BEITRÄGE ZUR JAPANOLOGIE 46

RURAL AREAS BETWEEN DECLINE AND RESURGENCE

LESSONS FROM JAPAN AND AUSTRIA

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BEITRÄGE ZUR JAPANOLOGIE

Veröffentlichungen der Abteilung für Japanologie
des Instituts für Ostasienwissenschaften
der Universität Wien

Band 46

Herausgeberin

Ingrid Getreuer-Kargl

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VIENNA 2018

Cover image:

Upper left photo: View across the northern arc of the Aso Caldera (Kumamoto Prefecture, Japan) towards the Aso volcanic mountain range © W. Manzenreiter, 2017.

Upper right photo: Operational briefing of a local volunteer group for the annual fire clearance of the grasslands on the high plains encircling the Aso Caldera © W. Manzenreiter, 2017.

Lower left photo: View from the platform of a small railway station in Takamori Town (southern arc of the Aso Caldera) © J. Wilhelm, 2016.

Lower right photo: Vineyard landscape near the town of Langenlois, Lower Austria © E. Derschmidt, 2015.

ISBN 978-3-900362-29-4

Gedruckt mit Unterstützung der PHILOLOGISCH-KULTURWISSENSCHAFTLICHEN FAKULTÄT, UNIVERSITÄT WIEN

Verleger und Eigentümer: Abteilung für Japanologie des Instituts für Ostasienwissenschaften der Universität Wien; Herausgeberin: Ingrid Getreuer-Kargl; c/o Abteilung für Japanologie des Instituts für Ostasienwissenschaften, Universität Wien, Spitalgasse 2-4, A-1090 Wien, Österreich.

Druck: Offset-Schnelldruck Riegelnik, Piaristengasse 17-19, A-1080 Wien, Österreich.

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Introduction: Rural Areas – Dying or Just Smelling Funny?

In recent years, public discourse in Europe, Japan, and the U.S. often portrays rural areas as neglected or abandoned regions. Total dependency on decision-making by urban elites, economic hollowing-out, demographic aging and shrinking, a severe thinning-out of medical infrastructure and public transport, leading to derogatory labeling as "fly-over states", … – there is a long list of adverse conditions attributed to today's rural regions. These often serve as explanation for yet another, rather recent, peculiarity of many rural areas: being a stronghold of discontent and right-wing populism.

Numerous contributors to the discourse claim that globalization and its concomitants are conducive to an increase in social inequality (see, for instance, Chiavacci and Hommerich 2017). Likewise, it has become clear that the global economy also fuels an increase in spatial inequality. Most studies in this field of research either focused on developmental inequalities between world regions or nation states (such as in Wallerstein's (1974ff.) world system approach) or on inter- and intra-urban disparities (such as in Sassen's (1991) global city research). "Territorial inequality" (Neu 2006) between regions within nation states because of global developments has become a topic of debate only after the beginning of this century. The new interest in regional disparities is backed up by the often-dramatic demographic, economic and infrastructural decline that characterizes most (but not all) rural regions (as well as old industrial regions) in major industrialized countries (Kühn 2015). The analogies between growing social and territorial inequality are striking: The income of the lower middle and working classes have increasingly become uncoupled from overall economic growth, rural areas seem to be equally uncoupled from global economic and socio-cultural development. The unrestrained flow of capital and labor intensified competition among regions for the location of economic activities. Rural areas, traditionally the location of choice of branch plants, succumbed to newly industrializing countries in the race; tariff reductions and free-trade agreements reduced the profitability of the agricultural sector. States reduced taxes to boost the economy and in return cut spending for less-favored regions, thereby virtually abandoning the political goal to establish equivalent living conditions across all regions. As a result, out-migration of the young and the educated, which has haunted many

rural areas long since, gains new momentum and quickens a downward spiral that is difficult to stop or revert.

However, is this depressing account revealing the entire "truth" of conditions in the countryside? Have rural communities indeed passed a critical point of no return from where on they are doomed to become extinct? Furthermore, are rural inhabitants living a life in isolation, and are they discontent or unhappy with their life? Cannot it be the case that the negative assessment is an expression of urban elites exercising power over rural areas by denouncing them as backward and hopeless? Are there possibly other, more favorable conditions not yet sufficiently taken into account or even totally ignored by researchers, politicians or the media? Are there potentials in the regions that could be used to revive rural communities or at least to slow down the speed of decline?

In order to tackle these questions, the Japanese Studies section at the University of Vienna has initiated an interdisciplinary research project in southwestern Japan. The choice of the Aso basin in Kumamoto Prefecture (central Kyūshū) as principal research site has been prompted by previous studies that japanologists from Vienna conducted in the same region about fifty years ago (as for main results of this past research project, see the volumes 12, 13 and 18 of the *BzJ* series: Slawik *et al*. 1975; Pauer 1976; Slawik and Linhart 1982). In November 2016, specialists from Japan and Austria came together for a conference at the University of Vienna to discuss basic issues concerning rural areas in both countries. Austria's countryside resembles Japan's in several ways. Its mountainous character is just one of many topographical and structural similarities that make it a good object of comparison or projection screen to shed light on the universality or singularity of trends currently visible in the Japanese countryside.

Out of twelve papers presented at the conference, nine have been selected for this volume. All authors are either from the Japanese Studies section at the University of Vienna, from the Center for Policy Studies (Seisaku Sōzō Kenkyū Kyōiku Sentā) at Kumamoto University, or from the Federal Institute for Less Favored and Mountainous Areas (Bundesanstalt für Bergbauernfragen) in Vienna. The five papers of the first section of this volume provide a general account of rural living conditions in the two countries and address aspects such as levels of well-being and social capital hitherto less considered when analyzing rural areas. In the second section, four contributions present examples of rural community development and revitalization.

Taken as a whole, this volume centers on the triangular relationship between structural conditions (demography, economy, infrastructure), levels of well-being, and the strength of social networks (social capital) in rural com-

munities. These three dimensions have to be considered in conjunction with each other when attempting to get a full picture of rural living conditions. Levels of rural well-being are quite independent from the state of the economy in a region but partly affected by the quality of social networks. The relationship between social capital and structural conditions, meanwhile, is of a bidirectional quality. The chapters give numerous examples of policies directed at activating social capital to generate endogenous rural (economic) development. These efforts at revitalization cannot reverse, let alone completely offset, the downward trend in socio-economic conditions but certainly can mitigate it. Nevertheless, the activation of social capital alone is not sufficient to sustain rural regions. Some authors in this volume are concerned that the social networks of rural communities might eventually collapse, if the number of residents fell below a certain threshold. To replenish the widening gap in structure and mindset between rural and urban areas and to guarantee a decent level of living in the countryside, it thus seems that subsidization by national or regional governments remains imperative as a complementary strategy for a long time to go.

In the first paper, Lützeler reconsiders established notions of Japanese rural areas against the background of more recent studies contesting the view of a "dying countryside". In addition to introducing non-socioeconomic indicators like health or well-being levels, he also takes a fresh look at conventional measures such as net migration and aging rates. His statistical reanalysis reveals that most rural areas are declining or shrinking indeed, but they are still far from being at the verge of extinction. Most out-migrants live just as far away as the next prefectural capital city and thus remain part of an "extended village community". Furthermore, in some communities the aging trend has been reversed – at least temporarily.

Hovorka shows that structural conditions of agriculture in Austria, too, are not favorable. Not unlike Japan, part-time farming on small-scale farmsteads prevails. As "less-favored areas", almost two third of the utilized agricultural area, most of it in mountainous regions, is qualified for compensation allowances by the EU. This support is not only aiming at providing a living for farmers but also meant to sustain multifunctional farming in the service of multifunctional landscapes, which fulfill important roles such as safeguarding the ecosystem or keeping regions attractive for tourism.

Manzenreiter addresses the question of regional differences in happiness levels by analyzing data of the annual Aggregate Kumamoto Happiness (AKH) survey. He concludes that subjective well-being in Kumamoto Prefecture does not systematically differ between urban and rural areas, but there are marked differences among rural areas. The Aso region in particular shows

high well-being levels that are related to high levels of pride in local traditions and nature and high satisfaction with material conditions, possibly due to the close distance to the prefectural capital.

Ueno examines the effectiveness of policies in Japan aiming at sustaining rural areas by activating social capital in the communities. Both the national and prefectural governments use direct payment subsidies to maintain community functions such as agricultural production, the management of agriculture-related facilities such as farm roads or waterways, landscape preservation, or the holding of cultural events. According to Ueno, such policies are effective, but subsidies have to be continuous instead of non-recurring one-time pushes towards self-reliant development. Furthermore, many communities have withdrawn from such government support projects, what indicates that there are limits to these policies.

In a similar vein, Wiesinger in his study on social capital in Austrian rural areas holds that a high level of social capital alone, while facilitating the activation of local resources for rural development, cannot stop rural decline. Economic as well as cultural capital is needed to provide a basis for sustainable development. On the other hand, national or local policies that aim to raise economic capital in a community, e.g. by creating new jobs, are also not prospective without well-functioning social networks. This might explain why public support measures are effective in some rural communities while failing in others.

Heading the second part of this volume, Tanaka's study portrays community development initiatives in the rural town of Yamada in Kumamoto Prefecture. Yamada Town is situated on a plateau that the Japanese government designated as "Important Cultural Landscape". This means that inhabitants are not only obliged to preserve the landscape itself but also the mechanism behind the creation of the landscape. In Yamada, several stakeholders including farmers, the local government, tourists and newcomer residents try to adjust their views and develop strategies to cope with landscape maintenance. Tanaka concludes that participation in cultural landscape preservation can raise levels of local identity and thus generate community development. What is needed, though, are responsible stakeholders, a positive attitude towards change, and commitment to the sustainability principle.

Kawamura's chapter addresses community development processes centered on the improvement of health levels – and eventually levels of happiness – in the semi-rural outskirts of Kumamoto City. Based on the idea of social determinants of health promoted by the WHO, the citywide Healthy Community Development Program aims at empowering lower income residents of elementary school districts to improve health-related skills and knowledge. It

thus supports manifold initiatives such as fun events where health check-ups and consultations are also on offer. Kawamura evaluates such activities as an important contribution to create self-sustaining communities.

The contribution by Wilhelm gives a first-hand account of both public policies and individual efforts taken to restore livelihood in two coastal fishing communities that were severely hit by the Great East Japan Earthquake and Tsunami of 2011. The author demonstrates that the road to reconstruction was and is paved with many obstacles such as local opposition against plans and strategies that are enforced in a top-down manner, internal frictions between local stakeholders, heavy out-migration to other areas and industrial sectors, or import bans imposed by South Korea for fear of contaminated seafood products. At the time of writing, it seems not yet clear if and how the affected communities – their fisheries industry in particular – will sustain.

Oedl-Wieser and Dax in their paper analyze the implementation and impact of the so-called LEADER program (launched by the EU in 1991 to support endogenous rural development) in Austria. The authors introduce seven "good practice" examples from mountainous areas in Austria that have different thematic focuses, ranging from the promotion of traditional food production to the integration of migrant women. Their largely positive assessment of LEADER initiatives takes into account their mobilization capacity of local stakeholders. what in turn brings incentives for rural revitalization and induces changes in regional identity and perspectives.

Finally, two short project reports are included in this volume to present current research on rural Japan conducted at the Japanese Studies section of Vienna University. Holthus and Lützeler study regional differences of well-being levels among parents with small children and ask if rurality matters in this context. Spletzer analyzes the revitalization campaign *Zen* of Aso City. She examines how the local community appreciate this initiative that was imposed in a top-down manner and whether it can offer a feasible and sustainable solution for the area to attract more tourists.

It was beyond the scope of this edited volume to discuss the state of today's rural areas from every conceivable angle. Nevertheless, the editor hopes that the volume as a whole will contribute to a more varied and less morbid view on Japanese and Austrian rural areas. Paraphrasing Frank Zappa's famous remark on jazz music, the main message of this volume might be rendered to the condensed insight that rural areas are not dead; they just smell funny.

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(RE-)ASSESSING RURAL LIVING CONDITIONS

Ralph LÜTZELER

1 Living Conditions in Japanese Rural Areas: Stuck in a Downward Spiral?

Introduction

Since the mid-2000s, Japanese media and politics almost in unison have been painting a gloomy picture of the future of rural areas. One of the more recent and prominent promoters of this discourse is the so-called Masuda Report of 2014, submitted by Masuda Hiroya, a former Vice-minister of Internal Affairs and Governor of Iwate Prefecture. The Masuda Report is foretelling the disappearance (*shōmetsu*) of about half of all Japanese municipalities within this century if no countermeasures are taken right now.

In fact, already a glimpse of census statistics taken every five years reveals that almost all parts of the Japanese countryside are affected by serious aging and subsequent depopulation. In 2015, when the last census was taken, 13 out of 47 prefectures, all of them rural, displayed a share of people aged 65 or older exceeding 30 percent (with the national average at 26.6%). Such high aging rates are contributing to the fact that currently more deaths than births occur in rural areas, which is now the major reason for population decline, even though migration rates continue to be negative as well. Out of 1,719 municipalities in Japan, no less than 1,419 (82.5%) recorded a population loss in the period 2010–2015. Among them, 230 towns and villages lost more than ten percent of their inhabitants. Compared to the period 2005–2010, this was an increase of another 80 municipalities now affected by rapid population decline (Sōmushō Tōkeikyoku [2016]: 14–15, 23).

Such figures notwithstanding, several scholars have challenged, or at least modified, the „dissolving-rural-areas“ hypothesis, *inter alia* pointing to the fact that even among rural settlements or hamlets (*shūraku*), usually including no more than about 100 households but often less than 20, cases of total dissolution are a rarity yet (Yamashita 2012). Others suggested that many young out-migrants may keep social contacts with their home village because most of them stay in the region (Oszen and Tokuno 2008; Tokuno 2007).

Based on the examination of statistical data on migratory flows between municipalities and on population composition by age at the rural settlement level, which have become available for analysis only recently, this paper attempts to check the plausibility of these counter-arguments. As a case in point, the municipalities of Kumamoto Prefecture and the settlements of Aso City,

respectively, were chosen. The latter area is also the main study region examined by the research project on Japan's rural areas conducted at the Japanese Studies Section of the Department of East Asian Studies at Vienna University. Furthermore, I will elaborate on different indicators of living conditions in rural Japan by making a distinction between socioeconomic and non-socioeconomic indicators, putting more stress on the latter set of indicators. As a main conclusion, it will be stressed that structural conditions in Japanese rural areas are much more complex than they appear to be when referring to obvious or ubiquitous indicators only. Most rural areas show a stagnant development indeed but they are still far from being on the verge to extinction.

The perception of rural areas in Japan

In order to evaluate the state of affairs in rural Japan, it is mandatory to clarify how rural areas are defined or perceived and over what area they extend. Surprisingly, neither geographers nor sociologists give us a clear definition of "rural areas". Instead of regarding it as a spatial category in its own right, rural areas are conventionally understood as all areas that are not urban (Henkel 1993: 25). Nevertheless, in our minds, the idea of rurality is permeated by visions of sound agricultural landscapes or a predominance of primary sector activities. Moreover, from the time when Yanagita Kunio (1875–1962), the founder of Japanese folk studies, traveled through the countryside, rural areas were also often romanticized as places where elements of the old, premodern Japan, that has been lost elsewhere, are still visible (Jortner 2007). This perception laid ground to the nostalgic *furusato* (homeland) boom, which has been fueled by Japan Railways and local governments alike since the 1970s to attract domestic tourists. Sometimes, village-scapes were even remodeled to make them fit to the general idea of how a "traditional" Japanese village should look like (cf. McMorran 2008).

Economic structural change in Japan as elsewhere, however, has struck an irrevocable blow to the rustic idyll, if it ever existed at all. Today, only a minority of employed persons in the countryside are still making a living from sticking to agriculture. Most of them are aged subsistence farmers or members of households that derive the bulk of their income in construction work or manufacturing, carrying on agriculture as part-time job only. Due to the relocation of manufacturing jobs to Mainland Asia and to expenditure cuts on public construction projects, however, many farm households have recently seen a substantial drop in gross income levels (Odagiri 2011: 14–16).

With sources of livelihoods stagnating or dwindling in the countryside, the young have flocked to the cities for decades. Therefore, rural areas in Japan

have become heavily associated with "too sparsely" (*kaso*) populated regions and consequently with areas threatened by regression or even extinction. The term *kaso chiiki* was created as a regional policy term in the 1960s when outmigration from rural areas had reached enormous proportions. It refers to areas with heavy population losses and ensuing demographic aging much above the national average. More recently, a severe lack of fiscal resources, giving birth to a strong dependence of municipalities on fiscal transfers by the central government, is also highlighted as constituent of *kaso* areas (Sōmushō 2016). Depopulating areas can be found all over Japan, covering almost 60 percent of the whole territory. While mountainous areas and small remote islands are particularly affected, the phenomenon "descended" to the plains where medium- and small-sized cities started showing signs of depopulation from the 2000s onward (Odagiri 2011: 7–10). Distance to major urban hubs such as Tōkyō, Ōsaka, or Nagoya, seems to be the only factor affecting the distribution pattern of *kaso chiiki*, and there are no differences in frequency between macro-regions such as northeastern and southwestern Japan.

This is a surprising fact. In most other industrialized countries there is a distinction between rural regions that show bleak conditions not unlike those in Japan, and others that are considered much more viable. In Austria, for instance, the latter areas are located in the high alpine parts of the country where year-round tourism (i. e., skiing during winter and early spring; hiking during summer and autumn) is stabilizing the local economy (Weber 2002: 8). In France, rural areas in the south are performing better than those in the north, while in Italy it is just the opposite. The authors of the so-called ESPON Atlas monitoring structural development in European regions thus conclude that "[r]ather than becoming more uniform in character, rural Europe is becoming increasingly diverse" (ESPON & BBSR 2014: 16–17). The reason why Japan's rural areas do not go with this trend is not easy to imagine. Political centralism alone cannot account for this, as the French example demonstrates.

During the first decade of this century, the term *genkai shūraku* or "marginal settlement", coined by the sociologist Ōno Akira in 1991 and popularized in a 2005 publication by the same author, has replaced *kaso chiiki* as the most frequently used catchword for pointing at rural decline. *Genkai shūraku* are defined as settlements with more than 50 percent of its population aged 65 or older, thereby implicating that these settlements are destined to disappear soon. The popularity of this term is symptomatic of the previously mentioned disaster discourse, which is predicting a bleak future for Japanese rural areas.

The first objection to be made here is related to the fact that the assumption of inescapable extinction is based on a simple forward projection of current population trends resulting in continuously growing aging rates and

shrinking inhabitant numbers. Thus, hamlets where the share of people aged 55 years or older exceeds the 50 percent threshold are termed "semi-marginal settlements" (*jun genkai shūraku*), since it is believed that they will most likely follow suit the fully developed marginal settlements in their path toward abandonment (Yamashita 2012: 25–26).

However, while such projections might work when large spatial units such as whole countries are concerned, the prediction of future resident figures or aging rates is highly questionable in underpopulated small-sized units. In the case of Japanese hamlets, already the in-migration of two or three individuals more than expected can mess up even the most careful calculations. Figure 1 shows the percentage point change in aging rates in Aso City by hamlets in the period 2005–2010. To be true, there are hamlets that display substantial increases (in orange or red) but most of them are sparsely inhabited and thus prone to random fluctuations. No less significant, however, is the fact that in a large number of cases (in green or blue) the relative share of the elderly is declining. On average, aging rates are rising indeed but they do so in a more moderate manner of no more than five percentage points. In 2005, there were 31 *jun genkai shūraku* and one fully developed *genkai shūraku* among the 121 hamlets in Aso City. Five years later, the number of *genkai shūraku* had only risen to five (three of them having less than 30 inhabitants) while in five

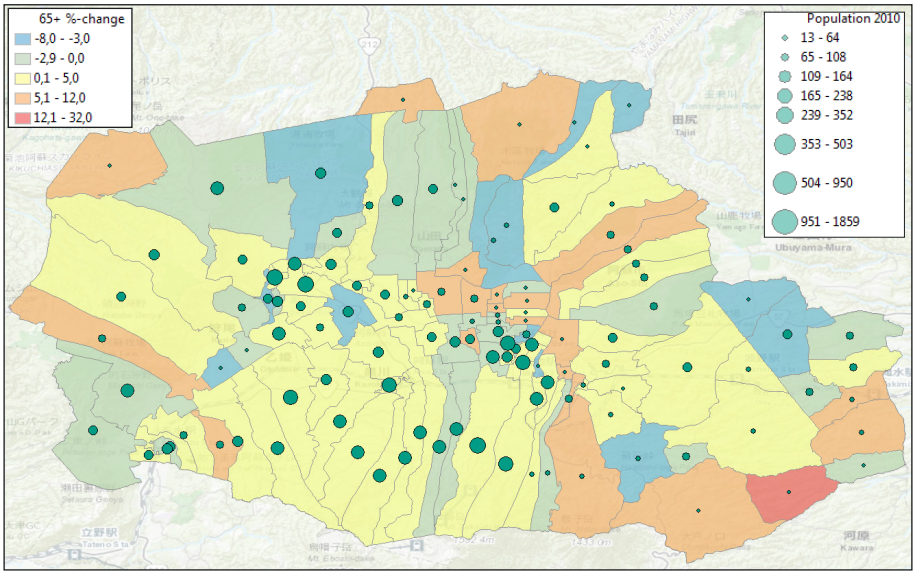

Figure 1. Total population and percentage point change 2005–2010 in the proportion of people aged 65 and over by hamlets (*shūraku*), Aso City

Source: Own calculations based on Nōrin Suisan-shō (2016).

former *jun genkai shūraku* the rate of the 55+ generation had dropped again below 50 percent. Obviously, high aging rates can be reversed; they are not necessarily a harbinger of village desertion.

Another – and more profound – problem of such studies highlighting rural decline lies in the fact that their analysis is giving a one-sided picture of rural conditions. To begin with, as the terms *kaso chiiki* or *genkai shūraku* imply, attention is usually focused on demographic aging or shrinkage alone, thus neglecting economic hollowing-out as the prime cause of rural difficulties. In fact, international research on rural decline, including studies by Japanese scholars, has long since elaborated on the existence of a vicious circle or downward spiral (Schramm *et al*. 1981: 10–11; Taira 2005: 72–77; Tsutsumi 2015: 40–45), with economic decline triggering net migration losses among young adults leading to population aging and the erosion of fiscal resources of municipalities, which are in consequence forced to discontinue services, thereby damaging the attractiveness of the region for citizens and businesses, and reinforcing migration losses.

Peripherialization as another alternative approach brings in power relations as the basic cause of economic decline in rural areas (Beetz 2011: 468–471). In this view, specific regions, most but not all of them rural, are disconnected from development processes because of their dependence on political and economic decisions taken in the centers of power, i. e., where central political institutions and corporation headquarters are located. In the end, such regions are relegated to the status of an "internal colony", a term recently applied to the Tōhoku-Region in northeastern Japan in particular (Hopson 2013).

Indicator blues: How to measure "real" living conditions in rural areas?

While it is true that Japan's rural areas are ridden by structural problems such as economic and demographic decline, which might have been generated or aggravated by decisions made in Tōkyō or other global cities, such an assessment is not providing the whole picture of living conditions in the countryside. Other quality-of-life indicators, such as safety or health levels, usually are not taken into account. Furthermore, most analyses are based on official statistics that ignore how people themselves evaluate their level of well-being. Finally, social indicators, whether based on objective or subjective data, tell us much about attributes, opinions or behavior of an aggregated mass of people. They do not reveal, however, how local inhabitants act to cope with difficult situations, thereby easily giving the impression of a reactive rather than proactive rural populace.

Here, I would like to dwell a bit more on the first two types of indicators. Figure 2 gives an impression of the questionable relationship by prefectures between the level of overall subjective well-being as measured by the CEL Index and the so-called Hōsei University Happiness Index. The latter index is composed of 40 objective quality-of-life indicators covering a wide range of aspects from demographics, the family, living environment, work and enterprises, safety and social security, to health and medical infrastructure. Two main messages can be drawn from this figure. First, there is no significant correlation between the two measures, which means that prefectures where people feel rather satisfied with their life do not necessarily show a high quality of life as measured by the Hōsei Index and *vice versa*. Obviously, subjective and objective social indicators are representing completely different dimensions of social reality. This conclusion is in line with the results of similar studies in other countries.

Second and more important, subjective well-being seems to be totally unrelated to the degree of rurality, whereas there is a tendency of objective quality-of-life levels being even higher in *rural* prefectures such as Toyama, Ishikawa, Fukui or Tottori along the Japan Sea coast. In any case, this suggests that demographic

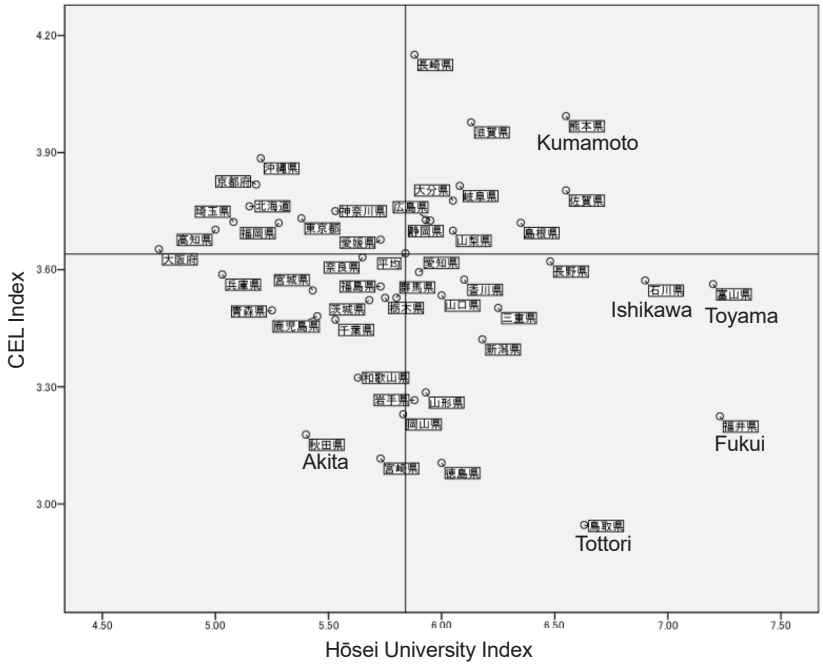

Figure 2. Subjective well-being and objective quality of life by prefectures, 2009/11

Source: CEL Enerugī Bunka Kenkyūsho [2011], slightly modified by the author.

and economic decline does not automatically translate into regional unhappiness or overall low quality-of-life levels. Rather, a distinction has to be made between rural prefectures with disadvantageous objective conditions *and* negative subjective well-being levels (such as Akita Prefecture in the Northeast) and prefectures where life seems to be fully satisfactory (such as Kumamoto Prefecture in the Southwest).

Surprisingly, even indicators that on first sight seem to support the disaster area hypothesis give a different message when analyzed in detail. Here I am referring to internal migration. Table 1 shows the number of people having left the Aso region in Kumamoto Prefecture in 2014/15 by destination. Already in 2007, the rural sociologist Tokuno Sadao argued that the majority of today's out-migrants, while no longer living at their place of origin, do not move far away so that they are able to maintain close and regular relations to their hometown or village, taking part in festivals or other village affairs. According to Yamanaka (2005: 56), this pattern emerged from the late 1980s when long-distance migration to major metropolitan centers such as Tōkyō, Ōsaka, or Nagoya was gradually replaced by short-distance migration to provincial cities. The figures in the table seem to support this argument. It becomes apparent that more than half of all out-migrants stayed in the prefecture and another 23 percent at least did not leave the island of Kyūshū. In addition, net migration from more distant areas in Japan such as the Tōkyō region is only slightly negative, meaning that either many Aso-born people do return (probably when reaching retirement age; so-called U-turners), or the Aso Region is attracting new residents (perhaps due to its appealing landscape; I-turners). The migration surplus with regard to foreign countries, finally, might be interpreted as a late effect of the region's popularity among tourists from South Korea or Taiwan (Kumamoto-ken Kankō-ka 2016: 22–24).

Table 1. Migration balance: The case of the Aso Region (2014–2015)

Destination of out-migrants	**Number of out-migrants**	**% of all out-migrants**	**Net migration**
Other parts of Kumamoto Prefecture	2770	53.3	- 765
Kyūshū region (excluding Okinawa)	1187	22.8	- 375
Other prefectures	969	18.6	- 108
Foreign countries	275	5.3	667
Total	5201	100.0	- 581

Note: "Aso Region" refers to six municipalities that were or still are part of the Aso District (Aso-gun): Aso-shi, Oguni-machi, Minamioguni-machi, Ubuyama-mura, Takamori-machi, Minamiaso-mura. Nishihara-mura was excluded since it is part of the suburban belt around Kumamoto City.

Source: Own calculations based on Kumamoto-ken Kikaku Shinkō-bu Tōkei Chōsa-ka (2014, 2017).

Admittedly, these figures point to the *possibility* of continued social relations rather than actual behavior. Interviews our team conducted with rural villagers in the Aso area during a short fieldtrip in September 2016 gave the impression that even children living no more than 30 or 40 kilometers away from their parents, hardly visit them except for New Year's Day and the O-Bon season in August. A household survey (Yamanaka 2005) taken in 2002 in three hamlets of Ashikita-machi, a small town in the southern part of Kumamoto Prefecture, however, clearly showed that a large majority of out-migrants who stayed in the prefecture (about 55 percent of all out-migrants), visited their family at least once a month (see Figure 3). By contrast, those who had migrated to destinations beyond the prefectural border indeed paid visits during New Year holidays, the Golden Week in early May and O-Bon only, if at all. Due to the persistence of the patrilineal succession custom, many daughters leave their village in order to marry into other families in surrounding villages (Yamanaka 2005: 39), what explains why there are more women than men among intraprefectural out-migrants. Long-distance migration, by contrast, is clearly male-dominated. As a result, women form the majority of those who regularly visit and are part of what might be called the "extended village community".

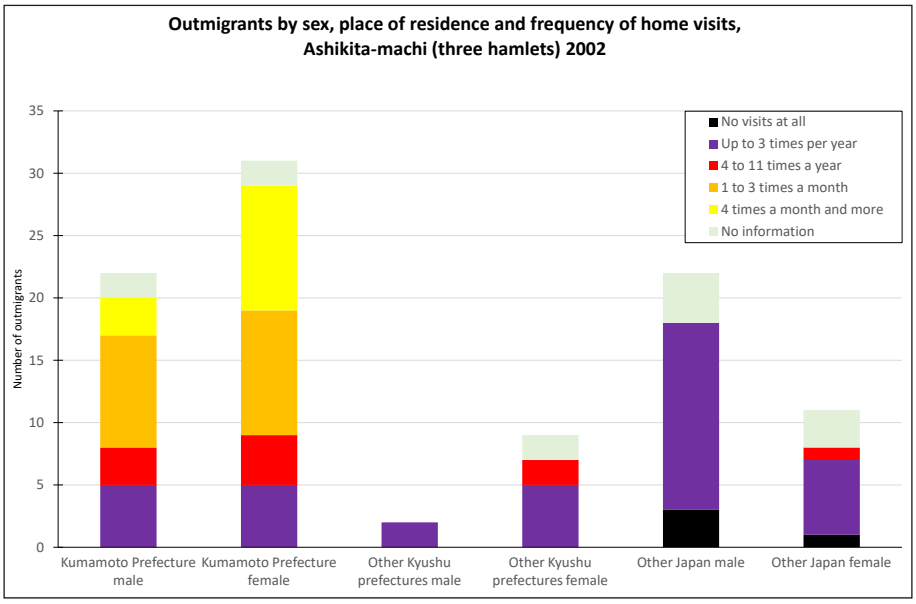

Figure 3. Out-migrants by sex, place of residence and frequency of home visits, Ashikita-machi (three hamlets) 2002

Source: Own calculations based on Yamanaka (2005).

Conclusion

This article attempted to assess living conditions in Japanese rural areas by both reanalyzing conventional socio-demographic indicators and including less used indicators such as subjective well-being levels. This was done against the background of increasingly pessimistic perceptions regarding the viability of rural Japan. While the analysis could only touch on some aspects of a much broader topic, the following findings can be highlighted.

First, one cannot deny the fact that demographic and economic problems in Japanese rural areas do exist, and, in marked contrast to Austria and other industrialized countries, almost all rural areas are affected, although by varying degrees. However, more often than not these problems are exaggerated or misinterpreted by politicians or the media. What is more, rural decline is not an inescapable fate but can be reversed, at least at the rural settlement level.

Second, when including other indicators such as health levels or subjective well-being, it becomes apparent that living conditions in rural areas are much more complex and quite diverse, depending on the region observed. Furthermore, even high out-migration surpluses do not necessarily lead to the dissolution of settlements, since most of today's out-migrants stay in their region of origin. Due to high levels of motorization in Japanese rural areas, rural out-migrants are able to frequently visit their home villages and thus contribute to the continuation of community life.

According to a study by Lee and collaborators in 2005, high levels of social capital such as indicated by close ties to relatives, friends, neighbors or colleagues, but also civic engagement are positively correlated with high well-being levels. Therefore, for further research, it might be worthwhile examining if differing levels of social cohesion in Japanese regions are contributing to the fact that some rural areas show quite acceptable conditions while others are stuck in structural decline and mental unhappiness.

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Gerhard HOVORKA

2 Structural Changes in Austrian Agriculture in Mountainous Areas

1. Introduction

In this article, a brief description and key figures on agriculture in Austria are presented first. This is followed by an analysis of structural changes in agriculture in Austria for the period 1990–2010, which shows a massive structural change. Chapter 4 shows the delimitation of mountain regions and other less-favored areas and the importance of further subdividing mountain farms by categories of site-specific farming handicaps. The next two chapters discuss characteristics and structural change in mountain farming as well as the large income gap for mountain farms. Chapter 7 provides a summary of the Rural Development Program for Austria, with a focus on the two most important support measures for mountain farming – the Compensatory Allowance (CA) and the agri-environmental program "Österreichisches Programm für umweltgerechte Landwirtschaft" (ÖPUL – Austrian Program for Environmentally Responsible Agriculture). The conclusions highlight the importance of multifunctional mountain farming for society and outline the general conditions for successful mountain farming in the future.

2. Short description and key figures on agriculture in Austria

Austria covers an area of 83,879 km², of which 32 percent is agricultural land, while forests cover 44 percent. The total population is 8.4 million, 66 percent of which lives in rural areas. Rural depopulation is an increasing problem (European Commission 2014). Austria is also a mountainous country. Around 70 percent of the total surface area is defined as mountainous (50% of the agricultural land), and 58 percent of farm holdings are located in mountain areas (Hovorka 2017; Statistik Austria 2014).

In 2013, the agricultural structural survey recorded 166,317 agricultural and forestry holdings for Austria, of which 19,676 holdings were managed exclusively as forest areas. The total Utilized Agricultural Area (UAA) in 2013 was 2.8 billion UAA, of which 13.3 percent was categorized as Alpine pasture (BMLFUW 2016a). The production value of agriculture and forestry in 2015 amounted to about €8.40 billion, of which €6.78 billion derived from agriculture and €1.62 billion from forestry. The total production value of agriculture

was made up of 41.7 percent plant production, 47.8 percent animals and animal production, and 10.5 percent other agricultural activities (BMLFUW 2016a).

