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Article:
Matanle, P. and Sato, Y. (2010) Coming Soon to a City Near You! Learning to Live 'Beyond Growth' in Japan's Shrinking Regions. Social Science Japan Journal, 13 (2). pp. 187-210. ISSN: 1369-1465

https://doi.org/10.1093/ssjj/jyq013

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Coming Soon to a City Near You!

Learning to Live 'Beyond Growth' in Japan's Shrinking Regions

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The final definitive version of this article has been published in:
Social Science Japan Journal, 13 (2), (2010): 187-210.
By Oxford University Press.
DOI: 10.1093/ssjj/jyq013.
An electronic version is available here: http://ssjj.oxfordjournals.org/content/13/2.toc.

Suggested Citation

Matanle, P., and Sato, Y. (2010) Coming soon to a city near you! Learning to live 'beyond growth' in Japan's shrinking regions, *Social Science Japan Journal*, 13 (2): 187-210.

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Coming Soon to a City Near You!

Learning to Live 'Beyond Growth' in Japan's Shrinking Regions

By Peter Matanle and Yasuyuki Sato

Abstract

This article analyses rural depopulation in Japan and its implications by means of a case study of Niigata Prefecture and Sado Island. In the first part of the article we present population maps to show that rural demographic shrinkage is both deepening as well as broadening to include urban centres. We focus initially on Niigata Prefecture in the national context and then discuss migratory patterns in Sado. The data show that Sado, and now Niigata Prefecture as a whole, have entered what we call a 'double negative population disequilibrium', whereby both the migratory and natural reproduction population contributions have turned negative. Recent evidence also indicates that Niigata City itself may also have begun to shrink. In the second part we discuss the implications of depopulation for Sado Island via extracts from qualitative interviews gathered from local residents. We found that many residents now accept the inevitability of continued shrinkage and, rather than seeking to re-establish growth, many institutional and social and environmental entrepreneurs are instead working towards achieving community stability and sustainability. We conclude by suggesting that the example of Japan's rural communities presents Japan's regional cities with the occasion to consider life 'beyond growth', as their populations also begin to shrink in the years to come.

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Coming Soon to a City Near You!

Learning to Live 'Beyond Growth' in Japan's Shrinking Regions

Introduction

Following the evacuation to the countryside in the wake of Japan's devastation in World War II, depopulation re-commenced in remote rural areas in the early 1950s. In the 1960s and 70s, rural decline as a consequence of depopulation was recognized officially and various regeneration initiatives began to be implemented by local authorities (Knight 1994). Despite this, demographic shrinkage has continued and many factors appear to be conspiring against a possible stabilization of Japan's regional economy and society. Long-term structured out-migration to metropolitan areas (Sorensen 2004: 173-6); low fertility and population ageing (Coulmas *et al*. eds. 2008); disintegrating familial and community relations (Traphagan and Knight eds. 2003); widening regional fiscal and economic inequalities (Mutai 2008; Shirai 2005); loss of local identity due to municipal reorganisations (Rausch 2006); and abandonment of residential and business properties, decline in the quality of the built environment, and damage to the natural environment (Kerr 2002; Knight 2003; Feldhoff 2002), are some of the difficulties currently being experienced in Japan's 'shrinking regions'.

Rural depopulation, though well-recognized already, has often been presented within the context of Japan's modernization and industrialization, whereby the negative regional impacts of urban industrial agglomeration and spatial differentiation in economic development are considered to have been more than offset by the absolute increases in living standards within the nation as a whole that have accompanied the expansion of the post-war economy (see: Fujita and Tabuchi 1997; Harris 1982). However, with the onset of a national population decline (Kaneko *et al* 2009: 6), the continued concentration of activity in the capital region, and the entrenchment of a low-growth economic regime, rural shrinkage is deepening and broadening such that some regional communities are disappearing altogether (see: BBC Radio 4 2007), and similar experiences are coming to be felt in regional towns and cities (Fluechter 2008; Project Office Philipp Oswalt eds. 2008). Indeed, some argue that Japanese society will have to adjust to long-term economic contraction and that depopulation and its outcomes may be replicated even in some of the poorer inner wards of Tokyo itself (Matsutani 2006; Nihon Keizai Shinbunsha eds. 2007: 9-20).

This article is divided into two parts and presents Niigata Prefecture and Sado Island as case studies in the social geography of regional Japan. After describing our research methods, the first part establishes Niigata and Sado as typical of Japan's regional demographic development and shows that rural population shrinkage is deepening as well as broadening geographically to include larger and more densely populated regional settlements. Following this, the second part discusses the implications of the quantitative data by presenting extracts from interviews gathered from local residents in Sado. We show, first, how citizens are interpreting and responding to their circumstances and, second, how some are beginning to acknowledge and accept—even embrace—shrinkage by working to establish stable and sustainable communities in their region and, in so doing, are learning to live 'beyond growth' (Daly 1996). We conclude that regional population shrinkage will continue to deepen and broaden, and we end by considering the significance of this realisation for Japan's regional urban communities. As such, therefore, one question that the Japanese people will face in the coming years is not *whether* depopulation and some of its associated outcomes will manifest themselves in Japan's regional cities, but *when, where* and *how* they will occur.

Research Method

Following this section, the first part of this article presents quantitative demographic data amalgamated from official sources which, using ArcGIS software, we converted into population maps to describe Japan's and Niigata Prefecture's post-war population development. The maps below represent population change in Japan and Niigata Prefecture over the following intervals and interval subdivisions in the country's recent history:

- 1950-90: The Postwar Era
  1950-70 – Expansion
  1970-90 – Consolidation
- 1990-2030: Entering the 21st Century
  1990-2010 – Stagnation
  2010-2030 – Shrinkage(?)

For the countrywide prefectural and prefectural capital city maps we used national census data up to and including 2005 and, for future projections, we adopted the National Institute of Population and Social Security's (NIPSSR) 2002 prefectural, and 2003 city, town and village projections (NIPSSR 2002 and 2003). For population maps for Niigata Prefecture, in order to present historically and geographically meaningful maps, we adjusted national census data for all municipalities backwards to include boundary changes between the 1950 and 2000 census periods, with data from 2005 to 2030 based on the NIPSSR 2003 city, town and village data projections.

Producing these maps has required difficult choices in collating and matching the data to municipal divisions, and in discovering which municipalities merged and when. These difficulties in part explain why regional demographic data of the type and detail we offer below is rarely presented in the academic literature. Thus, in 1950 there were 387 municipalities in Niigata Prefecture, with this number dropping to 111 by the mid-1990s. By 2006 these 111 had merged to form what might be termed 35 'super-municipalities'.

Overall, our guiding methodological principal has been to take the less pessimistic route and, as such, we have based our data presentation decisions on five criteria. First, the 2000 municipal boundaries provide the most suitable recent division for illustrating whether a locale is either rural or urban in its basic character. Second, although 2006-8 prefectural and municipal population projections are available on the NIPSSR's website, the 2002-3 projections, which are approximately 5 per cent less pessimistic (Kaneko *et al* 2009: 15), present a more conservative numerical foundation. Third, although projections to post-2030 present some troubling possible consequences for Japan, we do not employ them because their margin for error may be too great. Fourth, when considering our choices of Niigata and Sado as prefectural and local cases of population shrinkage, we were cautious not to choose the most extreme, and to choose examples with a broad range of settlement types. Fifth, we are mindful of the fact that projections are extrapolated from current trends and assumptions (Kaneko *et al* 2009). Hence, future outcomes will likely diverge from current projections according to such variables as government policies on immigration and maternity incentives, and temporal volatility in migration, human reproduction, and longevity.

In the case of Sado Island, whose population computations were comparatively easy to accomplish; in 1950 there were 26 cities, towns and villages, which by 1955 had been reduced to 12, and by 1960 had been further reduced to the ten municipalities that survived unchanged through to 3 March 2004. In order to achieve the most accurate computations possible, we backdated from the pre-2004 municipal boundaries to 1950 and added the populations of municipalities that had merged in the intervening period as if the pre-2004 boundaries had existed from 1950 onwards. For example, on 31 March 1954 Aikawa, Niimi and Kanaizumi merged to form Aikawa Town and on 30 September 1956 Aikawa was further augmented by the addition of Takachi and Sotokaifu villages (Higashide 2008). Moreover, although the numerical population data do not indicate this, due to a minor border change on 3 November 1957 two districts of Aikawa Town were reassigned to Ryotsu City (Higashide 2008), though we could find no information as to the proportion of Aikawa's population that was lost. Finally, on 3 March 2004 Aikawa merged with the other nine municipalities in Sado to form Sado City.[1] Consequently,

[1] Population data for all municipalities in Niigata Prefecture can be obtained from the prefectural government website. The Niigata Prefecture Statistical Yearbook (1998-present) can be found here: http://www.pref.niigata.lg.jp/tokei/1196871357582.html. Although these sheets show all municipalities' populations

we added together the populations of Aikawa, Niimi, Kanaizumi, Takachi and Sotokaifu for 1950 and 1955, such that the data for these two census periods were consistent with the data for Aikawa as a whole from 1960 through to 2000. We ignored the reassignment of the two districts to Ryotsu for the periods prior to 1960 because we were able to make an educated guess by looking at the data from 1950 to 1965 that the reassignment did not amount to a significant transfer of population. For all municipalities in Niigata Prefecture we followed a similar process to the one outlined above for Aikawa, though there were many cases with different circumstances and which, therefore, required flexibility of judgement on our part. Accordingly, also, there is undoubtedly a small margin of error in the data, and this is especially the case for the 1950 figures where the statistical outcomes of pre-1955 mergers were more difficult to calculate than for later census years.

In the second part of the article we develop the numerical data to discuss the implications of depopulation for Sado Island by presenting interview data that investigate how local residents interpret living and working within a 'shrinking region'. Interviews were conducted in Japanese using guided conversations because respondents' backgrounds, ages, roles, and experiences are varied and we anticipated that they might raise issues about which we are unfamiliar. Our interviews centred around how informants understand the effects of depopulation on them and their local areas, how their working situations are changing and, in particular, whether and how informants are supporting themselves and their dependents within a depopulating locale while simultaneously and intentionally contributing towards establishing community stability and sustainability.

