*1st. MeTTA Inaugural Forum*

# Megacity : Beyond Risk towards Safe City

**11th July, 2014**
**Grand Conference Hall, Seoul City Hall**

서울특별시

서울연구원
The Seoul Institute

중민사회이론연구재단

환경재단

ERC FUND

Megacity Think Tank Alliance
MeTTA

서울연구원장
**이 창 현**

## 초대의 말씀

오늘날 세계인구의 55%가 도시에 살고 있습니다. 도시화의 진전에 따라 인구의 폭발적 증가, 주택의 공급부족, 교통체계의 혼잡, 대기 및 수질의 오염 등 다양한 도시문제가 발생하고 있습니다. 특히, 최근에는 경제의 지구화가 진행되면서 대도시에 경제력 집중이 강화되었고, 새로운 일자리를 찾는 농민들이 대도시로 유입되면서 500만 명 이상이 거주하는 메가시티가 증가하고 있습니다. 메가시티는 도시의 면적과 인구의 크기만큼이나 도시문제도 더욱 심각해지고 있습니다. 이에 따라 메가시티의 도시문제해결을 위한 노력은 더욱 강화되고 있습니다.

민간이나 정부의 메가시티 싱크탱크는 도시문제를 해결하기 위해서 다양한 정책을 만들어내고 있습니다. 그러나 도시문제가 수반하고 있는 맥락성과 복합성 등으로 개별적인 메가시티 차원에서 모든 도시문제를 해결하기에는 한계가 있습니다. 메가시티의 도시문제를 해결하기 위해서는 국내적으로는 중앙정부의 국가정책이나, 인접국가의 도시 관련 정보를 공유하고 공동의 정책을 만들어가야 합니다. 특히, 메가시티의 싱크탱크들은 공통의 도시문제를 경험하고 있기 때문에 도시문제 해결을 위한 지식과 경험을 공유한다면 전 지구적으로 도시문제 해결에 도움을 얻을 수 있을 것입니다.

서울연구원은 인구 천만 도시 서울의 다양한 도시문제를 20여 년간 연구하고 그 문제를 해결해온 역사를 갖고 있습니다. 서울은 도시문제를 해결함에 있어서 베이징과 상하이 그리고 싱가포르와 호치민과 공동의 연구를 수행해왔습니다. 이제 서울연구원은 메가시티의 문제해결을 위해 양자 간의 협력을 넘어 다자간 협의체의 필요성으로 메가시티 싱크탱크협의체(MeTTA)를 창립하고자 합니다.

MeTTA의 첫 행사로 서울, 북경, 상해, 싱가포르, 호치민이 창립회원이 되어 "메가시티: 안전도시를 향하여"라는 주제로 논의를 시작합니다. 도시문제를 위험사회의 맥락에서 이해하고 이 문제에 대한 공통의 노력을 기울여보자는 것입니다. "위험사회"를 제창한 독일의 사회학자인 울리히 벡 교수의 기조연설도 준비되어 있습니다. MeTTA의 창립 총회를 빛내주시고, 메가시티의 정책적 연대 논의에 적극참여해주시기 바랍니다. 감사합니다

# Letter of Invitation

It is an honor to welcome you today to the launch of the Megacity Think Tank Alliance. MeTTA is committed to providing a platform for solutions to problems resulting from large-scale urbanization.

As you may be well aware, 55% of today's world population lives in urban areas. Urbanization has brought with it rapid population growth, housing shortage, and large-scale air and water pollutions. As economic power is becoming more concentrated in large cities, more rural migrants are moving into cities. This has accelerated the growth of cities with a population of over 5 million. Population growth and land shortage have led to urban problems that are putting severe pressure on megacities. There is an increasing need to find solutions.

To address this need, think tanks from both private and public sectors have come together. There is an agreement that, due to the inherent complexity and contextual aspects of the problems, there are limitations to developing effective solutions separately and individually. A much more effective way to tackling urban problems in megacities is to share national policy and urban information and to jointly develop policies among relevant nations. As megacities face similar problems, the alliance can showcase and promote the solutions to benefit all members.

The Seoul Institute has contributed to analyzing and providing solutions to urban problems in Seoul for the past 20 years. Seoul has been involved in joint research projects with Beijing, Shanghai, Singapore and Ho Chi Minh City. It is now taking a further step in establishing the Megacity Think Tank Alliance (MeTTA), a multilateral cooperation network. We believe that this international alliance will play a critical role in resolving megacity problems.

MeTTA's 1st inaugural forum is titled "Megacity: Beyond Risk towards Safe City". The founding members are Seoul, Beijing, Shanghai, and Ho Chi Minh City. In this forum, we would like to understand the inherent risks in urbanization, and to coordinate our problem-solving efforts. We are honored that Dr. Ulrich Beck, the author of "Risk Society", is here to give the keynote speech. It is our privilege to have you at this inaugural forum, and we are looking forward to sharing invaluable experiences and insights through MeTTA.

# Megacity Think Tanks Alliance (MeTTA)

### 정의

· 메가시티의 도시문제를 해결하기 위해 만들어진 정부 및 민간 싱크탱크의 연구협의체이다.

### 목표

· 메가시티 싱크탱크의 네트워크 구축을 통해 메가시티 도시문제의 정보를 공유하고, 문제해결을 위한 공동의 노력을 기울인다.
· 메가시티 싱크탱크 간의 지속적인 협력을 통해 도시정부 간의 우호협력을 추구한다.

### 사업

· 공통의 도시문제 해결을 위한 인적교류 및 공동연구를 수행한다.
– 도시문제 솔루션 공유
– 도시문제 전문가 교류

### 운영방식

**1. 총회**

· 연구교류 활성화 및 공통의 의제발굴을 위해 1년에 최소 한 번씩 총회와 학술세미나를 개최한다.
– 서울, 북경, 싱가포르, 상하이, 그리고 호치민의 5개 메가시티 싱크탱크가 순차적으로 정기 총회를 개최하여 해마다 특정한 사안에 대해 공동으로 논의한다.

**2. 참여 범위**

· 최근 급속한 도시화 과정을 겪고 있는 아시아 지역 내 메가시티를 중심으로 초기 네트워크를 구축한다.
· 도시 싱크탱크 뿐만 아니라 도시문제에 관심이 높고 도시문제 해결 솔루션 발굴에 적극적인 UN Habitat, Citynet, Metropolis 등의 국제기구의 참여 및 지원을 독려한다.

### 기대효과

· 도시문제는 다수의 공통된 이슈를 포함하고 있으므로 각 도시의 경험을 공유하여 보다 창의적인 대안을 마련할 수 있다.
– 협의체를 통해 도시 싱크탱크의 연구역량을 강화하여 지역 특성에 적합한 도시문제 솔루션을 제공할 수 있다.
– 메가시티 싱크탱크의 다자간 교류협력을 통해 상호 발전할 수 있는 메가시티의 미래를 모색할 수 있다.

# Megacity Think Tank Alliance (MeTTA)

The Seoul Institute

## What is MeTTA?

Megacity Think Tank Alliance (MeTTA) is an international alliance aiming to provide solutions to problems that a megacity faces and subsequently to improve the quality of life of its citizens.

## Purpose

By building an international network, MeTTA plans to distribute to its member think tanks information on urban problems and solutions and to coordinate their problem—solving efforts.

Through a substantial and consistent cooperation with its members, MeTTA will support megacity governments to form a mutual relationship for collaboration and by encouraging private partnerships, to raise the quality of life of the citizens.

## Agenda

Exchange and collaboration are as follows.
— Exchange of the solutions to urban problems
— Expert exchange

## Operation

### 1. General Assembly

A general assembly and academic seminar will be held on a yearly basis as a venue for setting an annual agenda as well as for facilitating the exchange of the research expertise.

The member cities, currently Seoul, Beijing, Singapore, Shanghai, and Ho Chi Minh City (in the order of the membership), are hosting the annual assembly by turns.

### 2. Membership

Beginning in Asia megacities with high urbanization rate, MeTTA will ultimately expand its membership to include megacities and organizations in all other parts of the world.

In addition to urban think tanks, MeTTA will encourage participation and support by international bodies that are int erested in urban problems and active in exploring solutions to the problems, including, but not limited to, UN—Habitat, Citynet, and Metropolis.

## Promising Outcomes

Cities experience urban problems in line with their development stages, and thus, can benefit from experiences shared by other cities in developing preemptive and innovative solutions.

Participation in the Alliance helps strengthen the research capacity of an urban think tank to the level to which it can design practical and direct solutions suited to the unique settings of a city.

As opposed to the one—time and one—way knowledge delivery, the primary role of the existing urban cooperation systems, MeTTA is dedicated to a new type of a research network.

# Programme

| 시간 | 구분 | 주요내용 |
|---|---|---|
| 13:00 - 13:30 | 등 록 | |
| 13:30 - 13:35 | Artist Insight Ⅰ : Prologue | · The Present: 성승한 첼리스트 |
| 13:35 - 13:45 | 개회식 | · 개회사: 이창현 (서울연구원 원장)<br>· 축　사: 박원순 (서울시장) |
| 13:45 - 14:35 | 기조연설 및 대담 | 〈메가시티의 위험을 어떻게 극복할 것인가?〉<br>· 기조연설: **Why do we need a Cosmopolitan Cooperation?**<br>　　　　울리히 벡 (독일 뮌헨대학 교수, 사회학연구소장)<br>· 서울시장과 울리히 벡 교수 대담: **"The Challenge of Risk Society and**<br>　　　　　　　　　　　　　　　**Seoul Initiative"** (사회 : 한상진 교수) |
| 14:35 - 14:45 | 사진촬영 | 주요 참석자 |
| 14:45 - 15:15 | 발표세션 Ⅰ | 〈아시아 메가시티의 위험과 씽크탱크의 역할 Ⅰ〉<br>· 발표 1: **Megacity, Risk Society and the Role of Think Tank : From Risk to Safe City** 이창현 (서울연구원 원장)<br>· 발표 2: **Social Capital and Reduction of Disaster Risk**<br>　　　　Zhao Yandong (중국과학기술연구원 연구위원) |
| 15:15 - 15:30 | 휴 식 | |
| 15:30 - 15:35 | Artist Insight Ⅱ : Intermission | · 인터스페이스에서 질주하는 아우라의 현상: 전수천 화백 |
| 15:35 - 16:45 | 발표세션 Ⅱ | 〈도시별 주요 정책 사례 발표〉<br>· 북경: **Resources Risk and Environment and its Solution Strategy in Beijing**<br>　　　Yiling Pan 북경성시규획설계연구원 부원장<br>· 상하이: **Spatial Strategy for Metropolitan Shanghai in light of Innovation-driven and Transformational Development**<br>　　　Zhang Yuxin 상하이성시규획설계연구원 원장<br>· 싱가포르 : **Active Mobility for a Sustainable Singapore**<br>　　　Limin Hee 살기좋은도시센터 연구부장<br>· 호치민 : **Challenges of HCMC Urban Transport and Land Use**<br>　　　Tran Anh Tuan 호치민발전연구원 부원장 |
| 16:45 - 17:45 | 토론세션 | · 사회: 강명구 (서울대학교 아시아연구소장)<br>〈메가시티의 위험과 싱크탱크의 역할 Ⅱ〉<br>· 발표자 전체<br>· 한만희 서울시립대학교 국제도시과학대학원 원장<br>· 유연식 CITYNET 사무처장<br>· Rahul T.Vaswani ICLEI 동아시아본부 프로그램 팀장 |
| 17:45 - 17:55 | Artist Insight Ⅲ : Epilogue | · 임옥상 화백: 하늘을 담는 그릇<br>　　　　　　　　이제는 농사다 – 흙의 얼굴 |
| 18:00 - 18:30 | 발족식 | · 사회: 장지인 (홍익대학교 스마트도시 과학경영대학원 교수)<br>· Megacity Think Tank Alliance 창립총회<br>· 서울선언 · 사진촬영 |

| Time | Session | |
|---|---|---|
| 13:00 - 13:30 | Registration | |
| 13:30 - 13:35 | Artist Insight Ⅰ : Prologue | · The Present Seunghan Sung, Cellist |
| 13:35 - 13:45 | Opening Session | · Opening Remark: Changhyun Lee(President, the SI) <br> · Congratulatory Remark: Won Soon Park(Mayor of Seoul) |
| 13:45 - 14:35 | Keynote Address & Dialogue | **<How to Overcome Risks in Megacity >** <br> · Keynote Address: **Why do we need a Cosmopolitan Cooperation?** <br>      Ulrich Bacck(Professor, The University of Munich) <br> · Dialogue: **The Challenge of Risk Society and Seoul Initiative** <br>     (Mayor of Seoul and Ulrich Beck) <br>   Chair : Sang-Jin Han(Emeritus professor, Seoul National University) |
| 14:35 - 14:45 | Photo Session | · Key Participants |
| 14:45 - 15:15 | Presentation Session Ⅰ | **<Risks in Asian Megacities and Role of Think Tanks Ⅰ >** <br> · Presentation I: **Megacity, Risk Society and the Role of Think Tank : From Risk to Safe City** <br>     Changhyun Lee(President, the SI) <br> · Presentation II: **Social Capital and Reduction of Disaster Risk** <br>     Zhao Yandong(Research Fellow,Chinese Academy of Science and Technology for Development) |
| 15:15 - 15:30 | Coffee Break | |
| 15:30 - 15:35 | Artist Insight Ⅱ : Intermission | · Speeding Phenomena of Aura in Interspace: Soocheon Jheon, Artist |
| 15:35 - 16:45 | Presentation Session Ⅱ | **<Case Study>** <br> · Beijing: **Resources Risk and Environment and its Solution Strategy in Beijing** <br>     Yiling Pan(Vice President, Beijing Municipal Institute of City Planning and Design) <br> · Shanghai: **Spatial Strategy for Metropolitan Shanghai in light of Innovation-driven and Transformational Development** <br>     Zhang Yuxin(President,Shanghai Urban Planning and Design Research Institute) <br> · Singapore: **Active Mobility for a Sustainable Singapore** <br>     Limin Hee(Director,Centre for Liveable Cities) <br> · Ho Chi Minh City: **Challenges of HCMC Urban Transport and Land Use** <br>     Tran Anh Tuan(Vice President,Ho Chi Minh Institute for Development Studies) |
| 16:45 - 17:45 | Discussion Session | · Chair: MyungKoo Kang  (Director, Seoul National University Asia Center) <br> **<Risks of Asian Megacity and Role of Think Tanks Ⅱ >** <br> Discussion Panels: <br> Manhee Han(Dean, International School of Urban Science, University of Seoul) <br> Yeonsik Yoo(Assistant Secretary General, CITYNET) <br> Raul T.Vaswani(Senior Program Manager,ICLEI) <br> Choi Yul(President, Green Foundation) |
| 17:45 – 17:55 | Artist Insight Ⅲ : Epilogue | · Oksang Lim, Artist: Vessel embracing the sky <br>     Age of Farming: A Face of Earth |
| 18:00 – 18:30 | MeTTA Declaration Ceremony | Chair: Ji-in Chang(Professor, Hongik University) <br> · Megacity Think-Tank Alliance Declaration <br> · Seoul Declaration    · Photo session |

# 주요인사 소개

## 박원순

소　　속 : 서울특별시장
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　　　　　 1979년 단국대학교 사학과 졸업
　　　　　 1991~1992년 London School of Economics and Political Sciences
　　　　　　　　　　 Diploma in International Law 취득

### 경력사항
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1995 ~2002년 참여연대 사무처장
2002 ~ 2009년 아름다운 가게 총괄상임이사
2001 ~ 2010년 아름다운 재단 총괄상임이사
2005년 STANFORD UNIVERSITY VISITING PROFESSOR
2006 ~ 2011년 희망제작소 상임이사
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### 저서
한국의 시민운동-프로크루스테스의 침대 / 마을이 학교다 / 아름다운 세상의 조건 / 올리버는 어떻게 세상을 요리할까 /
마을회사 / 세상을 바꾸는 천개의 직업 / 아름다운 가치사전 / 마을.생태가 답이다

### 논문
부패방지의 제도적 개혁방안 / 한국시민사회의 제도적 개혁과제 / 비영리단체의 재정 투명성

### 수상경력
2006년 만해상 실천부분 수상 / 2006년 막사이사이 PUBLIC SERVICE부분 수상
2007년 단재상 수상 / 2009년 제15회 불교인권상 수상

## 이창현

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### 경력사항
1993 ~ 1997년 한국방송개발원 선임연구원
1996 ~ 1997년 위스컨신대학 매스콤연구소 교환연구원
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2008 ~ 2009년 방송통신심의위원회 특별위원
2008년 시민환경정보센터 소장
2009년 미디어발전국민위원회 위원
2009년 한국방송공사 이사
2009년 한국방송학회 남북방송통신연구회 회장
2012년8월~ (현)서울연구원장

### 저서
대한민국, 소통이 희망이다(2009) / 교육문화, 환상과 두려움을 넘어서(2009) /
한국민주주의와 시민사회(2010) / 미디어공공성(2010)

## Ulrich Beck

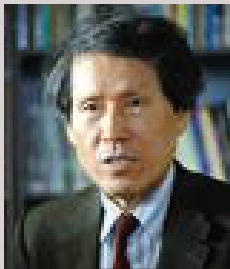소속 : 뮌헨대학교 교수
학력사항 : 뮌휀대학교 대학원 사회학 박사

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### 저서
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2008. 03. 29. ~ 2008. 04. 05. 방한

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### 특이사항
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# "Why Cosmopolitan Cooperation?"
## – Seoul, July 2014 –

Today many of us realize we face a set of problems that no nation can tackle alone. Climate change is one of those, but there are also global financial market risks, extensive transnational corporate power, global poverty, risk of terrorism, resource depletion and organized crime. We might call these risks global or world-centric due there cosmopolitan nature. But while it may seem obvious no nation, nor even a small group of nations, can solve them alone, we are far from fully acknowledging the enormity of what this implies.

A look back through human history would show that whenever problems of large-scale pollution or social injustice occurred, they were always ultimately solved by governance; that is, by the implementation and enforcement of appropriate laws, taxes, regulations or democratic participation, which either outlawed the damaging behaviour altogether, or deterred it through taxes or other disincentives. In the past, these problems were generally no more than nation-centric; that is, they rarely impacted beyond an individual nation's borders. Today, however, they are world-centric and cosmopolitan, but we possess no form of effective, binding governance on a world scale. We have no entity of cosmopolitan governance capable of answering or managing these global risks and challenges.

This places us in an invidious position. Whereas nation-states and their governments came into existence before the Industrial Revolution, and so were in place and able to deal with the problems created by industrialisation, under cosmopolitization the reverse is the case. For global risk's problems have come upon us before any form of binding cosmopolitan governance has had a chance to evolve. So we find ourselves, now, entirely without the necessary institutional means for solving them.

To compound this, most of us – including our political leaders – remain substantially unaware of the

global forces that governments are subject to; market forces which not only prevent politicians from addressing global (and many national) risks, but often drive them to make them worse. Not only do we lack adequate cosmopolitan institutions to deal with this dilemma, our national ones, too, are struggling. And I am not sure, what kind of 'only national' risks – that are risks which we can answer nationally – there really are.

Albert Einstein famously noted that "we will not solve present problems with the same thinking that created them", so rightly identifying that it is the limited and inadequate way in which we think that always lies at the root of our inability to find answers to global risks. For global risks themselves are not the barrier, but the way we think about them.

So, how do we think about them? Those risks are world-centric. Solving them thus requires a matching cosmopolitan way of seeing the world and imagining and doing politics.

