

10 Tourism as a future for local rail services?

An analysis of debates in Akita prefecture*

Peter Ackermann

In 2004, I traveled by rail from Hirosaki in Aomori prefecture through the mountains of Akita to Kakunodate, a remarkable journey into majestic forests, across wild rivers, and past ancient farm houses. The elegance and calmness of the rural people as they went about their work or boarded the train left a deep impression (a remarkable photobook is Kudō 2006). A few years later, I was back, this time in winter. The silvery beauty of the landscape, the brilliant blue skies and lashing blizzards remain unforgettable. I was thus alarmed to find that the AN was on the list of railways earmarked for closure, as deficits had reached astronomic levels (Ikawa, 2010; Satō and Yamashita, 2012).

I wanted to investigate the actual situation in detail, as the railway was not some old relict. On the contrary, it had only been completed in 1988. I wondered what tourist potential this little railway had, considering that its southern point of departure, Kakunodate, is on the Shinkansen route from Tokyo. Can small railway lines contribute to a peaceful way of enjoying more remote regions, to green tourism, and to the revitalization of villages through tourism? Was Japan keeping up with such developments as we know them from countries like Switzerland, France or Britain, and if so, did Japan have its own unique approach?

The Akita Nairiku Jūkan railway today

In 2012 the line was about to close if its deficit could not be reduced to under 200 million yen (Satō and Yamashita, 2012; Hatena 2012; Nikkei, 2012; Akita-ken Gikai, 2012; Gikai, 2013). The main shareholders, who have the power to pronounce such a threat, are Akita prefecture (38.6 percent), Kita Akita City centering on Takanosu (22.7 percent), Senboku City centering on Kakunodate (15.4 percent), local banks (8 percent), others (15.3 percent).¹

The AN is an unusually long local line covering 94 kilometers in 2½ hours. The population it served in 2010 stood at approximately 36,000 adults (compared with

* AN stands for Akita Nairiku Jūkan Tetsudō, The Inland Railway through Central Akita.



Figure 10.1 The Akita Nairiku Jūkan Railway at Kami Hinokinai
Photograph Peter Ackermann

54,000 in 1990), 7000 persons under the age of 15 (compared with 14,000 in 1990), and 23,000 persons over 65 (compared with 15,000 in 1990) (Fidea Sōgō Kenkyūjo, 2013).

How has the railway been used since its inauguration in 1989? In 1990, over one million passengers used the line;² in 1995 this figure had fallen to about 900,000; in 2010 it stood at around 400,000, and in 2012 it had fallen to 370,000. Data available for regular commuters, who in 2008 made up around 52 percent of the AN's traffic, show that the majority of the passengers are high school children (Suzuki, 2008). Due to the decrease in population this figure has since gone down. Non-regular local customers are mainly old persons, usually doing errands or on their way to a regional hospital. Excluding regular commuters, the AN homepage lists non-regular customer figures from March to November 2012 as 134,589 people, March to November 2013 as 121,328 and March to November 2014 as 114,825 people (Akita Nairiku Jūkan Tetsudō Homepage, 2014).

The AN is not able to serve the entire population of the area. Especially in the north the settlements lie on the other side of the river, which makes the stations hard to reach. Also, there are bus services along most parts of the line, while the main road runs largely parallel to the AN. As this road has little traffic, it is easy to use and much faster than the train. Buses run from and to regional airports, and taxis offer rides for individuals and groups to sights of interest (Suzuki, 2008).

Since 2003, the AN's deficit has been consistently hovering around 250 to 280 million yen. Not surprisingly, the directors of the railway were in favor of closing the line (Nifty, 2004, 2005). Closure was imminent in 2005, but thanks to much support (Nifty, 2005) and a vague concept of tourist development, the AN still operates (Akita-ken Gikai, 2012; Planar-zeiss, 2012), although it suffered a blow in 2007, when most elementary and secondary school children were required to use special school buses (Bokukoui, 2011).

Apart from the depopulation of the region, heavy snowfalls have driven up costs, while tourism dwindled to a trickle in this part of Japan after the Great East Japan Earthquake of 2011 (Satō and Yamashita, 2012; Livedoor, 2012).

