# IMPLEMENT HUMAN RESOURCES DEVELOPMENT FOR "MACHIZUKURI" AND INTEGRATED TRANSPORTATION POLICY:

#### A CASE STUDY OF "SAISEI-JUKU"

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#### **EXECUTIVE SUMMARY**

Policy measures to counter individual transportation related issues (i.e. pedestrian, bicycles, motor vehicles and public transportations) tend to be insufficient in modern society that has become so complex. A more comprehensive discussion on desirable form of urban regions should take place first, and then transportation policy should be discussed as a means to reinforce and implement the desired city policy. It is essential that, in this process, we holistically discuss transportation systems with multiple modes, and develop a road-map to plan and implement integrated transportation policy.

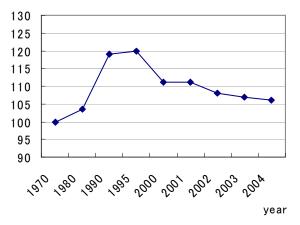
In addition to the accumulation of our knowledge such as travel behavior analysis as well as other theoretical and empirical findings, it is indispensable that as society we raise professionals who coordinate complicated interests of numerous fields involved in the cities. In Japan, unfortunately, it is naïve to assume that we have sufficient supply to practitioners who possess organizational background to promote integrated transportation policy with know-how to implement in the communities.

"Saisei-Juku" is a non-profit organization that we have established to foster professionals who can carry on integrated transportation policy in synchronization with other efforts for improving our communities. The name could be defined as the Revitalization Private School toward Sustainable Community and Transportation. The School offers various activities such as one-day seminars where participants can learn the latest trends of urban transportation policy. It also offers advanced courses in which participants research real-world issues and make proposals for practice improvements for client organizations.

This study will introduce the philosophy and the purpose of the Saisei-Juku, and hence it will provide an overview of the activities until now. Based particularly on the implications from the accomplishments of the advanced courses, we aim at evaluating its initial motivation and the effectiveness of its approaches to raise professionals in the future.

#### 1. INTRODUCTION

All Japanese urban regions, except Tokyo, have been experiencing declining numbers of railway patronage since the mid-1990s. Figure 1 shows the relative changes of railroad ridership in Kansai Region (Kansai is a big metropolitan area to the 2nd in Japan, includes Kyoto, Osaka, and Kobe city..) in Japan between 1970 and 2004, with the 1970 ridership as the base for comparison. After the peak in 1995, the ridership demonstrates a continuous decrease. Public transportation services in Japan are typically financially self-sufficient and the only income source, in principle, is their fare revenues. Because of the recent trend of its declining usage, it is becoming increasingly difficult to sustain service provision. This is especially so with bus transit systems: especially, a vast majority of public bus systems are currently in deficit.



<Figure 1> Relative Change in Number of Railroad Ridership in Kansai Region between 1970 and 2004 (1970 as Base Year for Comparison)

There are two notable factors. One is that people are switching their travel mode from public transportation to motor vehicles. The other is the expansion of low-density suburban communities, which is suitable for driving rather than public transportation.

Responding to this alarming condition, the national government has passed and implemented the Act on Revitalization and Rehabilitation of Local Public Transportation Systems in October 2007. This Act intends to implement systems to, holistically and in an integrated manner, manage revitalization and rehabilitation of regional public transportation through creating plans by municipal governments (-- is national government's intention).

Unfortunately, many challenges have been revealed in this attempt, regarding the administrational officials who are expected to proactively and holistically think and manage regional transportation systems, such as lack of basic knowledge and weak organizational support system.

For example, a report by the Ministry of Land, Infrastructure, Transport and Tourism, which summarizes the nation-wide attempts to raise local administrative professionals capable of managing regional public transportation systems, describes the perceived weaknesses of the existing system (Policy Bureau of the Japan Ministry of Infrastructure, Transport and Tourism, 2008). The report indicates that the municipal governments are desired to play vital roles to ensure communication and manage processes in coordinating transportation service providers. It further points out the need to develop professionals with skills to implement such measures and calls for systemizing educational systems as well as advisor system. The report recognizes the urgent need to raise instructors and advisors of capable of actualizing the proposed measures.

This study summarizes the challenges in implementing local transportation policies in Japan, focusing on the efforts to raise professionals in the field of transportation planning. It further provides a specific model to raise transportation professionals through introducing the activities of the Private School of Regeneration toward Sustainable Community and Transportation: "SAISEI-JUKU",a non profit organization that is developing its activities in Kansai Region. An analysis of its factors of success and the challenges will provide a beneficial case study for the topic of this paper.

Europe is advanced in terms of research and practice on the process of policy implementations. For example, a group of scholars centering at University of Leeds has published "Decision-makers Guidebook." (May, 2005). Also, there has been development of Partner Initiatives for the development of Mobility Management Services (PIMMS) for the sake of implementing integrated transportation policy through promoting exchanges of opinions and experiences among government officials (PIMMS, 2007).