Why a cosmopolitan way? Television reports of natural disasters and the litany of man-made risks kindle cosmopolitan perspectives, sympathies and humanitarian action. Advocacy companies exposing human rights abuse, genocide and crimes against humanity mobilize worldwide movements of social solidarity and political justice. Scientific and technological innovation reorients our vision of the world as planet Earth, at once biosphere constituted by diverse but overlapping ecologies and 'the Island' home of the human race. Interlocking markets and flows of capital and labour raise questions about the meaning of human well-being, of social responsibility and just standard of living. Taking together, such social circumstances seemingly make the ethical aspiration of 'global neighbourhood' and thereby the respect for the fundamental dignity of all humans no longer appeal an abstract aspiration.

But what does the thinking (and acting) in terms and frames of 'humanity' mean? There is an interesting paradox.

Many object that 'humanity' is a false term and aim, because it turned out to be defined again by the general wealthy, white and developed countries of the Northern hemisphere, and the situation of the general poor, non-white and underdeveloped countries of the so-called 'global South' are – again – being excluded.

But this does not describe the reality of today. Where once such critical act of de-centring might have been a radical unsettling and disorienting, today it is a common place. It is today, for instance, the map of preference in most schools, humanitarian organizations, and United Nations agencies. Today, in the name of yet more realism, it trains its science on any and all of immanent privileging – whether of wealthy, white peoples of the Northern hemisphere or, of the Westphalian state system, or of elitist, imperialistic, and ethnocentric forms of cosmopolitanism itself.

Such efforts to radically relativize sides of modern privilege ground their legitimacy mobilizing appeal rises the notice of justice. The aim is not merely to level the plan field, but to level it in the interest of human equality. The appeal is to our common humanity. Consciousness of humanity as a single people does act as a fixed point, a virtual North Star by which to orient identities and mobilize solidarities in the otherwise storm tossed seas of cultural relativation and contradictions between so

called Centre and Periphery, North and South. From the establishment of the Universal Declaration of Human Rights to success of mapping of human genome – the idea of humanity becomes increasingly central. The chief significance of the principle of human rights, for instance, has to do less with its enforcement in practice or its confrontation with rival ethical system (for example Asian values), than with the consolidation of the concept of humanity. Today, not surprisingly, all kinds of particularistic identities, from indigenous people to advocates of multiculturalism to movement for gay, lesbian, transgender rights are validated by some ultimate reference to human dignity, human rights or human responsibility, which are in turn pointing to humanity itself (whatever that means).

But this is only one side of the coin, the other is that we tend to think about the world today remains nation–centric. Thinking nation–centrically means we still think about and understand the world from a predominately national perspective; with one nation – usually our own in mind – we see how actions and events impact on that nation, but we fail to see how they impact on other nations, or what their reaction might be. More fundamentally, thinking nation–centrically means we still have faith, overtly or tacitly, on the nation state system. It means we still believe our government and governments generally, have the ability to answer to global risks and that, sooner or later, they will do that. It also means we tend to assume people in other countries generally see and understand the world in the same way we do – or ought to.

My main point about why cosmopolitan cooperation is a necessity is, that there is no either–or but a both–and between world–centric and nation–centric thinking and acting. A world–centric national thinking and acting, that is cosmopolitan cooperation, empowers and enriches national sovereignty maybe even re–constitutes it in world risk society.

Briefly put it means mainly – and this is the fundamental contention of my argument – that the world and humanity have now become every bit as much the focal point of contention and controversy as they are icons of cooperation and conciliation, as much stimuli for competing projects as for collaborative undertakings. But this does not exclude the national reference point; the opposite is the case: in realistic cosmopolitan cooperation world–centric and nation–centric thinking have been combined. Again, it is the both–and rather than the either–or character of our situation that is revealed (but also produced) by cosmopolitan cooperation – not only between states but also between world port cities.

Let me illustrate this idea by first pointed at research done by Anders Blok and others. They traced "the emergence of a cosmopolitan risk community of world port cities in Europe and East Asia, constituted around shared imaginations of the global risks and opportunities of climate change. Such urban risk imaginations are shaped and circulated," they show, "within transnational assemblages of local government networks, international organizations, multinational insurance companies and transnational NGOs. Adapting the methodology of mapping urban climate experiments, [they] then document the policy effects of this cosmopolitan risk community, in terms of the timing, intensity, policy priorities and modes of government manifest in the climate policy engagements of 16 major cities across the regions of Europe and East Asia. The ubiquity

and interrelatedness of these policy engagements, [they] conclude, amount to a new urban—cosmopolitan realism, reshaping urban politics in the face of climate change."

Taking East Asia as an example (which also Anders Blok gave me) transboundary environmental cooperation is already proving a powerful means of overcoming troubled historical relationships due to a twentieth century legacy of colonial exploitation and war. Now, in the process of addressing common environmental threats, new regional ties and shared East Asian identities are being formed. This is the case, for instance, in the fight against desertification in Western China and Mongolia, tied to the experience of recurring dust storms spreading across the region and into neighbouring Korea and Japan (Wilkening 2006). These 'photogenic' media events — known simply as 'Asian' yellow dust storms — have generated much public attention and concern throughout the region since the late 1990s, leading to various forms of cross—boundary scientific and political cooperation.

In this process, scientists help draw new maps of the region, showing how patterns of land use, forestry and economic developments have repercussions far beyond national boundaries, tying East Asia together as an air—borne risk community. In Korea and Japan — the more technologically advanced countries in the region — scientific institutions, NGOs and others mobilize support to help finance afforestation efforts in Western China, thereby contributing to what is known in China as the Great Green Wall plan. Civil society groups from Korea and Japan also organize trips to China in an effort to help actually plant the new trees. In this way, the very 'natures' in the region are being cosmopolitized and regionalized: in the near future, forests in Western China will no longer be simply 'Chinese', but rather a product and a heritage of East Asian cooperative efforts. But these cases illustrate two things at once: that there are beginnings of trans—Asian cosmopolitan cooperations and the obstacles and resistance to it. Why is this so?

In the only nation—centred perspective you see national interests as pre—given and unchangeable—In the world—centric national perspective you focus on the on—going re—definition, re—negotiation of the national interests in world risk society. And then you realize that cosmopolitan cooperation is not about self—sacrifice, but about self—interest. This is what cosmopolitan cooperation is all about.

**SESSION 1**
# Risks in Asian Megacities Solutions of Think Tanks

**Presentation 1**

**Changhyun Lee**
President, the SI

Megacity, Risk Society and the Role of Think Tank :
From Risk to Safe City

**Presentation 1**

**Zhao Yandong**
Director, Chinese of Academy Science and Technology for Development

Social Capital and Reduction of Disaster Risk

# Megacity, Risk Society and the Role of Think Tank : From Risk to Safe City

**Changhyun Lee**
President, the SI

55% of today's world population lives in urban areas. Although urbanization rate in Asia is relatively lower than other continents, together with China (53.7%) and Vietnam (31%), urbanization rate is rapidly increasing in Asia. This phenomenon has accelerated the growth of cities with a population of over 5 million. Population growth, land shortage, and traffic congestion have led to urban problems that are putting severe pressure on megacities.

Seoul is the capital of Korea and has a history of rapid economic growth as well as urbanization growth. At the initial stage of urbanization, the major urban planning was to reduce the damages from natural disasters such as deluge and drought. After 70's, rapid urbanization was developed and Seoul expanded its main policy to provide housing supply and public transportation. Moreover, Seoul strived to solve garbage problems, traffics, and both air and water pollutions which were derived from the urbanization. Up until late 90's, the major urban planning for Seoul was on economic development and urbanization. However, after past two financial crises, one in 1997 and the other in 2008, social inequality has been spread and youth unemployment rate as well as social risks has been increasing under the neo–liberalism economic structure. Korea has shown the lowest birth rate and the highest suicide rate among OECD member countries. In this situation, there is a need for an alternative urban planning focused on the public welfare. Seoul's objective for urban planning should be not only for higher GNP but also for higher GNH for making sustainable paradigm shift.

# Megacity, Risk Society and the Role of Think Tank

## -From Risk to Safe City-

Chang-hyun Lee

President
The Seoul Institute

서울연구원
The Seoul Institute

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서울연구원
The Seoul Institute

# 1 The Age of Megacity

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# Urbanization: The Age of Megacity

## 55% (Percentage of Urban in 2010)

- 13%(220 million) in early 1900
- 55%(3.2 billion) now

- Now we live in **Urban Era**,
  and the quality of our lives
  depends on **how we design the cities**.
  (China increase the Urbanization Rate recently)

**Urbanization 1950-2050**
History and Future Estimates

WORLD
AFRICA
ASIA
EUROPE
LATIN AMERICA AND CARRIBEAN
NORTHERN AMERICA
OCEANIA

Percentage Urban

Year

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat.

Going urban

China urbanization rate (%)

Source: NBS, SG Cross Asset Research/Economics
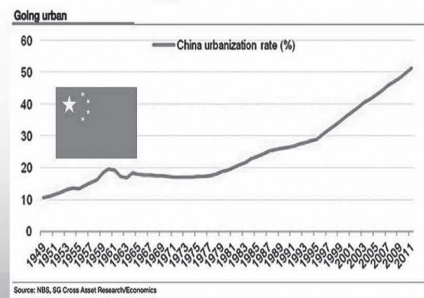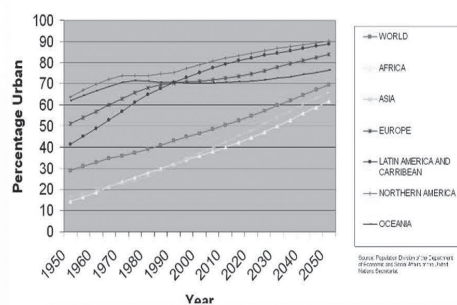
# Asian Megacities in the World

| City | City Population (million) | Metro Population (million) |
|---|---|---|
| TOKYO | 8.6 | 31.0 |
| SEOUL | 11.1 | 24.5 |
| JAKARTA | 10.1 | 24.1 |
| MUMBAI(Bombay) | 13.9 | 21.2 |
| MEXICO CITY | 8.8 | 21.1 |
| NEW YORK CITY | 8.3 | 20.0 |
| SAO PAULO | 11.0 | 19.8 |
| SHANGHAI | 14.9 | 19.2 |
| KARACHI | 15.5 | 18.0 |
| BEIJING | 12.4 | 17.5 |
| DELHI | 12.1 | 16.7 |
| CAIRO | 7.7 | 15.5 |
| MOSCOW | 10.5 | 14.8 |
| MANILA METRO | 11.5 | 13.5 |



GDP growth of major countries/ regions

Data Source : International Monetary Fund, World Economic Outlook Database
East Asia including 18 countries/regions: Japan, China, Korea, Hong Kong, Taiwan, ASEAN10, Australia, New Zealand, India
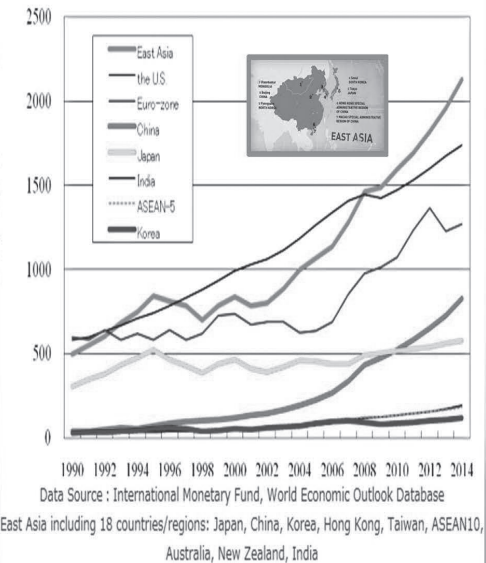
# World Megacity Map-Asian growth

Singapore 100%
S. Korea 90%
China 53.7%
Beijing 86%
Shanghai 88%
Vietnam 31%

2011, Wikipedia



Source: United Nations population fund, 2007

Urban population in millions and urban percentage

# Population and GNDP

GNDP

Megacity        Gigacity: Super-Megacity

Developed

Developing

Singapore

Osaka     Tokyo

Hongkong

Seoul

Beijing   Shanghai

Jakarta, Manila

Yangon Bangkok    Darka    Deli

GNDP by Population of Asia Mega City
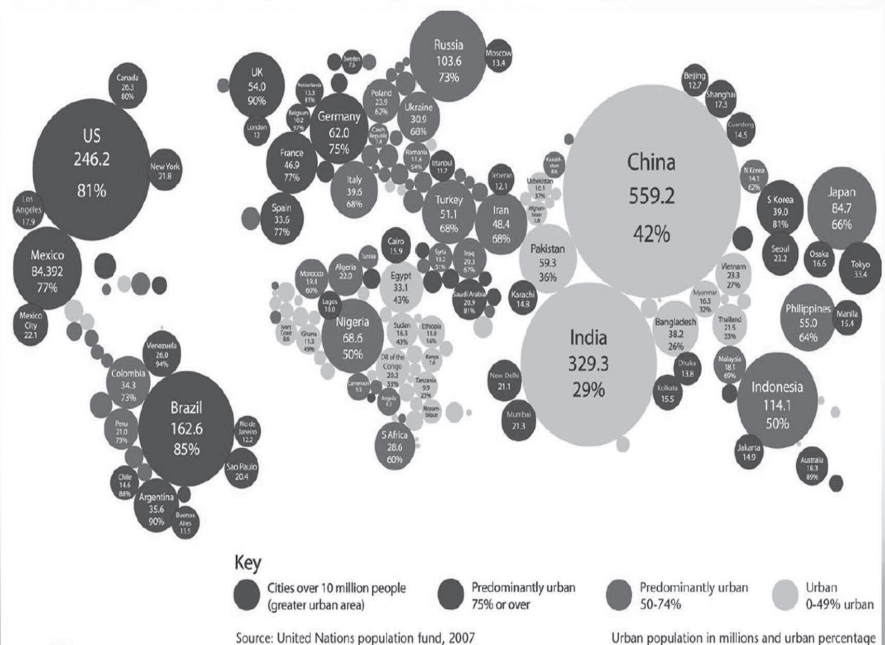
Population
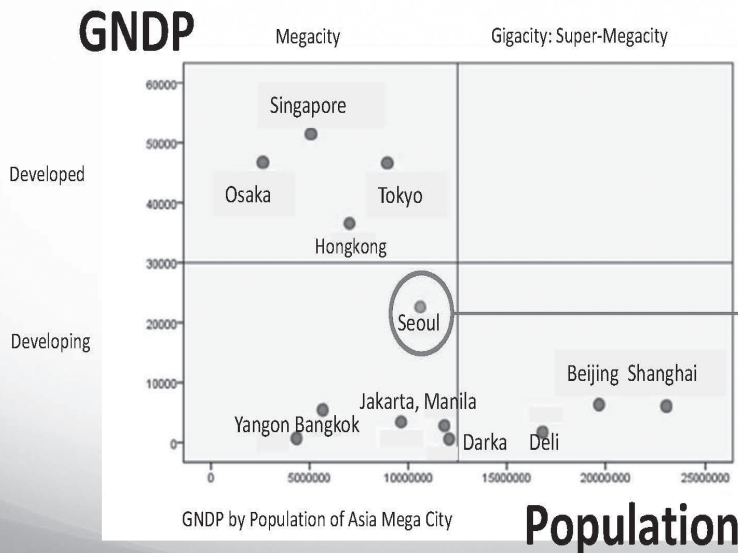
## Seoul

can be an agent of mutual communication between the Developed Megacity and the Developing Mega and Gigacity.

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# The Rise of Asian Megacity?

London     New York City     Paris

Shanghai     Beijing     Seoul

# Beijing and Shanghai

# Singapore and Ho Chi Minh



Singapore

Hochiminh

# Common Urban Problems

- Typhoon and Disaster

- Traffic and Transportation

- Air Pollution, Housing problem

- Old Poor, Unemployment,

- Crime and Deviant

**Common urban problems faced by Asian Megacities.**

1. Natural Risk
2. Urban Risk
3. Social Risk

**in Asian Context**

# Megacities and Urban Problems

- Urbanization has rapidly progressed in the world. Particularly, a paradigm of western urbanization becomes prominent in Asia in 20th century.

- This brings severe urban problems into megacities of more than 5 million population.

- Urban sprawl of Asian Megacities triggers **not only** urban problems like housing problem, traffic congestion, pollution, drink water problems, and waste problems **but also** social problems.

A time for contemplation of western urban model in 20th. century

**and** new Asian Urban Solutions **and** Model!

# 2 Seoul
## Urban Development and Risks

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# Introduction

- **Urban transformation**(2nd Modernity)
  Traditional City → Modern City → Sustainable City (New City Planning)

## Urban Sprawl!

1957 1972 1985 1997
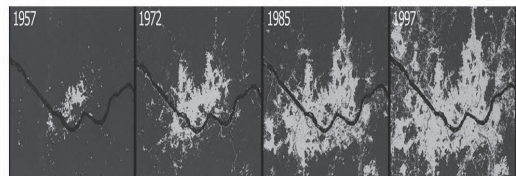
- **Multiple dimension of risk in Seoul**
  Natural Risk : Typhoon, Earthquake
  Urban Risk : Air pollution, Water pollution
  Social Risk : Social inequality, social injustice

# Rapid urbanization

- In 50 years, Seoul's population increased 433%, its income increased 1,389%.
- A: Development Era, Growing-GNP  B: Alternative Era, Sustainable-Quality of life
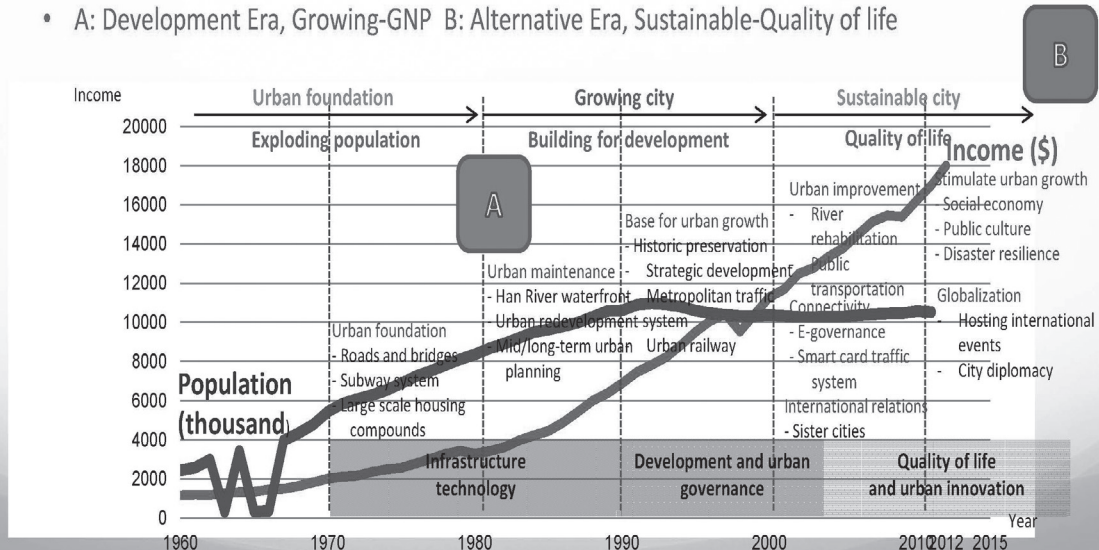
# Trends of The Risk Management

- Urban development became associated with civil protests as it threatened daily survival.
  - Seoul experienced urban expansion in the 1960s, Gangnam development in the 1970s, preparation for the 1988 Olympic Games in the 1980s
  - During this process, resistance by citizens was futile; they have been reduced to join the lower classes

| Period | Keyword | Risk |
|---|---|---|
| 1960s Urban expansion | Urban modernization, road construction, decentralization, settlements for migrants | * Squatter settlement, flooding, disease |
| 1970s Gangnam development | Subway construction, Gangnam and Youido developments, apartment compounds | * 1970 Collapse of Wow apartments * 1971 Gwangju Riot |
| 1980s Preparation for the Olympic Games | Asian Olympics (1986), Olympic Games (1988), Han River Development, Satellite city development | * 1986 Sanggye-dong Protests |

Sanggyedong, 1988

# Trends of The Risk Management

- In the 1990s Seoul was local autonomy and adopted neo-liberal policies

- Negative effects of development have became apparent

- Increased economic crisis → **new social risk factor: Unemployment, Inequality**

| Period | Keyword | Risk |
|--------|---------|------|
| 1990s End of development era | Rebuilding downtown *1994 600th anniversary of Seoul *1995 Seoul mayor election | * 1994 Collapse of Seongsu Bridge * 1997 IMF Financial Crisis |
| 2000s Neoliberalism | Balanced regional development, Design Seoul Cheonggyecheon, Hangang Renaisance *2002 Hosting the World Cup Games | * 2007 World Financial Crisis * 2009 Yongsan incidents |

Seongsu Bridge Incident,1994

Yongsan Incident, 2009

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# Urban Risk : Traffic-related deaths

- Traffic related deaths have decreased dramatically through improvements to road infrastructure and maturation of civic awareness

- Increased number of cars → increased traffic accident → successful safety policy

SAFETY FIRST

— 1 Death / 10000 Car    — 1 Death / 100000 person
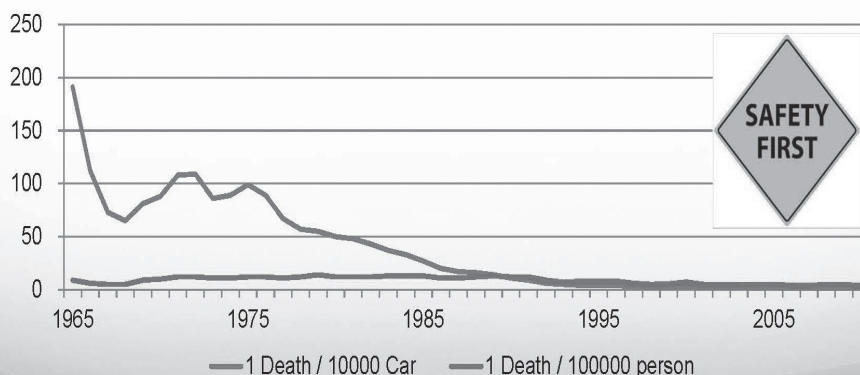
Source : Seoul's Transition by Indicators (1965~2000), Seoul Statistics Information System (2001~2010)

# Environment Risk : Air pollution_Micro dust

- Seoul's air quality improvement policy has resulted in reduction in CO2 and micro dust in the air.