Our qualitative data was acquired from repeated visits to Sado between 2004 and 2009. Though we interviewed a broad range of respondents, we were careful to include educators (teachers and administrators in secondary schools and above), business-people and entrepreneurs, and officials employed in tourism development. Educators were interesting to us because they work with younger people and have a deep knowledge of the reasons for younger people's migration decisions; business-people and entrepreneurs are employers and wealth creators and have the most direct qualitative experience of local economic conditions; and local tourism officials are working on the strategic development of what has become the most important industry in Sado and which is a key industry for other rural locales in Japan. Among the business-people and entrepreneurs that we met with, we interviewed, sometimes more than once, all six of the island's remaining sake breweries. Saké production is central to life in Sado, sitting at the confluence of the island's rich cultural heritage, the agricultural basis of rural life and the processing and manufacture of value added products in a developed economy. Moreover, unlike public sector organisations, the construction industry, and tourism development, saké production is comparatively independent of government intervention and can be judged as a more accurate barometer of real economic conditions and opportunities in Sado. Nevertheless, despite saké breweries being significant employers of skilled workers and among the largest exporters of processed products from Sado, bringing external cash into the local economy, the industry is collapsing due to structural changes in demand as well as transformations in traditional inheritance systems and the rural household, or *ie*. As a consequence we found that, by and large, the commitment of brewers to contributing to Sado's future, and their preparedness to share their experiences, insights, and opinions was greater than other groups that we encountered, and we tried to represent this in the interview extracts presented below.

Niigata Prefecture and Sado Island as Case Studies in Japan's Shrinking Regions

We do not assert herein that Niigata is 'representative' of regional Japan's demography and socio-economic conditions in the strict academic understanding of that term. However, and despite every region in Japan possessing its own unique characteristics, Niigata and Sado make a good 'case study' (Yin 2003) as a 'typical' (Donmoyer 2000: 56-9), and therefore 'transferable' (Gerring 2007: 89 and 96), Japanese

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for each census period they do not show when and how municipalities merged with one another. This latter information can be found at Higashide (2008) and elsewhere on the Niigata Prefectural website.

region in terms of both their human and physical geographies; yet their contemporary circumstances have been comparatively under-reported in the literature on regional Japan.

By area Niigata is the fifth largest of Japan's 47 prefectures and in the 19th century it had the largest population of any prefecture, at approximately 1.5 million persons in 1884 (Statistics Bureau 2006). However, like other outlying regions, as economic development accelerated, and Japan became an urbanized industrial state centred on the Tokyo metropolis, so Niigata's population became smaller relative to the densely populated regions of the Pacific coast. At 2.4 million persons in 2005, Niigata currently ranks 14th relative to Japan's other prefectures (Niigata ken 2009a).[2]

Niigata has Japan's full range of size, type and spatial distribution of regional settlements (Map 2), from the large urban prefectural capital and coastal port, Niigata City (Population: 812,034);[3] through medium and smaller cities such as Nagaoka (280,355), Joetsu (205,296), Shibata (104,634), Sanjo (102,749), Kashiwazaki (92,846), and Murakami (68,041) (Niigata ken 2009a), which are located along the coast or on the central agricultural flood plain; to towns, villages and hamlets scattered throughout the prefecture, many nestling on the valley floors in the mountainous inland area.

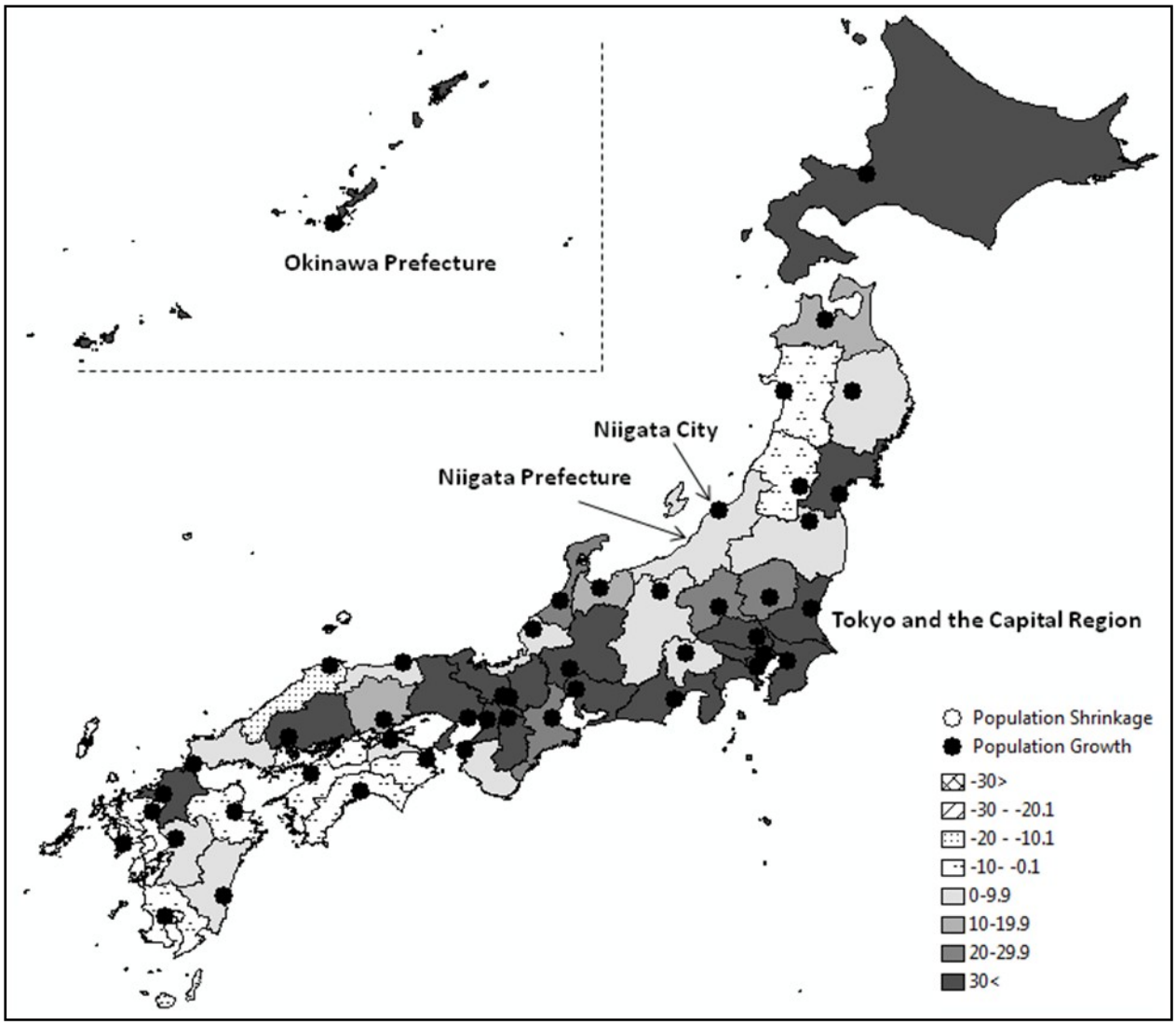
Sado Island (64,310; Niigata ken 2009a), Japan's sixth largest island and located in the Japan Sea some 30 kilometres west of Niigata City, also has a varied geography, and it exhibits many of the basic characteristics of Japan's rural locales, prompting some locals to refer to it as 'mini-Japan'.[4] The island's two forested mountainous zones are divided by a central populated agricultural flood plain where most economic and political functions have been centralised under the 2004 merger, and various smaller settlements are scattered along the island's coastal perimeter. Despite having a prominent place in Japanese people's nostalgic imaginings of the '*furusato*' (hometown; see: Knight 1994), Sado is sometimes considered to be a rather remote island. However, this was not always so. Possessing the third largest gold mine in the world for the time, during the Tokugawa period Sado was one of Japan's most dynamic regions, attracting migrants in addition to the political enemies, criminals and vagrants that were despatched there by the Edo government. The settlement at Aikawa on the west coast, which in 2005 had a population of 8,601 (Sado shi 2009), numbered around 120,000 at the height of the early-19th century boom. Nevertheless, once the mine had ceased large-scale production during the Meiji period, the economy declined and by the inter-war years Sado had stabilised as a regional centre for agriculture, fishing, and processing, with a population of around 100,000, before briefly increasing to over 120,000 in the early-1950s. Despite being an island, the social geography of Sado Island is not especially different from that of other rural areas in the Tohoku-Hokuriku region, and neither are its demographic circumstances the most extreme, with several other areas of Niigata suffering more severe ageing, depopulation, and associated outcomes.

Niigata Prefecture in the National Context

[2] See Harris (1982) for a review of the human geography of Japan and its industrialization.

[3] Since the Meiji Period Japan's municipal boundaries have undergone periodic adjustments to accommodate changing residence patterns, with the most recent being the '*Heisei Dai-gappei*', or 'Great Heisei Merger' (see: Rausch 2006). The populations quoted in this paragraph incorporate mergers up to 2008. On 1 April 2007 Niigata City merged with 13 neighbouring municipalities to become Japan's 17th 'designated city'.

[4] Mentioned on many occasions in interview with local residents.



Map 1: Population change in Japan by prefecture and prefectural capital city in per cent, 1950-90.
Source: National Population Census, Various Years.[5]

Map 1 shows regional population change in Japan by prefecture and prefectural capital city in the postwar era (1950-90). The map illustrates a pattern of rapid population growth in metropolitan areas, shrinkage in more distant regions, and moderate growth in less peripheral regions. An examination of the raw data shows that, on the national scale, regional shrinkage occurred mostly during the earlier decades of rapid economic expansion (1950-70), with some growth from the 1970s in previously shrinking prefectures such as Niigata. This latter pattern is due to a combination of a slowdown in regional-metropolitan migration in the wake of the oil shocks of the 1970s, and the economic gains of the high speed growth era being consolidated by the central and local governments in their pursuit of more spatially balanced development through redistribution measures such as the Local Allocation Tax (Ishikawa 1992; Shirai 2005; Sorenson 2004). In addition, the data show that throughout the postwar era there was a high but decreasing natural growth in the national population, and a negative migratory balance in rural locales. Indeed, in many regional areas the positive impact of a high natural growth rate was more than offset by

[5] For ease of reference, coloured maps and supplementary materials can be accessed by visiting the main author's internet homepage: www.matanle.net.

