1
Kyushu	53.1	39.5	7.2	7.5	7.6	10.1	5.6	9.9	8.0	10.2	8.7	12.2

Note: The mountain villages for this analysis are 750 administrative units (shi, cho, son) with the forest land rate of over 80% in their area.

Source: Population Census of Japan

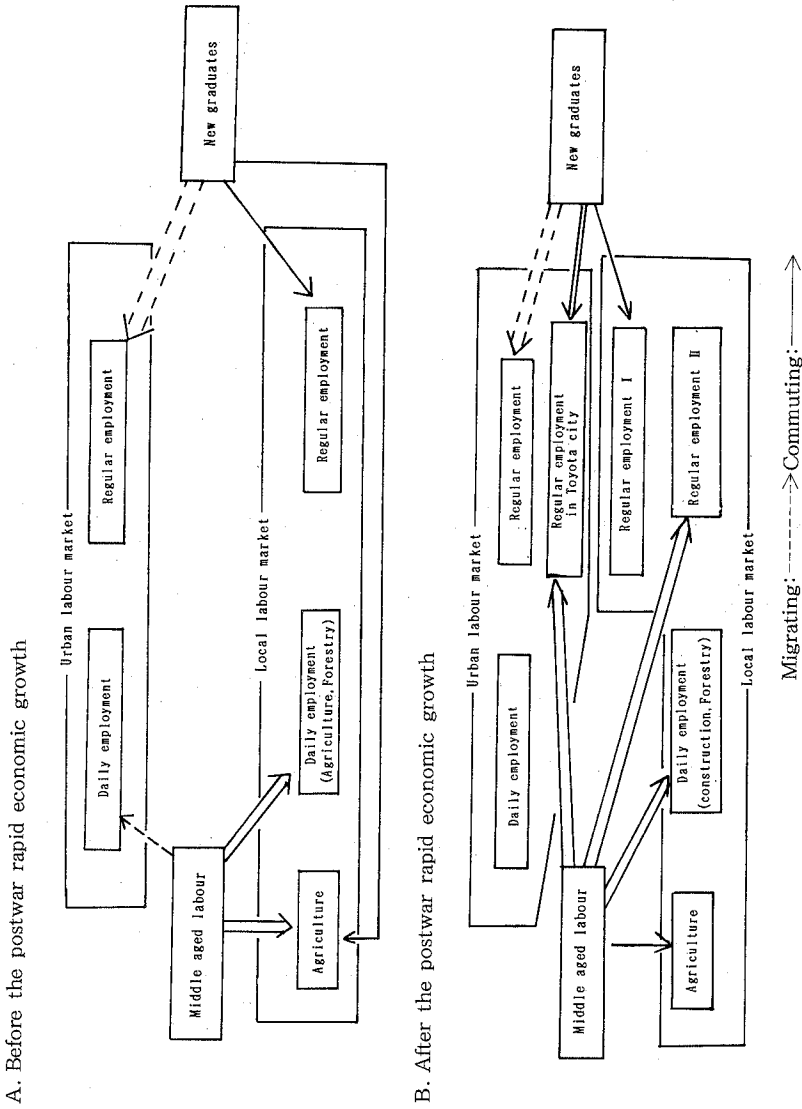


Figure 5. Changing Structure of Local Labor Market
—A Case of Inabu-cho in Aichi Pref.—

of public servants within Inabu-cho realize the average wage in Aichi prefecture. However regular employment II by small industries and daily employment by construction industry within Inabu-cho remain lower wage level. These jobs were not fascinating enough to draw young people due to their lower wage, insecurity and poor working conditions and were only attractive for the middle-aged group of people. Local labor market in Inabu-cho is strongly connected to the automobile industry which has shown sign of prosperity. In that sense, this example shows a industrialized mountain villages categorized as type V in Fig. 3. On the other hand, Many mountain villages remote from metropolitan areas tend to depend on insecure daily employment, because of the failure in industrialization. In fact, those villages has been obliged to look for the alternative economic development based on agriculture, construction industry, tourist industry and so on. According to a case study of this type of village in Kamitakara-mura, Gifu prefecture, it was clarified that the government policy was most influential for the local labor market condition (Okahashi, 1980).

