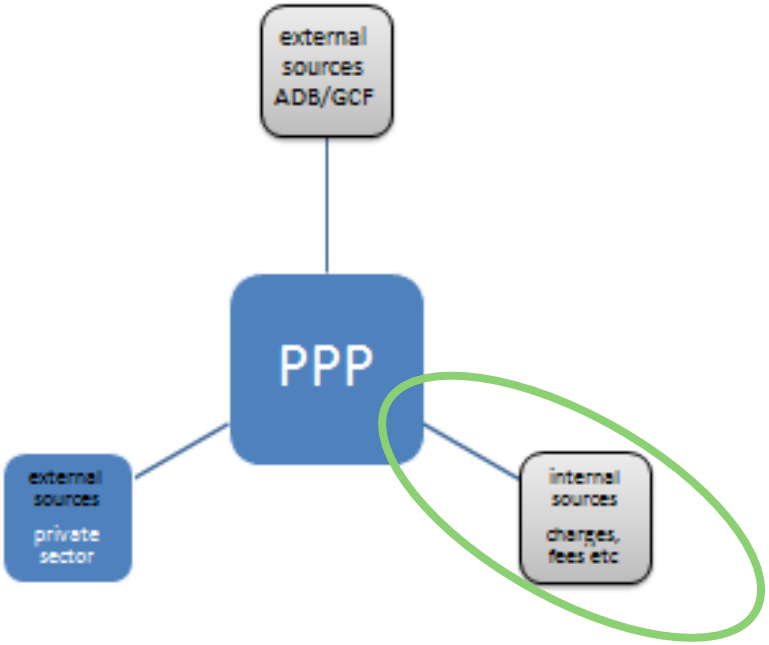
Funding Investments in Sustainable Cities

Michael Lindfield
Urban Infrastructure Services

Effective Funding of PPPs for Climate Investment

Where are we?

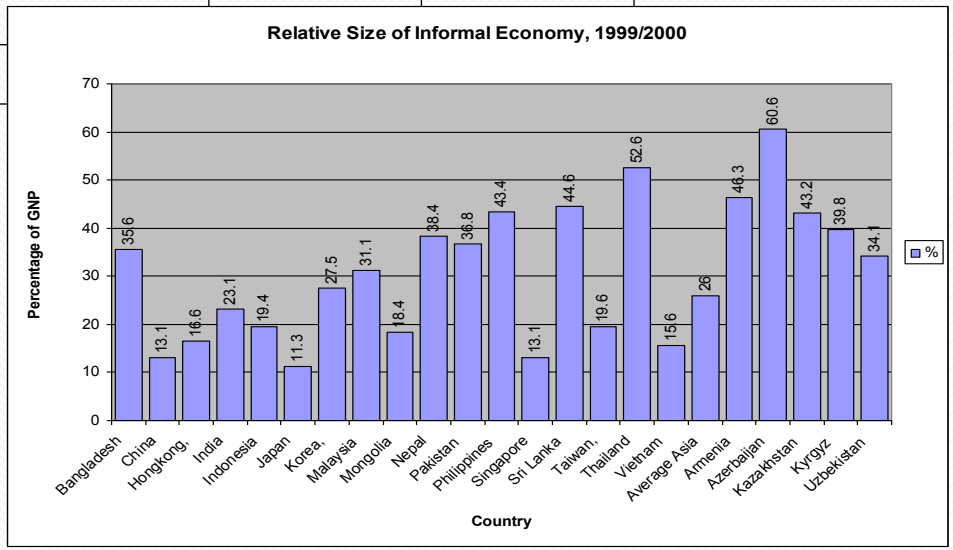


Urban Economic Giants

City	Country	National Population - mill 2012	National GDP - $b 2012	City Population - mill 2012	Economic Product - $b 2012	Percentage National GDP
Shanghai	China	1360.8	8358.4	18.6	516.5	6.18%
Mumbai	India	1239.8	1841.7	21.9	227.0	12.33%
Jakarta	Indonesia	249.9	878.0	19.2	224.7	25.59%
Manila	Philippines	99.1	250.3	20.7	153.7	61.41%
Bangkok	Thailand	65.9	365.6	10.1	262.4	71.77%
Tokyo	Japan	127.2	5959.7	37.7	1520.0	25.50%
Sydney	Australia	23.4	1520.6	4.0	203.0	13.35%
	Denmark	5.6	314.2			
	Bangladesh	152.5	115.6			

Megacities are nation-sized in population and economic product

But developing nation cities contain a large informal economy



The Urban Response

What should cities do?