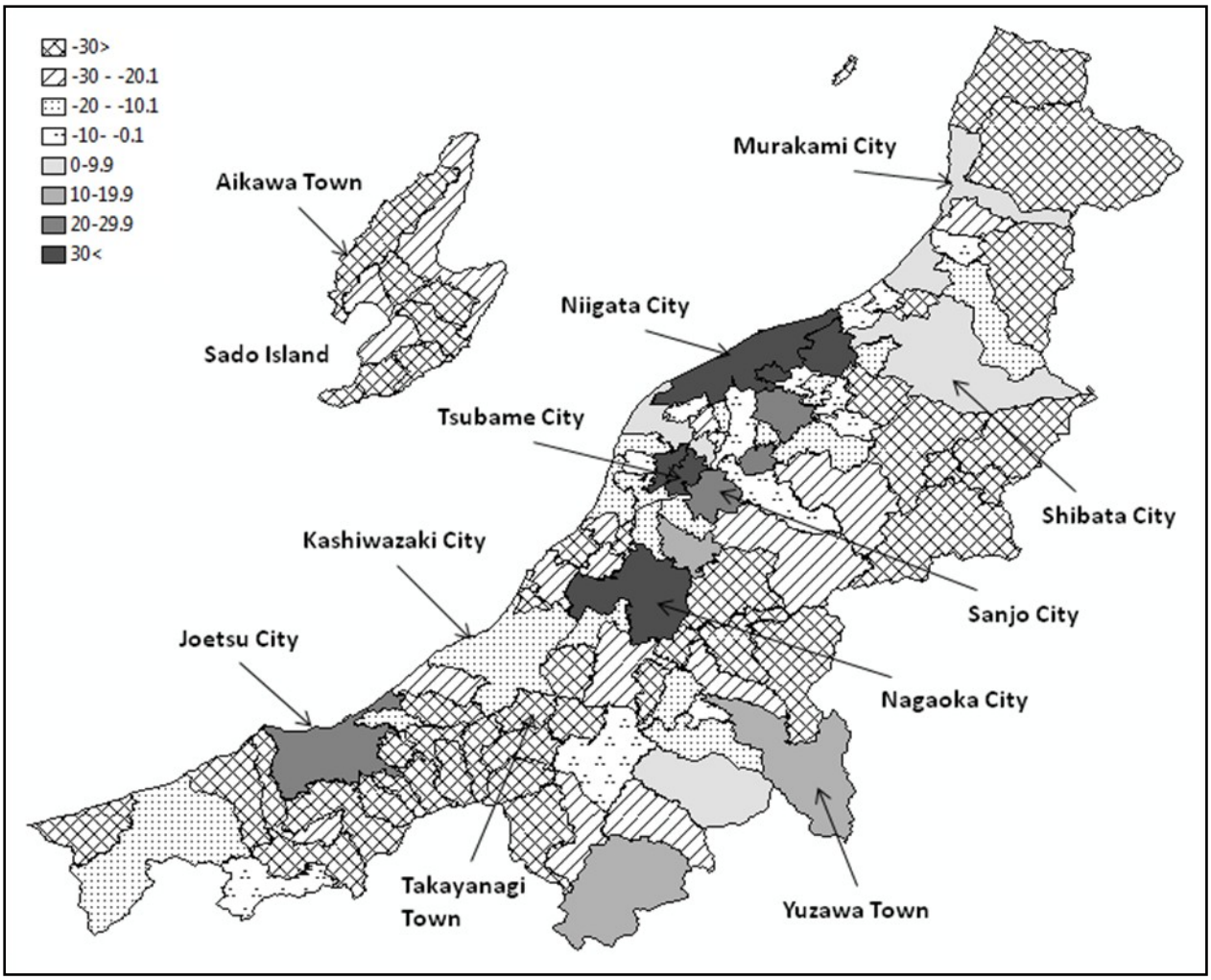
the negative effects of migration (See Table 1 for Niigata). Despite the fall in the nation's total fertility rate to below replacement level after 1973 (NIPSSR 2006), life expectancy has continued to rise, resulting in a 'tempo effect' of positive natural growth for most regional prefectures until the late-1990s (See Tables 1 and 2). It is also noteworthy that all 47 prefectural capitals grew in this period, with some such as Sapporo growing very rapidly indeed (432 per cent)[6] (NIPSSR 2003), indicating sustained rural-urban migration within prefectures (See Table 3 below). However, later in this period both Tokyo and Osaka showed shrinkage, with this being due to land consolidation and the restructuring of central metropolitan functions (Waley 2000).

Table 1: Contributions of Migration and Natural Reproduction to Niigata Prefecture's Population, 1951-2008.

	Contribution of Migration to Population Change	Contribution of Natural Reproduction to Population Change	Total Population Change
1951-54	-145,579	143,314	-2,265
1955-59	-141,978	127,370	-14,608
1960-64	-158,371	97,451	-60,920
1965-69	-122,139	92,452	-29,687
1970-74	-96,938	99,149	2,211
1975-79	-36,686	93,807	57,121
1980-84	-36,714	68,806	32,092
1985-89	-40,669	46,665	5,996
1990-94	-13,988	20,920	6,932
1995-99	-1,404	6,740	5,336
2000-04	-18,625	-9,310	-27,935
2005-08	-21,838	-16,646	-38,484

Source: Niigata ken (2009a).

[6] Numbers not adjusted for boundary changes.



Map 2: Population change in Niigata Prefecture by municipality in per cent (2000 boundaries), 1950-90. Source: Niigata-ken 2009a; Niigata-ken Website (http://www.pref.niigata.lg.jp/); Higashide 2008.

Map 2 shows population change by municipality in Niigata Prefecture for the same 1950-90 period as Map 1. A number of things become apparent from the Niigata data that add clarity and detail to the national level figures.

1. The Niigata data refines the national scale data for 1950-90 by showing in more detail that population growth took place in mostly urban districts, with most rural areas shrinking throughout. Twelve rural municipalities shrunk by more than 50 per cent over the period, with the maximum shrinkage occurring in Takayanagi Town (70.1%). The most affected municipality in Sado was Aikawa Town, which shrunk by 52 per cent, with the other nine shrinking by less than 50 per cent.
2. In addition to regional-metropolitan migration at the national level, rural-urban migration has taken place within the prefecture as younger people especially have taken up educational, employment, and social opportunities in prefectural urban centres (See Table 3).

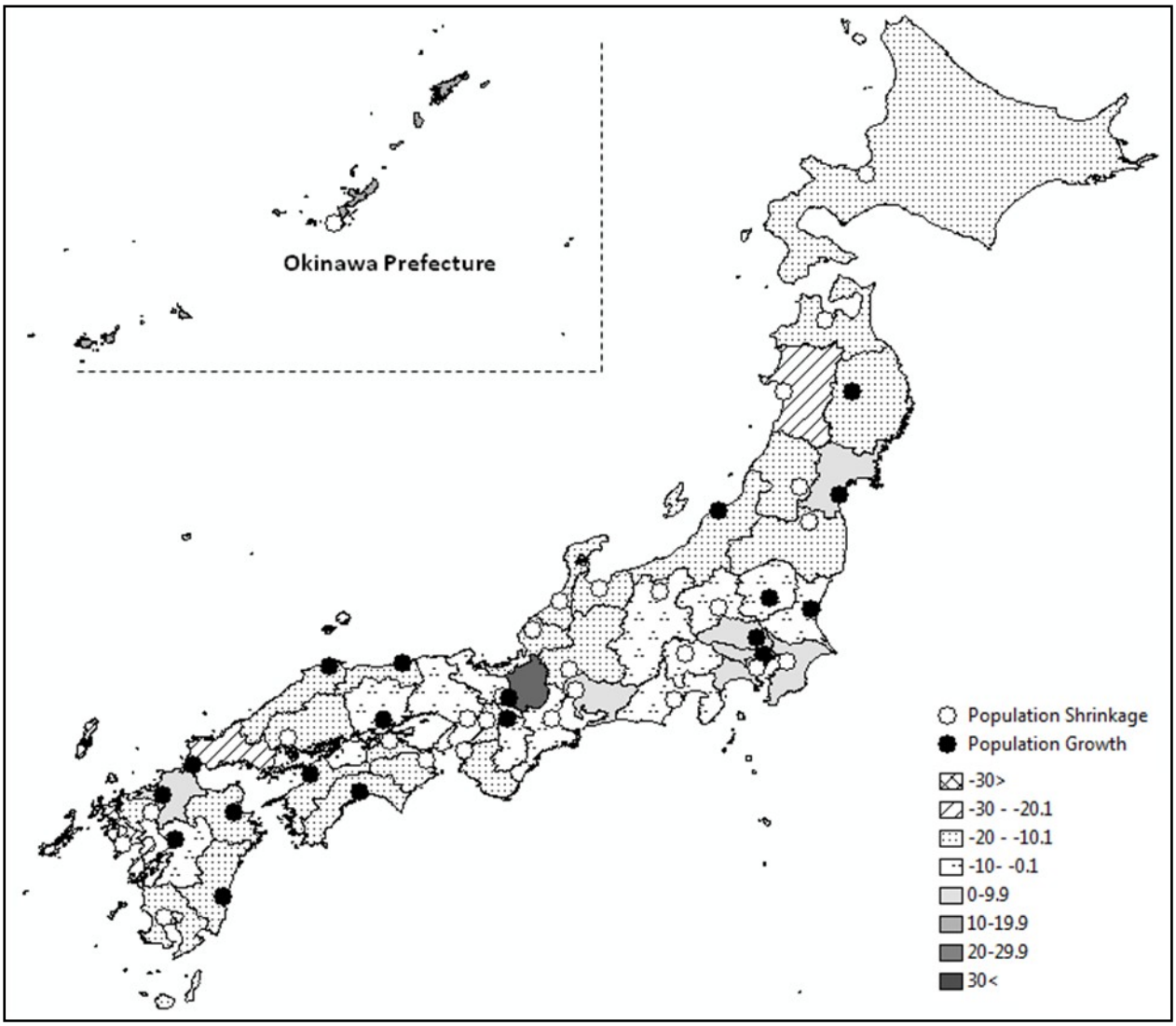
3. The strongest growth took place in the largest cities and in the municipalities that have had a Shinkansen super express railway station built. [7] For example, although very mountainous and previously difficult to access, Yuzawa Town managed to grow in the 1950-90 period despite most other municipalities with similar geographical circumstances experiencing shrinkage. Tsubame and Sanjo Cities also grew more rapidly than similar settlements such as Shibata and Murakami.