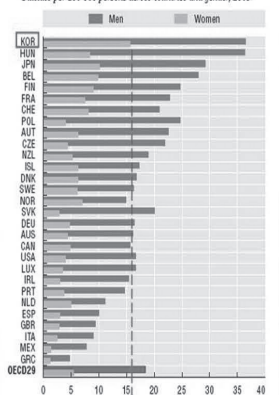- Seoul succeeded in protecting its citizens from micro dust through its air quality management
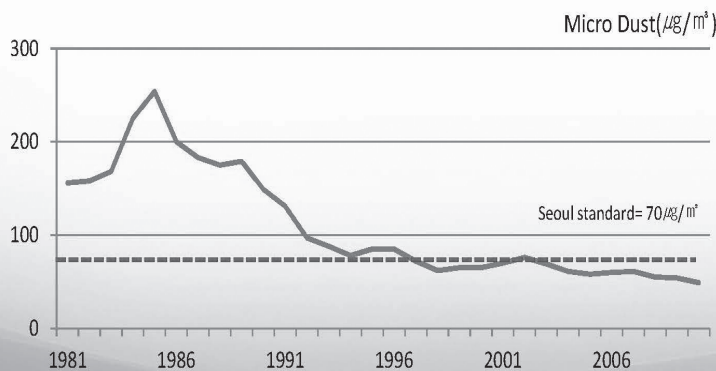
# Social Risk : Higher Suicides, Lower Birth

- Korea has the highest suicide rate of all OECD countries.

- Korea has the lowest birth rate of all OECD countries.
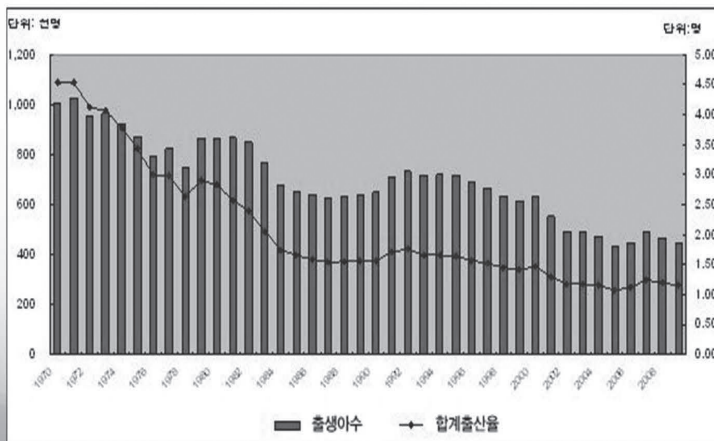
# Social Risk : Elderly poor people

- Danger of Aging Generation!
  Retirement of the Baby Boomers → Creation of the 'youthful' elderly people

- Looking after the elderly
  in agrarian societies was done
  by the village community;
  this is not possible in the city.
  (Lack of policy for the elderly
  increases risk).

Seoul elderly people above 65 years



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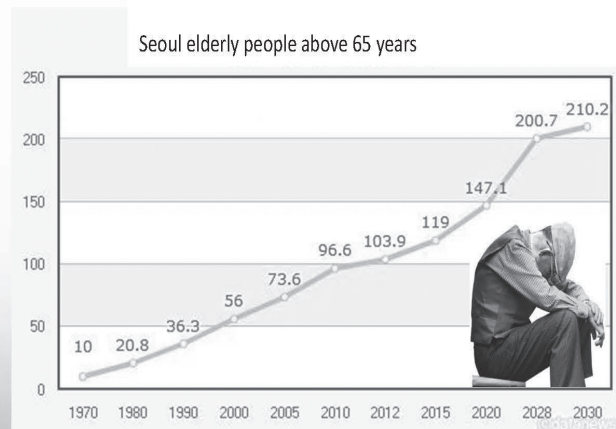
# Social Risk : Economic inequality

- Creation of economic risk! The Asian Economic Crisis in 1997 and the Financial Crisis in 2008 led to increased economic inequality.

- Gini's coefficient : Structural economic risk brought the dissolution of the family and increased suicide rate.



GINI coefficient
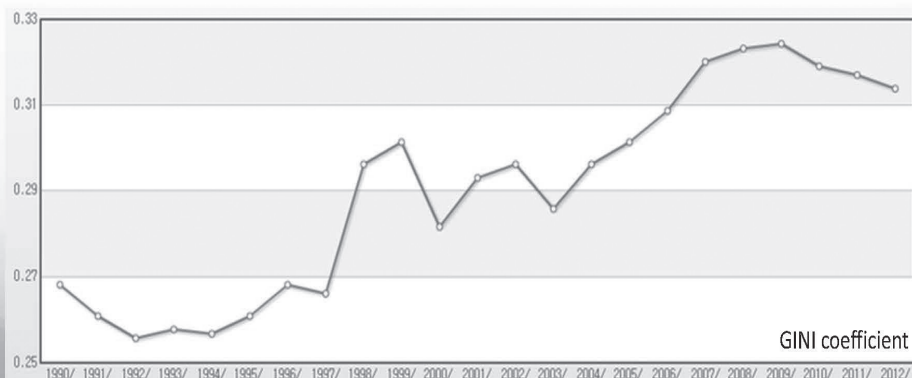
# Economic Growth of Western Model and Risk Society

- Rapid economic growth brought Korea and other countries material affluence.

| | |
|---|---|
| A Breakdown of Community | Individualization |
| Weakening of Traditional Culture | Westernization |
| Dissociating Family | Alienation |
| Collapse of Human Value | Materialization |

## Risk Society

---

# Risks that Seoul Faces

- **Risks that created in developing**

  - Population decline, single housing increase
  - Low economic growth, high unemployment
  - Housing instability, collapse of manufacturing

  - "안녕하십니까?" Citizens' aspiration

A remedy for risks that created in developing process
is a key for a better city.

# Beyond Development : 2nd Modernity

- Seoul has developed at the fastest speed in the world and experienced rapid conversion from traditional society to modern urban.

- What we need to do is to overcome the urban risks occurred in this transfer for a better city.

## 2nd Modernity

- Along with hardware of the city, innovation and development of **software** and **humanware** are essential.
- **Human and Safe centered City**



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# History of SEOUL : Urban Transformation and Risk Society

- Risk society
  - Rapid Development → Total Risk Society → Identity Crisis
- Urban transformation and Change of the risk factor
  - 1st Natural Risk: Traditional → Flood, Earthquake
  - 2nd Urban Risk: Modernization → Air pollution, Traffic Jam, Water Pollution
  - 3rd Social Risk: Post modern → Low Birth rate, High Suicide rate

**Seoul**
- Japanese colonial experience
- Korea civil war
- Industrialization, Democratization
- Transition to welfare society

→ **condensed progress** → Multiplerisk factors

# 3 Risk Society
## and the Perception of Risks

# Risk Society and Megacity

- Modern societies are exposed to risks such as pollution, newly discovered illnesses, crime, that are the result of the <u>modernization</u> process itself.

### Risk Society :
"a systematic way of dealing with hazards and insecurities induced and introduced by <u>modernization</u> itself (Beck 1992:21)"

### Asian Megacity ?
Development brought **Economic growth**, but on the other hand, **endangered** people.
- Natural Risk / Urban Risk / Social Risk

Ulrich Beck

**Risk Society**
*Towards a New Modernity*

# Risk perception,10 years before vs. now

- Overall, **increased risk (76.7%)>** similar (14.1%)> decreased risk (9.2%)

  Increased risk: Tokyo (81.1%)>Seoul (77.8%)>Beijing (71.4%)

■ Decreased   ■ Similar   ■ Increased

| | Decreased | Similar | Increased |
|---|---|---|---|
| Tokyo | 2.8% | 16.0% | 81.1% |
| Seoul | 7.7% | 14.6% | 77.8% |
| Beijing | 17.0% | 11.6% | 71.4% |
| Total | 9.2% | 14.1% | 76.7% |

# Risk perception for the next 10 years

- Overall, **increasing risk (69.8%)>** similar (18.8%)> decreasing risk (11.5%)
  Increasing risk: Tokyo (81.9%)> Seoul (69.5%)> Beijing (58.3%)

■ Decreased   ■ Similar   ■ Increased

| | Decreased | Similar | Increased |
|---|---|---|---|
| Tokyo | 1.5% | 16.6% | 81.9% |
| Seoul | 8.6% | 21.9% | 69.5% |
| Beijing | 23.7% | 18.1% | 58.3% |
| Total | 11.5% | 18.8% | 69.8% |

# Natural Risk Perception: Fukushima effect!

- Seoul: Nuclear waste, radiation accident important (Increased sensitivity to radioactivity due to geographical proximityand the result of corruption involving nuclear plant)
- Beijing: Contagious diseases are important
- Tokyo: Earthquake(4.52) and radioactivity(3.87) are overwhelmingly important.



5-point Scale

■ Seoul    ■ Beijing    ■ Tokyo    ■ Total

Earthquake — 3.40, 3.55, 4.52, 3.71
Nuclear waste, Radiation accident — 3.78, 2.63, 3.87, 3.41
Contagious diseases — 3.41, 3.35, 3.12, 3.29
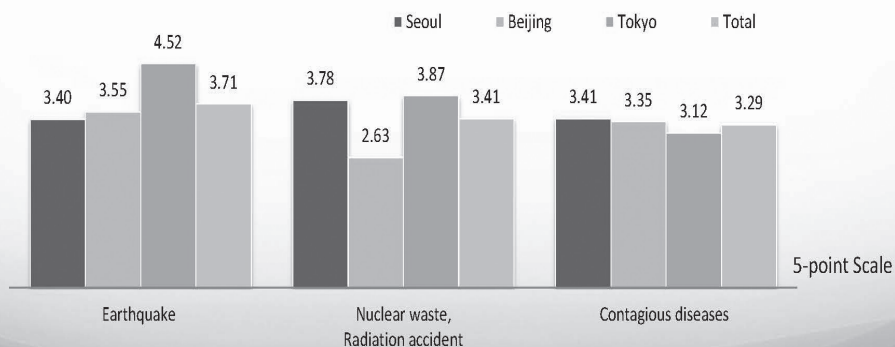
# Urban Risk perception : city environments

- High risk perception concerning overall **air pollution (58.95) and noise pollution (57.03)**

  Seoul, Beijing and Tokyo all consider air pollution to be most dangerous



■ Seoul    ■ Beijing    ■ Tokyo    ■ Total

Water pollution — 54.88, 50.51, 40.93, 48.71
Air pollution — 64.26, 64.74, 47.83, 58.95
industrial waste — 52.59, 52.33, 43.69, 49.54
household waste — 60.4, 58.59, 45.77, 54.89
Noise pollution — 63.87, 60.33, 47.02, 57.03
Water shortage — 48.68, 58.46, 30.68, 46.06
Food pollution — 30.56, 58.01, 36.04, 49.28
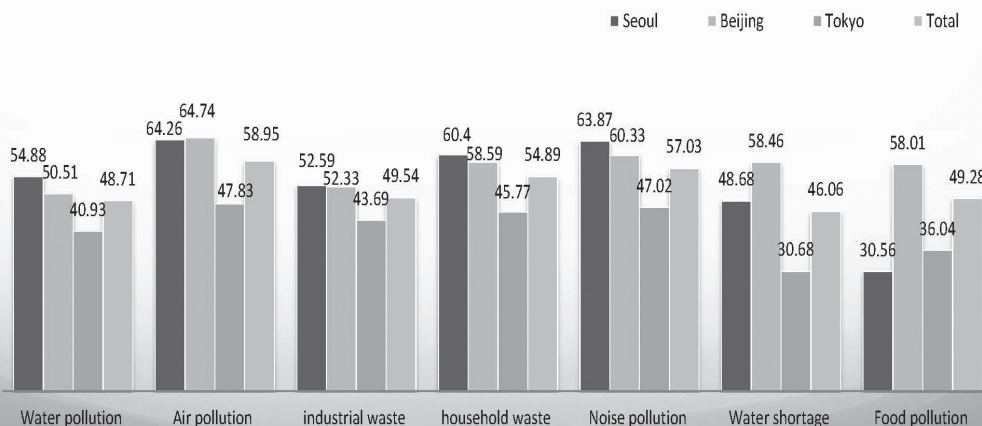
# Social Risk Perception: Income disparity, unemployment

- Overall, increased income disparity (3.87) and unemployment (3.82) represent important social risk factors rather than social conflict(3.21)
  - Seoul and Beijing: Income disparity (4.26) and corruption (4.29)
  - Tokyo: Unemployment (3.84) and violent crime (3.75)
- Overall, more concerned about the probability of Social risk rather than Natural risk.

■ Seoul   ■ Beijing   ■ Tokyo   ■ Total

| | Seoul | Beijing | Tokyo | Total |
|---|---|---|---|---|
| Unemployment | 4.15 | 3.5 | 3.84 | 3.82 |
| Corruption | 4.29 | 3.55 | 3.38 | 3.73 |
| Violent crime | 4.23 | 3.35 | 3.75 | 3.76 |
| Social conflict | 4.12 | 2.65 | 2.94 | 3.21 |
| income disparity | 4.26 | 3.81 | 3.55 | 3.87 |

5-point Scale

---

# Social Risk Perception: Anxiety in everyday life

- Overall, high anxiety over family health and accidents (3.02) and severe competition (2.95)
  - Seoul and Tokyo: Most anxious over family health and accident, and household financial difficulties due to economic crisis
  - Beijing: Most anxious over falling behind the competition

■ Seoul   ■ Beijing   ■ Tokyo   ■ Total

| | Seoul | Beijing | Tokyo | Total |
|---|---|---|---|---|
| Severe competition | 2.80 | 3.13 | 2.92 | 2.95 |
| Family health and accident | 3.11 | 2.96 | 3.01 | 3.02 |
| Financial difficulties | 3.11 | 2.73 | 2.95 | 2.92 |
| Loneliness | 2.50 | 2.14 | 2.39 | 2.34 |

5-point Scale
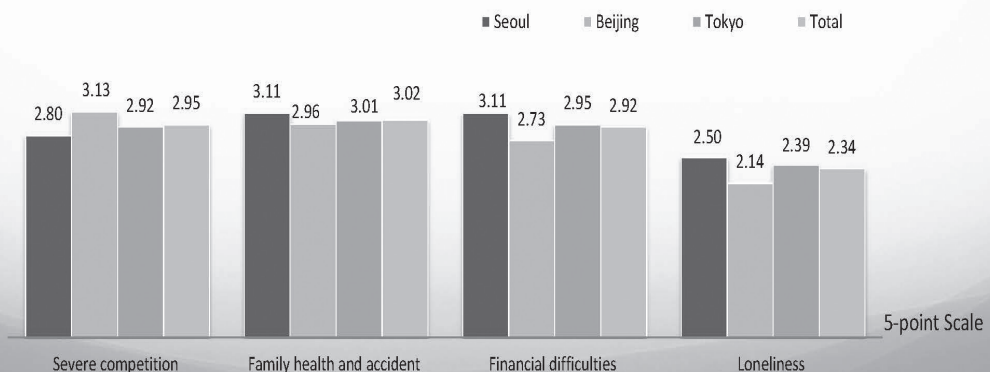
# Conclusion: Urban risk perception

- **Seoul, Beijing, Tokyo is really risk society overall : Total Risk City**

    - Compared to 10 before and now:  Risk increased - 76.7% > Risk decreased - 9.2%

    - Predicting risk 10 years later: Risk will increase - 69.8% >  Risk will decrease - 11.5%

- **Disintegration of traditional community**

    **Inadequate formation of urban community**

    - Risk perception increased in the last 10 years, and it is expected to increase the risk in the future. Lack of social justice and public trust increase risk perception.