Austrian agriculture is characterized by a small-scale structure, where farming is difficult,[1] and consequently 55 percent of holdings are part-time farms, only 37 percent are operated full time, and 8 percent are other legal entities (BMLFUW 2016a). Although Austria has undertaken major efforts in the field of environment since joining the European Union in 1995, there is still room for improvement. Biodiversity continues to decline, and there are regions where emissions are too high and groundwater quality exceeds critical values (European Commission 2014). Organic farming is a real success story in Austria: 18 percent of farms and 21 percent of UAA are managed under organic farming rules.[2] The great majority (70%) of organic farms are mountain farms (BMLFUW 2016a).

3. Structural changes in Austrian agriculture (1990–2010)

Between 1990 and 2010, agriculture in Austria underwent massive structural changes (see Table 1). The contribution of agriculture and forestry to the gross value added decreased by more than half. The number of farms declined by 109,000 (-39%), and the workforce decreased by the equivalent of 121,500 full-time positions (-46%). In the same 20-year period, farm sizes grew from an average of 6.2 ha UAA to 19 ha UAA per farm (+49%). Milk production per cow rose to an average of 6,100 kg (+61%). The share of full-time farms (39%) remained almost unchanged, while the share of mountain farms (38%) rose slightly. In 1990, organic farming accounted for 0.6 percent of all farms, rising to 14.4 percent by 2010.[3]

Austria's agricultural policy has impacted this development, i. e. slowed structural change by supporting all farm sizes, including small- and medium-sized farms as well as mountain farms through the agri-environmental program and the compensatory allowances for mountain farms and farms in other less-favored areas.

Agricultural structural change is still very pronounced in Austria. Between 1995 and 2013, more than a third of all farm holdings with UAA abandoned farming. A more detailed analysis of structural change shows a differentiated picture: Farms of up to 30 ha UAA decreased sharply (41.5% share of total UAA

1 The average farm size is 19 ha UAA, while 71 percent of farms with UAA have a size of less than 20 ha UAA, and only 1.8 percent farm more than 100 ha UAA (BMLFUW 2016a; Statistik Austria 2014).

2 Figures are from the Integrated Administration and Control System (IACS) and differ from the figures provided by the agricultural structural survey.

3 Compared with the figures of the IACS system, the percentage of organic farms rose to 16 percent in 2010.

Table 1. Key figures and structural changes in agriculture in Austria (1990–2010)

	1990	1999	2010	Change 1990–2010
Share of GDP (% points)	3.2	1.9	1.4	-1.8
Holdings (in 1000)	281.9	217.5	173.3	-108.6
Share of full-time farms (% points)	38	37	39	+1.0
Share of mountain farms (% points)	35	39	38	+3.0
Share of organic farms (% points)	0.6	10.0	14.4	+13.8
Average farm size (ha UAA)	12.6	16.8	18.8	+6.2
Milk per cow (kg per year)	3,791	5,062	6,100	+2,309
Farm labor (in 1000 AWUs)	271.0	198.4	147.0	-121.5

Notes: ha UAA = hectare Utilized Agricultural Area; AWU = Annual Work Units; average farm size (ha UAA) includes only farms with UAA; number of organic farms is compared with number of holdings with UAA from the agricultural structural survey.

Sources: BMLFUW (2015: 153, 174, 183, 197); Groier (2013: 7); Groier and Hovorka (2007: 14); Statistik Austria (2012: 22); own calculations.

in 2013). Farms of up to 2 ha UAA were even more affected by decline (-51%), but these holdings account for only 0.7 percent of the total UAA in Austria. By contrast, all size classes of 30 ha UAA and over increased. The relative increase in holdings was biggest in the 100 to 200 ha UAA class (+224%). These holdings now account for 9.8 percent of total UAA (see Table 2).

Table 2. Number of agricultural and forestry enterprises by size and change, 2013 compared to 1995

Size classes in ha UAA	Number of enterprises 2013	Share of enterprises 2013 in %	Share of ha UAA 2013 in %	Change in number of enterprises 2013–1995 in %
under 2 ha	19,848	13.7	0.7	-50.9
2–5 ha	27,671	19.1	3.3	-43.1
5–30 ha	71,406	49.3	37.5	-36.5
30–50 ha	14,656	10.1	20.6	+5.7
50–100 ha	8,732	6.0	21.5	+94.8
100–200 ha	2,054	1.4	9.8	+223.7
200 and more ha	518	0.4	6.6	+43.9
Total Austria	144,885	100.0	100.0	-34.7

Notes: The number of enterprises includes only those managing UAA (pure forestry enterprises are not included); ha UAA = hectare Utilized Agricultural Area; size classes are in ha UAA without Alpine pasture.

Sources: BMLFUW (2016: 58); Statistik Austria (2014: 57; STATcube (07/03/2017)); own calculations.

4. Delimitation of mountain areas and categories of mountain farms

Established in the European Union in 1975, the less-favored area schemes provide compensatory allowances to farmers in mountainous areas or in other less-favored areas to reimburse farmers for all or part of the additional costs and income foregone related to the constraints on agricultural production in the areas concerned. According to the EU definition, EU member states define and delimit three categories of less-favored areas (LFA) (EU 2013a: 164):[4]

- Mountain areas handicapped by a short growing season and high altitude, or by steep slopes at a lower altitude, or by a combination of the two. Areas north of the 62nd Parallel are treated in the same way as mountain areas (Art. 18 of Council Regulation No. 1257/1999);
- Less-favored areas other than mountain areas are those in danger of abandonment of agricultural land use where conservation of the cultivated landscape is considered necessary (Art. 19 of Council Regulation No. 1257/1999);
- Other areas affected by specific constraints are areas where farming should be continued to conserve or improve the environment, maintain the countryside, and preserve the tourist potential of the areas or protect the coastline (Art. 19 of Council Regulation No. 1257/1999).

According to data reported by member states in 2005 (Bulgaria followed in 2007 and Romania in 2008), more than half of the total UAA (54%) in the EU 27 has been classified as LFA.[5] The highest share is of "other than mountain areas" (34%), followed by mountain areas (16%). The importance of the three LFA categories varies among member states. The share of UAA in mountain areas exceeds 50 percent in Austria, Finland, Greece, and Slovenia (European Union 2013a: 164). According to an EU regulation, 81 percent of the total surface area in Austria and 64 percent of the UAA is defined as less-favored area. The mountain area category is particularly important in Austria (see Table 3 and Figure 1): approximately 70 percent of the total surface area and 50 percent of the agricultural area (UAA) belong to this category, whereas at 7 percent of UAA the share of "other than mountain areas" is significantly below the EU 27 average of 34 percent of UAA. According to the most recent farm structure survey in Austria (2013), 58 percent of farm holdings are located in

4 In the new Rural Development Program period 2014–2020, the less-favored areas (LFA) are called areas facing natural or other specific constraints (ANC). Member states must introduce a new delimitation system for areas other than mountain areas by 2018 (European Union 2013b).

5 Most member states have not updated their delimitations in anticipation of the revision of the delimitation method, which was forecasted for 2010 but has not yet been put into effect (European Union 2013a: 167).

mountain areas, and 77 percent in all three kinds of areas face natural or other specific constraints (Statistik Austria 2014).

Table 3. Less-favored areas in Austria and in the EU 27

Categories of LFA	Austria TSA in %	Austria UAA in %	EU UAA in %
Mountain areas	69.7	50.4	16.2
Other than mountain areas	5.9	7.0	34.4
Other areas affected by specific constraints	5.4	6.7	3.8
Total delimited area	81.1	64.1	54.4

Notes: UAA = Utilized Agricultural Area; TSA = Total Surface Area; figures refer to 2005 (Bulgaria: 2007, Romania: 2008).

Source: European Union (2013a: 165); Hovorka (2017: 8–9).

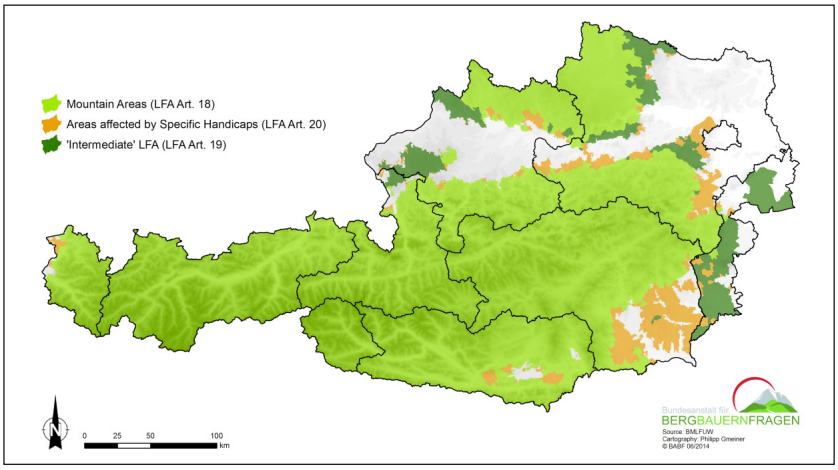

Figure 1. Less-Favored Areas (LFA) in Austria

Source: Hovorka (2017: 9).

Aside from the delimitation of mountain areas according to the EU regulation, Austria has a long history of experience in assessing the degree of handicap faced by mountain farms. Taking into consideration the fact that farming handicaps in mountain areas differ, the Austrian system uses a classification of site-specific farming handicaps that considers the particular situation of each individual mountain farm. A differentiated classification system of four groups (called *Erschwerniszonen*, or "difficulty zones") has been the basis for defining support levels for mountain farms since the early 1970s. A change to a more differentiated payment structure was planned during the 1990s, and a revised classification system was applied from 2001 until 2014. This "mountain farmer

registry-point system" addressed the positive externalities of mountain farming more clearly than the earlier system. The elements used in the calculation were grouped into three categories: internal situation of the farm, external situation of the farm, and soil and climate conditions of the farm. The "internal situation" category, indicating the proportion of the agricultural area with production handicaps (slopes), was weighted the highest. Points for each of the indicators were aggregated. In addition, the system allowed for annual changes by considering the actual land use of mountain farms. Farms showing the most severe natural constraints on farming were subsumed in Category 4 (Hovorka 2016: 2; 2017: 10). This category makes up 9 percent of all mountain farms and 6.9 percent of all UAA. In this category, 41.5 percent of UAA was defined as Alpine pasture, calculated according to the number of livestock units grazing on the pastures (see Table 4).

Table 4. Mountain farms by categories of natural constraints on farming in 2014

Categories of MF	Number of MF	MF in %	UAA ha	UUA in %	Alpine pasture in %
Category 1	19,668	31.9	378,386	33.6	12.6
Category 2	24,990	40.5	481,656	42.8	17.6
Category 3	11,432	18.5	188,257	16.7	30.7
Category 4	5,551	9.0	78,228	6.9	41.5
All mountain farms	61,641	100.0	1,126,527	100.0	19.8

Notes: MF = mountain farms; UAA = Utilized agricultural area.

Source: BMLFUW (2015: 235); own calculations.

The classification system of mountain farms was revised again for the new support period (Rural Development Program 2015–2020). The mountain farmer registry point system was renamed the "handicap-value points system" and extended to non-mountain farms in areas with natural constraints (ANC). Instead of three categories of handicap on farming, only two categories – topography and climate/soil – are now included (BMLFUW 2016c: 12).

5. Characteristics and structural change in mountain farming in Austria

Mountain farming plays a key role in safeguarding sensitive ecosystems in mountain areas (in Austria these are located in the Alps and the Bohemian Massif) by preserving multifunctional landscapes and the overall living environment. For many years, there has been major national concern and discussion about several aspects of multifunctional mountain farming: its role in local food

production, its positive environmental impact (biodiversity), its importance for rural development, and the prevention of land abandonment and natural disasters. Mountain farming is also an important foundation for tourism in the Austrian Alps. Special support for mountain farming was laid out in the 1992 Agricultural Act (BMLFUW 2015: 295).

Mountain farming can be characterized as follows (BMLFUW 2016a; European Union 2013c; Hovorka 2017):

- A range of different difficulties, opportunities, and risks (there is no uniform situation among them);
- A focus on grassland use. Along with forestry, livestock keeping and milk production are the main activities in mountain areas (75% of all dairy farms are mountain farms);
- A high proportion of small farms and part-time farms (75% of mountain farms manage less than 20 ha UAA; the average per farm is 15.5 ha UAA);[6]
- A high proportion of organic farms (70% of all organic farms are mountain farms; 25% of all mountain farms are organic farms);
- Multifunctional services and the basis for tourism in the Alps (providing public goods such as maintaining the cultural landscape and biodiversity);
- Tight limits on farm growth, rationalization, and production alternatives in many mountain areas (because of severe climate conditions, steep surfaces, and seclusion);
- Less agricultural income than in more favored areas, owing to natural constraints on farming (agricultural subsidies and other support measures are necessary to avoid the abandonment of farming).

Looking more closely at the structural change in mountain farming by category of farming handicap for the last twelve years (2002–2014) results in a differentiated picture (see Table 5). The number of farms has declined significantly in all mountain farm categories, but less so than in Austria overall (except for Category 4 – mountain farms with extremely severe farming conditions). The decline in UAA (-4% of mountain farms on average) was greater in all categories of mountain farms compared to the Austrian average (except Category 1, which had an increase of UAA). Even more dramatic was the decline in milk production. More than a third of mountain farms supplying milk have ceased milk production. At the same time, the milk supply from the remaining dairy producers increased significantly during the same period. On mountain farms with low difficulty levels (Category 1), the rise in milk production was as high as 28 percent. In contrast to the Austrian average, in 2014

6 Without considering the Alpine pastures, which are often used by a community of mountain farms.

income generated from agriculture and forestry mountain farms with high and extreme difficulties (Categories 3 and 4) was 18 percent and 19 percent lower, respectively, than it was twelve years earlier.

Table 5. Structural change in mountain farming in Austria from 2002 to 2014 (in %)

Mountain farm category	Change in number of farms	Change in UAA	Change in number of dairy farms	Change in milk delivery	Change in agricultural income
Category 1	-15	+4	-36	+28	6.9
Category 2	-20	-7	-38	+17	8.1
Category 3	-15	-8	-36	+1	-18.3
Category 4	-23	-20	-39	-8	-19.2
Mountain farms average	-18	-4	-37	+19	0.3
Austrian average	-23	-5	-41	+14	9.3

Notes: UAA = Utilized Agricultural Area (without Alpine pastures); category = mountain farm category (Category 4 = extreme constraints on farming).

Sources: BMLFUW (2003: 255; 2015: 186, 194, 212; IACS data); own calculations.

6. Mountain farming income and public support

A long-term income comparison between mountain farms and non-mountain farms in Austria between 1981/82 and 2012/14 (in real figures) shows that the income of mountain farms was on average always far lower than that of non-mountain farms. The income differential, however, decreased from 26 percent in 1981/82 to 16 percent in 2012/14. Due to changes to the support system following EU accession in 1995 (from a high-price policy to a direct-payment policy), the share of agricultural income in the total income has decreased for both farming categories, while the share of public funds has risen sharply. The share of non-agricultural income was always important, but has risen further to 42 percent for mountain farms and 38 percent for non-mountain farms (see Table 6).

Table 6. Long-term income comparison between mountain farms and non-mountain farms (in real figures)

	1981/82	1991/92	2001/02	2012/14
Mountain farms (average)				
Income in euros	28,108	29,260	34,442	34,757
Share of agricultural income (%)	67	60	19	10
Share of public funds (%)	7	17	55	47
Share of non-agricultural income (%)	26	23	26	42

Non-mountain farms (average):				
Income in 1000 euros	37,817	39,226	38,957	41,240
Share of agricultural income (%)	88	68	24	27
Share of public funds (%)	1	11	44	38
Share of non-agricultural income (%)	11	21	32	38
Income relation mountain farms – non-mountain farms (%)	74.3	74.6	88.4	84.3

Notes: Average of 2 years (3 years); in this table, agricultural income does not include public funds (agricultural support).

Sources: Hovorka (2009: 9); LBG Österreich GmbH (2015); own calculations.

Table 7 shows agricultural income and the share of various support measures by mountain farm categories (average 2014/15). The agricultural income is lower on average for all mountain farms, but in each category of mountain farms it is also below the average of non-mountain farms. At €13,606 per farm, mountain farms with extreme natural farming handicaps (Category 4) achieve only 57 percent of the income of non-mountain farms.

For Category 3 and 4 mountain farms, public funds are higher than agricultural income; that is, without public funds, these farms would generate a negative agricultural income. However, for non-mountain farmers, too, the share of public funds is 62 percent of agricultural income. For these farms, the share of direct payment from the so-called Pillar 1 (37.5%) is the most important of all subsidies, but agri-environmental premiums also account for 21.8 percent of income. The importance of compensatory allowances as well as agri-environmental premiums as a part of agricultural income increases with increasing farming handicaps.

Table 7. Mountain-farm income from agriculture and forestry and percentage of public funds in income (average 2014/15)

Mountain farm category	Agricultural income (Euro)	Percentage CA	Percentage EP	Percentage DP	Percentage public funds (CA+EP+DP)
Category 1	20,656	13.7	22.4	35.2	71.3
Category 2	20,451	21.1	24.4	29.1	74.5
Category 3	16,710	40.8	34.7	28.5	104.0
Category 4	13,606	56.0	37.5	24.5	118.0
Mountain farms average	19,163	24.0	26.2	30.7	80.9
Non-mountain farms average	23,964	2.5	21.8	37.5	61.8

Notes: CA = compensatory allowance for less-favored areas; EP = agri-environmental premiums; DP = direct payments from Pillar 1 of Common Agricultural Policy (CAP); agricultural income includes income from forestry, public funds (CA, EP, DP) and some additional minor public funds.

Source: LBG Österreich GmbH (2015; 2016); own calculations.

7. The Austrian Rural Development Program (RDP)

Support for Rural Development is the second pillar of the Common Agricultural Policy (CAP) of the European Union, providing member states with EU funding to manage nationally or regionally under multi-annual, co-funded programs. The Rural Development Regulation for the period 2014–2020 addresses six economic, environmental, and social priorities (European Commission 2014):

- P1: Knowledge transfer and innovation in agriculture, forestry, and rural areas (a cross-cutting priority);
- P2: Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farming technologies and the sustainable management of forests;
- P3: Promoting food chain organization, including processing and marketing of agricultural products, animal welfare, and risk management in agriculture;
- P4: Restoring, preserving, and enhancing ecosystems related to agriculture and forestry;
- P5: Promoting resource efficiency and supporting the shift toward a low-carbon and climate-resilient economy in the agriculture, food, and forestry sectors;
- P6: Promoting social inclusion, poverty reduction, and economic development in rural areas.

In order to coordinate actions better than in previous periods and to maximize synergies with other European structural and investment funds, a partnership agreement has been reached, with each member state highlighting its broad strategy of EU-funded structural investment (European Commission 2014).

The total public budget of the Austrian Rural Development Program (RDP) amounts to €7.8 billion for the period 2014–2020, which is €1.1 billion per year. The co-financing share of the European Union is €3.9 billion for the period (50% of the RDP budget). Of the Austrian share of the budget, 60 percent will be disbursed by the federal government and 40 percent by the states (BMLFUW 2016b: 9). In budgetary terms (total public funding), the five biggest measures in percent of RDP are:[7]

- 27.4% – Measure 10 (agri-environment and climate change; Priority 4);
- 22.9% – Measure 13 (payments to areas facing natural or other specific constraints; Priority 4);

7 Figures regarding the indicative public support of the Austrian RDP 2014–2020 following the first program modification of May 2016.

- 11.7% – Measure 4 (investment in physical assets; Priority 2);
- 10.2% – Measure 11 (organic farming; Priority 4);
- 9.7% – Measure 7 (basic services and village renewal in rural areas; Priority 6).

The Austrian RDP is centered on all six Rural Development Priorities, but the main emphasis is given to Priority 4, which amounts to 64 percent of the total RDP budget (BMLFUW 2016b: 9).[8]

7.1 Characteristics of compensatory allowance in Austria

Mountain farming in Austria is characterized by steep slopes, high altitudes, and the associated unfavorable climate conditions, as well as isolated location in many cases. Mountain farmers' income is on average much lower than the income of farmers in more favored areas, so public support is necessary to compensate for at least part of the income gap. As in the previous 2007–2013 RDP period and before, the two most important support measures for mountain farms in the 2014–2020 RDP period are Compensatory Allowance (CA) for areas facing natural or other specific constraints (ANC)[9] and the agri-environmental program ÖPUL (including payments for organic farming). The new investment aid in RDP offers additional opportunities.

With the accession to the European Union in 1995, former direct payments by the federal government and the states to mountain farmers and farmers in other less-favored areas were replaced by the Compensatory Allowance (CA).[10] The main objectives of the CA are to contribute to the maintenance of sustainable land management (including Alpine pastures) and to recognize the multifunctional services that mountain farms and farms in other ANC provide in the public interest (BMLFUW 2016c).

Compensatory Allowance is granted annually per hectare of agricultural area (UAA) to compensate farmers for all or part of the additional costs and income forgone related to the constraints on agricultural production in the area concerned (European Union 2016b: 347).

Since 2015, handicap-value points (HVP) have been determined not only for mountain farms, but for all farms in ANC. The main criteria for the HVP of a farm are topography (especially the slope of the cultivated UAA) as well as the climate/soil values of each farm. Farmers must apply for the payment

8 In the last RDP (2007–2013), the share of agri-environmental measures and payments for less-favored areas accounted for 69 percent of the total budget (Hovorka 2017: 1).

9 "Areas facing natural or other specific constraints" (ANC) is the wording of the new EU Regulation (EC) No 1305/2013 (European Union 2013b) for what were formerly called Less-Favored Areas (LFA).

10 The current CA has its legal framework in regulation (EC) No 1305/2013 (European Union 2013b), the Rural Development Program of Austria 2015–2020 (BMLFUW 2016d), and the Special Guideline on CA of the Federal Government (BMLFUW 2016c).

annually. They must manage at least 2 ha UAA in ANC and comply with the legal requirements of the CA. The level of payment per ha depends on the following conditions:

- Type of farm (farms with animal husbandry qualify for higher premium rates);
- Severity of the identified permanent constraint affecting farming activities (more handicap-value points per farm leads to higher payment per hectare);
- Size of farm (degressivity of payments per hectare in stages beginning at 10 ha; upper limit at 70 ha UAA);
- Specific conditions for Alpine pastures (different premium rate, but mountain farm handicap-value points are used).

In 2015, 80,865 holdings and 1.5 million ha were funded with €252.2 million (BMLFUW 2016a: 206). On average, each farm with CA was subsidized in 2015 with €3,007, or €168 per ha. In line with the objectives and structure of the CA, support increases as the farming handicap rises. Mountain farms with extreme handicaps to farming – i. e. Category (Group) 4 – received €6,483 per farm, which was on average three times the CA (four times as much per ha UAA) that mountain farms with fewer handicaps received, i. e. Category (Group) 1 (see Figure 2). The CA is thus an important part of agricultural income (see Table 7 above).

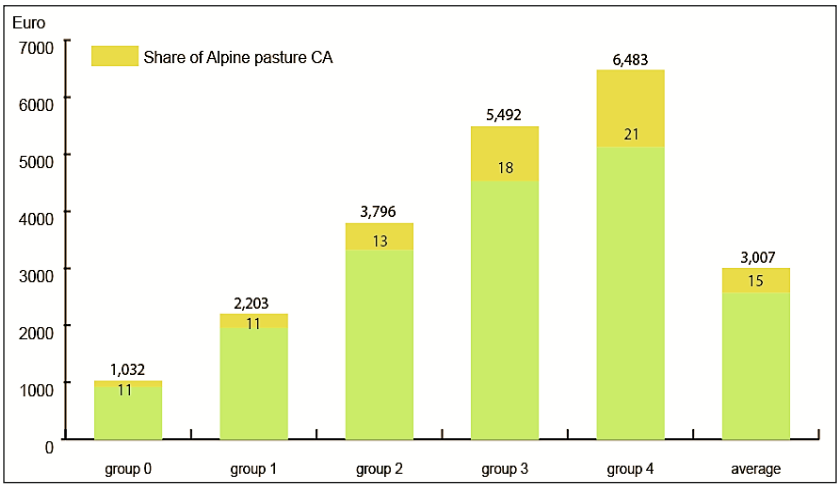

Figure 2. Compensatory Allowance (CA) per mountain farm category (group) in Austria (2015)

Source: BMLFUW (2016a).

7.2 Agri-environmental program ÖPUL

The second most important support measure for mountain farms in the RDP period 2014–2020 is the agri-environmental program ÖPUL 2015, which followed ÖPUL 2007 from the previous RDP period but was further developed in key areas.[11]

In 2015, 70 percent of all farms with UAA participated in ÖPUL 2015, which includes 22 measures. In total, €382.7 million was disbursed for about 2.1 million ha UAA as part of ÖPUL in 2015. The average payment per farm was €4,236 (BMLFUW 2016a: 100, 207). For mountain farms, the six most important measures of ÖPUL in 2015 (in budget terms of the total ÖPUL budget) were:

- 25.5% – organic farming;
- 16.6% – environmentally friendly and biodiversity-promoting farming;
- 8.3% – nature-protection measures for valuable areas;
- 6.9% – animal welfare – grazing;
- 5.9% – grazing of Alpine pastures and support for herders on Alpine pastures;
- 3.8% – renouncement of silage for animal feed.

Like the Compensatory Allowance, the agri-environmental program ÖPUL is an important part of agricultural income for mountain farms (see Table 7 above), although participation in ÖPUL incurs higher costs for the farms.

8. Conclusions

In Austria, agriculture has been undergoing massive structural changes for decades. However, it is still characterized by a small-scale structure. Structural changes can also be observed in mountainous areas, which cover a large proportion of Austria. The number of farms has declined significantly in all mountain farm categories, but this decline was still moderate compared to the Austrian average of farms (with the exception of Category 4 – mountain farms with extremely severe farming conditions). The decline in milk production has been more dramatic. More than a third of mountain farms that once supplied milk ceased milk production between 2002 and 2014.

Multifunctional mountain farming provides important public goods for society and is also a central base for tourism in the Alps. Mountain farming plays a key role in safeguarding the sensitive ecosystem in mountain areas (which, in Austria, are located in the Alps and the Bohemian Massif) through

11 The current ÖPUL has its legal framework in regulation (EC) No. 1305/2013 (European Union 2013b), the Rural Development Program of Austria 2015–2020 (BMLFUW 2016d), and the Special Guidelines on ÖPUL 2015 of the Federal Government (BMLFUW 2016c).

the preservation of multifunctional landscapes and the overall living environment. Mountain farming in Austria is characterized by steep slopes, high altitudes, and the associated unfavorable climate conditions, as well as with isolated location in many cases.

Mountain farming has higher operating costs, lower yields, and lower farming incomes than agriculture in more favorable areas. In particular, mountain farms with high or extreme natural constraints on farming are at risk. Therefore, special support programs for mountain farms have been established over several decades. With the accession to the European Union in 1995, the Compensatory Allowance (CA) replaced former direct payments by the federal government and federal states to mountain farmers and farmers in other less-favored areas. In addition, agri-environmental measures and infrastructure support play a substantial role in securing the public services provided by mountain farms. Public support for mountain farming will continue to be necessary in the next rural development program and beyond.

A high share of mountain farms has adopted an extended range of activities by combining farming with non-agricultural activities or focusing on the production of high-quality products, including organic farming (most organic farms in Austria are mountain farms). Therefore, not only agricultural support but also integrated regional development is necessary for the future of mountainous areas. This includes infrastructure measures, kindergartens, schools, and qualified jobs.

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3 Rural Happiness in Japan: Contrasting Urban and Rural Well-Being in Kumamoto

1. Introduction: Is happiness at home in the city or in the countryside?

The pursuit of happiness is a widespread if not universal feature of human life. Only recently researchers have started to go beyond measuring wealth and income to explore the complex foundation on which well-being is built in society. The place of living and the particular resources a locality such as a city, a town or a village is capable to provide, are variables in the happiness equation that gained attention recently. Even though happiness appears to be deeply private, many modern constitutions including the Japanese, explicitly pronounce the right to happiness, making happiness ultimately to a political topic of modern society.

Big city life and urbanization are typical patterns of modernity and social development that I assume are impacting on happiness. The trend towards city formation has changed the spatial distribution of people not only in industrializing and highly industrialized societies, but also in developing countries, despite their very different economic structures. While the former are thriving on manufacturing and service industries as dominant economic activities that induce the pooling of labor market participants in and around cities, the economies of the latter are centered on agriculture, the extraction of natural resources and the availability of manpower in the countryside. As the social space of the city is apparently better equipped to accommodate people's daily needs, no matter what level of economic or social development, more than half of the world population today is living in cities. According to data from the United Nations, the share of city inhabitants is expected to increase from 30 percent in 1950 to 70 percent in 2050. The major push and pull factors behind rural out-migration and urban in-migration are tied to effects arising from the concentration of institutions and resources within urban areas that excel over rural areas in terms of labor and employment opportunities, social welfare, health care, education and entertainment (Florida, Mellander and Rentfrow 2013; Gilbert, Colley and Roberts 2016).

However, neither causes or dynamics of urbanization nor the trend itself are necessarily pointing out that urban life brings along higher levels of well-being and life satisfaction than small-town or village life. Happiness re-

search has only recently started to develop interest in socio-spatial differences, and the scattered evidence is divided on the question whether urban or rural areas actually yield higher well-being effects. Yet it is safe to state that there is no evidence that cities as the predominant spatial arrangement of modern society are capable of guaranteeing an increase in quality of life and happiness for its inhabitants (e. g. Berry and Okulicz-Kozaryn 2009; Veenhoven 1994). Okulicz-Kozaryn (2015: 32) even disqualifies the pleasures cities are providing as momentary and superficial. Urban growth hence is not a success story: "There are many benefits of big-city living; high levels of happiness are not among them" (Berry and Okulicz-Kozaryn 2011: 872).

Despite the potentially negative outcome on subjective well-being, cities keep on growing, while the countryside is marred by the aftermaths of out-migration and shrinking populations. The specter of rural decline has been on the agenda of public discourse in Japan since the era of high economic growth, and it regained momentum at the turn of the century. Prior to the reconstruction period following World War II, slightly more than just a third of the Japanese population (37.3% in 1950) was living in cities. But within less than a generation, the share of urban residents doubled to reach 72.1 percent in 1970, and in 2010, nine out of ten Japanese (90.7%) were registered as living in cities (ISSP 2014: 214). The most recent increase, however, must be taken with a grain of salt as a statistical artifact, as the large-scale wave of municipal mergers and fusion in the early 2000s (the so-called *Heisei no daigappei*; Rausch 2012) nominally transformed many residents of remote and thoroughly rural areas into townspeople. The fact that villages and rural settlements have turned into administrative districts of urban municipalities may partially explain why the demographics of aging and shrinking populations nowadays are also affecting towns and cities. Only Tōkyō – and with lesser degree the metropolitan areas around the capital city, Nagoya, and Ōsaka, which currently are home to half of the Japanese population – are benefitting from domestic migration, whereas most regional cities and towns are sharing the fate of rural Japan. In the countryside, depopulation, high aging, economic stagnation and fiscal vulnerability are more pronounced and therefore in many cases threatening their future existence (Tanaka and Iwasawa 2010). "Settlements at the borderline of existence" (*genkai shūraku*; Ōno 2005) and their incipient "disappearance" (*shōmetsu*; Masuda 2014) emerged as keywords at the core of the discourse on rural decline fueled by the Japanese media and politicians alike.

Such a dystopian discourse (ECC 1988; Kandel and Brown 2006; Pritchard and Mac-Manus 2000) is often juxtaposed with a nostalgic romanticization of the countryside (Woods 2010). This perspective also has a long-standing tradition in Japan where the countryside is often understood as repository of

the "real", pristine and therefore better Japan (for a critical discussion, see Ivy 1995; Robertson 1988; Tokuno 2012). Cities are usually acknowledged as driving force of social development and for the way they are capable of using efficiency gains to enhance economic productivity, prosperity and cultural life. But social change triggered by urbanization comes at a high price, including the costs of nature destruction and social isolation. The disregard of immaterial values and commonly shared assumptions, as well as the loss of emotional support, belonging and the harmonious order of communal life have given birth to alternative lifestyle trends such as slow life and I-turn as urban out-migration and a movement back to the roots of the self (Ishikawa 2014: 430). These contemporary reactions against the hyper-rationality of urban modernity are indicative of a desire for simplicity and originality.

The projection of past, if not entirely lost forms of communal everyday life on rural sociability has a long history stretching back to the dawn of modernity and the early years of folklore studies in Japan by Yanagita Kunio (Shintani 2014). Outside of Japan, some of the groundbreaking texts of Western sociology (Durkheim 1996 [1893]; Tönnies 1887) and urban studies (Simmel 2006 [1903]; Wirth 1938) relied on a similarly linear conception of modern development, taking anomy, alienation and social disintegration as consequences of the increasing size, density and social heterogeneity of urban and industrial agglomerations. The simplifying dichotomization of modernity and tradition as token for the differentiation between urban and rural is even more anchored in popular imagination and mass media representations, affecting the political discourse and public administration. From a bureaucratic point of view, almost every second municipality in Japan is facing the threat of extinction in the mid- to long-term run. In 2014, out of 982 towns and villages (*chōson*; ZKJR 2014) 496 qualified for special support measures under the Special Law Promoting Independence in Depopulated Areas (*Kaso chiiki jiritsu sokushin tokubetsu sochi-hō*, enacted in 2000 and extended in 2010 and 2011; Feldhoff 2013).

Yet not a great many of rural residents is showing a strong interest in migration to urban areas. An opinion poll commissioned by the Prime Minister's Office (Naikakufu 2014) revealed that merely 5.3 percent would consider moving out into a city (14.4% were somehow considering a move), whereas, by contrast, 8.8 percent of urban residents fancied (and 22.8% rather fancied) a transfer to the countryside. These numbers show the comparatively higher significance of the countryside as space of longing. Some critical scholars of regional planning such as Yamashita Yūsuke (2012) therefore assume that the dystopian take on the countryside is first of all a result of bureaucratic self-interest. Others agree, disclaiming central governmental interventions as

hapless strategies designed in the capital and largely out of tune with local needs and conditions (e. g. Tokuno 2007).

In front of such contradicting assessments, this article addresses the question of potential differences in urban and rural happiness by analyzing the Aggregate Kumamoto Happiness (AKH) Index, a series of annual surveys conducted among residents of Kumamoto Prefecture between 2012 and 2015. It attempts (1) to answer the question whether subjective well-being differs across rural and urban spaces, (2) to identify factors of particular relevance for enhancing rural happiness, and (3) to look at the impact of locality by looking for significant differences in happiness between the Aso region and other rural areas in Kumamoto Prefecture. Following this introduction, the paper continues with a review of the sociological literature on the socio-spatial dimensions of happiness. Then I will shortly introduce the Aso region, which is of particular interest for research activities bundled at the University of Vienna, and describe my data and method. The secondary data analysis is followed by a short discussion of answers to the research question and concluding remarks. Findings demonstrate that urban and rural happiness (in Kumamoto) hardly differ in quantitative terms but very much in qualitative terms due to differences in the allocation of place-specific resources and the subjective responses of local inhabitants to their significance.

2. Literature review

Particularly with regard to rural Japan and the Aso region, subjective well-being in the countryside has not been explored at depth yet. Studies on rural happiness in general are very few in number and inconsistent in findings. The lack of coherent information about rural happiness is partly due to the rather short history of sociological interest in happiness, and partly due to the skewed interest of mainstream sociology in urban life and pathologies of modernity. Rather than capturing domestic differences, many studies are designed to identify in-between-country differences at the national level. As these studies do not sample rural subpopulations, they inevitably gloss over the environmental factor of social space.

