Toward Future Russian-Japanese Researches about City and Transportation Fields

Kiichiro HATOYAMA

Senior Assistant Professor

Department of Civil Engineering

the University of Tokyo

東 京 大 学
THE UNIVERSITY OF TOKYO

Who am I?

Kiichiro HATOYAMA, *Ph.D*

Professional Experience

2008-2011 Visiting Lecturer, Graduate School of
    Business Administration, Moscow State University
2011- Senior Assistant Professor, Department of
    Civil Engineering, the University of Tokyo

Research Field:
    - Transport Planning
    - Urban Planning
    - Environmental Psychology

Research Achievement in Russia
    Proposal to improve traffic congestion
    problems in Moscow City

В.Н. Кичеджи
К. Хатояма

МОСКВА
транспортные
проблемы
мегаполиса

City Planning and Transport Planning

- Each city has its individual characteristics.
- There is no universal measure that can immediately applicable to any cities' problem.
- We should arrange it considering each city's context.
- Experience, knowledge and insight are essential to solve problems.
- We sometimes utilize knowhow of other fields, such as sociology, psychology etc.
- City planning and transport planning is similar to doctor's work.
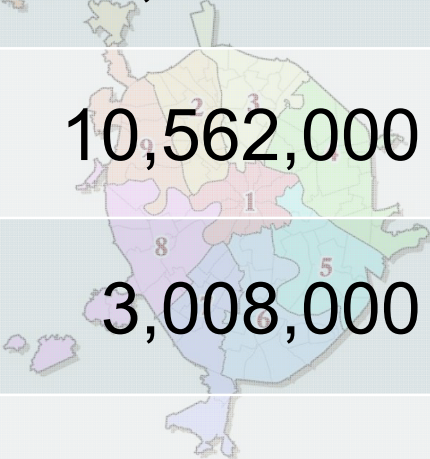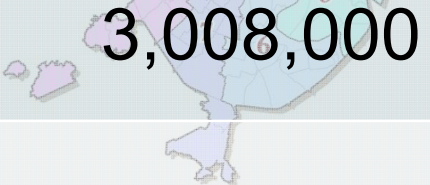
Comparison - Moscow and Tokyo

City	Moscow	Tokyo
Area	1,081 km^2	2,190 km^2 Central area 622km^2
Population	10,562,000	13,049,000 Central area 8,503,000
Car ownership	3,008,000	4,519,000
Road area ratio	8.3%	8.3%

➡ Density of vehicle in Moscow is 1.3 times larger than that in Tokyo.