# Transfer Mechanism of Risks
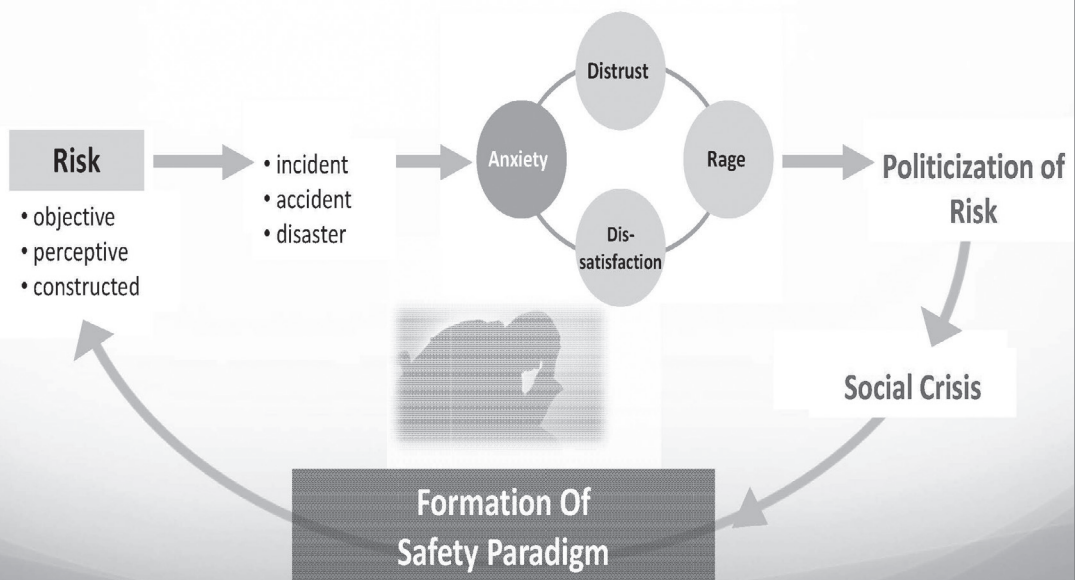
# Anxiety and Depression in Society

- Economic slowdown increases → Citizen's anxiety

  (over 77% of the people experienced everyday anxiety)

- Housing debt, Employment problem, Unemployment



**Anxiety Factors**

| | |
|---|---|
| Job | **49.9%** |
| Economic depression | **49.7%** |
| Housing debt | 39.1% |
| Unemployment | 32.6% |
| Isolation | 32.1% |
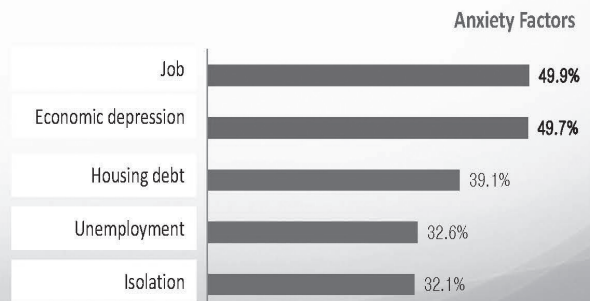
Data: (주)마크로밀엠브레인 컨텐츠사업부; Nationwide 19~59years, Size1,000, 2013.7.

# Trends of Social Risks

| Trends | New Social Risks | Social Crisis |
|---|---|---|
| • Law birth rate<br>• Ageing<br>• Polarization of class<br>• Decrease in employment security<br>• Change in family structure<br>• Increase of women's economic activity | • Eldery anxiety<br>• Housing problem<br>• Youth unemployment<br>• Birth and Caring issues | • **Relative deprivation**<br>• **Potential Class conflict**<br>• **Public rage about injustice**<br>• **Collective behavior and social movement** |
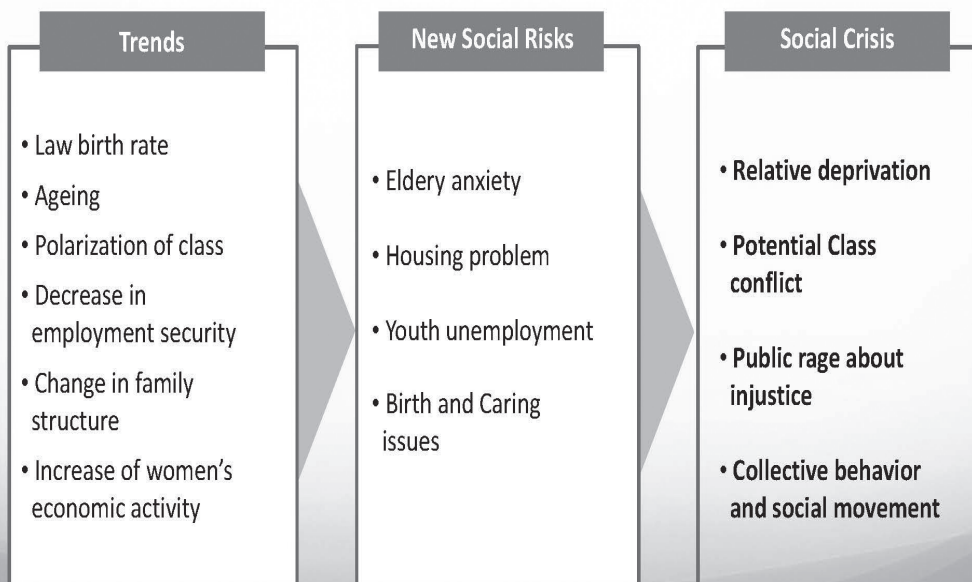
# 4 Urban Risks

# in the Asian Megacities

# **Climate Change :** Global

- **Global Warming : Temperature rise**

Global Land–Ocean Temperature Index
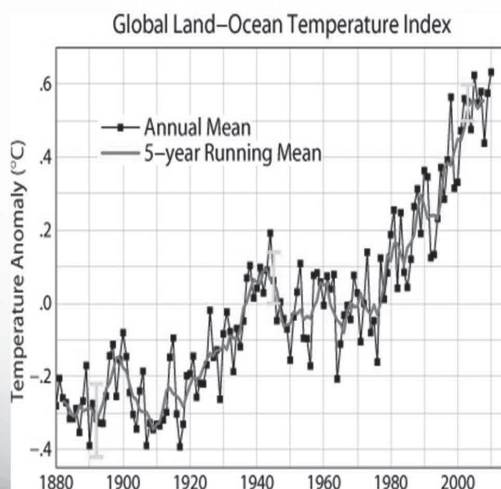


- During the last century, average 0.74°C has been risen in the Korea peninsula.

History of global mean surface air temperature, from the NASA GODDARD INSTITUTE FOR SPACE STUDIES. -

# Nuclear Disaster : Fukushima

- The **Fukushima nuclear disaster** was a catastrophic failure at the Fukushima I Nuclear Power Plant on 11 March 2011, resulting in a meltdown of three of the plant's six nuclear reactors.

- Along with a lesson learned from accidents of nuclear power plant, an ultimate reflection of modern civilization is required.

# Micro Dust : Beijing

- Up until the year 2012, the yellow dust had been more serious problem than micro dust in China.

- Then, January 2013, the dust particle concentration in the air hit PM 2.5 which makes it the biggest pollution problem in China ever since.



Air quality in Chinese cities in 2013
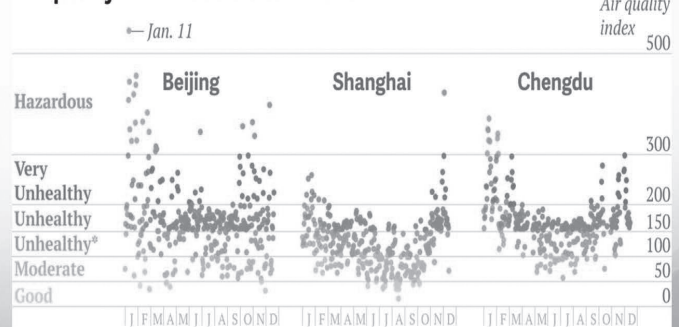
*for active people and those with respiratory disease

Quartz | qz.com                               Data: Fresh-Ideas Studio

# Economic Inequality : Mumbai

- Creation of economic risk! The Asian Economic Crisis in 1997 and the Financial Crisis in 2008 led to increased economic inequality.

- Structural economic risk brought the dissolution of the family and increased suicide rate.
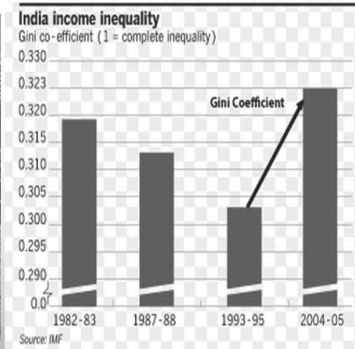
# Common Problems

- Megacities surprisingly face common problems.

**natural risk**
**urban risk**
**social risk**

# 5 The Roles of Think Tanks

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# Vision of Safe City

- Seoul has tried to overcome risks :
  Through citizen's participation and social innovation, vision of safe city has been established.

**Keywords of Recent Urban Safety Policies in Seoul**

Sustainability

Making the People-centered Safe Seoul

Innovation & Creativeness

# Megacity : Western Utopia vs. Asian 武陵桃源

**Western Utopia**                                                    **Asian 武陵桃源**
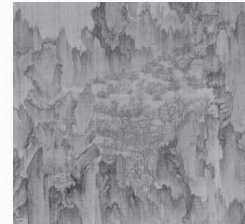
# Asian Megacity

- Western way of urban planning **destroys** the Asian cultural identity!

- Asian megacities **shared** the identity of history and culture.
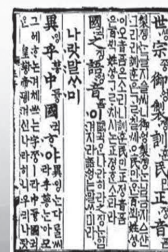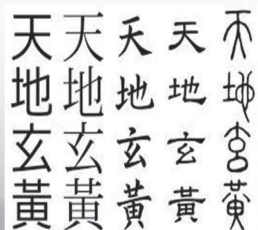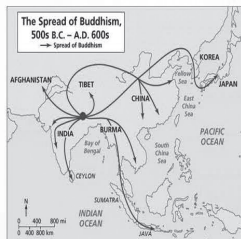
# Asian Megacity overcoming the risk society

人間

Human

Asian Virtue
調和共存

自然 Nature Community 共同體

# From Risk to Safe Megacity

- With a reflection of risk society, we need to put great efforts to solve the urban problems which megacities are facing. Others cannot solve. Self-diagnose and prescript are needed. A network between megacities are necessary.

- What we need is an "**Alliance**" of sound and solid knowledge and information from megacities. If we are to take measures together, it will make a difference to the lives of **the billions** of people in the megacities, and **to future generations.**

### Mutual cooperation **and** network
### **in** Asian countries **are important**

# Network and Corporation?

- Beijing
- Shanghai
- Singapore
- Ho Chi Minh
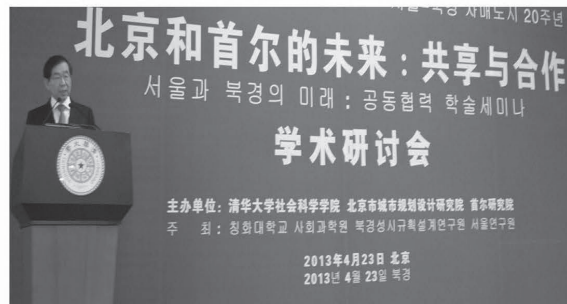
# Bilateral vs. multilateral Corporation?

# MeTTA: The role of Think Tank

The SI
(Seoul, Korea)

BMI-CPD
(Beijing, China)

SUPDRI
(Shanghai, China)

HIDS
(Ho Chi Minh City, Vietnam)

CLC
(Singapore)

New Tendency of Urban Transformation in East Asia International Symposium

城镇化与城市管理：东亚城市转型的新趋势国际研讨会
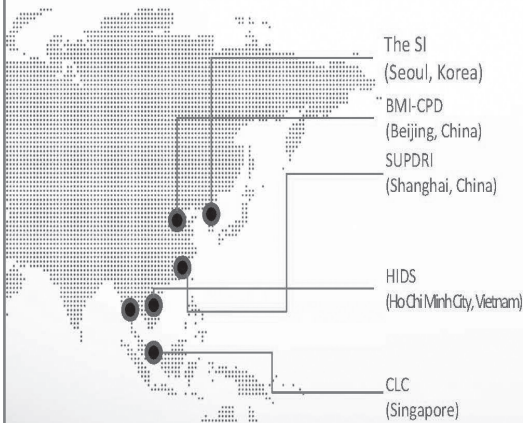
## Megacity Think-Tank Alliance (MeTTA)

The role and influence of megacities are expected to grow in the global community, but only a few cities have the resource to analyze and deal with the problems of their cities.

Seoul attempts to form a Think-Tank alliance to take the initiative in dealing with the urban issues in the research area.

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# Towards Safe Megacities

Safe City

Social Security

Resilient City

" Reflexive Modernity"

### Megacities Initiative and Cooperation

✓ International Solidarity for solution of urban problem

✓ Urban Safety Management system

✓ New Social Risk in Cities

✓ Social Innovation

……

"Cooperation and Learning"

"MeTTA"

# Keywords for Safe Asian Megacity

- Communication and Solidarity

- Creative Innovation

- Citizen's Participation

- Alternative for the Future



감사합니다
Thank you 谢谢
Cảm ơn bạn



서울연구원
The Seoul Institute

# Social Capital and Reduction of Disaster Risk

**Zhao Yandong**
Director
Chinese of Academy Science and
Technology for Development

With the rapid city expansion and climate change, Mega cities are becoming more and more vulnerable to disaster risks. Trust is considered as a form of social capital that constructs the base of social cooperation and social life. It plays an indispensable role in the disaster risk governance. Based on several empirical studies on disaster governance in China, this presentation shows the impact of trust on post–disaster recovery, and tries to further discuss how to build up social trust in the context of disaster. Surveys show that Chinese people's trust structure is rather stable, which can be divided into five dimensions, namely trust in familiar people, trust in strangers, trust in social institutions, trust in central government and trust in local government. Trust have a prominent impact on disaster risk governance. Higher social trust helps people to cooperate and make better use of resources, therefore leads to better post–disaster recovery. It is also found that, during the disaster, the level of trust can be upgraded. However, it is a big challenge to build up and maintain the level of trust. Openness, transparency and equality are key elements to keep high trust in disaster risk governance, especially in Mega cities.

CASTED

# Social Capital and Reduction of Disaster Risk

Zhao Yandong
Institute of Science, Technology and Society
Chinese Academy of S&T for Development

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CASTED

# Disaster risk in Mega cities

- Megacities, with high concentration of population and climate change, are highly vulnerable to disasters

- Disasters are not only natural or technical hazards, but also have complex social impacts

- Sociological studies of disasters
  - how to mitigate the social impact of disasters
  - disasters provide a "natural laboratory" for understanding social structure and social process
  - The role of social capital in disaster governance has drawn the attention of the policy makers and the public

# Social capital: the missing link?

- Social Capital: A social structural resource
  - Micro-level social capital
    - Resources embedded in personal network, which enables actors to get more external social resources
    - It helps people to obtain information, knowledge and social support, thus is helpful for people to achieve higher social-economic status
  - Macro-level social capital
    - Features of social organization, such as networks, norms, and trust, that facilitate coordination and cooperation for mutual benefit
    - It plays a indispensable role in promoting economic performance, making democracy work, alleviating poverty and ensuring sustainable development

# Social capital and disasters

- Micro-social capital (social networks)
  - Social networks and social associations are the basic social units that respond in a disaster (Drabek et al ,1981)
  - Social networks and social capital are the most dependable resources in the aftermath of disasters (Dynes, 2005)

- Macro-social capital (trust, norm and participation)
  - Communities with good tradition of social participation and self-organizing could react more efficiently to the disaster (Dynes, 2005)
  - Communities with more trust recover quicker and better from disaster (Shaw, 2005)

# Data

- A three-round-longitudinal-survey in earthquake-hit area, conducted by CASTED, China and FAFO institute, Norway

- Multi-stage cluster sampling, face-to-face interviewing

- With a focus on affected-people's living condition and needs, including demography information, housing and infrastructure, education, employment and livelihood, health, social capital, etc.

| Survey | Time | County | Cluster | Household |
|---|---|---|---|---|
| Rapid needs assessment | July, 2008 | 26 | 144 | 3652 |
| Monitoring the reconstruction | July, 2009 | 26 | 171 | 4037 |
| Evaluating the reconstruction | July, 2011 | 30 | 196 | 3841 |

*Micro-social capital*

*and risk reduction*

# Search and rescue

- "Institutional vacuum" in the early phrase of disaster,
  - in which informal institutions like networks are playing a prominent role
- Our survey showed, in 2008 earthquake...
  - 95% percent of entrapped victims were rescued by relatives, neighbors and other persons around.
  - Only a very small percentage were rescued by external rescue personnel

■ Volunteers, 2.5
■ Professional rescuing personnel, 1.0
■ PLA man, 2.8

■ Relatives, neighbours, and other persons, 93.6
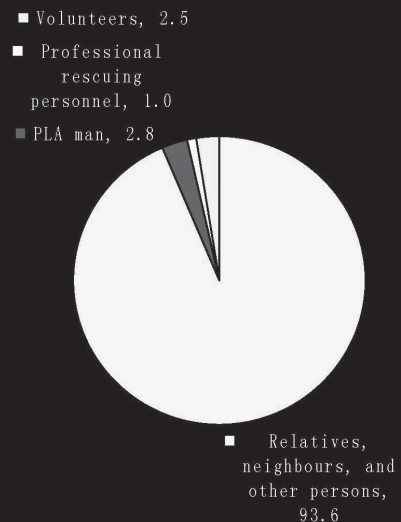
# Information

- One of the main functions of micro-social capital is that the network can facilitate information flow
- In 2008 survey...
  - around 16 percent of residents acquired information through the channel of social networks
  - Networks is the third most important channel

| Channel | Value |
|---|---|
| Internet | 1.10 |
| Governement officals | 2.80 |
| News board | 2.20 |
| SMs | 3.00 |
| Newspaper | 9.00 |
| Broadcasting | 13.70 |
| Social network members | 16.30 |
| Village cadres | 16.70 |
| TV | 72. |
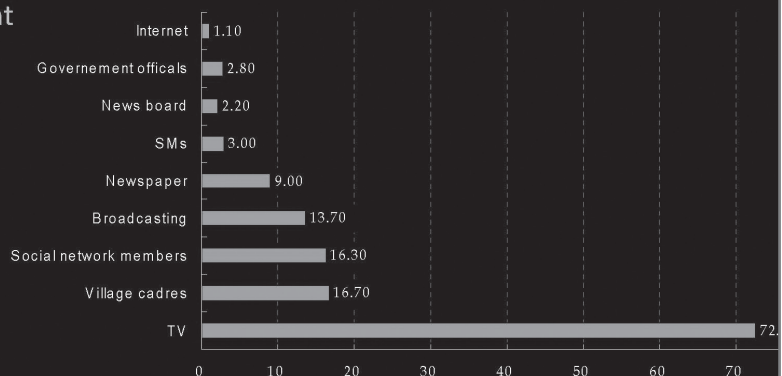
# Social support

- Social networks provide informal support
- In our data, "Relatives and friends" are the second most important sources of support
  - They became even more important when social lives come back to normal
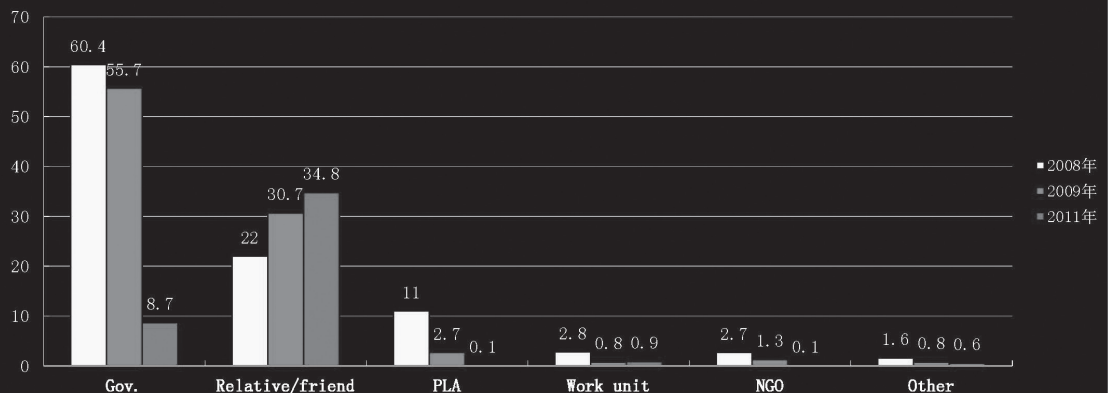


# Mental health

- Social capital and mental health
  - Researchers noticed that networks could provide emotional support and maintain the psychological health

