

Process Management in Public Transit Planning: A Case Study of the Light Rail Transit Introduction Project in Toyama, Japan

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Abstract. This paper analyzes a policy-making process and discusses the role of policy process management in the public transit project. There has been no well-organized public transit planning made by local government in Japan mainly because there is no national program for statutory local public transit planning in Japan. The Toyama LRT project is one of the exceptional cases where a local government has tackled with the local public transit planning. We unveil the planning process in this project with the intensive interviews with the local stakeholders. We focus on the framing recognized by the stakeholders. First, we classify the process into four phases. Next, we analyze the stakeholder behaviors, the main agenda, the framework recognized by the stakeholders, and the meetings in each phase. We then examine the policy process management of the Toyama City Government, and discuss the factors influencing the successful introduction of the LRT, from the viewpoint of policy management. In summary, there are three factors involved: technology/topography, financial resources, and policy process management. We show that well-organized policy process management contributes to smooth consensus-building; in this case, the process manager made the best use of the technological/topographical and financial factors and consequently guided the stakeholders to a consensus. Finally, we discuss the lessons learned from the Toyama LRT case. We point out the following key factors, each of which influences the policy-making process: appropriate vision-setting and strong leadership, meeting management, viewpoint shift under certain constraints, the involvement of experts, and the framing arrangement vis-à-vis individual negotiation.

INTRODUCTION

In April 2006, the Toyama Light Rail Transit (LRT) started its service in Toyama city, Japan. The introduction of the Toyama LRT marked the first case in Japan in which a newly introduced line was invested for LRT service. It was successfully realized with the smooth decision-making process. It has been considered that the consensus-building for the LRT introduction is difficult in Japan. For example, the other LRT introduction has not yet realized in Okayama, Japan although they have been discussing it since 1997 (1). Why was the Toyama LRT introduced so smoothly? How can we build the consensus for the new public transit system? To answer these questions, this paper analyzes a policy-making process and discusses the role of policy process management in a public transit project, with the case study of the LRT introduction in Toyama city.

This paper focuses especially on a series of policy-making processes, including agenda-setting, option-setting, and decision-making. Our analysis pays especial attention to the following two viewpoints. First, we focus on the framing recognized by the stakeholders at the various process stages; recent studies suggest that individuals' decisions often depend on the decision-making context, which is sometimes referred to as a framing effect (2, 3). The framing effect can also be observed in transport planning. The framing of a transport planner or a policy process manager often differs from that of stakeholders. In such cases, reframing has an important role in advancing the process; such an assertion is in line with Rein (4), who points out that reframing is one of the most critical factors to influence consensus-building in the policy-making process. Second, we focus on a main actor in the policy-making process. In our case, it is the Toyama City Government (TCG), as it led the discussions and negotiations. We are especially interested in examining the process by which the TCG came to understand the concerns of stakeholders and cope with them. We also analyze the meetings where the TCG negotiated various topics with the stakeholders.

The balance of this paper is organized as follows. Section 2 provides an overview of the case, and Section 3 divides the policy-making process into four phases and reviews the events that occur in each phase. Section 4 classifies the stakeholders and identifies their concerns. Section 5 analyzes the process management of the Toyama local transport authority and discusses the lessons learned from the case at hand. Finally, Section 6 summarizes the results.

OVERVIEW OF TOYAMA LRT INTRODUCTION PROJECT

Toyama city is the prefectural capital of Toyama Prefecture in Japan; as of 2006, it had a population of about 420,000 individuals. The local transport census data shows that the modal share of the private transport in Toyama city is some 72%. The JR Hokuriku line, operated by the West Japan Railway Co. (JR West), runs from the east to the west as a main transport artery. In addition, there was a local heavy rail line—the Toyama Kosen—operated by JR West that ran along the northern part of Toyama central station, and there is the tram network operated by the Toyama Local Railway Co., in the southern part of the Toyama central station. The Toyama Kosen line was 8.0 km long, and connected the Toyama central station and Iwasehama station; it was mainly used by commuters working at the industrial and commercial districts along the line and by students of the schools located near the stations. The number of Toyama Kosen passengers had decreased sharply in the last decade, although the population in the districts along the line had been stable, at about 45,000. The idea of