Moscow City and Moscow Oblast
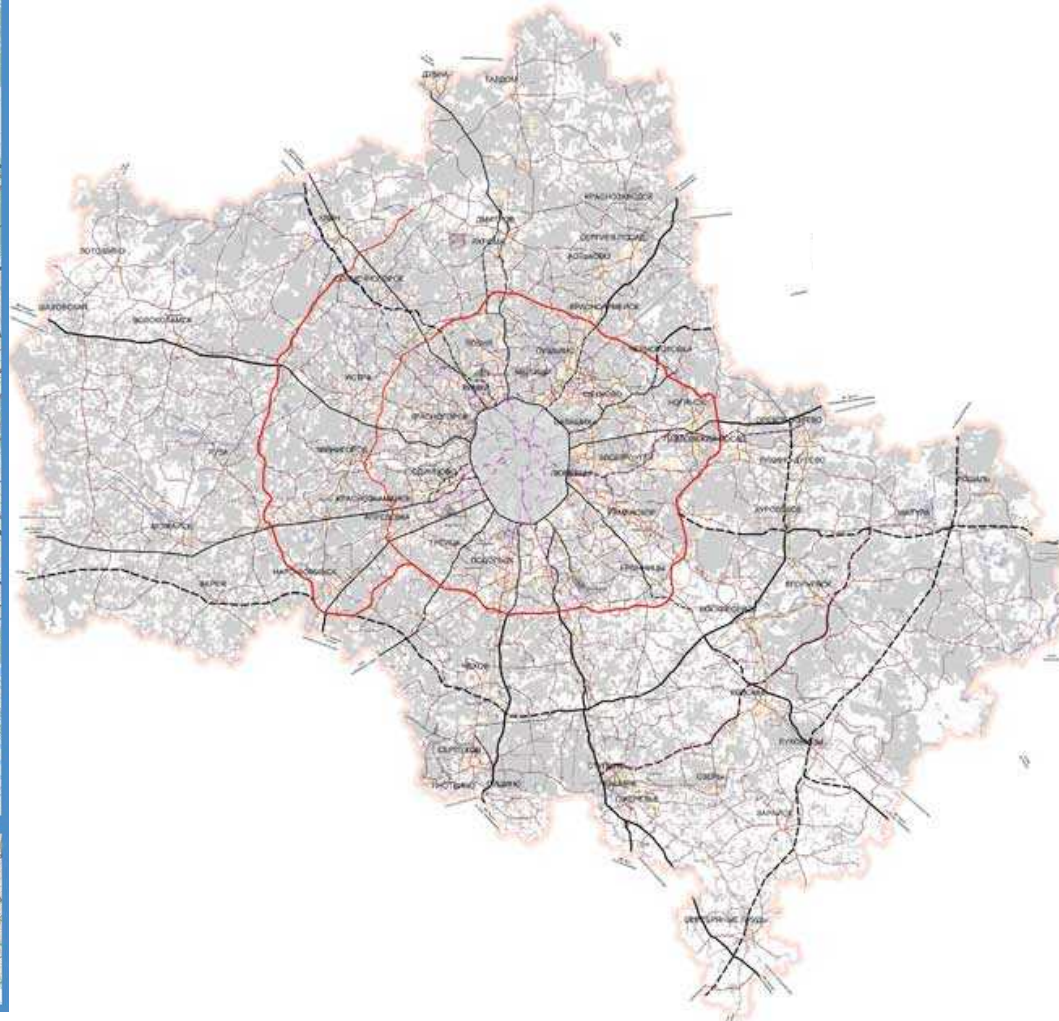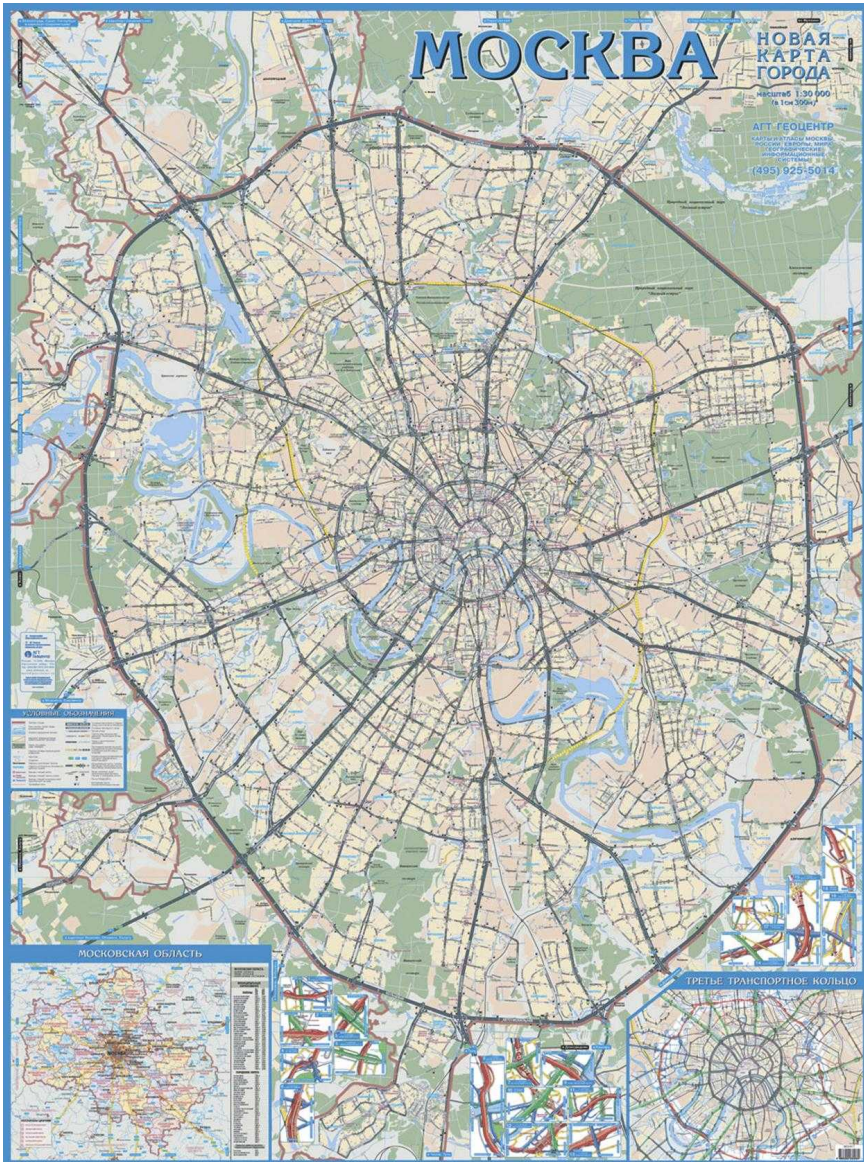
Road Network Concept of Tokyo Metropolitan Area- "3 Rinds and 9 Radials"