Aim for: 'Planet Positive Growth'

which will also enhance a city's competitive position

> ALL involve investment by the private sector

- **Local land use and transportation patterns**. Municipal land use and transportation planning decisions directly influence whether people and businesses will have mobility choices that allow them to save energy and money.
- **Building construction and energy efficiency.** Through zoning codes, building codes and the permitting process, municipalities can encourage building designs that save energy and resources.
- **Local economic activity.** Municipal economic development initiatives are opportunities to encourage development in low-energy, zero-carbon directions, by both incentive and example.

> Big, long term and multi-sectoral investments

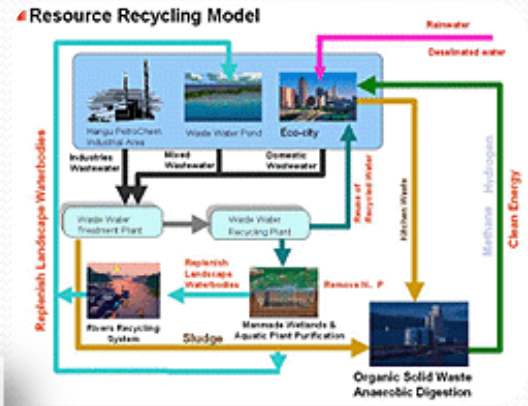
Structures for large, long-term and integrated multi-sectoral investments: Tianjin and its Eco-city

Green Transportation

An efficient and easily accessible public transport system focusing on 'Green trips', which include public transportation, cycling and walking. The target is for at least 90 per cent of the trips within the Eco-city to be via walking, cycling, or use of public transport.

Use of Clean, Renewable Energy and Ecologically Friendly Waste Management

Particular emphasis on the "3Rs" of waste management
- Reduce, Reuse and Recycle.



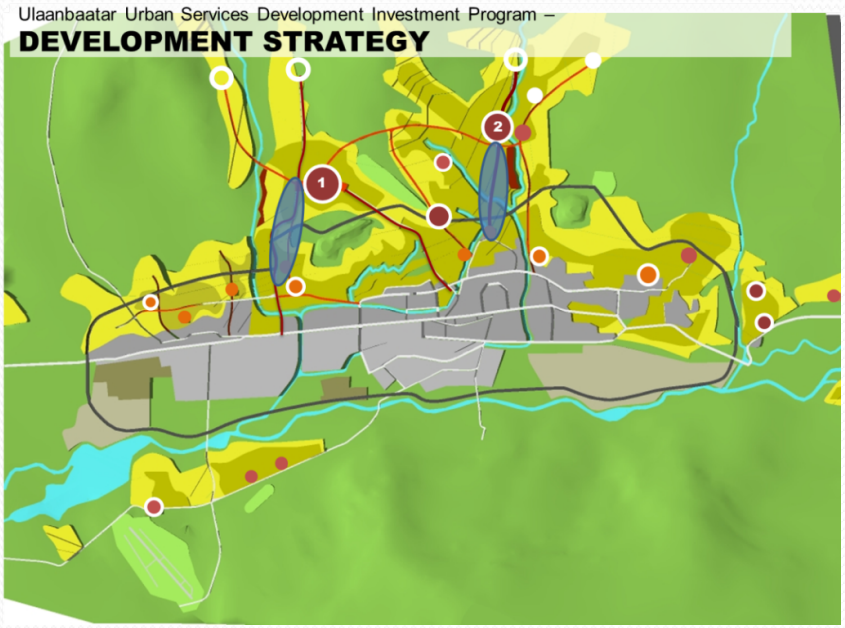
Balance of Economic and Social needs – Preservation of Heritage

Conservation through adaptive reuse or partial rebuilding.
Cross subsidy of low income housing. But needs incentive finance.

Structures for Inclusive Development in Ulaanbaatar

Key challenges:

- Integrate ger area populations
- Solve environmental issues
- Support socio-economic development
- Provide affordable access to basic services for all
- Catalyse private sector investment



Focus on 6 Subcenters & Interconnections

ADB will undertake a Mutli-Tranche Financing Facility to support subcenter development entities, constituting a long term commitment focused on connecting subcenters, catalyzing infrastructure investment and economic development.

- Inclusive design features: kindergartens, business incubation centers, administrative offices, creation of community and sme development councils
- Physical design also greatly impacted by realities of affordability, economic heterogeneity of population - need to initiate a process of change.