Sharing the consciousness on the issue with such advanced examples, this section will discuss raising capable professionals who carry on integrated transportation policy. Through offering the insights on the effectiveness of such approaches as the Saisei-Juku, we hope to offer an empirical analysis beneficial for the efforts to develop core professionals and leaders for regional transportation planning not only in Japan but also in other nations. On a side note, Shoji et. al have written a report on the trajectory of the Saisei-Juku from its establishment in 2007 and its challenges (Shoji et.al 2008), while Daito et.al also wrote an updates and vision for the future in 2008 (Daito et.al 2009).

### 2. CHALLENGES IN IMPLEMENTING INTEGRATED TRASPORTATION POLICY

#### i. The Need for Integrated Transportation Policy

Japan has been undergoing a continuous decrease in the usage of public transportation. Behind this trend, one can identify two main factors: modal change to motor vehicles; and expansion of low density neighbourhoods, which is more suitable for driving than public transportation. Failure to take appropriate measure to counter this trend would result in dependency of motor vehicles, which generate far more green-house gases than public transportation. It would further deteriorate mobility of the population such as senior citizens, who has difficulty driving on their own.

To address this problematic trend, it is desirable to reform the urban structure with a focus on public transportation systems. In order to implement this, it is necessary to prepare the terms and conditions which public transport tends to use for people. It would hence be necessary to implement measures to encourage drivers to change their travel mode to public transportation. For this objective, one could identify specific measures, such as regulation of driving into and parking in the central business districts, reforming street system structures, installation of Light Rail Transits, and ultimately, reforming the urban structure as a whole. To advance such efforts, gaining the support and understanding from the general public for the measures to regulate motor vehicles and promote public transportation would be imperative. "Machizukuri" is a Japanese term that describes the process to deepen the communal discussion on what kind of community the residents want and realize it. This term encompasses not only what "city planning" and "city development" as English terms would define, such as facilitation of urban infrastructure systems. The term refers to a broader concept that encompasses what would be "community development," the process to create the system as a community, to address conditions in which there is virtually no staff in municipal governments working on implementation (and investigation) of transportation planning measures.

In this study, we define "integrated transportation policy" as systemization of policy measures to optimize transportation systems of multiple modes appropriate for particular cities, with significant emphasis on the viewpoint of machizukuri. We consider that realization of integrated transportation policy will become more and more important, considering the emerging issues such as global environmental issues, revitalizing local communities and addressing the aging society.

#### ii. Challenges in Planning Integrated Transportation Policy in Japan

The present condition of Japan is in a situation far from implementing the ideal of integrated transportation policy. One could identify a few possible explanations: 1) the target area of an integrated transportation policy may not necessarily be the same as the area of respective administrative jurisdiction; 2) there are modes of travelling such as pedestrian, bike, bus,

railway and motor vehicles; 3) distinct agencies and corporations are involved in diverse modes of travel; and 4) municipal governments may not have the authority to approve or be responsible for operating public transportation services. Above all, there has never been development of formal relationships or sharing of issues among entities related to transportation systems, thus as a result, coordination and cooperation to tackle the issues have been insufficient.

The social circumstances surrounding public transportation rapidly changed dramatically as motorization progresses, and it has reached a point where transportation service providers are not effective to make changes by themselves. It is now difficult to forecast any future unless regional transportation systems are facilitated through coordinated efforts of service providers and governmental agencies.

The human resource of Japanese governmental agencies also contributes to the difficulty. To begin with there is little opportunities for governmental officials and transportation service providers to meet and exchange information. Because it is common future to rely on rather short term(such as three years) job rotation system, and most of staff members build careers in multiple departments. That it is in this background is the present condition that emphasis is put on educating generalist rather than educating professional. As a result, inexperienced staffs come in and go out of transportation planning field. Naturally there is a high bar in building trust relationships among administration and transportation service providers.

Government officials also do not have adequate opportunities to educate themselves about transportation planning. Municipal governments may hire university graduates in the field of transportation, yet they typically do not have life-long educational opportunities to update themselves on the latest transportation practices and theories. Staffs from different academic background are not equipped with professional training systems to study transportation policies, and professional skills development depends heavily on spontaneous efforts of self study.

# iii. The Organizational Structure of Municipal Governments: Difficulty in Continuing Transportation Policy Implementations, Due to Lack of Systems to Succeed Know-How within Governmental Agencies

While decentralization of government functions has advanced to a certain degree, municipal governments are still equipped with limited authority to holistically design and plan transportation systems at the regional level and implement them. The weakness of local governance in the transportation field is the same even in large metropolitan regions that own and operate public transportation services.