Table 2: Crude Birth and Death Rates for Niigata Prefecture, 1957-2007.

	Births per 1000 Population	Deaths per 1000 Population	Balance
1957-59	17.8	8.6	9.2
1960-64	16.1	8.1	8
1965-69	15.8	7.9	7.9
1970-74	16.2	7.7	8.5
1975-79	15	7.3	7.7
1980-84	12.7	7.2	5.5
1985-89	11	7.3	3.7
1990-94	9.6	8	1.6
1995-99	9	8.6	0.4
2000-04	8.4	9.2	-0.8
2005-07	7.8	10.5	-2.7

Source: Niigata ken (2009a).

[7] See Hood (2010) for a more detailed analysis of this phenomenon.



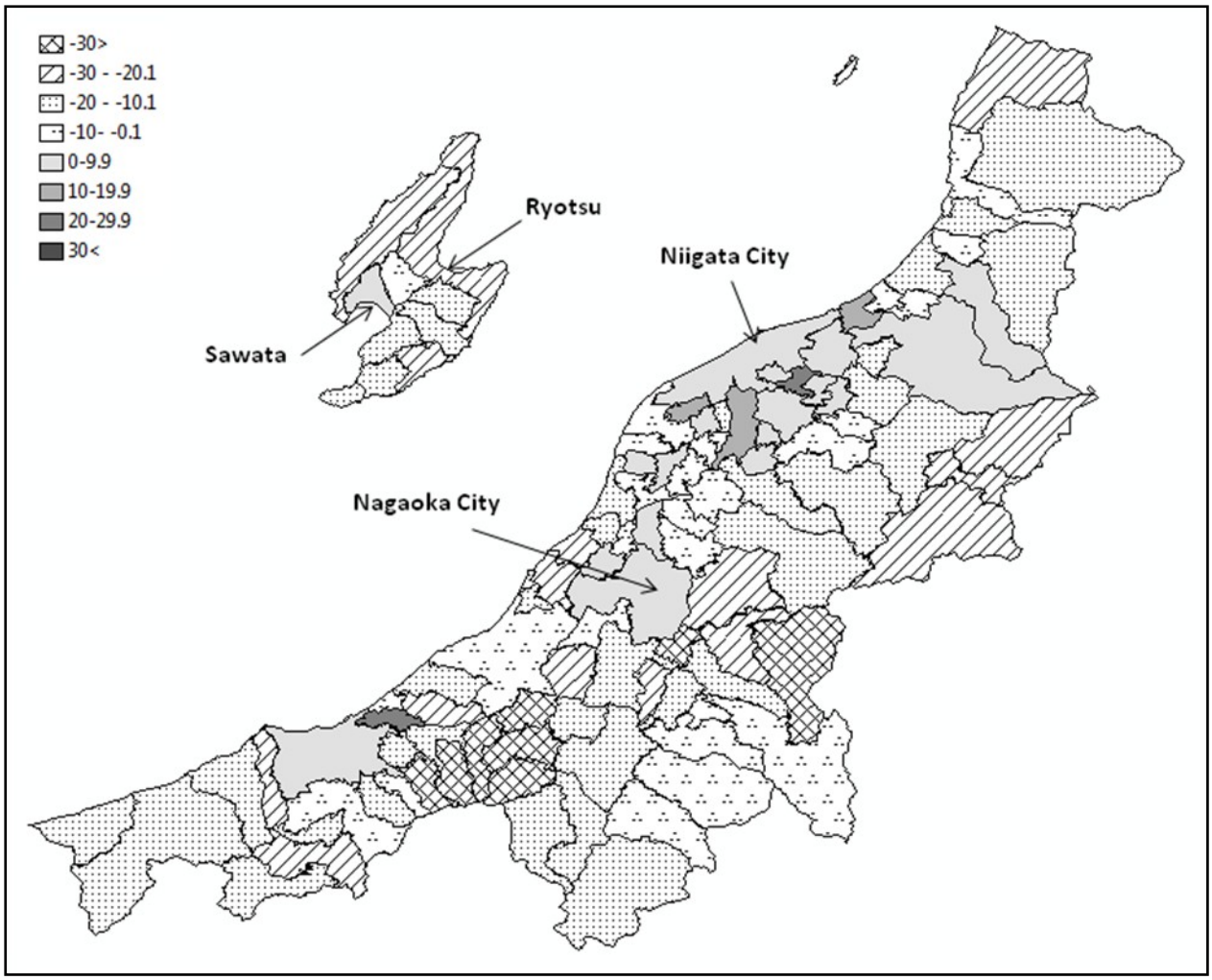
Map 3: Population change in Japan by prefecture and prefectural capital city in per cent, 1990 (Actual) - 2030 (Projected)
Source: National Population Census Various Years; National Institute of Population and Social Security Research (http://www.ipss.go.jp/).

From 1990 the current dynamic of national and prefectural scale demographic shrinkage appears and can be seen in Maps 3 (above) and 4 (below), with metropolitan growth weakening, and shrinkage broadening to include more regional prefectures and regional urban settlements. It is in this period that we can identify the transition to a new regional population dynamic. From 1950 to 1990 there had been a high but decreasing positive contribution from natural reproduction, which was mitigated in regional areas by out-migration. However, after around 1990-2005 there was a transformation to a new regional demographic pattern that is characterised by a negative natural reproductive balance combined with continuing net rural-urban out-migration, what we term a 'double negative population disequilibrium'. Tables 1 and 2 in combination show the interaction of these phenomena, with the appearance of negative values for both migration and natural reproduction for the first time for Niigata Prefecture in 2000-04, and a rising death rate from 1980-4 which then overtakes the birth rate in 2000-4.

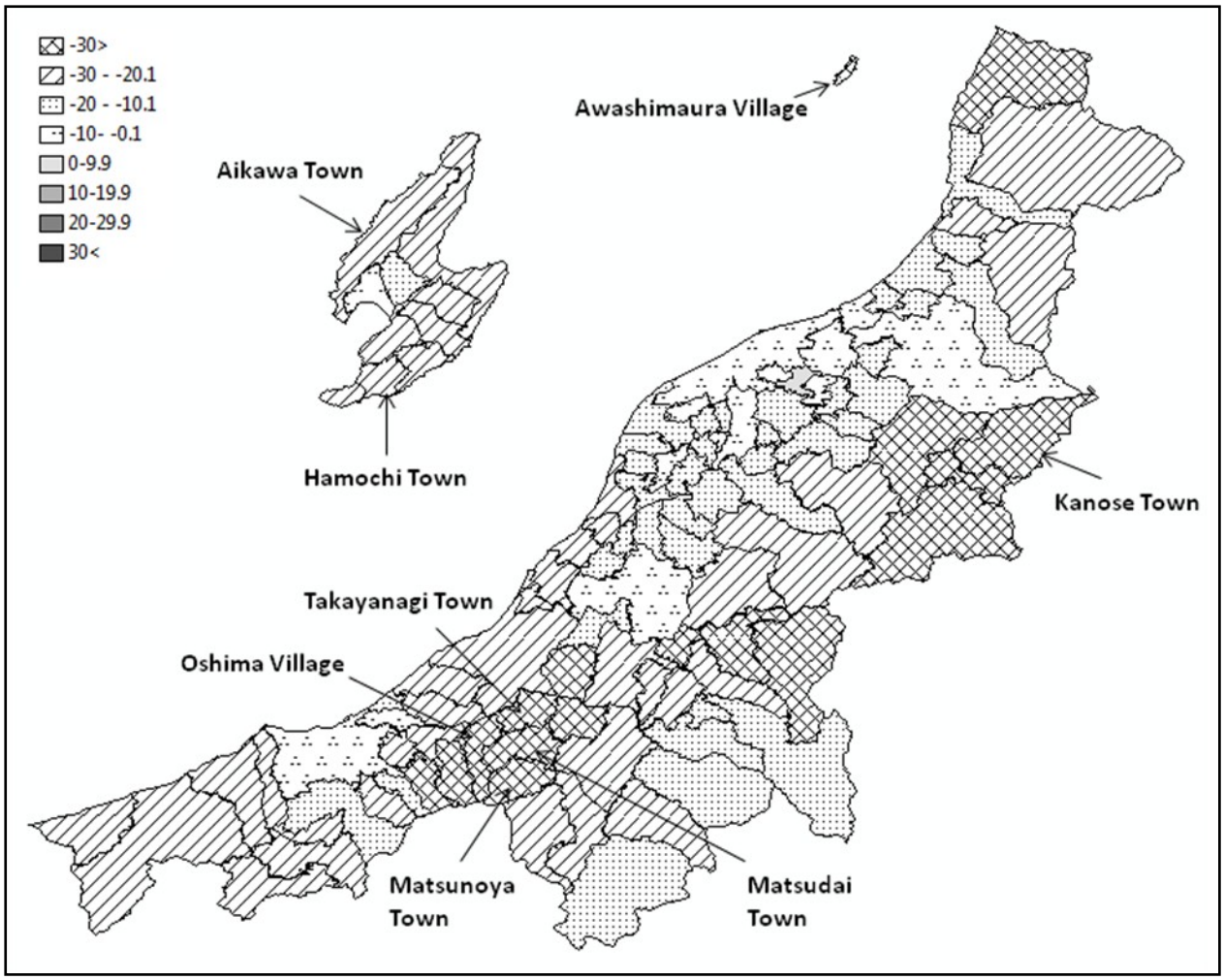
If we subdivide the 1990-2030 national level numerical data into two twenty year periods it can be seen that nearly all the growth took place in the 1990-2010 period, with the NIPSSR data anticipating that

45 of Japan's 47 prefectures (including the capital region, with Shiga and Okinawa Prefectures the only exceptions) will experience shrinkage in the 2010-30 period; while Yamaguchi, Nagasaki, and Akita Prefectures are expected to shrink by 17.3, 16.9, and 18.7 per cent respectively. A similar pattern is also expected for prefectural capital cities. From 2010 onwards the NIPSSR data anticipates that only Tottori, Matsue, and Fukuoka Cities will continue to grow, although the 2008 projections (NIPSSR 2008) indicate that these three may also shrink. It is in this period that we suggest depopulation and its outcomes may begin to be experienced in many of Japan's urban districts. We will now look in more detail at population change within Niigata Prefecture and Sado Island at the municipal level in the 1990-2030 period, concentrating some of our attention on inter- and intra-prefectural migration

Niigata Prefecture and Sado Island - 1950-2030



Map 4: Population change in Niigata Prefecture by municipality in per cent (2000 boundaries), 1990 (Actual) - 2010 (Projected).
Source: Niigata-ken 2009a; Niigata-ken Website (http://www.pref.niigata.lg.jp/); Higashide 2008.



