

The Redevelopment of Farmland and the Creation of New Villages in the Aizu Region in the 18th and 19th Centuries

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I. Introduction

In the 17th through 19th centuries, which was the Edo period in Japan, there was a substantial increase in the amount of farmland throughout the country.

Japan has only limited historical records showing the amount of farmland. The oldest farmland statistics are in the mid-10th-century *Wamyosho*, whose figure is about 1,040,000 *cho* (1 *cho* = 0.992 ha). The 1598 *Taikokenchi* gives about 2,040,000 *cho*, and the 1873 land tax reform by the Meiji government found about 4,100,000 *cho*. Statistics on agricultural produc-

tion wrought by the development of farmland include the potential rice yield surveys by the Bakufu and Meiji governments (Table 1).¹⁾ This remarkable development of farmland during the 275 years of the Edo period is known as *shinden kaihatsu*, or new rice field development (Kikuchi 1986).

New rice field development in the Edo period advanced in the 17th century and peaked in the first half of the 18th century. In the second half of the 18th century, less farmland was developed. Accordingly, it is generally thought that development stagnated, but much is still unknown about the reasons for the decline and the circumstances at the time (Kimura 1964).

Table 1 Japan's cultivated land area and yield in the 17th through 19th centuries

Year	Cultivated land area (<i>cho</i>)	Yield (<i>oku</i>)
1598	2,043,520	18,590,043
1645		24,553,757
1697		25,876,392
1834		30,558,917
1873	4,096,960	32,008,292

Source: Kimura 1983
units: *oku* (=160 kg)
units: *cho* (=0.9917 ha)

Key words: Aizu Basin, new rice field development, farmland abandonment, redevelopment, new villages

The achievements of rural history research offer us a valuable perspective.²⁾ Starting in the second half of the 18th century, many farmers suffering under onerous tax burdens left rural districts and flowed into the cities. This resulted in a large amount of abandoned farmland and greatly lowered agricultural productive capacity. Referring to this situation as “deterioration”, the Bakufu and feudal lords called upon the services of Ninomiya Sontoku and other agricultural leaders and set to work on revitalizing rural communities. These leaders tackled abandoned farmland with projects such as making irrigation channels and reorganizing farmland. Then, having obtained a commitment from the feudal lords to grant tax reductions and exemptions, they called upon the farmers who had left their villages to return, and urged them to resume farming. As a result, populations and productive capacity in these regions were both clearly tending toward recovery in the first half of the 19th century.

Understood from this research is the need to appraise development from the second half of the 18th century onward, not in terms of quantity but quality. That is to say, it can be hypothesized that the development of farmland in Japan since the 18th century involved putting more effort into the maintenance of existing farmland and the redevelopment of abandoned farmland than into new farmland development.

However, I noticed that the perspectives of geography and environmental studies are missing from this hypothesis. If the development of farmland languished in the latter half of the 18th century, one would expect the reason to be that such development had reached its limit. If that is so, could it not be assumed that land developed at the time included not a

small amount of land of low productive capacity and conditions making for instability? It also follows that abandoned farmland was subject to some kinds of topographical constraint. In this article, I tried to clarify the constraints that natural environment imposed on human attempts to alter the land with showing concrete cases, by considering the analysis of geographical constraints in addition to the technique of the history study based on historical materials.

II. Objective and Method

The objective of this paper is to throw light on the redevelopment of farmland in the Aizu region in the 18th and 19th centuries. Research into the local history has found that farmland development in this region was concentrated in the 17th century. This development took a form called *kirizoe* or *mochizoe*, which meant expanding existing farmland onto contiguous land (Takegawa 1965). Through accumulation of such small developments, the Aizu Clan, which controlled the domain at the time, raised productive capacity by about 30% (Hashimoto 1978). In the latter half of the 18th century, the problem of *te-amari-chi*, or abandoned farmland, arose because of tax increases induced by a financial crisis in the Aizu Clan (Yoshida 1982).

I can elicit two questions from this research. First, in what areas was this abandoned farmland located? And second, how did people set about redeveloping abandoned farmland, and to what extent was this accomplished? The second question must be considered in conjunction with the *shinson*, or new villages. *Shinson* refers to new farming villages created by the Aizu Clan from the late 18th century through the first half of the 19th century, but it is unknown what they were actually like.