A look at the history of the line raises eyebrows. As mentioned, the AN started operation in 1989, after two existing branches had been connected through a new intermediate section. This new section, however, linked not just two cul-de-sac railway lines but also two culturally and economically very different areas, the mountain valley of Ani in the north and the Tazawa Lake plateau in the south. The cost for the construction of the Jūnidan Tunnel, which is almost six kilometers long and now connects these two areas, was enormous (Ani Kōhō, 1978). Local people say that there was no need for it, as there had never been contacts between the villages on either side (Akimoto, 1990; Planar-zeiss, 2012; Yahoo chiebukuro, 2013).



Figure 10.2 Riding the Akita Nairiku Jūkan Railway
Photograph Peter Ackermann

The construction of the line in the 1980s helps us to understand some of the problems that Japan's regions are struggling with. Historically, only the upper end of the northern section, built in 1936, had any importance, as it connected the former copper mines at Aniai to the main line from Akita to Aomori. The rest of the northern section southward through the valley as far as Hitachinai was added in 1963. The southern cul-de-sac section from Kakunodate to the village of Matsuba started operating in 1971 and was earmarked for closure shortly after it had opened. Both cul-de-sac lines were operated—and the deficits paid for—by Japan's National Railways JNR (Tetsudō Jānaru, 1981; Tetsudō Jānaru, 1995).

Considering the huge deficit, its dwindling passenger figures, depopulation, and the ownership of cars in rural areas, the operation of the AN turned into a disaster. Services were cut, and bonus payments and other allowances for the employees dropped (Livedoor, 2012). Yet, the new director of the line, who was elected in 2011, argues that it shouldn't be abolished.

The history leading up to today's problems

The line's awkward name *Akita Nairiku Jūkan Tetsudō* (railway running lengthwise through the interior part of Akita) suggests that a local means of transport, but not the enjoyment of the region, stood in focus. Other small railways that were privatized were often given far more appealing names associated with tourist sites, such as Tenryū Hamanako Railway, referring to the wild Tenryū River and Lake Hamanako in Shizuoka prefecture, or Watarase Keikoku Railway, referring to the Watarase Gorge in Gumma and Tochigi prefectures.

Seeking to understand the neglected potential of a rural railway like the AN, we need to consider the industrial and social changes in the 1960s, 1970s and 1980s by looking at three institutions, the National Railways, the Japan Railway Construction Corporation, and the so-called Third Sector railways.

As a railway and as one of Japan's most important employers, the National Railways of Japan (JNR) played a significant role in the post-war development of inter-regional communication (Tanemura, 1976; Tokorozawa, 1976). However, by 1964, rising expenditures, changes in transport needs, the demise of the coal industry, a rising concentration of the population in the large cities, and the use of private cars and improvement of road conditions, turned JNR from a profitable enterprise into a loss-making business. Therefore, rationalization measures and the plan to close 83 lines were propagated in 1968 (these lines were referred to as *tokutei chihō kōtsū-sen*, Special Local Traffic Lines, cf. Aoki et al., 1981; Tetsudō Jānaru 1981, 1995).

JNR's deficit grew and grew, trains were filthy and late, services became unreliable, while strikes and conflict between labor and management paralysed the JNR throughout the 1970s. The oil price shock of 1973 and the politically motivated reluctance to raise fares made things worse. It was not until 1981 that, on the basis of the *Kokutetsu Saiken-hō* (the JNR Reorganization Law) (Aoki et al., 1981; Tetsudō Jānaru, 1981; Aoki, 1988), the government started to get rid

of the 83 lines (3,158 kilometers) scheduled for closure in 1968. However, at that time the Japan Railway Construction Corporation was still building new lines. When this activity was finally halted, hundreds of half-finished bridges, tunnels, and even complete railway systems all over Japan (Tanemura, 1976) were left to decay. Thanks to the JNR Reorganization Law, 75 lines could eventually be eliminated by the time JNR ceased to exist in 1987 (Tetsudō Jānaru, 1990, 1995).