Funding Principles

Funding – Financing Needs

1) Consider priority projects

- **How are they to be financed?**

Cashflow, debt, asset sales, concession/ equity?.

- **THEN how is this financing to be FUNDED?**

ALL funding comes ultimately from the beneficiaries/ community.

What is the most effective use of private funds?

> Opportunities for leveraging of government resources

- **On whom should the burden fall?**

Theoretically on the users/ direct beneficiaries.

BUT not always economically efficient due to externalities**.**

> Tarrif issues

2) Consider the types of funding mechanisms available

- **User Charges**
- **Taxes.**

On land, sales and income – national governments have appropriated buoyant taxes

> inter-governmental fiscal imbalance

- **Tradable Rights/ Marketable Permits/ Deposit Refund Systems**.
- **Assets – under-utilised or surplus**
- **Community resources – private sector/ community ''donations''**

Funding – Financing Needs

1) Maximize local funds sources

- **User Charges**. Utility resources are charged for at the full cost of usage, which includes the cost of providing supply, including externality costs.
- **TAXES**. Collect them!! Set market rates!!
- **Asset management**

2) Consider other types of charges and taxes

- **Land value capture/ property tax surcharges/ FSR incentives**
- **Emission (Effluent) Charges.** For maintaining the environment itself and are in addition to user charges for the public service provided by government or industry.
- **Tradable Rights/ Marketable Permits/ Deposit Refund Systems**.
- **Asset recycling.** Issues of community interest.

3) Then look to leverage private/ community sector

- Identify and unbundle investments potentially attractive/ within capacity

Constraints to Effective Funding

Enabling Policy	➲ inter-governmental fiscal transfers, capacity and mandate for PPP ➲ avoiding 'race to bottom'
Project Development	➲ institutions (eg, cross-jurisdictional funding structure) ➲ capacity
Project Structuring	➲ Protection of community interest ➲ Funding is 'ring fenced' and buoyant in relation to financing needs ➲ Long term contracting

Funding Examples

Land Tax and Land Value Capture

In Hong Kong The city uses land rent—not subsidy—to fund its metro system and, in turn, building the metro increased the value of land.

For Hong Kong's metro system, land value capture (known as "betterment taxes") represented a financial windfall.

By the 1980s, the system was already showing a profit, partly due to the increase in land value along the metro line.

The non-fare revenue of the metro system also comprises proceeds of land rent (direct betterment value), station commercial and related businesses such as retail and advertising sales (indirect betterment value).

California's Property Assessed Clean Energy initiative

The costs of investing in solar photovoltaic systems, energy-efficient windows, and insulating a home will not be recovered when the home is to be sold. These up-front costs are considered to be one of the most significant barriers to solar and energy-efficiency retrofits.

In the United States, property owners can finance energy-efficiency and renewable-energy measures in homes and commercial buildings without the need for government subsidies. This is because the PACE initiative enables them to "mortgage" these improvements, recovered through the property tax, and thus to pay only for the benefits they derive during the period they own the property in question.

Local government funding and private urban renewal through planning reform

Small Town of Sewing in JiaoJiang District, Taizhou, Zhejiang

- Recognising “Industry land” according to its real use
- Allowing the industry land to be divided into small plots for small companies who rent the plants
- Authorizing increase in FSRthe owner to re-build from 0.7 to 2.26, thus increasing buildable area by 3 times. More small companies can make use of the space.
- Collecting tax on the rents to the tenants

6 level plants in Feiyue Sewing Science Park in Taizhou
http://www.taizhou.com.cn/myjj/2016-01/06/content_2740137.htm

Emissions Trading in Tokyo

The Tokyo Metropolitan Government developed the Emissions Trading System (ETS), which is the world's first cap-and-trade program at the city level that targets energy-related carbon dioxide emissions. The ETS applies to approximately 1,340 large facilities including industrial factories, public facilities, educational facilities, as well as, uniquely, commercial buildings. The ETS took effect in April 2010.

During the first phase of the scheme which runs up to 2014, participating organizations will have to cut their carbon emissions by 6%. Firms that fail to comply with the new rules will face fines and will be ordered to cut emissions by 1.3 times the amount by which they failed to reduce emissions during the first phase of the scheme.

Leveraging Existing Assets to Develop New Assets

Cities can leverage the value of their assets— mainly land or 'air rights' —to finance public infrastructure. New York is looking at this method to revitalise the Hudson foreshores.

In Cairo, in 2007, the auction of 3,100 hectares of land for a new town generated $3.12 billion —an amount 117 times greater than the country's total urban property tax collection and the proceeds were to be used to finance connecting and townr infrastructure.