The report by the Ministry of Infrastructure, Transport and Tourism indicates that as much as 90% of municipal governments are not equipped with human resources dedicated to public transportation, and one can observe virtual absence of public transportation policy measures implemented in these communities. Less-experienced government staff would not even have any idea where to initiate a reform. Because, service offer of Japan's public transportation is

entrusted to the business concern. And although governments carry out participation to safe operation etc., about service offer of public transport, it is hardly concerned.

While prefectural governments typically recognize the need to establish an integrated transportation system, there are a limited number of examples of spontaneous project implementations. This section will summarize the current status of the following prefectures: Kyoto, Saitama, Oita and Osaka. These are the leading examples of prefectures that are actively implementing Mobility Management as a communication measure to promote usage of public transportation.

Table 1 shows the number of staff working on Mobility Management in respective transportation policy departments, as indication of how much resources are dedicated for transportation planning measures. It is evident that only small numbers of staff (2 to 4 staff, excluding Osaka) are working on Mobility Management, even in prefectures actively promoting the policy. Under such conditions, one can reasonably question the functionality of these policies especially regarding education of know-how to following generations. Arguably there are many difficulties awaiting continuous implementation of transportation planning measures.

<TABLE 1> Human Resources Committed to Mobility Management Measures (as of April 2009)

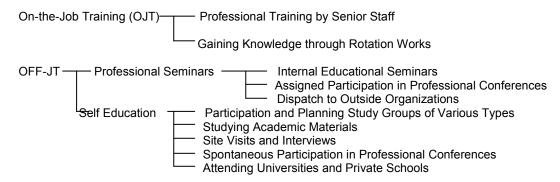
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Organization Name	# Staffs in Transp. Div.	# MM Staff
KYOTO Pref. Gov., Dept. of Construction and Transportation, Transportation Policy Div.	14 staffs (incl. 2 MNG and 3 TCL)	4 staffs, incl. MNG
SAITAMA Pref. Gov., Dept. of Planning and Finance, Traffic Planning Div.	18 staffs (incl. 1 MNG and 2 TCL)	3 staffs
OITA Pref. Gov., Dept. of Planning and Business Development, Transportation Policy Div.	10 staffs (incl. 2 MNG and 0 TCL)	2 staffs, incl. MNG
Osaka Pref. Gov. Urban Development Bureau, Transportation Div. Transportation Systems Planning Group	17 staffs (incl. 3 MNG and 14 TCL)	6 staffs

\*MM: Mobility Management \*MNG: Management Staffs \*TCL: Technical Staffs

#### iv. Limited Opportunities for Educating Professionals: Limitation to the Onthe-Job Training

For the reasons described above, facilitation of educational opportunities for the staff members involved in public transportation administration in municipal governments is unrealistic: because the number of staffs is not large, cost effectiveness of such investment is difficult to justify. Besides On-the-Job Training (OJT), one can find only a few opportunities to develop professional skills and keep up with the latest practices: government-facilitated conferences of municipal government staffs in the field, professional seminars on various topics, and professional training at graduate schools. Even in the private sector, the training opportunities are merely OJT through outsourced projects from the governmental agencies

and self education efforts such as participation in professional seminars, lectures and academic conferences.



<FIGURE 2> Structure of Skill Development for Technical Staffs (Nihon Noritsu Kyoukai Keiei Kakushin Kenkyu-sho, 1990)

Figure 2 describes the opportunities of professional training in the transportation planning field. From the perspective of municipal governments, one could point out that the OJT opportunities from senior staff and co-workers are diminishing. This is due to the fact that in recent years organizational restructuring has led to streamline staffing and flat organizational structures, and typically only one staff is dedicated to a project field, reducing the opportunities to work as a team.

As for Off-Job Trainings, the existing opportunities tend to not satisfy the need of professionals at the advanced level. There are seminars held by KINKI UNYU KYOKU(Ministry of Land, Infrastructure, Transport and Tourism (MLIT) Kinki Region Division of Transport) and prefectural governments as well as organizations such as academic societies, but unfortunately they are typically one-day seminars and there are limited opportunities to gain knowledge in a systematic manner.

Furthermore, these seminars are in most cases catered toward entry level staffs that have just been transferred to the transportation-related departments and have no experience in the field. Though academic societies and universities conduct educational events for senior level professionals who have worked in the field for a certain period of time to advance to a higher level policy measures, such events can be rarely found to be held on a regular basis. For able experts, it is difficult even to know about these few opportunities unless they belong to such professional organizations and academic societies.

As such, on one hand, OJT is limited in the context where resources are scarcely allocated throughout the governmental agencies and only a few staff members have extensive professional experiences. On the other hand, OFF-JT is insufficient, because professionals have limited chances to attend events to develop professional skills or even to receive information about those.

#### v. Difficulty of Communications among Transportation-related Entities

In the fields involved with integrated transportation policy, it is essential that distinct entities communicate with others with the understanding of the background and situations of one another. This is because the system consists of diverse transportation fields such as transportation planning, "machizukuri," transportation demand management, operation and management of travel modes including buses, taxis, bicycles, subways and railroads, planning and operation of intermodal transfer facilities and traffic safety.