The Japan Railway Construction Corporation, which was established in 1964, located in Tokyo and run by former JNR officials and Development Banks, built new railways with aid of government finances (Tanemura, 1976; Tetsudō Jānaru, 1995; Yahoo chiebukuro, 2013).³ With regard to the AN line, the Construction Corporation had completed the southern section by 1971, and soon the Jūnidan Tunnel was ready for use. It needs to be mentioned here that Prime Minister Tanaka Kakuei (1972–1974) (Ani Kōhō, 1978), known for his *Nihon Rettō Kaizō-ron* (Japanese Archipelago Remodeling Plan) propagated in 1972, thought of railway transportation as a basic necessity for which the state should pay. Naturally, the local regions thus limited their activities to lobbying for new lines, without feeling responsible for them (Tanemura, 1976).

In the 1980s, the construction ban on new lines was lifted under the condition that their necessity for local development was proved. In this context eliminating dead-end branch lines by connecting them to other lines was considered worthwhile in order to create new flows of traffic, and much engineering work on the future AN line had anyway been completed by the Railway Construction Corporation (Tetsudō Jānaru 1990, 1995).⁴

The AN opened as a Third Sector railway. “Third Sector” denotes an undertaking in which prefectural, regional and national administrations (i.e., the First Sector) join private businesses (i.e., the Second Sector). All sides accept financial and operational responsibility (Tetsudō Jānaru 1983, 1995). Third Sector operations thus appeared to guarantee flexibility and greater independence from rigid budgets. At the same time it became easier to take financial risks that were backed by the local government. In effect, this brought about a new role of the *chiiki shakai* (regional society, regional communities), which recognized the need to be involved in a variety of operations (Aoki, 1988; Suzuki, 1999; Nifty, 2005).⁵

When Third Sector railways started operating, their structure reflected the interests of the region, including tourism. However, their efforts have often failed. There are several reasons for that. First, in many cases the responsibilities of the administration and the private sector were not clearly outlined. Local governments made losses, and the taxpayers had to pay the debts. Moreover, the responsibility of operating the railway often rested with members—or even retired members—of local governments, while private businesses were quick to jump off as soon as the initial enthusiasm had evaporated. The burst of the bubble economy left the focus of many Third Sector railways fixed not on development but on sheer survival. During that time, very few new operations were initiated despite the fact that competition from trucks, highway express buses and private cars was growing fast.⁶ To make things worse, although most Third Sector railways had created

deposits of subsidies when they started business, hoping to operate largely on their interest, interest rates dropped to almost zero. Fares, however, were not raised due to fear of losing more passengers (Suzuki, 1999).

Is there a future for the Akita Nairiku Railway as a tourist line?

As Kaneko Masaru and Takahashi Masayuki have described in their book *Chiiki Kirisute (Cutting off the Regions)* (2008), during the first decade of the 21st century Japan's central government pursued a policy whereby regions should be responsible for themselves. For that reason, regional governments came under severe pressure to reduce deficits. Yet one wonders how much vitality the former director of the AN, who was also the mayor of Kita Akita City, actually invested when he resigned at age 73. He was replaced by manager Wakasugi in 2009, a man from a private enterprise who was experienced in resort and tourist projects. Wakasugi was under pressure to reduce the AN's deficit. However, he soon withdrew. This led to the next stage in Japan's debates about local lines. Now the keyword became *kōbo shachō* (general managers found through public advertising) (Sueyoshi and Sukegawa, 2011; Torizuka, 2012a,b).

The new manager of the AN, Sakai Ichirō (aged 65 in 2012), is a man from Kōbe known for his success in restructuring the Sogō Department Stores and experienced in the areas of public relations and advertising (Satō and Yamashita, 2012; INT 5). Sakai sees the tourist railway business as a particular challenge, as—unlike department stores with merely regional customers—such business needs to appeal to the entire country (Satō and Yamashita, 2012).

As mentioned, staff on the AN suffered cuts in pay and allowances (Livedoor, 2012), while the reduction of personnel has resulted in further savings. Sakai himself was integrated in exchanges within the network of *kōbo shachō* (Ecotran, 2012a,b, 2013; Torizuka, 2012a; Zero-date, 2013a), all of whom like to be out in the field talking to passengers and observing operations; *jibun de ugoku*—moving around personally (Ecotran, 2012a). For Sakai, not just the railway line, but also its context is important. Visitors not only take a ride on the train, they are also interested in buying souvenirs like toys, hand towels, DVDs, and cakes. They also wish to enjoy communication and to dine on the train (Satō and Yamashita, 2012; Livedoor, 2012). Moreover, the AN line is now being shown as an access point to drumming festivals and other regional events. Restaurants serve local food and sake, cultural centers display local hunting traditions, and archaeological sites, nature trails, mountain flora and waterfalls are advertised.⁷