- The great stress brought by earthquake losses may create short-term and long-term psychological distress

- Studies have found that social capital reduce the negative impact of traumatic impacts of disasters

## Who has better psychological condition after Wenchuan earthquake in 2008?

- Those who have…
  - bigger size network
  - more relatives in the network
  - NOT suffered from the loss of network
- The results support…
  - buffering effect of networks
  - dense and homogenous networks are better in providing emotional support
  - damage to networks has negative impact on mental health

| | B | |
|---|---|---|
| netsize | 0.02 | *** |
| netcomp | 0.49 | * |
| netloss | -0.81 | * |
| newnetsize | 0.01 | |
| education | 0.10 | *** |
| lgincome | 0.14 | *** |
| gender | 0.18 | |
| age | -0.02 | # |
| self-rated health | -3.07 | *** |
| party member | -0.20 | |
| self-assessed | -0.66 | *** |
| hukou | 0.44 | |
| change | -1.38 | *** |
| house | -0.02 | |
| (Constant) | 44.66 | *** |
| | | |
| R2 | 0.23 | |
| F | 76.13 | *** |
| N | 3403 | |

# Transformation towards new types of social capital

# Social participation

- People in the earthquake area are actively helping each other
  - in 2009 survey, 42% of the respondents provided support to others
  - in 2011 survey, 62% donated to other disaster victims
- People are also actively participating in collective action
  - in 2009 survey, 43% of respondents had participated in patrolling, distributing materials, constructing roads/bridges in the last year
  - The proportion of social participation is rising from 14% in 2008 to 43% in 2009

# Self-organization

- Most of the collective activities are self-organized or organized by local communities
  - More self-organized in emergency time, more community-organized when come back to normal
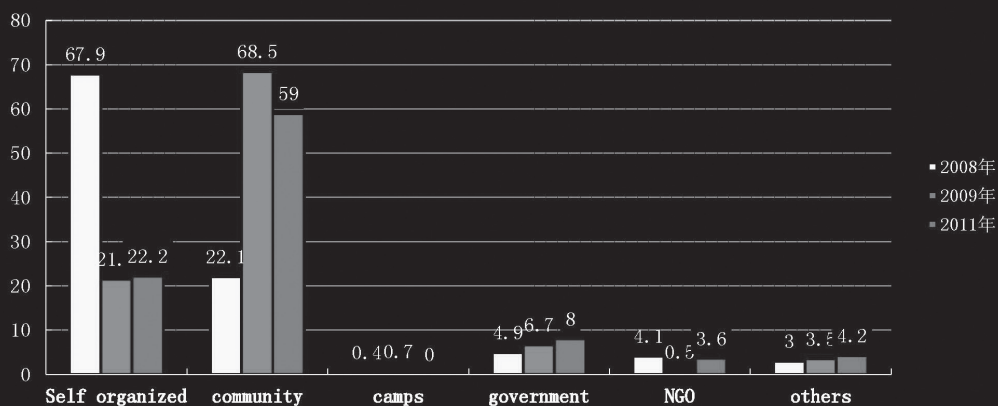
# Social integration and trust

- Most (88.1%) people believe that their communities are more solid than before in 2009

- Change of trust: is earthquake contributing to the accumulation of social capital in China?
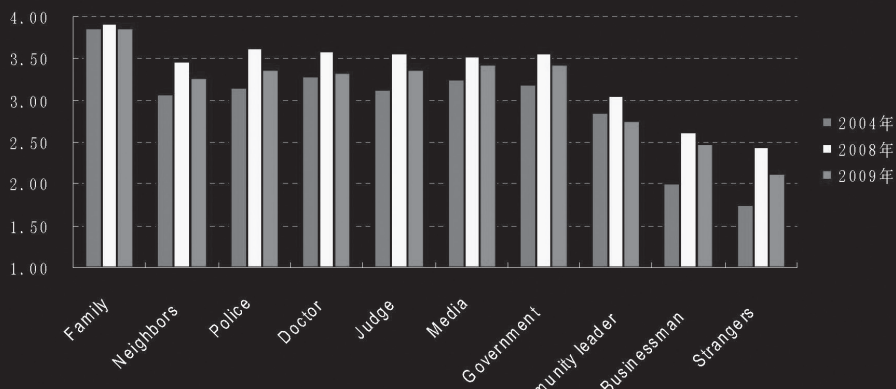


# Conclusion and Discussion

# Conclusions

- Social capital are important resources to reduce risk in disasters
- In disasters most of the first time aid are provided by social network members
- In the aftermath of disaster, social capital can...
  - facilitate the flow of information
  - provide various types of support, and
  - help to maintain the mental health of the victims
- Social participation and trust help the affected people to cooperate and make better use of resource in recovery and reconstruction after the disaster

# Implications for reducing disaster risk in Mega cities

- Making social capital work in disasters
  - Basic rescue skills should be provided to the residents in Mega cities as a key content of disaster preparedness
  - make good use of existing social capital and social forces in post-disaster reconstruction processes
  - Keep the openness, transparency and equality of the reconstruction
- Investing in social capital
  - Maintain existing social networks in city development
  - Provide more public space and channels of public participation
  - Promote cooperation and trust within people, communities and cities

谢谢!

**Thanks**

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## SESSION 2

**Presentation 1**

**Yiling Pan**
Vice president, Beijing Municipal Institute ofv City Planning and Design

Resource Risk and Environment and its Solution
Strategy in Beijing

**Presentation 2**

**Zhang Yuxin**
President, Shanghai Urban Planning and Design  Research Institute

Spatial Strategy for Metropolitan Shanghai in light of
Innovation-driven and Transformational Development

**Presentation 3**

**Limin Hee**
Director,  Centre for Livable Cities

Active Mobility for a Sustainable Singapore

# Resource Risk and Environment and its Solution Strategy in Beijing

**Yiling Pan**

Vice President, Beijing Municipal Institute of City Planning and Design

During the rapid urbanization process, Beijing is facing a serious challenge to the scarcity of resources and the deterioration of environment. The residential population of Beijing has reached nearly 21.15 million in 2013 and urban functions are excessive concentrated of in the central city. In response to the "mega city" disease, Beijing actively modifies the overall plan to reduce operational risks and achieve strategic transformation of urban development. The main solutions are：1. Improving the overall carrying capacity of cities by optimizing the urban structure and stabilizing the concentration of population；2. Building a conservation-oriented city and achieving urban sustainable development；3. Relying on regional cooperation to achieve double-win, releasing resources and space demand pressures and enhancing the efforts to improve water resources and energy security；4. Promoting regional joint environmental pollution prevention and control, making a significant increase in the proportion of low-carbon clean energy use and increasing the forests, lakes, wetlands and other ecological space building to conserve water.

# 北京市的资源环境风险和解决对策

## Resources and Environment Risk and its Solution Strategy in Beijing

BICP, Beijing, China
Pan Yiling
Vice President
July 11, 2014

北京市城市规划设计研究院
Beijing Municipal Institute of city Planning &Design

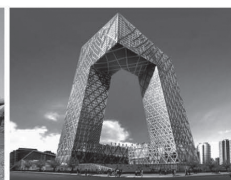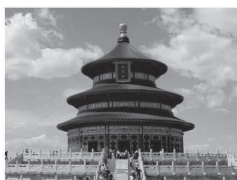# 北京概况  Overview of Beijing

# 北京 Beijing

北京是中华人民共和国的首都、直辖市和国家中心城市

Beijing, the capital of China, is the symbol of the country's political, economic and cultural center.

总面积(total area):16410 km2

山地面积(mountain area): 62%

人口(Population):21,14,080（2013）





## ■北京-历史文化名城 (Beijing---A Famous Historical City)

· 北京，有3000多年建城历史，860余年建都史，是世界上拥有文化遗产数目最多的城市。

· 故宫，是全世界现存最大的宫殿。

· 京剧，中国五大戏曲剧种之一，是地道的中国国粹。

· Beijing, a city dating back to more than 3,000 years ago.

· Forbidden City, the world's largest surviving palace complex.

· Peking Opera, one of the five operas in China, a world-famous quintessence of Chinese culture.



The Forbidden City – Abundant Historical Heritages



Beijing Opera– A Long Cultural Tradition



North Sea Park – Abundant Historical Heritages

## ■北京-对外交往中心(Beijing---A Diplomatic Center)

• 作为中国的首都，北京是重要的对外交往中心，与72个国家的124个首都和大城市有友好往来关系。

•As an important diplomatic center, Beijing has developed friendly relations with124 capitals and major cities of 72 countries



天安门广场(Tiananmen Square)



外国驻华大使馆区



奥体中心 (Olympic Sport Center)



APEC峰会会场

## ■北京-科技中心(Beijing---A Scientific Center)

•北京是中国首屈一指的科技中心。拥有中国最顶尖的大学和科研机构：如北京大学，清华大学，中国科学院；有最好的科技产业孵化器：如中关村科技园；有最具活力的高科技产业发展区：北京经济开发区。

•As a leading science and technology center, Beijing is home to plenty of first-grade universities and research institutions in China, such as Peking University, Tsinghua University, Chinese Academy of Sciences.



北京大学(Peking University)  清华大学（Tsinghua University）中国科学院（Chinese Academy of Science）



中关村(Zhongguancun Innovation Park )   北京经济开发区（BDA）

# ■北京—经济中心(Beijing---A Economic Center)

• CBD区内有世界500强企业160家，跨国公司地区总部70余家。CBD area houses 160 companies of Fortune 500 and more than 70 regional headquarters of multinational companies.

• 金融街区内大型金融机构及企业总部140多家，各类企业机构1300多家。Financial Street registers more than 140 financial institutions and corporate headquarters and more than 1300 various types of business organizations.
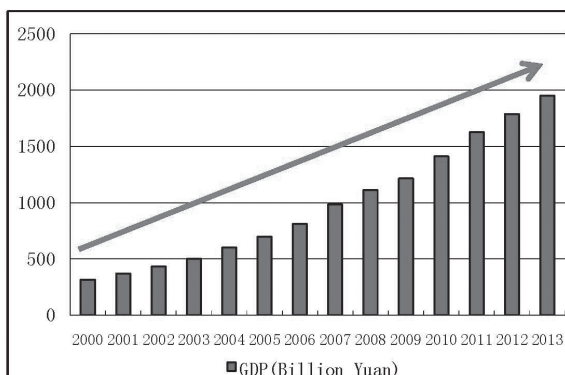


中央商务区(CBD)



金融街（Jinrongjie）

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# ■ 近年来北京所取得的成就(Achievements of Beijing in Recent Years )

## ■ （1）首都经济稳步增长(Steady economic growth)

■ 2013年，全市经济总量达到1.95万亿元，人均地区生产总值1.51万美元，三次产业结构比例达到0.8：22.3：76.9。

■ In 2013, the city's total economic output registered 1.95 trillion RMB, GDP per capita reached $ 15,100, and the proportion of three industries was adjusted to 0.8:22.3:76.9



北京GDP增长



繁华的北京夜景

- **（2）交通设施更加完善（Better Transportation Infrastructures)**
- 2013年，轨道交通运营线路达17条，总里程达到465公里。城市道路总里程达到6281公里，累计施划公交专用道355公里，公交出行比例达到44%。
- Beijing has constructed 17 rail lines with a total mileage of 465KM.
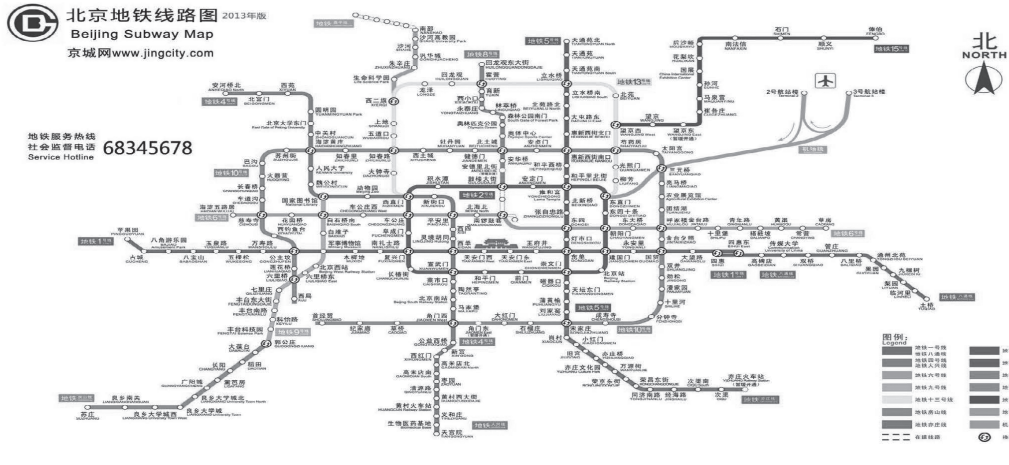


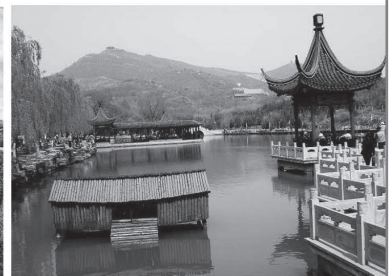- **（3）生态环境建设提升(Improving Ecological Environment)**

•加强了城市公园、绿地的绿化建设。近三年来新增万亩以上公园和集中绿地5800公顷，林木覆盖率由2004年的49.5%提高到2012年的55.5%。

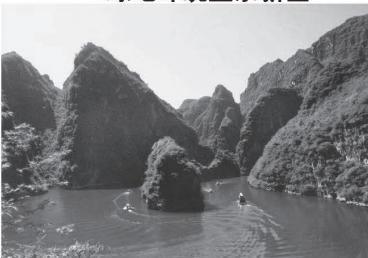•Strengthen the construction of green parks and green spaces.
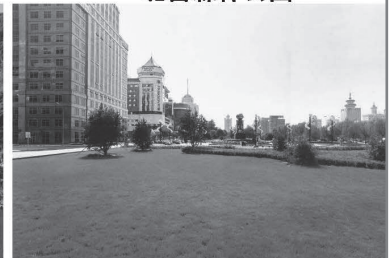


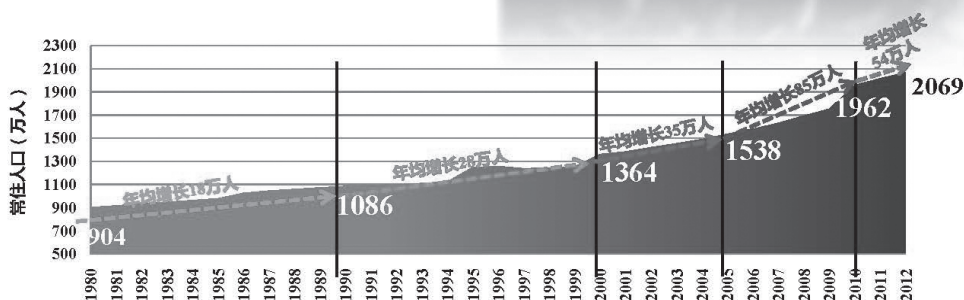| 绿化隔离地区绿化 | 绿地环绕望京新区 | 北宫森林公园 |



| 菖蒲河公园 | 龙庆峡 | 金融街绿化区 |

# 面临的风险和挑战 Risk and Challenge



## 1.人口增长(Population Growth)

• 北京人口近年来持续增长，2012年底常住人口规模达2016万人。

• 人口增长呈持续和加速的趋势， 人口增长与聚集是北京未来长期面临的挑战。

• 持续的人口快速增长将给北京带来难以承受的资源环境压力。

• The population of Beijing continues to grow in recent years, by the end of 2012 the population of the resident population has amounted to 20.16 million.





北京市常住人口增长趋势分析图

## 2.水资源压力(Pressure of Water Resources)

·北京是世界上严重缺水的大城市之一，人均水资源可利用量仅为110立方米，远低于国际公认的人均300立方米维持人口生存的最低量。仅为中国平均的1/20，世界人均的1/70。

·未来城市规模飞快发展、人口大量增加，水资源供需矛盾十分突出。

·北京市平原区地下水超采范围逐步扩大。地下水位持续下降，带来一系列生态环境问题。

·Beijing is one of the world's major cities facing with severe water shortage problem. Local water resources ownership per capita is only 110 cubic meters.

·With rapid development of urban scale and significant population increase in the future, the gap between water supply and demand will become increasingly prominent.



水资源占有量比较图

| 北京市人均 110立方米 | 世界人均 7500立方米 | 全国人均 2000立方米 |



1955-2010年北京平原区累计沉降量等值线图
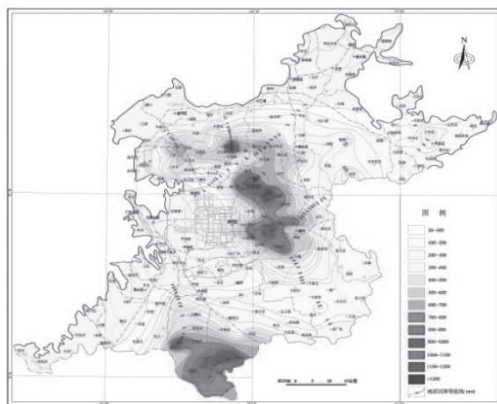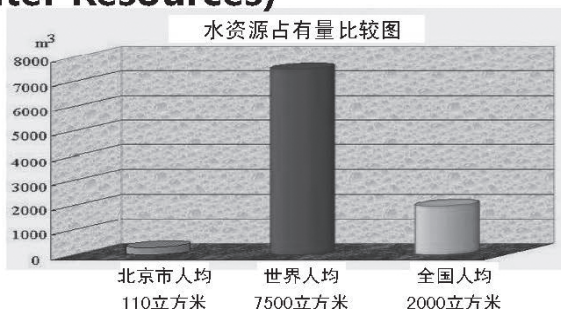
## 3.能源供应压力(Pressure of Energy Supply)

· 北京市电力、天然气、油品等优质能源比例超过70%，能源消费结构已经接近世界发达城市水平。

· The high quality energy ratio in Beijing such as electric power, natural gas and oil is above 70% and its energy consumption structure is similar to other world-class cities.

· 能源消费总量仍然处于快速增长期，近十年年均增长5.3%。2012年，全市能源消费总量7177.7万吨标煤，外埠调入能源超过90%，约2/3的电力、98%的煤炭、100%的天然气和原油需从外地调入。

· The total energy consumption is still in the process of rapid growth, the average annual growth is 5.3% in the last ten years.





其他,1.1
电力,25.7
煤品,25.4
天然气,16.7
油品,31.1
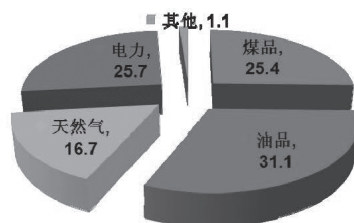
2012年北京市能源结构

# 4.大气污染(Air Pollution)

•2013年，北京市达标天数比例为48%，重度及以上污染天数比例为16%，比74个城市平均达标天数比例低12个百分点。

•In 2013, the days with up-to-standard air quality in Beijing accounted for 48% and the days with heavy pollution and below accounted for 16%.

•北京市主要污染物为$PM_{2.5}$、$PM_{10}$和$INO_2$，$PM_{2.5}$年均浓度为89.5微克/立方米，$PM_{10}$年均浓度为108微克/立方米，$NO_2$年均浓度为56微克/立方米。

•The main pollutants in Beijing city are PM2.5, PM10 particle and NO2.