The existing framework of inter-organizational does not address the desired exchange of experiences and wisdom. Currently the national and prefectural governments play the leading roles in facilitating conferences and organizations where municipal government officials gather to exchange information and to lobby if necessary. Also there is a framework of activities in which public transportation service providers gather to exchange information and to expose themselves to the latest, national and global, transportation trends from academic.

Yet, these activities are limited to their own communities of profession such as only within governments or transportation service providers, and it does not necessarily play the role as the venue for exchanging opinions and share wisdom among diverse entities.

One could also find examples of lecture series of participants from different entities such as Non-profits, universities, consultants, labor unions and transportation service providers, in which they discuss topics ranging from implementations of Transportation Demand Managements to improvements of public transportation services. Unfortunately, even these efforts focus rather on exchanging opinions on specific topics than raising professional skills, and, to make matters worse, many of them last only for a fiscal year.

In short, there is shortage of opportunities for practitioners from various entities to systematically and continuously deepen understanding of integrated transportation policy and to gather to exchange opinions and information related to the topic. It is reasonable to point out that this current status is a factor that discourages development of mutual understanding and trust relationships among entities.

## 3. ESTABSLISHMENT OF "SAISEI-JUKU" AND ITS ACTIVITIES

#### i. The Origin of Saisei-Juku

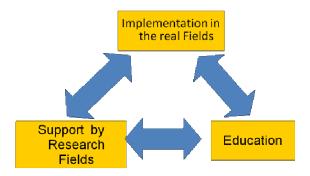
A group of municipal government officials who strongly felt the needs to actualize integration of transportation policies started building relationship and exchanging information with others based on personal connections around early 2006. This circle of practitioners expanded until June 2006, when the first meeting of Voluntary Group with Aspiration for Good Transportation was held as a venue for practitioners of transportation related fields gather

after business hours and freely exchange information consciousness on transportation related issues. Gradually then this group started creating conspicuous accomplishments such as execution of mobility management measures in various municipalities, originating from discussions in this group.

It should be noted that this group is merely an after-five activity and, though it contributes greatly to exchange opinions and making personal connections, it is not sufficient as a venue to systematically study integrated transportation policy.

In December 2006, there was a symposium entitled "Thinking Public Transportation for Citizens" at Kobe International University (Doi organized). As dramatic implementation of transportation system reform in the City of Seoul was presented, Professor Ryuichiro Kitamura from University of Kyoto, who participated in the symposium as a panellist, raised his own awareness of the issue that no such dramatic improvements had happened in Japan.

Professor Kitamura called for a gathering of members who are active at universities, as consultants or in governmental agencies, based on the recognition of the following essential factors to realize integrated transportation policy: 1) people involved in transportation planning share theoretical and empirical knowledge that is effective; 2) to have a vision and a dream and; 3) raise professionals who are capable of advancing transportation policy integration. This gathering continued discussion beginning January 2007, and they initiated establishing a informal educational institution as a venue of exchange and raise professionals who practice urban transportation policies among municipal governments.



<Figure 3> Framework for Developing and Implementing Integrated Transportation Policy

Figure 3 shows the framework to develop and implement integrated transportation policy. As one could see, each of the three elements, "implementation in the real fields (latest practices of consultants and service providers)," "support by research fields (latest research accomplishments from universities)," and "education (venue for professional skill developments," are important in this framework. The Saisei-Juku("Saisei" means revitalization in Japanese. Here, revitalization of not only a transportation system but a regional community or an economical activity is included."Juku" is a private school in Japanese) decided to focus on raising professional mainly by a group of members who are engaged in the most advanced in both practices and researches.

#### ii. Activities of Saisei-Juku

#### a. Accomplishments in the year 2007

2007 was the first year of the activities of Saisei-Juku. In total of 6 meetings were held between August 2008 and February 2008. At each meeting, there is a lecturer who facilitates a topic of discussion, and then participants share respective perspectives and exchange opinions.

While many seminars and events held by government agencies do not collect fee to attend, Saisei-Juku charges 3,000 yen to attend, expecting that only participants with high motivation would gather. The activities are held on first Saturdays of the month, and each participant is required to submit a report on the issue consciousness of the topic as assignment.

<table 2=""> S</table>	Saisei-Juku	2007	Curriculum
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Month	Study Topic
Aug 2007	Orientation How to Think about Issues Related to the Community and Transport
Sept 2007	Machizukuri and Public Transportation
Oct 2007	Passion and Vision Change Transportation Policy Paradigm Transportation Policy and Local Government Systems
Nov 2007	Machizukuri and Management of Community and Transportation Policy – Who Deteriorate The Public Transportation
Dec 2007	How to Proceed with Projects Thinking outside the Box of Public Administration Need of Transportation Policies from Environmental Issues Aspect
Feb 2008	Know-how and Strategy of Transportation Policies Learning from Failures



<PHOTO 1> A Saisei-Juku Session

The number of participants in the first fiscal year was 27, consisting of 7 from governments, 11 from consultants, 5 from transportation service providers, and 3 from universities. We had 4 lecturers from universities, 2 lecturers from governments, and 1 lecturer from consultants.

