

Tokyo Metropolitan University
Graduate School of Urban Environmental Sciences

Department of Urban Science 2016FY Annual Report

■Staff List of the Department of Urban Science

Shin AIBA, Associate Professor
Taro ICHIKO, Associate Professor
Fumiko ITO, Professor
Motoki NAGANO, Associate Professor
Hiroyuki ONEYAMA, Professor
Yoko SUGIHARA, Associate Professor
Hidenori TAMAGAWA, Professor
Kahoruko YAMAMOTO, Associate Professor

Prof. Oneyama is also a member of the Department of Civil & Environmental Engineering. Please refer to its site as for his report.

«Shin AIBA»

1) Staff

Shin AIBA Associate Professor/Dr. Eng.
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2) Overview of Research Activities in 2016FY

Study on reconstruction from disaster

Shin AIBA

I studied on reconstruction plans and projects from Great East Japan earthquake. I supported to plan reconstruction projects and conducted an experiment to leave lessons and memories of disaster in Ryori village, Ofunato city. Results were published on academic magazines.

Urbanism on population decreasing age

Shin Aiba

I discussed and examined a theory of urban planning and design on population decreasing age. I gave advices on making city plan to some local government (Fukushima city, Hayama town and Hino city). And I also conducted a planning project to utilize abandoned house in a district of Hino city. Results are published on some articles and discussion paper of symposium by CPIJ (city planning institute of Japan).

Comparative study on machizukuri in east Asian countries

Shin Aiba

I researched community design projects in Republic of China comparing policy, history and practice of machizukuri in Japan, Taiwan and Korea.

Technologies to support machizukuri

Shin AIBA

I develop technologies to support discussion and consensus building by citizens. I develop a workshop method to support to build a system of “Area management” by citizens in Harumi district Chuo city.

3) List of Research Activities in 2016FY

1. Peer-reviewed papers

Board Game of Life Design,"Jing Jin, Shin Aiba, Hirotaka Ikeda","Proceedings of the 10th Conference of the Pacific Rim Community Design Network, pp.22-27", The 10th International Conference of the Pacific Rim Community Design Network,2016.12

2. Proceedings of Oral Presentations

3. Others

3-1. Technical books

Shin AIBA, Ryo YAMASAKI et al, Job guide of Machizukuri, Gakugei Shuppan, 2016.8
Shigeru SATOH, Shin AIBA, Naomi UCHIDA et al, Machizukuri Message, Kajima Shuppankai, 2017.3

«Taro ICHIKO»

1) Staff

Taro ICHIKO

Associate Professor/ Doctor of Urban Science

Urban planning especially for disaster reduction, Community-based Disaster Management, Risk Management

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2) Overview of Research Activities

(1) Research for a long-term recovery of housing and village from 2011 Tsunami

Five years have passed since 2011 east japan earthquake. A lot of relocation housing projects just finished. It took a long time for housing and village recovery.

In fiscal year 2016, an action research was continued in Kesenuma, Miyagi. And a depth consideration was made for five years housing relocation process.

(2) A study of a pre-disaster planning for post-disaster recovery

Disaster mitigation which means not only reducing disaster losses by pre-activities but also preparing for resilient recovery have been becoming more important for counter programs of the Tokyo capital

earthquake. Those programs for pre-disaster recovery from a view of the planning theory is developed as a pre-disaster planning for post-disaster recovery. We also have been dedicating those programs accompanying with Tokyo Metropolitan Government and local municipalities.

In fiscal year 2016, Community workshops for post-disaster recovery in Nagasaki456, Toshima-ward were managed and delivered. Adding to that, an action research on the 18th municipal staff training for a long-term recovery by TMG was done.

(3) A study of disaster management as an aspect of gender equality

After the east Japan earthquake, refugee support as an aspect of gender equality has been becoming important. In this study, surveys of women's life and livelihood recovery after the Tohoku disaster were conducted. And workshops for design the disaster mitigation programs of the center of gender equality in Katsushika city was managed.