•根据北京市$PM_{2.5}$污染物来源解析，北京市$PM_{2.5}$来源中区域传输贡献约占28-36%，本地污染排放贡献占64-72%。
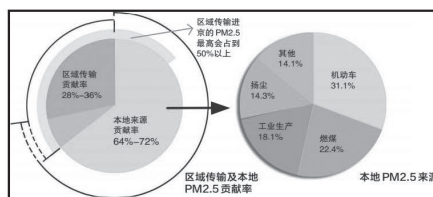


# 5.城市内涝(Urban Flooding)

•北京市近年来极端暴雨增多，2011年"6.23"、2012年"7.21"等暴雨造成城市内涝积水，交通堵塞，灾损严重，对城市防洪防涝系统提出严峻挑战。

•The extreme rainfalls in Beijing keep increasing in recent years, such as "6.23" in 2001 and "7.21" in 2012. These extreme rainstorm events caused urban flooding, traffic jam and collateral losses.

•主要积水原因包括：（1）极端天气发生，局地降雨强度增大。（2）城市排水设施能力偏低。（3）城市建设规模扩大，暴雨径流大。

•The main causes of urban flooding are: (1) extreme weather events, (2) low city drainage capacity. (3) mega city scale.

# 6. 水污染严重(Severe Water Pollution)

•由于人口、经济的高速发展，存在污水处理设施建设与城市的高速发展的不适应性，造成部分河道水质污染情况。

•Inadaptability between rapid urban development and sewage treatment facilities construction causes severe water pollution .

•全市监测有水河流88条段，长2048.2km。其中：达标水质河长占监测总长度的53.6%；较差水质河长占监测总长度的4.3%；恶劣水质河长占监测总长度的42.1%。目前，中心城内河道水质基本为恶劣水质。

•At present, the river water quality in the downtown area  is poor.



# 7.垃圾处理能力不足(Insufficient Garbage Disposal Capacity)

•2013年全市生活垃圾产量671.69万吨（18400吨/日），无害化处理率为99.3%，其中70%以上依赖于直接填埋。

•In 2013, the living garbage output in Beijing was 6,716,900 tons (18,400 tons / day) and decontamination rate of urban refuse reached 99.3%.

•2013年全市生活垃圾处理能力约17530吨/日，尚存在缺口约1000吨/日。

•In 2013, the living garbage disposal capacity in Beijing was about 17,530 tons / day and there is still a gap of 1,000 tons / day to dispose.

•目前全市还有非正规垃圾场468处。其中，水源防护区内有164处。

•At present, there are 468  informal landfill plants in Beijing.
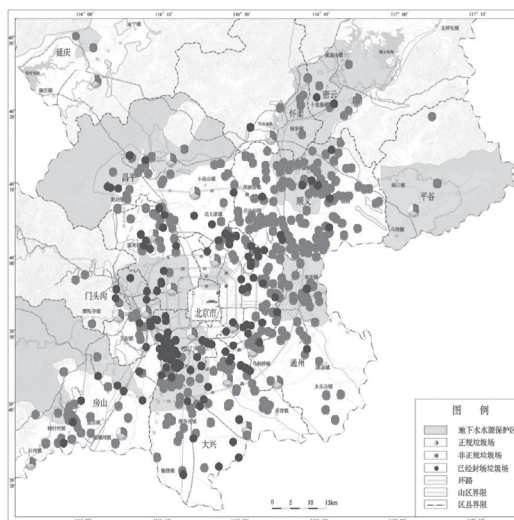
# 对策和战略 Solution and Strategy



## 发展愿景 Long Term Vision

■ 可持续发展：建设环境友好、资源节约的低碳城市

Sustainable：build a low carbon city which focuses on environment-friendly and resource-conserving.

■ 和谐宜居：打造市民乐于居住和工作，有安全感的城市

Livable：Construct a safe and comfortable city for people to live and work.

■ 健康城市：管理和维护城市的合理扩张，维持城市的健康成长

Healthy：Manage and maintain reasonable expansion and keep healthy growth of the city

# 城市增长的转变
## Transformation of City Growth



同尺度城市比较

- 特大城市的发展迈入大都市区和巨型城市区域时代。建成区边界突破行政边界，连续城市化空间尺度大：50-70km。

- The built-up area boundary break up administrative boundaries and the continuous urban space scale is very huge: 50-70km.

- 北京未来转向"减量规划"，进一步优化城市空间结构，用好存量建设用地资源，给新增的人口寻找承载空间。

- Beijing is moving to "reduction planning" to further optimize the city's spatial structure and make good use of the remaining construction land resources and look for more space for the increasing population.
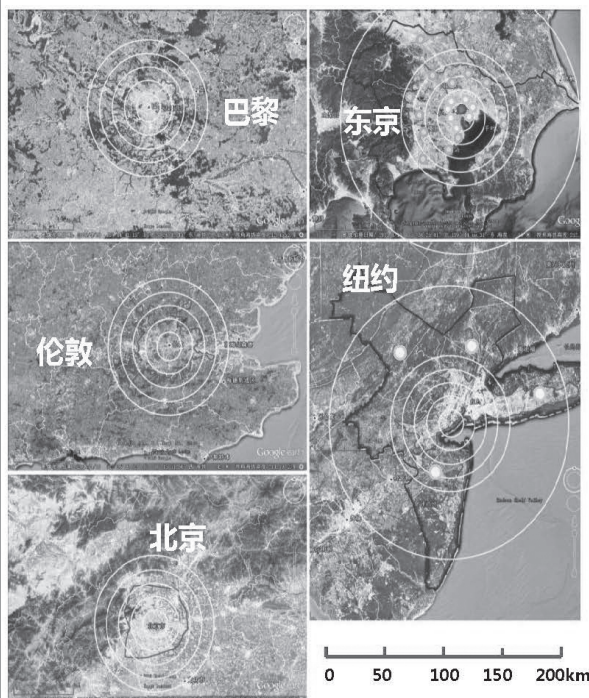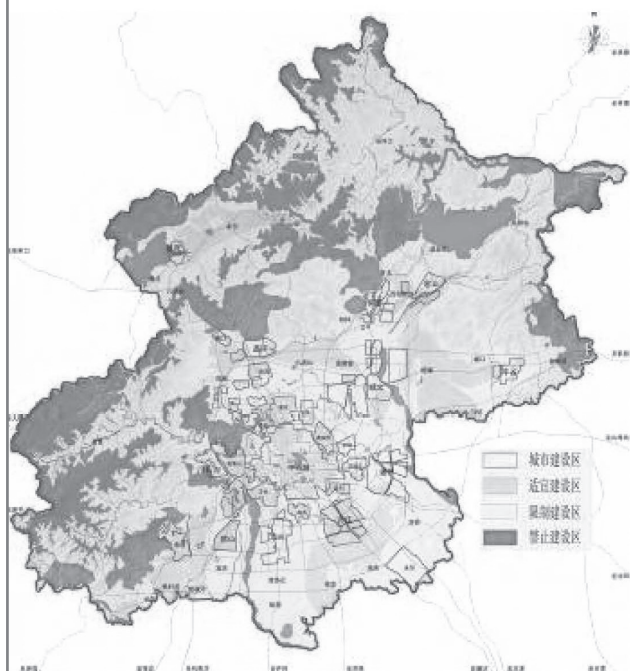
# 城市规划管理的转变
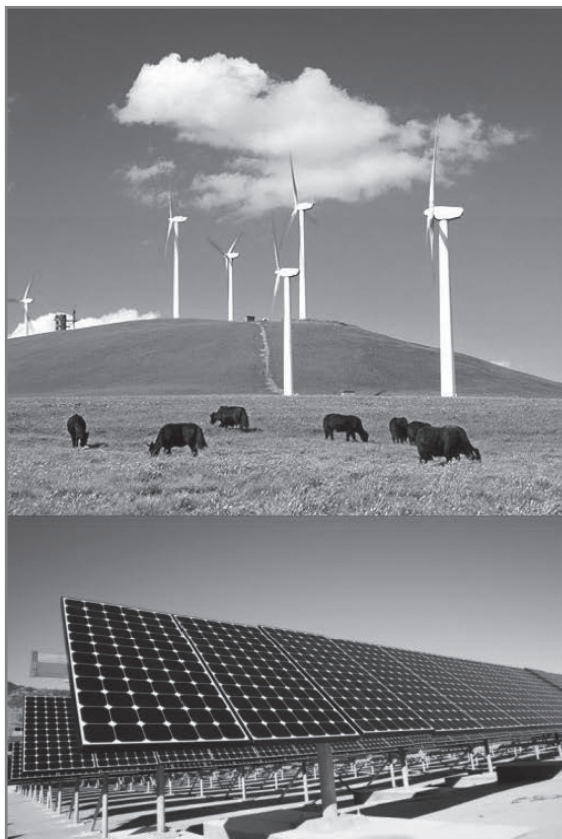## Change of City Planning Management



- 城市建设从追求增长向划定城市增长边界、留出缓冲空间转变。

- Transform the way of urban construction, pursuit of growth will be set aside, a boundary will be defined and a buffer space will be set.

- 划定城市禁止建设地区和限制建设地区，严格保护城市水源、河湖湿地、风景名胜区等生态资源。

- Delineation of the city into constructional area and construction prohibited area.

## ⊷ 能源消费的转变
### Transformation of Energy Consumption

• 严格控制能源消费总量，抑制不合理的能源消费，建设节约型城市；

• Control the total amount of energy consumption strictly and curb irrational energy consumption and build an economical city.

• 降低单位GDP的CO2排放强度和万元GDP能耗；

• Reduce the CO2 emission intensity per unit of GDP and the energy consumption per 10,000 RMB GDP.

• 改善一次能源结构，降低煤在一次性能源中的比例；

• 提高可再生能源占一次性能源供应中的比例。



## ⊷ 固废处理的转变
### Transformation of Solid Waste Treatment

• 改变生活垃圾处理方式，生活垃圾处理从以填埋为主，转变为以焚烧和生化为主，填埋为辅。

• Change the way of life garbage disposal.

• 坚持垃圾分类处理，实现垃圾资源化。实行有机垃圾生态循环利用，无机垃圾循环再利用。

• Ensure garbage classification-based treatment to transform waste into resource.

• 积极研究垃圾全过程管理办法和政策，对垃圾的产生、运输和处理实行全过程监管，统筹协调每一个环节的功能、费用和政策。

• Research methods and policy in the process of garbage management. Supervise the whole process from waste generation, transportation to disposal and coordinate the function, cost and policy of each segment.

## 水资源管理的转变
### Transformation of Water Resource Management

•实施最严格水资源管理制度，大力节约用水，建设更加先进的节水型城市。
•Adopt the most strict water resources management measures.

•综合开源，增加可供水资源总量。积极推进再生水的利用，多渠道开发海水淡化、雨洪利用等非传统水资源。
•Increase the amount of water resources. Actively promote the use of recycled water.

•加强水源保护，改善水生态环境。严格控制地下水的超采，蓄养地下水源。
•Strengthen the protection of water resources, improving water environment.

## 需要智库联盟支持的领域

### The Support Required from MeTTA

1.合作。就具体项目开展多边合作，推动实质性的技术合作与成果共享。通过项目带动智库联盟的深入发展。Cooperation. Promote substantial technology and results sharing in the process of multilateral cooperation on a specific project.
2.共享。建立数据共享平台，便于分析研究每个城市的发展规律，为具体个案提供更好的规划借鉴。总结以往针对不同城市问题取得成效的措施和政策，形成智库档案，利于先进技术和解决方案。Sharing. A data-sharing platform is necessary for providing reference to better planning and summary of the effective solution .
3.行动。建立城市问题的动态解决机制，由智库联盟推动专家库成员及时参与各大城市的问题研讨。Action. Experts of MeTTA should be available to solve the dynamic problems.

## 结语 Review Summary

+ 城市规划以提高城市生活质量为最终目标。Urban planning should target a better life as our final goal.

+ 资源是城市发展的支撑和保障，必须实现可持续发展。Resource is the support and safe-guard of city, we must stick to a sustainable way of urban development.

+ 变各领域独立研究为互动的整合系统研究。Integrate the existing fields study into a comprehensive whole system study.

+北京需要借鉴各大城市的经验，走出一条适合自己的发展之路。
Beijing needs to learn the experience of other mega cities, which help us to find a path towards sustainable development.



Thank You!

# Spatial Strategy for Metropolitan Shanghai in light of Innovation-driven and Transformational Development

**Zhang Yuxin**
President, Shanghai Urban Planning and Design Research Institute

Shanghai is in its key period moving towards "Four Centers" (International Economic, Financial, Trade, Shipping Center) and transiting to "innovation–driven and transformational development". In this presentation, some discussions about the risks that Shanghai has faced in the recent years, such as the increasing pressure of ecological protection and the low efficiency of land use, will be covered. According to the challenges brought by regional resource and environmental constraints, and experiences we have successfully conducted during these years, the spatial strategy to accelerate innovation–driven and transformational development in Shanghai deserves serious consideration. Meanwhile, the expected objective of MeTTA which plays a pivotal role in finding remedial measures for megacities under the risks will be raised at the end.

# 上海大都市创新转型发展的思考

## Spatial Strategy for Metropolitan Shanghai
## in light of Innovation-driven and Transformational Development



**上海市城市规划设计研究院院长 张玉鑫**

Mr. ZHANG Yuxin, President of Shanghai Urban Planning & Design Research Institute

**2014.07.11**

## 引言

### Foreword

值此上海加快建设"四个中心"（国际经济、金融、贸易、航运中心）、实现"创新驱动、转型发展"的关键时期，围绕当前面临的区域资源环境约束压力等挑战，结合以往发展经验，提出加快上海创新驱动、转型发展的未来城市空间发展战略。同时，提出特大城市智库联盟在应对城市问题中的关键作用与预期目标。

Shanghai is in its key period moving towards "Four Centers" (International Economic, Financial, Trade, Shipping Center) and transiting to "innovation-driven and transformational development". Therefore, according to the challenges brought by regional resource and environmental constraints and experiences we have , the spatial strategy to accelerate innovation-driven and transformational development in Shanghai deserves serious consideration. Meanwhile, the expected objective of MeTTA which plays a pivotal role in finding remedial measures for megacities under the risks is raised at the end.

# 一、城市概况与发展形势
## General Information & Major Challenges

# 二、经验与认识
## Experiences & Thoughts

# 三、发展愿景与战略思考
## Development Vision & Strategy

## 1、基本情况
### Shanghai Overview

上海地处太平洋西岸，中国东部沿海，位于长江入海口形成的三角洲地区。依托滨江临海的地理优势，上海逐步发展起来，是中国最大的城市和经济中心，也是国家历史文化名城。

Situated on the west coast of the Pacific in the Yangtze River Delta, Shanghai is the largest city and economic center in China, as well as a famous city for its history and culture.

Shanghai

上海市域陆地总面积6833km²。2013年末，全市常住人口约2415万人，建设用地3034km²。上海中心城是指外环线以内地区，总用地面积约660km²，人口约1100万，人口密度超过1.7万人/km²。

Its land area totals 6833 square kilometers. By the end of 2013, its permanent residence population reached 24.15m, and the area of construction land exceeded 3034 square kilometers. Shanghai Central City Proper, referring to the area within the outer ring road, covers a total area of about 660 square kilometers, with a population of about 11 million, over 17,000 people per square kilometer in density.



改革开放30年来，上海社会经济得到快速发展，城市功能和基础设施体系不断完善，市域空间结构和产业结构不断优化，城市环境和居民生活质量明显改善，城乡建设取得显著进步。

As seen from economic and social development of the city, in the last 30 years since the beginning of reform and opening, Shanghai has achieved quick economic and social development, continuously improved its urban functions, remarkably raised the living standard of the people, and taken on a completely new appearance.

## 2、问题与挑战
### Problems and Challenges

　　上海既迎来了设立中国（上海）国际自由贸易试验区的重大历史性机遇，又面临着城市功能转型、人口持续快速增长和资源环境瓶颈等多重挑战。

After experiencing quick economic and social development, as well as the establishment of Shanghai (Pilot) Free Trade Zone, Shanghai urgently needs to realize urban scientific and harmonic development through transformation of development. However, it is under the dual pressure from continuous fast growth of urban population and constraints from limited resources in land, environment and energy.

**人口规模**
**Population**

**土地资源**
**Land Resource**

**城市功能**
**Urban Function**

**城市品质**
**Urban Quality**

**产业结构**
**Industry Structure**

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## （1）建设用地规模偏大，生态保护压力不断增大
### Increasing Pressure of Ecological Protection, with Increasing Scale of Construction Land

　　2013年建设用地规模为**3034**平方公里（其中城市建设用地规模约为**2445**平方公里），占市域总面积达**45%**，人多地少的空间资源紧约束矛盾日益突出。

Increasing pressure of population size & Increasing restriction of land resources



1985-2013 Shanghai Population    24.15 m

■人口/Resident Population (万人/10000 Persons)



上海市2013年土地使用现状
Shanghai Land Use 2013

江苏省

浙江省

生态保护压力不断增大。上海市城市建设用地中，绿地占建设用地面积的比例约7%，远低于国际同类型城市水平，如大伦敦、纽约、大巴黎地区分别为38%、25%和12%。

The ratio of Green in construction land is only **7%**, which is far lower than other similar megacity.



上海市生态用地布局图
Shanghai Ecological Land Layout



大伦敦地区环城绿带规划
Green Belt Plan of London



## （2）城市空间近域拓展，空间结构仍需优化

**Spatial Structure Needs Optimization**

近年来，**中心城呈现向外蔓延式发展的态势**。中心城人口密度过高。2013年上海中心城常住人口为**1231.9万**，人口密度已达1.87万人/平方公里，约是东京的**1.3倍**、纽约的**1.7倍**，伦敦、巴黎的**4.0倍**。

The Central City is extending to the outskirt continuously in the recent years. The population density of the central city keeps a excessive value.
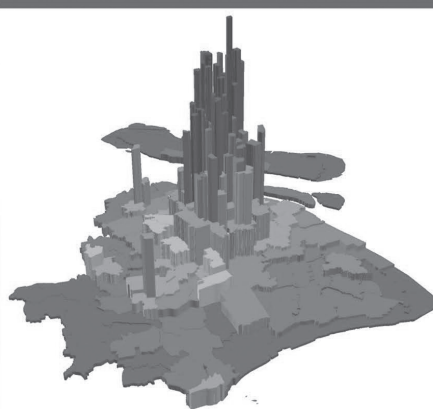


2013年上海市常住人口密度三维分布图
（其中，虹口区人口密度最高，达4.5万人/平方公里。老西门街道6.03万人/平方公里）



上海大都市区

上海历程
Process
of
Shanghai
Spatial
Structure

1950's　1990's　2000's　2010's

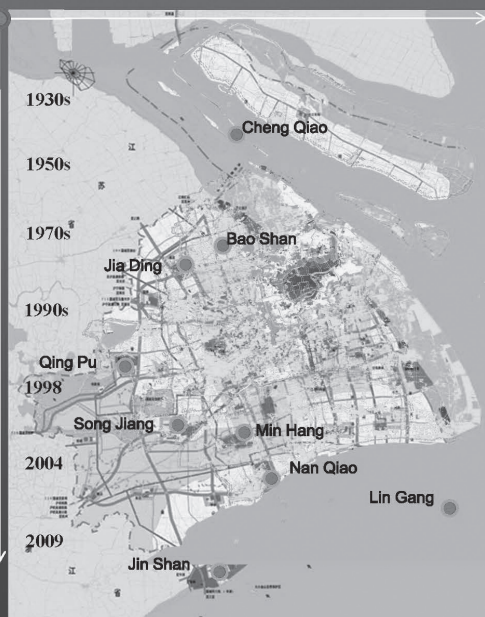伴随着城市拓展，中心城规划控制的楔形绿地与建设敏感区内的建设用地不断增多，**宝山、嘉定、闵行**等靠近中心城的部分已与中心城连为一体。

总体规划确定的中心城为外环以内660平方公里，**目前中心城及周边集中城市化地区的面积已超过1250平方公里**。中心城蔓延式发展，容易引发空间、交通、基础设施和环境等一系列问题。

The constructed area in the planning green wedge and construction sensitive area is continuously increasing.