At every meeting, participants shared challenges that they face in their daily works, and we required participants to submit report of what they learned at Saisei-Juku meetings as a way to reorganize what they learned at the Saisei-Juku, to which lecturers provided feed-backs.

#### <TABLE 3> Voices from the 2007 Participants

#### Positive Feedback

- Served as a venue for exchanging opinions with professionals from different backgrounds
- Frank Discussion
- Understand challenges and hard works in the field
- Encourages changes in our action

#### **Desired Improvements**

- Could develop curriculum to cater for members with distinct levels of profession, or could follow up with entry level participants
- Could include simulation of an actual cases or participate in real-world projects
- Could divide into small groups to discuss concrete solutions in a practical manner, because the topics were wide in range
- Could make actual proposals for prefecture governors and municipal governments
- Could incorporate discussions with people with different opinions, depending on the theme
- Could emphasis more on opinions of professionals who participated in actual projects such as policy planners and providers of public transportation services, rather than listening to the opinions of third-parties and mere observers

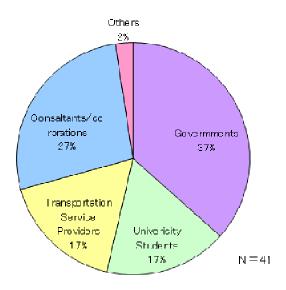
Table 3 lists comments from the participants of the fiscal year 2007. It is evident that members positively evaluated provision of the venue where practitioners from different professions and backgrounds, as we intended. At the same time, it caught our attention that there was a gap in the knowledge and skill levels between mid and senior level consultants and those participants with less extensive experiences in the field. Because there are cases in which discussions were professional and deep, there was a suggestion to divide the meetings into groups based on the level of profession. Additionally, there were suggestions such as: 1) because a wide range of topics were provided from the perspectives of academic, administration and consultants, the program was yet to demonstrate a clear direction or vision to be aimed toward; 2) a deeper levels of discussion with workshops on real case studies was desired, and; 3) the program should aim at making concrete proposals for the governments. On a side note, we held a one-day seminar with 200 attendants in January 2008 with the support from MLIT Kinki Region Division of Transport, so that we could widely advocate for our accomplishments in our first year.

#### a. Accomplishments in the year 2008

Based on the input from participants from the previous year, we held two types of courses: 1) basic course, with the contents that is understandable for practitioners with relatively less experiences in the field, and; 2) advanced course, designed for those who have completed the basic course and for those practitioners with a certain amount of experiences in transportation related fields.

#### 1. Basic Course

The basic course meeting was held as a one-day seminar in August before the scheduled advanced seminar, with a participation fee of 2,000 yen. (Saturday August 9<sup>th</sup>, 2008)



<FIGURE 4> Occupational Backgrounds of Saisei-Juku Participants (2008)

Figure 4 shows the organizations that the participants of 2008 program belong to. There were in total of 41 participants, which consisted of 15 from governments, 7 from transportation service providers, 11 from consultants. Arguably, we were able to gather participants from diverse backgrounds and professions.

The contents of the basic course curriculum were oriented toward the topic of environmental sustainable transport policy through public transportation. Opportunities for participants to share concerns and comments on the topic were created, so that the seminars would not be merely one-directional lecture. Furthermore, we facilitated exchanging opinions among the participants after the lecture, so that we could secure opportunities for participants to express their voices.

#### ②. Advanced Course

The advanced course was designed toward those who completed the basic course and/or those with multiple years of experiences. The curriculum was practice oriented, basing on exchanges of opinions with experienced Learning Facilitators (LFs) through case studies in the real world. In order to study, LF (Learning Facilitator) was introduced. The consultant, administrative officer, and academic expert who worked in order to install Saisei-Juku in LFs became.

The total number of participants was 17, and it consisted of 6 government staffs, 7 consultants, 3 staffs from transportation service providers and 1 academic. We collected a fee of 20,000 yen for 5 meetings.

The format of this course was to study specific case studies with a mixed team of practitioners from different backgrounds, with a final goal of making a proposal for the entities involved in the case studies. We (LFs) explained the purpose of the study for the

organizations involved in the case studies, and asked them for support to provide us with information and data as well as to attend the group final presentations.

<table 4=""> Case Study Topic of Advanced Course (2008)</table>	<table 4=""> Case</table>	Study 7	Topic of	Advanced	Course	(2008)
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Case Study Topic	Field Client
Restructure Plan of "Community" Bus System in Large Cities	Osaka City Municipal Transportation Bureau
Integrated Transportation Policy for Suburban Municipal Governments	City of Kyo-Tanabe in Kyoto Prefecture
Rejuvenation Plan of Mid-size Railway	Keifuku Electric Railroad Co., Ltd.