Huge differences in the way rural areas are defined and in the way how ever-varying variables of interest such as happiness, quality of life or domain-specific satisfaction levels are operationalized complicate any attempts of systematically summarizing the state of the art. Earlier studies predominantly used basic socio-economic indicators such as income and wealth, employment, housing, or accessibility of welfare, cultural and educational services to determine quality of life. Such objective indicators, however, fail to

account for the level of subjective satisfaction they generate. More than 50 years ago researchers already realized that the increase of wealth in highly industrialized societies was not paralleled by a linear increase in subjective well-being (Easterlin 1974). The bulk of contemporary happiness research shifted focus on the self-assessment of life. Many studies are using a one-dimensional item for the operationalization of happiness. Respondents usually are asked to quantify their level of subjective well-being within a predefined range ("How happy are you today, on a scale of 0 for totally unhappy and 10 for absolutely happy?"). Acknowledging the complexity of happiness, studies are increasingly testing out multiple items asking for domain-specific levels of happiness (such as work, family life, self-realization) and the cognitive ("How satisfied are you with life in general?") or affective ("How did you feel yesterday?") dimensions of happiness.

That cities and the countryside are commanding over different resources to fulfill the happiness needs of residents has been taken into consideration only recently. Cities are said to yield higher quality of life ratings because of comprehensive employment opportunities, higher levels of income, more sophisticated consumption choices and a richer supply of educational, cultural, health and welfare institutions. The countryside, by contrast, excels in environmental amenities, including the experience of nature, air and water purity, absence of noise and access to green zones and open space. Feelings of safety and security are also higher, largely due to lower crime rates and higher trust in neighborhood support and communal belonging. Given the great variety of impact factors on subjective happiness and the lack of comprehensive theories of happiness, discrepancy and variance of research findings are hardly surprising.

Easterlin, Angelescu and Zweig (2011) argue that higher levels of happiness in cities are characteristic for developing countries only. Urban-rural differences tend to disappear with increasing prosperity, and happiness will draw even in both spaces or shift toward the countryside. Their study draws on the multi-country sample of the Gallup World Poll and confirms the findings of the earliest studies by Veenhoven and his collaborators that compared urban-rural differences within a sample of four industrialized and four developing countries about two decades earlier (Veenhoven 1994; Veenhoven and Ehrhardt 1995). Leveling-off of urban-rural differences is explained by a mix of effects, including increased mobility that grant access to larger employment markets, national transfer policies that balance wealth differences and channel investments into infrastructure and communication in the countryside, and the urbanization of lifestyles in rural areas.

National surveys within highly industrialized countries confirm this observation. In the case of the United States, the Gallup Poll yielded very small differences between metropolitan areas, cities, towns and rural communities (less than 2.5 points on a scale of 1 to 100). Data reveal that with higher degrees of urbanization subjective well-being levels rise in five out of six experiential dimensions, including emotional health, physical health, healthy behavior and life evaluation. Smaller towns and villages fare better only in terms of work environment (Witters 2010). What may appear to be counterintuitive at first sight, can be explained by a natural sampling bias: People that are very dissatisfied with material conditions and the work opportunities of the countryside are likely to have left for the labor markets in larger cities. This interpretation is shared by Delken (2008), who found that happiness in Germany's shrinking cities is actually not lower or even higher than in booming growth areas.

Looking at Norway, Hellevik (2003: 249) found no space or place impact as his data did not show significant differences of happiness between urban and rural areas or between different regions. An internet survey in Japan (Itaba 2016) also failed to register a noticeable difference between urban and rural residents. Any kind of variability between these subgroups was attenuated by additional control variables so that an independent effect of regionality was not confirmed. Tanaka *et al*. (2013) who surveyed communities of Nantan Town (Kyōto Prefecture) also failed to demonstrate significant differences between residents of downtown Nantan, suburbs and more remote rural districts. In the case of Germany, Spellerberg, Huschka and Habich (2007) detected a significant difference of happiness between urban and rural areas only if the precarious economic situation of former East German regions was taken into account. No significant difference was found for the former West German area. On a European level, however, the researchers noted that in most countries, including Austria, comprehensive happiness indicators and subjective well-being tend to be higher evaluated in rural regions, notwithstanding the lower appraisal of income opportunities and the state of the national economy by rural residents.

The majority of rural happiness research supports this hypothesis. Henkel (2009: 4; 2015: 140), Germany's doyen of rural studies, repeatedly refers to opinion polls that continue to attest larger shares of high life satisfaction to rural society. Shares of 80 to 90 percent are twice as high as among urban respondents. Using General Social Survey data from 1972–2008, Berry and Okulicz-Kozaryn (2011) demonstrated how subjective well-being in the United States gradually increases from the lowest level in metropolitan cities to the highest in rural communities. They argue that size, density and heterogeneity of the population exert a detrimental impact on happiness. Sander (2011) con-

firmed the argument and the linear trend on the basis of the same survey data for the period 2002–2006. A secondary analysis of data from two rounds of the Behavioral Risk Factor Surveillance System (Lawless and Lukas 2011) revealed for all US counties moderate or strong negative correlations between subjective well-being and population size and density. This result remains valid even if the individual data from the surveys are paired with regional data on degree of urbanization, climate and topography (Winters and Li 2017). Among the 100 largest metropolitan areas, Florida, Mellander and Rentfrow (2013) could confirm the urban size effect only if the income of respondents was controlled.

However, other studies, of which some were conducted in the same countries, failed to confirm the negative impact of size and density. A representational survey of US-American adults by the PEW Research Center (2006) produced only minor regional differences, showing that happiness levels are higher in suburbs than in the sparsely populated countryside or in city cores. In Scotland, Gilbert, Collins and Rolley (2016) found no significant differences between urban centers and suburbia, whereas happiness levels were highest in the more remote areas. The reverse trend is at least partially confirmed by studies on Austria (Wernhart and Neuwirth 2007), Canada (Millward and Spinney 2013) and Japan (Ōtake, Shiraishi and Tsutsui 2010; Tsutsui, Ohtake and Ikeda 2013), where well-being is said to increase with size and density of a municipality. This is not a continuous trend in Austria, where dwellers in densely populated rural communities are less happy than those in more dispersed settlements. But it appears to be a continuum in Halifax extending from remote rural areas into the heart of urban agglomerations. In Japan, happiness gradually increases with the size of residential areas, and the effect is more pronounced with men than with women. Separate regression analysis for the respective regional types nourish the assumption that region as such is not having an independent effect on well-being, but that regions are loaded by additional factors that influence the happiness level of their inhabitants.

This hypothesis is supported by the apparently contradictory findings of life satisfaction studies in China, where the institutionalized discrimination between urban and rural residency immediately yields huge differences in terms of social opportunities and living conditions. Knight and Gunatilaka (2010), who observed a higher sense of well-being among rural Chinese despite drastically lower income levels, identified different sets of values in urban and rural settings as cause of the well-being gap. While urban happiness is negatively impacted by unemployment and future uncertainties, rural happiness is positively enhanced by health and trust issues. Although Han (2015) found slightly higher happiness levels in China's cities, he agrees that

the institutionalized segmentation of urban and rural has brought about distinctive sets of evaluating correlates. Hence, urban and rural residents are not only confronted with different resources, these resources and their contribution to overall happiness are also assessed and evaluated in different ways, and with the laudable exception of the AKH Index, not many studies are designed to take into consideration these aspects. Trade-off effects then may explain, together with the differences in the typologization and definition of rural or urban spaces, why regions of the same type show different levels of happiness (cf. Kunimitsu 2015) and the current state of the art appears to be so messy and contradictory.

3. Data and method

Hardly any of the growing number of happiness surveys is actually properly suited for a measurement of rural happiness. Respondents from rural areas are often undersampled, or information on the place of residence are not precise enough for a coherent differentiation of rural and urban. It must be admitted that to some degree this is also the case for the Aggregated Kumamoto Happiness Index (AKH Index), a survey-based instrument to monitor policy needs within the prefecture. Access to the original raw data set for secondary analysis purposes was granted by Kumamoto's Governor Kabashima Ikuo, who initiated the AKH survey in 2010. The politician-turned former University of Tōkyō professor of political sciences is member of the "Happiness League" (Shiawase Rīgu), a network of local politicians that consider the happiness of their constituency as the ultimate goal of good politics (Hiroi 2015). Thus the AKH Index was designed to measure how social change and the implementation of local policies affect Kumamoto residents' happiness.

Kumamoto Prefecture has a particular meaning for the Vienna School of Japanese Studies since its groundbreaking Aso study from 1968/69 (Slawik *et al*. 1975) that had a huge impact on the epistemological orientation of Japanese Studies in Europe (Kreiner 2000). Fifty years later, the Aso region reemerged as principal research site for the Vienna School of Japanese Studies' current project on rural happiness (Lützeler and Manzenreiter 2016). Aso was one of the regions in central Kyūshū that were severely hit by the Great Kumamoto Earthquake in 2016. The natural disaster – and perhaps the gubernatorial election just a month before – discontinued the annual AKH survey, and the hardship following the earthquake and subsequent landslides enforced readjusting the rural happiness project. As the Aso region has experienced volcano eruptions and earthquakes in history and severe flooding and landslides after heavy rainfall in the past few years, the current disaster itself does not discount the general research interest in

the underlying conditions of rural happiness. It is expected that the particularity of living in pristine nature *and* a disaster-prone area is part of the day-to-day life of many Aso inhabitants and therefore likely to be reflected in the data.

The Aso region is one of the tourist highlights of Kumamoto Prefecture for the beauty of its natural scenery and the historical significance of the Aso Shrine, which is one of Japan's earliest Shintō manifestations. Aso is perhaps even better known for its volcanic features and numerous hot springs. Located in the center of Japan's southwestern main island Kyūshū at an altitude of slightly more than 500 meters above sea level, Aso is about one hour drive by car or train away from the prefectural capital of Kumamoto (though due to the earthquake travel times have considerably increased). The name of the region derives from the volcanic mountain range arising from the center of an age-old somma caldera. With a circumference of about 120 kilometers, the caldera is one of the world's largest encompassing an area of 320 km^2 that stretches out 18 kilometers east to west and 25 kilometers north to south.

Among the five peaks of Aso, Takadake (1,592 m) is the highest. Neighboring Nakadake (1,506 m) is a still-active volcano, attracting visitors from all over the world that want to take a chance of peeking into the caldera (access to the observation platforms was temporarily halted after the blast in late 2016). In 2015, Aso has been acknowledged as Global Geo Park, in 2013 by FAO of the United Nations as Globally Important Agricultural Heritage System, and currently the Aso region strives for UNESCO World Heritage status. Because of its cool climate, lush greenery, abundance of fresh water and unique setting, Aso also draws many visitors from the prefectural capital city and its surroundings that want to escape the summer heat of the lowlands.

The mountain range, which people say is shaped like a sleeping Buddha, separates the basin into a northern and southern part. The city of Aso stretches over the northern Aso Valley (Asodani), and in the Southern Valley (Nangodani) there are the town of Takamori (6,500 inhabitants, 175.06 km^2, 37 p/km^2) and Minamiaso Village (12,000 inhabitants, 137.30 km^2, 85 p/km^2). Aso City was formed in 2005 as part of the Great Heisei Merger, combining the formerly independent towns of Aso and Ichinomiya, the largest settlement in the region and home to the city administration, with the village of Namino. Prior to the merger, all municipalities in the valley were part of the district of Aso-gun. These days the Aso district still combines the Southern Valley municipalities with two towns (Oguni, Minamioguni) and two villages (Ubuyama, Nishihara) on the upper rim of the caldera; however, these are not of significance for the definition of Aso in the context of this article. In 2015, Aso City's resident population consisted of 27,038 people in 10,048 households. The population density of 71.2 persons per km^2 attests to the rural nature of the region (see Table 1a).

Nearly all Aso municipalities are qualified for receiving state support for disadvantaged regions in accordance with national criteria such as age distribution, population trends, and income levels. With 72 inhabitants per km^2, Aso undercuts the prefectural average of 241 heads per km^2. Even this value is considerably lower than the 500 heads per km^2 used by the OECD as cut-off points for urban areas in densely populated Japan and South Korea (elsewhere it sets the point for urban areas at 150 heads per km^2 and more). Socio-economically, Aso is facing precarious conditions typical in kind and size for rural regions in contemporary Japan

Table 1a. Area and population size in Aso

	Aso-shi	Minami-aso	Taka-mori	Ubu-yama	Minami-oguni	Oguni	Nishi-hara	**Total**
Area (km^2)	376.3	137.3	175.1	60.8	115.9	136.9	77.2	**1079.5**
Inhabitants	27,078	11,652	6,412	1,499	4,126	7,181	6,874	**64,822**
Density (p/km^2)	72	85	37	25	36	52	89	**60**
AKH Sample	138	62	43	6	21	44	37	**351**

Source: Ranking data (http://uub.jp/rnk/); Jinkō Tōkei Rabo (toukei-labo.com); own calculations.

An intraprefectural comparison of regions demonstrates that people in Aso are rating their social and economic situation only to some degree as problematic. For reasons waiting to be explained (in detail in an ongoing research project), Aso City is faring better than any other of Kumamoto's 45 municipalities in the prefectural happiness index. Between 2012 and 2015, the survey examined the happiness of Kumamoto inhabitants in the four dimensions of aspiration (*yume*), pride (*hokori*), material stability (*keizaiteki-na antei*), and confidence (*shōrai ni fuan ga nai*). The random sample consisted of 3,000 (3,500 in 2015) adult men and women who were polled from the 45 municipalities. Return rates were about 50 percent. For the sample represents smaller towns or cities by a few respondents only, all of the four annual surveys were drawn together for the secondary analysis. The questionnaire features 15 items (16 in 2015) only including questions on the individual (gender, age, place of residence, employment status), their general sense of happiness and the satisfaction with three indicators for each of the four dimensions mentioned above. A five point Likert scale was used to measure the degree of happiness and satisfaction. My dependent variable is a sum score of the degree of satisfaction with all twelve indicators weighted by the importance respondents are assigning to the four dimensions. The attempt to put the degree of satisfaction into perspective by qualifying the significance they are having is a unique contribution from the

study designers to the study of happiness. However, many respondents failed to understand the technical explanation on how to rate the significance (added together, the sum of the weight scores had to be exactly 10) and 1,366 cases out of 6,706 had to be disregarded for the analysis: either because the sum was lower or higher than 10 (204), or because the weight was missing for one or all dimensions (1,162).

Table 1b. Area and population size in urban regions of Kumamoto Prefecture

	Kuma-moto-shi	Uto	Arao	Kōshi	Tama-na	Kiku-yō	Naga-su	Ka-shima	Ma-shiki
Area (km^2)	390,3	74,3	57,4	53,2	152,6	37,5	19,5	16,7	65,7
Inhabitants	739.638	37.252	58.447	58.557	67.102	40.763	16.040	9.053	33.544
Density (p/km^2)	1890	501	932	1100	440	1090	826	544	511

Source: Ranking data (http://uub.jp/rnk/); Jinkō Tōkei Rabo (toukei-labo.com); own calculations.

For the differentiation between urban and rural, which is of central significance for my research project, I used a cut-off value of 400 persons per km^2, which is lower than the value used by the OECD and slightly higher than the EUROSTAT value of 300 and Japan's average of 340 persons per km^2. Under these preconditions, urban communities within the rural prefecture of Kumamoto (241 p/km^2) include the prefectural capital city of Kumamoto, home to 40 percent of all the prefectural inhabitants, and all eight cities and towns surrounding Kuma- moto City (see Table 1b). All remaining communities are defined as rural. My statistical analysis is using chi-square and T-tests to test for equality of variance among (1) urban and rural communities and among (2) the rural groups of Aso and all others to find evidence for answering the guidelining research questions.

4. Analysis

Table 2 displays the results of univariate statistics in regard to the level of happiness in Kumamoto and the spare information on the socio-economic background of respondents. A median of 2.97 (SD 1.03) on the happiness scale of 0 to 4 confirms the rather high levels of happiness known from previous surveys among Japanese regions. A compilation of intra-prefectural differences by Sakamoto (2011) placed Kumamoto on a respectable fifth rank, and more recently, Hakuhōdō (2014) ranked Kumamoto on third position in a nation-wide survey of all prefectures. Urban and rural inhabitants are nearly equally represented in the AKH survey sample, which for that reason appears to be slightly skewed to-

wards the latter (according to OECD classifications, about 60 percent of Kumamoto residents appear to be living in urban areas). 22.9 percent of respondents are in regular employment, 12.7 percent are working part-time, and 10.2 percent are self-employed. 20.4 percent are out of employment, probably due to the high share of senior citizens among respondents.

Table 2. Descriptive statistics

Variable	*n*	**Mean/percentage**	**SD**	**Min**	**Max**
Happiness	5,131	2.97	1.03	0	4
Aggregated Happiness Score	5,340	29.62	7.07	1	48
Gender	5,312				
female		58			
male		42			
Age	5,318				
20–29		8.3			
30–39		12.4			
40–49		15.1			
50–59		19.5			
60–69		22.6			
70 and older		22.2			
Region	5,275				
urban		51			
rural		49			
Employment status	5,220				
self-employed		10.2			
family business		2.9			
management		2.2			
regular employment		22.9			
irregular employment		1.9			
public administration		5.4			
part-time		12.7			
student		1.3			
housewife		14.7			
unemployed		20.4			
others		5.3			

Kendall tau b correlation coefficient was used to measure strength and direction of the association between the socio-economic background variables and happiness (see Table 3). Association between happiness and gender turned out to be highly significant albeit of very minor strength, and all other associations between happiness and basic socio-economic indicator variables were even weaker and statistically non-significant; a statistically significant association of medium strength was found between employment status and gender, age, and place of residence.

Table 3. Correlation matrix

Variable		*Happiness*	*Gender*	*Age*	*Region*	*Employment*
Happiness	Kendall Tau b	1.000				
	sig. (two-tailed)	——				
	n	5,132				
Gender	Kendall Tau b	-.100	1.000			
	sig. (two-tailed)	.001	——			
	n	5,105	5,312			
Age	Kendall Tau b	.021	.042	1.000		
	sig. (two-tailed)	.062	.001	——		
	n	5,111	5,307	5,318		
Region	Kendall Tau b	.021	-.026	-.052	1.000	
	sig. (two-tailed)	.103	.059	.001	——	
	n	5,073	5,263	5,269	5,275	
Employment	Kendall Tau b	-.004	-.124	.271	.050	1.000
	sig. (two-tailed)	.713	.001	.001	.001	——
	n	5,023	5,196	5,200	5,160	5,220

A chi-square test yielded no significant difference between urban and rural municipalities in regard to overall happiness ($\chi^2(4) = 4.313$, $p = .365$; see Table 4). About 40 percent of urban and rural residents are rather happy, and another third are outright happy. In contrast to more than 70 percent of happy or rather unhappy respondents, only ten percent of urban residents and less than a tenth of rural inhabitants identify themselves as unhappy or rather unhappy. A comparison of Aso with other rural municipalities also failed to yield a significant difference for happiness ($\chi^2(4) = 3.832$, $p = .429$; see Table 5). Yet it should be mentioned that in Aso the ranking order for “happy” (39.9) and “rather happy” (34.7) has taken turns and thus is in marked contrast to the pattern described above for all urban and rural areas in Kumamoto.

Table 4. Happiness in urban and rural regions

Happiness	Urban (%)	Rural (%)	$\chi^2(4) = 4.313$, $p = .365$
unhappy	3.4	3.4	
rather unhappy	5.8	6.7	
neither nor	15.1	16.4	
rather happy	39.9	39.6	
happy	35.8	33.9	
n =	2,564	2,699	

Sig. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Happiness in Aso and other rural regions

Happiness	Aso (%)	Rural (%)	$\chi^2(4) = 3.832$, $p = .429$
unhappy	3.1	3.5	
rather unhappy	5.7	6.7	
neither nor	16.6	16.4	
rather happy	34.7	40.0	
happy	39.9	33.4	
n =	193	2,371	

Sig. * $p < .05$, ** $p < .01$, *** $p < .001$

Why cities and the countryside do not differ and why Aso stands out among the municipalities of Kumamoto can be elucidated by looking at the specific meaning respondents are attaching to the twelve indicators of happiness (see Tables 6 and 7). All residents of Kumamoto Prefecture, no matter whether they live in urban or rural settings, are highly satisfied with natural scenery, family life, historical heritage and environmental conditions. Satisfaction values for community life and housing conditions are in the middle range, and comparatively lower scores are given to satisfaction with safety, income, purchasing power, employment, education opportunities and health care.

No significant differences between urban and rural residents could be found for the dimension of *hope*, which comprises of satisfaction with the three indicators of family life, employment opportunities and education. Within the dimension of *pride*, which includes satisfaction with nature, heritage and community, both groups are most satisfied with natural scenery. Statistically significant differences are found for the remaining two indicators: Urban residents are distinctly happier about the historical heritage, while rural dwellers are happier about their community life. For the dimension of (material) *wealth*, residents of urban areas are more satisfied with all

Table 6. Comparison of means for urban and rural residents

Variables	Urban		Rural					
	Mean	SD	Mean	SD	Min	Max	*Two-tailed T-test*	*Sig.*
Indicators								
HOPE								
family	2.97	1.13	2.97	1.12	0	4	$t(5452) = -.044,\ p = .965$	
employment	2.23	1.39	2.24	1.35	0	4	$t(5364) = .331,\ p = .741$	
education	2.10	1.18	2.04	1.19	0	4	$t(5414) = -1.875,\ p = .061$	
PRIDE								
nature	3.32	0.86	3.34	0.85	0	4	$t(5454) = .823,\ p = .411$	
heritage	2.87	1.00	2.74	1.03	0	4	$t(5416) = -4.475,\ p = .000$	***
community	2.53	1.15	2.84	1.09	0	4	$t(5459) = 10.099,\ p = .000$	***
WEALTH								
income	1.92	1.36	1.82	1.33	0	4	$t(5453) = -2.630,\ p = .009$	**
consumption	2.26	1.25	2.13	1.26	0	4	$t(5448) = -3.750,\ p = .000$	***
housing	2.58	1.22	2.53	1.24	0	4	$t(5456) = -1.537,\ p = .124$	
CONFIDENCE								
health	2.34	1.22	2.23	1.26	0	4	$t(5418) = -3.098,\ p = .002$	**
environment	2.86	1.02	2.95	1.02	0	4	$t(5442) = 3.106,\ p = .002$	**
safety	1.76	1.08	1.80	1.09	0	4	$t(5456) = 1.272,\ p = .204$	
Weight*								
Hope	2.70	1.21	2.74	1.18	1	7	$t(5472) = 1.276,\ p = .202$	
Pride	2.08	1.04	2.20	1.09	1	7	$t(5413) = 4.135,\ p = .000$	***
Wealth	2.79	1.15	2.72	1.15	1	7	$t(5472) = -2.307,\ p = .021$	*
Confidence	2.52	1.05	2.49	1.05	1	7	$t(5472) = -1.326,\ p = .185$	

Sig. * $p < .05$, ** $p < .01$, *** $p < .001$

* Sum of 4 weight variables must have a value of 10.

of the three indicators of income, consumption, and housing (though in this case the difference is statistically not significant). Within the dimension of *confidence*, respondents from cities are more optimistic about health, while rural inhabitants feel more confident of environmental protection.

The comparison of dimensions demonstrates that *hope*, or the prospect of living a good family life with ample opportunities for education and employment, seems to be most important for the people in Kumamoto Prefecture to be happy, followed by *wealth*, *confidence* and *pride*. Statistically significant are the differences for *pride* and *wealth*: while the former is more important for rural respondents, the latter is of higher priority among city residents.

Table 7. Comparison of means between Aso and other rural regions

Variables	Aso		Other rural municipalities					
	Mean	SD	Mean	SD	Min	Max	*Two-tailed T-test*	*Sig.*
Indicators								
HOPE								
family	3.10	1.03	2.96	1.12	0	4	$t(2648) = 1.661,\ p = .097$	
employment	2.34	1.34	2.24	1.35	0	4	$t(2620) = .999,\ p = .318$	
education	2.13	1.14	2.04	1.20	0	4	$t(2636) = 1.027,\ p = .304$	
PRIDE								
nature	3.61	0.68	3.32	0.86	0	4	$t(2653) = 5.876,\ p = .000$	***
heritage	2.96	0.95	2.73	1.03	0	4	$t(2652) = 3.279,\ p = .001$	**
community	2.92	1.07	2.83	1.10	0	4	$t(2655) = 1.076,\ p = .282$	
WEALTH								
income	1.91	1.30	1.81	1.34	0	4	$t(2654) = 1.007,\ p = .314$	
consumption	2.17	1.20	2.12	1.26	0	4	$t(2648) = .434,\ p = .665$	
housing	2.69	1.20	2.52	1.24	0	4	$t(2653) = 1.848,\ p = .065$	
CONFIDENCE								
health	2.44	1.17	2.22	1.27	0	4	$t(2657) = 2.364,\ p = .018$	*
environment	3.06	1.00	2.94	1.02	0	4	$t(2652) = 1.685,\ p = .092$	
safety	1.96	1.05	1.78	1.09	0	4	$t(2655) = 2.233,\ p = .026$	*
Weight*								
Hope	2.70	1.21	2.75	1.18	1	7	$t(2661) = -.503,\ p = .615$	
Pride	2.32	1.10	2.19	1.09	1	7	$t(2661) = 1.636,\ p = .102$	
Wealth	2.62	1.11	2.73	1.15	1	7	$t(2661) = -1.220,\ p = .222$	
Confidence	2.54	1.16	2.48	1.04	1	7	$t(2661) = .745,\ p = .456$	

Sig. * p < .05, ** p < .01, *** p < .001

* Sum of 4 weight variables must have a value of 10.

Table 7, finally, demonstrates that Aso residents are more satisfied in all indicator fields and across all dimensions than residents of other rural regions in Kumamoto. Statistically significant are differences for the dimension of pride (nature and heritage only, thus excluding communal life) and confidence (health and safety). With the exception of the material wealth indicators of income and consumption, all singular values of Aso residents are also higher than the scores of urban Kumamoto (though this comparison has not yet been tested for statistical significance).

5. Discussion and conclusion

This study started with reflections on differences in urban and rural happiness and the general question of whether living in the city or in the countryside makes people happier. The examination of a possible socio-spatial impact on happiness by means of a secondary analysis of the combined data sets of the annual Aggregated Kumamoto Happiness Index from 2012 to 2015 did not show any large and significant difference between urban and rural respondents. The result does only partially fit with the sociological knowledge on happiness in highly advanced societies. It particularly conflicts with results from those studies on Europe and the United States that by and large argue in favor of negative effects of rural living.

A detailed analysis of the underlying components of overall happiness demonstrates that urban und rural dwellers vary in their conception of what is needed to live a happy life. Cities are superior in providing material satisfaction, while the countryside is better equipped to satisfy environmental and communal needs. That none of these general patterns is naturally given but rather related to local resources and the joint contribution in making or maintaining communal assets reveals the comparison of Aso with other rural areas in Kumamoto. Even though Aso shares the countryside-specific patterns of socio-economic marginalization, this region stands out in terms of overall happiness. Satisfaction with material conditions of life is higher than in urban areas, which may be due to the close distance to Kumamoto City and the significance of the city for education, labor, income and consumption. It is safe to assume that the Aso Shrine is the main factor behind the great pride in local traditions that scores nowhere else in Kumamoto higher than in Aso. For that reasons, a swift reconstruction of the communication lines between Aso and the prefectural capital and the rebuilding of the Aso Shrine are tantamount to maintaining the high degree of happiness in life in the region.

Future research should aim to come to terms with the major deficiencies of this study. For a more precise differentiation between urban and rural residency more detailed information about the place of residence of respondents is urgently needed. Currently, the city category combines densely populated central areas with distanced and sparsely populated marginal zones. Prior to the recent municipal merger, respondents from formerly autonomous districts would have been considered as living in rural units. Equally, rural areas that came to cover a vaster territory since the administrative enhancement might enclose one or more core areas that are more akin to urban spaces. Former surveys should factor in a question that helps to overcome this problem.

The outstanding feature of the AKH survey is the attempt of taking into account the degree of importance people are seeing in the dimensions of which happiness consists. As stated above, the measurement is unnecessarily complicated and a slight improvement of the way the question is put or the weight is calculated would increase the number of valid cases. Another problem is the scarcity of information the survey provides on respondents. What we do not know but would like to know more about includes the bread and butter of socio-structural analysis, including family background, educational level, wealth and social network relations of respondents in Aso and Kumamoto at large. Without such additional information, the differentiation between urban and rural Japan is losing much of its predictive power. We hope that the research project on rural well-being by the Vienna School of Japanese Studies will eventually be able to come forward with a questionnaire survey addressing these key factors behind well-being in rural – and urban – Japan.

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Shinya UENO

4 Impact of Structural Change in Rural Areas and Public Policies

1. Introduction

Interest in the sustainability of hilly and mountainous areas of Japan has remained high over the past decades as policies for rural areas developed. These areas cover 70 percent of the Japanese territory and contribute to roughly 40 percent of the entire agricultural production, including farmer households and farmland areas in Japan. However, hilly and mountainous areas have witnessed a continuous decline in population and, as a result, are facing many difficulties, including a high share of elderly residents as well as abandoned farmlands and forests. The erosion of rural communities has become a central problem. The government has implemented various measures to maintain the sustainability of rural areas such as utilization of abandoned farmlands, working to maintain community functions, and revitalizing local economies.

Specifically, policies for less-favored rural areas are aiming at (a) national land conservation, (b) the supply of foods, (c) the preservation of the multiple functions of agriculture, forestry and fisheries, and (d) the maintenance of local community life. Rural area policies were revised several times since 1999 and integrated into the Japanese agricultural direct payment program in 2014 (see Figure 1). The hilly and mountainous areas policies in Japan attempt to maintain rural population and community functions by strengthening and utilizing social capital of residents and local associations. In Fiscal Year 2016, the budget for these policies amounted to ¥28.5 billion (roughly €247.5 million).

1999	Enactment of the Food, Africulture and Rural Areas Basic Act
2000	Direct Payment to Farmers in Hilly and Mountainous Areas
2007	Measure to Conserve and Improve Land, Water and Environment
2014	Integrated to the Japanese Agricultural Direct Payment Program
	(a) Direct payment to farmers in hilly and mountainous areas
	(b) Multifunctional payment
	(c) Direct payment for environmentally friendly agriculture

Figure 1. Revisions of the direct payment programs

Japan's agricultural policy is largely enforced by the national government. At the core of national policy to help disadvantaged regions is the direct payment system for hilly and mountainous areas. In addition, each local government devises various rural policies to revitalize distressed communities.

This paper discusses how social capital relates to the structural change of communities in rural areas. Furthermore, it will examine the effectiveness of policies based on the community principle. Data used in this study were obtained from fieldwork surveys conducted in various types of agricultural communities in Japan by the Ministry of Agriculture, Forestry and Fisheries' study project, the Kumamoto Prefectural Government study project, and the author's social capital research work since 2007.

2. Social capital and rural change in Japan: A literature review

2.1 Social capital in agricultural issues

Research on the problems of depopulated and hilly or mountainous areas has been conducted in a wide range of disciplines, including agricultural science, sociology, geography, and public policy studies. Specifically, for disadvantaged regions, there are many areas of concern, such as agricultural products suitable to mountainous areas or the maintenance of agricultural facilities (farm roads and waterways). In addition, rural settlement issues such as employment, education, social welfare and public transportation services are also of growing concern. For example, in recent years environmental conservation research has focused on the functions of rural areas, the preservation of forests, farmlands and landscape, and the protection of local cultural heritage.

In 2006, the Ministry of Agriculture, Forestry and Fisheries (MAFF) started a social capital study to implement the management and maintenance of agricultural facilities by supporting rural communities financially. While initially inspired by research conducted by authors such as Pierre Bourdieu, James Coleman, Nan Lin (2009) and Robert Putnam (1993), the MAFF study aimed at forging a measurement and policy application tool titled "Rural Cooperation Power". The application of public policies is broadly classified into two categories: (1) revitalization of rural communities from the viewpoint of social capital while supporting local development activities and movements, and (2) verification of policy effectiveness while gaining quantitative evaluation data concerning the maintenance of agricultural facilities. These policies are based on a common understanding as "community principle-based agricultural policy".

Figure 2 displays a model of the relationship between individuals and communal organizations found within small municipalities. At the bottom, there is the world of microscopic social networks among residents. The meso level,

or community level, which is a combination of neighborhoods, is maintained by resident associations, and as a result, its abilities vary from community to community. Collectively, community organizations such as local development bodies work together with residents in areas where the number of community functions has declined. At the macro or municipality level, aspects that are of interest to several communities are addressed. "Rural Cooperation Power" refers to an attempt to evaluate the function of rural communities and their use of fields, the management of waterways and farm roads, and the preservation of forests through a collaboration of meso level units. Additionally, it also includes fostering the power of mutual aid and the value of reciprocity among community residents.

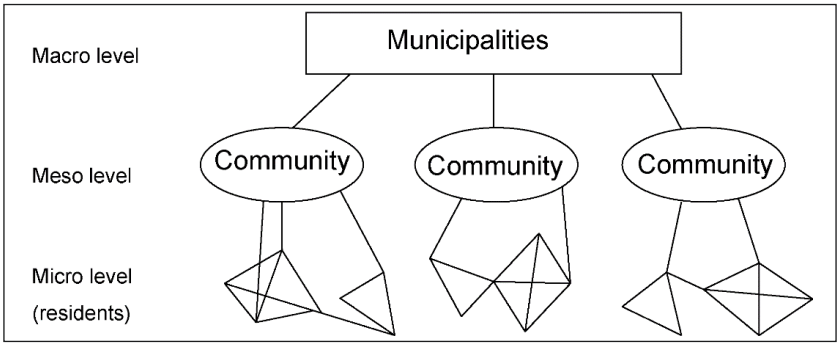

Figure 2. Relationship between residents, communities and municipalities

2.2 Communal sense

The meaning of "community" has witnessed a dramatic change in post-war Japan. After Japan's defeat in the Second World War, the General Headquarters of the Allied Forces (GHQ) abolished the community institution of neighborhood associations. Authorities believed that the local organizations, that had strengthened traditional values, emperor worship and mutual surveillance of residents, weakened Japan's ability to develop into a healthy democracy. After Japan regained sovereignty, various regional organizations and autonomous community activities were gradually rebuilt as marginal administrative organizations, and these became basic units of residents' autonomy (Iwasaki *et al*. 1989; Tsujinaka 2009). This was especially true in rural areas where communities provided indispensable cooperative functions because of the necessity of collaborative work in wet-rice farming and other activities. Yet in the progressing "age of the liberated community", people could escape from the communal world and enjoy more freedom. In urban areas, advanced services from the public and the private sector replaced traditional community

services and residents could live almost without mutual aid or cooperation in the community. However, livelihoods in rural areas are plagued by inefficiency and result in low capabilities of the public sector. Therefore, cooperation remained indispensable and rural people continued to take responsibility for self-help. A new type of community also emerged in urban areas in response to overcrowding and pollution that made living conditions increasingly difficult during rapid economic growth. However, this was not a revival of the past rural community lifestyle. The policy idea of creating a new community type constituted by partnership, collaboration, community development and solidarity is not limited to traditional political issues, such as political participation, citizenship, and administrative participation, but concentrates more on local community building. It has expanded to the creation of new non-profit type organizations, which is related to the voluntary issue as well as strengthening the assistance of the community.

