International Partnership for Expanding Waste Management Services of Local Authorities (IPLA)

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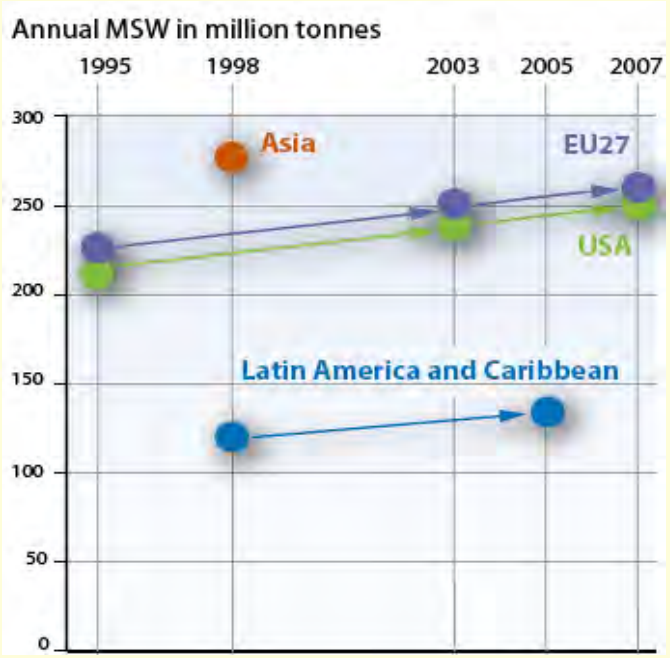
Third High Level Seminar on Environmentally Sustainable Cities (ESC), 6-8 March 2012
Siem Reap, Cambodia

United Nations Centre for Regional Development

UNCRD

Global Issues in Waste Management

- Increasing waste volumes and complexity
- Differing composition and characteristics in different regions of the world
- More of an urban-centric problem
- Economic value of waste not fully understood
- Adverse Impacts on human health and ecosystem
- Capacity constraints of Municipalities and Local Authorities (LAs)



Source: UNEP 2011

(Source: Prasad Modak, Environmental Management Centre)

Challenges faced by Local Authorities (LAs)

Generation of wastes:

- **Estimated quantity of waste collected worldwide is at between 2.5 and 4 billion metric tons.**
- **Estimated municipal waste collected world wide is 1.2 billion metric tons (2004).**
- **Global municipal waste generation in 2030 will be 900 million tonnes in OECD, 1 billion tonnes in BRIICS and 1.1 billion tonnes in ROW.**
- **Cities often spend between 5 to 15 per cent of their total budget on solid waste management. In low-income countries, 90 per cent or more of that budget is spent on waste collection alone, while only 45 to 60 per cent of the waste is actually collected.**

Photo courtesy: C. Viengsan, ITC38 Training Course Participant, UNCRD.

Providing waste collection to all the people, while raising the environmental standards of waste disposal, is a major challenge for Local Authorities (LAs), which lack required institutional, financial and technical capacity.

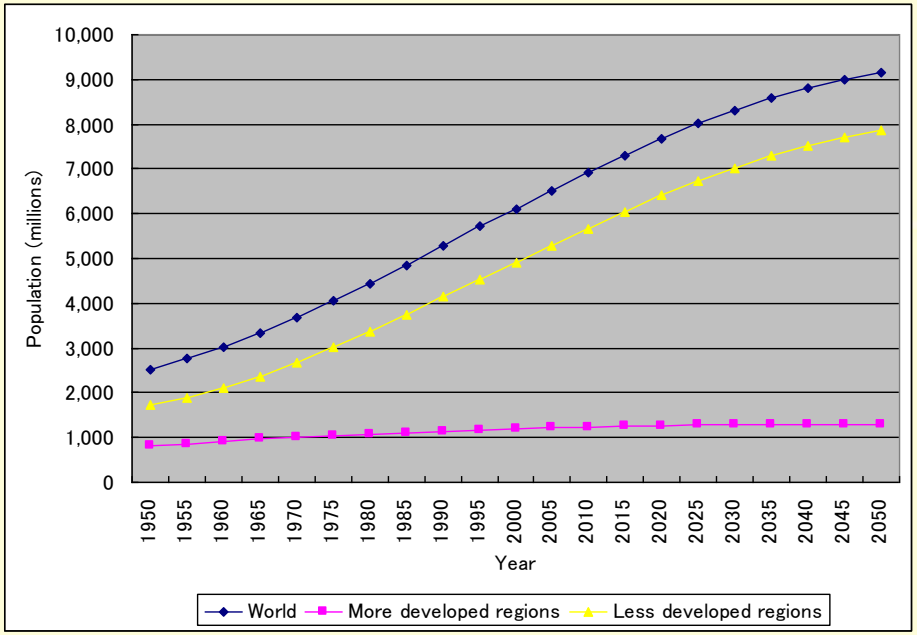
"Moving towards zero waste is inherently a multi-stakeholder process which calls for partnerships within and between communities, businesses, industries, and all levels of government."