Map 5: Population change in Niigata Prefecture by municipality in per cent (2000 boundaries), 2010 (Projected) - 2030 (Projected).
Source: Niigata-ken 2009a; Niigata-ken Website (http://www.pref.niigata.lg.jp/); Higashide 2008.

Maps 4 and 5 present projected demographic change in Niigata Prefecture at the municipal level from 1990 through to 2030 and exhibit the following.

1. Even large regional urban centres such as Niigata and Nagaoka Cities are on the verge of shrinkage. Niigata City reached a population peak of 813,170 in December 2007 and this had fallen to 812,290 by December 2008 (812,573 in November 2009) (Niigata shi 2009). By 2030 the city is expected to have shrunk by 9.8 per cent to 733,301 (NIPSSR 2008). Nagaoka City's population was 282,690 in 2006, but this has since declined to an estimated 279,487 on 1 January 2010 (Niigata ken 2007; Nagaoka shi 2010). Nagaoka is also expected to shrink further, by 16.1 per cent to 237,102 persons by 2030 (NIPSSR 2008).
2. Taking Maps 2, 4 and 5 together, despite being separated from the mainland, in neither period does Sado Island present the most extreme example of population decrease in Niigata. For 2010-30 (Map 5), six mainland municipalities have projected population declines of more than 40 per cent; Awashimaura (50.7%), Kanose (41.4%), and Takayanagi, Matsudai, Matsunoya, and Oshima together by an average of 43.5 per cent. On the other hand, Sado is expected to shrink

from 65,790 to 51,692 persons (21.4%), with Aikawa and Hamochi expected to decline the most (29 and 26%) (NIPSSR 2003).

3. The above national and regional rural-urban migration and agglomeration dynamic is also present at the local level within Sado Island (Maps 4 and 5), with the comparatively urban district of Sawata either growing more, or shrinking less, rapidly than the surrounding mountainous and agricultural areas. On either side of the low-lying central agricultural plain, Sawata has undergone development as Ryōtsu has declined. Much of this is due to the construction of large scale chain stores and restaurants with ample car-parking, which the traditional arcades of Ryōtsu, with their small independently owned stores, has lacked.

Population Change in Sado Island

Table 3: Population Change in Sado Island: Selected Years 1961-2008 (Migration and Natural Contributions)

Year	Net Migration	Net Migration to Capital Region	Net Migration to Other Prefectures (including the Capital Region)	Net Migration to Niigata City	Net Migration Within Niigata Pref. (including Niigata City)	Net Natural Contribution	Crude Birth Rate	Crude Death Rate	Population Change	Total Population Previous Year
1961										113296
1963	-2575		-2176		-399					
1966	-1886	-1398	-1478	-430	-641					102925
1971	-1975	-769	-1492	-387	-544	136	11.17	9.7	-1839	92558
1976	-732	-484	-569	-171	-171	94	11.57	10.49	-638	87555
1981	-732	-469	-532	-261	-201	-10	9.79	9.91	-742	84941
1986	-733	-423	-454	-220	-279	-133	8.97	10.59	-866	81939
1991	-288	-217	-137	-192	-153	-282	8.42	12.03	-570	78061
1996	-288	-22	8	-167	-289	-433	7.66	13.44	-721	74949
2001	-241	-59	-34	-170	-205	-404	7.67	13.27	-645	72173
2006	-302	-100	-135	-90	-173	-554	7.12	15.34	-856	67386
2007	-652	-216	-346	-237	-305	-611	6.68	15.98	-1263	66530
2008	-378	-178	-245	-118	-145	-579	6.57	15.64	-957	65267

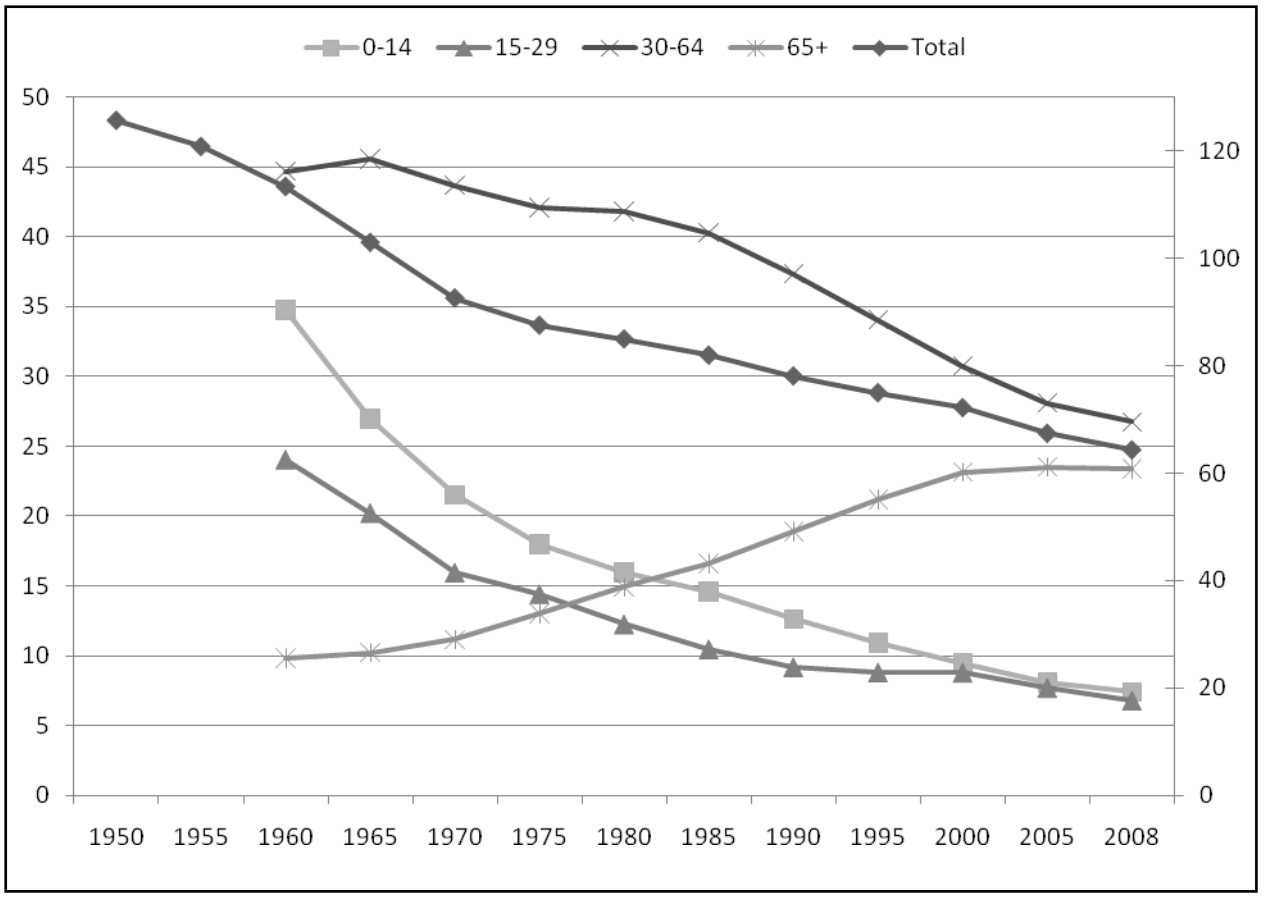
Source: Niigata ken (1963); Niigata ken (1964-2009).

Notes: Figures for net migration may not tally because of incomplete data. Calculations for crude birth and death rates, and net migration to the Capital Region and Niigata City done by the authors using prefectural data sets. As defined by the National Capital Region Planning Act of 1956 (*Shutoken seibi-hō*), the Capital Region represents Ibaraki, Tochigi, Gunma, Saitama, Chiba, Tokyo, Kanagawa and Yamanashi Prefectures.

Like other rural areas of Niigata Prefecture, and indeed Japan, Sado has undergone both continuous out-migration of younger people and long term below replacement fertility, what we term a 'double negative population disequilibrium', since at least 1981 (Table 3). These phenomena are inter-related as out-migration, particularly among young adults, reduces the aggregate reproductive capacity of the remaining community and contributes to a downward spiral of population ageing and shrinkage (see: Münz and Reiterer 2009). Figure 1 shows that the largest proportionate population fall in Sado has been among the 0-14 age group, which fell by 78.7 per cent between 1960 and 2008, while the over-65 group has more than doubled, going from 9,799 (8.6%) to 23,514 (36.3%) persons between 1960 and 2008, demonstrating that Sado has become a hyper-aged society (see: Coulmas 2007; Matsutani 2006). Figure 1 and Table 3 also show that population shrinkage in Sado has begun to accelerate. Increasing numbers of the over-65 age group are reaching extreme old age and dying, and the age group has ceased its long term upward

trend to turn negative for the first time—by 120 persons between 2005 and 2008. The rate of out-migration of 15-29 year olds has also accelerated since 2000, almost certainly as a result of renewed growth in the metropolitan economies. Hence, in the five years between 2000 and 2005 Sado Island's population declined by 4.4 per cent, but this decline increased to 6.8 per cent for the three years to 2008 with the average annual population loss for 2006-2008 rising to 1,563 persons, from an annual average loss of 555 for 1995-2000 and 635 for 2000-2005 (Figure 1 and Table 3).