In Mumbai, in 2006–07, the auction of 13 hectares of land in the new financial center—Bandra-Kurla Complex—generated $1.2 billion, with the proceeds were to be used primarily in financing projects identified by the Metropolitan Transportation Plan.

In Istanbul, in 2007, the auction of an old bus station and government building generated $1.5 billion—more than the city's total 2005 fiscal expenditures and infra- structure investments.

Iloilo Downtown Revitalisation Project

The Cities Development Initiative for Asia supported the pre-feasibility studies for the project.

The studies developed a plan to redevelop the old market and to provide for an improved environment in the city centre.

The project was structured as a Public Private Partnership (PPP) – one of the first at local government level in the Philippines.

The assistance also extended to supporting the PPP Bidding Process.

Chicago Infrastructure Trust

The Trust, established by the City Council in 2012, it will design and negotiate financial deals with private investors. It aims to leverage some $1.7 billion in private funding.

City projects funded through the Trust will remain under city control. There will be no asset sales or lifetime-long leases. It is designed to attract private money and pay it back relatively quickly.

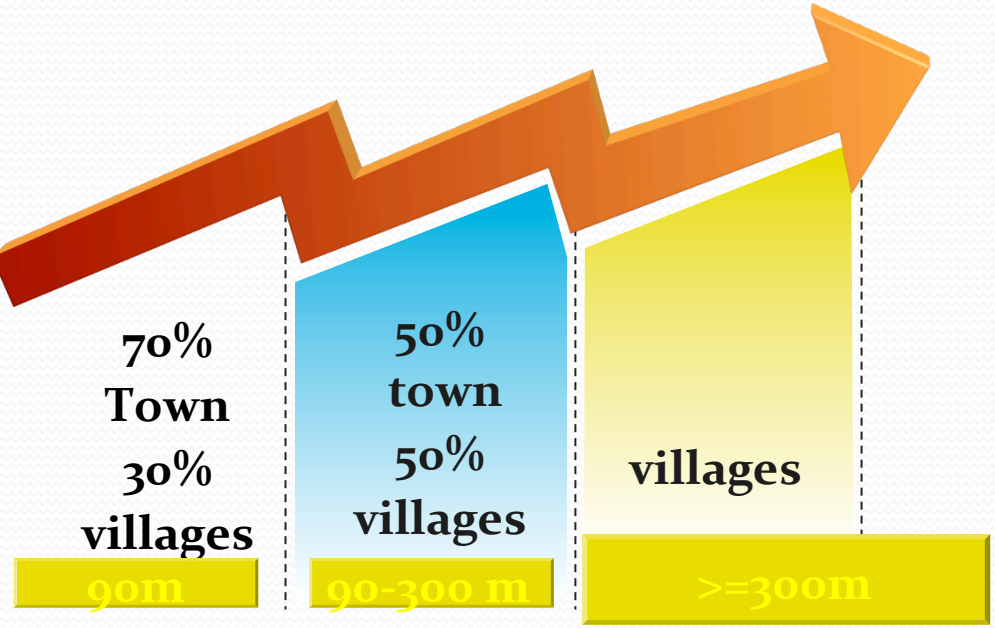
Its first project involves $101 million worth of energy retrofits in city-owned buildings. Repayment for investors will be from operating budget savings only.

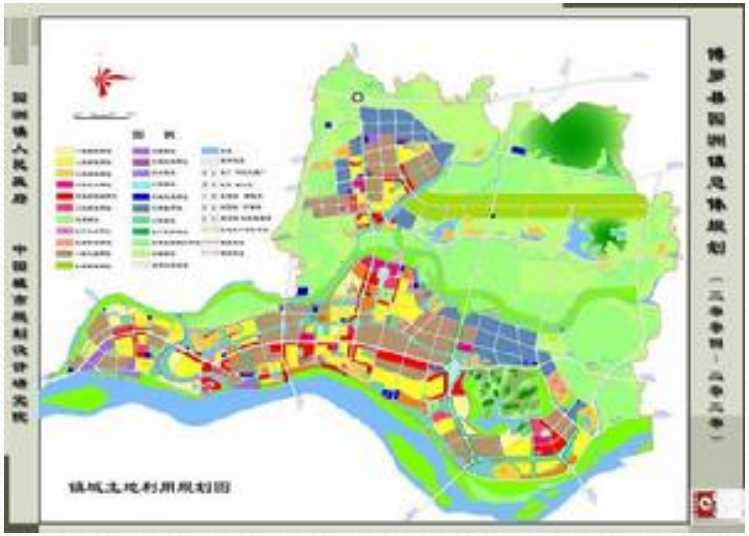
The Trust will enable the city to bundle lots of Small projects — the energy upgrades will be on dozens of buildings — and sell them to the market in one transaction.