Promotional activities in Tokyo highlight the beauty of the countryside along the AN. However, as Akita has many attractions, the AN itself receives comparatively little attention. Moreover, the majority of pamphlets advertising the AN are published by JR and displayed at JR railway stations. Thus they obviously reflect JR's interest in propagating its own special offers for railway trips through northern Japan, for instance in the *Resort Shirakami* trains through the Shirakami mountain range or the impressive Gonō-Line along the coast. But at least one

23-page pamphlet published by JR East Japan (JR Higashi Nihon, 2011) is fully dedicated to the AN, advertised as *Kakonodate—Hirosaki, koto kara koto e* (Kakunodate to Hirosaki, from ancient capital to ancient capital).

The AN does not have an easy position competing with other attractions in Akita and northern Japan. In addition, maps tend to indicate regionally operated railways such as the AN, in contrast to JR lines, in a badly visible way.

Local railway managers have begun to define regionally operated railways as regional assets (*chiiki no zaisan*) (Ecotran, 2012a,b, 2013; Zero-date, 2013a; Mainichi, 2013a; Yomiuri, 2013a). At the same time they warn that the “regions” are not Tokyo; in Tokyo, things will disappear but are quickly replaced by new things—in large cities this is a natural process (*shinchin taisha*). In contrast, when things disappear in the regions they have gone for good (Planar-zeiss, 2012). Therefore, such assets as the AN need to be cherished.

In January 2013, an extensive 141-page report (Fidea Sōgō Kenkyūjo, 2013) pointed out that the attractive ancient samurai town of Kakunodate was not keen to acknowledge that it was the principle starting point for a trip on the AN. It will require much political skill to change this. The report also showed that 90 percent of the visitors to the AN (as opposed to its regular customers) came from outside Akita, mainly from Tokyo, yet the fact that it can be reached directly by Shinkansen needs far more advertising. Only 10 percent of the visitors to Kakunodate appeared to have traveled on the AN, while 60 percent said they had not even heard about the railway.

The AN itself has made great efforts in targeting women and children. This includes the director’s call for more women to take photos of the line (Sankei, 2012), which has been given the name Akita Bijin Line (*bijin* meaning “beautiful girl”). At the same time, the mascot figure Nairikkun (see Figure 10.3) appeals to children (Yomiuri, 2013b).

Much effort has gone into associating the railway with art. There have been remarkable picture displays of the line’s beauty, or exhibitions of *ochiba art* (art objects made from fallen leaves), while *tambo art* (rice paddy art, i.e., giant pictures in paddy fields created by planting rice of various types and colours) along the line attracts much attention. Also the composition of *haiku* poems related to specific spots in nature is fostered (Satō and Yamashita, 2012; Sankei, 2012; Akita-nairiku, 2013a,b, 2013b; Zero-date, 2013a,b). Furthermore, there is a steady flow of events, which take place in galleries and exhibitions, at festivals and as stage art, as well as various possibilities for *taiken* (physical experience of doing or producing something) (Mainichi, 2013b; Akita-nairiku, 2013c).

For manager Sakai one of the most highlighted elements of revitalization is the sale of goods. A survey of January 2013 lists an amazing number of objects that could be sold for profit, many of these being regionally produced handicraft and foodstuffs, or locally grown fruits and vegetables (Fidea Sōgō Kenkyūjo, 2013: 75–80). Some products, such as regional potatoes or chestnuts, are important ingredients for the production of cookies. Also, the railway line passes through one of the few remaining regions where the *katakuri* plant—the original basis for *katakuri* starch—grows in large numbers.