First we shall review the topographical environment and process of farmland development in the Aizu region. This is followed by an examination, through a monograph on a single village, of the entire process of redevelopment, beginning with the emergence of abandoned farmland to the establishment of new villages. Finally, we will shed light on the significance of the new villages in Aizu region farmland development. The main geographical area to be analyzed is Yoda-gumi in the eastern part of the Aizu Basin. In particular for the Aizu region, many newly founded villages (*shindenson*) appeared in this area as a result of much farmland development in the 17th century; abandoned farmland and new villages were concentrated here in the 18th century and thereafter.

There are two parts to the method of this paper:

- (1) To obtain insight into the development process in the studied region, *Shinpen Aizu Fudoki* (Local history of Aizu), a local history compiled by the Aizu Clan in the 19th century, was used to check when main villages, new rice fields, and new villages were created.³⁾ These were plotted on old topographical maps of the area made between 1914 and 1917 with scales of 1:50,000 and 1:25,000 to ascertain the correlation between topography and settlement siting.⁴⁾
- (2) From among monograph historical records of Yoda-gumi, we used those remaining in the family of a headman of Hattano Village, for which there remain many old documents (historical records) which provide information on the state of farmland and family composition. By laboriously reading and analyzing these

documents, we investigated the entire process from the appearance of abandoned farmland to the establishment of new villages.⁵⁾

III. Region Overview

The Aizu region, which is located in the western part of present-day Fukushima Prefecture, is positioned at the southern end of the Tohoku-Uranihon valleys. It is a shallow rift basin that measures 32km north to south and 13km east to west. In the south, the eastern and western ends are cut by a fault cliff; in the north, the basin's western edge is on a weak anticlinal axis, while the eastern edge is made of volcanic sediment. The basin floor is about 200m above sea level and covered with fertile soil. Rivers running from the south into the basin are the Aga River, Miya River, and Tsurunuma River; from the north are the Oshio River, Tatsuke River, and Nigori River; and from the east is the Nippashi River and Senenagi River. The rivers form a gently sloping compound alluvial fan (Figure 1).

Developing farmland on the compound alluvial fan requires bringing water from the fan head to irrigate the entire fan. The first weir (*Kitsune zeki*) was built on the Nippashi River in 1392, followed by weirs on the Miya River and Aga Rivers to obtain irrigation water (Muto 1978). Farmland development in the Aizu Basin proceeded from the higher ground on the basin's periphery to the river flood plains on the basin's bottom, and by the 16th century most arable land was being cultivated. Most of the settlements in the basin had appeared by the first half of the 17th century. It follows that settlements established in the 17th century and thereafter, which were the "new villages", were subject to various topographical con-