3) List of Research Activities

1. Peer reviewed paper

Taro ICHIKO, Ryo SANUKI, Jin YOSHIKAWA and Itsuki NAKABAYASHI(2016) A Study of pre-disaster planning for post-disaster recovery targeted non-building-crowded area around Tokyo suburb – Ten years development in Hachioji, Tokyo –, Journal of the City Planning Institute of Japan, Vol.51 No.3, pp.415-422, (Japanese)

2. Oral presentation

Taro ICHIKO(2016)After Five and Half Years, Lessons for Community Recovery to find Professionals Role, 4th ICUDR, Oral session, Wellington, New Zealand, October17- October 20, 2016

«Fumiko ITO»

1) Staff

Fumiko ITO

Professor / Dr. Eng.

Urban Planning, Urban Analysis, Analysis of Residential Environment, Cost-Benefit analysis of public projects

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2) Overview of Research Activities in 2016FY

1 Environment of urban area and residential area

Fumiko ITO

The condition of the city, citizen's evaluation of environment and the relationship between those are analyzed to get suggestion for creating comfortable residential environment.

Following topics were researched in 2016FY.

- i) Experimented Method for Impression Evaluation Using HMD of Street Sequence,
- ii) Predicting When and Where Tourists Have Viewed Exhibitions from GPS Logs by Using Spatio-temporal Data as Explanatory Variable,
- iii) Mathematical approach for planning road improvement and optimization of snow clearing in the area of heavy snowfall in Japan.

2 Housing choice, living behavior of resident

Fumiko ITO

Housing choice and living behavior of residents are analyzed to clarify the demand of residential service. Following topics were researched in 2015FY.

- i) Market Penetration Potential of Electric Vehicles for Domestic Use by Regional Classification -A Case Study on the Greater Kanto Area,
- ii) Analysis Report of "the Questionnaire about A House and the Health" for Primary and Secondary Students,

3) List of Research Activities in 2015FY

1. Refereed papers

KAWASE Junya , ITO Fumiko, KURATA Yohei (2016)

“Predicting When and Where Tourists Have Viewed Exhibitions from GPS Logs by Using Spatio-temporal Data as Explanatory Variable: A Lesson from Surveys at Tama Zoological Park”

Theory and Applications of GIS, Vol.24, No.1, 1 – 11

TSUCHIYA Yoriko, ITO Fumiko, TAGASHIRA Naoto, IKEYA Tomohiko, BABA Kenshi (2016)

“Market Penetration Potential of Electric Vehicles for Domestic Use by Regional Classification -A Case Study on the Greater Kanto Area-”

Journal of the City Planning Institute of Japan, Vol.51, No.1,46–57

TSUCHIYA Yoriko, TAGASHIRA Naoto, IKEYA Tomohiko, BABA Kenshi, ITO Fumiko (2016)

“Study on Environmental Improvement of Charging Electric Vehicle for Domestic Use”
JSTE Journal of Traffic Engineering, Vol.2, No.3, 1–10

2. Proceedings of Oral Presentations

KAWASE Junya, ITO Fumiko (2016)

“How to Convert Spatio-temporal Activities into Sequences of Characters for Analysis by Sequence Alignment Method”

Summaries of technical papers of annual meeting, AIJ, 25–26

MORISHIMA Daichi, ITO Fumiko, NISHIO Shoko (2016)

“Study on optimization of snow clearing in the area of heavy snowfall in Japan”

Summaries of technical papers of annual meeting, AIJ, 213–214

HOTTA Ayako, ITO Fumiko (2016)

“Proposal of a supporting system for the choice of visiting areas based on visualization of individual preferences part2 : Summary report of the demonstration experiment in 2012”

Summaries of technical papers of annual meeting, AIJ, 243–244

LI Xiaoxi, ITO Fumiko, KASHIHARA Seiichi , KAWAJIMA Makiko (2016)

“Analysis Report of "the Questionnaire about A House and the Health" for Primary and Secondary Students”