Figure 1: Population Change in Sado Island: by Age Group (left hand scale) and Total Population (right hand scale) (in Thousands).



Source: Sado shi (2009); Niigata ken (2009b). Calculations for 15-29 and 30-64 age groups done by the authors using Sado City and Niigata Prefecture data sets.

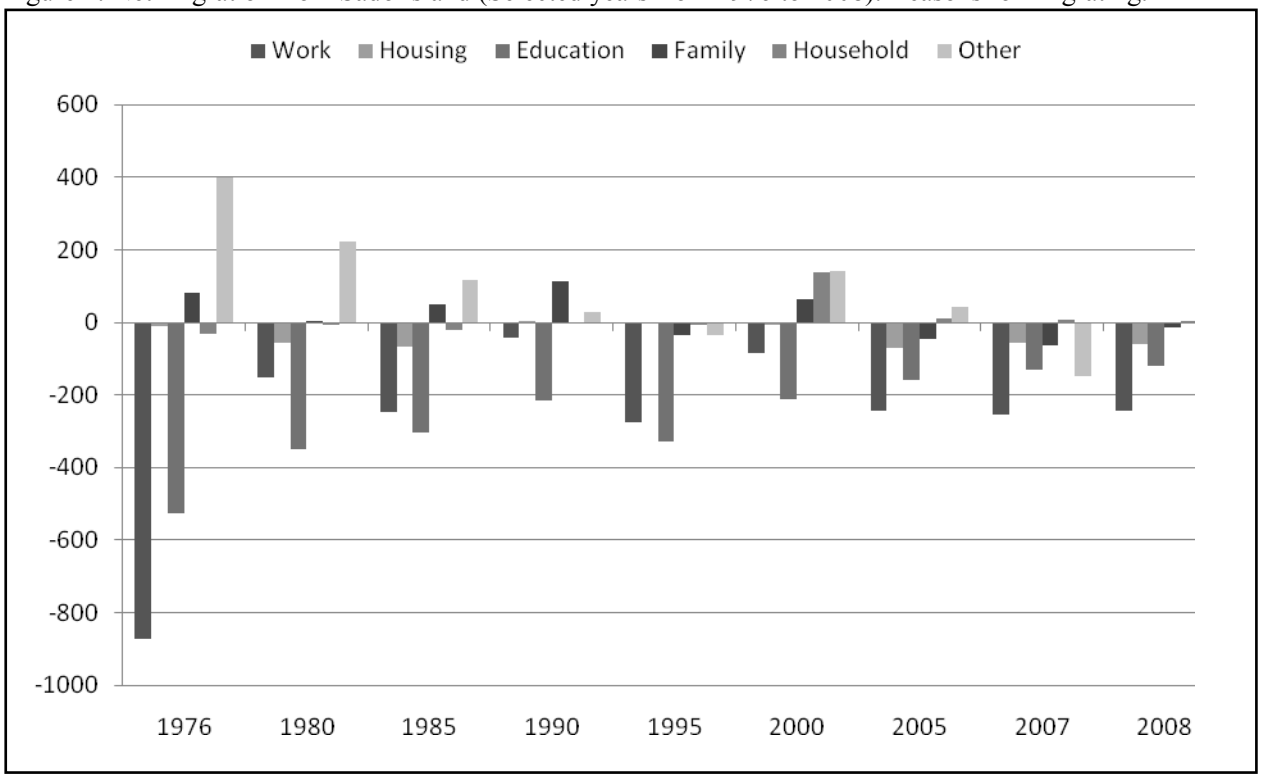
In sum, the numerical data show that there has been a significant demographic pattern shift at the national, prefectural and local levels, with this shift occurring first in the more remote rural regions such as Sado Island, and broadening later to include even some of Japan's larger regional cities. In Niigata Prefecture, throughout the post-war decades, although the migration and natural increase totals declined, there existed a rough mathematical balance, or equilibrium, between net out-migration and a positive contribution from natural reproduction. From 2000 both figures have shown negative values for Niigata Prefecture as a whole, with both accelerating in the 2005-2008 period, indicating that the prefecture has followed Sado Island into its own 'double negative population disequilibrium'. Below we examine the implications of this development by presenting interview data on how some local residents in Sado Island interpret and are responding to this population disequilibrium in their own lives. We do so in order to interrogate the numerical information with qualitative case study data; and we approach the investigation by assuming

that we have the most to learn from hearing the voices of those that actually experience regional shrinkage in their daily lives.

Acknowledging Depopulation: Living and Working in a Shrinking Region

We begin this section by discussing out-migration among younger people because, although it may be a truism to say so, no community is able to achieve a sustainable rate of social and economic reproduction if ongoing conditions encourage those with the greatest biological and economic reproductive potential to migrate away. Figure 2 shows that Sado conforms to standard interpretations of patterns of rural-urban migration in postwar Japan: employment and educational advancement have been, in recent decades, the two most significant contributors to net out-migration. The majority of these migrants have been adolescents and young adults in their 20s (Niigata ken 1964-2009). In 2005 and 2008 net out-migration of 15-29 year olds was 329 and 293 persons respectively, representing 4.3 per cent of all 15-29 year olds leaving in each year. How do local residents interpret this drain on their community's stability and sustainability?

Figure 2: Net Migration from Sado Island (Selected years from 1976 to 2008): Reasons for Migrating.



Source: Niigata ken (1964-2009). [8]

Business and Employment Conditions in Sado Island

Despite a labour participation rate of 61.2 per cent, measured against the prefectural and national rates of 58.5 and 56 per cent, and an unemployment rate in 2005 of just 1.9 per cent (Sado shi 2009; Niigata ken

[8] Reasons for migration are grouped according to the following: a) work: movement according to one's job, job transfer, job hunting, change of occupation or business; b) housing: movement according to residence conditions, moving to public or private housing, rental or newly built housing, etc; c) education: movement according to school attendance, leaving school, transfer to another educational institution, etc.; d) family: movement according to the decisions of another family member; e) household: movement according to one's family register (*Koseki*), such as marriage, divorce, foster child, etc.; f) other: unknown reasons, or reasons not included above.

2009a),[9] a common lament among Sado residents is that business conditions are continuously difficult and that employment opportunities are few. Our respondents almost universally state that the jobs that do become available are of the type that younger people are reluctant to engage in because they provide a low income, require physical labour in poor conditions, or because they offer poor security and stability. Hence, younger adults have tended to migrate away to urban areas in search of higher and more stable incomes, better working and living conditions, and a perceived greater range of opportunities for personal development. The long term consequence of this has been a self-reproducing negative spiral of ageing and depopulation, declining fertility and economic contraction.

Employment in the primary and secondary sectors in Sado is high, at 24.2 and 21.4 per cent of the workforce as against 7.5 and 4.8 per cent in the primary sector and 31.1 and 26.1 per cent in secondary industries respectively in Niigata Prefecture and Japan. Secondary sector employment is led by construction (3,371 employed persons), followed by manufacturing (2,812) and transportation (1,191). Tertiary sector employment, at 54.3 per cent of the workforce (60.7 and 67.2% for Niigata Prefecture and Japan), is predominantly in retail premises (3,769), medical and welfare services (3,263), eating and drinking establishments 2,010), government employees (1,752), and education (1,271). Overall, employment in Sado has steadily fallen in all three sectors, with the total number of employed persons falling from 35,871 in 1991 to 29,849 in 2006; a drop of 16.8 per cent (Sado shi 2009). Employment in primary industries fell by 52 per cent between 1980 and 2005, while secondary and tertiary employment dropped by 19.0 and 4.7 per cent. Even with the temporary uptick in the national economy in the early-to-mid 2000s, Sado's 'Gross Island Product' shrank by 10.9 per cent between 2001 and 2005, from JPY24.688 billion (USD205.73 million), to JPY21.997 billion (USD183.31 million)[10] (Sado shi 2009). By sectoral share of economic output, primary industries stayed at approximately 6 per cent, while secondary industries' contribution fell from 27.0 to 21.6 per cent due to a drop in both manufacturing and construction, while the share held by the tertiary sector has risen from 70.0 to 75.9 per cent, led by some growth in financial and insurance services. Overall, the number of businesses in all sectors has been in steep decline. Manufacturing companies declined from 443 to 263 firms (-40.6%) between 1993 and 2005, and commercial and retail establishments fell from 1,856 to 1,236 firms (-33.4%) between 1991 and 2007.

All of our informants were aware that Sado Island's society and economy faces some difficult challenges stemming mainly from ageing and depopulation, though they had differing and sometimes conflicting views on whether the island's population could, or should, stabilise and how that could be achieved. The following comments present three local residents' general impressions of business and employment conditions in Sado. The remarks present a rather gloomy portrait, showing difficulties with demand, increasing competition, and a reluctance among younger people to engage in the local economy.

> Small businesses are the mainstay of the local economy. However, that is changing now and the situation is not good. Independent stores can't compete with the large stores in Sawata. You can park your car there and get everything you want in just a couple of stores, and it is inexpensive too. But it also has a big effect on our communities if stores go bust and families lose their independence. People are forced to take up temporary jobs, and many people now have to survive on two or three temp jobs that still don't give as much income as before ... But, running your own business is hard and there are few holidays. ... The local area is mostly older people now and they don't buy a lot. The shopping parade is becoming a 'shutter parade', as shops no longer open and children don't come back from Niigata and Tokyo.
> *Independent retailer, Aikawa.*

> Competition from China means that manufacturing is pointless. Therefore, the only business left aside from agriculture and construction is tourism, but there are no charming inns to stay at.

[9] For reasons of accurate temporal comparison, figures are taken from the Sado City statistics web pages, which are based on the 2005 National Census data.
[10] Based on an exchange rate of USD1=JPY120.