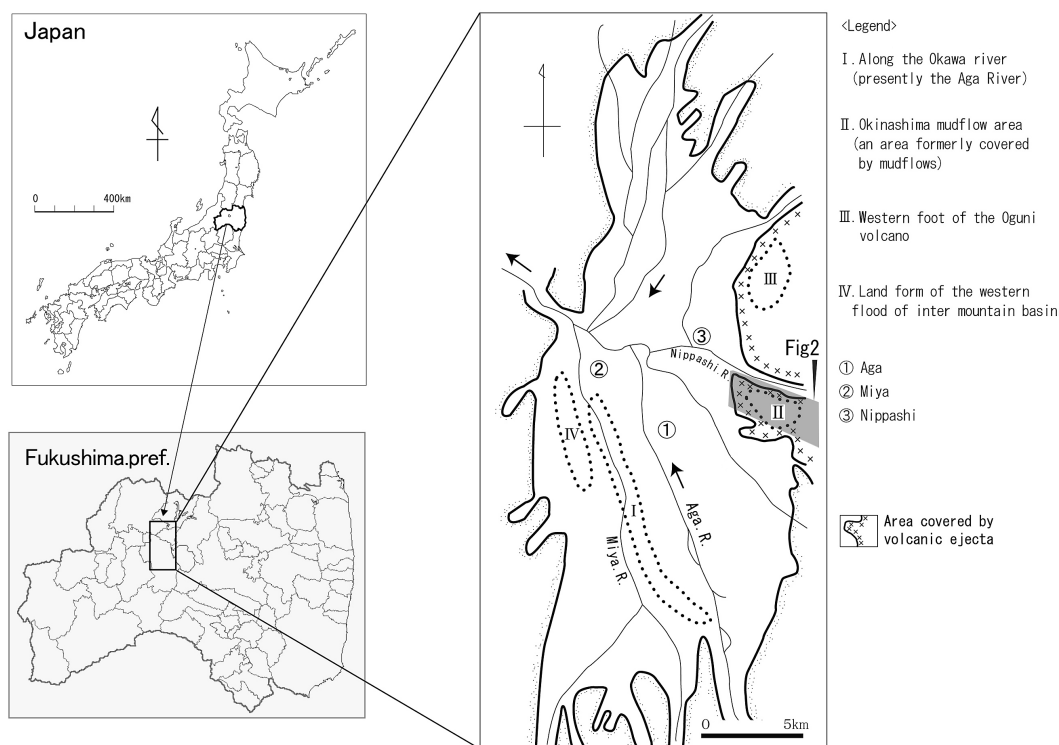


Figure 1 New Rice Field Concentration Area in the Aizu Basin
 Souce: Prepared from plots of settlements on old topographical maps.

straints.

The 40 villages of Yoda-gumi analyzed here are situated on the eastern edge of Aizu Basin. Volcanic ejecta from the Mt. Oguni and Mt. Bandai volcanoes to the north is deposited widely over this region from Lake Inawashiro, elevation 500m, to the Aizu Basin, elevation 200m. This landscape, known as the Okinashima mudflows, consists of many semi-circular mudflow mounds and the mudflow depressions between them, for a very hilly topography. The mounds were forested and the depressions were swampy, making both inappropriate for cultivation. But starting in the 17th century the depressions were developed, and plans were made to draw water for irrigation from the Nippashi River, whose source was Lake In-

awashiro at an elevation of 514m. Despite the difficulty of digging irrigation channels with large elevation differences in the mudflows with their hard gravel, construction began in the 1610s, and by the mid-17th century two channels called Tonokuchi and Nippashi were completed. Twenty-six of the 40 villages in Yoda-gumi were newly founded villages which owned their existence to these irrigation channels (Figure 2).

A word is needed about the region's climate. Yoda-gumi stretches over an area between the Aizu Basin and Lake Inawashiro with an elevation difference of about 300m. A document written in 1740 says that cold water was used directly for irrigation.⁶⁾ This region is higher than the Aizu Basin and also gets snow, there-

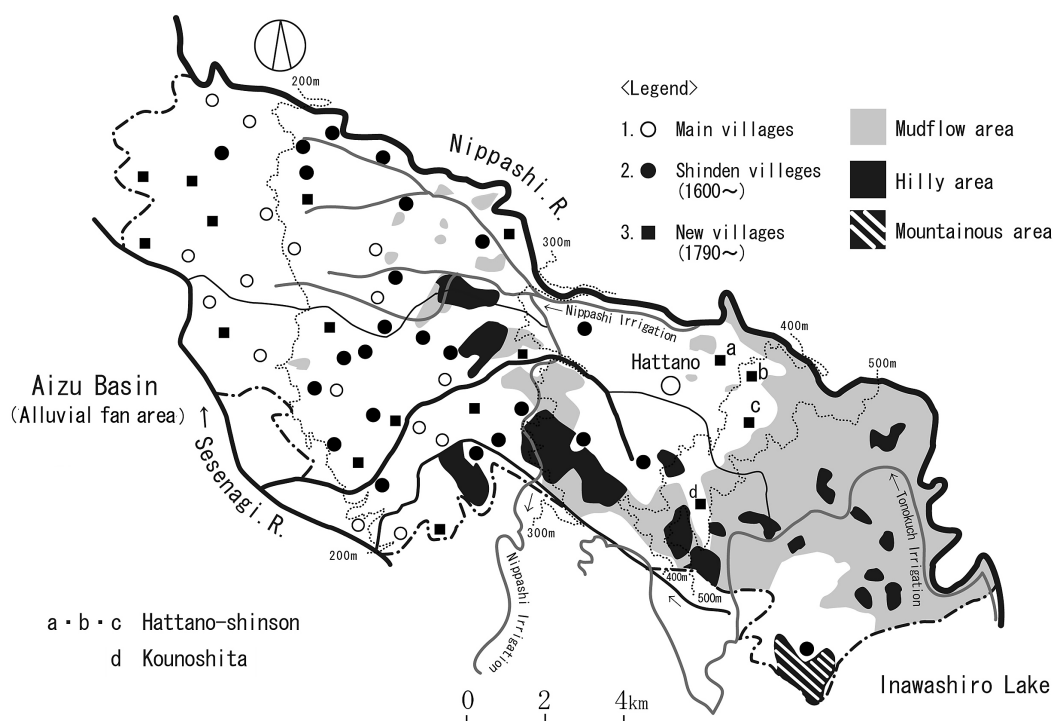


Figure 2 Distribution of villages of the Yoda-gumi
Source: Settlements as recorded in Shinpen Aizu Fudoki and Kawahigashi choshi Jokan were marked on an old 1:25,000 topographical map. Aizu Hirota, 1910.

by presenting harsh climatic conditions for the growth of crops.