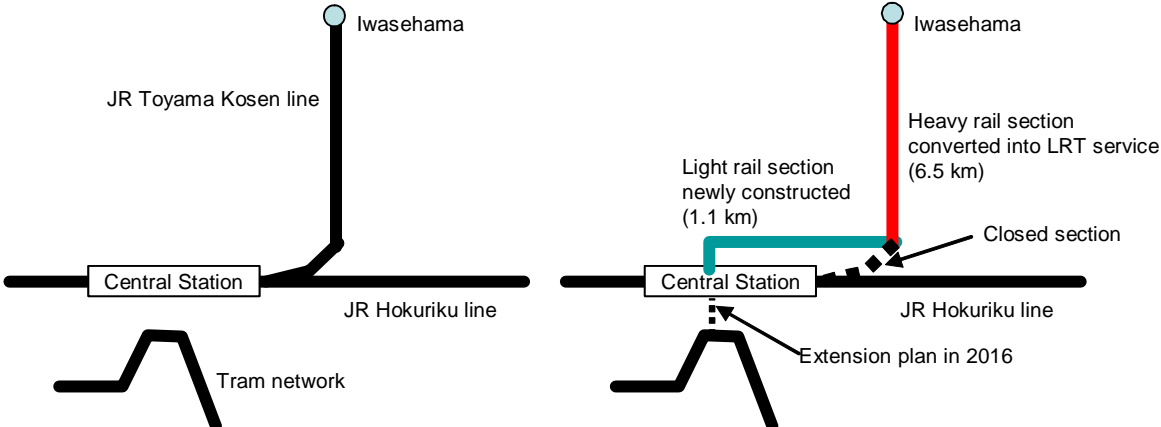


FIGURE 1 Public Transport Network in Toyama City Before and After the Commencement of LRT Service in 2006.

TABLE 1 Service Improvements in the Toyama LRT Introduction Project

Service type	Details of service improvement
Frequency	Increase of services from two per hour to six per hour during the peak hours. Increase of services from one per hour to four per hour during the off-peak hours.
Final train schedule	Change from before 22:00 to after 23:00.
Total services	Increase of services from 38 per day to 132 per day on a weekday.
Vehicles	Introduction of seven rolling stocks with the new low-floor light rail vehicles.
Stations	Installation of five new stations. Reformation of the platforms of all stations into new ones with facilities for handicapped passengers. Installation of the electric guidance boards for announcing the approach of trains. Introduction of new local bus services accessing two stations. Installation of new bicycle parking lots at stations.
Fare system	Introduction of a smart card system.
Rails	Installation a new technology in the rail, thereby reducing the noise and vibration. Some sections are covered by green.

converting the Toyama Kosen line into the new LRT line came up when a new Hokuriku Shinkansen (high-speed rail) construction project was announced in Toyama in 2004; during those discussions, the TCG decided that the Toyama Kosen service was to be closed. A portion of the line remained open for use by the new LRT service, but the other part of the line was replaced by the new LRT line. The LRT is operated by a new public-private company, the Toyama Light Rail Co.

FIGURE 1 provides a schematic overview of the LRT introduction project in Toyama. The 1.1-km long section approaching Toyama central station was converted from the heavy rail structure into a light rail structure on the highway. The remaining section with a length of 6.5 km was also fitted for LRT service. The TCG plans for the LRT line to be extended to the existing tram network at the southern side of the central station in 10 years, after LRT service commences. In addition to investments made in the existing facilities, transit service was also improved by increasing service frequency, extending service time, introducing new vehicles, building new stations, initiating a new “smart card” system, and so on. The details of the Toyama LRT project’s service improvements are listed in TABLE 1.

The investment costs consist of the construction costs of the new light rail facilities, the improvement costs of the existing heavy rail facilities, and the vehicle costs. Resources include the Rail-highway Grade Crossing (RGC) Program, the Tram Facilities Improvement (TFI) Program, and the LRT System Investment Subsidy (LRT-SIS) Program, among others. The RGC Program aims to promote the communication of local communities by improving the connectivity among the urban areas that are divided by the rail line. The program covers projects in which a level rail-highway crossing is improved by making it into a rail-highway grade crossing with an elevated railroad infrastructure. Railway operators benefit from this project, because they can operate trains more safely and can also run the trains faster. Because of these benefits, the program requests that railway operators share construction costs with the highway administrator. The railway operators pay for their share of the costs from fare revenues, while the highway administrator pays for it from the Highway Fund. The criteria in applying the program include the existence of sequential rail-highway level crossings and a certain volume of traffic crossing the railroad. The TFI Program, which was established in 1997, aims to provide financial resources that the highway administrator may invest in roads, foundations, and stations, especially with regards to LRT service. Half the total investment cost in the TFI Program is subsidized by the central government. The LRT-SIS Program, which was established in 2005, aims to provide financial support for the introduction of LRT-related facilities, including vehicles, station facilities, rails, and sheds, and to improve transformer substations and establish a “smart card” system. One-quarter of the total cost of the LRT-SIS Program is subsidized by the central government. In addition, the TCG contributed 1.3 billion yen to the LRT project, but as JR West donated 1.0 billion yen to the TCG in the name of promoting local activities, the real burden placed upon the TCG was considered to be only 0.3 billion yen. The Toyama Kosen facilities, which were once owned by JR West, were transferred, free of charge, to the Toyama Light Rail Co. through the TCG. In addition to the construction costs related to LRT facilities, the Toyama local planning authority (LPA) invested in nearby open spaces, bicycle parking lots, and road access in the vicinity of the stations.