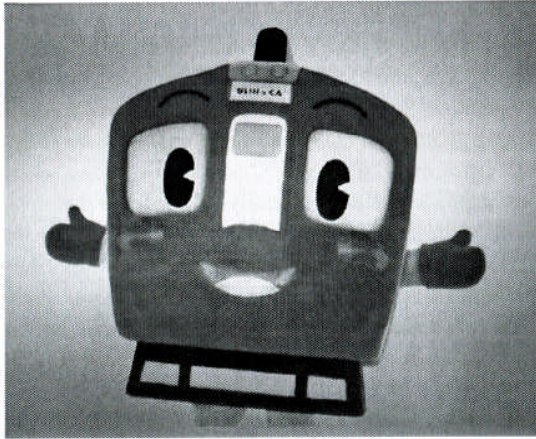


Figure 10.3 Nairikkun

The most encompassing appeal of the line, however, is certainly its link to nature: *shiki no fūkei* (the landscape in the course of the four seasons), *satoyama fūkei*, *satoyama bunka* (agricultural landscape and culture of village Japan), *fūkō meibi* (scenic beauty), or in winter *ichmen no gin-sekai* (a world of glittering silver) are key concepts. All this makes *shasō no nagame* (looking out of the carriage window) a particular experience, while *nonbiri*—‘slow life’—also forms a central appeal. These concepts are subsumed under the idea of *kankō shigen* (tourist assets) and marketed as *Nihon no gen-fūkei* (landscape that speaks of the very basic stratum of Japanese identity) (Satō and Yamashita, 2012; Sankei, 2012). To enable tourists to savor this landscape, the general information site of Third Sector railways in Akita prefecture presents detailed information about the cultural and natural surroundings of every station (Biglobe, 2014).

To convert a railway line into a tourist attraction will not be easy, and it is uncertain whether the local and aging population will go along with such a concept. Moreover, from a glimpse at the timetable of the AN, it is not evident whether this line sees itself primarily as a means of transport or a means of tourism and recreation. Railways in other locations that heavily depend on tourism no longer serve local transport needs and instead focus on providing attractive access to tourist centers, quite often in special panorama carriages.

Unfortunately, the AN has terminated its runs through to Hirosaki, the most important regional city it used to serve in the north,⁸ because using the JR main line from Takanosu onward was too costly. Moreover, it remains doubtful whether any one of the less frequented railway stops along the AN has sufficient potential to attract significant numbers of tourists.

As noted, Japan’s large cities, especially Tokyo, appear to be the main source of visitors. A new manager who does not belong to the closed circle of “Old Boys” in Akita might be better able to tap this source. However, Akita’s interior will always remain a cold and bleak place in winter. In 2013 even the Shinkansen

derailed here due to heavy snow. Another question is how far the pattern of vacations in Japan will permit a substantial increase of visitors from Tokyo. In Japan, employees are often not able to take longer vacations. Day trips from Tokyo to Akita are not feasible, and the attractiveness of the AN might in the end depend on whether it can appeal to tourists who rush to the region to spend just one night there.

Basically, due to the remoteness of tourist locations in Akita, it is essential to attract visitors who come by car, and to offer them an infrastructure that will enable them to move swiftly from a car park to an attraction. However, new concepts demand caution, considering how many remote attractions have gone bankrupt in recent years. Attention must also be given to the fact that it is difficult to visit the smaller places of interest advertised on the AN homepage by train due to the sparse and irregular timetable. Finally, many of the locations for photographing the AN in its full beauty can only be reached from the road, and this does not contribute to the line's running costs.

A mixture of hope and doubt surrounds the AN. Can this unique railway line tap new sources of income by staging events and art festivals and offering regional products for sale? Can depopulation of the area be tackled by appeals to *chiiki no doryoku* (efforts of the local region)? At any rate, a more business-like approach promised by a *kōbo shachō* might be a first attempt towards a more sustainable revitalization of the AN and Akita prefecture.

Postscript

In May 2014 director Sakai suddenly stepped down. The reasons for his departure remain obscure. Some say his understanding of the tourist railway business was limited (personal interview), while others say that Akita prefecture had a hidden agenda which aimed at quickly closing the railway (Argusakita, 2014). Sakai has been replaced by Sasaki Takurō, aged 59, a man from the region who was an officer at JTB (Japan Travel Bureau)'s Akita branch and has close ties to the regional tourist industry (Asahi, 2014). In his blog (Torizuka, 2014), the director of the relatively successful Isumi Railway on the Bōsō Peninsula welcomes Sasaki but draws attention to the fact that a local population usually has no more interest in and no more need for a railway line. In fact, their attitude towards maintaining a railway can even be quite nasty (Yahoo chiebukuro, 2014). Meanwhile, the AN continues to propagate really impressive artistic activity, such as Mosaic Art (using tens of thousands of tiny photographs to create images), or Chainsaw Art (Livedoor, 2014). A recent detailed description of the line is found in Akita Nairiku Jūkan Tetsudō, 2015.