IV. Development and the Emergence of Abandoned Farmland

In concert with a nationwide trend, farmland development in the Aizu region was pursued mainly in the 17th century. This process is understood from a comparison showing the increase in potential rice yield (*koku-daka*), a numerical measure of village agricultural productive capacity used in early modern times. According to *Kasei-jikki*, the official history of the Aizu Clan compiled in the 19th century, in 1643 when the Aizu(-Matsudaira) Clan was formed, the developed potential yield during the past 16 years under Katoh clan was 13,947

koku, which over the 64 years up to 1707 increased to a total of 49,486 *koku*. But over the next 77 years up to 1784 there was an increase of only 16,779 *koku*, which confirms the stagnation of farmland development (Table 2).

Meanwhile, already at the start of the 18th century farmland was being abandoned. The *Kasei-jikki* called this *age-denchi*. The Chronicles of Aizu Wakamatsu City explain that farmland was abandoned by farmers for reasons including illness, disasters, and desertion of their farms. However, there were actually two situations in which farmers abandoned their land. One was that they could not continue working the land due to family illness, and the other was that they quit farming owing to the burden of excessive taxation.

Table 2 Aizu Clan development figures

Period	Potential Yield increase
1627 to 1642	13,947
1643: Aizu Clan established	10,756
1643 to 1688	10,552
1669 to 1680	12,466
1681 to 1707	15,712
1708 to 1725	8,633
1726 to 1755	6,346
1756 to 1784	1,800
Total	80,212

units: *koku* ($\approx$ 160 kg)

Source: Hashimoto 1978

Notes: Aizu-Matsudaira clan enforced crop investigation on her villages in 1643, when she was established, and her potential yield was defined.

Volume 5 of *Aizuhan-gunsei-ikkan* observes that *age-denchi* first emerged in 1707 because of a tax increase in 1704, that the amount of such farmland increased year by year, and that the rural population started declining in 1719. When farmland was abandoned, the Aizu Clan ordered other villagers to continue working that land together, but when even that could not keep the land under cultivation, it was completely abandoned. That land was *te-amari-chi*.

Volume 94 of *Kasei-jikki* is the earliest source in which one finds that the amount of *age-denchi* corresponded to 2,916 *koku* in 1709. Yoda-gumi accounted for about 40% or 1,290 *koku* of this total. *Kasei-jikki* expresses concerns that *age-denchi* rose to 20% of the farmland developed in the 17th century, and that it would become *te-amari-chi* because there were no farmers who wanted to cultivate it. In 1711, it observed that much of the *age-denchi* was found among land of low productive capacity, and that getting farmers to work it would require reduced taxation, which points to the sec-

ond reason for farmers abandoning their land.

I understand from these facts that the problem of *age-denchi* arose from the Aizu Clan's tax-increase policy, but I see a need to focus on the fact that much of the abandoned farmland was land developed in the 17th century. One must approach the problem of farmland abandonment from the perspectives of the topographical conditions of the developed land and its redevelopment.

V. Development and Deterioration of Hattano Village

Here we examine the case of Hattano Village regarding the detailed course of farmland development, abandonment, and redevelopment in the Aizu region. Hattano Village was one of 40 villages in Yoda-gumi, where abandoned farmland (*te-amari-chi*) and new villages were concentrated, and it is located in the approximate center of the Okinashima mudflows.

Kawahigashi Cho-shi Hensan Inkai ed.: Kawahigashi Cho-shi (History of Kawahigashi Town) provides information on the potential rice yield of Hattano Village showing that in 1594 it was about 405 *koku*, in 1643 about 527 *koku*, in 1667 about 997 *koku*, and in 1729 about 1,406 *koku*, for an approximate 3.5-fold increase over a 135-year period. Between 1628 and 1660, three new villages were founded: Namai in 1628, Tokahara in 1639, and Urushizawa in 1660.⁷⁾ This can be seen as an achievement of the development that had continued since the second half of the 17th century.