The Toyama Light Rail Co. can receive financial support from the TCG, the Toyama Prefecture Government, and the LRT Fund, to maintain facilities and replace facilities and vehicles. The LRT Fund includes donations from local citizens and firms. The Toyama Light Rail Co. cannot receive any subsidy from the public sector for

their operation cost. The Toyama Light Rail Co. plans to use its capital for a while to recover from its deficit situation. The capital of the Toyama Light Rail Co., equal to 498 million yen, comprises investments from the public sector—including the TCG and the Toyama Prefectural Government—and investments from local private firms.

POLICY-MAKING PROCESS OF TOYAMA LRT PROJECT

Definition of phases

First, we will define the phases of the policy-making process in the case of Toyama LRT. Defining the phases depends upon the timing of the changes made at the various planning stages, the stakeholders' reframing, and agenda shifts that are dealt with in the course of the decision-making process.

The major events occurring in the policy-making process are summarized in TABLE 2, and the authors divide this process into the following four phases. The first phase is a primitive stage that occurs before fixing the agenda in advance of the LRT introduction; it covers the period from 1995 to 2000, in which the local authorities discussed the town development within the frame of connecting the northern and southern parts of the city. The second phase is an agenda-setting stage; it covers the period from 2001 to 2003, in which the main agenda was created in reaction to the Hokuriku Shinkansen project. After the second phase, planning shifted from the agenda-setting to the option-setting and decision-making stages; that third phase covers the period from 2003 to 2004, when the LRT introduction was fixed by way of a feasibility study. In the fourth phase, covering the period from 2004 to 2006, the TCG examined the details of the LRT system—including a review with pertinent experts of the technological feasibility thereof—and finally brought the introduction of the LRT to fruition. The balance of this chapter reviews these four phases.

TABLE 2 Policy Process of the Toyama LRT Introduction

Month and year	Events
July 1995	TCC begins informal discussions about town development around the central station.
March 1999	LPA announces the Toyama Urban Master plan. JR West informally proposes the conversion of Toyama Kosen into a tram system to the prefecture. LPA completes the Regeneration Plan for the Toyama Central Business District.
2000	MLIT relaxes the conditions of the Rail-highway Grade Crossing Program. TCC hints at an idea for the LRT introduction in the Toyama Local Public Transport Plan.
2001	The Hokuriku Shinkansen Project at Toyama is authorized.
2003	Rail-highway Grade Crossing Program in the area around Toyama central station is approved. The city road expansion along the planned LRT line is informally approved.
January 2003	TCC sets up an informal meeting to examine the feasibility of the LRT introduction.
May 2003	The mayor announces the LRT introduction plan.
July 2003	TCC sets up the formal committee to investigate the feasibility of LRT introduction.
November 2003	Public Transport Authority of the Government Office for the Hokuriku Shinetsu Region sets up a technical working committee. TCC sets up a public meeting that aims to discuss the local public transport plan in Toyama city.
January 2004	TCC establishes the LRT promotion team in the city council. The mayor has an informal meeting with the president of JR West.
March 2004	The city assembly approves the budget bill for the LRT introduction.
April 2004	Toyama Light Rail Co. is established. An organization for collecting donations to the LRT fund is established. The central government gives permission for Rail-highway Grade Crossing Project. TCC sets up another committee for discussing the design of LRT.
May 2004	The mayor, the representatives of the city assembly, and the representatives of the local people visit European cities. TCC makes an agreement with JR West.
October 2004	The city road expansion along the planned LRT line is formally approved.
November 2004	Toyama Light Rail obtains permissions for the heavy railway operation as well as the light railway operation from the MLIT.
February 2005	The MLIT gives the permission to construct the Toyama Kosen line.
March 2005	The Rail-highway Grade Crossing Project is approved as a city planning project.
April 2005	The construction of the Rail-highway Grade Crossing Project is permitted.
April 2006	The Toyama LRT commences its service.