IV. Unfavorable living conditions

The fact that living conditions in mountainous areas are not favorable, though they vary from one place to another, is also responsible for the rapid exodus of rural people. The physical features of mountain villages such as the high altitude, steep relief, and heavy snow generally serve as negative factors to the development of mountain villages and give rise to a variety of difficulties in the lives of mountain village inhabitants. The most serious problem has been the limited accessibility, which has been responsible since the Meiji era for the decrease in

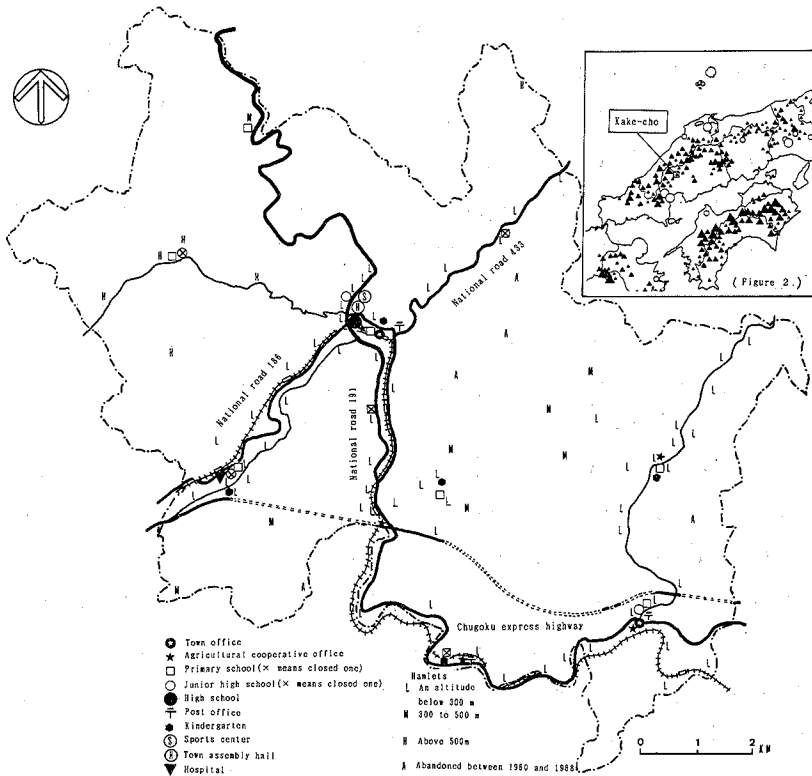


Figure 6. The Distribution of Major Public Facilities in Kake-cho

village households and even for the abandoning of village communities located in the remote mountain areas. The number of abandoned villages has markedly increased since the period of post war rapid economic growth (Sakaguchi, 1975).

The seriousness of the accessibility problem varies from one place to another even within the same mountain village. An example of this situation is illustrated by using the case of Kake-cho situated in the West Chugoku Mountains. In the Fig. 6, two different groups of hamlets are found from the viewpoint of location: One is located at a