<TABLE 5> Curriculum of the 2008 Advanced Course

Month	Study Topic
Oct 2008	Orientation Determining Policy Analysis Question and a Hypothesis
Oct ~ Nov 2008	Field Survey and Hearing
Nov 2008	Determining Factors of the Issues and Discussion the Policy Recommendation
Dec 2008	Determination of the Solution Plan, Progress Report and Exchange Opinions
Jan 2009	Concluding Remarks, Proposals for the Client Organizations and Exchange Opinions

Each team consists of 4 to 5 members, and everyone is assigned with a responsibility such as leader, emcee, secretary and presenter by turns each time. Four teams were formed for 3 fields, and LFs are assigned to supervise each team.

LFs play supportive roles to check if teams are effectively functioning. If a team is not functioning well, then an LF intervenes by asking a question that would trigger participants to define a question and find solutions.

Discussion in the teams are summarized and presented at a gathering of all groups, where participants ask questions to each other. This is so that members can develop presentation and communication skills while teams can share what they discussed in respective groups.

Toward the mid-term report and final presentations, members of each team exchanged opinions through emails and met spontaneously outside the activities of Saisei-Juku, and they produced the final output. At the final seminar, all groups presented a proposal and exchanged opinions with the three organizations that were researched for case studies.

Based on the accomplishments of the seminars, members made presentations at the Seminar on Revitalizations of Local Public Transportation Systems held by MLIT Kinki Region Division of Transport on January 28, 2009, and at the Infrastructure Planning Committee of the Japan Society of Civil Engineers which was held in June 2009.

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<PHOTO 2> A 2009 Advanced Course Session

The team with the case study of Rejuvenation Plan of Mid-size Railways (Keifuku Electric Railroad Co., Ltd.), after the presentation within Saisei-Juku, went to the corporate headquarters of Keifuku Electric Railroad and presented the proposal before the corporate management. The proposal was based on the perspective of users and a thorough field research, and it encouraged re-identification of the strength of the corporation. The corporation implemented some of the proposals, including installation of mechanical parking lot for bicycles and improvement of stations' information boards.

#### <TABLE 6> Voices from the 2008 Participants

#### Positive Feedback

- Saisei-Juku taught me a lot: there are few opportunities where university professors, consultants, government staffs and transportation service providers gather to think about policy measures. It is rare to have an opportunity to come up with constructive proposals with no conflict of interests with such diverse group of practitioners. I am gladly convinced that we were able to make a proposal that will benefit society. As Japanese will likely to face not only economic downturns but also complex issues such as aging and population decline, it is likely that governments will continue to be able to provide assistance to transportation services. Therefore we need to think about how as society we can support public transportation systems. Under such circumstances, I would like to see practices similar to the Saisei-Juku spreading throughout Japan.
- Simultaneously employed both approaches of knowledge and practices
- Every step in the curriculum, from structuring the research, operating as a group, to using MS Power Pointe, was beneficial.
- Wonderful encounters with prominent practitioners
- Taught me the importance of field surveys
- Was able to think about approaches to advocate for the social importance of bus transit services
- It was refreshing to see how governments, academic and railroad service providers could engage in mutual discussion and hence came up with various proposals. It provided a lesson that, though we represent different positions and interests, as we share the same intent, we can make considerable changes.

#### **Desired Improvements**

- Should facilitate an opportunity where members could engage in dialogue with members and LFs in different groups

Table 6 compiles comments and suggestions from the participants of the advanced course of 2008 Saisei-Juku. It is evident that members valued having the opportunities to develop

12th WCTR, July 11-15, 2010 – Lisbon, Portugal

professional network and engage in discussions with participants with the intent to make changes. Also, there were voices of appreciation for: 1) having been able to share the desire to improve their cities and public transportation; 2) opportunities to notice things that would never have been recognized unless studied together with members from different professions, and; 3) being able to enhance desire to study more and ability to think.

Study teams typically continued to meet even after the completion of the program and the dialog using the Internet, and multiple members participated in the following fiscal years, and the positive outcome of the program by far superseded the expectations of the organizers.

With the success of the fiscal year of 2008, the Saisei-Juku began its activities for the fiscal year 2009 with the same format: basic course (40 participants) and advanced course (14 participants).

## 4. CONTRIBUTING FACTORS FOR THE SUCCESS OF SAISEI-JUKU

The Saisei-Juku has been accomplishing significant successes in terms of its attendances. Such an operation is evaluated and the request of a personnel-training program is continuously carried out to the renewal cram school at the request of KINKI UNYU KYOKU. And the observer participation of the academic expert etc. who are interested in an integrated transport policy to the activity of a renewal cram school is increasing. Since August of 2007, the total number of participants for both basic and advanced courses reached 148, and the number of participants at the seminar by KINKI UNYU KYOKU to which Saisei-Juku assisted counted 589. Hence, the members of advanced courses already started taking contributing roles to carry on the integrated transportation policy. This section will discuss the factors of success of the Saisei-Juku.