The concept of social capital is believed to be an effective policy measure for solving contemporary social problems, and, as such, has been referred and applied to various policy fields. At present, social capital is a mainstream tool to mitigate a wide range of modern social problems by using community collaboration that includes the revitalization of depopulated areas, problems of marginal communities (*genkai shūraku*) and measures to increase exchange between urban and rural areas (*toshi nōson kōryū*), social welfare services, education and disaster prevention. With the advance of discussions on regional development and references to other communal policies, the value of mutual assistance within community units was further developed and propagated by governments and mass media. Relief measures in response to large-scale natural disasters, such as the Great Hanshin Earthquake of 1995, the Great East Japan Earthquake of 2011 and the Kumamoto Earthquake of 2016, also expanded the way of thinking and highlighted the usefulness of the community as a tool for solving social problems. Such experiences have profound cascade effects in other areas as well (Easley and Kleinberg 2010).

Recently, the depopulation of rural communities has reached a point where the total disappearance of communities might be only a matter of time. When determining public policy measures, it is necessary to understand the problem of low productivity specific to mountainous areas as well as the difficulties of maintaining agricultural facilities and agricultural production in the rural community. To preserve mountainous communities, the policy ideas that sustain community functions and keep a minimum population in mountainous areas are becoming a prominent issue. For this purpose, the policy framework of "Community principle-based agricultural policy" tries to strengthen social capital within the community.

2.3 Social capital measurement

Beginning in 2003, social capital research in Japan was conducted by the Quality-of-Life Policy Bureau (Kokumin Seikatsu-kyoku) of the Cabinet Office. This research aimed to discern the value of voluntary associations and non-profit associations in Japan and surveyed actors related to social capital (Cabinet Office 2003). In 2007, the measurement of social capital in rural areas was supervised by the MAFF Research Group on Social Capital in Rural Communities. Their policy study (NSKK 2007) proposed the basic concept of "Rural Cooperation Power" and defined social capital in rural areas as follows:

> The ability of an agricultural community, or multiple agencies within a rural community, and local government to share their goals for revitalizing the rural community and combine their strength and ability, or the measure of activities to increase their autonomy and consensus formation.

To design a "Community-based agricultural policy", emphasis fell on social capital as a new type of capital and capacity. It is necessary to regard it as a tool of policy-making because rural communities are in need of rural village management ability. Traditionally, social capital has been considered to be integrated capital, such as human resources, culture, network, trust and reciprocity norms in the community (Putnam 1993). However, such indicators are only pointing to the current or static state of the community, much in the way various examination results are arranged as medical data in a general physical examination. Naturally, measuring social capital required assessing the individuality of each community in comparison to other communities. Qualitative surveys were employed to verify results. Grootaert (1998), Grootaert *et al*. (2003), Inaba and Yoshino (2016) and Ueno (2004) engaged in the development of these research areas.

To investigate the strength and pattern of important factors of social capital, the MAFF social capital measurement study used factor analysis including 52 communities based on data obtained from a questionnaire survey collected from community residents. The author worked as a committee member to develop the research tools and was engaged in gathering data and improving those tools. Results were interpreted by calculating deviation values (T-scores). It became apparent that social capital in the surveyed rural areas varied greatly depending on the nature of the region, the type of leadership, the generation gap and the gender gap. The developed social capital measurement tool was provided to local governments nationwide and resulted in concepts of social capital being incorporated into various areas such as the policy evaluation process, the land improvement project, the direct payment system and the agricultural land and water conservation project. It was already accepted as a theoretical pillar of rural community preservation measurement.

3. Modelling social change in rural communities

The next issue to be examined concerns the topic of community more closely: the process and performance of social change. Current attempts of solving problems are not enough as communities continue to transform dynamically and constantly in response to endless factors and environmental changes. Most of the changes we now try to comprehend arise as intended or unintended consequences of human activity (Sterman 2000). As such, the author examined how communities develop sustainability. Thus far, every sustainable community has always been able to achieve a "dynamic equilibrium" despite constant changes in membership, their networks and the external environment. Alternatively, there are also communities that fall into decline. Such changes to unstable communities will be discussed in the following section.

3.1 System dynamics of rural community transformation

This subsection focuses on the problem of less-favored areas concerning the dynamic functional change of communities by using system thinking. As a hypothesis, to simplify structural change in rural communities, the number of people and households in a community is considered a dependent variable in the dynamics of multiple loop systems. In addition, the existence of two interlinked systems with a positive effect and another system with a negative effect is postulated. Based on this, the author considers a system that changes in different cyclical ways. Elements related to each loop (considered as independent variables) represent the changes faced by rural communities in Japan currently. Variables are related by causal links that are marked by arrows (see Figure 3):

- The minus loop on the left side of the figure indicates a negative feedback loop on rural villages, which means that if there is no influx of population, the functioning of the community declines. A decrease in the community operation causes an increase of abandoned farmlands and further leads to the harm of increasing wildlife damages. If wasteland expands, the population moves out, which then brings a decrease in the number of households and population in the community.
- The plus loop on the right shows a positive feedback loop, which means that when community development activities start, income and mutual help increase in the community. This leads to an improvement of the living environment. In turn, this causes community life to become attractive. An attractive community invites an increase of in-migration and eventually causes the number of households and population to increase.

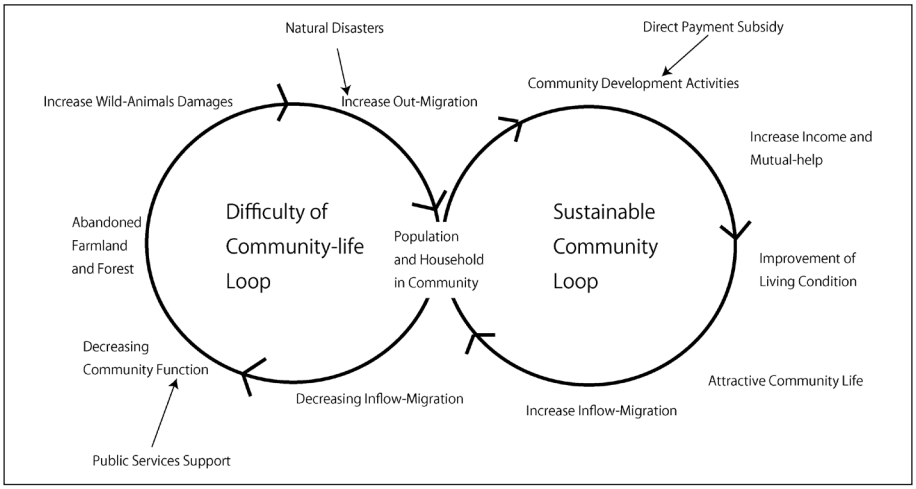

Figure 3. System dynamics of problems in less-favored areas

In this system, when the negative loop intensifies and population starts to decrease, the positive loop is suppressed. When a positive loop begins to emerge due to some other factors, the system operates in reverse. For example, the performance of a rural village in which such system dynamics operate may lead to positive outcomes at times, while negative effects are noticeable at other times. So far, social capital has been measured by considering the performance and communal efforts of a community at one point in time. As such, if one can predict which changes will occur in a community, it would then be possible to intervene to generate a positive loop with effective policies. Indeed, residents' community development activities, public measures, and subsidies aim at encouraging operable elements of such loops and attempt to rotate the entire system in a socially benefitting direction.

Under current policies, various community approaches are developed and applied to strengthen rural community functions. The national government provides direct monetary subsidies for farmers in hilly and mountainous areas. Many municipalities also incorporate population policies concerning issues such as migration and invest in social infrastructure and job opportunities to realize comfortable living environments as well as activating mutual aid organizations to alleviate living difficulties.

3.2 Critical point of community functions

This subsection is concerned with the way in which social networking relates to the sustainability of concrete rural community functions in declining rural communities.

Rural communities need to maintain neighborhood associations and agricultural districts. The functioning of the community is sustained by members who contribute to one or more social roles. When a community lacks the number of residents willing to adopt such roles, or when there is an obstacle within the relationship among the residents, the community starts to dissolve. Investigations such as those by Kasamatsu (2006), Odagiri (2014) as well as the author's own research disclose the relationship between meeting activities and the number of residents as shown in Figure 4. As the population decreases, the number of meetings decreases as well and community functions are likely to be lost. Sustainability, achieved by residents' sense of belonging, problem-solving skills, reciprocity and mutual assistance, will rapidly collapse if population decline extends beyond a certain critical point. To prevent such an erosion of the community, it is important to develop policies for rural areas that support the functioning of communities in such a way as to prevent moving beyond this critical point. When one problem becomes too difficult for one community to solve, there is still a wide range of options for maintaining community functions. For example, the critical point can be avoided by merging with neighboring communities or complemented by non-profit activities. Community development events are also commonly performed as a tool for increasing exchanges between urban and rural areas.

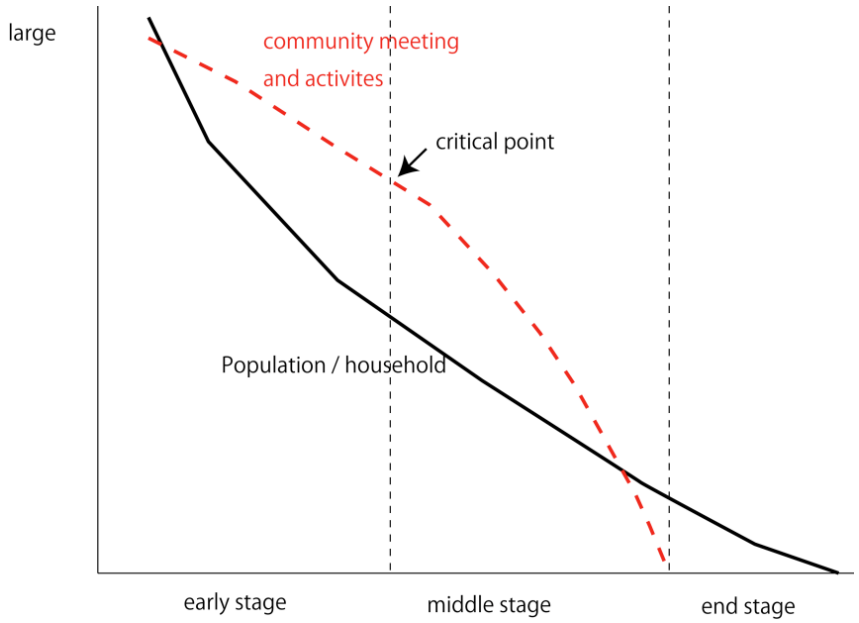

Figure 4. Decline of community functions before and after reaching a critical point

4. The effectiveness of policies aimed at strengthening social capital

4.1 On the application of social capital policies

Social capital in rural communities was analyzed based on observations of behavior and subjective responses provided in the rural communities social capital survey of 2007 and 2009. Social capital data are organized at more than one level. Using such nested data, Ueno (2010) revealed how social capital concepts were synthesized from shared values and the behavior of each member. Multiple analyses of social capital helped to prove that both trust and attachment to the community have a significant impact on improving social capital, and help ensure that social capital is linked to the effectiveness and strengthening of community functions. We used five regression equations as statistical models for multilevel analysis, which aims to separate community performance and individual performance levels as shown in Figure 5. From the statistical fitness point, we chose Model 4 to explain this.

Multi-level model analysis clearly demonstrates that areas possessing high levels of social capital from the beginning maintain these higher levels. Social capital described as cultural capital appears to have laid the foundation for dependency and change.

Null model $Y_{ij} = (\gamma_{00} + u_{0j}) + \varepsilon_{ij}$

Model 1 $Y_{ij} = (\gamma_{00} + u_{0j}) + \gamma_{10}(trust) + \varepsilon_{ij}$

Model 2 $Y_{ij} = (\gamma_{00} + u_{0j}) + (\gamma_{10} + u_1)(trust) + \varepsilon_{ij}$

Model 3 $Y_{ij} = (\gamma_{00} + \gamma_{01}(ave\_sc) + u_0) + (\gamma_{10} + \gamma_{11}(ave\_sc)(trust)) + u_1 + \varepsilon_{ij}$

Model 4

$(level1)$

$Y_{ij} = \beta_0 + \beta_1(trust) + \beta_2(age) + \beta_3(attachment) + \beta_4(sex) + \gamma$

$(level2)$

$\beta_0 = \gamma_{00} + \gamma_{01}(ave\_sc) + u_0$

$\beta_1 = \gamma_{10} + \gamma_{11}(ave\_sc) + u_1$

$\beta_2 = \gamma_{20} + u_2$

$\beta_3 = \gamma_{30} + \gamma_{31}(kaso) + \gamma_{32}(snow) + u_3$

$\beta_4 = \gamma_{40} + u_4$

Note: *Yij* refers to the socre of social capitai of person i in the j community;
β0 refers to the average of social capital in communities;
β1, β2, β3, β4 refers to the slope for the relationship; γ refers to the overall regression coefficient;
ε refers to the random errors of prediction for the level 1 equation; u refers to the random error component for the deviation of the intercept of a group from the overall intercept;
(trust) refers to the trust to community; (age) refers to the age; (sex) refers to the gender dammy;
(attachment) refers to the attachment to community; (ave_sc) refers to the average socila capital score;
(kaso) refers to the depopurated areas dammy; (snow) refers to the heavy snowfall areas dammy.

Figure 5. Model formula for multilevel analysis

4.2 Assessing the long-term effect of social capital

Social capital is accepted as a concept to explain a missing link between various kinds of capital (Grootaert 1998) and has offered examples for alleviating community problems. However, there are also many critical voices arguing that social capital theory arbitrarily lumps together diverse elements as social capital. In addition, social capital itself has two sides that can affect pro-social as well as anti-social developments. It is thus indispensable to reconfirm long-term trends by follow-up studies. Ōsuga (2017) conducted a survey analysis to evaluate the effectiveness of land improvement projects with reference to the Rural Cooperation Study in 2007 and 2009 as the standard point. The study was conducted in the same area and used the same questionnaire as in the earlier cooperation studies, and variables such as policy input and time were controlled for. This comparative study suggests that collaborative efforts in rural communities contributed to the outcome of land improvement projects. In other words, certain effects have resulted from policy methods stimulating long-term social capital.

However, if social capital is to be understood as a kind of historical and cultural capital as Putnam's (1993) Italian study suggests, and if it assumes a path-dependent constraint, it is not sensitive to changes. Yet in the medium- to long-term functioning of a community, people's behavior and social norms will gradually transform.

4.3 Local government public policy

This subsection illustrates the effects of a unique rural activation policy represented by the "Kumamoto Satomon Project" that has been set up by the Kumamoto Prefectural Government. The policy objective was to provide support for organizations and activities to strengthen self-help and cooperation in rural areas as well as to empower sustainable rural communities. Specifically, the project provides subsidies to local organizations to encourage the following three objectives: (1) preservation of beautiful landscapes, (2) maintenance of culture and community, and (3) utilization of local resources for continuous development. Policy schemes are not for operation subsidies, but rather for the support of start-ups. More than 500 initiatives were supported in three years since Fiscal Year 2014; each project received ¥500,000 yearly (approx. €4,200) as a subsidy (Kumamoto Prefectural Government, Mura-zukuri ka 2016).

There were several positive effects of the Satomon project. For example, it expanded the wave of exchanges, improved community relationships, maintained the landscape and the environment, and helped develop attractive local resources.

However, several issues remained difficult to address, such as insufficient funds and a shortage of active members. Even when local governments provide start-up subsidies to strengthen community functions, mountainous rural communities always face difficulties in maintaining cooperative local development activities without continued subsidization. Although self-reliant community development is considered ideal, in fact all resources for peripheral areas are extracted from the center.

5. Conclusions

Policies based on the community principle have become mainstream in Japanese rural policy-making. The direct payment system for hilly and mountainous areas, enforced since 2000, is an example of a policy typical of the central government. This program has a term of five years and is presently in its fourth phase. The criteria and measurements are also revised every five years. Modern agricultural policy in Japan targets many institutions. It aims to keep farmlands in less-favored areas workable, attempts to mitigate population decline and to maintain community functions once the situation becomes critical. One of the measures to achieve this is the Community Farming Project, of which some are cooperative and some are not. The Autonomous Community Center System is an important institution used to build a consensus among the community members. Many local issues are regularly discussed and resolved at community meetings, thus making the development of a community vision a condition for receiving subsidies from central and local governments.

In addition to keeping rural communities alive, policies to stimulate industrial growth in rural areas have been conducted as well. The "Small Stations" development idea, i.e. the formation of locations where needed functions and bases of regional activity are concentrated in walking distance, was applied in multi-village area projects. Furthermore, the need to stimulate migration from big cities to rural areas and the ability to preserve social infrastructure for maintaining residents' quality of life are important policy objectives. Policy designers for rural areas need to cooperate with other policy agencies and private sectors more frequently. Recent shifts in business activities have been stimulated by the Japan Agricultural Cooperatives (JA), such as farmers using IT technology, establishing direct networks to the consumer, and employing intelligent power for their farming business. Such basic measures of structural change in rural areas have helped maintain the local economy, develop labor saving techniques for local resources management, and reorganize a community to a block (wide) community system.

However, the number of direct payment subsidy users has been sluggish in recent years. In addition, the withdrawal of communities from the program is progressing and, as such, the commitment to collaborative work in the next five years may become more difficult to sustain. This suggests that the policies for sustaining less-favored areas have their limits. An exit strategy for marginal villages has become a more likely reality.

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Georg WIESINGER

5 The Importance of Social Capital in Rural Development, Networking and Decision-Making in Rural Areas[1]

Due to overall economic, political and socioeconomic reasons, structural change in agriculture and rural areas has accelerated during the last few decades causing positive but also some negative impacts. The term "rural marginalization" defines a series of problematic tendencies particularly evident in remote and less-favored European regions facing socio-economic and cultural decline. Rural marginalization is characterized by unemployment, the closing down of farm enterprises, out-migration, hyper-aging, brain drain, rural poverty and social exclusion, loss of infrastructure and services, environmental degradation, biodiversity depletion, loss of habitats, afforestation, land abandonment, landscape degradation, loss of cultural tradition and local identities. Agricultural marginalization has to be considered as part of the larger phenomenon of rural marginalization. For a long time rural marginalization has been the center of attention for regional planning and rural development initiatives but also for rural sociology and rural policy studies. These problematic, unwanted and in most cases unintended incidents are due to local and global political reasons (missing or insufficient rural development measures, globalization, telecommunication) but also due to so-called "intrinsic aspects", which coincide with the social structure and sociological patterns of local communities.

Applied regional development research reveals no clear correlation between the quantity of input in terms of budget, political instruments or other efforts undertaken and output in terms of success or whatever is considered a positive effect. Despite huge financial means and numerous measures, the result of rural development remains unsatisfactory or at least not sustainable in many regions, while we can observe remarkably sound social, economic and environmental conditions in other regions without much public support from outside. Rural marginalization can be largely explained by unfavorable conditions and missing resources, but not entirely and not in all regions. There exist sparsely populated regions not supported by policy measures and suffer-

1 This contribution is the slightly modified and updated English version of a paper originally published in 2007 (Wiesinger, Georg: "L'importance du capital social dans le développement rural, les réseaux et les prises de décision dans les zones rurales", *Revue de Géographie Alpine* (RGA) 95/4, pp. 29–42).

ing from poor economic and unfavorable climatic conditions, which prove to be more viable than regions where structural conditions are in better shape. Some kind of an intangible asset seems to be involved in the marginalization dynamism. This is a dilemma of indicator econometrics, which calls for an alternative approach. Many publications apply "social capital" as a tool or "missing link" to explain this rather sophisticated and complex relationship. This paper discusses whether or to what extent social capital can fill in this gap. For a better understanding of the various interfaces and relationships, the paper then develops a model combining Pierre Bourdieu's concept of habitus applied on a territorial level with the social capital concept as employed by Robert Putnam.[2]

Social capital, civil society and territory

Globalization and neo-liberalism are the prevailing economic paradigms of our time. The cut-down of public infrastructures and services affect remote rural areas most severely, tackling the rural economy and the whole fabric of society. Socially weak and underprivileged people suffer most from the reduction of public welfare. Rural poverty and social exclusion are becoming widespread incidents across Europe. Simultaneously, it has become more and more popular to address the endogenous potential of the regions, for example in EU initiatives such as the LEADER or INTERREG program. Local inhabitants should rely on their own power and less on public support. Mutual assistance and self-empowerment are considered as a remedy against all negative features including lack of democratic participation on the local or regional level. Although the trajectory towards enhanced participation, civic engagement and self-reliance is considered unanimously as positive in the debate, many critics hint at some negative effects. "Civil society" and more recently "social capital" refer to dynamics spanning the growing space between the individual and the government or state. This subsequently implies the restructuring of governance or governmentality (Foucault 1991).

Since the beginning of the 1980s and even more during the 1990s, plenty of survey reports on social capital studies have been published (Árnason *et al*.

2 Many considerations for this paper have been drawn from the research project "Strengthening the Multifunctional Use of European Land – EUROLAN" conducted under the EU Fifth Framework Program on Technological Development and Demonstration Activities (FP5). The objective of this project was to acquire a better understanding of how multifunctional land use can counteract the problems of marginalization and land abandonment in Europe. I would like to thank Hilkka Vihinen and Marja-Liisa Tapio-Biström from MTT Economic Research in Helsinki, who participated in this project and with whom together I developed the general ideas, and Laura Fagarazzi from the University of Padova for her comments and critiques concerning the perception of environmental issues sketched in this paper.

2004; Bourdieu 1986, 1993; Burt 2000; Coleman 1988; Fukuyama 2000; Norris 2003; Putnam 1993, 2000; Tillberg Mattsson and Stenbacka 2004; Woolcock 1998). The principle idea originated from Bourdieu (1979, 1986) and Coleman (1988), who emphasized the importance of social ties and shared norms for societal well-being and economic efficiency. Their concept has widely been used in the study of social inequality and hierarchical social structures. Putnam (1993, 2000) above all linked the ideas of social capital to the importance of civic associations and voluntary organizations, and emphasized positive aspects of social control.

According to Bourdieu's concept of habitus (1986), there are different forms of capital. Economic capital is immediately and directly convertible into money and can be institutionalized in the form of property rights. Cultural capital can be institutionalized in the form of educational qualifications. It includes what economists consider as human capital, but it is a wider concept. Bourdieu's concept of social capital encompasses the resources derived from one's belonging to a group. Relations of social capital are based on material and/or symbolic relations of exchange, and they may be institutionalized in the form of a title of nobility. Social capital can be defined as the aggregate of the actual or potential resources, which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition. The membership in a group provides each of its members with the backing of the collectivity-owned capital, a credential that entitles them to credit. According to Bourdieu, the amount of social capital held by an individual depends on the extent he or she is able to mobilize a social network and on the capital (including the economic, cultural or symbolic capital) held by the members of that network. Like other types of capital, social capital is unevenly distributed, mobilized, utilized, transformed and exchanged in society.

In *Making Democracy Work* (1993), Putnam explored the conditions for creating responsive and effective democratic institutions that lead to economic growth. Putnam points out that features of social organization, such as trust, norms and networks of civic engagement (associations), can substantially improve a society's efficiency in overcoming dilemmas of collective action. Putnam uses social capital as an attribute of the social structure in which a person is embedded, and emphasizes that social capital is "not the private property of any of the persons who benefit from it" (Putnam 1993: 170). Networks of civic engagement like neighborhood associations, choral societies, cooperatives, sports clubs, and mass-based parties represent intense horizontal interaction, which essentially promote trust, reciprocity and co-operation within the society. In contrast, vertical networks such as patron-client relationships can, according to Putnam, not sustain social trust and co-operation and rather tend to undermine

solidarity, especially among clients. The radius of trust is the circle of people among whom cooperative norms are operative (Fukuyama 2000). Social capital promotes access to resources (Rifkin 2000) and is assumed to be produced by networks, defined as social actors, or nodes and flows of information and resources. Tillberg Mattsson and Stenbacka (2004) underline that networks can also be formal, with an explicit and public structure, or informal, with no explicit name, and yet an identifiable group of nodes and flows. The role of the EU in introducing innovative local modes of organization and cooperation such as local action groups fostered by LEADER programs also deserves acknowledgement (see for more details on LEADER projects in Austria the contribution by Oedl-Wieser and Dax in this volume).

Putnam (1993) suggested the number of associations per local inhabitants for measuring social capital. He says very little, though, about who is attracted by these associations, or about the gender issue. Women, young people and people with distinct lifestyles or cultural interests may find themselves not affected by the given associations. Norris and Inglehart (2005) emphasized that associational membership can be vertically and horizontally segmented for women and men. Actually, women are often the promoters of social cohesion with their both formal and informal networks.

Rifkin (2000) brought a territorial approach to social capital into discussion. He states that all real culture exists in geography. That is where intimacy takes place, and without intimacy, it is not possible to create bonds of social trust and engender true feelings of empathy. Our more ancient nature is embedded as much in geography as in temporality. Simultaneously, there is a process of disembedding between space and time and consequently a loss of intimacy (Giddens 1990). Local societies are traditional historical communities, but neither stabile nor inert. Rural areas experience a continuous process of transformation, as the means of living, the population structure and social cohesion are in a state of flux. Yet, territory is more than just a social convention, and rootedness to geographical place is still valued. Some feel a deep empathy with a certain place or territory, others with the local social community, some with both of them. New communication means have diminished the role of location as a constant in shaping social relationships, but there is a close relationship among people in rural areas and long-term individual experience with a territory enhances social capital.

However, the dark sides of the "territorial imperative" must be taken into consideration as well. As much as local communities tend to enclose their citizens and assist persons in need, their close ties also account for dynamics of social exclusion of all those who are unable or not willing to cope with the social norms of the local community, e.g. young people with different lifestyles, persons with different opinions from the majority, or those who do not participate

in local associations or religious congregations (Dax and Machold 2003). In addition, local communities have a propensity of hostility towards incomers and thus prevent innovations. Árnason *et al*. (2004), who discussed the concept of social capital in the context of rural development, maintain that social capital may affect the performance, competitiveness and social cohesion of a community. Networks can be understood as articulating the flows of information and resources that produce rural development and society in general. The intangible asset of social capital can be affected by policies, both positively and negatively. Measures that encourage the creation of networks and working modes enhancing co-operation are important elements in the creation of social capital. Yet policies encouraging competition dividing rural inhabitants into winners and losers might be detrimental to the positive dynamics and could affect a total breakdown of the rural social fabric, as examples from agricultural areas in the US demonstrate (Schubert 2005).

Theoretical framework

In this section, I will examine the role of social capital in rural development and combating marginalization by concretizing and discussing my considerations using the scheme presented in Figure 1.

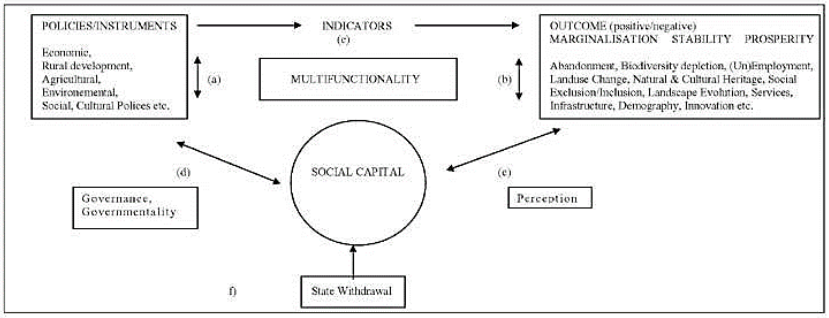

Figure 1. Conceptualizing social capital, rural development and marginalization

This scheme only refers to the local level, i.e. a local community. As a matter of course, there are numerous supra-regional issues and interdependencies with the outside world (such as globalization, national and international politics which do not explicitly focus on the local area etc.), which form the institutional environment for local decision-making. Policy measures (a) include every kind of policies such as agricultural, environmental, developmental, economic, social and cultural policies. Instruments are regarded as a tool for the implementation of the policy measures. Multifunctionality in general

refers to the results of economic activities exerted on a locality other than the intended product with the character of positive externalities. The preservation of rural landscapes, the prevention of depopulation and the development of viable rural areas can be regarded as public goods. Consequently, multifunctional results of any activity must be taken into account in policy-making and planning and hence must form the basis of policy decisions.

Marginalization (b) has been defined above in a broader sense as economic, agricultural, environmental and sociocultural decline. A traditional approach for studying policy impacts is to analyze quantitative indicators defining certain thresholds for marginalization (c). However, statistical data drawn from various databases may explain largely, but not entirely, the correlation between the whole range of driving forces and the outcome in a given region. Certain policy measures are successful in some areas, while they fail in others. Why areas with approximately similar physical and economic conditions perform so differently, is a question that merits further deliberation. We can identify at least four potential interactions besides all cases of non-impact: a proper set of policies according to economic theory (+) might either improve the situation (+) or not (–); a non-existing or improper set of policies (–) might incite marginalization (–), or countering all expectation, the situation might even improve (+). Since the correlation of (+) and (+) or (–) and (–) seems to be natural, the attention will be focused on the anomic relations between (+) and (–). Here the question arises whether and to what extent social capital can explain such anomies.

Furthermore, political instruments and measures may also influence the creation as well as the weakening and destruction of social capital. The link between policies and social capital can be grasped as "governance" or "governmentality" (d). Regional and local governance shapes the institutional setting where the interaction takes place. By using governance I refer to the fact that policies are increasingly both prepared and implemented in cooperation among both public sector, market, and civil society actors, and that there is a shift from command and control to steering. Governmentality defines the "art of government" in a wider sense, i.e. with an idea of government that is not limited to state politics alone, that includes a wide range of control techniques, and that applies to a wide variety of objects, from one's control of the self to the "biopolitical" control of populations (Foucault 1991).

The space between social capital and the outcome can be defined as the field of "perception" (e). Since social capital is immanent with the people and formed by the people living in a territory, the way in which people perceive the given (socio-economic, cultural, environmental etc.) situation in their location is crucial. Some issues might be seen as a problem, while others are not. Similarly, the perception of the same phenomenon varies by different people. This is often

related to age, gender, professional background, education and life experience. The given situation also affects social capital. Abandonment, landscape and land use change, economic and socio-cultural marginalization may cause a weakening of social capital, or, quite the reverse, wealth and prosperity might facilitate the creation of social capital. A wealthy and prosperous context might also lead to the disruption of the traditional social tissue without creating a new one. On the contrary, an area that is marginal according to the main economic and social flows can still hold a viable social capital, although it is threatened by out-migration of the most active, mainly young people.

In the current neo-liberal discourse, the concept of social capital is sometimes taken as an endogenous remedy. While the state withdraws (f), social capital is seen as a substitute for services formerly organized by the public. However, negative developments in the local economy can also destroy social capital by placing heavy demands on people's solidarity and the maintenance of social safety nets that are too demanding and beyond the capacity of the remaining local inhabitants. Strong political capital implies negotiation capacity in decision-making that can be used in cases of marginalization, for example.

Further considerations, conclusions and queries can be derived from this scheme: Firstly, it should be discussed whether social capital is essential for explaining the success or failure of policies, variations and dynamics of rural development. Could a prosperous situation or an efficient combat against marginalization also be achieved without bringing in the concept of social capital? Can we imagine other possible explanations?

Next, I will exemplify three prototype regions (A, B and C) classified according to the distribution and availability of the different types of capital (see Figure 2).[3]

- *Region A*: Marginalized remote rural region with little economic and cultural/intellectual capital (poor education level, brain drain, high unemployment, hyper-aging, high out-migration, agricultural decline and afforestation) but with much social capital (associations, mutual trust, neighborhood, strong norms).
- *Region B*: Commuter region that is less remote and economically marginalized; the level of economic and cultural/intellectual capital is higher than in Region A, but the level of social capital is lower. Since the accessibility is better compared to Region A, most of the people commute and thus

3 I am well aware that further types of regions could be defined according to all the other potential combinations of capital such as regions with lacking economic, cultural/intellectual or social capital. The figure only illustrates relative shares, since a three-dimensional three-angled pyramid would be necessary for displaying the absolute portion of capital (the total amount of social capital will not significantly decline when cultural capital increases etc.).

spend not much time for civic engagement in their community. Either this situation might lead to better conditions for agriculture and lower rates of land-use change, abandonment and spontaneous afforestation, or – on the contrary – to marked abandonment and afforestation due to a higher level of industrialization or even a well-developed tertiary sector, which often goes hand in hand with farmland abandonment.

- *Region C*: Periurban region with plenty of urban incomers and day commuters, who have little interest in the affairs of the local community; the level of economic and cultural/intellectual capital is much higher than in Region A and Region B; the amount of social capital is very low. The decline of social capital is less due to the commuting of the local people (like in Region B), but can be explained by the fact that a huge number of urban incomers change the social network. People brought up in the community and incomers are living in different worlds (Burnett 1998).

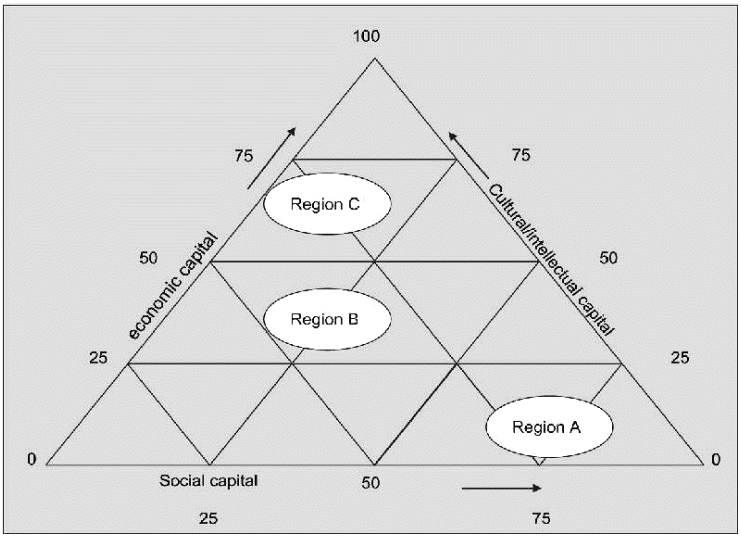

Figure 2. Regions defined according to the distribution of capital types

Source: Wiesinger 2007.

Region B and Region C are characterized by an unravelling of local associations, trust and cultural life, whereas in Region A community life is lubricated by social capital despite cultural and economic marginalization. In terms of social marginalization, Region A is better off than Region B and Region C. However, the situation is not sustainable, since the lack of economic dynamism and employment opportunities forces the young to out-migrate.

With this typology in mind, it is possible to deduce further patterns of reasoning. How do people perceive the given situation in their respective region in terms of economy, socio-culture, environmental development, and how does the situation impact the attitude and awareness of local people? Let us just consider the relationship between social capital and the state of the environment (encompassing also the landscape, natural heritage, biodiversity, etc.). We could advance the hypothesis that people in Region A consider their environment rather as material resource to be extracted and used, whereas people in Region B and particularly urban incomers in Region C will emphasize the value of natural landscape and the environment.

Testing the concept

In order to understand the particular role and importance of social capital for the socio-cultural micro-level of a community in a remote place endangered by marginalization, Putnam's social capital concept of association, trust and civicness is applied. For that purpose, I chose the most extreme example among all municipalities of the Austrian EUROLAN case study region: The municipality of Schwarzau im Gebirge, situated in Neunkirchen district (southern part of the state of Lower Austria), displays the worst figures regarding socio-economic indicators such as population decline, hyper-aging, out-migration and brain drain. It has lost more than 60 percent of its population during the last 150 years. This decline is sustaining. Population dropped by another 30 percent since 1971. In 2001, only 831 persons lived in Schwarzau, signifying a population density of just 4.4 inhabitants per km^2. Currently, 25 percent of the population is aged 60 years and over. The main problem lies in the fact that young people who try to get better education (high school, college or university) are forced to leave the region and will not return after graduation, since they will not find an adequate job in the region. Therefore, about 15 to 20 percent of the youth leave Schwarzau for good. Only the less educated remain, which means that the average education level is rather low.