TCC: Toyama City Council; LPA: Local Planning Authority in Toyama city; MLIT: Ministry of Land, Infrastructure and Transport, Japan; JR West: West Japan Railway Co

Phase 1: 1995–2000

The TCG started informal discussions in July 1995 with members of the Ministry of Land, Infrastructure and Transport (MLIT) and the Toyama Prefectural Transport Authority. They examined the feasibility of a town development that connected the northern and southern parts of Toyama central station. The main agenda at that time was whether the JR Hokuriku line and Toyama Kosen line could be elevated with support from the Limited Rail-highway Grade Crossing (LRGC) Program. The LRGC Program provides financial support to the local authority, to construct elevated rail structures that cross over a single road, and the financial support in this program is limited to the amount of expenditure required either to construct the tunnel for the road crossing under the railroad or to construct an overpass road that crosses over the railroad. The TCG believed it difficult to apply the LRGC Program to the project, because the financial burden would be too large for the local authority to bear. As the LRGC Program does not clearly declare the shares of expenditure among the central government, the Prefectural Government, and the City Government, the City Government was afraid it would need to pay more expenditure than it could afford. On the other hand, the RGC Program clearly declares the shares of expenditure among the stakeholders. Finally, in 1999, JR West proposed that the Toyama Kosen be converted into a tram system, similar to the existing tram line; the officials of the TCG did not accept the proposal.

In 2000, the MLIT relaxed the conditions of the RGC Program. The reason behind this relaxation was the strong social pressure to resolve the lengthy delays to highway traffic flows that occurred at rail-highway level crossings. The RGC Program originally required that in order to receive funding, a project had to satisfy the condition that there were two or more sequential rail-highway level crossings within a specific rail section. The Toyama LRT's case did not satisfy those conditions, because some of the crossings were not level crossings; rather, they were highway underpasses, and they crossed under the railroad. The relaxation of the RGC Program conditions enabled the TCG to realize town development *vis-à-vis* the LRT in Toyama.

The Toyama city LPA developed a new urban plan and announced the Urban Master Plan in March 1999. The plan covered local transport development, including the highway network and the public transit network. In addition to the Urban Master Plan, the LPA completed the Regeneration Plan for the Toyama Central Business District. The Regeneration Plan outlined the planning visions, including the new town development in the northern part of the central station and the regeneration of the existing commercial district in the southern part. The Regeneration Plan suggested that improvements to the public transport system were badly needed, in order to enhance the accessibility of local people—particularly when society is rapidly aging and there is an impetus to reduce the environmental impact of automobile emissions. Based on these plans, the TCG prepared in 2000 the Toyama Local Public Transport Plan, which hinted at introducing an LRT in Toyama.

Phase 2: 2001–2003

The central government made a political decision in 2001 to start constructing the Hokuriku Shinkansen line at Toyama. The Hokuriku Shinkansen project is one of the national high-speed rail projects; it runs between Tokyo and Osaka via Nagano, Toyama, and Kanazawa. The line between Tokyo and Nagano was opened in 1997, whereas the rest is still in planning and/or construction stages. The line between Nagano and Kanazawa is scheduled to open by April 2015. This prompted the TCG to reexamine the local transport system and the area development around the station, because it was thought that the Toyama central station would be replaced by a new station that includes the Shinkansen line. The most critical problem was how best to use the Shinkansen platform in the Toyama central station. As the Shinkansen trains were required to run on the elevated rail structure, the elevation of the existing JR Hokuriku line was also expected. Many houses and buildings already stood near the JR Hokuriku line around the Toyama central station, and a high-story apartment had been constructed, even in the open space near the station. These buildings were thought to make it difficult to secure the site for stocking construction materials, and it was almost impossible to prepare the tentative line for the existing local rail service during the construction period. The transport experts proposed the construction of the station as a three-layer structure, where the Shinkansen platform would be located over the JR Hokuriku line platform. However, the then-Prefectural-Governor strongly opposed that proposal, citing the too-expensive construction costs and the serious, negative impact on the local landscape.

From there, how to deal with the existing Toyama Kosen line was inevitably taken up for discussion. First, the experts suggested that the Toyama Kosen line be elevated to the same floor as the existing JR Hokuriku line; that idea was rejected because it required very large outlays of time and money, mainly for additional land

acquisition. Next, the following three options were proposed: the first was to abolish the Toyama Kosen line and replace its service with the local bus service; the second was to close temporarily the Toyama Kosen service near the central station during the construction period and restart the service later on; and the third was to convert the Toyama Kosen line into the LRT line. Although the LRT plan was regarded as the most preferable one, preparing the budget for the construction became a critical problem. The local stakeholders expected the RGC Program to support the LRT construction, but the LRT investment did not satisfy the conditions of an RGC project. There was no precedent at that time for the central government to apply the RGC Program to such a project as the Toyama LRT.