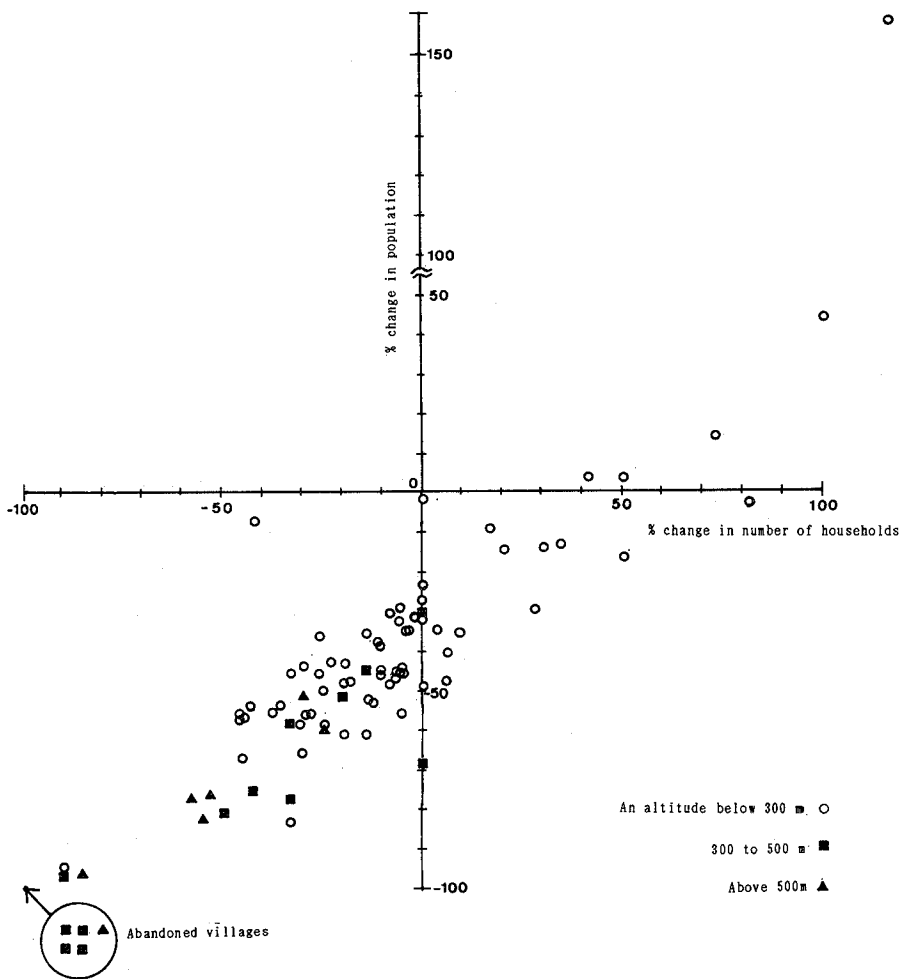


Figure 7. Change in Population and Number of Household, by community, in Kake-cho : 1960-1988

lower altitude along the main and branch courses of the Ohta river and another is situated on a higher altitude (more than 300m) on the higher mountain slopes or on the mountain peaks. As the road which has been developed along the valley, began to play an important role in communication with the outside world, a number of high-altitude hamlets has become deserted or have eventually been abandoned in the last thirty years. According to Fig. 7, many high-altitude hamlets experienced serious loss of population and households and on the other hand a few of low-settlements grew rapidly. That means, people in the high-altitude hamlets started moving to the low-altitude hamlets and concentrated on a few central settlement.

Coupled with the problem of accessibility, the mountain people have been deprived of opportunities for education, medical care, shopping and recreation facilities, adversely affecting particularly the aged and small children who have limited means of mobility. Efforts have been made by both the central and local governments to improve the access to these opportunities and facilities by providing public such amenities as hospitals, community centers, sports facilities and cultural centers. With these efforts, the general living conditions have been gradually improved, but various facilities have tended to concentrate in the central parts of municipality area where major public offices such as town halls and agricultural cooperative offices are situated. Furthermore, the closure of community facilities such as primary schools has intensified the inequality between the center and the peripheral zones of the mountain community. This tendency can be confirmed with Fig. 6 which shows the case of Kake-cho. It appears that these problems accelerated depopulation in the peripheral zone and in some cases forced to relocate settlement depending on the

government policy, although Palmer (1988) regarded the planned relocation as 'luxury' policy which the government of only the most affluent industrialized nations might entertain.

V. Development for mountain villages

1 The *muraokosi* movement: development from within

Since the 1973 oil crisis, economic growth in Japan has tapered off. This has given rise to increased difficulties in sustaining the growth of mountain village economies due not only to the withdrawal of factories from the mountainous areas, but also to the cuts in public investment. In response to this newly emerging situation, mountain village authorities have become increasingly compelled to adopt an alternative economic development strategy called "*muraokosi* (village renaissance)", which places more emphasis on the concept of development from within. This policy change was also caused by less successful aspects of development policy for mountain villages after 1965, though realizing such social infrastructure as road and public facilities (Fujita, 1989). The main thrust of this strategy is to promote the development and production of new commodities on the basis of local resources. However, When we talk about the *muraokosi* movement, We must keep in mind the fact that those villages which have succeeded in *muraokosi* have carried out a wide range of strategy and have a long history of promoting the strategy since the period of postwar rapid economic growth. *Muraokosi* movement is concerned not merely with the economic issues but also with a wide range of social and cultural issues. The *muraokosi* is regarded as the attempt which mountain villages adapt to modern urbanized society by themselves.