Urban Financing Case study: joint development by village and town government

Yuanzhou town, Boluo County of Huizhou city, Guangdong

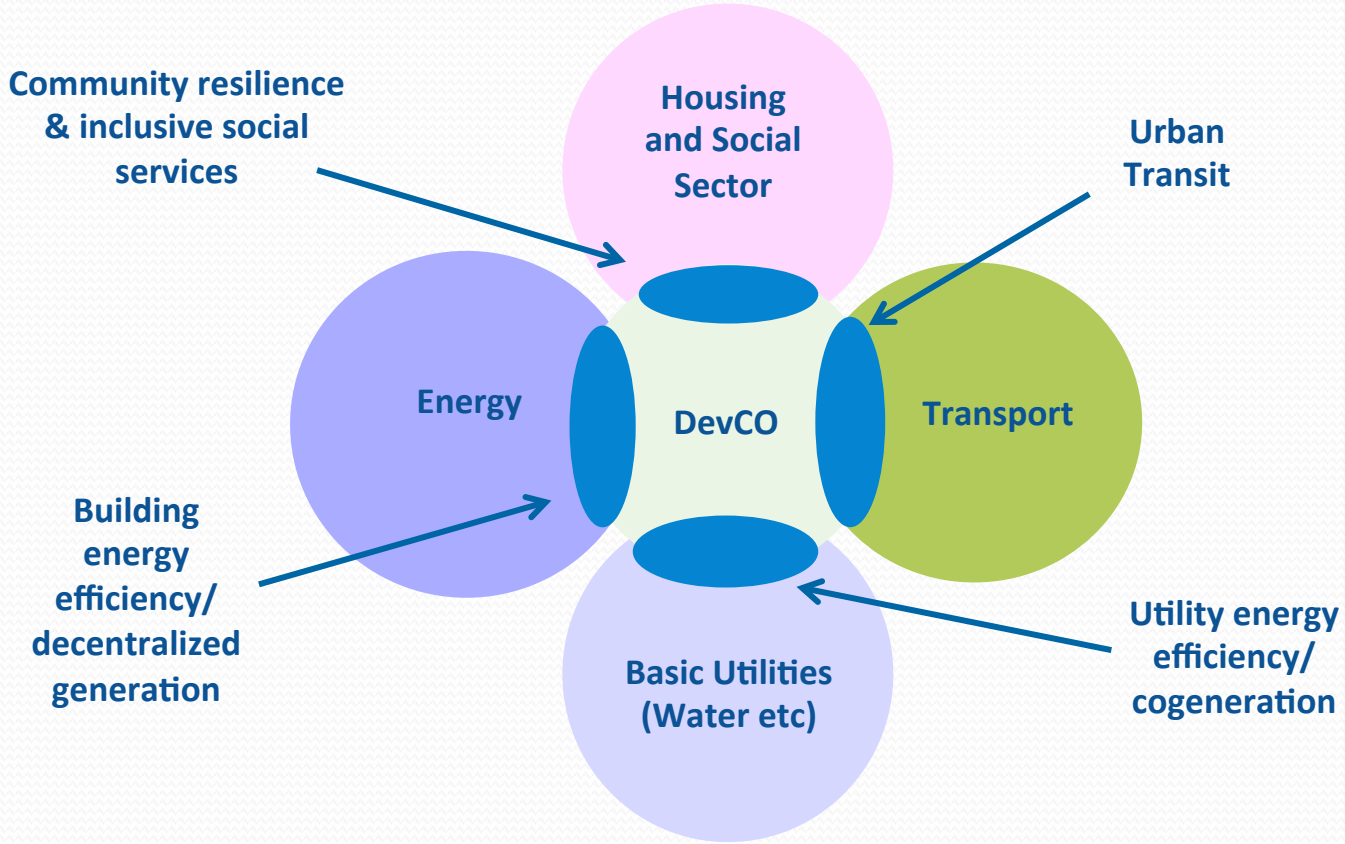
The land development and management rights divided between town government and villages according to the distance from the main street.





http://www.baike.com/wiki/园洲镇

Demand-side Institutions
- Development Corporations for Integrated Investment
- Viable Counterpart for Private Sector



Thank You