Summaries of technical papers of annual meeting, AIJ, 371–372

NISHIO Shoko, ITO Fumiko (2016)

“Experimental Method for Impression Evaluation Using HMD of Street Sequence”

Summaries of technical papers of annual meeting, AIJ, 1063–1064

KAWASE Junya, ITO Fumiko (2016)

“How to Divide Study Area for Classification of Spatio-temporal Activity by Using Sequence Alignment Method”

Proceedings of annual meeting ,Society for Tourism Informatics, 51–52

3. Others

3-3. Research Reports / Papers

NISHIO Shoko, ITO Fumiko (2016)

“Experimented Method for Impression Evaluation Using HMD of Street Sequence”

Papers and proceedings of the Geographic Information Systems Association of Japan, Vol.25, D-4-5.

KAWASE Junya , ITO Fumiko (2016)

“Sequence Alignment Analysis for GPS logs by Using Spatio-temporal Data of tourists' Activity”

Papers and proceedings of the Geographic Information Systems Association of Japan, Vol.25, E-6-1.

NISHIO Shoko • ITO Fumiko (2016)

“Experimental Method for Landscape Evaluation Using HMD Projecting Image of Street Sequence”

The 30th Annual Conference of the Japanese Society for Artificial Intelligence, 1G3–3.

«Motoki NAGANO»

1) Staff

Motoki NAGANO

Associate Professor / M.A. Political Science

Urban Administration, Local Governance

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2. Overview of Research Activities in FY 2016

Citizen participation in urban governance

To investigate the policymaking dynamics of Japanese local governments and citizen participation in these processes, I focused on two issues. First, I investigated citizen participation in local assemblies

through a nationwide mail questionnaire survey and a survey of local assembly fundamental ordinances. Second, I investigated the dynamics of planning and review processes in the municipal executive branch via participatory observations, which were conducted in several municipalities where I participated as an advisory committee member, and via a questionnaire survey of municipal officials who engaged in the review process with the citizenry evaluation committee in Saitama City, Saitama Prefecture, Japan.

3. List of Research Activities in FY 2016

1. Peer-reviewed papers

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2. Proceedings of oral presentations

Motoki Nagano, “An essay on Machizukuri from the perspective of urban political studies,” *Proceedings of the Waseda Machizukuri Symposium 2016; the Past and Future of Machizukuri, and Potentiality for Future Building of Machizukuri*, July 2016, Waseda, Tokyo, Waseda University, pp. 138-149 [in Japanese].

Motoki Nagano, “Review of the decade of local assembly fundamental ordinances and our local assembly national survey,” *16th Citizens and Councilors Conference for the Creation of Municipal Ordinances 2016*, July 2016, Ichigaya, Tokyo, Hosei University [in Japanese].

Motoki Nagano, “The current status and challenges of municipal assembly reformation: Empirical studies from a panel survey,” *Japan Association for the Study of Local Government Annual Convention 2016*, October 2016, Nagoya, Aichi, Nanzan University [in Japanese].

3. Others

3-1. Technical books

As co-author

Makoto Ouishi, Kouichirou Agata, and Hidehiko Kasahara, eds., “Why is Japanese-style governance exhorted? Reviewing of constitutional law, political science, and public administration studies,” Minervashobo Ltd., Kyoto, June 2016 [in Japanese].

Specific contribution

Motoki Nagano, “Local autonomy: Reorganization in local democracy and the inter-governmental system,” pp. 223-248, in *ibid.* [in Japanese].

Katsuya Hirose and Local Assembly Reformation Forum, eds., White Paper on Local Assembly Reformation 2016, Seikatsusha Ltd., Tokyo, October 2016 [in Japanese].

Specific contributions

Motoki Nagano, “Analysis of local assembly fundamental ordinance articles: Reformation trends revealed in local assembly fundamental ordinances issued in 2015,” pp. 95-128, in *ibid.* [in Japanese].

Motoki Nagano, “Summary report of the annual progress survey on local assembly reformation in Japan 2015,” pp. 130-155, in *ibid.* [in Japanese].