Notes

1. Comprehensive data on the AN can be found in Wikipedia, 2013. See also Satō/Yamashita 2012 and Fidea Sōgō Kenkyūjo, 2013.
2. A description of the railway soon after it had opened is found in Akimoto 1990.

3. For further details on the socio-cultural and political context in which the Japan Railway Construction Corporation operated see Hood (2006).
4. The main criteria for loosening the ban on the construction of new railway lines included access to tourist sites, poor condition of parallel roads, especially in winter, prospects of commuter traffic, the promise that the line would be operated by the local municipalities, and the elimination of *mōchō-sen* (dead-end lines) by linking them to other lines for through running (cf. Tetsudō Jānaru 1982).
5. Ecotran (2012a) discusses the dilemma faced by Third Sector railways on account of different interests of local communities. A larger community situated on a JR line, for instance, may not be interested in a Third Sector branch line, especially if financial aid is required to sustain it. However, a smaller community on a JR line might fear that if the Third Sector branch line were closed, then JR's express trains would no longer stop at their station. Then again, there are communities situated at or towards the end of a Third Sector branch line who would prefer an express bus directly to a large city. On Third Sector railways see also Hood 2006.
6. Many articles since the 1980s draw attention to the fact that railways had lost their symbolic value. Aoki et al. (1981) speak of the disappearing *rēru e no shinkō* (a quasi religious belief in railway lines), Suzuki 1999 illustrates the situation by reminding us that the old proverb *Tetsudō no nai machi ni wa yome mo konai* (to a place without a railway line no bride will ever come) is no longer true.
7. Green tourism is particularly advertised by the manager of the Yuri Kōgen Railway, which is another Third Sector railway line in Akita prefecture (Ecotran, 2012a). Cf. also Satō/Yamashita 2012.
8. A special train Moriyoshi Sanroku Kōyō-gō (Autumn Leaf Express along the Foot of the Moriyoshi Mountain range) was operated between Kakunodate and Hirosaki on October 19/20 and 26/27, 2013.

References

(Note: Tetsudō Jānaru is equivalent to Railway Journal)

- Akimoto, T. (1990), "Zen-tsū ninen-me wo mukaeta akita nairiku jūkan tetsudō" [Operation of the AN going into its second year], *Tetsudō Jānaru* 286, 58–61.
- Akita-ken Gikai (2012), "Kaigiroku Heisei 24/12/4, AN ni tsuite" [Minutes of the Prefectural assembly 2012/12/4—Concerning the AN]. http://gikai.pref.akita.lg.jp/read_detail_daihyo.phtml?division (Accessed November 22, 2013).
- Akita Nairiku Jūkan Tetsudō Homepage (2014), "Teiki-gai jōsha ninzū no kōkai" [Information on the numbers of non-regular customers]. www.akita-nairiku.com/info/content/index.php?id=26 (Accessed December 11, 2014).
- Akita Nairiku Jūkan Tetsudō (2015), *Tetsudō Jānaru* 580, 154–61.
- Akita-nairiku (2013a), "Tambo Art on the AN." www.akita-nairiku.com/info/topics/item.php?id=485 (Accessed 9 October, 2013).
- Akita-nairiku (2013b), "Tambo Art." www.akita-nairiku.com/info/topics/item.php?id=500 (Accessed October 9, 2013).
- Akita-nairiku (2013c), "Akita Nairiku Jūkan Tetsudō kabe-shinbun" [The wall newspaper of the AN]. www.akita-nairiku.com/info/content/index.php?id=25 (Accessed November 22, 2013).
- Ani Kōhō (Gazette of Ani) (1978), "Jūnidan tonneru kantsū" [Jūnidan Tunnel has been pierced] www.city.kitaakita.akita.jp/kouhou/old_4chou/ani/files/1978/195.pdf (Accessed December 14, 2014).