Table 4 The Characteristics of Three Successful Cases of the *Murakoshi* Movement

	Asa-cho, Hiroshima city	Ohyama-cho, Ohita Pref.	Irihose-mura, Niigata Pref.
Nearest city (population, 1985)	Hiroshima (1,044,118)	Hita (65,730)	Nagaoka (183,756)
Relation with the city	Included in Hiroshima metropolitan region	Zone of commuting to Hita city	Outside of zone of commuting to Nagaoka city
Population (1985)	20818	4727	2651
Population change (1970-1985)	+30.0%	+0.2%	-3.7%
Leading organization of the <i>murakoshi</i>	Agricultural cooperative	Agricultural cooperative, administrative body (town office)	Administrative body (town office)
The strategy of the <i>murakoshi</i>			
1 Diversification of economy	Agriculture, manufacturing, housing development	Agriculture, processing of agricultural products	Manufacturing, tourist industry, processing of forest products
2 External economy	Guidance of agricultural technics, cultural movement	Guidance of agricultural technics, cooperative selling of agricultural products	Subsidies and funds for regional development
3 Social infrastructure	Development of farmland, cultural facilities	Community facilities	Community facilities, construction of sewerage, farmland readjustment
4 Environment conservation	River (Ohita river)	River (Ohyama river)	Natural forest (Beech)
5 Regional identity of local residents	Rurban community	NPC movement	A republic of sarsai (a unique friendship with urban residents)

Two successful cases of *muraokosi* (Ohyama-cho in Ohita prefecture and Irihirose mura in Niigta prefecture) are examined to draw out the essential character (Table 4). Firstly, common five strategies are found out. That is, 1) the diversification of local economy, 2) the reinforcement of external economy for farmers through making an offer of market information and technical innovation, 3) the construction of social infrastructure, 4) the environment conservation and the management of local eco-system, 5) the growing up of regional identity. Concrete strategies in each municipality are shown in Table 4. These issues show essential common features in re-development of rural areas in advanced industrialized nations. When those strategies are carried out, much attention should be paid to the fact that such local organization as local government and cooperatives (agriculture and forestry) which has increased a power in development affairs because of the rising amount of financial aids, possesses regional management capabilities. And lastly the existence of local leader and the strong tie of community contribute to the success of the movement. In the light of this, although the movement has been widespread throughout the country and has contributed to the diversification of local produce, attempts which are primarily geared to economic success may be hindered by the increased competition among the newly emerging production areas and also by the oversupply of identical commodities. As a consequence, the *muraokosi* movement may end in a failure.

2 Ecological imbalance

It is expected that ecological problem will occupy the important position for the future development of mountain village. As already mentioned above, some administrative bodies have attempted to manage and conserve natural environment. Therefore We must emphasize

that the ecological imbalance which has emerged with the change of mountain economy has adversely affected farming and forestry, as well as the daily life of the mountain village people. Such facts are not well known to urban residents.

After World War II, mountain villagers became eager to plant artificial trees in former natural forests which had provided energy materials especially for charcoal production. This change is caused by the depression of charcoal production and the rapid rising of timber price. Natural forests in the deep mountain areas were also harvested and changed to the artificial forests. With the increase of imported timber, however, the domestic forestry became stagnant. As a result, a lot of resources of artificial forest lands were neglected and turned to wasted forests. Mountain villagers who are engaged in non-agricultural industry have no time to work in their forest land. Moreover a number of absentee forest landowner who left villages to urban areas have no interest in growing and managing artificial forests. This type of forest resource problems will be the most serious in the outer zone of western Japan, to which Fujita (1991) gave the name of 'socially formed empty areas'.