3-2. Research reports/papers

Motoki Nagano, “Review report on the methodology of our evaluation activities,” *Final Official Report of Citizenry Evaluation Committee for Saitama City’s Plan for the Twofold Increasing Residents’ Happiness and Administrative Reform Promotion*, pp. 102-113, March 2017 [in Japanese].

3-3. Monographs

Motoki Nagano, “Local assembly and councilors as bases for municipal policy development,” *Journal of Training for Local Government Staff*, Vol. 49(9), pp. 24-26, September 2016 [in Japanese].

Motoki Nagano, “Effects of local assembly fundamental ordinance enactment and future direction on local assembly reformation,” *Local Councilors NAVI* (<http://www.dh-giin.com/>), January 13, 2017 [in Japanese].

Motoki Nagano, “Municipal assembly reformation and local autonomy act,” *The Monthly Journal Jichiken*, Vol. 59(690), pp. 42-49, March 2017 [in Japanese].

Motoki Nagano, “Structures and their policy outputs of municipal assembly reformation: investigation through national panel data analysis,” *Public Administration Review Quarterly*, Vol. 157, pp. 17-31, March 2017 [in Japanese].

3-4. Commentary/essays

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3-5. Book review

Motoki Nagano, “Book review: Shin Aiba’s *Folding the City*,” *Journal of Urban Policy Studies*, Vol.

11, pp. 109-112, March 2017 [in Japanese].

4. Grants-in-Aid for Scientific Research (KAKENHI)

Co-Investigator, Scientific Research (B), No. 26285033, “Explicating originality and universality of Japanese municipal assemblies’ reformation movements.”

5. Lecture

Motoki Nagano, “Structures of administrative procedures and municipal planning and their citizen engagement,” *Specified Nonprofit Corporation Citizen’s Institute for Policy Research*, Lectures on Citizen’s Autonomy 2016, Surugadai Memorial Hall, Chuo University, August 2016 [in Japanese].

6. Media comments

“New prefectural assembly fundamental ordinance arranged: Where has the relationship with people gone?” *Asahi Shimbun* (Yamanashi area, Tokyo edition), March 24, 2017 [in Japanese].

“Prefectural assembly fundamental ordinance passed: No article mandate routinely reviewed,” *Asahi Shimbun* (Yamanashi area, Tokyo edition), December 23, 2016 [in Japanese].

«Yoko SUGIHARA»

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Yoko SUGIHARA

Associate Professor / Ph.D. (Health Science)

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2) Overview of Research Activities in 2016FY

1. Process and outcome evaluation for constructing the community-based integrated care system.

Yoko SUGIHARA, Hidehiro SUGISAWA, Yuichi WATANABE, Hirofumi WATANABE, Yumiko SHIMIZU, Yukako KOIKE

We conducted the surveys in a municipality of Tokyo metropolis to evaluate process and outcome for constructing the community-based integrated care system. The results of

process evaluation showed that there was few prospect of securing various services and support to construct the community-based integrated care system, and the function of the municipality as insurer had not yet worked well. To examine the outcome of the system, two repeated cross-sectional surveys were conducted in 2013 and 2016 with probability samples of community-dwelling persons aged 65 years and older, care-need/support-need certificated elderly persons, and caregivers of care-need certificated persons. The results showed that there were not any positive changes which might suggest the progress of community-based integrated care system in three years. On the contrary, it was suggested that there might be negative effects of the revision of long-term care insurance system on the frail elderly.

2. A study on promoting support for the district welfare commissioners.

Yoko SUGIHARA

This study examined factors associated with the satisfaction and motivation to continue working of district welfare commissioners, with a focus on the roles of “psychosocial gains,” “role strain,” and “support from others”. Questionnaires were sent by mail to district welfare commissioners (N=1,936) living in Tokyo. The results from structural equation modeling showed that those having high psychosocial gains such as feelings of fulfillment about their activities had a high level of satisfaction and motivation to continue working, whereas those feeling role conflicts and role ambiguity had a low level of satisfaction and motivation. Role overload was not significantly related to the level of satisfaction and motivation. Although support from municipal offices, community support centers and other sources did not have direct effects on satisfaction and motivation, consultation and information support from them had indirect effects mediated by an increase in psychosocial gains and a decrease in role conflicts and ambiguity. These results suggest the importance of managing psychosocial gains and role conflict/ambiguity and promoting backup support for the retention of district welfare commissioners.