- Aoki, E., Fukuda, Y., Komatsu, T., Moriya, K. (1981), “Kono me de mita akaji rōkaru-sen no seitai” [Facts about the local lines operating at a loss—seen with my own eyes], *Tetsudō Jānaru* 175, 72–5.
- Aoki, E. (1988), “Dai san sekutā tetsudō wo kangaeru” [Thinking about Third Sector railways], *Tetsudō Jānaru* 264, 27–31.
- Argusakita (2014), “Fukakai na Nairiku-sen shachō no ninki wo nokoshite tainin” [Mysterious resignation of the AN director one year prematurely]. <https://argusakita.wordpress.com/2014/04/18/> (Accessed August 25, 2014).
- Asahi (2014), “Nairiku-sen nan toshitemo sonzoku wōshin shachō ga kaiken shi hōfu” [Hopes and plans expressed in an interview with the new director of the AN, who above all wishes to retain the railway]. www.asahi.com/articles/ASG6Z3S60G6ZUBUB002.html (Accessed August 12, 2014).
- Biglobe (2014), “Kakueki shōsai [Details of every station]—Akita Nairiku Jūkan Tetsudō.” www7a.biglobe.ne.jp/~akitetu/nairiku/ (Accessed December 20, 2014).
- Bokukoui (2011), “Anzen, anshin to wa?” [What is safety, what is security?]. <http://bokukoui.exblog.jp/16002569/> (Accessed April 28, 2013).
- City kitaakita (2012), “Nairiku-sen Sakai shin-shachō no omoi wo kiku” [Asking the new AN railway manager Sakai for his opinions]. www.city.kitaakita.akita.jp/news/2012/01/0131/robatakouza/aikawakouminkan.htm (Accessed September 12, 2013).
- Dai san sekutā to tetsudō [The Third Sector and railway (operations)] (1983), *Tetsudō Jānaru* 201, 76.
- Dai san sekutā tetsudō no genjō—daijeto [The situation on Third Sector railways—an overview] (1995), *Tetsudō Jānaru* 342, 57–63.
- Nifty (2005), “AN wo tasukete kudasai! shiryō-hen” [Please help the AN!—Newspaper articles]. <http://homepage3.nifty.com/kumanotaira-mura/help!%20moriyoshi-railway.htm> (Accessed April 28, 2013).
- Nikkei (2012), “Akita Nairiku Jūkan Tetsudō shachō—keijō akaji ni oku en inai ‘bimyō’” [The manager of the AN says it is doubtful whether the operating costs will be within the 200 000 000 yen limit]. <http://h1dlu6fnw5emv.seesaa.net/article/323470126.html> (Accessed April 13, 2013).
- Planar-zeiss (2012), “Heisei 24 nendo de akaji wo ni oku en inai ni asshuku dekinakereba haishi sareru, akita nairiku-sen” [If the deficit is not reduced to under 200 000 000 yen by the end of the year 2012 the AN will be closed]. www.planar-zeiss.com/201205/article_35.html (Accessed April 28, 2013).
- Sankei (2012), “Aidea renpatsu de akita nairiku-sen wo apiiru—Sakai Ichirō shachō” [Manager Sakai Ichirō—a rapid succession of ideas for the AN]. <http://sankei.jp.msn.com/economy/news/120527/biz12052718000003-n1.htm> (Accessed April 28, 2013).
- Satō, E. and Yamashita, T. (2012), “Sakai shin-shachō ga michibiku nairiku-sen no shōnenba” [The moment of truth for Sakai (Ichirō), the new manager leading the AN], *Tetsudō Jānaru* 553, 98–105.
- Sueyoshi, S. and Sukegawa, Y. (2011), “Dai san sekutā tetsudō kōbo shachō funtōki” [A battle report of the kōbo shachō (managers) of Third Sector railways], *Tetsudō Jānaru* 541, 40–65.
- Suzuki, F. (1999), “Dai san sekutā tetsudō—jiritsu e no kadai” [Third Sector railways—the tasks ahead on the way to self-reliance], *Tetsudō Jānaru* 394, 67–76.
- Suzuki, F. (2008), “Chihō tetsudō repooto 51—Akita Nairiku Jūkan Tetsudō” [Reports on regional railways, no.51:The AN], *Tetsudō Jānaru* 502, 72–81.
- Tanemura, N. (1976), “Rōkaru-sen kensetsu wa tsuzuku” [The building of local lines continues], *Tetsudō Jānaru* 112, 52–60.