Next we examine the population dynamics of Hattano Village. Villagers under the Aizu Clan were divided into two statuses: *hon-byakusho* ("full farmers"), who were regular villagers who paid an annual land tax in kind, and *mizu-nomi* ("landless peasants"), who

worked under the control of the full farmers. The households of full farmers and landless peasants in Hattano Village numbered, respectively, 65 and 12 in 1667, 83 and 21 in 1691, and 112 and 5 in 1735.⁸⁾

Total village population peaked at 506 in 1719, and fell to 284 in 1762. We can surmise from this change that many full farmers left Hattano Village in the mid-18th century. It is also evidence which shows directly that the village lost its farming population.

The first cases of *age-denchi* and population loss in Hattano Village that can be confirmed were in 1707:⁹⁾

- (1) Rokubei: Because five of eight family members had gone into domestic service using land as security, about one-third of the family's land could not be worked and was taken over by Shouemon.
- (2) Chozaemon: Because half of the family had gone into domestic service, land was taken over by the landless peasant Hachirobei.
- (3) Jirohachi: Because of illness, wife went into domestic service using land as security, so nine other villagers divided up the land and continued working it.

However, in 1733 there were cases in which all the members of farming households left the village for domestic service, and there was no one to take over cultivation, resulting in *te-amari-chi*.

Starting in 1730, the Aizu Clan found itself in chronic fiscal straits. Clan leaders were divided on whether to attribute the increase in *te-amari-chi* to poverty among the farmers or to the penetration of the commodity economy into rural areas. Due to unfavorable weather in 1747, *te-amari-chi* in 1749 was the equivalent

of 10,500 *koku*.

VI. Redevelopment of Abandoned Farmland and "New Villages"

A survey undertaken by the Aizu Clan in 1760 found that the *te-amari-chi* confirmed at that time was about 25% of the farmland that had been developed in the early 18th century. This abandoned farmland was most widely distributed along the northern shore of Lake Inawashiro, which was 500 m above sea level, and in the Okinashima mudflows area. In response to this situation, in 1756 the clan adopted a program of encouraging cultivation by lending seed rice, and in 1758 it launched a policy which had farmers relocate from other areas in order to secure people to cultivate the land.

In 1763, a farmer named Yaichiuemon from Koriyama Village in Yoda-gumi applied to redevelop *te-amari-chi* in Hattano Village. Yaichiuemon set forth two conditions for development: the farmer Tozaemon from Echigo Province (present-day Niigata Prefecture) would relocate to work the land, and that Yaichiuemon's post-redevelopment tax burden would be substantially reduced. The Aizu Clan consented to both.

In 1764, Tozaemon moved with his six family members to Hattano Village. The land he was to redevelop was rice fields at a place called Takanoshita, in the mountains over 4 km from the village, which had not been tilled since 1636 due to their remoteness. In 1767, three of his siblings moved to Takanoshita, followed by another 13 people, including relatives, in 1768. In 1767 and 1768, Tozaemon asked the Aizu Clan for financial assistance. In six years he succeeded in redeveloping about 1.2 ha of rice fields yielding 11 *koku*.¹⁰⁾

Judging by this example from Hattano Vil-

lage, this redevelopment policy can be applauded for achieving a certain degree of success. Yet, this policy was unable to do anything about 10% of the *te-amari-chi*. Even in Hattano Village, about 50% of all farmland stood abandoned at the end of the 18th century. In 1799, the village's population was 273, an approximate 54% drop from 1719.

To deal with this increasing *te-amari-chi*, the Aizu Clan adopted a new restoration policy at the outset of the 19th century. This consisted in relocating farmers to areas in villages where *te-amari-chi* was concentrated, creating new villages, and having the farmers redevelop the farmland. These were the *shinson*, or new villages.

In 1831, a new village, Hattano Shinson, was created within the area of Hattano Village with a potential yield of about 250 *koku*. In conjunction with this, the Aizu Clan relocated 86 farmers from Echigo Province and created a settlement of 20 homes that consisted of 3 groups (numbering 3, 11, and 6 homes). Political administration, however, was the same for both the main and new villages. While the main village had an elevation of about 350m, the new village was in a hilly area at 400 to

430 m elevation. Its poor soil and lack of water for irrigation made it an inferior location. For that reason the Aizu Clan provided financial support to the farmers for redevelopment. Pains were also taken to see that the farmers' productive capacity was uniform to ensure that they would not abandon their fields. Thanks to this, Hattano Shinson's population had increased to 146 by 1871, and there was no drop in potential rice yield.