In 2005

In the Future

Source: Ministry of Land, Transportation, Infrastructure and Tourism (M
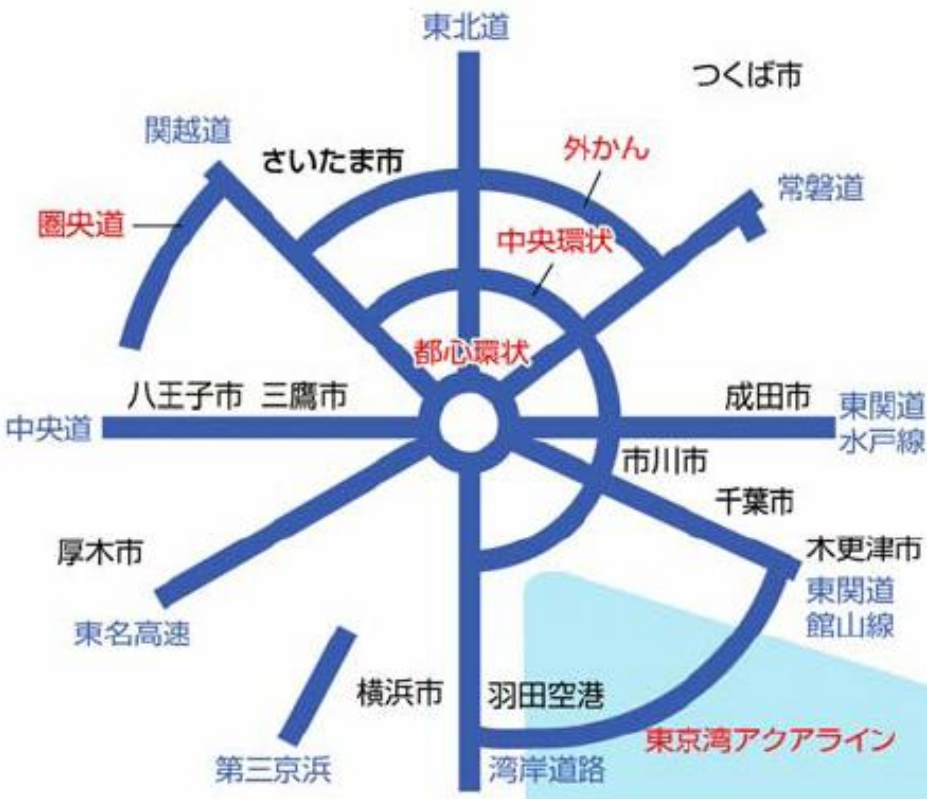
Metro in Tokyo and Moscow

Index	Tokyo	Moscow
Number of lines	13	12
Number of stations[a]	285	182
Operating distance (km) [b]	304.1	301.2
Average number of passenger (1,000 person a day)	8,650	6,650
Car ownership	3751	4512
Average distances between stations*	1.12	1.77

* Calculated from (a) and (b)

Collaborative Research Potentials

1. How much more infrastructure is necessary for the city?
   ◦ Road, public transport, parking, etc.
   ◦ Cost-Benefit Analysis to compare effectiveness of alternatives

Collaborative Research Potentials

1. How much more infrastructure is necessary for the city?
   - Road, public transport, parking, etc.
   - Cost-Benefit Analysis to compare effectiveness of alternatives
2. How much level of service should to promote public transport?
   - Increase in frequency, new type of wagon, integrated fare system, etc.
   - Users' preference

Bus Rapid Transit (BRT) in Curitiba (Bra

Transit Mall in Strasbourg (France)

Collaborative Research Potentials

3. What are the effects of traffic enforcement?

   - Regulation of illegal parking (Japanese experience)

   - Process of how to make rules stricter

   - Strict control and "safe place"

2006.5.24　　　　　　　　　2011.5.25

Collaborative Research Potentials

3. What are the effects of traffic enforcement?
    - Regulation of illegal parking (Japanese experience)
    - Process of how to make rules stricter
    - Strict control and "safe place"
4. Where and how do traffic accidents occur?
    - Judgment error of both attacker and victim
    - Structures of road, intersection may foster judgment error
    - "Safe roads" are "Smooth roads"