The central government finally approved the application of the RGC Program to the Toyama LRT project in 2003, after long discussions with the MLIT. This decision reflected the MLIT's conclusion that the RGC Program could be applied to a non-highway project that expectedly has the same function as a relevant highway project.

Phase 3: 2003–2004

The TCG set up an informal meeting in January 2003, to examine the feasibility of the LRT introduction to the Toyama Kosen. After the mayor announced the LRT introduction plan in May 2003, the city assembly started to discuss the budget bill for the LRT introduction. The TCG also held a public meeting to explain the plan to local residents.

The TCG then set up a formal committee that looked to investigate the feasibility of the LRT introduction. The committee members examined the following three options for coping with the Toyama Kosen line: the first was to keep the Toyama Kosen service by elevating the rail infrastructure at the Toyama central station; the second was to terminate the Toyama Kosen service by replacing it with the local bus service; and the third was to convert the Toyama Kosen into a new LRT system. The third option included the extension of the LRT line to the existing tram line, 10 years after starting its service. The committee compared the three options by way of a cost-benefit analysis, and it concluded that of the three options, the net social benefit of the LRT option was the highest in the LRT option. In addition to the cost-benefit analysis, the committee analyzed financial feasibility by examining estimated travel demand; that study showed that there would be a deficit equal to 20–30 million yen per year for first 10 years of operation, and it also forecast that a positive surplus would be expected following the LRT line extension. The committee also examined the form of the LRT service operators, comparing public operators, private operators, and third-sector (public-private) operators. Following these discussions, the committee concluded that the third-sector operator was preferable for the Toyama LRT service, and the committee proposed the introduction of the Government-Owned, Contractor-Operated (GOCO) concept to the Toyama LRT project.

The discussion results of the aforementioned meetings and committees were immediately reported to the city assembly, whose members discussed the various topics and committee reports in-depth. Consequently, the city assembly approved the budget bill for the LRT introduction in March 2004. The assembly also approved an ordinance on the foundation of the LRT Fund. After approving the budget bill, a third-sector company, the Toyama Light Rail Co., was established in April 2004; at the same time, an organization for collecting donations for the LRT Fund was also established. The TCG also set up a public meeting in November 2003, aimed at discussing the local public transport plan in Toyama city. The meeting members proposed the concept of a “compact town development,” together with the integrated transport system. The public meeting members regarded the LRT introduction as the first step in developing the urban public transport system in Toyama city. They also presented a plan to extend the tram network, introduce a feeder bus service, and improve terminal functions at the Toyama central station.

The mayor, representatives of the city assembly, and representatives of the local communities visited European cities in May 2004, to survey their local LRT systems. The local television company joined the survey and televised their visit to the Toyama area in June 2004. The mayor reported the survey results in the city assembly in June and announced that the city was developing the public transport system to invigorate the central commercial district. In 2005, the central government established the LRT-SIS Program, as well as the “LRT Integrated Investment Scheme,” by which an LRT investor could simultaneously apply the three related financing programs to a project. The LRT Integrated Investment Scheme includes the TFI Program, the LRT-SIS Program, and the Urban Traffic Generation Terminal Investment Program. The Toyama LRT introduction project became the first case to use the LRT Integrated Investment Scheme.

Phase 4: 2004–2006

The TCG started the official procedure for acquiring the necessary permissions and started to roll out the project. The scheduled start of the LRT operation was set for April 2006; it was necessary to empty the site of the Toyama Kosen line by April 2004, in order to start the construction of the Shinkansen line in time for its scheduled start of operations in 2015.

In October 2004, the LPA approved improvements to the highway, in order to install the light rail according to the City Planning Law. The Toyama Light Rail Co. received permission from the MLIT in November 2004 for the operation of both heavy and light railways, and the MLIT gave further permission in February 2005 to improve the Toyama Kosen line. The Prefectural Planning Authority approved the RGC Project in March 2005, and the MLIT gave permission in April 2005 to initiate the RGC Project. Consequently, the Toyama Light Rail Co. started the LRT service in April 2006, after training drivers and fully preparing for day-to-day operations.