These changes in mountain land use have affected wild animals. As artificial forest lands and abandoned farm lands increased, wild life such as bears, wild boars and monkeys began to turn up near the village settlements giving damages to agriculture by eating crops. In the serious depopulated villages, because of their disturbance, it has become increasingly difficult even to maintain forests and farm lands. This ecological imbalance has accelerated the decline of villages especially in the deep mountains.

This has made the mountain areas more susceptible to such

natural disasters as flooding, landslides, avalanche of earth and rocks, and snow avalanche. Despite recent progress in anti-disaste work, however, it must be noted that the mountain areas are more likely to suffer from natural disasters due to the fact that the economic and cultural base of mountain villages has been increasingly detached from the local ecosystem.

We should appreciate the public interest which the mountain areas is providing. Conservation of national land, protection from natural disaster, provision of recreational lands and possession of traditional culture are very important to the people but not rewarded. Therefore the public support of mountain villages must be agreed by the Japanese people.

V. Concluding remarks

As reviewed above, the process of peripheralization of mountain villages has consistently advanced during the postwar period of urbanization and industrialization. The mountain villages became to play a important role in the nation-wide system of the economy. This appears most clearly in manufacturing subcontract system. As a result, the mountain villages have lost their autonomy and increased their dependency on urban-based capital and the central government. In spite of a large amount of investment, development policy has been less' successful in halting the population loss.

In recent years, some new trends is appearing inside and outside the mountains. Economically, direct transfer of income to individuals from the government finance through the national pension program has come to constitute a large proportion of mountain village economies.

And agricultural decline has accelerated due to the continuous aging of labor force and the free trade problem of products. In the meantime, socially, the increase in the number of unmarried males in these villages has become a crucial issues as it has led to increased difficulties in maintaining the family as well as the village community. As a whole, survival conditions of mountain villages became worse.

Nevertheless, mountain villages have been seen by urban people more and more to be the *furusato* or the resort, a place where they can enjoy a more human life style. But there is a wide gap between the mountain villages as perceived by urban residents and those actually experienced by mountain villagers. Will the mountain villages become mere a adjunct to the urban world?

It is needed that the mountain villages adapt themselves to the modern urban world and solute their problems in their own way. Successful cases of *muraokosi* indicate the key strategies to be taken and suggest the importance of regional management abilities in local organization and regional consciousness of local residents. Lastly, we must appreciate the public interest of mountain villages which is provided to urban areas without fee. For the development in the future, the public support of the mountain villages from this point of view will play a crucial role.

Acknowledgments

This is an expanded and revised version of a paper presented at the fifth Japan-France Geographical Symposium on "Comparative geography of deagriculturalization of rural space in Japan and France" in Tsukuba, October 1988.