Here we use the change in potential rice yield to confirm the effect on Hattano Village of the redevelopment policy in the latter half of the 18th century and the establishment of the new village in the early 19th century (Figure 3). From 1799 to 1868, the potential yield of Hattano Village as a whole declined by about 250 *koku*, which is because much *te-amari-chi* was split off when Hattano Shinson was created. This led to a decrease of about 468 *koku* in *te-amari-chi*, but an increase of about 190 *koku* in cultivated land. This proves that progress had been achieved in the redevelopment of farmland, and shows that the establishment of Hattano Shinson and the Aizu Clan's farmland restoration policy were successful.¹⁰

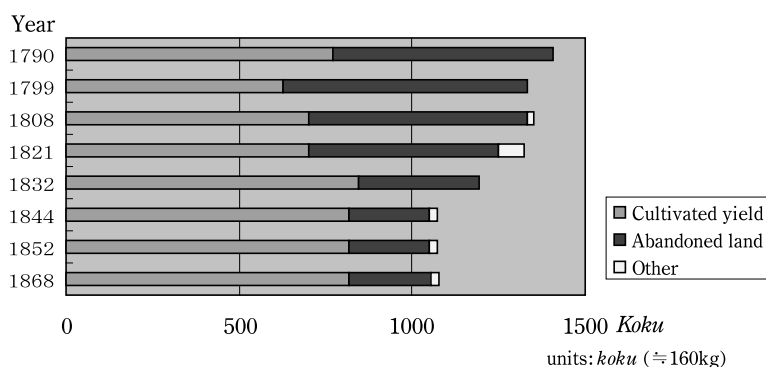


Figure 3 Trends Hattano Village farming product

Source: Calculated by N.Hashimoto according to analyses of Hatta family documents and tax bills.

VII. Topographical Constraints on Redevelopment, and Developing Farmers

This case study of Hattano Village has taught us that the establishment of new villages by the Aizu Clan within the early 19th century made a major contribution to redevelopment in the Aizu region. Twenty-six of the 40 villages in Yoda-gumi were newly founded villages (*shindenson*) that were created in developments that had started in the 17th century, and new villages (*shinson*) were established in 12 of those (Table 3). The earliest new villages founded were Yoda-shinson and Koriyama-shinson in 1790, and the latest in the Aizu Basin was Nakakayatsu Shinson of Ushizawa-gumi in 1835.

Based on this study, there are two types of places in the Aizu region where the topographical features led to much *te-amari-chi* (abandoned farmland).

(1) Mountainous areas above the Aizu Basin at 200 m with cold irrigation water and susceptibility to frost and snow damage, and (2) areas in the Aizu Basin near rivers and tableland at the basin's edge. These are the areas where newly founded villages appeared through development in 17th century. New villages were also concentrated in this area. There are places in the mountains where no vestige of the new villages can be found at all. In the Aizu Basin, the new villages were concentrated in Aizu Bange-machi, and on the basin periphery in the former Kawahigashi-machi. The former area is the former river channel of the main river (the Aga River), while the latter is the Okinashima mudflow region. These areas are more susceptible than surrounding lands to flooding and freezing damage, and land productivity is lower. It is thought that for this reason

farmers quickly abandoned cultivation because of the heavy tax burden they faced in the 18th century.

People applying to develop new villages in these areas were not village farmers, but Aizu Clan samurai or people of means from nearby villages. Some of the reasons for the success of development are that abandoned farmland was separated from its former cultivators, which alleviated the burden on the village; that new cultivators were found for redevelopment; and that taxes were lowered for and financial assistance provided to the new cultivators.

Thanks to redevelopment by the new village in Hattano Village, about 21% of the abandoned farmland that existed in 1787 had been restored 30 years later in 1817. While the area of rice fields in Hattano Village in 1849 was about 87 ha, only about 60% of that or about 53 ha was actually being cultivated. Hattano Shinson, on the other hand, had a total rice field area of about 12 ha, which was all under cultivation. The Aizu Clan assessed all of its farmland by having either "good" or "poor" fertility. Based on these two categories, Hattano Village had about 22 ha with good fertility and about 34 ha with poor fertility, while Hattano Shinson had about 2 ha with good fertility and about 19 ha with poor fertility. From this we see that the new village had unfavorable production conditions, but that redevelopment proceeded well in spite of those conditions.