The LPA also started a town development initiative during the LRT construction. The LPA invested in a new open space at the two LRT stations, in order to improve accessibility to the station, and it also installed bicycle parking lots around the nine LRT stations. The LPA also promoted residential development around the station and invested in the development of pedestrian routes near the LRT line.

STAKEHOLDER ANALYSIS

Classification of stakeholders

First, we analyze the concerns of each stakeholder in the case of the Toyama LRT, then we will examine the behavior of the TCG as a policy process manager. The stakeholders are categorized as being one of the following four types: local stakeholders, related authorities, the transport operators, and experts consultants. The local stakeholders include the TCG, the city assembly, and local firms and communities. The related authorities comprise the Toyama Prefectural Government, the MLIT, and the police agency; the transport operators include JR West, the Toyama Local Railway Co., and the Toyama Light Rail Co.

Local stakeholders

The TCG expected the LRT introduction project to improve the connectivity between the northern and southern parts of the Toyama central station. TCG representatives were also concerned about achieving compact town development while improving the local public transport, even as they worried that the financial obligations of the LRT construction were too burdensome for all involved. They were also concerned that schedule delays in the LRT Project could impact the execution of the Shinkansen project. The local communities expected the new LRT to improve their accessibility to the area, as well as their personal mobility. In the public consultation held in May 2003, members of the local communities showed their positive support for the replacement of the Toyama Kosen with the LRT service. Financially, local firms invested capital in the Toyama Light Rail Co. and made donations to the LRT Fund. The total amount of donations was larger than what was expected; their generosity was likely self-serving rather than altruistic, however, as the firms no doubt expected the introduction of the LRT to improve the local economy and increase local attractiveness. By general consent, the city assembly approved the budget bill for the LRT introduction, on the basis that introducing the LRT would boost the local economy and reverse the previous decline of the central commercial district. On the other hand, the assembly members were concerned about the related expenditures and whether or not all districts in the area would benefit equally.

Related authorities

The Toyama Prefectural Transport Authority lent support to the TCG regarding the LRT introduction project. The Prefectural Transport Authority strongly expected the LRT introduction to promote the RGC Project, and believed that this could help preclude interruptions during the execution of the Shinkansen project. The Prefectural Planning Authority managed the LRT introduction by negotiating with the stakeholders as the RGC project manager. It should be noted that the Prefectural Transport Authority shared expenditures related to the RGC Project, through the RGC Program. The MLIT officials rightly regarded the Toyama LRT plan as an

advanced project in Japan. They considered the LRT introduction project as being symbolic, even from the viewpoint of the integrated transport policy. The Ministry of Transport (MOT) and the Ministry of Construction (MOC) were integrated into MLIT in 2000. The MOT owned the Railway Bureau, while the MOC owned the Highway Bureau. As the LRT project fell under the jurisdictions of both bureaus, this project is sometimes considered one of the typical integrated projects involving two bureaus. They also intended to manage the RGC Program, despite social pressure to the contrary against the Highway Fund. As far as the introduction of new technology was concerned, MLIT officials requested that TCG carefully examine its safety, pointing to the need for operational stability in the long term. The police agency also gave their basic approval of the LRT plan, knowing it would reduce traffic volumes in the city. On the other hand, the police agency was afraid that local highway users would suffer from more serious congestion, on account of highway capacity possibly being decreased by the light rail installation on the road.

Transport operators

JR West had sought the opportunity to separate the low-demand rural railway lines from their rail network, but the local communities strongly opposed such action, because doing so would make it difficult for rural communities to maintain the rail service by way of their own resources. There was an existing agreement regarding the service separation of the existing local JR line, which would run parallel to the Shinkansen line following the introduction of the Shinkansen service, but there existed no agreement on the service separation vis-à-vis the existing local line that did not run parallel to the Shinkansen line. It is certain that the JR Hokuriku line is the former case, but JR West has not provided any ideas regarding service separation thereof; the Toyama Kosen line is the latter case, which means that JR West cannot separate the Toyama Kosen based on the implementation of the Shinkansen project. At the same time, JR West faced difficulties in continuing the provision of the Toyama Kosen service, because the stockholders strongly requested that JR West separate itself from the unprofitable Toyama Kosen line. JR West finally made an agreement with the TCG, wherein they would make a donation to Toyama city. That agreement shows that the donation amount was equal to the deficit that would have been realized, had the Toyama Kosen service continued. The Toyama Local Railway Co. basically expected the TCG to lead in local public transport policy-making. The company decided to invest the capital of the new LRT operator and, as a result their participation, came to manage the decision-making in the coordination of the LRT operation and the existing bus operations.