References

- Fujita, Y. (1989): Changes in Mountain Villages under the Policy of Development for Mountainous Areas of Japan. *Literacy Symposium of Aichi University* 89, pp. 1-16.
- Fujita, Y. (1991): Problems in the Development of Forest Resources in Japan. *Literacy Symposium of Aichi University* 90, pp. 1-14
- Myrdal, G. (1957): *Economic theory and Underdeveloped Region*. Duckworth, London.
- Okahashi, H. (1978): The change of Agriculture in Mountain Villages around Industrialized Areas: A Case Study of Mikawa Mountainous Area (Aichi Pref.). *The Human Geography* 30-2, pp.1-20
- Okahashi, H. (1980): Process of Agricultural Change and Rural Employment in Kamitakara-mura, Northern Gifu Prefecture, Central Japan. *Geographical Review of Japan* 53-8, pp.511-530
- Okahashi, H. (1981): The Regional Patterns of Occupational Structure in Mountainous Areas of Japan, 1965-1975. *Annals of the Japan Association of Economic Geographers* 27-1, pp.16-30.
- Okahashi, H. (1984): Reorganization of Agricultural Production and Rural Development in a Mountain Village: A Case Study of Oyama-machi in Northern Kyushu, Japan. *The Human Geography* 36-5, PP.29-48
- Okahashi, H. (1986): Rural Deprivation in Mountainous Areas of Japan: a Preliminary Assessment. *The Human Geography* 38-5, pp.461-479.
- Okahashi, H (1987): The Changing Process of a Mountain Village in Heavy Snow Fall Japan, with Particular Reference to the Reorganization of Common Forest—A Case Study of Oshirakawashinden in Irihirose-mura, Niigata Pref.—. *The Hiroshima University Studies, Faculty of Letters* 46, pp.125-154.
- Okahashi, H (1989): Postwar Developments in Mountain Village Studies in Japan. *The Human Geography* 41-2, pp.44-71.
- Palmer, E. (1988): Planned Relocation of Severely Depopulated Rural Settlements: a Case Study from Japan. *Journal of Rural Studies* 4-1, pp.21-34.
- Sakaguchi, K (1975): Processes and Factoros of Village Desertion: A Case Study of Ogose and Ohmi in the Vicinity of Kyoto. *The Human Geography* 27-6, pp.1-32.
- Skeldon, R. (1985): Population Pressure, Mobility, and Socio-economic Change in Mountain Environments: Regions of Refuge in Comparative Perspective. *Mountain Research and Development* 5-3, pp.233-250

Takahashi, S (1988): Relationship between Residents and Large Wild Mammals in Japan—Japanese Black Bear and Japanese Wild Boar—. *Geographical sciences* 43-3, pp.15-20.

Takeuchi, K (1976): The Rural Exodus in Japan (2)—Basic Consideration for International Comparison. *Hitotsubashi Journal of Social Studies* 8, pp.35-41.

戦後日本における山村の変容

— 周辺化と開発過程 —

岡橋 秀典

本稿は、第2次大戦後の日本の山村の変容を、中心・周辺論による「周辺化」の概念に依拠して捉えなおそうとしたものである。この観点からすれば、今日の山村は、過疎地域や僻地よりも、「周辺地域」として捉えるほうが適切である。この場合には、戦後の日本の山村変容は、自然経済の地域構造から商品経済の地域構造に最終的に編成替えされる中で生じたものであり、山村経済の国レベルの市場経済への完全な統合過程であったことになる。具体的な特徴としては、農林業の衰退と他方での工業、建設業、サービス業などの成長、消費生活の商品依存、労働力の流出、外部資本の進出などがあげられる。また、その結果、長く保たれてきた山村経済と生態系との有機的関連も失われていくことになる。本稿では以上の観点に立って実証的な検討を行い、以下の結果を得た。

1. この間の山村の変容のもっとも劇的な側面をなす人口減少について分析したところ、その地域性は東日本と西日本という対照性が弱まり、大都市圏を中心とした同心円構造が強くなっていることが明らかとなった。続いて、山村問題の定量的検討により、今日高齢化が最も基本的次元であること、また最も問題の深刻な地域が西南日本外帯の山村であることが判明した。
2. 「周辺化」が最も顕著に現れている山村経済の検討により、非農林業化の進行と地域労働市場の形成、それによる山村の外部依存の増大と、「周辺地域」としての役割強化の過程が確認された。特に、工業化との関連では、愛知県三河山間地域において、地域労働市場の重層構造の実態が示された。
3. 山村の生活問題を、西中国山地の加計町の例を中心に、集落立地や中心機能の再編の観点から検証した結果、高位面の集落の廃村化、また学校その他

の機能の統廃合による中心部と周辺部の格差の拡大が明らかにされた。

4. 最後にこうした状況下にある山村開発のあり方を検討した。通称「むらおこし」とよばれる山村の内発的振興に光を当て、これまで余り注目されていないその意義を明確化した。また今日問題化しつつある山村の生態系の変化にも注目し、将来の山村にとってそれを保全することの意義を述べた。

以上のように、本稿は「周辺化」概念を軸に戦後日本の山村変容を多面的に把握しようとしたものである。こうした「周辺地域」としての山村理解は、Skeldon (1985) の図式に示されているように、世界的なスケールでの山村変容の解明にも有効と考えられる。