Furthermore, Schwarzau is geographically isolated compared to most other municipalities of the district. After heavy snowfall the main road connections are sometimes blocked due to the danger of avalanches, making daily life and commuting quite inconvenient. Tourism does not play an important role in Schwarzau, and the local economy relies on a small number of industrial works and crafts enterprises. About 40 percent of all employees are commuting. People who find a job further away (mostly in Vienna) usually tend to leave Schwarzau. Attempts to create high-quality jobs within the municipality have failed for various reasons.

Despite such unfavorable socio-economic conditions, community life is still vibrant. Schwarzau classifies as prototypical Region A, indicating a weak level of economic and intellectual capital but rather strong social ties. The number of traditional associations is extraordinarily high. Only few persons do not take part in the socio-cultural life of the municipality.

In terms of gender distribution, it becomes apparent that several associations are more attractive for women than for men. Most of the young people are generally well integrated in the traditional associations. Some of them also bring in new ideas, which usually find the back-up of the municipal administration. In terms of trust, people are willing to support their neighbors. On the other hand, families seem to disintegrate here as elsewhere: Even in this remote rural area, 40 percent of the women bring up their children alone. Conflicts between the generations become more and more evident, and women are getting more independent. Still, female employment is lower. Commuting is more frequent among men, but most women have their own cars now and therefore are quite mobile. They organize themselves in social groups, while family life loses in significance. Extended families are becoming rare, men are working outside the house and children are reared and taught in kindergartens and schools. Enhanced mobility also creates new social ties.

The importance of civicness (keeping rules and norms) was discussed during group gatherings and in individual interviews, revealing unanimous understanding that most people were rather reluctant in keeping rules and regulations. The majority is acting according to a general consciousness of justice, i.e. they rather oppose than subject to a decision when they do not understand the significance of a cause.

Another valuable indicator for social capital is political commitment and participation in elections. At local elections, voter turnout in Schwarzau is above the district (Neunkirchen) and state (Lower Austria) level, whereas Schwarzau's turnout rate in national elections is below average (see Table 1). This indicates that the residents of Schwarzau are rather interested in community affairs.

Table 1. Turnout rate (%) at local and national elections, Schwarzau im Gebirge

	ME 2010	ME 2005	ME 2000	NE 2008	NE 2006	NE 2002
Schwarzau	80.15	76.50	82.02	76.33	80.66	86.45
Neunkirchen	72.25	71.30	75.47	83.61	81.60	86.58
Lower Austria	71.60	71.22	74.10	84.45	85.15	89.09
Valid polls	99.05	96.83	97.81	97.45	97.62	97.68

Notes: ME = municipal elections, NE = national elections.

Source: Land Niederösterreich (2017).

These results give strong evidence that social capital has an important function for the municipality of Schwarzau. It shows that social capital can really integrate people, counterbalance economic problems and maintain a comparatively sound environment by keeping up land use and cultivation. Social capital is one of the primary features of socially organized communities, and it allows citizens to solve collective problems more easily. People that are involved in local voluntary associations and in community life feel a stronger connectedness to their social neighborhood and physical environment.

However, even in the case of Schwarzau we can foresee a community collapse when population numbers will fall below a certain threshold and, as a result, infrastructure will become thinned out and economic and cultural capital will continue to decline. Thus, it has to be concluded that social capital is not a cure-all to close the gap between the driving forces and the state of marginalization, even though it can better our understanding of the dynamics beyond it. Yet what I want to emphasize is that a high level of social capital can sometimes – as in the case of Schwarzau – mitigate marginalization effects even in contexts where marginalization indicators would suggest otherwise.

Disenchantment of social capital

What particular conclusions can be drawn from the concept introduced in this paper? Can social capital act as the most important or one of the prominent explanatory factors and the missing link for filling the gap between policies and outcome in a region? Can social capital even compensate for structural deficiencies and propel successful rural development? What are the roles of multifunctionality, local governance and the perception of territorial civicness in this game of gaining and maintaining economic, socio-cultural and environmental sustainability? Which kind of policies would enhance local development? Can increased policy integration counteract marginalization processes?

Social capital thrives more easily under sound economic socio-cultural and environmental conditions. As Putnam (2000) put it, a “well-connected individual in a poorly connected society is not as productive as a well-connected individual in a well-connected society. And even a poorly connected individual may derive some of the spillover benefits from living in a well-connected community”. This thoroughly points to the limits and restrictions of social capital as a tool for rural development: Where preconditions are poor, harm is likely to occur and social capital can hardly compensate for it; at least extraordinary efforts are needed. Simultaneously, social capital is a precious asset. A “connected society” that is rich of social capital may promote rural development more easily.

In the age of globalization, rural areas are subject to various transformation processes, which reshape socio-economic patterns at the local level. Many of these processes have a negative impact on civic engagement. People have less time to volunteer and participate in local associations. Television, mass-communication and the internet produce a kind of virtual neighborhood. There is no need for networking to obtain necessitated goods, entertainment and information. However, the loss of local infrastructures, shops, pubs etc. also coincides with the loss of opportunities for social linkage and human connectedness.

Local social capital may play a decisive role but again, its influence should not be overestimated. In general, social capital facilitates the utilization of local resources in terms of both natural and human resources via the creation of social networks, trust and civicness. Nevertheless, there are certain limits and even negative aspects.

Some positive aspects are:

- The concept of social capital is important for explaining non-economic patterns; *but* social capital is not the only determinant of successful regional development.
- Social capital cannot thrive without institutional background. Policies have to encourage cooperation and provide opportunities for learning and thus promote trust between the local actors, as in the case of LEADER initiatives. However, policies can also destroy the basis for social capital. Local civic community can hardly replace or compensate for the closing-down of railroads, post offices and public services that ultimately disrupt community ties.
- The socio-economic and environmental framework may facilitate the building of social capital; *but* social capital is also a prerequisite for sound rural development.
- Social capital may play a decisive role in CEE countries for rebuilding trust and local identity following the political transition and the collapse of former socialist collective institutions in rural areas.

Some negative aspects are:

- Social capital may cause social exclusion of all those who are not able or willing to adopt the local norms.
- Strong linkage within a closed community may bring about rejection of incomers or innovation as well as xenophobia.
- Association membership rates tell very little about the quality of civic participation. Some persons may become members in several associations while others remain excluded (youth, elderly people, women, incomers, etc.).

- The thinning out of local infrastructures leads to a further decline of economic and cultural capital and, finally, of social capital as well.

Social capital may not be considered as a constant and stable feature. It is generally in flux and transition. The structure of social capital has to adapt to new challenges and developments. New collective organizations will have to emerge in response to new needs. The biggest future challenge may lie in the understanding of the policy structures and obstacles associated with integrating rural development in the context of a more regionalizing and "programmed" state system. The question may be framed as how rural integration can be achieved as a part of the new rural development paradigm. Social capital may be considered as a software package. It has to be installed in the hardware of functioning infrastructures and services as a prerequisite for successful rural development.

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Barbara HOLTHUS and Ralph LÜTZELER

Project Report A: Regional Differences of Parental Well-Being in Japan

The "urban – rural happiness differential"

Happiness booms. For governments of industrialized nations the well-being of their citizens has become a prominent issue that has begun to function side-by-side socio-economic indices as a measure of prosperity. In academia, subjective well-being or overall life satisfaction is most often looked at on the national level or in cross-country comparisons, with comparatively few studies focusing on how living in different regions within a country influences the well-being of its people (cf. Holthus and Manzenreiter 2017). Those studies that have examined regional differences have mostly focused their analyses on the so-called urban-rural happiness differential (Easterlin *et al*. 2011). In their study comparing 80 countries, Easterlin *et al*. (2011) found that in developing countries, it is the urban areas where people are happier, whereas in some developed countries, people in rural areas tend to be happier. It can be criticized that this study only focuses on the variables of income, employment, and happiness to make its case – a very limiting view on the complexities of what makes up happiness for individuals, particularly since certain aspects of life in rural regions such as low crime, quietness, absence of traffic congestions, affordable housing, and a strong sense of community underline the possibility of greater happiness in rural areas (Brereton *et al*. 2011).

Locality matters in Japan

Research on regional differences of well-being within Japan is limited (Tanaka *et al*. 2013: 167). The few available studies point to different aspects and the findings remain disputed: Whereas Tiefenbach and Kohlbacher (2015) found neither effect for degree of urbanization nor differences between prefectures on the subjective well-being of Japanese, Kunimitsu (2015) found significant differences in regional satisfaction levels. His small-scale data from Yamaguchi Prefecture observes regional differences to be influenced by factors such as economic revitalization, social capital, public facilities, and the town's reputation.

Other scholars observed well-being in Japan to increase with population density and size of place of residence (Ōtake *et al*. 2010; Tsutsui *et al*. 2009), so rural areas seem to show lower levels of happiness.

Other factors adding to these findings are problems of depopulation, aging, out-migration, infrastructural conditions, and the availability of care for the elderly (Assmann 2016; Matanle and Rausch 2011: 19; Nobe 2016; Sugii 2017). In another prefecture-level study, Manzenreiter (2016: 301), in his analysis of the Aggregated Kumamoto Happiness Index of Kumamoto Prefecture, argues in a similar vein and concludes that – irrespective of rurality – "locality matters".

Parental well-being

Parents of young children are a particularly interesting subgroup of society to look at for those societies struggling with low fertility rates. In our quantitative study on parental well-being in Japan (Holthus *et al*. 2015), we use a seven-dimensional concept of well-being, comprising of economic, employment, social network, educational, partnership, psychological, physical, as well as family policy well-being. We found that gender, marital status, employment, age, as well as number of children and age of youngest child are significantly influencing parents' satisfaction in these different areas of their lives. Yet how do these often-significant relationships and correlations fare when looking at regional differences within Japan? A study solely on the satisfaction of young parents with infrastructural family policies like daycare center provisions and the like revealed that living in the highly urbanized Kantō and Kansai regions, in contrast to all other regions of Japan, exhibits a small yet highly significant positive effect on the satisfaction of young parents with infrastructure policies (Holthus [2018]).

Therefore, our project here is to analyze parental well-being on the sub-national level in much more detail. We ask how a region and in particular the degree of urbanization matters to the well-being specifically of the more or less homogenous group of parents of young children up to age 6, who have very specific infrastructural needs and desires for raising their children.

Methodology

This project, which started in 2016 and will continue until 2018 as part and continuation of the 2014–2017 DFG (German Research Foundation)-funded project on parental well-being, uses data from the 2012 *Parental Well-being Survey Japan* (principal investigator: Barbara Holthus; HO 5249/2-1) that surveyed 1,031 fathers and 1,103 mothers from non-identical households (for more details on the data, see Holthus *et al*. (2015)). Statistical methods used for this project are variance analysis, multiple regression analysis, and cluster analysis.

For the main independent variable, we classified all municipalities where respondents live into five categories, based on a combination of population size aspects and official municipality divisions. First, by leaning on a concept used in the Japanese population census, all municipalities that are part of the three central "Major Metropolitan Areas" (MMA) around Tōkyō, Nagoya and Ōsaka were considered as highly urbanized areas. These were further subdivided into (1) cities designated by government ordinance (*shitei seirei toshi*) that have a population of at least 700,000 and are fulfilling the function of central places (i. e., the Tōkyō ward area and the cities of Yokohama, Kawasaki, Saitama, Chiba, Nagoya, Kyōto, Ōsaka, Kōbe and Sakai). The remainder was grouped into category (2) that comprises suburban areas lying in commuting distance to the cities of group (1). All other cities with at least 200,000 inhabitants (including all prefectural capitals even if they have a population of less than 200,000) were arranged into group (3), which can thus be interpreted as "provincial city group". Small cities between 50,000 and 200,000 inhabitants were included in group (4) and towns and villages of less than 50,000 residents in group (5).

Preliminary findings

The lives of parents with young children significantly differ on that urban-rural continuum. Education levels, household income, and percentages of those regularly employed and those in managerial positions show a linear increase from rural to urban. In addition, workplace provisions for an improved work-life balance such as flextime or the possibility to work from home increase from rural to urban areas of living. On the other hand, there is a linear increase from urban to rural in regards to living space or the importance in childcare contributions by the child's grandparents. A similar gradient we see also for labor participation by gender: Due to the persistence of many small family businesses, there are less male breadwinner households in rural areas, hence fathers adopt "traditional" family roles in rural areas less often than in urban areas.

Connecting these many significant differences in lifestyles, conditions, and surrounding structures with the overall life-satisfaction of the parents, however generates unclear and rather similar levels of well-being. Thus, we approach in this project how this riddle can be solved, arguing on the one hand that the very general measure of life satisfaction is the crux of the problem for nullifying the correlation. Instead, the degree of urbanization plays out much more in the satisfaction with certain areas of parents lives, and less so their overall life satisfaction. On the other hand, we see that from a theoretical perspective similar levels of well-being

have to be the results of different mechanisms, since the conditions are not the same. For example, while the economic situation is direr in rural areas and especially the rural periphery, social support-networks seem to be stronger there, and this might potentially counteract the negative effect of relative economic deprivation – a trade-off between economic and social capital. This will have to be investigated further.

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EXAMPLES OF RURAL COMMUNITY REVITALIZATION

Naoto TANAKA

6 Participatory Community Development Based on Local Identity in Yamato Town, Kumamoto Prefecture

1. Introduction

1.1 Research area

The town of Yamato-chō, situated on the Shiraito Plateau in Kamimashiki-gun, Kumamoto Prefecture, was created on 11 February 2005, by merging the former municipalities of Yabe-machi, Seiwa-son and Soyō-machi. The area of the town covers 544.83 km^2 and extends about 33 km from east to west and 27 km from north to south. It covers almost the entire southern half of the outer rim of Mt. Aso's crater, bordering Miyazaki Prefecture to the east and the Kyūshū Sekiryō mountain range to the south.

In July 2008, the Shiraito Plateau (see Figure 1), a semi-mountainous region at about 400 m in altitude, was selected by the national Agency for Cultural Affairs (Bunkachō) as an Important Cultural Landscape (*juyō bunka-teki keikan*) for its unique terraced rice paddy landscape, including the Tsūjun irrigation canal.

Figure 1. The landscape of Shiraito Plateau

1.2 Cultural landscape preservation

Important Cultural Landscapes are scenic places that were created by people's lives or work in their community as well as by the community's prevailing climate. Such places are considered indispensable for understanding the lives or livelihood of the Japanese people. An Important Cultural Landscape must have (i) a unique local history, (ii) a natural environment, and (iii) protections for lifestyle and livelihood. A local landscape that qualifies in these three areas is considered a cultural property. This preservation system is based on the 2004 Landscape Law (*Keikan-hō*). According to its goals, people are obliged not to preserve the landscape itself, but the mechanism behind the creation of the landscape.

This thought draws heavily from a category included in the UNESCO world cultural heritage system called "organic landscape". In this category, the concept of "continuing landscape" means that, by acknowledging the importance of the traditional lifestyle, current society is ensuring the continued evolution of the landscape. Thus, the preservation of the cultural landscape is a form of sustainable community development based on the awareness of local identity. Residents and local governments in particular are encouraged to cooperate in sustaining a specific landscape based on its history, natural environment and lifestyle. They should discover, share and create the intrinsic value of the area.

1.3 Aims and method of this study

The aim of this study is to clarify knowledge of and the requirements for consensus building between local collectivities and inhabitants by analyzing several stakeholders' reflections about community development in Yamato-chō. Specifically, the study gathered information about the stakeholders' motivations for participating in community development by distributing a questionnaire and conducting interviews. Thus, most of the information cited in this article derives from the results of the author's fieldwork. In the opinion of the author, it is important for landscape management that each community is aware of its local identity based on its cultural landscape. Sometimes this is deeply connected with the local food culture and agricultural system.

2. Architecture of the cultural landscape in the Shiraito Plateau

2.1 Characteristics of the Tsūjun irrigation canal[1]

(1) Circumstances of construction

The Tsūjun irrigation system was built by Futa Yasunosuke, a chief village head-

1 This section draws heavily from the following publications: Yabe-chōshi Hensan Iinkai (1983), Honda *et al.* (2000), Yamato-chō Kyōiku Iinkai (2008), Koga *et al.* (2010) and Tanaka (2012).

man. Futa conducted many civil engineering works during his term, including road improvements, bridge construction, irrigation canals, and weirs.

There were three difficulties with the construction of Tsūjun Bridge: obtaining permission from the domain, designing the bridge, and determining how to pass water through the structure (cf. Sasahara 1938). Echoing the 1847 Reidai Bridge in Tomochi tenaga, the aqueduct was designed as an arched bridge of about 20 m across Gorōgataki River, with a *fukiage-hi* [pumping device] of 8 m on top of that, funneling the water 29 m above river level. The estimates for the extension of the Tsūjun canal and the number of spading ridges were recorded in a report titled *Minamide-Shin-Ide kiroku*.

In November 1852, the feudal domain granted approval for a reclamation of approximately 42 ha of land, and the Tsūjun irrigation canal and Tsūjun Bridge were completed in 1854. The irrigation canal resulted in dramatically improved agricultural productivity, and land close to the estimated area was reclaimed in the Meiji period – 180 ha at its peak. Currently, about 118 ha of terraced rice paddies are supplied with the water.

(2) Outline of the irrigation canal

The irrigation canal consists of the headwork of Sasahara River as the base; a circular dam for equal water distribution; Tsūjun Bridge; Upper-Ide and Lower-Ide channels; and branch channels of about 49.2 km in total length (see Figure 2). The waterway consists of open channels and tunnels, and a hydraulic structure called *sabuta* is installed in various locations along the waterway.

The waterway splits into two: The main channel conducts water from the headwork of the Sasahara River via the main body of the Tsūjun Bridge to the Upper-Ide channel, which runs into the southern edge of Shiraito Plateau; the water inlet of the Lower-Ide channel is on the right bank of the Gorōgataki River, over which Tsūjun Bridge was built, and flows 20 m lower than the Upper-Ide. Channeled by small dams, some water flows directly into rice paddies. The water fork at the Upper-Ide goes to the branch channels via rice paddies and then drops to the Lower-Ide, where it is recycled.

The main channel was contoured, and the water incline is kept even. The channel was tunneled where construction along the contour was impossible; the tunneled sections account for approximately 20 percent of the total channel network. This irrigation network has changed very little since its construction approximately 160 years ago.

(3) Characteristics of the channel system

There are 29 forks from the main channel to the branches; the dividing device is called a *bunsuibako* [division box]. Previously, a pine timber pipe was used for

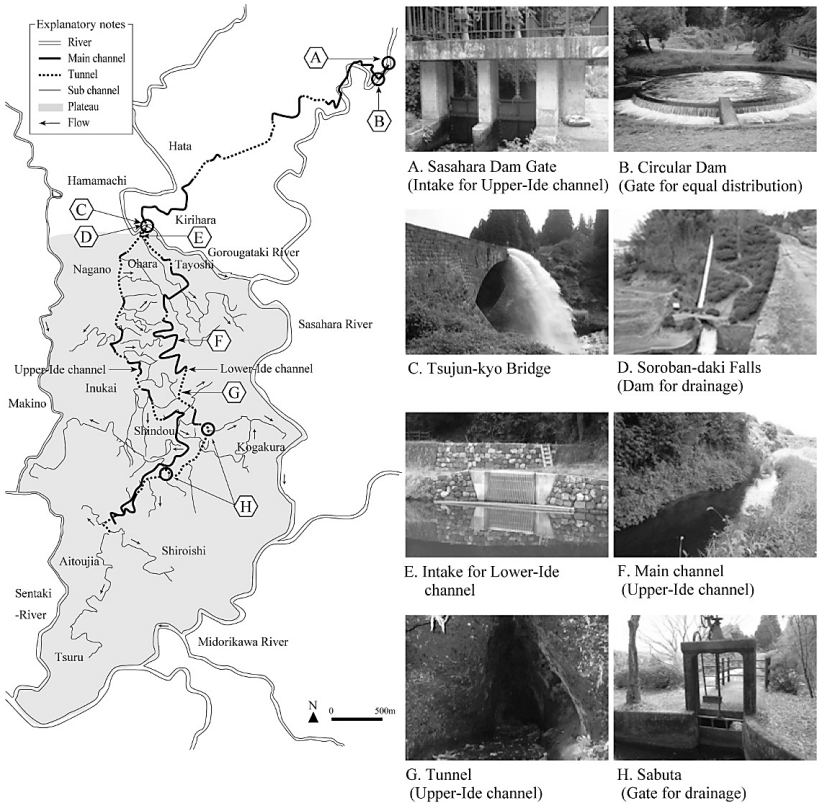

Figure 2. Water network and facilities of the Tsūjun irrigation canal

Source: Tanaka (2012: 551).

the *bunsuibako*. It was 6 *shaku* [about 180 cm] in length, and the spout diameter was determined by the size of the beneficiary area. Limiting the maximum water supply based on pipe size allowed for equal distribution of water with minimal waste. Present *bunsuibako* consist of sliding gates constructed of PVC.

The *sabuta* is a gate for draining the overflow out of the system when river water increases. By adjusting the gates, the pressure on channels and the Tsūjun Bridge is eased. According to the *Minamide Yōsuiro Jōge Sabuta sekkeisho*, in 1932 there were at least 55 *sabuta* in 25 locations. Of those placed downstream of the Tsūjun Bridge, there are fewer *sabuta* in the Upper-Ide than in the Lower-Ide, despite its longer extension. It appears the location was chosen to take advantage of the water recycling system. According to a fact-finding survey, the position of the *sabuta* has not changed since the system was constructed.

Water distribution management of the canal is supply-driven, with the local land improvement association taking the initiative. The combination of this

system and the water level control system – with its open channels and fixed weirs – results in a longer response time at the downstream water division point in response to the increase of water at the headwork. In order to prevent this, a reservoir is needed. In the Tsūjun system there is no regulating reservoir; therefore, the terraced rice paddies between the Upper-Ide and Lower-Ide function as regulating reservoirs.

2.2 Relationship between the cultural landscape and stakeholders in the Shiraito area

(1) Outline of the Tsūjun Land Improvement Association
Currently, maintenance of the Tsūjun irrigation canal is conducted by the Tsūjun Area Land Improvement Association (Tsūjun Chiku Tochi Kairyō-ku). This association is comprised of members who pay union dues of ¥2,500, one board chairperson, nine directors and three supervisors. The chairperson is selected from the directors; each district has a fixed number of personnel, and the directors and supervisors are selected by consensus. Meetings are held five times a year to discuss water distribution and channel repairs.

(2) Current stakeholders in the Shiraito area
Since agriculture is still the main industry in the area, farmers are the main stakeholders. In addition, the town office participates in the management of the Shiraito Plateau. Because the settlement of Hama-machi, which is the main traffic node of the area and the town center of Yamato-chō, lies in the immediate neighborhood of the Tsūjun Bridge, tourism has greatly increased recently. Therefore, it may be said that tourists have become stakeholders as well. Finally, the adoption of rural revitalization measures by local administrations seems to have succeeded insofar as there is an influx of new residents who formerly lived in urban regions (so-called “I-turners” or “J-turners”). This makes it critical for area management to intensify local identity among residents.

(3) The value of cultural landscapes
A cultural landscape is a new type of cultural asset in which change is permitted, so it is important to continue pursuing mechanisms to shape and reshape the landscape. On the Shiraito Plateau, the main industry generating the cultural landscape is agriculture; thus, it rests primarily on farm households to sustain the landscape by maintaining their businesses. However, many farmers are elderly now, and in more than a few cases they have no clear successors. Therefore, every stakeholder is called upon to share his or her knowledge in order to ensure that agriculture continues playing its foundational role in the Shiraito area.

3. Local identity carried on by farmers

3.1 Farmers and the concept of cultural landscape following the selection of the area as an Important Cultural Landscape

When the rice paddy landscape of the Shiraito Plateau was selected as an Important Cultural Landscape in 2008, farmers were not necessarily cooperative with cultural landscape preservation. It was not uncommon to hear comments like: "We are producing rice, not beautiful paddy fields". Gradually, attitudes began to change. Tourists and professional photographers, who until then had come only as far as the Tsūjun Bridge, started to visit the hinterlands of the Bridge, including the Shiraito Plateau.

Those who triggered change at the local level were the members of the "Paddy Field Landscape Project". They turned the region's rice growing into a brand product and created events that facilitated exchanges between urban and rural areas. As a result, people from outside who had not come often to the region gradually became regular visitors.

In October 2012, the 18th National Paddy Field Summit was held in Yamato-chō. The conference presented the area as: "A regional treasure we should leave to our children: Culture and landscape of paddy fields that a region maintains". Many people were actively involved, including administrative personnel, citizens and students of the local Yabe High School. In her keynote speech, Mrs. Shimoda Misuzu confessed: "At first, the landscape of the Shiraito Plateau was not that beautiful. But recently those people who are taking action to keep the landscape of the Shiraito Plateau beautiful have grown in number".

3.2 Local identity carried on as a rural community

Currently, various strategies are being pursued in the Shiraito area:

(1) Sale of branded rice

It seems that these days, many people are minding the value of maintaining the cultural landscape. For example, some farmers have invented new products, such as a brand of rice they sell under the name "The tale of Tsūjun Bridge water" (*Tsūjun-kyō mizu monogatari*). By marketing it as a tasty rice grown under comparatively harsh conditions in a beautiful environment selected as an Important Cultural Landscape, the farmers have been successful in opening new markets even outside the prefecture.

(2) Social events

In the Shiraito area recently, residents have been holding diverse social events such as collective scarecrow making or other events that make visitors feel

welcomed. From this, one can infer that local people who previously were unaccustomed to the presence of strangers have now begun to accept visitors from other areas.

(3) Footpath walking
From the time when the paddy-field landscape of Shiraito Plateau was selected as an Important Cultural Landscape, it became apparent that more and more people would like to hike through areas beyond the Tsūjun Bridge. Many outsiders, however, are not just interested in hiking as such but like to combine their walking activity with meeting local people (see Figure 3).

(4) Harvest festival
In addition to the traditional festival of prayer and thanksgiving for a huge harvest, a "harvest festival" has recently come about, where local people celebrate together with visitors (see Figure 4). Both groups have fun tasting homemade local cuisine and making straw decorations. This creates an ideal opportunity for people from urban and rural areas to gather together.

As indicated above, preserving a cultural landscape is not just meant to be a symbolic protection of landscape features but is aimed at protecting the forming mechanism of a landscape not to be found elsewhere, and it is essential that this mechanism is maintained in a sustainable way. In the case of Shiraito Plateau, agricultural activity is the forming mechanism and thus the foundation of local identity, which can be maintained only by cooperating with farmers.

Figure 3. Hiking on footpaths on the Shiraito Plateau
Figure 4. Harvest festival

4. Local identity carried on by the younger generation and outsiders

4.1 Tasks for outsiders and young people from mountainous areas

Population decline has become a problem in nearly all parts of Japan, but nowhere has it reached more alarming proportions than in rural mountainous areas. While it is often difficult for strangers to be accepted in rural areas, it is critical to promote migration to these areas. It will be important for both insiders and outsiders to cooperate in discovering and bolstering a sense of local identity.

Today, in the context of Prime Minister Abe's "local revitalization" (*chihō sōsei*) strategy, migration of young adults from urban to rural areas – mountainous rural areas in particular – is considered the crucial factor for improving the situation. In fact, however, many provincial towns are suffering severely from a decline in the number of youngsters who, after completing local junior high school, proceed to high schools in the same area. Kumamoto Prefecture, as well as high schools in rural areas, must raise their attractiveness, since young people are valuable human resources who are expected to be the pillar of regional empowerment.

4.2 Ways of bolstering new local identities

In January 2017, the 6th Local Revitalization Exchange Meeting was held at the Center for Policy Studies of Kumamoto University (see Figure 5). The central theme explored "The role of young adults and high school students in future local revitalization of Kumamoto Prefecture". The conference was attended by local high school students from the three provincial towns of Kami-Amakusa-shi, Kikuchi-shi and Yamato-chō, which are situated in mountainous areas, as well as young adults who were exploring new occupations and lifestyles in rural areas. Participants talked with each other about regional and hometown revitalization.

At the symposium, presentations were also given by people from Yamato-chō: two students of Yabe High School and a farmer, Mr. Miura, who represented an initiative called the Tsūjun Bridge Support Project (see Figure 6). In his lecture, Mr. Miura said, among other things: "I prefer leisure to work. I like to enjoy myself. When it is pleasant, all people come together. […] We help each other in a natural manner. […] When I first organized a rice-planting festival, the people from the town administration approved and said that this is a really good idea. […] An elderly woman once said to me: 'The landscape around the Tsūjun Bridge cannot be taken for granted.' It took an earthquake for me to realize what she meant. The local landscape and opinions on the

Figure 5. Symposium on local revitalization at Kumamoto University, January 2017

Figure 6. Mr. Miura's presentation

Tsūjun Bridge have changed. Now we view it as a local asset." From Mr. Miura's presentation, I learned that, in spite of the damage caused by the 2016 Kumamoto earthquake, now is the time for a new phase of local revitalization in Yamato-chō and the Shiraito Plateau.

In the latter part of the symposium, a panel discussion was held on "The role of young adults and high school students in local revitalization", with Prof. Ueno Shinya and Prof. Kawamura Yōko of the Center of Policy Studies contributing. There was lively discussion on such topics as "Comparison with the activities of other schools", "Sensitivity on reconstruction since the earthquake", and "Involvement in local revitalization". In reply to the question: "How should your high school or the region look in five years?", the seven panelists gave the following answers:

- I want my place to become an area with many people that is full of life, rather than becoming a wealthy place;
- I want Kikuchi to be a pleasant town and a town where young people feel there are possibilities, so they are attracted to this place. I would like to live in a town where the elderly as well as the young, or all people who want to do something, can get excited while having fun and supporting each other;
- I would like to live in a town where – like in other areas – the younger generation plays an active part;
- I want our high school to become a place that all junior high school students of the region want to attend;
- I want to live in a region where specific work patterns are created, so that those who have left the region can return;
- I think that, rather than attracting large firms, young people should start a business in Kami-Amakusa City and help create new positions;

- I believe it is unavoidable that the number of children and adolescents will decrease. It is okay to leave the region once in a lifetime. However, this region should be a place where people want to return to live and work.

In mountainous areas, it has become almost impossible to remain in the region for one's whole life, from childhood to adulthood. However, if young people who have left for the city learn about and internalize the local identity, they are more likely to return one day to their "native home". This is why we must consider and implement ways of continuing and creating new local identities.

5. Conclusions

5.1 Collaboration

In order to share the value of the cultural landscape as an element of local identity, it is necessary to be aware of two types of collaboration (see Figure 7). One is autonomy: In an area such as the Shiraito Plateau, which was selected as an Important Cultural Landscape, the system of cultural landscape preservation has to be maintained by *local actors*, this includes not only inhabitants but also officials of local governments and members of associations with an interest in the topic. The other is integration: In this case it is important that in addition to experts devoted to the preservation of cultural assets, *several sectors* – including agricultural policy, the construction business, regional and city planning, and education – cooperate in order to preserve the cultural landscape.

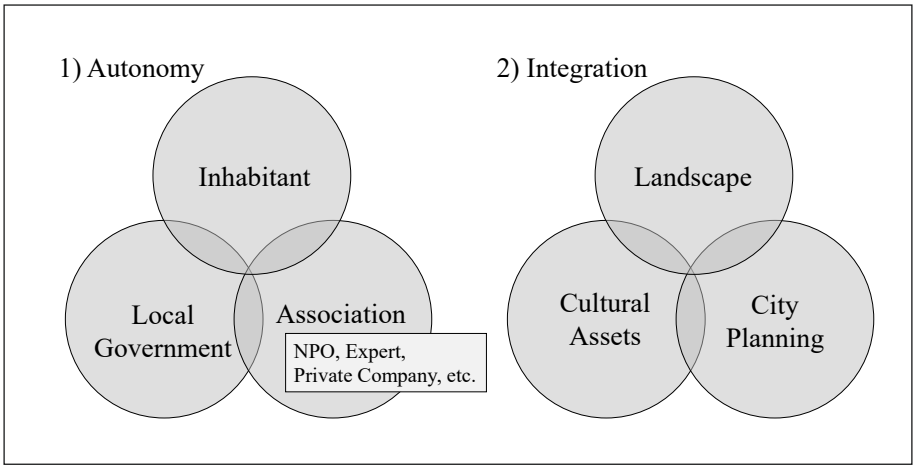

Figure 7. Two types of collaboration for cultural landscape development

5.2 Requirements for participatory community development

Participation in preserving the cultural landscape is an important step in generating community development characterized by good social capital. Requirements to achieve this include diversity (several responsible stakeholders), dynamism (no fear of change) and sustainability (no economic or cultural overstraining). Therefore, the functions of cultural landscapes are as follows:

1) an occasion for diverse stakeholders to gain an awareness of local identity;
2) an environment that internalizes local mores and ways of life;
3) an environment that supports the networks of people living in the area.

For sustainable community development, it is necessary to (i) solve the most urgent problems in the community, (ii) reflect on local characteristics and strengths, and (iii) build mechanisms to ensure a prosperous economy. Where these three tasks are successfully addressed, happiness will find its way into the area.

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Yoko KAWAMURA

7 Health for Sustainable Community Development

Japan is positioned as a leader in tackling issues related to an aging society. As a public health researcher who emphasizes and prioritizes practices in real communities, I have written this paper with the following aims: (1) to share the crisis facing health insurance systems, including long-term care for the elderly, arising from an increasingly aging society; (2) to introduce theories from recent public health perspectives that provide insight on happiness, well-being, and other related concepts; (3) to explain the sustainable community health development implemented in Kumamoto, Japan; and (4) to propose ideas for future collaboration among researchers from Austria and Japan.

1. Japan's challenges related to its aging society

1.1 Rapid aging and its societal impacts from the viewpoint of public health in Japan

It is well known that Japan is one of the most rapidly aging countries in the world. The situation is even more pronounced than in some European countries such as Italy because it evolved much more rapidly in Japan than in Europe.

It is estimated that by 2060 Japan's population will decrease by one-third, with the number of elderly (people aged 65 and older) increasing to 40 percent (see Figure 1). This will result in enormous challenges to the social security system. According to the OECD, in 1970 there were about 11 working age people in Japan to support each elderly person; in 2013 the figure was 2.5 to 1. This ratio will further decrease to about 1.3 to 1 by 2060. As shown in Figure 2, by 2025 pensions will account for the single largest percentage of public sector spending on social security benefits, but health care and long-term care combined will account for an even larger percentage. This percentage will continue to increase.