Experts

There were many experts who took part in discussions with committees and in public meetings. These included academic professors, consultants, engineers, planners, and designers. These experts used their knowledge and experience to provide a strong source of support for the LRT introduction project.

PROCESS MANAGEMENT ANALYSIS

The process management of the local transport authority

The TCG took a leading role in managing the LRT introduction process in Toyama. Although the various stakeholders had different interests and expectations, the TCG understood their concerns and negotiated with them effectively.

First, the TCG communicated with members of local communities by holding a number of consultations and promoting their awareness of the project by distributing informational pamphlets. The TCG also cooperated with the local community groups in collecting donations for the LRT Fund. Second, the TCG requested that local firms invest capital in the new LRT operator, and to raise further revenues, also introduced the new ideas of installing commercial advertisements in the LRT stations and selling the rights to name the stations. Doubtless, local firms would receive corporate benefits by partaking in these activities. Third, the TCG tried to receive support from the city assembly by requesting that the mayor present its vision of the future transport system and the ensuing town development; this would help achieve “buy in” from the assembly members, based on the assertion that the LRT introduction would contribute positively to town development. The TCG also patiently explained to them that, based on the discussion results among the committees involved, the introduction of the LRT would not cause a serious financial deficit. Fourth, the TCG coordinated well with the Prefectural Transport Authorities in initiating the LRT introduction. By being prompt in moving the planning process forward, the TCG relieved the Prefectural Transport Authorities’ fear that the Hokuriku Shinkansen rollout schedule would be delayed. Fifth, the TCG received the support of MLIT officials by managing the LRT introduction process via

a number of well-organized committees. The TCG also contributed to the MLIT's integrated transport policy. Sixth, the TCG carefully consulted with the local police agency on traffic congestion problems that could be caused by the introduction of the LRT; the TCG explicitly indicated that, until the related areas could be improved upon, the LRT introduction would impair traffic flow at some bottleneck points. The TCG persuaded the police agency of the efficacy of the LRT by showing it that the introduction would reduce automobile use and alleviate traffic congestion problems in the long run. Seventh, the TCG carefully negotiated with JR West concerning the direction the Toyama Kosen would take; they finally agreed that JR West would make a donation to the City Council and that the TCG would not request any further contributions. Eighth, the TCG requested that the Toyama Local Railway Co. invest capital in the new LRT operator; this would enable the company to integrate the LRT business with its local bus business, and thus involve the company more in the management of LRT. Finally, the TCG invited the various experts to take part in technical and political discussions concerning the LRT introduction. The TCG gave them an incentive to join in these discussions by showing them that the Toyama LRT introduction was a historic, watershed moment in the city's development, not just in the development of a public transport system.

Lessons learned from the case of Toyama LRT

Here, we discuss the lessons that can be learned from the case of the Toyama LRT, from the viewpoint of policy-making process management.

Lesson 1: Setting appropriate general vision in framing the agenda and the provision of strong leadership promote consensus-building among stakeholders.

The TCG regarded the LRT project not only as the simple conversion from heavy rail service to light rail service, but also as one of the measures that, when undertaken, would bring about compact town development. Setting such general visions in framing the agenda allowed the various stakeholders to understand and thus support the LRT introduction project. It should be noted that the TCG's reframing of the LRT's social benefits has been examined from the cost-benefit analysis viewpoint, and that it strongly promoted consensus-building among stakeholders in the third phase. Furthermore, the mayor's leadership also accelerated consensus-building among local communities and city assembly members. The mayor pointed out that compact town development could reduce administrative costs and generally improve accessibility for people with disabilities. Finally, by introducing the GOCO concept, the mayor also asked local citizens to understand that the public transport system should be operated as a public service.

Lesson 2: The combination of formal, semi-formal and informal meeting and the provision of relevant information determine the effectiveness and efficiency of the process management.

In the case of Toyama LRT, the TCG established various meetings and committees to discuss the LRT introduction project, setting up not only formal meetings, but also semi-formal and informal ones. Members of the TCG prepared plans and options during informal meetings and then discussed them in semi-formal meetings; all discussions were ultimately authorized and finalized within formal committees. This step-wise meeting-management approach gave rise to an efficient discussion process. The informal meetings in particular allowed the TCG to select participants and manage the scope of the agenda in a flexible manner. The TCG also managed the timing of announcements to the public concerning discussion results. On the one hand, the TCG announced some critical issues immediately after the stakeholders had come to a rough consensus within the informal meetings; on the other hand, the TCG announced other issues after the stakeholders had built a complete consensus at the formal committee stage. Additionally, the TCG provided news—both positive and negative—including that of the LRT operation's deficit situation. The news of that deficit in particular made members of local communities aware that they needed to support the LRT system in earnest. The TCG made great use of various mass media outlets, including the magazines and local newspapers, and always provided local television companies with the latest news and details.