- Tokorozawa, H. (1976), “Kokutetsu keiei kara mita rōkaru-sen mondai” [The problems of local lines from the perspective of JNR operation], *Tetsudō Jānaru* 112, 30–2.
- Tokutei chihō kōtsūsen saishin zen deeta [The Special Local Traffic Lines (scheduled for closure)—all latest data] (1981), *Tetsudō Jānaru* 175, 23–32.
- Tokutei chihō kōtsūsen ketchaku deeta [The final data concerning the Special Local Traffic Lines] (1990), *Tetsudō Jānaru* 286, 62–3.
- Torizuka, A. (2011), “Isumi Tetsudō shachō blog” [The Isumi Railway manager’s blog]. <http://isumi.rail.shop-pro.jp> (Accessed April 28, 2013).
- Torizuka, A. (2012a), “Isumi Tetsudō shachō blog” [The Isumi Railway manager’s blog]. <http://isumi.rail.shop-pro.jp> (Accessed April 28, 2013).
- Torizuka, A. (2012b), “Kōbo shachō wo boshū suru to iu koto” (On publicly advertising for managers (of railway lines)). <http://isumi.rail.shop-pro.jp/?eid=1000&PHPSESSID=143d642019b2f54123e89247eeb0cfd> (Accessed April 28, 2013).
- Torizuka, A. (2014), “Isumi Tetsudō shachō blog” [The Isumi Railway director’s blog]. <http://isumi.rail.shop-pro.jp/?eid=1035492> (Accessed December 8, 2014).
- Wikipedia (2013), “Akita Nairiku-sen [the AN line].” <http://ja.wikipedia.org/wiki> (Accessed March 31, 2013).
- Yahoo chiebukuro (2013), “Akita Nairiku Jūkan Tetsudō no jūnidan tonneru wa hitsuyō dattan desuka?” [Was the Jūnidan Tunnel on the AN really necessary?]. http://detail.chiebukuro.yahoo.co.jp/qa/question_detail/q11110787781 (Accessed September 10, 2013).
- Yahoo chiebukuro (2014), “Akita ken-min to Akita Nairiku-sen no sonzoku wo negau katagata ni shitsumon” [Questions posted to the inhabitants of Akita prefecture and to those who wish the AN to continue operating]. http://detail.chiebukuro.yahoo.co.jp/qa/question_detail/q10128134885 (Accessed December 8, 2014).
- Yamaba wo mukaeta rōkaru-sen mondai (The problem of local railway lines is about to reach a peak) (1982), *Tetsudō Jānaru* 188, 86–7.
- Yomiuri (2013a), “Nagai-sen hyaku-sai” [100 years Nagai-Line (in Yamagata Prefecture)]. www.yomiuri.co.jp/otona/railwaynews/02/yamagata/20131020-OYT8T00434.htm (Accessed November 22, 2013).
- Yomiuri (2013b), “Nairikkun—Kodomo ni yume” [Nairikkun—A dream for the children]. www.yomiuri.co.jp/e-japan/akita/feature/akita1361899688543_02/news/20130307-OYT8T00200.htm?from=popin and www.yomiuri.co.jp/e-japan/akita/feature/akita1361899688543_02/index.htm (Accessed April 28, 2013).
- Zero-date (2013a), “Akita Nairiku Jūkan Tetsudō to chiiki no kakawari wo kangaeru fōramu” [Forum to consider the relations between the AN line and the region]. www.zero-date.org/staffblog/2013/01/post-313.html and <http://blog.livedoor.jp/nairikutetu/archives/50800426.html> (Accessed March 28, 2013).
- Zero-date (2013b), “Akita Nairiku Jūkan Tetsudō to chiiki no kakawari wo kangaeru fōramu—Zero-date ga kangaeru Akita Nairiku Jūkan Tetsudō aato no imeeji bijuaru” [Forum to consider the relations between the AN line and the region—The zero-date image visual of Nairiku-sen art]. www.zero-date.org/schedule/schedule_file/001328.html (Accessed April 28, 2013).

Sustainability in Contemporary Rural Japan

Challenges and opportunities

**Edited by
Stephanie Assmann**

 **Routledge**
Taylor & Francis Group
LONDON AND NEW YORK

2016