To alleviate the projected impacts, the Japanese government encourages the idea of emphasizing "healthy life expectancy" (the number of years lived in self-assessed good health) rather than just longevity. Figure 3 shows the gaps between average life expectancy and healthy life expectancy for men and women – about 9 and 13 years, respectively. The gaps show the periods during which people experience health problems; therefore, the goal is to decrease

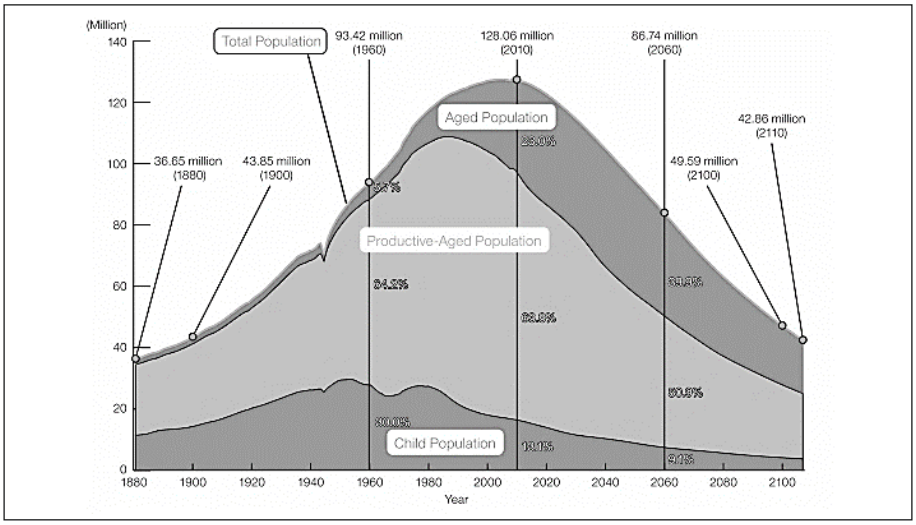

Figure 1. Population trends of Japan

Source: National Institute of Population and Social Security Research 2010.

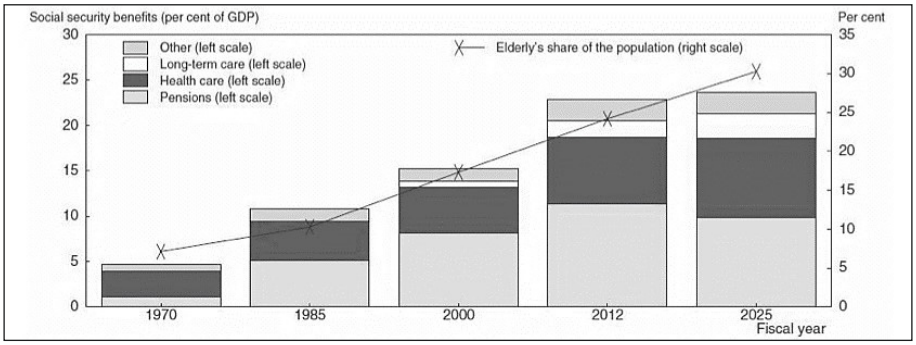

Figure 2. Public sector spending for social security benefits

Source: Below 2016.

the gaps. The Ministry of Health, Labor and Welfare (MHLW) has begun calculating the gap years for each prefecture to include "healthy life expectancy" in public health policies and to develop plans of action.

One approach to decreasing the gap is preventing lifestyle-related diseases, thereby improving both individual quality of life and social welfare. Further, preventing lifestyle-related diseases means continually monitoring the individual's entire life. This encompasses multiple layers of society, from psychology to social systems (see below in more detail). A holistic approach is needed to prevent lifestyle-related diseases.

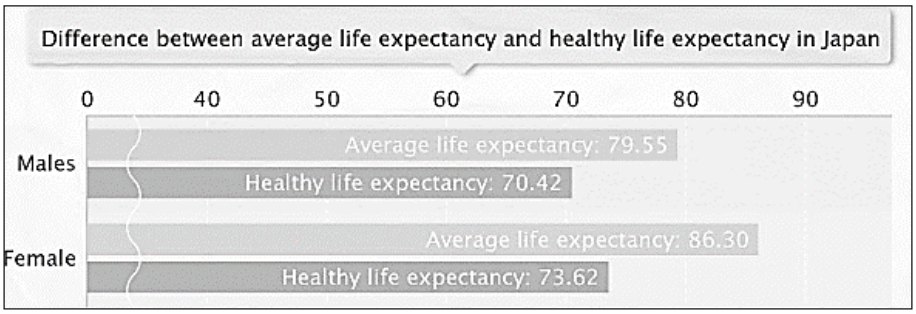

Figure 3. Gaps between average life expectancy and healthy life expectancy

Source: Otsuka Pharmaceutical 2013.

Many non-Japanese consider Japan to be the healthiest country in the world, and while the Japanese may experience relative health compared to people in many other developed nations, lifestyle-related diseases actually place a considerable burden on the Japanese health-care system. For instance, in 2015 the International Diabetes Federation reported approximately 7.2 million people with diabetes in Japan, including 7.6 percent of people aged 20–79 years. In 2015, diabetes-related health care spending was estimated at $4,100 per capita, with 61,076 deaths. These numbers are problematic and must be reduced.

1.2 Overview of the Japanese health insurance system

In Japan, the health insurance system is divided into four subsystems for people under age 75, and there is a single system for people 75 and older (see Figure 4). In theory, then, the system assures health care access to all. The National Health Insurance is managed by municipalities (cities, towns, and villages) that determine the insurance premiums for each resident. This insurance covers self-employed people such as freelancers, farmers, and others who do not qualify for benefits through employment or working family members. Public health insurance also covers employees at small- to mid-sized organizations that do not have a corporate system. It is managed by the Japan Health Insurance Association, which has at least one branch in each prefecture. Other insurance options for salaried employees are managed by association-based or employment-based organizations. For instance, faculty and administrative officials at Kumamoto University have health insurance that is managed by the mutual aid association of all national universities. Since small to mid-sized companies are more numerous in Japan than large ones, most employees are covered by the Japan Health Insurance Association's system. Costs of medical treatment are covered by the recipient's co-pay and an insurance payment. Co-pay rates differ based on the patient's age.

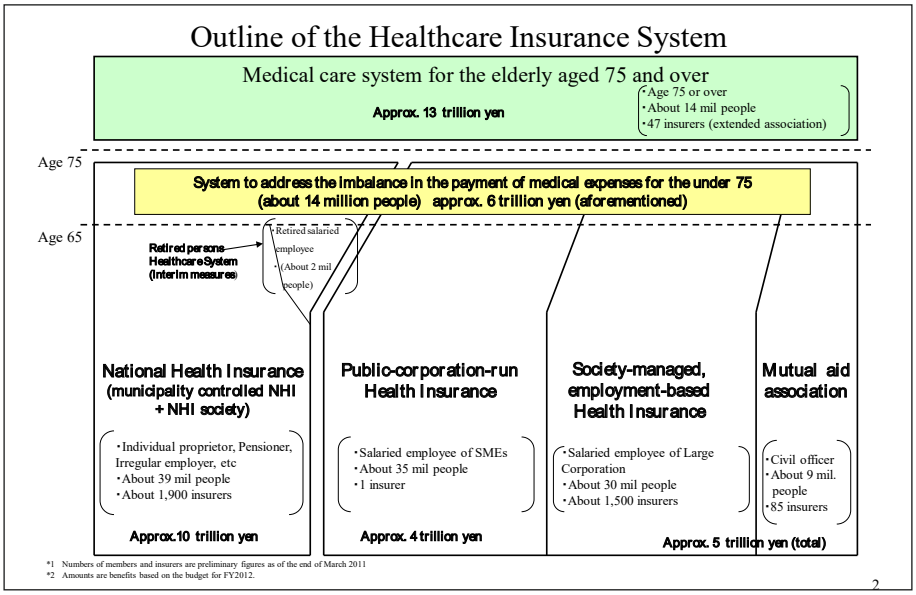

Figure 4. Outline of the health insurance system

Source: Ministry of Health, Labor and Welfare, n.d.

1.3 Long-term care insurance system in Japan: Now and the future

In Japan, long-term care is managed in a special way. Main insurers include municipalities and the national and prefectural governments. Health insurers (explained in the previous section) and pension insurers also provide partial support. The two types of insurance for long-term care are indicated in Table 1. Category 1 includes the elderly whose physical and mental capacities have declined due to aging, while Category 2 covers younger people with disabilities related to sickness and injuries. Municipalities collect insurance premiums through taxes from residents aged 40 and older and use the revenue for many kinds of long-term care. They determine the rates each resident pays and are responsible for assigning one of six levels of needed care to each applicant.

As the population ages, and thus more people require long-term care, it becomes more difficult to sustain the system. To address this problem, the national government continually adjusts the system. Two major components of the 2005/06 reform were (a) adding two additional levels of care to prevent the elderly from becoming immobile and losing autonomy, and (b) making better use of the community structure to implement public activities like preventive care programs.

The most recent reform occurred in 2011/12 (see Figure 5). The most significant change involved making municipalities responsible for preventive

Table 1. Outline of the long-term care insurance system

	Category 1 insured persons	Category 2 insured persons
Eligible persons	Persons aged 65 or over	Persons aged 40 to 64 who are insured by health care insurance
Beneficiaries	・Persons requiring long-term care (bedridden, dementia) ・Persons requiring support (frail)	Those who have become bed-ridden, dementia, and/or frail be- cause of specific age-related diseases such as early-stage dementia, cerebro-vascular disorder, etc. (*)
Premiums	Collected by municipalities	Collected with premiums for health care insurance by health care insurers and paid in lump sums
Method of levying and collection	・Fixed premiums per income bracket (premiums for persons with low incomes shall be reduced) ・Premiums shall be deducted from pension benefits above a given amount (180 thousand yen per year),otherwise they shall be collected directly by municipalities	・Employees' Health Insurance →The amount of premiums is decided based on standardized amount of salary multiplied by long-term care premium rate (Employers bear part of the cost) ・National Health Insurance: →The amount of premiums is decided based on the amount of income as well as fixed per-capita amount. (The government bears part of the cost)

(*) For the time being, public funds will be used to provide young disabled persons with comprehensively programmed long-term care services, etc. in accordance with the Government Action Plan for Persons with Disabilities.

Source: Ministry of Health, Labor and Welfare 2002.

care, including designing preventive services themselves. Previously, long-term care costs were covered in part through national government schemes, which will now be gradually reduced. Thus, municipalities must be creative in finding efficient ways to use community resources to provide preventive care services. Each local government must develop and implement its own scheme by 2020. This reform introduced the idea of a "comprehensive community care system" in which people maintain an autonomous life in the community through mutual support as long as possible.

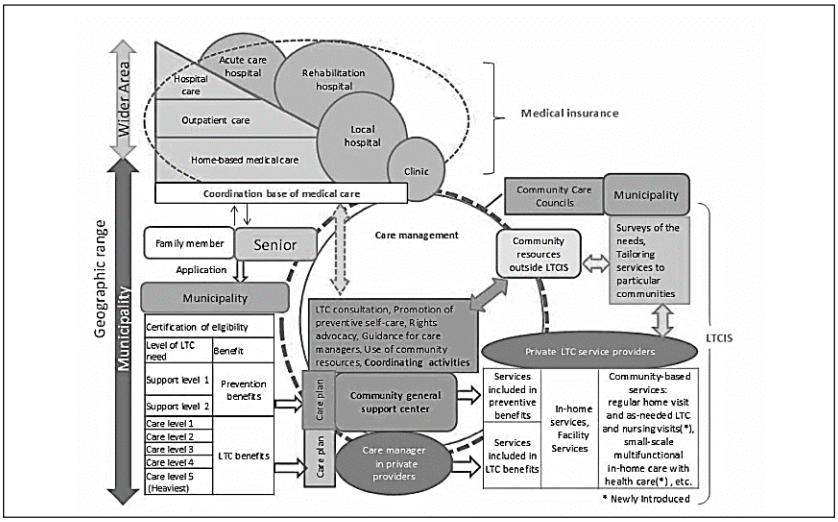

Figure 5. Structure of the long-term care system following the reform of 2011/12

Source: Morikawa 2014.

2. Public health and the concept of happiness

2.1 Social determinants of health

It is helpful for practitioners and researchers in public health to think of chronic or acute conditions/disease as manifestations of a much larger array of factors affecting the individual. This is analogous to an iceberg: only a small part of it is visible, while the majority exists below sea level. Modern society is highly complex, with many interrelated factors.

Over time, there have been three main paradigm shifts in understanding disease. The approach of public health marks the third such shift; it can be said that we are now in the era of socialization of health. In the first paradigm shift, germs were identified as the major cause of diseases. Dealing with disease thus meant fighting newly identified bacteria and viruses. The second paradigm shift directed attention towards chronic or lifestyle-related diseases that became major public health concerns. The current change in the public health paradigm means we have begun discovering that multiple levels and layers of society affect individual health. In the past, illness was sometimes attributed to poor lifestyle choices, but it is important to understand that, in some cases, individuals lack the power or opportunity to develop skills, gain knowledge, and exercise control in determining their own lives. In other words, social determinants of health (see Figure 6) should be taken into account.

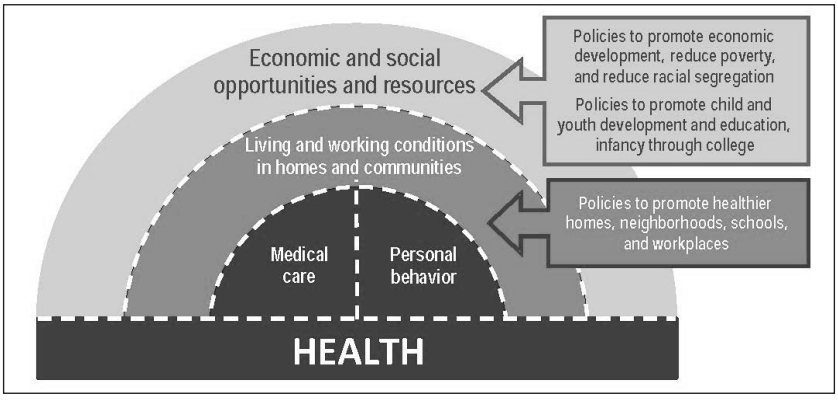

Figure 6. Social determinants of health

Source: Lytton 2013.

2.2 Health and happiness, social determinants of health, and Health in All Policies

The World Health Organization (WHO) emphasizes the idea of social determinants of health due to widening social disparities more than ever. For

instance, in Japan, most people used to assess themselves as being part of the middle class. However, social inequality has intensified dramatically, particularly in the past two decades. Results from the 2014 National Health and Nutrition Survey (*Kokumin kenkō eiyō chōsa*) showed that people with lower annual income tended to consume less protein, vegetables, and dairy products but more carbohydrates than those with higher income (Ministry of Health, Labor and Welfare 2015). There is much more evidence showing the emergence of disparities in health-related practices and conditions. To ameliorate health disparities, the WHO has introduced a program called Health in All Policies (HiAP). This program calls upon all sectors of public policy to take health concepts into consideration (World Health Organization 2014). Various sectors such as urban planning, transportation, industrial development, and farming and fisheries need to consistently consider the ways their plans and actions impact people's health.

"Health" should be translated into welfare or happiness for individuals and groups of people. By considering social determinants of health, health can also be understood as something that is maximized in an environment with a strong social and physical infrastructure. Public policies create and secure the social environment. Further, health is a dynamic concept that is connected to happiness in that health is a precondition and resource for achieving goals, which may translate into ultimate happiness.

3. Case example in Kumamoto: The Healthy Community Development Program

3.1 Demographic outline of Kumamoto City

In 2012, Kumamoto City became one of the now 20 designated cities (*seirei shitei toshi*) that have political authorities on the same level as prefectures. As of April 2016, the estimated population was 739,991 (316,466 households) in an area of 390.32 km^2. Like many other large municipalities in Japan, it has repeatedly incorporated neighboring municipalities and now covers a wide area that includes rural regions. The positive population trend is projected to soon reverse: by 2060, the overall population might fall to under 550,000. Similarly, the population composition is predicted to change, with more people aged 65 years and older (see Figure 7).

Household composition is changing as well (see Figure 8). By 2055 (Heisei 47), almost 41 percent of all households will consist of just one person, many of whom will be elderly. No more than 23 percent of households will consist of couples with children; 18 percent will include couples without children; and about 12 percent will be composed of single parents with children.

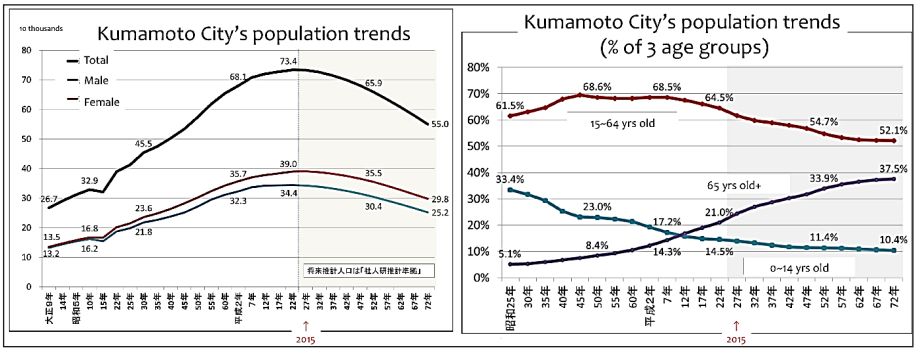

Figure 7. Estimated population trends of Kumamoto City

Source: Own draft based on Kumamoto-shi, n.d.

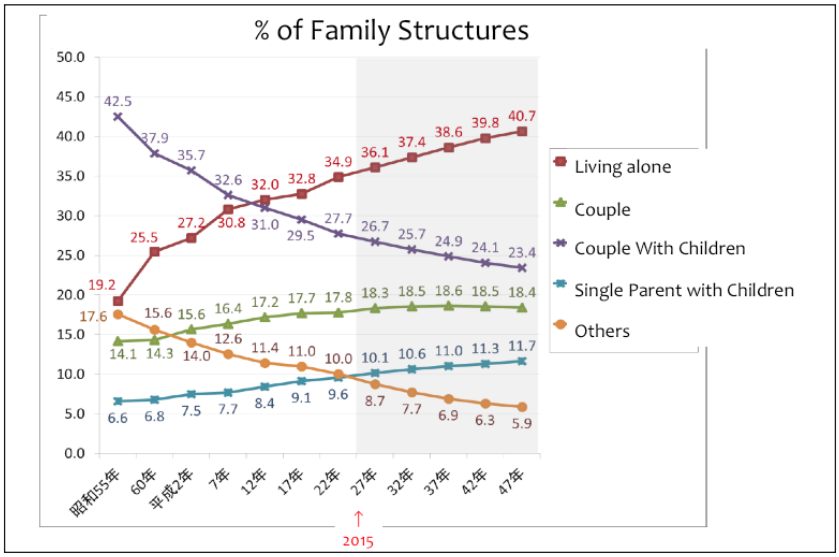

Figure 8. Estimated changes in household composition in Kumamoto City

Source: Own calculations based on Kumamoto-shi, n.d.

3.2 Healthy Community Development Program in Nishi-ku

To improve public management, designated cities are further subdivided into wards. There are five wards in Kumamoto City. I have worked particularly closely with Nishi-ku (in the western part of the city) in implementing the citywide Healthy Community Development (Kenkō Machizukuri) Program within the ward. The case of Nishi-ku highlights how community members are working together with the local government in connection with health policy. First, I will provide some basic information about the area.

Nishi-ku is situated along the seashore and contains mountains as well as the urbanized area around Kumamoto Railway Station (see Figure 9). Already the least populous ward of the city, Nishi-ku is experiencing a population decrease, although the entire city's population increased between 2000 and 2010. Figure 10 shows five different areas in Nishi-ku: Kinpōzan area, Areake Seashore area, Seibu area, Kami-Kumamoto area, and Eki-shūhen area. In Kinpōzan, named for a mountain, quite a few farmers grow citrus fruits along the mountain slopes. The Areake area faces the Areake Sea, and seaweed cultivation is one of its major industries. The Seibu area contains many cultural and historical assets, and farming is the major business. The Kami-Kumamoto area is a residential district, since the location is convenient for commuting to the city center. The Eki-shūhen area covers the area around Kumamoto Station. Recently, this area has experienced revitalization and a sudden population increase in connection with the integration of Kumamoto City into the national Shinkansen (bullet train) system. The area contains many new condominium buildings, with multiple additional buildings under construction.

Community management is divided according to elementary school districts, of which Nishi-ku contains 16. In fiscal year 2016, two elementary schools closed due to declining enrollment and merged with a larger school. However, because elementary schools are considered the center of a community, the organization for community management remains unchanged even when schools close.

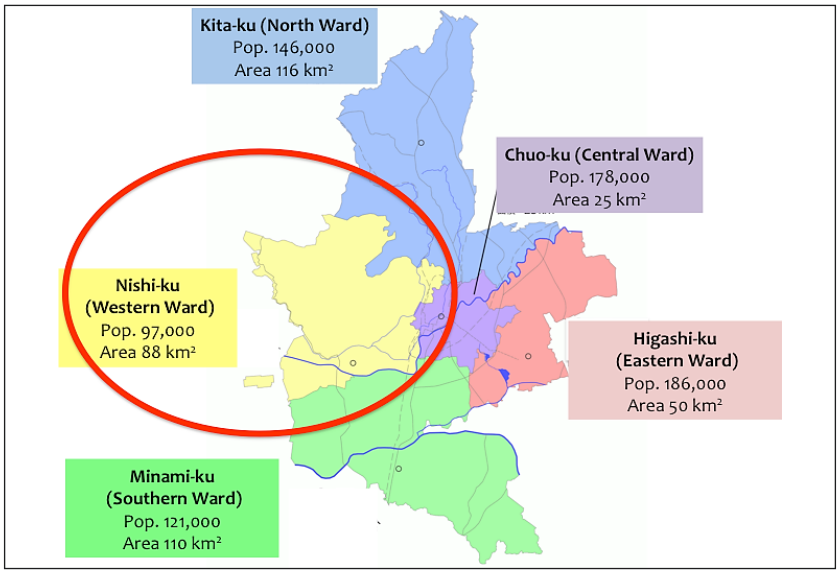

Figure 9. Location of Kumamoto City's five wards

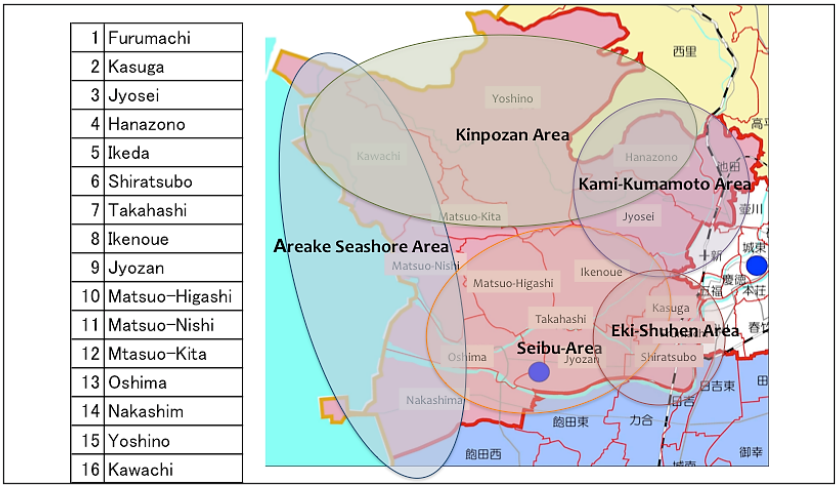

Figure 10. Location of the five areas of Nishi-ku and its 16 school districts

Acting within the citywide Healthy Community Development Program, each ward develops different programs according to its specific circumstances. For instance, ties among people in agricultural communities tend to be strong, with functional organizations. However, more urbanized areas, where people remain at home after returning from work, show weaker ties. Nishi-ku contains many long-established communities; people tend to know each other, and they participate in organizations to work together effectively.

Figure 11 illustrates how the Nishi-ku administration developed a project management system. As shown on the right side, leaders from all divisions within the ward office participate in project committees, in which members share information and ideas in correspondence with community organizations. Nishi-ku's approach to the program centers on School District Community Management Associations (SDCMA) set up in each school district. The SDCMA system functions well in Nishi-ku, as compared to more urbanized wards. In the local community, additional organizations are expected to support the SDCMAs, including clinics and community centers where the elderly can live autonomously.

Each community organization is expected to develop a collaborative relationship with the Nishi-ku administration in order to promote the Healthy Community Development Program in each school district. The relationship should be "flat" – that is, the Nishi-ku administration plays the role of facilitator, guide, and supporter in more instrumental and technical ways. The main player is the community, whose initiatives can be most successful when they recognize and effectively utilize the resources they already have. Thus, the key to success is the community playing an active role.

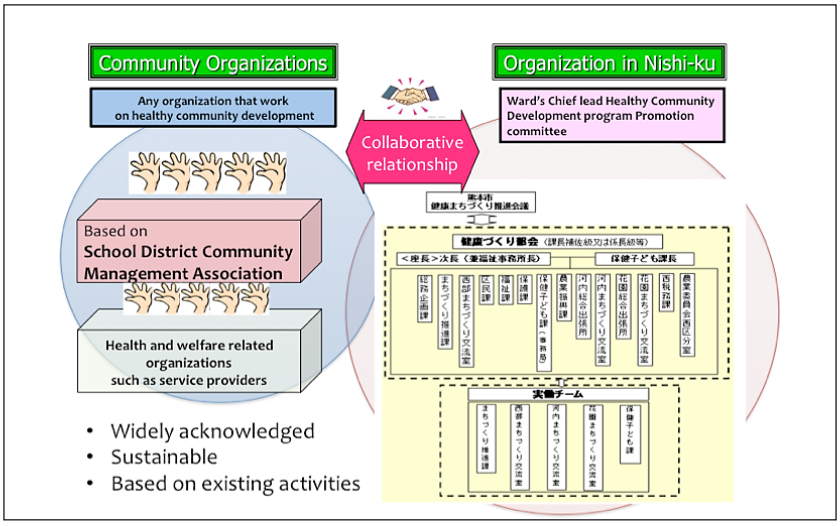

Figure 11. Nishi-ku's guidelines for its Healthy Community Development Program

Source: Own draft.

Nishi-ku's program has progressed further than in other Kumamoto City wards. One reason for this success is that residents in Nishi-ku frequently gather to learn what other school districts are doing in the context of the Healthy Community Development Program. This is a co-learning experience (see Picture 1). In 2016, the two remaining school districts in the ward have officially launched their projects. Another interesting approach unique to Nishi-ku is the appointment of a Health Ambassador (Kenkō Taishi); the first four Health Ambassadors nominated by the community organizations were appointed in 2016 (see Picture 2).

Picture 1. Information sharing session among community residents

Picture 2. Appointment ceremony of the Kenkō Taishi

After seeing and participating in these events and observing program processes for years, I am confident in saying that energy, passion, skills, and wisdom exist and that the facilitation and utilization of these resources has led to success in Nishi-ku. The purpose of facilitation is to motivate people to connect values and purposes to actual movements and activities.

3.3 Kawachi school district in Nishi-ku

Although the local government considers school districts (*kōku*) as basic units of neighbors and activity units of community development, people work together much more actively and closely within neighborhood associations (*chōnaikai*), which cover much smaller areas than school districts. They organize groups and committees and plan and implement activities for the benefit of residents.

Since the Healthy Community Development Program was launched, there have been more activities in the school districts. This is because the burden of preparing for gatherings such as festivals and other child-centered events is increasingly shouldered by only a few people in the community, most of them elderly. Some neighborhood associations will manage to continue holding their traditional festivals and other events, but others will not. It would be beneficial for them to explore best practices for collaborating with each other in a particular area. On the other hand, the areas that school districts cover are too large to engender a sense of community, so working with others at the school district level is sometimes challenging.

Such conditions notwithstanding, the Kawachi school district has benefitted from the Healthy Community Development Program. Three years before the program launched citywide, Kawachi started its own model program, which was successful in organizing groups of people and entities to work together (see Figure 12). Interestingly, the SDCMA is not considered a core member (Secretariat), but the entities listed are all part of the SDCMA and play important roles in community management. The point is that the wide diversity of the network enabled the district to achieve enhancements in supporting the health of parents and children in the community. Nobody opposes promoting health for children and parents who support children's health, and the organizational structure demonstrates that locals recognize the effects of various societal factors on its residents' health.

The Kawachi school district's main project-related activity is the Big Handmade Kite event, in which children fly kites they have made beforehand with the assistance of community residents. This event was launched when the model project started. The planning, implementation, and further development of the event resulted in more solid community relationships in support of children's

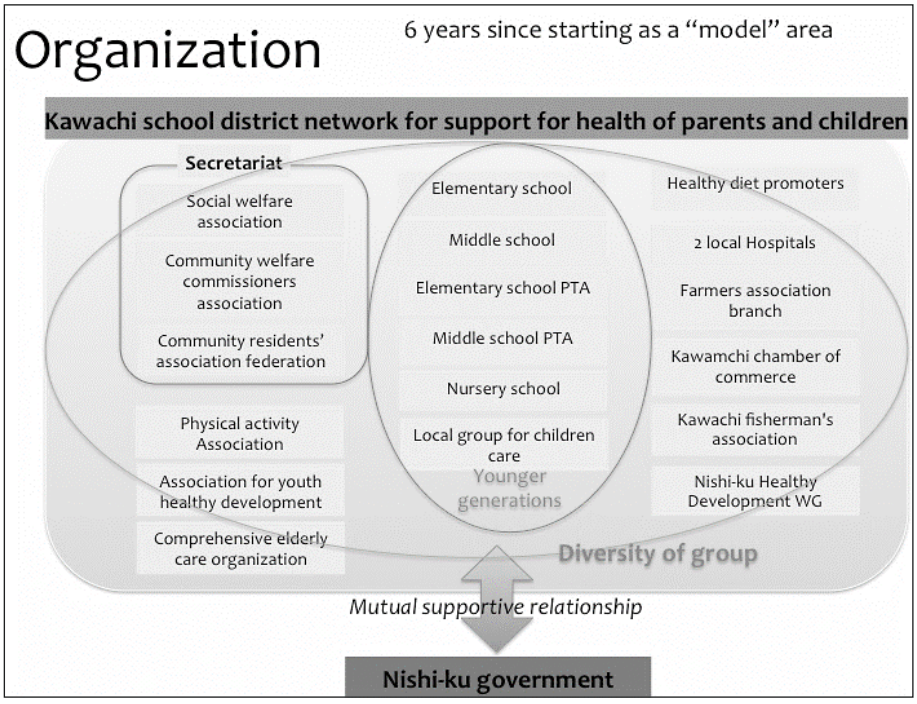

Figure 12. Kawachi school district's organizational chart for the Healthy Community Development project

Source: Own draft.

health and welfare. The Nishi-ku administration joins the event by providing a booth that offers health check-ups and consultations (see Pictures 3–5).

Community organization members arranged health check-ups with a public health nurse (see Picture 6). To promote healthy living among children, the community organization also started holding student art competitions (see Pictures 7–8). This is made possible by the solid collaborative relationships established through the community organization for the Healthy Community Development Project.

The Kawachi school district has thus created numerous fun and collaborative events that work for the good of children, parents, and all other residents in their community. The Kawachi school district is affected by demographic aging and population decrease, which cannot be halted immediately. However, they do their best to sustain the community. Working together is key, and the district has utilized the mission under the Healthy Community Development Program to achieve this.

Picture 3. Large handmade kite
Picture 4. Health check-up booth at the kite event

Picture 5. Local residents gathered to watch the moment
Picture 6. Promotion of health check-ups at a PTA gathering

Picture 7. Community members preparing for a schoolchildren's calligraphy and drawing competition to promote health

Picture 8. Calligraphy of the word *shisei* ("posture") by a middle-school student

4. Future collaboration possibilities between researchers from Austria and Japan

Globally and nationally, the situation we face has become more challenging than at any time in decades. We are barely surviving in such a globalized and highly information saturated era. In Japan, the population is decreasing, and the burden for supporting the retired is increasing. The long-established social system is no longer functioning as well as planned and is in danger of collapsing. Thus, it is time to become more autonomous and less dependent on public authorities.

Before World War II, material conditions were less developed and communities were more self-contained; as a result, people may have led lives that were richer and more fulfilled than ours today. Once societies began to experience the difficulties that resulted from the unequal distribution of resources, both nationally and globally, they started trying to identify what makes people happy.

It is important to emphasize the changes in people's thinking, especially the realization that the autonomy gained by working together as a community can result in a stronger community and more joy and fun. Movements that are usually considered to be resource scarce and powerless may actually illuminate ways to design future rural communities. Rural communities possess many resources, including wisdom and skills. They may recognize these themselves, but if they do not, local governments, researchers, and community-development practitioners should be facilitators in helping a community identify what it can do by utilizing what it has.

4.1 Exploring happiness when drawing the picture of our future

"Happiness" is often used as a buzzword, but several Japanese local governments have started utilizing the concept as an indicator of political achievement. Being happy may be understood as describing a personal or psychological state, but it is also valuable from the standpoint of promoting health. In addition, it is important for public health to consider the collective happiness of the people as a keystone of human welfare.

Today, only a small percentage of society has the potential to be happy, due to widening social disparities and the numerous negative effects that result. Concrete scientific evidence indicates that such disparities among people in a group could create social chaos (e.g., Piazza 2007; Russett 1964). Thus, happiness should be considered a goal for society as a whole.

In the future, however, scarcity will increase: scarcity of people, of natural resources, etcetera. To sustain welfare or happiness as much as possible

under such conditions, it is necessary that many people make contributions, however small. Unless we work together for society's good, we cannot make ourselves happy. The good news is that working together has become easier than ever, thanks to the technology at our disposal. We should think of using it in smarter ways.

4.2 What we can do together, focusing on rural communities

Although Japan is far from Austria, the two countries have commonalities in regard to demographic changes and other challenges faced by advanced societies today. From here, I would like to propose the following collaborative research opportunities:

a) explore how communities in rural areas perceive their future and happiness/welfare, what actions they take, and how those actions are initiated in different contexts; and
b) compare communities' perceptions of happiness/welfare and their courses of action within and between nations.

The challenges come from different sectors, and approaches naturally differ from discipline to discipline. Furthermore, social conditions in both countries differ in many respects. However, only diversity can lead to true universality. It is meaningful, both academically and practically, to encourage discussion among researchers and practitioners from different disciplines who have diverse interests but a shared understanding of the commonalities in the two countries.

5. Conclusion

This paper seeks to address numerous topics, from addressing Japan's current challenges to discussing the role that the concept of happiness may play in the future, and concludes with an outline of potential collaborative research topics for Austrian and Japanese researchers.

It is important and meaningful to provide Austrian researchers and practitioners with information about the ideas and activities of actors in the health and welfare sectors. After all, these sectors form a major part of the social security system. Furthermore, at the micro level, rural community initiatives are active. Information is insufficient on its own; continuous information sharing and discussions are needed. I hope that our co-learning process will continue.

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Johannes WILHELM

8 Disaster Resilience in Coastal Pacific Tōhoku: Restoring Livelihood after the 2011 Great East Japan Earthquake and Tsunami

1. Introduction

The Coastal Pacific communities of Sanriku were severely hit by multiple tsunamis following the Great East Japan earthquake on March 11, 2011 (3.11). While to some extent this event affected the fisheries sector all over the Pacific coastline from northern Hokkaidō to Okinawa (Hamada 2013: 67), in the prefectures of Miyagi and Iwate in Pacific Tōhoku, situated in the immediate vicinity to the epicenter, virtually all coastal facilities were washed away.