Lesson 3: Taking advantages of opportunities under the constraints might break the deadlock.

The TCG did not give up the project, even when faced with the most serious constraints. Instead, these constraints were considered ways in which they could reach their goals more expeditiously, rather than as obstacles. One example is when the Shinkansen project was given to the local stakeholders exogenously. For five years, the TCG had sought a way to bring together the northern and southern parts of the central

station; however, that goal was finally realized through the RGC Project, under the conditions imposed by the Hokuriku Shinkansen project. The Shinkansen project also increased the optional cost of elevating the Toyama part of the process management a Kosen line, because doing so might disturb the Shinkansen construction in terms of reducing the construction site availability and delaying the opening of the Shinkansen service. As a result, these constraints prompted the stakeholders to agree to the LRT option. Another example in which constraints were found to be somewhat beneficial was with regards to the financial schemes, including the LRGC and RGC Programs. Before 2004, those programs could not be applied to the case of the Toyama LRT. While the central government discussed the possibility of making changes to the financial schemes by instituting their own incentives, the TCG lobbied the central government to improve the existing program. Consequently, the relaxation of those government financing schemes finally enabled the TCG to bring the LRT project to fruition—thus reflecting the efforts the TCG undertook to understand the complicated financial schemes at their disposal and to exploit them to fulfill the project at hand.

Lesson 4: The design of incentives for the involvement of experts is important.

The TCG gave experts various opportunities to participate in discussions, and themselves the chance to exploit those experts' useful knowledge and experience. The TCG offered incentives to these experts in three ways. The first was to set somewhat orthodox visions for the LRT introduction; the second was to establish various types of meetings in which the experts could participate; and the third was to emphasize the special value of the LRT project, given that it was the first of its kind in Japan. Many experts who expected the Toyama LRT case to become a milestone or a model of good business practice in Japan were glad to join the meetings.

Lesson 5: The framing and reframing of the discussions in each phases of projects and negotiations is a successful part of the process management approach.

By managing the framing used in the formal discussions, the TCG found that it had strong support from members of the local communities and the city assembly. The TCG also negotiated independently with those stakeholders who had expectations and concerns that differed from those of the TCG. As seen earlier, the framing recognized by the stakeholders changed as the project's various phases were completed, and said framing changed especially when a new constraint was added and/or an existing constraint changed. The TCG correctly collected stakeholders' ideas in various meetings and in discussions with experts; consequently, they successfully controlled and guided the overall agenda. Finally, the TCG distinguished its own responsibilities from those of others: for example, it requested that other stakeholders share responsibilities, outlining the policy options that were authorized in the formal committee.

CONCLUSIONS

This paper analyzed a policy-making process and discussed the role of policy process management in the Toyama LRT introduction project. We analyzed stakeholder behaviors, the main agenda involved, the framing recognized by the stakeholders, and the meetings. We then examined the policy process management of the local transport authority in Toyama city, discussing the four factors that influenced the successful introduction of the LRT system from the policy management viewpoint—namely, technology/topography, financial resources, and policy process management. In addition to the technological/topographical and financial factors, we showed that the TCG's well-organized policy process management contributed to smooth consensus-building among Toyama LRT stakeholders. The local transport authority, as a process manager, made best use of the technological/topographical and financial factors, and consequently guided the stakeholders to consensus. Finally, we discussed the lessons learned from the Toyama LRT case, pointing out the following key factors influencing the policy-making process: appropriate vision-setting and strong leadership; meeting management; managing viewpoint shifts, even when under the constraints; the involvement of experts; and the management of framing arrangement when negotiating with individual stakeholders.

In general, policy process management may be one of the most important techniques in bringing all kinds of policy-making to successful fruition. Policy process management takes on an especially important role whenever policymakers deal with an agenda involving a diversity of stakeholders. Authorities can manage the consensus-building process by understanding the concerns of stakeholders and by controlling the framing within the discussions. For all these reasons, we fully expect that the lessons learned from the Toyama LRT case can be

extended to a variety of policy-making processes.

ACKNOWLEDGEMENTS

This paper was revised based on the previous paper presented at the 13th Annual International Sustainable Development Research Conference held in June 2007. This research was financially supported by the Alliance for Global Sustainability Project at the University of Tokyo and the Grant-in-aid for the Scientific Research of the Japan Society for the Promotion of Science.

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