#### i. Societal Needs

At Saisei-Juku meetings, participants are asked to share topics that they feel problematic. At the 2008 basic course, the following opinions appeared:

- What exactly would sustainable "machizukuri" look like?
- What is the desired service standard and operations of bus transit especially in suburban and rural regions?
- How can society incorporate factors of social welfare in public transportation?
- I want to learn transportation planning in systematic manner?
- How can we raise young professionals in the field?

As such, there are voices expressing their desire to learn theories on facilitating integrated transportation policy and frameworks of thoughts. And, there is also voice which expects training about which it thinks long and hard about how to catch a transportation problem.

At the 2008 advanced course, members shared the following concerns on the issues:

12<sup>th</sup> WCTR, July 11-15, 2010 – Lisbon, Portugal

- Opinions of stakeholders, discussions and the process of developing the plan need to be shared
- By what kind of vision is an enterprise assembled towards implementation?
- I want to learn the system structure to develop plans by involving active participations of stakeholders.

It appears that the participants of the advanced course are more interested in the process and the know-how for communication toward developing planning projects.

The report from Policy Bureau of Japan Ministry of Infrastructure, Transport and Tourism (2008) suggests that the three types of skills necessary for advancing integrated transportation policy are: 1) process management; 2) research, analysis and development of a plan, and; 3) communication..

It is questionable, however, that professional training opportunities to develop the above listed skills are well provided. As for the process management, it is necessary to develop structure for policy discussion, such as requesting stakeholders for cooperation and facilitating a venue for discussion. Yet, assignment of responsibilities requires substantial understanding of operation and situation of each entity.

Regarding research, analysis and development of a plan, the vision of the city and the base concept for the community need to be clear to be able to develop a transportation plan that enables such visions. In other words, it is necessary to relate "machizukuri" with transportation planning.

Finally, when discussing communication, it is important to take into consideration not only how to transmit the plan in a one-sided manner, but also to consider how to listen and how to communicate the plans. One can find a number of examples of projects in which ineffective communication becoming a critical obstacle for its progress.

For the above reasons, the Saisei-Juku has designed the program so that the participants could develop skills to output and listen to others, through ensuring the opportunities for all participants to speak and share opinions.

Especially at the advanced course, the program provides venues for participants to: 1) develop process management skill by completing the project in each field until the proposal; 2) practice methods to research and analyze the issues of the respective field, and; 3) raise communication skills to deepen mutual understanding of stake holders. We are confident that this scheme responds to the demand of society.

#### i. Forming Study Teams and Mutual Learning

Another aspect of the success of the Saisei-Juku is its activity structure that covers essential factors for successful practices of integrated transportation planning, which are the mutual understanding of stakeholders with different background and interests, as well as the skills to facilitate communications among participating groups. Both basic and advanced courses are

designed to promote members' proactive participation. All participants have equal opportunities to speak, ask questions and share opinions. It is notable that the teams in the advanced course consist of small numbers of member from different backgrounds.

Development of integrated transportation policy as well as the process of "machizukuri" requires provision of the future based on understanding of environments, culture, population allocation, distribution and existing transportation systems for respective regions. It is essential to develop the skills to figure out a certain direction upon extensive discussion with diverse participants, since there is no "right" answer for these questions to begin with. In this sense, the Saisei-Juku and especially its advanced course has been successful to respond to the demand of the participants because it offers an opportunity for the members and LFs to mutually learn the know-how to work together with governmental agencies and community residents, forecasting potential impacts on existing transportation systems, characteristics particular to each travel mode and various foundation knowledge necessary to develop a plan.

Furthermore, the advanced course involves discussions among members from diverse backgrounds with distinct perspectives, with expectation that members can overcome a set frame of thinking and deepen respective arguments with different points of view. In actuality, members are becoming capable of understanding the governance and thinking process of service providers as they engage in discussions on the research topics of each field. The process to develop solutions as a team enables members to gain perspectives and solutions that are significantly wider and deeper than those of a team with uniform backgrounds.

It is difficult to obtain a wide range of knowledge and technologies indispensable to develop integrated transportation policy on one's own. However, such team learning as the Saisei-Juku enables members to form team-works to overcome this challenge as an organization.

#### i. Learning Facilitators

Presence of Learning Facilitators (LF) is another factor of success of the Saisei-Juku. Not only LFs lead each groups to define questions and find solutions, but also LFs themselves gain tremendous knowledge and wisdom through playing the role.