The foregoing discussion illustrates the reality of redevelopment in the Aizu region and the significance of establishing the new villages. It is possible to model with a Image diagram the internal configuration of village areas in which new villages had been created (Figure 4). But there were individual differences between the situations of the new villages. In the case of

Table 3 Establishment of New Rice Field Villages (shinden) and New Villages (shinson) in Yoda-gumi

No.	Village name	Potential Yield in 1818	Potential Yield in 1871	Details	Remarks	Year established
1	Yoda	737.315	734.478	410.533	Main village	
				91.698	Yoda-shinson	1790
				232.247	Kitabatake - bun	1790
2	Koriyama	1228.751	1225.540	900.603	Main village	
				324.934	Koriyama-shinson	1783
3	Shima	1103.942	1164.170	880.487	Main village	
				283.683	Nishiyashiki Village	1770
4	Okaya j i - shinden	160.361	160.444			1621
5	Kamoda-shinden	80.454	100.892			1634
6	Kitakouya-shinden	89.977	126.424			1636
7	Fuyukizawa-shinden	562.429	556.385		Fuyukizawa	
8	Fujikura	422.001	584.658	415.044	Main village	
				101.366	Naniwano-bun	1791
				69.248	Kaganiyama-bun	1826
9	Takabatake	319.735	325.870			
10	Kyode	240.668	242.893			
11	Tabakari	950.631	756.934	630.640	Main village	
				126.294	Tabakari-shinson	
12	Oowada	519.098	639.289	526.865	Main village	
				112.424	Machiwada Village	1791
13	Doujima-shinden	46.661	72.198			1622
14	Chausumori-shinden	78.079	78.105			1637
15	Kumanodou	1097.873	1226.022	1016.890	Main village	
				209.132	Kondo-bun	1793
16	Shioniwa	492.980	464.950	385.664	Main village	
				79.286	Hayashi-bun	1791
17	Komaita	502.871	599.488	489.612	Main village	
				109.876	Furukawa-bun	1792
18	Sakai-shinden	196.823	140.078			1624
19	Toukahara-shinden	240.638	230.266			1639
20	Urushizawa-shinden	354.402	328.750		Urushizawa	1638
21	Azano	768.376	617.952	567.005	Azano	
				50.947	Azano-shinson	1810
22	Nakabayasi-shinden	38.260	66.413			
23	Minami Kouya	631.018	875.004	632.222	Main village	
				242.782	Higashi Kouya-bun	1827
24	Shinyashiki-shinden	84.049	161.535			1598
25	Yokobori-shinden	104.296	108.995			1624
26	Shioniwa-shinden	71.364	72.423			1629
27	Komaita-shinden	55.950	65.814			1627
28	Namai-shinden	183.337	150.927			1660
29	Nagayachi-shinden	225.071	207.729			
30	Hattano	1401.960	1432.810	1082.340	Main village	
				100.449	Kounoshita-bun	1764
				250.016	Hattano-shinson	1831
31	Kitayama-shinden	233.307	236.333			1622
32	Tsutsumi-shinden	85.366	83.117			1632
33	Harada-shinden	170.284	161.624			1622
34	Sawame-shinden	306.489	37.369			1636
35	Hara	219.564	226.898			1605
36	Rokucyohara	315.564	323.542			
37	Tsukinokibashi-shinden	521.625	522.136		Tsukinokibashi	
38	Fujikura-shinden	57.247	57.436			1667
39	Kuramichi-sinden	256.702	254.387		Kuramichi	
40	Kowashimizu-shinden	211.350	390.782			1660

units: *koku* ($\approx$ 160 kg)

Source: Fukushima-Ken 1967; Kimura 1979; Kawahigashi Cho-shi Hensan linkai. 1979; Hashimoto 1986

Notes: Potential yield data in 1818 are based on Fukushima-Ken-Shi and those in 1871 are based on Kyudaka Kyuryo Torishirabe-Cho.