> Tourist facilities are poor, plus there is no capital for reinvestment. Tourist facility managers still want a good return on bus tours, but tourism has changed and diversified and local businesses have not. Nine tenths of our sales at the moment are souvenirs because hotels have few guests and are not buying from us ... Everything here is connected to tourism; souvenirs, hotels, transport, food and drink, and so on.
> *Local Saké producer, Ryōtsu/Kanai.*

> Tourists that come in groups mostly stay on the tourist trail and we don't see their money. Single tourists sometimes come but they are getting fewer in number and they have less money ... Tourism is seasonal, so most people have to find something else in the winter. The pay is low and the work boring, just cleaning rooms and washing dishes and being polite. The hours are bad too. Hotel workers have to start in the early morning and don't finish till late. I understand completely that young people don't want to do this. In fact, I stayed in a hotel in Aikawa recently and the only people working there that I could see were older ladies.
> *Community group leader and storekeeper, Niibo.*

The next extracts demonstrate the difficulty some younger people encounter when they try to gain well-paid local employment in comfortable occupations. A common route into public sector work for the eldest sons who are expected also to take over the household farms and businesses is also becoming more difficult under municipal rationalisation measures, itself a response to national pressures among which ageing and national population decline feature prominently. We can therefore understand more practically how the downward spiral of depopulation may occur; as both a cause and, later, a consequence of regional contraction.

> For the eldest sons who want to remain here, we say there are only three (sic) routes into work, *nōkyō*, *yakushō*, and *kyōin* (Local Agricultural Cooperative, Local Administration, School Teaching), or taking over the family business.
> *Senior High School teacher and careers advisor, Niibo.*

> Due to the municipal merger in 2006 and the financial loss we are not recruiting anymore. This year (2008) 80 people will retire and we are recruiting only 1 or 2 people to replace them in April.
> *Sado City official, Kanai.*

> The municipal merger has meant that there are fewer public officials working here, as jobs have been closed down or moved to the new city office. So, the bulk of our lunchtime business has now gone ... My husband's bar also gets fewer customers in the evening as public officials do their evening eating and drinking in the new restaurants in Sawata, which is closer to the city office.
> *Café and restaurant owner, Aikawa.*

In order to get a qualitative snapshot of general business conditions in Sado, we also researched independent retailers in Ryōtsu Port, once Sado's economic hub. On Saturday 29 March 2008 we counted the stores along the main shopping street. For those that appeared closed we asked neighbouring shopkeepers about the status of the closed shop. We also asked shopkeepers for their interpretations of business conditions along the parade. Of the 144 shops we counted, 47 (33%) had closed for good, we were unsure about 8, and 89 (62%) were open for business, though some of the latter barely had any stock. The reasons shopkeepers gave for poor conditions were, in order of importance (and using retailers' comments):

1. 'There is nowhere to park, so customers who want to come by car, which is nearly everyone, are not able to come. So they go to the big (chain) stores in Sawata'.

2. '... Competition from big stores … It is expensive to import items from Niigata and the mainland, and big stores can always get things cheaper than us. They can provide more choice and longer opening hours'.
3. '... Death and ageing … Most of the shopkeepers are older people who don't have the money or energy to reform their shops. They don't mind if they have low sales as they can live an easy retirement and keep themselves occupied minding their shop. But when they get too old or die there is no-one to take over'.
4. ' ... Economic conditions … Incomes in Sado are decreasing, and there are fewer tourists. People don't buy so much anymore'.

Independent retailing can sometimes be usefully employed as a qualitative barometer of local economic conditions since the sector provides a functional interface between local producers and consumers, particularly in the more remote rural areas. The situation in Sado is similar to what is occurring elsewhere in Japan's regions, as the traditional heart of Japanese retailing—rows of family run independent stores arranged along covered arcades called '*shōten gai*'—gives way to out-of-town large scale chain stores grouped in warehouse-like buildings surrounded by spacious car parks. Previously thriving arcades suffer from a reduced footfall, and decreasing sales, and eventually shops begin to pull down their shutters—giving rise to the increasingly used dark pun '*shatta- gai*'. Moreover, as the first interview extract above implies, residents are fearful of the consequences of being employed on non-regular contracts at chain stores and of losing their economic autonomy. There is also a widespread feeling that well paid senior positions in chain businesses can be occupied by managers posted from the head office in Tokyo or Niigata City—so-called *tanshin funin*—who have little stake in the long-term overall prosperity and sustainability of the wider community, and that low paid and insecure employment in underwhelming occupations such as clerical, warehousing, delivery, and customer relations jobs is allocated to local hires, usually middle-aged married women. The consequence is the unwitting creation of disincentives for younger people to seek employment in local retailing.

Education

Educational advancement is also a significant contributor to out-migration from regional areas and, in particular, more remote rural locales. This has both national structural as well as local origins. In 2005 the nationwide entry rate into post-secondary educational institutions reached 76.2 per cent of all 18-year olds, with 51.5 per cent of the cohort progressing to universities and junior colleges (MEXT 2006: 11). For Sado the proportion of 18-year olds continuing in education was 76.3 per cent for 2008 (Niigata ken 2009a). Until April 2008 the island had no post-secondary educational institutions, which compelled all younger people with expectations of progressing in their education beyond age 17 to migrate away, usually either to Tokyo or Niigata City. Following are comments by two local people on their experiences of how educational advancement may contribute to population shrinkage in Sado. Both suggest that the education system itself bears some responsibility for rural shrinkage in simultaneously preparing students for urban educational and employment advancement opportunities, and even on occasion restricting access to educational opportunities and infrastructures that enable stable employment in rural enterprises.

> When they graduate most (students) leave and the number that return is small. Even if graduates want to return (to Sado), there are few places that can employ them because their skills and knowledge are not suited to the work that is done here ... Actually, the students that come here (to this school) are generally ones who want to stay ... but I can't say the future for them is good. There are no big companies and manufacturing has almost disappeared, construction is scaling down, agriculture has become much more difficult ... managers tend to be from outside of Sado, while temps and part-timers are usually locals.
> *Senior High School teacher and career advisor, Niibo.*

> It used to be said that Sado was an 'education centred' island ... I graduated from Keio University and, actually, the reason why I managed to get into that university was because life was so simple here; it was impossible to go on a date and the most interesting thing that we could find to do was to study. ... We were never taught to be proud of our origins, so when I entered university I was ashamed of my background and wouldn't tell anyone where I was from ... I needed to leave the island to discover what a special place it (Sado) is. At school and home we got no information about the outside world and we couldn't compare Sado to anything, so we just thought it was dull. Once I discovered that (Sado) is special, I wanted to bring my husband to live here and to develop our family business.
> *Saké brewer, Mano.*

Although many respondents were critical of the role of progression to post-secondary education in rural depopulation, the following person had a more nuanced interpretation. Crucially, she argues that once established in urban locales, people from rural origins find it immensely difficult to return to rural life if and when they feel the desire to do so.

> Actually, I think university is really an excuse to escape. I went to university in Tokyo and then to Australia, where I met my husband. Once I left Sado my understanding changed and I began to appreciate things. Now we are married and have children we feel that this is not such a bad place to bring up children. But I only feel that because I had the opportunity to experience other places, and university gave me that. ... We couldn't afford to be in a house like this in Tokyo. But, on the other hand, for many people that leave, by the time they get a job and start to understand what they miss, it is impossible to come back.
> *Housewife and mother, Kanai.*

Despite these problems, one of the most significant developments to have taken place recently has been the opening of Sado's first modern post-secondary educational institution. In April 2008 NSG,[11] which is the largest provider of post-secondary vocational education in Niigata Prefecture, opened its Sado Campus, teaching welfare and nursing care for the elderly, environmental management, traditional architecture, and traditional crafts. Located in the island's central plain, the college began with the acquisition of a previously vacated public girls' senior high school, and a JPY150 million (USD1.25 million) subsidy from Sado City government for the renovation of the buildings, purchase of equipment, and other start-up costs. Of the first cohort of 27 students, 26 have progressed to the second year, and 15 of these came from outside the island. In 2009 the college recruited 37 students, bringing the total to 63. The college has ambitious plans to accept two entry cohorts of 200 students each, and to recruit students from all ages, backgrounds, and regions.

Although it is unlikely to reach its recruitment targets soon, the college has potentially important consequences for the sustainability of society in Sado in that for the first time there is a post-secondary educational institution located on the island that provides courses geared towards young adults who may wish to remain in Sado, or even for some to come to Sado and settle either temporarily or permanently. Because the first cohort of students graduates in 2010 there is as yet no employment data available regarding graduate destinations. However, in interviews senior managers from NSG stated that the company has researched local concerns and designed its courses with local, regional, and national employment markets in mind. Managers insisted that the college is both a viable venture founded on sound business principles as well as a contribution to local social and environmental sustainability, and that the college is working with the Sado City office to develop local employment opportunities and outcomes for graduates. The crafts based course, which teaches ceramic arts and bamboo design, is aimed

[11] NSG is the name of a chain of post-secondary specialist vocational training colleges in Niigata. The business does not have an official English name that spells out this acronym. However, one can assume that NSG might be represented by 'Niigata Senmon Gakko' or, in English, 'Niigata Specialist Vocational Training Colleges'

at helping to regenerate crafts that are indigenous to Sado but which have wider currency in Japan and, as has already been alluded, have until recently declined partly because of inattention from the formal education system. The welfare and nursing care course has a ready market for those with family care responsibilities or who wish to be employed in care services, either in Sado or elsewhere in regional Japan. As an indication of demand, the ratio of single older person households in Sado increased from 4.42 to 13.07 per cent of all households in the 1980-2005 period (1.66-6.54% for Niigata Prefecture and 2.46-7.88% for Japan) (Sado shi 2009), with many of these residents requiring regular visits by care professionals.

Towards Socio-Environmental Stability and Sustainability

Below we continue with the theme of working to establish stability and sustainability to present what some residents tell us they are doing in their local communities. It needs to be said that many efforts are in their infancy, tend not to be coordinated, have varying degrees of success, and at times face opposition. But constructive action is being taken at varying scales of intervention by official bodies, business leaders, volunteers, and social and environmental entrepreneurs (see: Leadbeater 1997: 53; Schaper 2002).