An Example of countermeasures for Traffic Accident

Drawing guide marking -> Accident reduction in left-turning

unstable trajectory

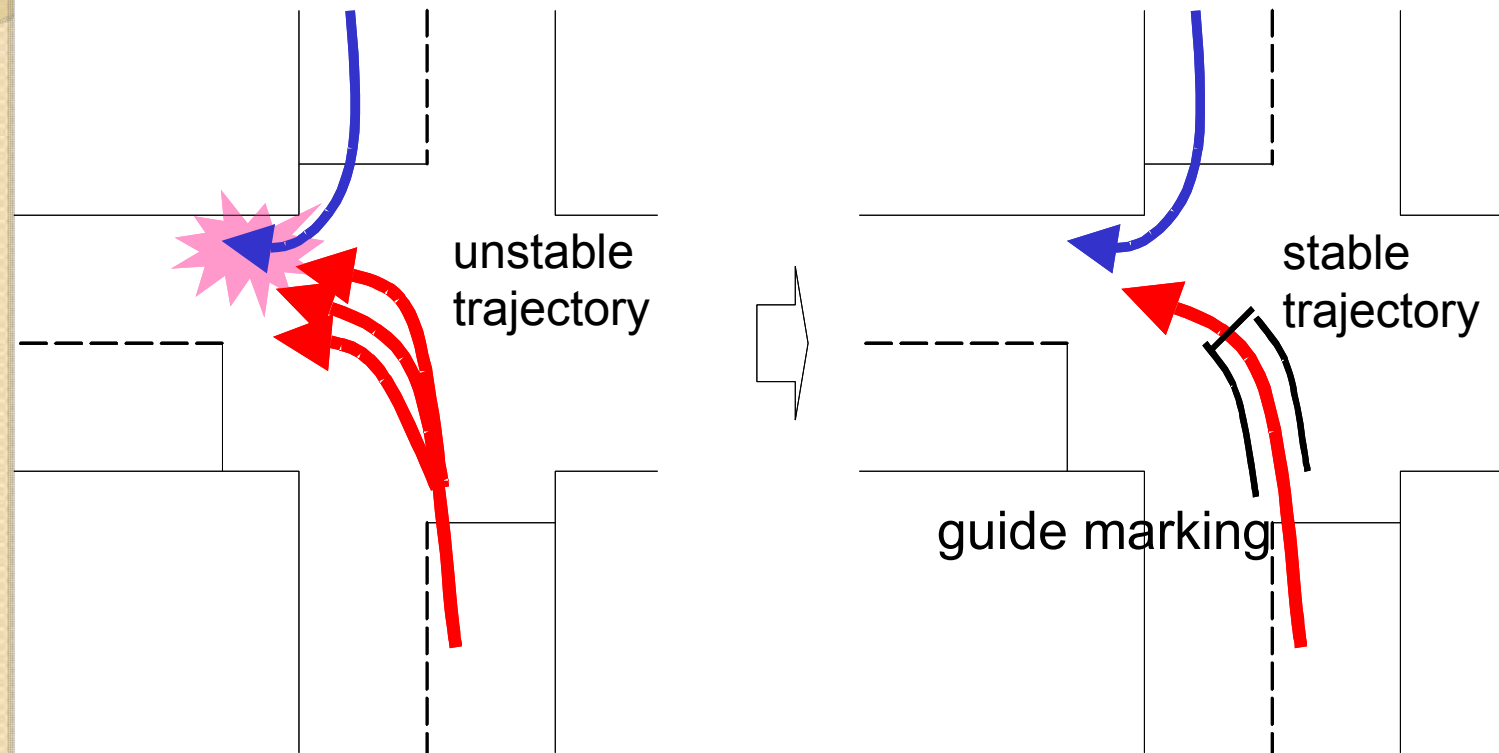stable trajectory

guide marking

Collaborative Research Potentials

3. What are the effects of traffic enforcement?

- Regulation of illegal parking (Japanese experience)
- Process of how to make rules stricter
- Strict control and "safe place"

4. Where and how do traffic accidents occur?

- Judgment error of both attacker and victim
- Structures of road, intersection may foster judgment error
- "Safe roads" are "Smooth roads"

Collaborative Research Potentials

5. How to modify human behavior?
   - Method to change drivers' behavior
   - Method to make car users select public transport
   - Comprehension of human way of thinking

Mobility Management

- Communication-based transport policy to promote people's voluntary change of their mobility to the publicly and individually desirable way.

- Utilizing psychological methods to promote people's voluntary behavior change

Collaborative Research Potentials

5. How to modify human behavior?
   - Method to change drivers' behavior
   - Method to make car users select public transport
   - Comprehension of human way of thinking
6. Research about Intelligent Transporta-tion System (ITS)
   - Utilization of GLONASS system

Invitation!

"Russia-Japan Youth Transport Diagnosis Team

(Японо-Российская Молодёжная Команда Транспортного Осмотра)"

- In March, 2012
- To consider transport problems in Moscow with Japanese transport researchers
- To make practical suggestion to Moscow City government

If you have an interest, please come and join us!