3. A study on social contribution, social participation, and social support of Japanese elderly people.

Yoko SUGIHARA, Ken HARADA, Erika KOBAYASHI, Hidehiro SUGISAWA, Masaya SIMMEI, Shizuko YANAGISAWA

We investigated the factors relating to social contribution, social participation, and social support, and the effects of these activities and support on health/well-being of Japanese elderly people based on the several survey data. We published the following research

results: Methods and challenges in conducting international comparison on productive aging, Relationship between paid labor and unpaid work, Relationship between political efficacy and participation in community organization, Effects of social support from various resources on elderly's mental health, Socioeconomic disparities of health and social activities among Japanese elderly persons.

3) List of Research Activities in 2016FY

1. Peer-reviewed papers

Sugisawa, H., Harada, K., Sugihara, Y., Yanagisawa, S., & Shinmei, M. (2016). Socioeconomic status and self-rated health of Japanese people, based on age, cohort, and period. *Population health metrics*, 14(1), 27. DOI: 10.1186/s12963-016-0095-z.

Harada, K., Sugisawa, H., Sugihara, Y., Yanagisawa, S., & Shimmei, M. (2017). Social support, negative interactions, and mental health: Evidence of cross-domain buffering effects among older adults in Japan. *Research on Aging*, 0164027517701446.

Shimmei, M., Sugisawa, H., Sugihara, Y., Harada, K., & Yanagisawa, S. (2017). Generational differences in relationships between political efficacy and participation in community organization. *Japanese Journal of Gerontology*, 7, in press (in Japanese)

2. Proceedings of Oral Presentations

Sugihara, Y. Factors Relating to Satisfaction and Motivation of District Welfare Commissioners in Japan. *Japan Socio-Gerontological Society 58th Annual Scientific Meeting*. 2016.6.11-12. Matsuyama. (in Japanese)

Sugisawa, H., Harada, K., Sugihara, Y., Yanagisawa, S., & Shinmei, M. Socioeconomic status disparities in late-life disability based on age, period, and cohort in Japan. *Japan Socio-Gerontological Society 58th Annual Scientific Meeting*. 2016.6.11-12. Matsuyama. (in Japanese)

Kobayashi, E., Sugihara, Y., Fukaya, T., & Liang, J. Volunteering among Japanese older adults: How are hours of paid work and unpaid work for family associated with volunteer participation? *Japan Socio-Gerontological Society 58th Annual Scientific Meeting*. 2016.6.11-12. Matsuyama. (in Japanese)

Watanabe, Y., & Sugihara, Y. Relationship between sharing consciousness of regional problems and participation in supportive activities among elderly persons. *Japanese Society for the Study of Social Welfare 75th Annual Scientific Meeting*. 2016.9.10-11. Kyoto. (in Japanese)

Sugihara, Y. Medical care for the community-dwelling frail elderly and burden of family

caregivers. Japanese Society of Public Health 75th Annual Scientific Meeting. 2016.10.26-28. Osaka. (in Japanese)

Harada K., Sugisawa H., Sugihara, Y., Shimmei, M., & Yanagisawa, S. Effects of social support and negative interactions on mental health in Japan. The Gerontological Society of America 69th Annual Scientific Meeting. 2016.11.16-20. New Orleans.