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## （3）产业结构调整初现端倪，用地效能有待提高

**Efficiency of Land Use is Pending to be Improved**

**服务业空间格局已经显现。**

中心城区业已形成"一线两翼、六大板块"的商务办公格局；20个现代服务业集聚区、19个生产性服务业功能区、90个创意产业园区建设方兴未艾。

**制造业结构调整态势显著。**主要体现在工业仓储用地比重初显下降态势且工业用地扩张速度明显减缓。

**产业用地比例：**上海市域为30%以上，其中郊区高达40%左右，明显偏高。

- The service industry has just formed its pattern.
- The structure of manufacture starts regulating.
- Ratio of industry land is higher than usual.



现状产业用地分布(Current Industry Land)

从**土地利用效益**上，2010年上海国家级开发区的工业用地产出强度**115亿元/平方公里**，是市级开发区的2.2倍；但区域差异比较明显。

从**土地利用强度**上，2009年全市工业园区平均容积率为**0.65**，在全市园区总量中，容积率高于1.0的仅占8%，土地利用效率仍有提升空间。

The Efficiency of Land Use still needs improving.
- Benefit of Land Use: Differs in areas
- Intensity of Land Use: Land with high FAR consist only 8% of industry land.



| | |
|---|---|
| Avg. of National Developing Area 115 | Caohejing Developing Area 263 |

**工业用地产出强度**
**（单位：亿元/平方公里）**



Highest 1.4 — Avg. of All Industry Area 0.65 — Lowest 0.2
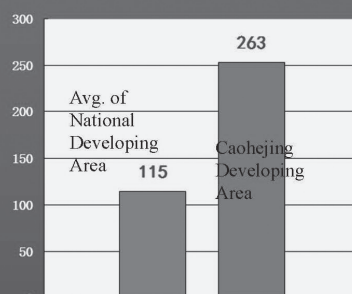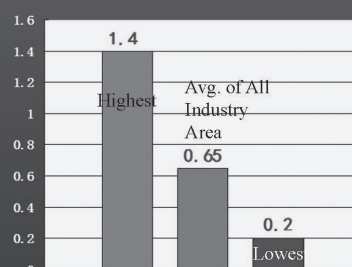
**工业园区平均容积率**

一、**城市概况与发展形势**
**General Information & Major Challenges**

二、**经验与认识**
**Experiences & Thoughts**

三、**发展愿景与战略思考**
**Development Vision & Strategy**
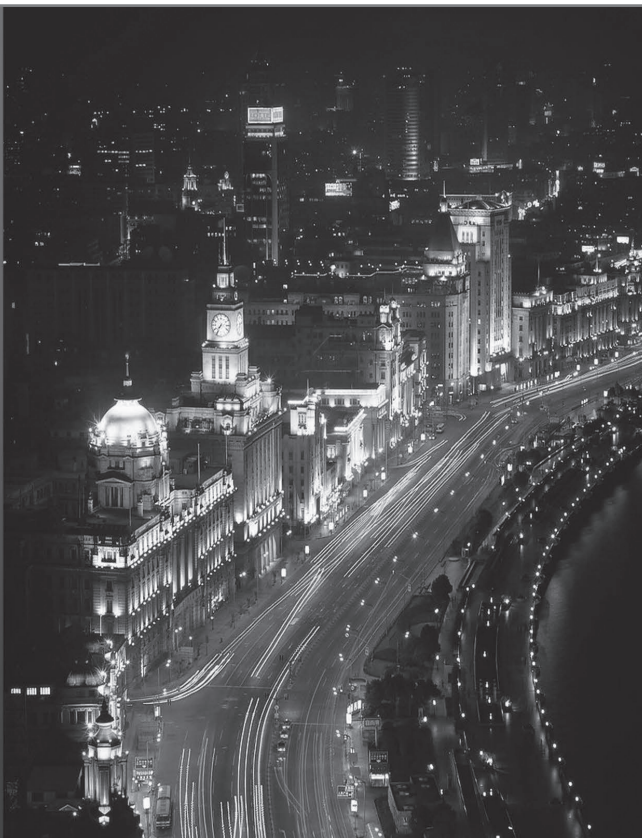
进一步聚焦"**四个中心**"，从控制城市规模、优化空间结构、突出生态优先等方面入手，加快推进"全球城市"战略目标落实。

With the emphasize on the "Four Centers", accelerate the fulfillment of the strategic goal ---- "Global City", by controlling the scale of urban development, optimizing the spatial structure and giving priority to ecological establishment.



贸易　经济中心城市
金融　高端现代服务经济
国际航运中心

### （1）严格控制城市发展规模
**Strictly control the scale of urban development**

以业调人、以环境引人，努力实现人口规模适度可控，人口布局和结构不断优化。立足上海土地资源接近"天花板"的实际情况，**实施最严格的耕地保护制度和节约集约用地制度，优化用地结构，依靠存量优化、流量增效和质量提高满足城市发展的用地需求，实现全市规划建设用地总量"零增长"**。

We will keep a reasonable regulation of population scale and optimize our population structure and distribution through industrial upgrading and the improvement of environment. In view of extreme shortage of land resources, we will implement most strict farmland protection and intensive saving of land use, to strictly control land use scale, and to optimize the structure of construction land. The land use of urban development will only depend on land reserve and improvement of efficiency.



苏州河
Suzhou River

## （1）严格控制城市发展规模
**Strictly control the scale of urban development**

坚持总量控制和总量平衡的理念。严格控制中心城人口规模和建设总量，坚持"双增双减"(增加公共绿地和公共空间,控制\减少容积率和高层建筑)方针不动摇。严格控制住宅和商务建筑总量，优先考虑公共设施和公共绿地。

We will strictly control the scale of population and construction, by implementing the principles of "Double Increase & Double Decrease", which means to increase the green space and public space, and to decrease FAR (floor area ratio) and high-rises. We will strictly control the scale of residential and commercial, and give priority to public accommodation and green space.



社区文化活动中心
Comminity Event Hall



延安中路绿地
Green space in the city center

## （2）聚焦新城建设，整合资源、优化布局
**Promoting the construction of suburban new town， reorganizing the resources and optimizing the spatial structure .**

按照宜居城市的目标，突出"功能完善、产城融合、用地集约、生态良好"的理念，加快推进嘉定、松江、南桥、青浦等重点新城的规划建设，增强新城对上海周边及长三角地区的功能辐射和服务能力。

Take as the goal the construction of livable city in fusion of "production, live and ecology"; highlight the philosophy of "perfect function, integration of industrial park and city, intensive use of land and good ecology".



Chenqiao New Town
城桥新城

Jiadin New Town
嘉定新城

Central City
中心城

Qinpu New Town
青浦新城

Songjiang New Town
松江新城
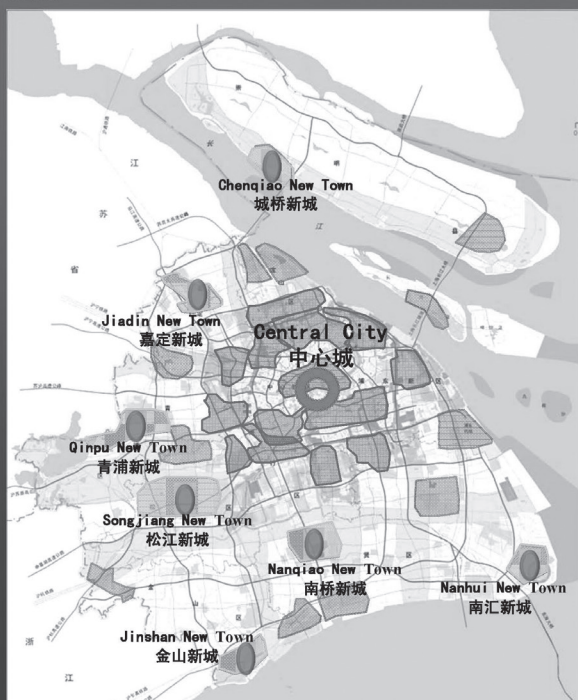
Nanqiao New Town
南桥新城

Nanhui New Town
南汇新城

Jinshan New Town
金山新城

## （2）聚焦新城建设，整合资源、优化布局

**Promoting the construction of suburban new town， reorganizing the resources and optimizing the spatial structure .**

聚焦郊区新城，积极引导人口合理分布和导入。通过优化住宅供给、提升新城优质医疗教育等公共服务设施水平、强化轨道交通等公共交通服务能力、加强功能性项目导入，提高郊区新城的吸引力。

By optimizing residential conditions, medical treatment, education and other public facilities,  and promoting public transportation, especially the railways, we are aiming at raising the attraction of suburban new towns, in order to discongest the concentrated population in the central city properly.



**青浦新城**
**Qingpu New Town**

## 新城案例——南桥新城

**Case of New Town ---- Nanqiao New Town**

定位为上海服务长三角南翼以及大浦东开发的重要门户枢纽，上海杭州湾北岸地区的综合性服务型核心城市。

It will be a key position of Shanghai in orienting the south of Yangtze River Delta Region and developing great Pudong area, and a comprehensive service-oriented core city.

## 新城案例——南桥新城

坚持"**低碳·生态，智慧·宜居**"的发展理念，充分利用既有生态林地，打造新城绿肺，围绕中央生态片林建设南桥城区的生态核心，依托水系和绿廊形成蓝绿交织的自然景观风貌。

We follows the developing idea of "Low Carbon, Ecologic, Smart, Livable". We made fully use of the current forestland to have a green lung of the new town. The ecological core was formed by the central forestland, and a scenery with blue and green was generated by water and green belt.





南桥新城
Nanqiao New Town

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## （3）突出生态优先，严控城市增长边界
### Giving Priority to Ecology, Strictly Controlling the City Increasing Boundary.

2012年5月，上海市人民政府批复《上海市基本生态网络规划》。通过"**多层次、成网络、功能复合**"的基本生态网络建设，促进绿地、耕地、林园地和湿地的融合发展。中心城规划以"**环、楔、廊、园**"为主体、中心城周边地区规划绿环、绿带，远郊规划生态廊道、生态保育区，形成"**环形放射状**"的生态网络。

"Program of Shanghai Basic Ecological Network System", in which planning for the central city area, with "ring, wedge, gallery and park" as main body, and the peripheral localities.



基本生态网络规划

## （3）突出生态优先，严控城市增长边界
### Giving Priority to Ecology, Strictly Controlling the City Increasing Boundary.

上海遵循"**聚焦游憩功能、彰显郊野特色、优化空间结构、提升环境品质**"的规划理念，规划在郊区布局建设一批具有一定规模、自然条件较好、公共交通便利的郊野公园，逐步形成与城市发展相适应的大都市游憩空间格局，成为市民休闲游乐的"**好去处**"、"**后花园**"。

We proposed several country parks in the outskirts which have a satisfying environment and a convenient public transport, in order to form a megacity recreation spatial pattern adapting with Shanghai's development, as a delighting place for the citizens.
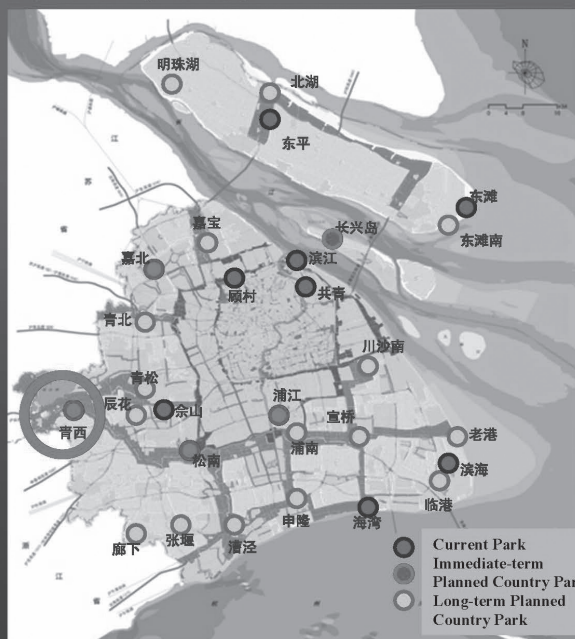
## 郊野公园案例——青西郊野公园
### Case of Country Park ---- Qingxi Country Park

通过注重生态优先、尊重自然条件、整合农田林网、河湖水系等自然肌理的区域性土地综合整治，凸显传统江南水乡的水系、村庄风貌，兼具生态、生产和游憩等功能。

It is a regional land renovation by renovating the farm, forest and water, with the respect of natural conditions and giving priority to ecological construction, so that the country park maintains the functions of ecology, manufacture and recreation, and keeps traditional scene style and feature of the area.
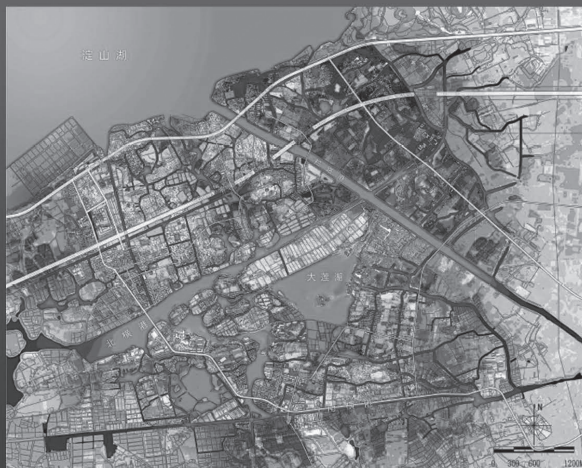


## 郊野公园案例——青西郊野公园
### Case of Country Park ---- Qingxi Country Park

**多自然、少人工**，避免大拆大建和对现状地类进行大的调整，切实做到建设用地减量化、耕地面积有增加。

We propose the idea of "More Natural, Less Artificial", to avoid a great deal of dismantling and reconstruction. Decrease the construction land and increase the arable land.



青西湿地导览图

# 一、城市概况与发展形势
## General Information & Major Challenges

# 二、经验与认识
## Experiences & Thoughts

# 三、发展战略与愿景
## Development Vision & Strategy

## 1、我们的目标
### Development Goal

在2020年基本建成"四个中心"和社会主义现代化国际大都市的基础上，努力将上海建设成为**具有全球资源配置能力、较强国际竞争力和影响力的"全球城市"**。

We have put forward the strategic goal for future development: building Shanghai into a "global city" with worldwide resource allocation capacity and strong international competitiveness and influence by 2020, on the basis of shaping "four centers" and a socialist modern international metropolis.



陆家嘴绿地
Green Open Space Lujiazui

## 1、我们的目标

**Development Goal**

■ 具有高端化、集约化和服务化的新型产业体系和良好创新创业环境的**宜业城市**；

The robust city with a high-end, intensive and service-oriented industrial system and an excellent innovation and entrepreneurship environment.

■ 生态良好、社会和谐、智慧低碳、安全便捷的**宜居城市**；

The livable city with good ecology, harmonic society, low carbon, safety and convenience.

■ 具有较强文化原创力和影响力的**国际文化大都市**；

The international cultural metropolis with original creativity and global cultural influence.

■ 长江三角洲世界级城市群的**核心城市**。

The core city of the world-class city cluster in the Yangtze River Delta Region.



NEW YORK　　　　LONDON　　　　TOKYO　　　　SHANGHAI

## 2、我们的导向

**Development Guides**

上海必须坚持创新驱动、转型发展，切实转变发展方式，树立科学的发展导向。

We have formulated the following 6 development guides:

**（1）突出"以人为本"的发展内涵**

Emphasize human orientation to seek inhabitants' happiness as the essence of urban development

**（2）突出区域一体化的发展格局**

Emphasize regional integrated development of the Yangtze River Delta and the Yangtze River Economic Belt

**（3）突出"生态优先"的发展底线**

Emphasize ecological livable city as the main element of urban competitiveness

**（4）突出功能提升的发展方向**

Emphasize upgrading the functional level in high-end fields to build Shanghai into a global city

**（5）突出睿智增长的发展路径**

Emphasize smart growth and transformation of urban development

**（6）突出开放包容的发展精神**

Emphasize opening and tolerance as a strong drive for future development

## 3、MeTTA的贡献
**MeTTA's Contribution**

（1）对特大城市彼此之间的合作起到促进作用；

MeTTA will support megacity governments to form a sustainable relationship by sharing solutions to the urban problems;

（2）通过建立综合数据共享平台或城市管理问题研发平台，促进资源交换，增强特大城市资源储备；

MeTTA will promote the resource exchanges and strengthen megacity resource storage, by establishing a shared comprehensive developing data platform or researching & developing platform for municipal-level solutions.

（3）带动更多国际组织，加强城市规划的公众参与力度，共同思考城市问题。

MeTTA will help to activate more international organizations that are interested in urban problems to think more about our city, in order to increase public participation in urban planning.

## 结　语

　　上海城乡规划工作将按照"创新驱动、转型发展"的工作要求，学习借鉴国际大都市建设的先进理念和成功经验，深化改革，加快创新，逐步实现城乡规划管理重点、管理模式和管理体制的转变，为推动上海大都市转型发展作出应有的贡献。

　　我们衷心期望能从特大城市智库联盟——这个资源共享、良性互动的平台中获得更多的经验与思想。

According to "innovation-driven and transformation development", we will learn from the world cities to speed up innovation, to implement the transformation. We sincerely hope that we can learn more knowledge and experiences of solutions to the problems that a megacity faces from MeTTA, which shares resources and has a perfect interactivity.

# Active Mobility for a Sustainable Singapore

**Limin Hee**

Director, Centre for Livable Cities

Limin Hee is Director of Research at Singapore's Center for Liveable Cities (CLC), a knowledge nexus and think–tank for liveable and sustainable cities, where she has oversight of research strategies, initiatives and collaborations. At the CLC, she has helped to oversee the Urban Systems Studies series, which delve deep into the transformation of Singapore in the last 50 years. She is the project leader for collaborative research projects including those with the Urban Land Institute, "Creating Healthy Places for Active Mobility," and "10 Principles for Liveable High Density Cities."

Prior to joining the CLC, she taught at the School of Design and Environment at the National University of Singapore, where she led the Urban Studies Research and Teaching Group, and was a Principal Investigator at the Centre for Sustainable Asian Cities, as well as being jointly appointed at the Asia Research Institute. Her research is focused on sustainability and its agenda for architecture, urbanism and public space. Hee has published widely on cities, including in international refereed journals and architectural reviews, and her recent book on Future Asian Space (NUS Press 2012). She obtained her Doctor of Design from Harvard University, her Master of Arts (Architecture) as well as her professional degree in Architecture from the National University of Singapore.