LFs assist each team by raising questions at team meetings to trigger members to recognize critical points of the study topic such as finding problems and proposing solutions. Questions are a strong tool, according to David A. Garvin, to lead the process of learning. He suggests ways in which asking questions are useful: 1) determine the framework of the problem; 2) give direction; 3) obtain information; 4) attempt an analysis; 5) draw relevance, and; 6) ask for opinions (Garvin, 2000).

LFs assist members of the teams to learn by asking questions, which deepens the profundity of the discussion question and draw attention of the group members to the topic. Through asking questions about the users' perspectives and not the perspectives of providers such as governments and service providers, LFs draw critical information for possible solutions.

Similarly, LFs help the group members to perceive the framework of the issue by asking the limitations of their time, budget and authority.

Hence, LFs gain new perspectives and hints for their respective profession through asking such questions and receiving answers from team members as well as through engaging in the discussion. It is reasonable to state that a contributing factor of success of the Saisei-Juku is the benefit of LFs through contributing to the activities.

#### 5. CONCLUSION AND FUTURE LESSONS

Through an experience of the Saisei-Juku, we have identified a number of key factors for the success of the attempts to raise professionals to develop integrated transportation policy. The most essential condition is the motivation of participants. That the Saisei-Juku was fortuned with opportunities to present on its accomplishments at seminars through the support of MLIT Kinki Region Division of Transport contributed greatly to deepen confidence in the professional community. Also, it has been able to continue its activities due to the presence of the key individuals who took the lead of its activities, and who covered the operation side the Saisei-Juku as a non-profit. While it should be noted that there is no guarantee for the model of the Saisei-Juku to be relevant to any other circumstances since conditions in demand for raising professionals in the field of transportation policy depending on the geography and organizations. For this reason, this section will summarize a few key elements of the activities of the Saisei-Juku.

#### i. Developing a Model for Raising Professionals through Saisei-Juku

- Two-course structure of the activities to cater to members' distinct levels of profession
- Activities on Saturdays (outside business-hours) with fee to participate (commitment for members to participate in the activities)
- Establishment of a permanent operations function
- Information provision through a web-site
- Holistically designed curriculum of the basic course, which consists of 1) vision of the community and its transportation; 2) planning policy measures; 3) management of transportation services; 4) project management, and; 5) tips for a good practice
- Curriculum of the advanced course designed to aim at making concrete proposals for a real-world issue with a client organization, through field survey and data analysis
- The group structure of members and LFs to consist of a small numbers (4 to 5) members from mixed professions (universities, governments and consultants)
- Its emphasis on dialogue and mutual listening to secure opportunities for exchange of opinions and knowledge, to promote "thinking outside the box."

#### ii . Tasks for the Future

There is great expectation for the Saisei-Juku to play the role to expand the environment in which capable professionals can take the role to plan and implement integrated

12th WCTR, July 11-15, 2010 – Lisbon, Portugal

transportation policy throughout the nation. For this reason, the Saisei-Juku could advocate for support from the national government and other organizations in the effort of this type not only in Kansai region but also in other regions of the nation.

While the activities are very much well evaluated by the members and it is providing its accomplishments to society, its organization and the financial foundation are still weak. The Saisei-Juku decided to obtain its status as an official "non-profit organization" in February 2009 because it conducts its activities with fees to charge its participants, which makes it more desirable to disclose its financial statements. It has been successful largely due to tremendous contribution of those who inherited the intent of Professor Kitamura, who already passed away. Since such may not always be the case in other localities, it is naive to expect easy execution of similar activities to raise capable professionals in other localities, since it would require securing key persons for organizational operations and its non-profit functions.

Therefore, the next step of the Saise-Juku is to establish a new function to offer a successful example and provide advice to similar attempts of regional/municipal governments in different regions, since it has been able to facilitate a venue for mutual exchange of professionals and to holistically learn transportation policies in its base, the Kansai region.

#### REFERENCES

- Daito, T., T. Doi, K. Shoji, D. Nakagawa, T. Murao and T. Higashi (2009). Implement Human Resource Development for Sustainable Community and Transport Planning: A Practice of "SAISEI-JUKU" (in Japanese): Proceedings of the 39th Workshop of Infrastructure Planning, JSCE.
- Garvin, A. D. (2000). Learning in Action. Harvard Business School Press, Cambridge.
- May, A. et.al (2005). Decision Maker's Guidebook. European Union.
- Japan Management Association, Institute of Management Innovation (1990). A Study for Engineering Education (in Japanese). Japan Management Association, Institute of Management Innovation.
- Policy Bureau of Japan Ministry of Infrastructure, Transport and Tourism (2008). Concept for Human Resources Development for Regional Public Transportation and Improvement of Information Provision(in Japanese). Ministry of Infrastructure, Transport and Tourism.
- Shoji, K., T. Daito, Y. Honda, T. Murao, R. Kitamura (2008). Developing the Human Resources for Well-balanced Transport Planning and Policy: An Experiment of "SAISEI-JUKU" (in Japanese): Proceedings of the 37th Workshop of Infrastructure Planning, JSCE.