We concentrated some of our qualitative research on the local saké brewing industry, which has been both a mainstay of the local economy and one that is in precipitous decline due to intensifying global competition from other beverages such as beer and wine. However, as our interviewees demonstrate, this business sector possesses good potential both for developing value added business activities that are rooted in local attributes, for developing more complex operations employing larger workforces in skilled employment, and for incorporating environmental concerns into rural business. As the respondents reveal, the remoteness of Sado's geography can be either a handicap or an attractive branding tool depending on whether marketing is able to connect with the right categories of consumers. Moreover, all of these respondents are passionate about generating hitherto unexplored opportunities as a method both of expanding their businesses and of deepening their positive social and environmental impacts.

> A big handicap is our geography. It is difficult to set up business here and you can't grow the business unless you export from the island. ... By chance I got the opportunity to sell saké to Nobu's restaurant in New York. One reason for this success is, strangely, our geography. For many foreigners, Sado is a remote and mysterious place. When they come here they quickly discover its charms and want to take that back with them. So, when we started to sell our saké in Nobu's we had a party in New York and I invited Robert de Niro to come here to see for himself. He came by helicopter and we got a little drunk on our saké, but he is now a fan of Sado and our business is doing well over there. He calls Sado 'Saké Island'!
> *Saké brewer, Akadomari.*

> I inherited the business from my father, but I quickly decided when I came back from Tokyo that I would take a different route. Saké sales are declining in Japan, and many brewers nationwide are going out of business. But we have been able to expand and employ more people. We provide saké to the First Class cabin on Air France, and we export to the USA, Europe and Asia. The whole world is an opportunity for us, so why stop at Tokyo? ... I want to do something to promote Sado overseas, to attract people here and show them what a wonderful place it is. ... Our aim is the sustainability of society, culture and the environment here by cooperating in technology and tourism and in education. For example, I am working with a local entrepreneur who is developing new waste disposal technologies and we are starting some bio-ecology internships for local senior high school graduates to try to generate high quality employment. ... We hope eventually to make Sado into an 'eco-island' and an example for others to follow.
> *Saké brewer, Mano.*

> We are now producing organic saké. It is a little more expensive to buy the organic rice from our employees and local people so we sell it at a slightly higher price. We have been doing it for 4 or

> 5 years now and sales are slowly increasing. We sell it in Niigata and Tokyo, for example. There is no difference in taste and quality between this and the normal saké, but we wanted to do more for the environment, especially for the *Toki* (Crested Ibis) and their food.
> *Saké brewer, Sakata.*

In addition to food and beverage production, tourism is also a business sector that is cited as having potential for rural areas; yet Sado is experiencing a long term decline in the number of visitors, from a peak of 1.2 million visits in 1991 to 656,000 in 2006 (Sado shi 2009). Visitors, when they do come, often stay for short periods of perhaps one or two nights and locals complain that tourist spending often does not percolate into the local economy, instead being recycled away because consumption takes place in premises and activities that are owned and run by large tourist conglomerates headquartered outside of the island. The local authority has recently begun a new tourism campaign to attract visitors from hitherto unexplored demographic groups in the hope that they will stay longer and their consumption patterns will provide greater benefit for the local economy. Nevertheless, tourism employs large numbers in unattractive low wage seasonal and part time employment; though the next respondent opines that new branding opportunities and exploring new business models may offer a route out of this cycle for some people.

> We have a new policy not to concentrate on attracting higher numbers of tourists but to focus on the quality of experience so that people return or stay longer. We are creating various day programmes of activities ... one is promoting eco-tourism, for example two-day visits to the (old growth) temperate rain forest in the north. ... We don't want to put pressure on these sensitive places, so the numbers that can go are limited to 2,000 per year to protect the forest. ... We are also trying to attract foreign visitors, who tend to stay longer. They like to go by bicycle, take buses and so on, so we are trying to help them get around. That way tourism might contribute more to smaller businesses.
> *Tourism department officer, Sado City government.*

Conflict and Disagreement

Beneath the surface of society in Sado conflict and disagreement are, predictably, present. Activists and entrepreneurs talk about locals who refuse to change, while some residents refer to newcomers as outsiders with a poor understanding of local concerns and limitations. In their different ways, all three respondents below point to the potential for cognitive distanciation between rural residents and the outside world, due mainly to remoteness from the mainstream of Japanese life. The first two respondents bemoan a lack of urgency and of consensus on what to do, while the third identifies rifts between the local population and incomers in terms of expectations of rural life.

> Sado people are a good example of the 'frog in the boiling water' legend. The world is changing very fast, but the only thing that is not changing here is people's consciousness.
> *Saké brewer, Mano.*

> I think this is the last chance for Sado. The future for the island is bleak, I believe. Our problem is that there is no consensus. Local people often have little idea about what is attractive about the island and poor coordination of activities means that efforts can fail, and sometimes people even deliberately get in the way. Sado is especially poor at this. We should build an island where people can come and relax in a beautiful place ... some kind of eco-island.
> *Saké brewer, Akadomari.*

> People from urban areas who come here have this image that rural life is slow-paced and comfortable and they think it would be nice to live here. Actually, it is really hard and city folk find that out quickly if they come. When they see these fields bursting with rice they think that

> ‘nature is so beautiful’. But that is not real nature. These terraces were built out of the sweat of generations of farmers over hundreds of years. ... It is cold in the winter, with snow blowing around. Tending persimmon orchards or repairing windbreaks is not easy work. City folk that come (I-turn) are often surprised at how hard it is. One can’t go hiking on the weekend, as the tourists do. There is work to be done! Although things like hiking are practiced in the countryside, they are urban hobbies. City folk have a very poor understanding of rural life. They want to come here and lead an urban lifestyle. But that is not really possible in a place like Sado.
> *Volunteer guide, Kanai.*

Finally, the following two respondents build on the above to spell out more clearly an approach to rural shrinkage and its consequences that accepts and acknowledges continued depopulation as inevitable. The implications of this become, therefore, not a question of revitalizing local society within a conventional growth mentality but of negotiating and deciding how the remaining community members might make the best of their circumstances, lead a comfortable life, and build an attractive community within a shrinking region. For the first respondent, depopulation is even a desirable outcome that might facilitate the caring roles that are necessary in an ageing society, whereas the second confirms what we experienced as an increasingly common refrain; one that acknowledges shrinkage and uses it to ask important questions as to how people will live under such circumstances and the kind of a society in which they might wish to live.

> I think it would be a good thing if the population continued to fall. We don’t have any industry. It is difficult to make a living and feed one’s family. There are a lot of older people that need looking after, too. I know I shouldn’t say this, but it would be easier if there were fewer people and we could take care of our families better. So the population will continue to fall and then stabilise at some lower level in the future ...
> *Hot spring employee, Ogi.*

> I am a typical U-turner (Born and raised in a rural area, moved to an urban locale, and returned later to one’s original birth-place). I was born here and spent 40 years working in Tokyo. .... I came here two years ago to look after my mother ... At that time I heard a lot of rumours, but the local newspaper had been discontinued. I also felt that the government was abandoning rural areas with its reforms. So I decided to set up a newspaper. It is only a monthly town-sheet, and there is little real news, as it is just me collecting everything. ... The content is on history, people, culture, events and sometimes social issues and local people submit articles on various topics. I don’t earn an income, but we don’t have any labour costs. Little by little we are increasing sales by word of mouth. We even send 160 outside of the island ... I want to contribute to the island’s society with the newspaper, and I think that is happening slowly. ... I get the printing done in Sado, even if it is more expensive, and that helps the local printer to keep going. I think it is very important to keep money and resources here. ... The future is not bright. Soon there will be just 20-30 thousand people. Of course, the population will not fall to zero, but we are all talking now about how we will live in that atmosphere and what kind of a society we should build. I hope that my newspaper will contribute to that.
> *Local social entrepreneur, Sawata.*

Conclusion: Learning to Live ‘Beyond Growth’ in Japan’s Shrinking Regions

It is inevitable that Japan’s regional communities will continue to shrink, and that some which are presently on the verge of collapse will in the near future disappear altogether. Hence, the discussions taking place in Sado, for example, are less and less concerned with how to achieve revitalisation, if that expression is to be interpreted as meaning growth, but about how to live well within a shrinking region. Moreover, shrinkage will almost certainly continue to broaden in the future to include larger urban settlements. Despite NIPSSR data that projects nearly all of Japan’s cities experiencing depopulation by

2030, these 'shrinking cities' are most likely to be regional centres of under 1 million inhabitants, such as Niigata and Nagaoka Cities, rather than the larger metropolitan regions; and the early evidence suggests that some of these settlements have already begun to shrink. Under this scenario, the experiences of Japan's rural communities in acknowledging, accepting, adjusting to and even embracing shrinkage may be useful for residents in regional cities as they too grapple with the realisation that, rather than seeking to re-establish growth, effective management of depopulation may be the most constructive response to prevailing circumstances.

Accordingly, such an approach needs to begin with an acknowledgement that, by itself, depopulation need not bring with it only negative outcomes. For example, it can provide opportunities for spatial reconfiguration of the built environment and, assuming consumption patterns also change, shrinkage may play a part in mitigating human impacts on the natural environment. At best, shrinkage may present regional communities with the occasion to rethink the way they organise their affairs, to develop new and alternative sets of objectives, and to enact a move beyond the current growth-first regime towards ways of living that prioritise socio-environmental stability and, even, sustainability (Daly 1996; Hager and Schenkel eds. 2000; Kabisch, Haase and Haase 2006). Although depopulation undoubtedly presents Japan's rural regions with some real difficulties we remain optimistic; and we believe our research demonstrates that these challenges are not insurmountable. Several residents in Sado have already acknowledged and accepted shrinkage as an established fact for their communities and have begun to consider, and in some cases act out, a life 'beyond growth'. In other words, we believe that rural residents are in increasing numbers dispensing with the idea of expansion as the primary organising principal in society and, instead, are positively and by necessity starting to embrace the prospect of living and working within a shrinking region. We can only begin to imagine the transformative potential of such a development should these notions begin to gain general currency among the populations of Japan's regional towns and cities in the years and decades to come.

Acknowledgements
The authors would like to thank the Japan Foundation Endownment Committee (Grant no: 390 1107) for granting field work funding to carry out the research for this article, and to four anonymous reviewers, Prof. Mike Smitka and Dr. Harald Conrad for reading and commenting on earlier drafts.

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