# CENTRE for
# LiveableCities
### SINGAPORE

# Active Mobility for a Sustainable Singapore

**Dr. Limin Hee**
*Director (Research)*
*Centre for Liveable Cities*
*Singapore*

challenges

716.1 km² land area



5.3 mil population

**7,401/**km² density

CENTRE for
LiveableCities



lessons

CENTRE for
LiveableCities
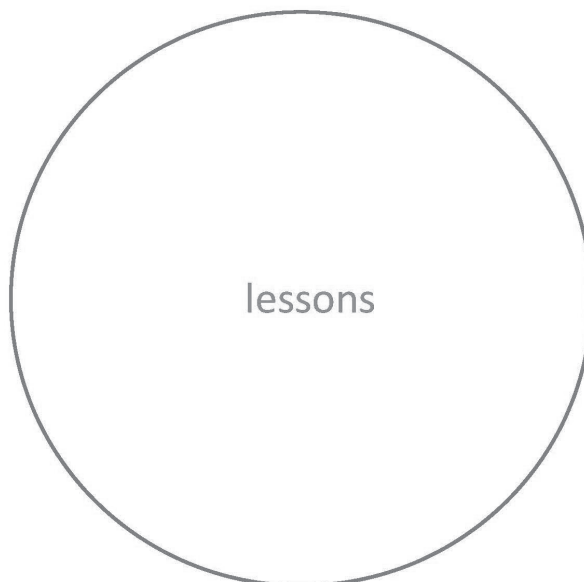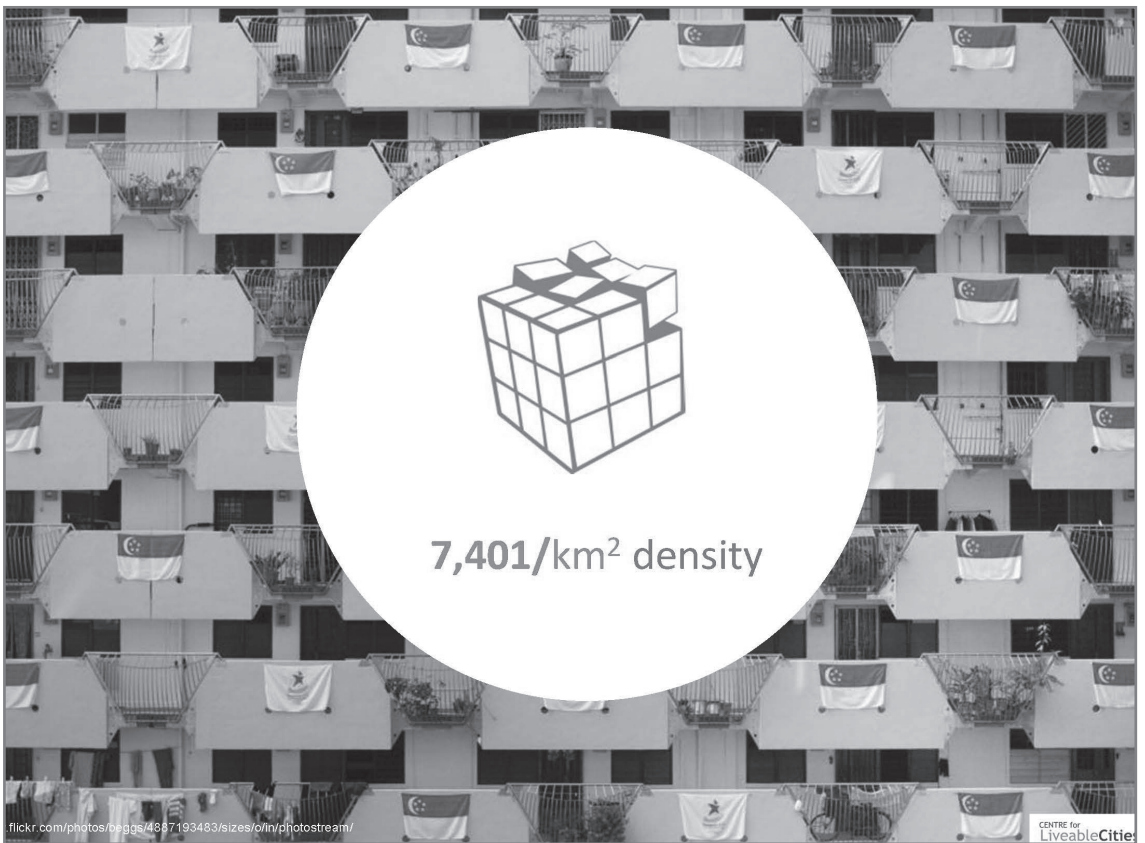
Singapore's Unique Positioning
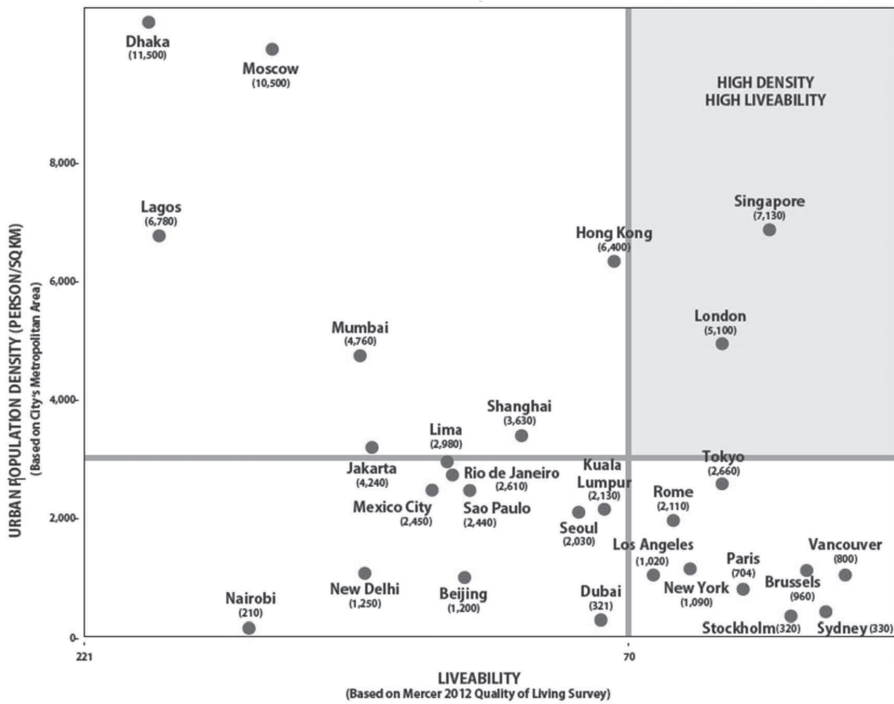


CLC Liveability Framework
framework for planning and developing a liveable city

future challenges?

5.3 mil population

2014 →

716.1 km² land area

6.5 – 6.9 mil population

2030

766 km² land area

land use pressures

2014
- 14% housing
- 13% working
- 12% land transport

2030
- 17% housing
- 17% working
- 13% land transport

Source: URA

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transport mode share comparison

HONG KONG
- 11% private
- 89% public

SEOUL
- 26%
- 74%

SINGAPORE*
- 37%
- 63%

Source: LTA
* Peak hour mode s

# Car population growth



450
400
350
300
250
200
150
100
50
0

1975 1978 1981 1984 1987 1990 1993 1995 1999 2002 2005 2008 2011 2014

Traffic Volume to City (AM Peak)   Vehicle Population   Car Population

**40% in 2008**

**45% in 2013**

% Car-owning households

Source: Land Transport Master Plan 2013

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## managing car growth & usage



**Certificate of Entitlement** required for new vehicles to regulate car growth

**Electronic Road Pricing** to optimise use of road capacity through road pricing

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enhancing public transport

Expand rail network from 138km to 360km by 2030

Peak hour public transport mode share from 63% to 75% by 2030

Source: Land Transport Master Plan 2013

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An alternative mobility option?

why active mobility?

SPECTRUM OF BENEFITS FOR ACTIVE MOBILITY



national cycling plan
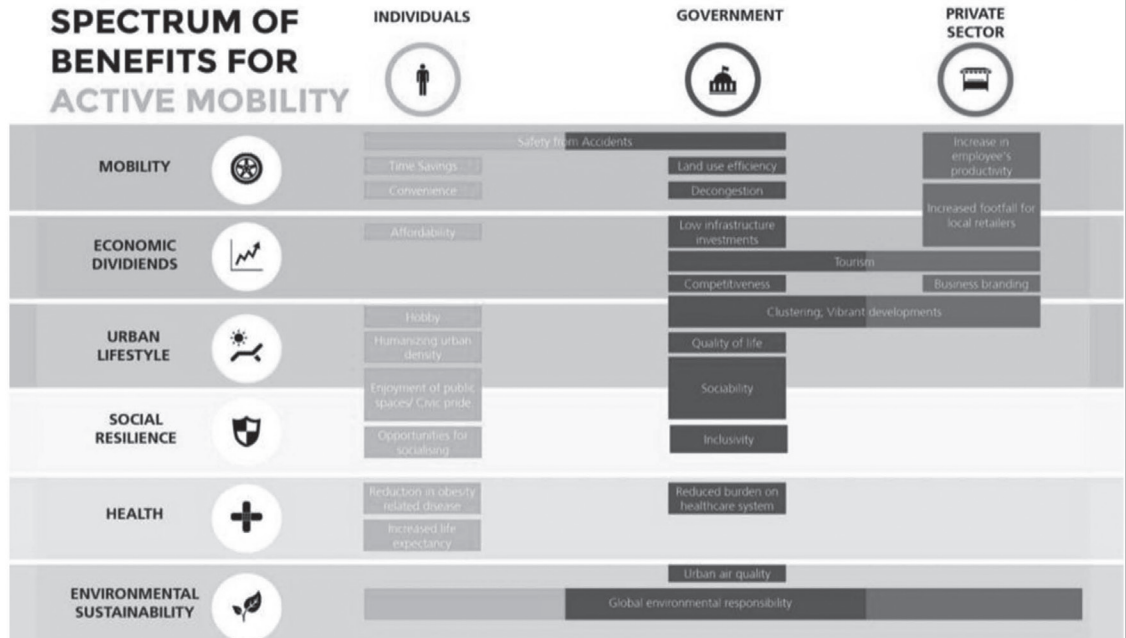
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national cycling plan

LEGEND

**National Cycling Plan**
Round Island Route
Cycling Route
Park Connector
Intra-town cycling network
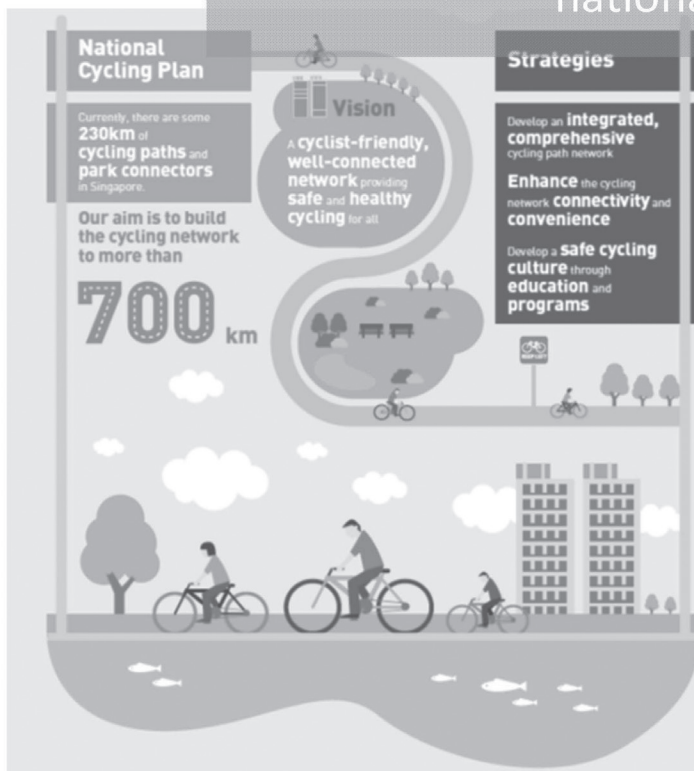
iCYCLE singapore
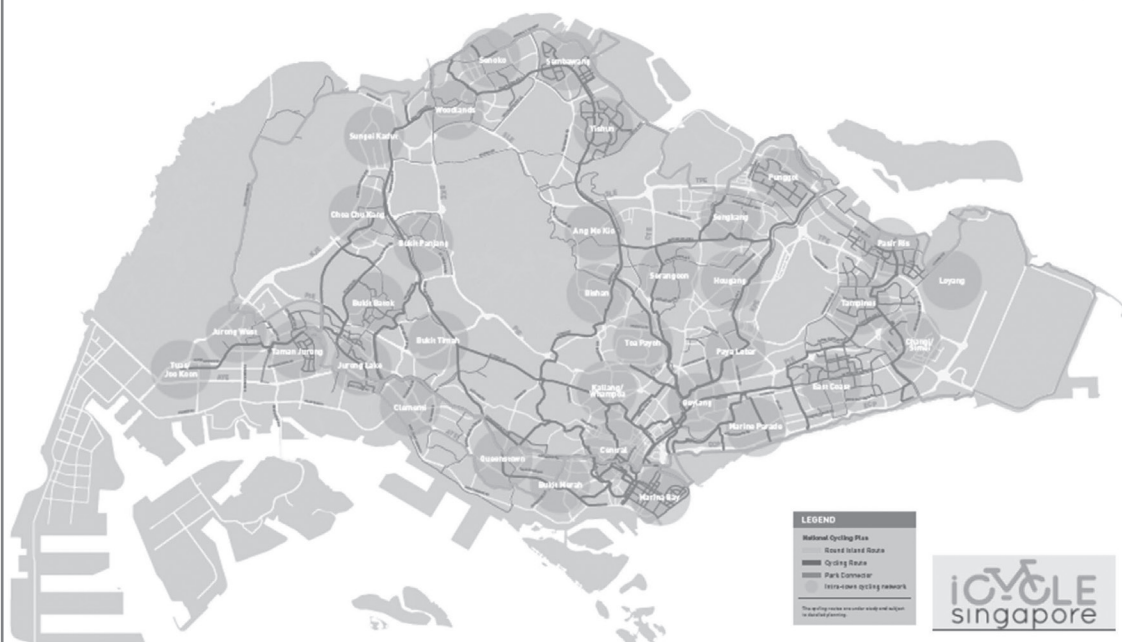
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current cycling provisions

Park connectors

Intra town cycling paths

Creating Healthy Places through Active Mobility



challenges to walking & cycling

Inadequate bike parking

Unsafe junctions

"Mini-highways"

challenges to walking & cycling

CHASING CARS: A VICIOUS CYCLE

URBAN GROWTH & DEVELOPMENT

CAR-CENTRIC CULTURE, BEHAVIOUR, PERCEPTIONS
Car-centric mobility culture
Anti-cyclist lobbyists
Perceived unconducive weather

MOTORIST FRIENDLY INSTITUTIONAL FRAMEWORK & POLICIES
Car-friendly policies
Lack of Champions
Lack of legislative support

MOTORIST-ORIENTED INFRASTRUCTURE & DEVELOPMENT
Motorist-oriented urban planning, development, infrastructure

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10 IDEAS FOR PEOPLE-FRIENDLY WALKING & CYCLING CITIES

CHECKLIST FOR TROPICAL CITIES factors that will enhance comfort of active travel in the tropics

1 MAKE IT CONVENIENT & EFFICIENT
Integrate cycling and walking infrastructure with public transit
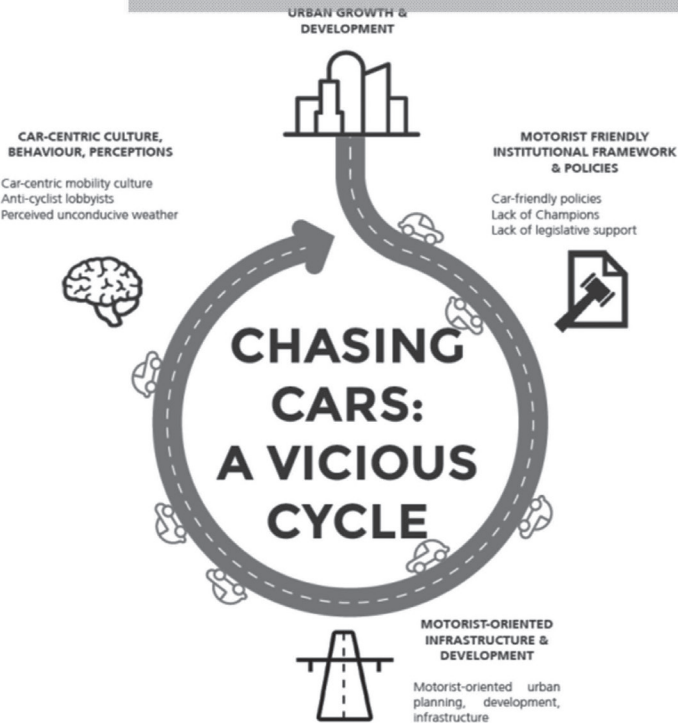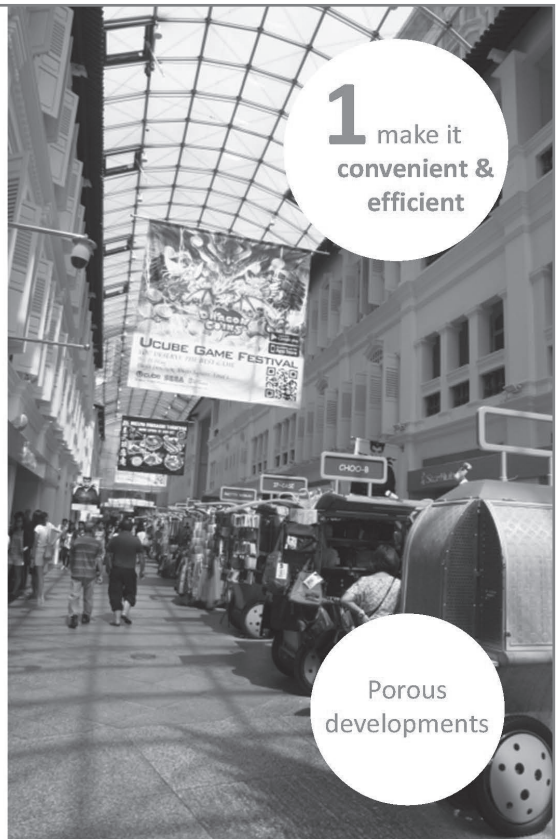Bike share systems for cities starting to promote cycling

2 PROVIDE DEDICATED SPACE FOR ALL
Protected bike lanes & cycle tracks alongside pedestrian sidewalks and vehicular carriageways

3 ENSURE VISIBILITY AT JUNCTIONS
Safe junction designs that allow drivers to look out for pedestrians and cyclists when turning
Painted cycling lanes at junctions to maximize hold on drivers' attention

4 MAINTAIN CONTINUITY OF MOVEMENT
Cyclist friendly junction designs with gentle bends to facilitate continuous cycling
Continuous sidewalks that require cars to stop and allow pedestrians and cyclists to continue through intersection without stopping

5 KEEP IT SLOW
Stringent speed limits and slow speed zones at high pedestrian traffic areas
Shared streets with design interventions to slow vehicles and allow co-existence of road users

6 PRIORITIZE AT-GRADE CROSSINGS
At grade crossings to facilitate continuous movement by pedestrians and cyclists
Above/sub-grade crossings only for direct connections between destinations
Diagonal crosswalks at high pedestrian traffic areas.

7 ENSURE CONSISTENCY IN DESIGN STANDARDS
Standard infrastructure design for the whole network for user friendliness
Consistent signage

8 MAKE IT COMFORTABLE & ATTRACTIVE
Street planting to provide shade and visual relief for all road users
Sheltered walkways for pedestrians
Prioritize maintenance for pedestrian and cycling infrastructure

9 MIX UP THE USES
Mixed use developments to make walking and cycling more convenient for daily commutes

10 CLOSE THE LOOP WITH END-OF-TRIP AMENITIES
Adequate public bike parking facilities at destinations
Showers and laundromats at workplaces

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Integration with transit

**1** make it **convenient & efficient**

Porous developments

**4** maintain **continuity of movement**

Continuous sidewalks

Friendly junction designs

**Test-bedding** new cycling ideas e.g. new junction designs in Singapore new towns

**Public space studies** with Jan Gehl to enhance public space experience in Singapore new towns

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Thank You!

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