The Tōhoku region has been often attributed a "backwardness" (Kawanishi 2015) because primary sector activities have dominated the economy of this region throughout much of its history, and even the naming of the region (lit. "Northeast") conveys the meaning of "periphery", which goes back to the ancient province name of Ōshū or Mutsu ("The Hinterlands"). During the postwar high economic growth era, Tōhoku was a main source of human labor, when second or third sons being labelled "golden eggs" (*kin no tamago*) left their homes for the booming industrial centers forming the Pacific belt stretching from the Kantō (Tōkyō) to the Kansai (Ōsaka) area. These losses of young people have contributed to the fact that from the 1960s onwards, population aging is particularly affecting Japan's rural peripheries such as the Tōhoku region (Wilhelm 2016: 25). The fisheries population as well has been shrinking since the 1970s (see Figure 1). Decades before disaster struck, Tōhoku's local industry was already more or less in a deteriorating state and calls for structural change had been put on the political agenda. However, the situation continued to worsen over the years, especially so since the burst of the bubble economy and the following years of deflation. The small- to middle-sized urban centers of Tōhoku – except for a few booming cities such as Morioka and Sendai – all show signs of decline now, characterized by *shattā-gai* (closed stores in traditional shopping malls), and there are many abandoned houses in the countryside.

In this paper, I will discuss the situation in selected coastal communities before and after 3.11 to show the wide variety of problems faced by local residents in a post-disaster situation. I will focus on two coastal communities of Oshika Peninsula (Miyagi Prefecture), Yoriiso and Momonoura, respectively.

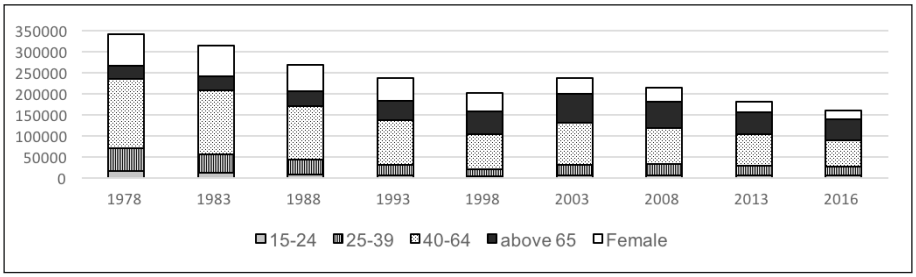

Figure 1. Fisheries workforce in Japan

Source: Ministry of Agriculture, Forestry and Fisheries (2015); Tōhoku Nōseikyoku Tōkeibu (2017).

While both are located on the peninsula, the conditions and outcomes since disaster differ considerably so that these two cases are very much suited to reflect on strategies and problems in the course of post-disaster livelihood reconstruction. Unlike most other authors who have written on this topic,[1] I will include results obtained from field work conducted at the micro level to enable a more differentiated view on problems local residents and communities have been facing since 3.11 that not rarely tend to be ignored and get "lost in numbers" through quantitative approaches.

I will start with a brief description of main features to be found in Sanriku and its fishery sector (chapter 2). The following parts are focused on reconstruction (chapter 3) and recovery (chapter 4). The former chapter will cover the administration framework for reconstruction while the latter is centered on local aspects including conflicts that occurred during recovery as well as the way individual actors activated assets to overcome calamity. In chapter 5, I will highlight two special problems, i.e. depopulation and global politics, which are challenging reconstruction efforts. Conclusions will be given in chapter 6.

2. The setting

The Pacific coast of Tōhoku can be split into two different sections with specific topographic features. The southern coast from Fukushima Prefecture in the south up to Mangokuura Bay in Ishinomaki City (Miyagi Prefecture) in the north is characterized by sandy beaches, while the northern part is rocky and cliffy and intersected by small rivers and bays, which form a ria-type coast. The latter part is also referred to as Sanriku coast, a name literally meaning "three *riku*" pointing to the three provinces of Rikuzen, Rikuchū and Rikuō

1 See, for instance, Hamada (2013) or Aldrich and Sawada (2015). This paper is based on past publications by the author (Wilhelm 2013; Wilhelm and Delaney 2013) updated with data that became recently available.

(also read Mutsu) having existed during the early Meiji era that each included the Chinese character *riku* (ashore) in their name. Oshika Peninsula represents the southern end of the Sanriku coast. Kinkasan Island off the southern tip has been an important landmark and thus a place of worship by fishermen who have accessed the so-called waters of Sanriku-oki, which are famed for their wealth in marine resources. On the other hand, the ria bays with their myriads of inlets that characterize the Sanriku coast provide excellent conditions for marine aquaculture that has been developed since World War II. This is the reason why the prefectures of Miyagi and Iwate show a high density of fishing ports (as related to the overall length of the coastline) exceeding by far the density found in the prefectures of Nagasaki and Hokkaidō which show the highest absolute number of fishing ports (see Table 1).

Table 1. Coastline density of fishing ports in selected prefectures

Prefecture	Coastline in km (A)	Number of fishing ports (B)	(A) / (B) = avg. distance between ports (in km)
Hokkaidō	4.454,340	286	15.6
Nagasaki	4.189,132	282	14.9
Miyagi	827,884	143	5.8
Iwate	710,780	111	6.4

Source: Hamada (2013: 84); Ministry of the Environment (2012).

Japan's fisheries industry expanded its operations to the open seas after World War II (the origin of this expansion reach back to the Meiji era). After offshore and pelagic fisheries production reached a peak in the middle of the 1980s, these sectors experienced a harsh decline, mostly due to the beginning of a global resource depletion and the rise of new players in the global fisheries industry such as Indonesia and China. By contrast, the coastal fishery sector's production including aquaculture remained stable (see Figure 2). Today, many small-scale operators, most often family-run and thus displaying a relatively high share of female and/or seasonally employed labor (see Figure 3) that are organized within the local Fisheries Cooperative Association (FCA) branch, characterize the coastal fishery sector in Sanriku. Another feature of Sanriku's fishery sector is an extensively developed aquaculture as mentioned above (see Figure 4). Therefore, cultivated species show a high diversity (see Figure 5) that ranges from different sorts of seaweed to sea squirts, urchin, sea cucumber or fry for scallop. On the other hand, many local fishing ports are home to an effectively organized pelagic fishery characterized by highly mobile fleets for offshore squid fishing operations as well as onshore facilities or lodging for crews.

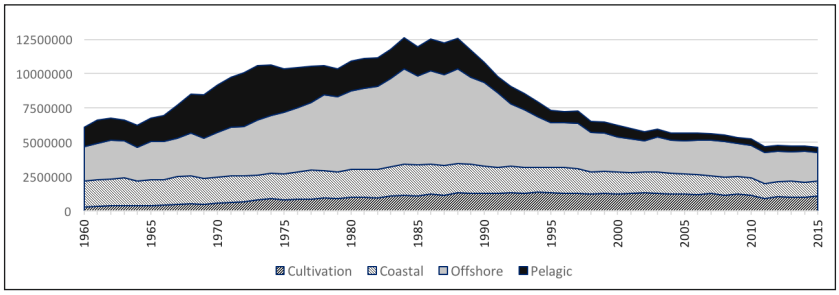

Figure 2. Japan's fisheries production (1960–2015)

Source: Ministry of Agriculture, Forestry and Fisheries (2015).

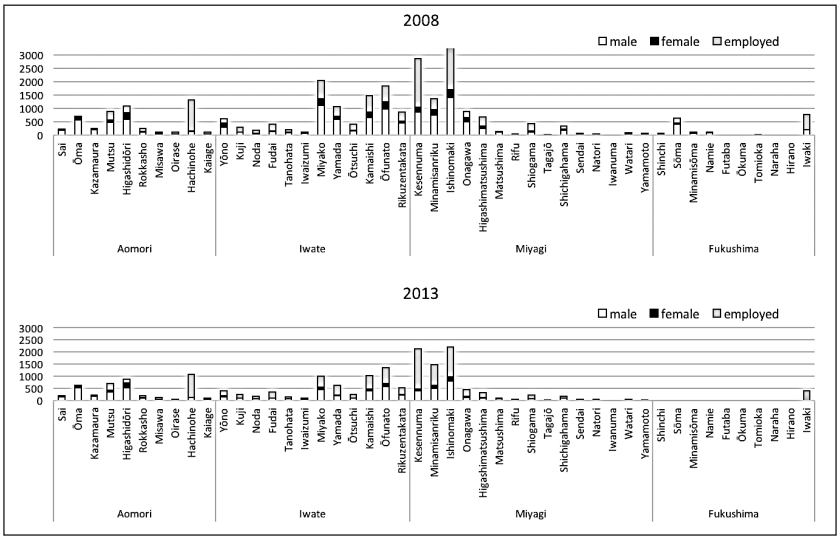

Figure 3. Fisheries workforce in Pacific Tōhoku by gender (2008 and 2013)

Source: Tōhoku Nōseikyoku Tōkeibu (2011, 2017).

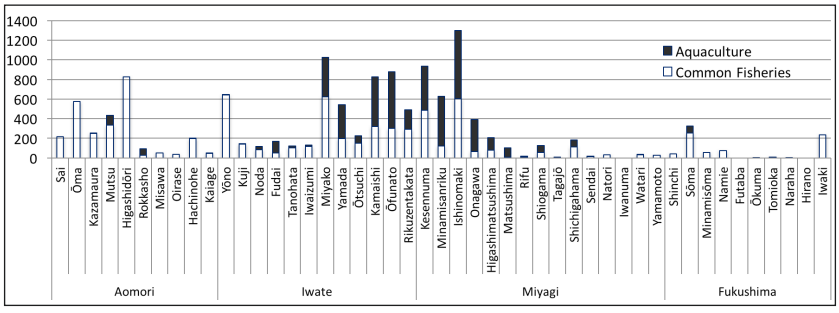

Figure 4. Types of fisheries in Pacific Tōhoku (2008)

Source: Tōhoku Nōseikyoku Tōkeibu (2011).

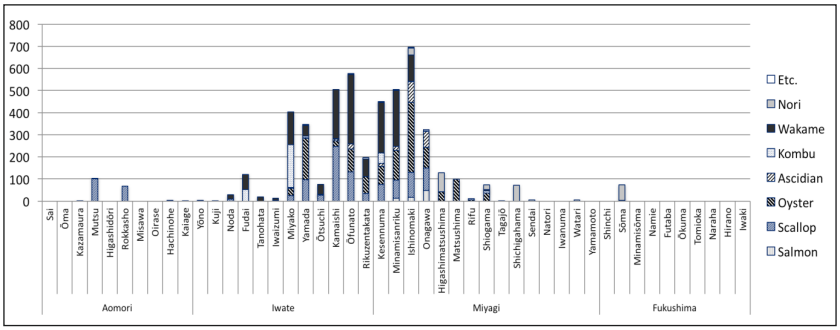

Figure 5. Cultivated species in Pacific Tōhoku (2008)

Source: Tōhoku Nōseikyoku Tōkeibu (2011).

As mentioned above, the tsunamis following the quakes hit the Sanriku region severely. Virtually all fishing vessels and fishery facilities (ports, rafts for cultivation, etc.) had been destroyed and most gear and facilities were lost (see Tables 2 and 3). Furthermore, the entire coastline subsided up to 1.2 meters (in Ayukawa at the tip of Oshika Peninsula) that is why wharfs had to be lifted to maintain fishing and landing operations. In addition, the debris drifting in coastal waters as well contributed to the long-term interruption of fisheries operations.

Table 2. Fishing vessels by prefecture and degree of destruction (May 2011)

Prefecture	Registered	Destroyed	in %
Aomori	9,672	616	6.4
Iwate	14,304	5,726	40.0
Miyagi	13,770	12,023	87.3
Fukushima	1,173	873	74.4
Sum	38,919	19,238	49.4

Source: *Kahoku Shinpō* (May 14, 2011).

Table 3. Damaged facilities by prefecture

Prefecture	Ports	Markets	Processing	Amount in ¥100 million
Aomori	18	3	57	195,000
Iwate	108 of 111	13 (all)	144 of 178	3.973,000
Miyagi	142 (all)	10 (all)	378 of 439	6.680,000
Fukushima	10 (all)	12 (all)	105 of 135	824,000

Source: Ministry of Agriculture, Forestry and Fisheries (2012: 11).

In sum, it can be stated that virtually all coastal facilities were destroyed or at least put in a dysfunctional state. Moreover, the fisheries industry in Fukushima Prefecture had to halt operations due to radioactivity emitted by the wrecked nuclear power plant of Fukushima Daiichi. It should also be noted here that during the dramatic events at the plant some radioactive plumes obviously descended on Oshika Peninsula at the coast and on the interior region around Kurihara (northern Miyagi Prefecture) and Ichinoseki (southern Iwate Prefecture) where comparatively high radiation values were measured.[2]

3. Reconstruction

Quite soon after disaster, the Japanese government launched recovery efforts such as rebuilding homes and infrastructure and providing employment and income for those affected. Some of these policies and programs have been a great help for locals trying to rebuild their lives; others, however, have left people irritated and confused. An administrative framework for reconstructing Miyagi's fisheries industry was first discussed when Miyagi Governor Murai Yoshihiro announced the idea of Special Zones for Reconstruction of Fisheries (*suisangyō fukkō tokku*, hereafter referred to as the "Fishery Tokku") at the Fourth Quake Reconstruction Design Council (QRDC) meeting on May 10, 2011. These Fishery Tokku have to be distinguished from Reconstruction Tokku (*fukkō tokubetsu kuiki*, or simply *fukkō tokku*) that denote a set of administrative rules and measures for designated areas.

The initial idea of the special fishery zones was to simplify administrative priorities when allocating sectoral fishing rights used for aquaculture (see Table 4). Opening up these fishing rights to outsiders was an attempt to raise much-needed capital from external investors, thereby accepting that this would shift the assignment of sectoral fishing rights from local fisheries cooperative associations (FCAs) to people who had no historical connection with the local fisheries. Murai's initiative, however, was poorly prepared, since he failed to hold vital consultations with the JF Miyagi (Japan Fisheries Cooperative, the head organization of FCAs) in advance of the meeting. This sparked strong opposition by FCA members, who collected the signatures of 14,000 fishermen opposing the Tokku plan. Fishery Tokku had been included in the National Reconstruction Plan, but only in the village of Momonoura, part of Ishinomaki City at the Western side of Oshika Peninsula, a special zone was

2 In fact, the level contamination in these regions was much lower than in Fukushima Prefecture. However, in July 2011, beef and rice straw was found to be highly contaminated in the Kurihara and Ichinoseki areas inducing a harsh drop in prices of beef produced in Tōhoku (Ministry of Agriculture, Forestry and Fisheries 2011).

eventually established on September 1, 2013. Another – immediate and much criticized – outcome of the discussion surrounding Fishery Tokku during 2011 was that Miyagi Prefecture's fisheries reconstruction plan took shape with a delay of six months compared to Iwate Prefecture.

Table 4. Administrative order/grading of fishing rights assignment

Former System	**Fishery Tokku (special fishery zones)**
1. Fishery Cooperative Association 2. Juridical person of local fishermen 3. Juridical person of more than seven local fishermen 4. Fishermen or employee (incl. juridical persons) 5. Newcomers (incl. juridical persons)	**1st Group** • Fishery Cooperative Association • Juridical person of local fishermen • Juridical person of more than seven local fishermen **2nd Group** • Fishermen or employee (incl. juridical persons) • Newcomers (incl. juridical persons)

Source: Wilhelm (2013: 637).

On the other hand, Japan's fisheries authorities developed a scheme to finance reconstruction of local fisheries quick and smoothly. This plan included payments to rebuild fisheries following specific rules for several kinds of operators. These plans provided start-up money and operating costs for a set amount of time, decreasing over time such that after several years they are expected to operate on their own.

JF Miyagi and its branch FCAs served as agents for consultation and support during the application and negotiation of this administrative program. In coastal settlements, the FCA itself employed FCA members to help clear and burn debris in the port areas. This work plan had two benefits: First, members received much-needed, though temporary, income during the time when they were unable to resume fishing activities or cultivation. Second, through this work members were making the ports useable for the future (also with regard to facilities for processing the landed catch). Thus, the program met both present and future needs. Some groups along the coast benefited to a modest degree from such programs.

Aside from the specific plans that were only available to certain groups meeting certain conditions, there was still the problem of how affected fishermen in general could make their living without a fishing income. Even in cases where fisheries labor is a part-time or short-term work, it still provides vital income for fishermen's families. Immediately after the disaster, a temporary support system installed by the government helped to collect and remove debris from fishing grounds. This was a kind of self-help program for fishing villages financed by the local government. To apply for this program, at least

five fishermen had to join. Since job opportunities in fisheries and other sectors had become extremely rare along the Pacific coast, other fishermen looked for and found jobs in the (urban) construction industry. However, this trend has made many former fishermen disconnected from their habitat and livelihood.

Reconstruction in Miyagi Prefecture is designed for a period of ten years (2011–2020), which is further divided into the three phases of restoration (three years), regeneration (four years), and development (three years) (see Table 5). By contrast, the reconstruction plan stipulated by Iwate Prefecture provides for an overall period of nine years. Another difference is visible in how local actors are integrated during reconstruction. In Miyagi Prefecture, main emphasis was laid on improving efficiency by restructuring the infrastructure of fishing ports as well as introducing new types of business, whereas in Iwate Prefecture, the focus was put on restoring livelihood through traditional local business structures, i.e. FCAs. An evaluation of the outcome of each reconstruction plan is not possible at the time of writing, yet in general it can be stated that in Miyagi the authorities have integrated (neoliberal) elements in a piggyback system to solve problems in the fishing industry's structure that have already been apparent before disaster struck. Regarding Fisheries Tokku, assessments on whether this will turn out to be a fertile and sustainable policy for the fisheries industry of Miyagi Prefecture will have to wait until 2018, when the government will allocate new fishing rights.

Table 5. Reconstruction plan for Miyagi's fisheries industry

Restoration (3 years; 2011–2013)	**Regeneration** (4 years; 2014–2017)	**Development** (3 years; 2018–2020)
• Reorganization and temporary restoration of harbors and landing facilities • Cleaning up debris • Emergency measures in aquaculture • Provision of vessels and gear; reinstallation of farming facilities; provision of fry • Emergency measures for cooling facilities and markets • Introduction of new organizational structures • Resuming of scientific research institutions • Adaption to the situation in Fukushima Daiichi NPP	• Concrete reinstallation of harbors and landing facilities • Reorganization of releasing fry • Support to stabilize the fishing sector based on a reorganization of fishing licenses and rights • Consolidation of companies through mergers • Improvement and development of aquaculture facilities • Concrete reinstallation of markets and cooling facilities • Adaption to the situation in Fukushima Daiichi NPP	• Support of integrating "base harbors" and "collection harbors" through improved infrastructure • Support of local, autonomous resource management • Consolidation of companies through product development • Increased revival of municipal fishery areas • Support of scientific fishery research • Adaption to the situation in Fukushima Daiichi NPP

Source: Miyagi Prefecture (2011: 3).

Apart from these policy measures explicitly pointing to the fisheries industry, two other important elements of reconstruction efforts by the government have to be mentioned, i.e. the relocation of housing to higher ground and construction plans for more effective tsunami walls along Sanriku's coastline. Aside from these plans, we have to be aware that Sanriku's fisheries industry is embedded in local, regional, national and international contexts where different needs, problems and conflicts emerged during the course of reconstruction.

4. Conflict and livelihood during reconstruction

In the following, I will try to shed light on conflicts in coastal communities of southern Sanriku to illustrate different types of problems faced by local residents and related actors during the first five years of Miyagi Prefecture's reconstruction plan period. In particular, I will point to internal frictions as well as risks local people are facing in the course of post-disaster reconstruction.

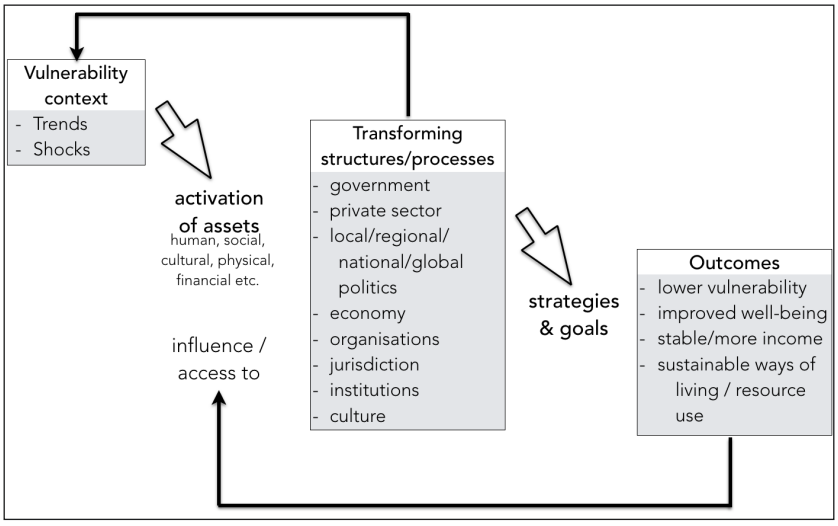

Figure 6. Sustainable Livelihoods Framework

Source: Scoones (1998: 4) and DFID (1999); simplified and adapted by the author.

I will first illustrate – by referring to the so-called Sustainable Livelihoods Framework (hereafter referred to as SLF; see Figure 6) – how two individual actors managed to restore the livelihood of many residents. The SLF provides a tool to analyze the outcome of activities by individuals or groups to overcome calamity.

4.1 Case 1: Mr. M.

M. is a local fisherman and vendor of marine products (mainly seaweed, scallops, and sea squirts) in Yoriiso. Due to lucky circumstances, the tsunamis did not affect M.'s house situated on a hilltop at the harbor. Concerned about radiation and tough work that had to be done after 3.11, he let his wife temporarily move to Tōkyō where their daughter studied design. His activities focused on restoring his processing facility and neighboring trading company for marine products. As his former facility had been refurbished only two years before (partly by using governmental subsidies), he could take advantage of a special emergency support program provided by the government before a general subsidy system came into effect. He succeeded reopening his business in April 2012, providing twelve residents with jobs. M. took advantage of an institutional framework he could fit in to not only reconstruct his own business very early, but also to provide job opportunities for local residents earlier than when general support programs came into effect. M. succeeded in activating assets such as social capital as well as financial capital that was institutionally available.

4.2 Case 2: Mr. K.

K. is the only descendant of an influential and wealthy *honke* (main branch) family of local merchants called *isaba* (traditional wholesalers and net-owners) founded three and a half centuries ago. The huge and prestigious residence above the harbor was washed away. K. initially thought to reconstruct only his diesel and oil business while giving up his trading company for marine products (export of sea squirts to Korea). His processing facility at the port of Yoriiso used to be the largest providing many local residents with jobs. Eventually, by April 2014, he succeeded in rebuilding his marine processing sites in Yoriiso close to Ishinomaki's central fishing port.

Being connected to partners, friends and customers across far distances is common among coastal fishermen. Among the volunteers and supporters of the disaster relief efforts for the fisheries industry, many such friends reactivated their bonds and formed self-help groups. The Friends and Supporters of the Sea (FSS, or Kaiyū Shientai) is one such group. Just a couple of weeks after the disaster, former high school friends in their fifties and sixties set up FSS as a company to support rebuilding Yoriiso's local fisheries industry and the livelihood of residents. The relatively advanced age of its members distinguishes this group from other – mostly younger – volunteers. All three core members were successful businessmen before 3.11, and now that their adult children have left home, they have enough time and financial resources to devote themselves to their new role as experienced and locally respected persons. Based in central Ishinomaki, their activities focused on Samenoura

Bay at the Northeastern tip of the peninsula where Yoriiso is located. Since disaster, K. lives in an apartment of an FSS-friend in central Ishinomaki. Although K. is neither living in Yoriiso anymore nor holding a formal post (such as village headman), he felt responsible for his former fellow residents. K. was also responsible for setting up two vending machines selling beverages at cheap prices next to the temporary housing (*kasetsu jūtaku*) estate of residents who lost their homes.

K. has tried to rebuild his own business as well as to help local residents by activating his financial and social assets. However, as we will now learn, he has been facing other problems in the course of resuming his business as well as during his support activities with FSS.

4.3 Internal frictions and support

The installation of vending machines by K. mentioned above caused friction among the residents, because already before 3.11 there had been other vending machines offering beverages at the regular price of ¥120 per item. Another resident of Yoriiso whose uphill shop was not affected by the disaster runs them. He complained that he would lose customers. Eventually, this problem could be settled through discussions among the residents (and within the settlement's resident assembly) by agreeing that the cheaper vending machines were intended to support those living in temporary housing.

Due to the harsh topography at the cape of Yoriiso, sites suited for a temporary housing estate are limited. They were eventually constructed in summer 2011 at the southern border between Yoriiso and the neighboring settlement of Maeami, a little downwards of the local elementary school. In Maeami, the disaster destroyed 17 of 23 houses, thus most residents of this *kasetsu* – actually located in Yoriiso – came from there.[3] The temporary housings were an integral part of rebuilding plans to move residents away from low-lying vulnerable areas to higher ground. However, as sites suited for such plans are scarce, the municipal officials in charge of relocation had to talk with local landowners, that is, wealthy residents. Mr. D. was one of them, a descendant of another wealthy local family who lost his house close to the harbor of Yoriiso. After the disaster, he temporarily moved to his daughter's family in western Japan. During negotiations with officials, he offered some of his privately owned land suited for the construction of new housing. In return, he asked the municipality to grant him preferential treatment by placing him in a so-called *saigai jūtaku*

3 Yoriiso and Maeami both have much in common regarding history and customs. However, both settlements split up at the end of the 19th century due to the introduction of local fisheries associations and thus the formalization of fishing grounds for each association (for details, see Endō (1984) or Katayama (2016)). It should be added that the FCAs of both settlements merged after 3.11.

(i.e. a public "disaster apartment") in the urbanized area of Ishinomaki since he is averse to moving back to Yoriiso. This in turn led to another problem, because the allocation of new residents to the brand-new *saigai jūtaku* was based on an egalitarian lottery system that did not provide for such special treatment. Eventually, D. made his way and is now living in such a *saigai jūtaku*.

Due to his long relationship with Yoriiso residents, the author of this paper was also active in reconstruction efforts.[4] Coincidentally, a group of members of the German national parliament met fishermen from Yoriiso. The leader of the group happened to be a board member of the German branch of a large international health and welfare organization. A few weeks after their visit an offer of about €1.000,000 for a community house in Yoriiso was communicated via the German embassy. Again, the egalitarian principles built in the municipal reconstruction plans seemed to nip any such endeavor in the bud. Why should Yoriiso be favored to other places where community houses were needed, too? Fortunately, a leading member of FSS had supreme abilities in accounting and planning so that things began rolling and the so-called Kaiyūkan, or German House, was constructed just next to the local elementary school and opened with a ceremony on April 12, 2014. However, at this point many residents were still inhabiting the nearby *kasetsu jūtaku* and it was especially them who begun asking why the community house was built in advance of their resettlement to higher ground. Other critique included questions such as why the house was not built near the port where it would be accessible for everyone, though eventually people came to understand the vulnerability of such an endeavor next to the sea. Many residents refused to make use of the German House during the following months, yet their attitude changed in the course of two years. Today, the German House is widely accepted – also because resettlement to higher ground has now begun. It also features solar panels to produce electricity autonomously what makes sense for the following reasons: First, surplus electricity is sold to the opened electricity market at fixed prices to cover parts of the maintenance costs of the house itself. Second, the electricity can be used in the facility for cooking, film screening events or meetings as well as accommodating two to four persons. Third, in case of emergency the system provides electricity for multiple purposes. This is especially important for those needing a power supply for their medical appliances such as lung machines.[5]

4 From 2004, the author conducted extensive fieldwork in Yoriiso for his PhD Thesis (Wilhelm 2009). Since disaster, he visited Yoriiso more than ten times to maintain bonds with the residents as well as to collect data for his studies.

5 After the quake, many people were evacuated to the nearby Onagawa nuclear power plant to access electricity.

5. Population decline and changing age structures

Apart from the above-mentioned "damage by rumors" (due to the alleged contamination of Sanriku's waters and thus its marine products), local residents experienced multiple problems during reconstruction, such as contested plans for building tsunami walls along the sea as well as accelerating depopulation or problems that evolved within the global arena of foreign politics. In this chapter, the latter two will be paid attention to.[6]

As noted before, fisheries activities were virtually impossible after the tsunami had hit the coast. When looking at demographic trends by districts of Ishinomaki City (excluding the urbanized area of central Ishinomaki; see Figure 7), it becomes apparent that in coastal areas such as Ogatsu or Oshika population figures fell dramatically. On the other hand, Kanan, a district adjunct to the urbanized area of Ishinomaki City with access to the Sanriku Highway, the Red Cross Hospital and a new outskirt shopping mall, or the nearby Monou district, also located upcountry in western Ishinomaki, experienced population growth. However, it would be too simple to say that the standstill of the local fisheries industry was the main reason why population declined. Other reasons such as mental, economic or convenience aspects of the victims' lives after 3.11 have to be considered as well.

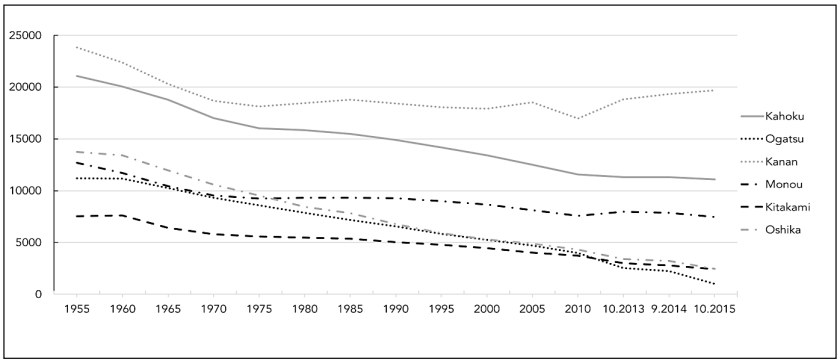

Figure 7. Population trends in Ishinomaki City by district (excluding the urban center), 1955–2015

Source: Ishinomaki-shi Sōmubu Sōmuka (2016).

6 Regarding the first problem, it may suffice to note that Yoriiso was one of three sites where plans for tsunami seawalls were dismissed. Officially, there was no need for such a wall, but this holds true for other places as well. In fact, it was the united effort of Yoriiso's residents who harshly opposed the plans, even though a few residents – including the village headman – favored a wall because it would protect their *naya* (storehouses for fishing tools) next to the harbor.

For instance, in 2012 a friend of the author, a stonemason from Ogatsu, confided that he together with his mother had decided to move to a *kasetsu* settlement preferably as far away as possible from the coast where they experienced the dramatic events. During the assignment of *kasetsu jūtaku*, the authorities asked applicants if they had any locational preferences.[7] The friend chose to stay in the Kitakami/Ogatsu district to restore his livelihood as a slate-craftsman. Other residents of Ogatsu have chosen to live in a *kasetsu jūtaku* near the urban center in Kanan or in an interior area such as Monou/Kitakami. Many people from Ogatsu had already been evacuated to the so-called "Big Bang" communal sports center of this district immediately after the disaster.[8]

The depopulation of coastal areas is also visible in fisheries statistics. Figure 8 illustrates demographic change between 2008 and 2013 in two fishing villages of Oshika Peninsula, i.e. Yoriiso on the eastern side and Momonoura on the western side near the urban center of Ishinomaki City. Both villages showed a decline in population and, already before 3.11, a high share of elderly people, most of them fishermen, had become visible. Yet in 2013, in Yoriiso the distribution of age cohorts seems much better balanced than in Momonoura where fishermen below the age of 50 are virtually nonexistent. Yoriiso's age distribution even suggests that the problem of an aging fisheries population somewhat eased during the course of disaster. As far as local fishermen told me, many elderly refused to rebuild their business. They were not "willing to shoulder the financial risks of resuming their fishery activities, as they will be far too old to work by the time reconstruction is finally completed and some of them lack successors in their families" (Wilhelm and Delaney 2013: 114).

We can even discern an improved environment for fishing activities due to fewer fishermen accessing the same amount of resources. This is especially so in the sea squirt (*hoya*) and scallop (*hotate*) aquaculture sector that is the main type of fisheries in Yoriiso (see Table 6). While the number of fishermen in Yoriiso declined after 3.11, the amount of accessible resources (rafts for cultivation) remained stable. Therefore, the number of rafts per cultivator rose remarkably during the initial phase (until 2013). Simply put, this also means an increase of production for each fisherman and thus a potential rise in in-

7 In fact, there are five *kasetsu* districts in urban Ishinomaki City: West (Seibu, Hebita area), Central (Chūō, Ōhashi area), North (Hokubu, Kaisei area) and East (Tōbu, Watanoha area). The other areas are Kanan, Monou/Kahoku, Kitakami/Ogatsu and Oshika.

8 Focusing further on moves between the eight districts after the disaster seems to be worth a detailed study. Nevertheless, it is safe to say that the population increase in Kanan following 3.11 is related to its convenient infrastructure as well as to the harsh decline in nearby Ogatsu. According to Population Census data of 2015, Ogatsu lost three quarters of its former residents. One should add that the suburbs of Sendai, the largest city in Tōhoku, experienced a growth in population and household numbers as well (Ishinomaki-shi Sōmubu Sōmuka 2016).

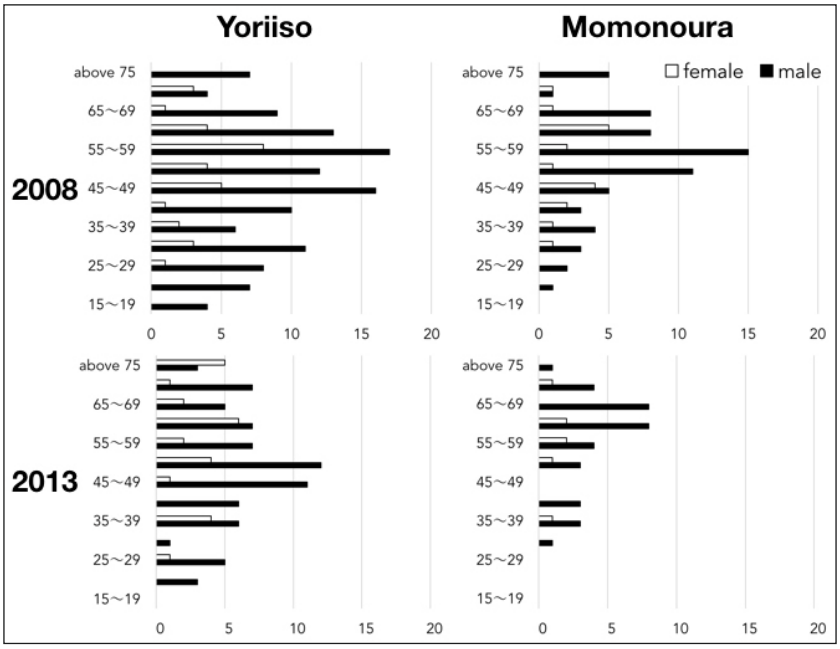

Figure 8. Fisheries population in Yoriiso and Momonoura by age and sex (2008 and 2013)

Source: Ministry of Agriculture, Forestry and Fisheries (2010, 2015); Tōhoku Nōseikyoku Tōkeibu (2011); Miyagi-ken Shinsai Fukkō Kikakubu (2015).

come. In fact, the number of rafts per fishermen could even further increase if there were not a self-restraint by local stakeholders to maintain a maximum of six rafts per operating unit (before disaster, the allowed maximum number of rafts was set to four).

Table 6. Access to aquaculture resources in Yoriiso

	Cultivators	Rafts (*hoya* + *hotate*) = SUM	Rafts per Cultivator
2011	(36 – 3) = 33	(95 + 29) = 135	3.8
2013	19	(75 + 32) = 107	5.6
2017	20	(75 + 29) = 104	5.2

Source: Data was kindly provided by Yoriiso's local FCA branch during fieldwork by the author.