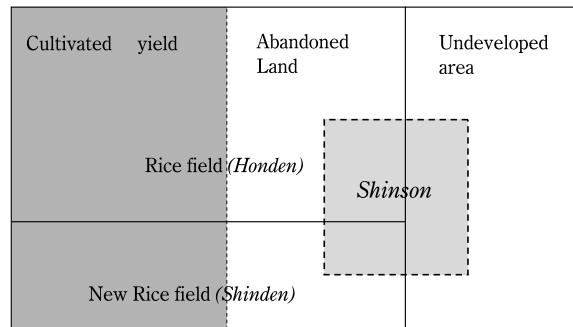


Figure 4 An Image of Typical Shinson Placement within a deteriorated Village

Hattano Village, nearly all the abandoned farmland, including that in the new village, was restored to what had been before. But in the case of Fujikura Village, in 1826 two new villages were created on remote wasteland, and development was carried out on a larger scale than before. And in 1783 in Koriyama Village a new village was created by aggregating all the wasteland existing throughout the village area, and the potential rice yield recovered to its former level.

VIII. Conclusion

Rural population decline and an increase in abandoned farmland proceeded throughout the 18th century in the Aizu region. In response, in the early 19th century the Aizu Clan established “new villages” within existing village areas which had abandoned farmland, and encouraged redevelopment. This paper’s objective is to shed light on the reality of this redevelopment.

The research found that most of the new villages were concentrated in the areas developed in the 17th century and thereafter. This paper sought the reason for this in the fact that the abandoned farmland was in areas which were subject to considerable environ-

mental constraints, and was lacking in productive stability from the outset. Hence, it is possible to discern the significance of the policy of new village creation by the Aizu Clan in the alleviation of the burden on preexisting farmers by separating abandoned farmland from preexisting villages. The clan also had farmers relocate to the new villages, and granted tax reductions and exemptions. This paper found that these policy measures played a major role in the restoration of abandoned farmland subject to poor production conditions.

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Notes

- 1) *Kokudaka* expresses the total productive capacity of farmland by assigning it a numerical value designating potential rice yield. It is an index of productive capacity calculated by multiplying the land area by a previously assigned ranking value. One *koku* is equivalent to about 180.39L or about 160kg, which is the average annual consumption of one person. A *cho* is a measure of area equal to about 0.9917 ha.
- 2) The indicators of rural “deterioration” are village population decline and the increase in abandoned farmland. These have been thought to indicate the backwardness of farming villages whose farmland has low productivity and where commercial crops were not produced. However, research into farming village history in recent years has yielded the theory that farmers actively abandoned their fields and left their villages due to a strategic shift of their means of livelihood from agricultural production to wage labor (Hirano 2004).
- 3) The forms of human settlements given in *Shinpen Aizu Fudoki* are *motomura*, *hashimura*, *shinden*, *deshinden*, *shinson*, and *bun*.
- 4) The old topographical maps used were Atsushio (1916), Kitakata (1916), and Wakamatsu (1914) for 1:50,000 scale and Aizu Hirota (1910) for 1:25,000 scale.
- 5) Some of the documents of the Hatta family are unorganized ones found in the editing office, and others are owned by the Byakko Museum at Aizu Wakamatsu City. In 2006, Kawahigashi Town was absorbed into Aizu

Wakamatsu City in a municipal merger.

- 6) Hatta family documents include a huge amount of records called *Shogan Shohikae-cho* (Records of Requests), which are copies of documents submitted to the clan by the village. The following quotes are from these documents.
- 7) Records of Requests, 1768.
- 8) To determine population, the author analyzed *bungencho* (legal status records), which correspond to modern-day family registers and were prepared for each household.
- 9) Records of Requests, 1707.
- 10) Records of Requests, 1762–1784.
- 11) According to analyses of Hatta family documents and tax bills.

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18－19世紀会津地方における耕地の再開発と新村の成立

橋本 直子

会津地方では、18世紀を通じて、農村の人口減少と「手余り地」＝耕作放棄地の増加が進行した。これに対して会津藩は、19世紀初頭に、耕作放棄地を持つ村の内部へ「新村」を設定して耕作者を移住させ、その再開発を実施した。「新村」は、17世紀以降の開発地域である「新田」地域に集中して見られた。その理由は、「新田」が自然環境上の制約を大きく受ける地域に広く展開し、開発当初から生産面で安定を欠いていたからである。したがって会津藩による「新村」の設定は、耕作放棄地を村から分離することで従来の農民の負担を軽減する意義があり、劣悪な生産条件の下にあった耕作放棄地の復興に大きな役割を果たした。

キーワード：会津盆地，新田開発，耕作放棄，再開発，新村