3. Others

3-1. Technical books

Yoko Sugihara. (2016). Informal care for the person with dementia. In the Japanese Society for Dementia Care (ed), Standard text book for dementia care: 4th edition. pp.172-175. Tokyo: World Planning. (in Japanese)

Yoko Sugihara. (2016). Life and health over the life-course. In Naoi, M. (ed), Life and Welfare. pp.6-31. Tokyo: Jikkyo Syuppan. (in Japanese)

3-2. Research Reports/Papers

Yoko Sugihara (ed). (2016). Working paper on the surveys for life and welfare of the elderly persons in Mitaka-city: 2016FY (pp.1-366). Report on the research funded by Mitaka-City. (in Japanese)

3-3. Monographs

Yoko Sugihara. (2016). Current situation and future issues for international comparison on productive aging. Japanese Journal of Applied Gerontology, 10(1), 4-12. (in Japanese)

3-4. Others (Speech)

Yoko Sugihara. Self-neglect of elderly people in urban areas. 2nd forum on urban development “Town development in the era of declining birth rate and growing population of elderly people”. 2016.11.18.

4. Grants-in-Aid for Scientific Research

(KAKENHI)

Yoko Sugihara. [Principal investigator: Scientific Research (B)]. Process and outcome evaluation for constructing the community-based integrated care system.

Yoko Sugihara. [Co-investigator: Scientific Research (A)]. A study on the mechanisms of the accumulation of social handicaps and moderating factors of the risks among the elderly persons.

(Others)

Yoko Sugihara. [Principal investigator: Funded Research]. The surveys for life and welfare of the elderly persons in Mitaka-city. (Funded by Mitaka-city).

«Kahoruko YAMAMOTO»

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2) Overview of Research Activities in 2016FY

1. Urban Sociological Study on Social Structural Changes and Reconstruction of Urban Inner Area in Yokohama, Japan

The Study has been focused on social structural changes in urban inner areas, focusing on the issues below; 1) change in industrial structures with Globalization and post-industrialization, 2) town development plan engaged by public administration and NPOs, 3) activities of local supportive organizations. The academic aim is to clarify 1) how these three points affect over changes and reconstructing of local communities, and 2) how social lives of residents have changed.

2. Urban Sociological Study on Social Structural Changes and Reconstruction of Urban Inner Area in Vancouver, Canada

The Study has been conducted in Downtown Eastside, the low-income neighbor in Vancouver, Canada. The research has been focusing on how gentrification impacts to a local community and their activities.

3. Research on Social Condition of the Evacuees from Fukushima

As a research group, we have conducted interviewing research to bring out the social condition of the evacuees from Fukushima, especially from Tomioka Town.

3) List of Research Activities in 2016FY

1. Publication

Kahoruko YAMAMOTO, 2016, ‘The Issues of High Concentration and Dispersion of Non-Japanese Residents in Japan’ , *The Japanese Journal of Real Estate Sciences*. No. 117. (Japanese)

Kahoruko YAMAMOTO, 2016, “Confronting Gentrification in Low-Income Neighborhoods: Focusing on Housing Crisis and Revitalization of Local Business” , *The Annals of Japan Association for Urban Sociology*. No. 34. (Japanese)

2. Proceedings of Oral Presentations

KahorukoYAMAMOTO,

‘Dai-toshi-niokeru-chouki-kouiki-hinan-ni-kansuru-juumin-ishiki: Tokyo-to-Arakawa-ku-Hino-shi-deno- enquête-kekka-kara’ . The Annual Conference of the Japan Research Society of Regional and Community Studies in J. F. Oberlin University, May 14th, 2016. (Japanese)

KahorukoYAMAMOTO, ‘Toshi-kasou-chiiki-niokeru-fukushika-shinten-no-yukue’ The Annual Conference of the Japan Association for Urban Sociology in Bukkyo University, September 3rd, 2016. (Japanese)

Kahoruko YAMAMOTO, Shin AIBA & Yuko OGUCHI, ‘Residents Consciousness of Long-term and Wide-area Evacuation due to a Disaster in an Inner-City Area-Result of the Questionnaire in Arakawa, Tokyo- ‘, The Annual Conference of Japan Society for Disaster Recovery and Revitalization in Ishinomaki Senshu University, October 2nd, 2016. (Japanese)