However, this trend notwithstanding Yoriiso's sea squirt industry is not doing well. Sea squirt production is highly dependent on export to South Korea (Demura 2013: 2). Furthermore, cultivating sea squirts needs more time (at least three years to become ready for sales) compared to other species, what explains

why hundreds of customers stood in line when the above-mentioned group of elderly volunteers (FSS) organized a PR event to sell the first post-disaster sea squirts produced in Yoriiso on the streets of urban Ishinomaki on June 1, 2014. Yet, in September 2013, South Korea had extended its import ban of marine products from northeastern Japan due to radiation fears.[9] Thus, the local sea squirt industry experienced a severe setback. The PR event represented an attempt to increase local demand, but as the cultivation of sea squirts takes so long, it is difficult for producers to adapt to new conditions on the market. At the time of writing, the PR efforts even have not yet succeeded in increasing domestic demand that has remained at about 4,000 tons per annum while total production is expected to amount to about 14,000 tons in 2016 of which approximately 10,000 tons are produced in Miyagi Prefecture alone. While waiting for Korea to lift its import ban, the producers initially responded by deep-freezing the remaining sea squirts. Yet since there has been no improvement in the bilateral talks the producers decided to discard a stock of 10,000 tons in June 2016, an amount slightly higher than what had been exported to Korea before 3.11. The decrease in numbers of rafts for sea squirt cultivation in Yoriiso between 2013 and 2016 apparent in Table 6 is thus not only related to the decrease of the local fisheries population, but also to the breakdown of the traditional *hoya* export to the Korean Peninsula. Hence, we see that even the local sea squirt business is at the mercy of the global political arena.

On the other hand, the demographic changes that occurred in Momonoura after 3.11 have led to a state of high social vulnerability, i.e. it is almost impossible to resume collective fishing activities without the missing younger generation. For a large part, the latter triggered the introduction of Tokku in Momonoura, where the Momonoura Collective Oyster Company (MCOC) established by external investment was installed in 2012 to provide young people with steady-income jobs. The initial conflict during the introduction of the Tokku[10] in 2013 has calmed by 2016 and it seems that this new model of fisheries reconstruction efforts can be a feasible path for future development in coastal

9 Even though plumes from the wrecked reactors in Fukushima had slightly contaminated parts of Oshika Peninsula, actually no significant radiation has been found so far in sea squirts. The import ban by South Korea is to be regarded as a tool within the arena of global politics and bilateral relations between Japan and South Korea. Therefore, it represents an interesting case to study the effects of global affairs on the reconstruction of local business in a post-disaster situation.

10 I have largely omitted details about the conflicts between JF Miyagi and the prefectural government in the course of creating the Tokku (for further information see Wilhelm (2013: 642–646)). It should be noted, however, that there were rumors at the time of the introduction of Tokku that the deal to introduce this unpopular institution had been traded between the Governor of Miyagi Prefecture and a friend and big player in the regional fisheries business willing to save the governor's face, as virtually no local fisheries association was willing to accept the introduction of this new institutional framework within their local district.

Sanriku. MCOC production figures increased every year since 2013 and a first surplus is expected for 2016. Although the number of employees has risen from an initial 15 to 43 by now, most of them are commuters from outside Momonoura because major parts of the village are still uninhabitable due to incomplete reconstruction work (Ōyama 2016: 13). Bringing back residents seems to be a difficult task in the case of Momonoura compared to Yoriiso that is located near urban Ishinomaki and therefore easily accessible by car. It will be interesting to see if any Tokku other than in Momonoura will be introduced in 2018 when fishing rights are to be allocated for the second time after the disaster.

6. Developments during five years following the disaster: A conclusion

While it was difficult to predict future developments of the disaster-struck fisheries industry of Sanriku soon after the earthquake, major developments could be observed during the following five years.

First, the disaster has accelerated the trend of depopulation in the coastal region. However, the situation differs from place to place. In some cases, as in Yoriiso, population decline in combination with reconstruction efforts have even led to an increased resource access and thus more suitable conditions for local producers who have remained. However, due to fears of radioactive contamination, it remains difficult to predict the future market in fisheries especially in those sectors that had been relying on exports.[11]

Second, similar to the variety of damage, the problems faced by local residents during reconstruction varied remarkably. During the initial phase, it was particularly important to provide local residents with jobs to maintain their livelihoods. Therefore, resuming fisheries was a major precondition to achieve this. However, increased mobility and – since reconstruction took effect – a booming construction sector pulled many former fishermen to other labor than fishing. Thus, one has to comprehend the process of depopulation in coastal areas in connection with changing conditions on the labor market in general. As in the case of Yoriiso, many frictions have emerged during reconstruction even within a community. This is referred to as shifting states of social vulnerability.

Third, in Miyagi Prefecture a new type of fishing rights allocation was introduced in 2013 enabling external investors to access fishing (and cultivation) grounds that used to be in the hands of local fishermen via their FCA.

11 This also holds true with regard to the so-called *kokyaku*, i.e. traditional business partners of producers and vendors within the sales sector of marine products. This aspect has to be dealt with in another paper.

It will be interesting to see if there will be latecomers who will introduce these special zones (Tokku) during the course of allocating fishing grounds in 2018. If successful, this might be a promising option to revitalize depopulated coastal regions in the future. While it seems possible to bring back some of those who left, it will surely be difficult to persuade those who found a stable livelihood in other areas or labor sectors.

Last, but not least, the impact of the TEPCO incident at the Fukushima Daiichi nuclear power plant is hanging over the Sanriku fisheries industry like a "sword of Damocles". It will be a tough job for Sanriku's fisheries industry to regain trust as long as the problem of outpouring radiation from the Fukushima Daiichi plant will remain.

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Theresia OEDL-WIESER and Thomas DAX

9 The Impact of LEADER Initiatives to Rural Revitalization in Austria

Introduction

Due to the largely mountainous character and ensuing low population density in most parts of Austria, rural regions put their stamp on the country's appearance. A considerably high share of 78 percent of the total population is living in regions designated as rural. However, conditions in these regions are far from being homogeneous. Starting with the elaboration of a – now widely accepted – classification system for regions and spatial units by the OECD in the early 1990s (OECD 1994), both the dichotomy and the overlapping character of urban and rural areas became constituents of a methodological concept. Since then national and European as well as international comparisons applied this typology or amendments thereof for highlighting the relevance of rural areas at the international scale. For Austria, a specific focus on mountain regions was decisive in all its history of regional policy. While parts of the mountainous regions, particularly in western Austria, fare very well due to a burgeoning tourism industry development, other areas are facing long-term problems. These were addressed primarily by the term "peripheral rural regions", which were conceived as affected by low accessibility, weak economic productivity and regional performance, limited job availability, continuous decline of social infrastructure and public services as well as low vitality of cultural life. In sum, a growing number of rural regions show a decrease in population. This is particularly true for peripheral parts of the alpine regions, but no less for regions along the Czech and Hungarian border that still lag behind in economic development because of limited cross-border relations due to the "iron curtain" quality these borders had until 1989 (Dax *et al*. 2009, 2016a).

Austria's experience to support these regions goes a long way back into the past. The initial point of drafting a genuine national approach occurred at the end of the 1970s when former "classical" regional development concepts became considered as failures and a reassessment of local and regional "assets" was proclaimed. This conceptual turn in regional policy was coined as "endogenous" regional development and started as a long-term pilot project around 1980, enabling "experimental" innovative approaches of a highly participative character throughout the 1980s (Dax 2001). Those regions most severely affected by stagnant and declining economies should be developed

through strategic improvements in infrastructure and targeted financial support for innovative action (Gerhardter and Gruber 2001: 14). The new paradigm exposed by this policy explicitly focused on mobilization of endogenous potentials like the economic, social and cultural capital of residents and the amenities of the region. Innovation, new forms of cooperation and alliances between different economic sectors like agriculture or tourism, producer-consumer groups as well as cultural and social activities became important elements of this new policy. The regional policy approach coincided with a wide-ranging concept of agricultural policy that embraced support for mountain farming and the infrastructural basis of mountain areas, arguing with the need to preserve the high quality of Austrian cultural landscapes as a base for tourism and public appreciation (OECD 1998).[1]

Therefore, when Austria joined the European Union (EU) in 1995 and started to implement the LEADER[2] approach, it could draw on former program activities that already included aspects similar to the LEADER approach. In this paper, we present and analyze the impact of the LEADER approach in Austria as a highly influential part of rural policy and rural revitalization. Since its start in 1991 for the EU and in 1995 for Austria, it took an impressive development, albeit not without challenges and obstacles as important side effects. We will illustrate the different stages in the evolution of the LEADER approach, the effects for rural stakeholders, and the way regions developed. Along the main guiding principles for the application of LEADER, we will explain how the approach works and what the intentions of the initiative are in a long-term perspective. Finally, we present best practice examples of LEADER implementation in Austria with a specific focus on high quality mountain products and professionalization in processing and marketing, tourism activities, use of wood, networking and capacity building as well as the integration of different social groups. This selection of types of activities is particularly illustrative for the application of the scheme in a mountain context (Dax 2015) that underlines the place-based outline of the approach.

The evolution of the LEADER initiative in the EU

The LEADER initiative "was launched in 1991 with the aim of improving the development potential of rural areas by drawing on local initiative and skills, promoting the acquisition of know-how on local integrated develop-

1 For further details on regional policy approaches for mountain areas in Austria, see the contribution by Hovorka in this volume.

2 LEADER is the acronym for the French denomination of the initiative "*L*iaison *E*ntre les *A*ctions de *D*éveloppement de l'*É*conomie *R*urale" (Links between actions of rural economic development).

ment and disseminating this know-how to other rural areas" (EC 2006: 6). The LEADER approach is oriented at including all interested rural stakeholders and "new" activities comprising innovation and aims at improving quality of life at the local level. With its manifold pilot activities and inspiring examples of local action it became the most famous instrument of local development across the EU spreading to almost all (rural) regions. Therefore, it was transferred to programs beyond the EU as well (OECD 2006). Its priority for a territorial rural development strategy was assessed as realization of neo-endogenous strategies (Shucksmith 2010) and conceived as a means of achieving rural development. This was based on the assumption that those people working at the local level know best how to tackle the problems within their region and how to nurture the assets and endogenous potentials of those regions (Dax *et al*. 2016b; Granberg *et al*. 2015). LEADER's vision is associated with a long-term perspective, indicating the changing nature of local development action that has to cope with inertia inherent to policy adaptation processes. It is dependent on the people and regions involved developing suitable organizational structures and institutional capacity to allow for the conceptualization and development of new ideas and new ways of delivering rural policy the LEADER approach strives for (Neumeier 2012).

The different stages of the evolution of LEADER are summarized in Table 1. Initially being introduced as a Community Initiative of the EU, it was later integrated into the Rural Development Programs (RDP) and has finally been shifted toward the more general framework of Community Led Local Development (CLLD). These shifts in the institutional framework and at the same time the continuity in the principles of its approach contributed to the high estimation of LEADER practice for rural development. Moreover, obstacles in implementation and problems in adapting administrative procedures and strategies – particularly in the period of "mainstreaming" LEADER into the Rural Development Programs – were substantial and led to severe controversies about the future of LEADER. By reorienting towards the basic concept and the high potential of innovative local action, the European Commission achieved to extend the LEADER remit to all regions and made its design available for all EU funds. This renewed version of local action is now implemented in all ESI Funds[3] as Community Led Local Development in the period 2014–2020.

3 ESI Funds: *E*uropean *S*tructural and *I*nvestment Funds (European Regional Development Fund = ERDF; European Social Fund = ESF; Cohesion Fund = CF; European Agricultural Fund for Rural Development = EAFRD; European Maritime and Fisheries Fund = EMFF).

Table 1. LEADER programs in the EU and Austria, 1991–2020

Program period	EU		Austria	
	Number of LAGs	EU funds (in million €)	Number of LAGs	EU funds (in million €)
1991–1994	217	450	–	–
1995–1999	906	1,700	31	25
2000–2006	893 [1)]	2,100	56	77
2007–2013	2,304 [2)]	5,500	86	254
2014–2020	2,600 [3)]	6,900 [4)]	77	197

Notes: 1) plus 250 LEADER-type activities in six new member states; 2) plus 312 Fisheries Local Action Groups (FLAGs); 3) over 300 FLAGs, as well as ESF and ERDF LAGs still to come; 4) including €1,200 million for ERDF, €700 million for ESF and €500 million for EMFF, summing up to public support of at least €9.91 billion for all four funds programs.

Source: Champetier (2016).

The implementation periods so far reveal strong elements of continuity, but also significant shifts in the specific details of the design, the funding extent and priorities addressed and available for realization within the member states (Champetier 2016; Oedl-Wieser *et al*. 2010):

- "Pilot period": Due to the "pilot" and innovative character, LEADER started as a "Community Initiative" funded under the EU Structural Funds. This structure was kept for three program periods: LEADER I (1991–1993), LEADER II (1994–1999) and LEADER+ (2000–2006). In the first period, LEADER I achieved a "breakthrough innovation" that established the basic framework of the program, targeting at cross-sectoral policies (instead of previously dominating top-down sectoral policies) and entrusting local partnerships with the responsibility for place-based ideas and action.
- "Laboratory" aspect: Within LEADER II, these emerging ingredients of LEADER's success were defined in detail and more clearly differentiated from other policies. The "seven specific features" of LEADER, still attributed as "the LEADER approach", were framed at that time. One feature was removed from the specificities of LEADER, i.e. financing and management. Neglecting this aspect for a long time brought about important challenges and implied a lack of empowering local actors (Bosworth *et al*. 2016a).
- "Strategic" commitment: The appraisal of LEADER+ intensified activating efforts of rural actors by extending the scope of the program to most rural areas in Europe. It was realized that local development is a long-term

task and needs a thorough understanding of local assets and opportunities as well as formulation of region-specific strategies. At that period, the LEADER approach had not only attracted a high level of interest within the EU, but was adopted in various other parts of the world and in OECD's conceptual considerations for new approaches in rural policy that go beyond the sectoral limits (OECD 2006: 90–91).

- "Mainstreaming" approach: As the concept of LEADER was valued as attractive and the clearest expression of a "territorial focus" of Common Agricultural Policy (CAP), its integration into the RDPs in the period 2007–2013 was thought of as extending its scope and effectiveness of rural development considerably (Lukesch *et al*. 2004). This positive assessment culminated in the "mainstreaming" of the underlying concept of LEADER into the Rural Development Programs for the period 2007–2013 closely integrating LEADER implementation with other rural development measures as part of a single policy instrument. The objective was to have policies that are more effective by considering the diversified needs of rural regions. However, the high expectations of intensified LEADER application could hardly be realized due to hierarchical mindsets and rigid administrative mechanisms (Dax *et al*. 2016b).
- "Local development" design: Finally, the potential of the LEADER approach has received an even greater appreciation as it is now a place-based method available to all ESI Funds as Community-Led Local Development. The implementation link to CAP remains the cornerstone of the instrument and connects now to almost all rural regions. This reflects the obligatory application of LEADER within the EAFRD Fund, while use in EFRE, ESF and EMFF is mandatory and still must overcome obstacles of limited familiarity with the approach among stakeholders.

From its start, the LEADER initiative looked for innovative ways of involving local partners in steering the future development of their region. This has led to the appreciation of LEADER providing one of the most influential sets of activities to address the spirit of mobilizing the countryside through focusing on endogenous potentials and activating local stakeholders across all sectors. As transfer of experience is at the core, the common approach was soon referred to and "codified" as "LEADER approach" which is in general presented by the set of features (EC 2006) that are considered as preconditions for successful implementation.

How does LEADER work?

LEADER is a place-based neo-endogenous rural development approach that aims at making effective use of local assets and resources by strengthening the regional identity of rural residents and integrating incentives from outside the region (Bosworth *et al*. 2016b; Dax and Oedl-Wieser 2016). It provides a pro-active perspective towards nurturing potentials and addressing (social) innovation like shared learning processes and the mutual exchange of knowledge and ideas (Bock 2012; Dax *et al*. 2016b). Beyond supporting "hard" economic interventions, it is committed to include activities to enhance social processes considered as major driving forces to rural development. The guiding "principles" of the LEADER approach are: area-based local development strategies, bottom-up approach, participation in decision-making, public-private partnerships, inter-territorial cooperation and networks, integrated multi-sectoral actions, promotion of innovation, and economic diversification (see Figure 1).

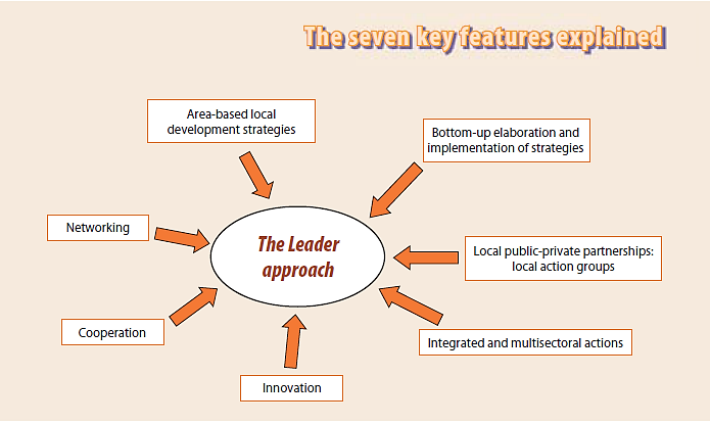

Figure 1. The seven key features of LEADER

Source: EC (2006: 10).

Local Development Strategy (LDS)

LEADER activities should be implemented in homogeneous rural areas where internal social cohesion, a shared history and common experiences supported by long-term traditions, and a high sense of regional identity and commitment for strategic action are existent. During the elaboration process, local participants from different sectors and interest groups, diverse social groups, and representatives from different sub-areas of the regions are invited to engage in discussing and elaborating a Local Development Strategy. This strategy particularly addresses strengths and weaknesses as well as op-

portunities and threats of the region, including observations of the present situation, reflections on experiences, and imaginations of future pathways to make use of local opportunities. The local people define the topics to be included in such a strategy. To meet the commonly defined aims, the regions draw up implementation plans against an overall program budget financed by EAFRD and national funds, and further consider the availability of private co-funding.

Bottom-up approach

Highlighting the feature of a bottom-up approach does not mean that it is an alternative to top-down development. On the contrary, it rather aims at clarifying the basic need of capacity building by awareness raising, inclusion of different interest groups and reflections of area-specific issues for strategy development and implementation. One should emphasize that the linkage to local actors is indispensable not only in the elaboration phase of the program, but throughout its execution as well.

Cooperation

LEADER integrated with this feature, thereby trespassing the limitations of "endogeneity" and slow acceptance of incentives for innovation. Cooperation is thought of as supporting local activities by linking to other regions and learning from inter-territorial and transnational cooperation. While it has always been assumed that cooperation requires increasing attention, overall program implementation in almost all EU regions failed to attach sufficient priority to this aspect. In those cases where cooperation is already put into practice, it can be shown that it has a potential as an important source of inspiration and activation.

Public-private partnerships – Local Action Groups (LAGs)

Local Action Groups are composed of public and private local and regional actors. It is the core responsible institution for strategic considerations and project selection and thus looks at ensuring the proper implementation of the LDS. Sufficient management staff is required to support the various aspects of direction and content of Local Action Group work and involvement of project holders as well. Although LEADER is a highly successful initiative throughout the EU by instigating new local groups and providing important restructuring to rural regions, some shortcomings are also apparent. For instance, the program does not extend to all potential rural actors, and action remains biased towards local "elites" in many cases (Thuesen 2010). During the previous periods, disadvantaged or less involved social groups like rural women,

young people or migrants have hardly participated (Oedl-Wieser *et al*. 2010). In the current funding period, there are 77 LAGs in Austria and 2,600 LAGs in the whole EU.

Networking and cooperation between areas

Networking within LEADER includes the exchange of experience and expertise between LEADER groups, rural regions and organizations involved in rural development within the EU. By facilitating the dissemination and transfer of good practice and innovative strategies and actions, the LEADER network aims to limit the isolation of LAGs and to create a source of information and analysis of the actions. To complement existing European and national networking, some LAGs have spontaneously organized themselves into informal networks. Cooperation among local actors and LAGs from different territories within a member state, the EU and outside of it is extending. Well-established networking and cooperation allows for the enhancement of knowledge, skills and information, which is needed to implement LEADER and accomplish its comprehensive objectives.

Integrated multi-sectoral actions

The new contribution in the content of the LEADER initiative was that it is not just seeking out sectoral activities, but implies a local development strategy with a multi-sectoral rationale, integrating the relevant sectors for innovative activities in the region. The integrative role of the program is decisive in addressing potentials that were untapped so far and would not be explored by mere sectoral approaches. The explicit links between the different economic, social, cultural and environmental contexts are intended to achieve more innovative action that would enhance local development and alter negative development trajectories.

Innovation

Innovation is the crucial aspect of LEADER and needs to be understood in a wider sense than the usual definition of product or process innovation implies. Innovation in rural regions may imply the transfer and adaptation of innovations developed elsewhere, the modernization of traditional forms of expertise and use of local resources in new ways, or finding new solutions to persistent rural problems that other policy interventions have not been able to solve in a satisfactory and sustainable way (Dargan and Shucksmith 2008). This can provide new responses to the specific problems of rural regions (EC 2006: 12). Innovation is a cross cutting matter in the LAGs where new ideas ideally meet social and economic needs simultaneously and create new social relationships, collaborations, products, or services. Therefore, fostering innovation in LAGs is central for creating multi-sectoral cooperation and modernizing the rural economy.

Good practice examples of LEADER in Austria

The implementation of LEADER projects and their effectiveness can be best illustrated by "good practice" examples. Throughout the four completed funding periods of LEADER implementation in Austria, many different thematic focuses like tourism, processing and marketing of high quality food, new use of wood, landscape protection, networking and capacity building, initiatives for education and skill development, and social inclusion have been selected for LAG strategies. For a successful and sustainable implementation of LEADER projects it is decisive to take into consideration the high "diversity" and "types" of rural regions, the necessity of "enabling" policies and the need for increased interaction, cooperation and networking. In the case of Austria, these activities are particularly influenced by the contextual characteristic of being located in mountain areas. As 70 percent of the total area of Austria is mountainous, the following good practice examples emphasize initiatives that make use of opportunities mountain regions possess:

Case 1: Cheese Route Bregenzerwald

High-quality mountain (agricultural) products and integration of diverse local and regional actors

The Cheese Route Bregenzerwald is an association of farmers, local dairy tradespeople and commercial enterprises from the Bregenzerwald, a region in the most western part of Austria starting in the period LEADER II and still being active. The members and partners of the Cheese Route Bregenzerwald contribute to the cultivation of the landscape, to maintaining the small structures in agriculture and to promoting high-quality products of the region. The main achievements of the project are:

- Installing an Alpine and mountain cheese cellar for the maturation and maintenance of more than 32,000 loaves of cheese;
- Production of about 30 different types of cheeses;
- Largest sales consortium in a European rural region;
- Involvement of a large set of users (alpine dairies, restaurant owners, tourism, museums, etc.);
- Creation of new market opportunities for protected origin products such as quality silage-free raw milk.

Further activities are services and training like product tasting at farms, a "dairy school" on pastures, visits of cheese cellars and alpine pastures with milk production and creation of online shop facilities.

Source: http://www.kaesestrasse.at

Case 2: The Almo culinary region

Addressing the potentials of Alpine pastures and combining regional actors in a cooperative framework

The Almo culinary region is an idyllic area in Styria in the Eastern Alps, at an altitude of 1,200 to 1,700 meters above sea level. It includes some of the most traditional alpine pastures, namely "Teichalm" and "Sommeralm". Mountain farming with oxen meat production is the region's primary source of income and the peculiar cultural landscape features attract an increasing number of tourists. The project (from LEADER II) has created local partnerships and cooperation between Almenland farmers and a regional big-scale butcher. The project has generated a regional economic cycle where farmers are benefitting from the professional marketing of the butcher business. This project presents an example of good practice as it links the area-based approach with a clear connection between farming and cultivation of the landscape. The project has formed an integrated and multi-sectoral development network. The promotion of the region through the Almenland marketing company and the success of Almo meat have led to a knock-on effect and improvements for other businesses in the area such as tourism (golf, fishing, cycling) and a network of regional restaurants and hotels promoting the products.

Source: http://www.almenland.at/leader.html

Case 3: GeoLine

Creating a regional geopark and using it for a comprehensive tourism package

The GeoLine project illustrates how a territorial strategy can both focus on its endogenous strengths and be open to external ideas and audiences. The project has adopted the theme of geology, since the LAG's territory – the "Styrian Eisenwurzen" nature park – is one of the geologically most diverse areas of Austria. It includes in its offer many tourist attractions and local organizations providing an integrated tourism package. This has been achieved through effective cooperation among twelve municipalities to create the "Nationalpark Gesäuse" geopark as a strategic tourism brand, which has proven vital to the success of the overall project. Furthermore, largely due to the effective networking role of the LAG, the project learned from other geoparks around the world through its membership in the European geoparks network and UNESCO global geoparks network.

Source: http://www.eisenwurzen.com/unesco-global-geopark/

Case 4: Project "Walking through the tree tops"

Establishing a flagship tourism infrastructure by making use of local resources

The project, dating back to the period of LEADER+ (2000–2006), uses

the endogenous potential of the forest area around Kopfing in western Upper Austria for local recreational purposes, which strongly relates to the regional landscape and uses an area-based approach. A high proportion of forest area (around 45%), which had been viewed as a traditional weakness of the region because of its low potential for industrial development and poor infrastructure facilities, has been turned into an advantage through tourist development. The project is highly innovative since it has created a new tourism walking experience above the treetops. The walking trail is made up of an innovative wood construction that uses traditional handicraft skills from local carpenters, which have also generated considerable benefit. As the project has created a substantial new source of income for the region, smaller tourist-related businesses are also benefitting from the project. The local population has also regained trust in the economic upturn and they now take pride in their region. The project idea is transferable to other rural areas. Economic viability has been achieved and all profits are reinvested throughout the region for the maintenance of the treetop walk, expansion, and targeted publicity campaigns.

Source: http://www.baumkronenweg.at/baumkronenweg.html

Case 5: Der Lechweg

Assembling a set of attractions along a walking trail, and respecting nature as the prime base for the activities

This initiative began already in 2002 (LEADER+ period) with a vision for Lechtal tourism. The aim was to develop the "young" Tyrolian Lech Nature Park, characterized by a unique European wild river landscape, by establishing and promoting a long-distance trail. Following an intensive phase of construction works, the project provided the foundation for tourism product development and marketing. The tourism product "Lechweg" now radiates also into other sectors than summer tourism:

- A small regional brewery developed its own Lechweg beer;
- A distillery produces a Lechweg brandy from juniper berries;
- Regional producers are making a Lechweg cheese and a Lechweg sausage;
- The Lechweg "snack Brettl" is manufactured and packaged by people working in the social employment initiative "pro mente Tirol" in Reutte.

There have been two clear messages emerging from the project: "green" or "smart" high-quality tourism is preserving nature and regional resources, and complex regional products such as the Lechweg arise only through intensive cooperation in a joint learning process.

Source: http://www.lechweg.com/de/aktuelles/fuenf-jahre-lechweg/

Case 6: "Bergholz" initiative in the Great Walser Valley Biosphere Reserve

Boosting mountain wood development

The project "Bergholz", from the Great Walser Valley Biosphere Reserve, was created by the initiative of a group of carpenters, a sawmill owner, and a forest enterprise during the LEADER II period. A group of small- and medium-sized enterprises consisting of about 110 master carpenters recognized that it was becoming difficult to attract new apprentices. A guild of artisans therefore concluded that the image and quality of carpentry had to be raised. The aim was to improve the marketing of wood from the Great Walser Valley Biosphere Reserve, with the following priorities:

- Joint marketing and brand use;
- Marketing of timber from the region;
- Creating cooperation among members;
- Cooperation with selected partner companies.

In addition to the economic relevance for the operations, this project has a high impact in social terms for the whole valley. It supports not only farm households through increased value added in their viability, but also adds to qualification and higher demand for local jobs in the valley, even creating a series of new job opportunities.

Source: http://www.bergholz.at/

Case 7: "Drehscheibe.Frauen.Integration"

Addressing the integration of migrant women in a regional perspective

This project of the LEADER region of Oberinnviertel-Mattigtal has been implemented in cooperation with the Association for Prophylactic Health Work and the Center for Women's Health Innviertel. The aim of the project is to get through to migrant women who have hardly been visible in society. "Bridge builder" is a term for women with an immigration background, who are able and committed to act as contact persons between different cultures and ethnic groups. As such, they are not just brokers or "translators" for diverse communities, but also influential role models. The aim is to bring them into the center of society, to support them in their everyday lives, to organize language learning activities and leisure activities and to advise them in mental and physical health. The project targets at investigating about the reasons for the isolated life of specific social groups and explores through linking activities of the "bridge builders" in which aspects and in what kind migrant women would mostly need and look for support.

Source: http://www.zukunft-om.at/abschluss-drehscheibe-frauen-integration/

Conclusions

Like in other countries of the EU, the LEADER approach in Austria since the 1990s has powerfully addressed the spirit of mobilizing actors in the countryside. By focusing on place-specific potentials and activating participation of local stakeholders across all sectors, the program brought about important incentives for rural revitalization and induced changes in regional identity and regional perspectives. Given the long-term experience with this program and efforts for local development initiatives across the EU, an abundance of good-practice examples and actions in different sectors, or cross-sectoral innovatory actions, emerged. As an example, in the program period 2007–2013 more than €1.1 billion were spent in Austrian rural regions with LEADER support by implementing more than 10,000 projects. These activities secured about 10,100 jobs and created about 1,700 new jobs in rural regions.

For a comprehensive assessment of the impact of the LEADER initiative in rural regions, it is crucial to analyze the long-term use of the approach and valorize the learning process initiated by it. Such considerations took place in the recent past when the performance of LEADER and the impact on shifts in rural development were discussed at the occasion of celebrating 25 years of LEADER implementation (Champetier 2016; Courades 2016; Dax and Oedl-Wieser 2016). High expectations arising from successful LEADER applications led to its integration into the Rural Development Programs in the previous program period (2007–2013). Unfortunately, this administrative shift, called the "mainstreaming" of the LEADER concept, was hardly effective and rather posed significant threats to the realization of its core principles. Actors in the field and analysts alike argued that LEADER is losing its innovative character (Dax *et al*. 2016b) and statements emphasizing its overwhelming success are found to be highly exaggerated when actual participatory experiences and involvement of different social groups are analyzed (Dax and Oedl-Wieser 2017; Granberg *et al*. 2015; Navarro *et al*. 2015).

However, in response to a widespread criticism of excessive administrative burden, LAGs again gained an increased level of autonomy as well as basic access and appropriate regulations to decide and dispose of their financial means for the current program period (2014–2020). Interference from higher authorities (in Austria the federal state level in particular) towards implementing LEADER funds by LAGs could be reduced and a reorientation towards innovative projects, cross-sectoral cooperation and networking took place (Oedl-Wieser 2015). The shift in the current program period towards the CLLD framework indicates its persistent strong appeal and relevance beyond (disadvantaged) rural areas. The assessment that again LEADER activities are focusing on all aspects

of the principles outlined above is promising regarding the implications for rural development in general. Seeking continued networking of all local and regional activities in rural areas, including non-LEADER local action, creates opportunities for its lasting effectiveness in shaping prospects for rural regions.

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Signy SPLETZER

Project Report B: Here to Stay — The Revitalization Initiative *Zen* of the Aso Region and its Impact on the Local Community

Demographic change can be observed all over Japan. However, the harsh reality of aging and population decline afflicts the rural areas in particular. Despite several countermeasures implemented by national and local governments, the situation in rural regions has not improved but worsened in many cases (Feldhoff 2013; Knight 1994; Rausch 2009). Even though rural in-migration and return migration receives more and more attention from the media and researchers, rural areas cannot solely rely on the small numbers of people leaving the cities to settle there, and the lack of skilled young workers and infrastructure make these regions further unattractive to companies (Achenbach 2017; Esaki *et al*. 1999; Yamasaki 2015).

To guarantee sustainability, local governments and communities reach for tourism as their main strategy, and many regions consider local branding as an important tool to create a continuous stream of tourists flowing into the area (Ikuta 2007; Jackson and Murphy 2006; Tamura and Morita 2006). Research results show, however, that the top-down approach of any revitalization project implemented by the government neglects the abilities and the potential of residents and thus fails to improve the situation. Besides, the local identity created by people from outside aimed at promoting the region may not correspond to the image that the local inhabitants themselves have in mind (Feldhoff 2013; Kakiuchi and Hasegawa 1979). Another weakness of campaigns and initiatives is their close tie to local governments, as changes in the government might have an adverse impact on initiatives (Rausch 2009).

Following an exchange year at Kumamoto University, I joined the Aso research team at the University of Vienna and decided to contribute to the project by writing my master thesis on rural revitalization taking the Aso region as a case in point. Specifically, I ask whether initiatives imposed in a top-down manner by the government and from outside the community can offer a feasible and sustainable solution.

As research results on revitalization efforts in the Aso area are still rare (Tamura and Morita 2006), I first looked at what initiatives were developed to revitalize the Aso area. To boost the number of tourists that had declined due to a string of natural disasters in recent years, and to attract more foreign tourists in particular, the local government of Aso

City in 2013 inaugurated the so-called *Zen* Initiative. The word *Zen* was taken from the word *shizen* meaning "nature", hinting at the rich nature of the region. The initiative works on two levels and sets itself the goal of creating a positive impact on tourism as well as on the local communities. Before tourists can be drawn into the region, however, changes are necessary within the local community to create valuable living opportunities for the residents. Hence, the first goal of the initiative is to build a local community that can withstand decline and can rely on its own assets. The management of *Zen*, i.e. the local government, picks the members of the initiative. They consist of local producers and service providers. The process of enlisting members is still ongoing and the second phase with a focus on producing information in English for foreign tourists has started in 2017.

While walking through the Aso region, one can easily stumble upon one of the many posters of the *Zen* initiative showing pictures of residents in their shops or on their fields smiling into the camera (see Figure 1). Written in Japanese and displayed throughout the region, the main intention of these posters is not to lure tourists but to present local products and services to the locals and to keep the consuming power inside the region. As a so-called "citizen brand" (*shimin burando*), *Zen* represents the region not only through references to local nature and

Figure 1. Poster advertising the *Zen* initiative

products but also through its inhabitants, giving the initiative a very distinctive appearance by offering the consumer's names, faces, and short background stories to create an emotional impact. To become a member one must work in the Aso region and this work must have a connection to the region as well as fit into the brand identity of the initiative. The brand *Zen* represents itself as closely tied to traditional artisanship, not relying on mass production but high-quality products and service. It should serve as a tool for locals to identify themselves with the region, its nature and its community.

In my thesis, I will analyze the structures and methods of the *Zen* initiative focusing on the local communities and the process of building networks. It is still too early to assess the impact of the initiative on tourism as this process is still at the beginning. However, its influence on the members can already be examined. Through data I collected from interviews with members conducted in February 2017 (as well as from fieldwork during August and September 2017), I attempt to show how the attitude towards the region as well as networks within the community have changed, and also how local producers who do not fit into the brand identity are being coped with. I intend to conduct semi-structured interviews with approximately 20 members of the initiative. In addition, during fieldwork I will conduct ero-epic interviews (Girtler 2001) with other locals to gain insight into outside perspectives on the initiative and its efforts. First findings from my research in February 2017 suggest that the initiative has a positive impact on the members who feel vindicated by the efforts of the local government and appreciate the chance to sell their products in a shop in Aso City provided by the *Zen* management.

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