Source: CyClOpe and Veolia Environmental Services (2006), OECD (2010), and UNHABITAT (2010).

Growing urbanization will further compound the waste management challenges of local authorities

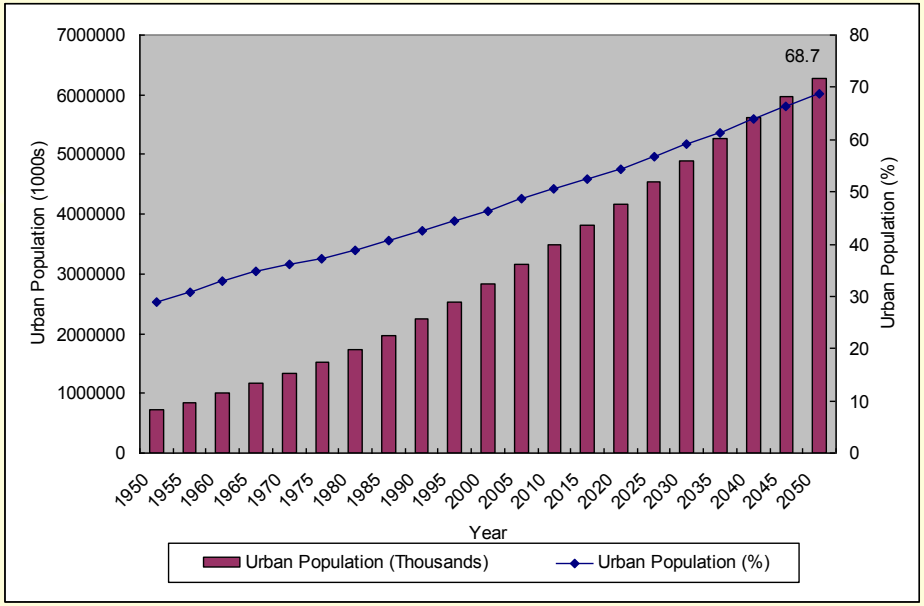
- **By 2050, world population is projected to reach 9.1 billion. 99 percent of global population growth is projected to occur in developing nations.**
- **By 2050, 68.7% of the world population is projected to live in urban areas.**

Population growth projection : 1950-2050



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, http://esa.un.org/unpp

Projected urbanization : 1950-2050



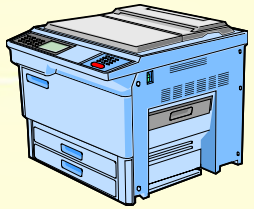
Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/

Diversification of wastes – emerging new waste stream adds another critical dimension to waste management issues & pose the fastest growing challenge for both developed and developing countries

- Every year 20 to 50 million tonnes of e-waste are generated worldwide
- About 53 millions tons were produced worldwide in 2009 and only 13% of it was recycled
- By 2020 e-waste from old computers in South Africa and China will have jumped by 200-400% and by 500% in India from 2007 levels
- One billion PCs will be in use by the end of 2008 - two billion by 2015 with most growth in emerging Brazil, Russia, India, and China

Source: adapted from Sunil Herat (2010), Presented at the International Consultative Meeting on Expanding Waste Management Services in Developing Countries, 18-19 March 2010, Tokyo, Japan.

- Dangerous chemicals and metals, such as mercury, cadmium, lead, are included in e-wastes and may leach into the environment and local ecosystem.



Selected World Trends on Human activities – Resource Extraction: Scarcity of virgin materials

Estimated remaining resources:

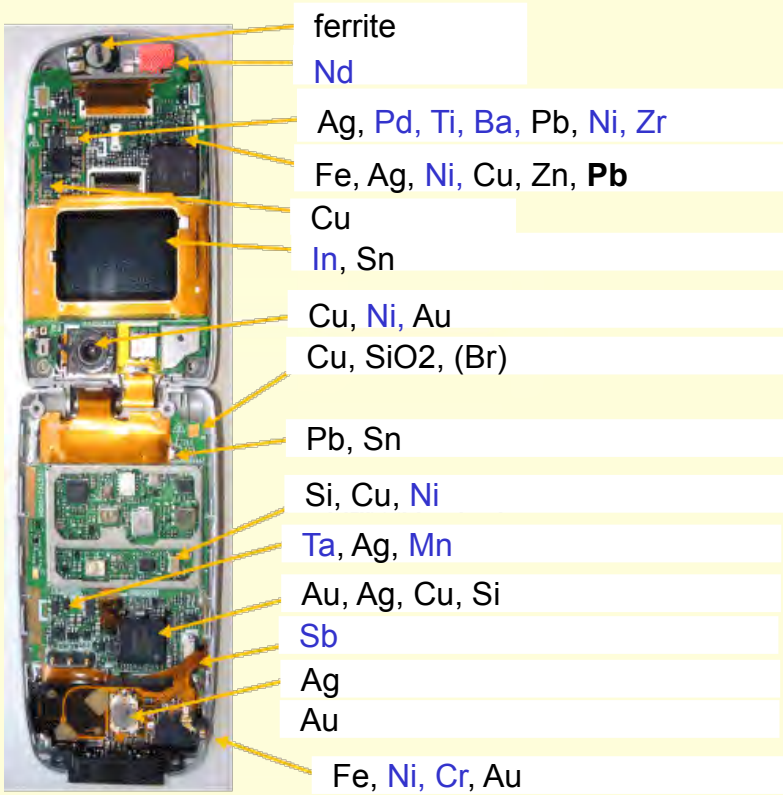
- **Gold (Au): 20 years**
- **Copper (Cu): 34 years**
- **Iron (Fe): 70 years**
- **Nickel (Ni): 50 years**
- **Manganese (Mn): 56 years**

Source: U.S. Geological Survey. Mineral Commodity Summaries 2010.

There is an urgent need to…

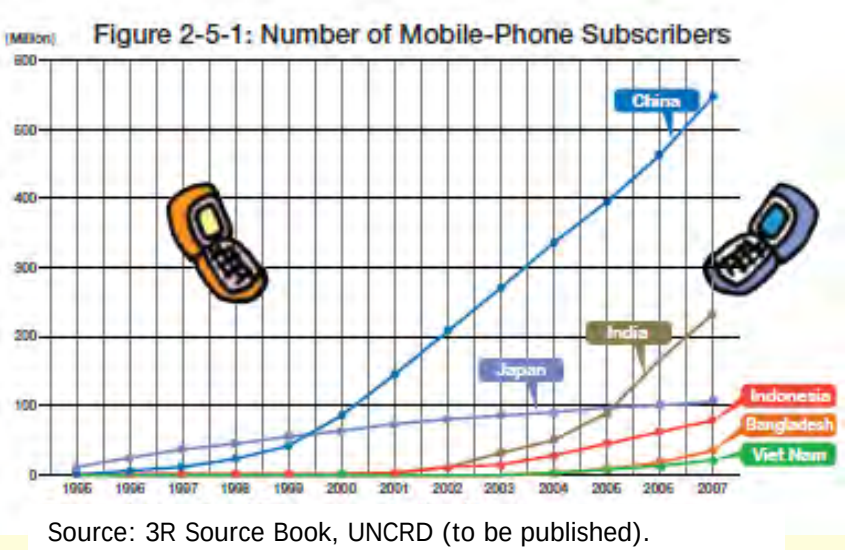
- **Reduce the intake of virgin materials in the production process.**
- **Increase the recycling rate and use "waste" as "resource".**
- **Improve resource efficiency.**

Mobile Phone contains over 50 chemical substances



Source: http://www.coden.jp/rare-metal/use.html

How many mobile phones are used in the world?



Source: 3R Source Book, UNCRD (to be published).

Mobile Phone Subscriptions in 2009

	In millions	*Per 100 inhabitants*
Brazil	174	89.8
Germany	105	127.8
India	525	43.8
Indonesia	159	69.2
Japan	115	90.4
Russia	231	163.6
USA	298	94.8

Source: International Telecommunication Union –BDT

What happens to old devices?

- **44 percent of mobile users simply left their old devices unused at homes, while 4 percent of old devices were thrown into landfills (The survey polled some 6,500 people in 13 countries, including China, India, and Germany).**

Source: http://www.nokia.com/environment/recycling/why-recycle/take-back-achievements,

Conventional waste management and the consequences .....

What we see...

- **Limited efforts on reducing wastes at source**
- **Lack of segregation, poor collection, illegal dumping, open dumping and burning**
- **Limited involvement of private sector and communities**
- **Lack of integrated approach, and conventionally waste being thought of having no value**
- **Slums are deprived of municipal services**

Photo courtesy: C. F. Kura, ITC38 Training Course Participant, UNCRD.

Photo courtesy: B. Paudel, ITC38 Training Course Participant, UNCRD.

Photo courtesy: C. Viengsan, ITC38 Training Course Participant, UNCRD.

Conventional waste management and the consequences .....

Health risks for informal sector workers, local communities living near dumpsites, etc.

How serious is the health risks of waste pickers, who most often operate without any protective measures?

- **hospital waste (HIV)**
- **jagged metal (tetanus)**
- **smoke (PCBs)**
- **lead (neural damage)**
- **violence (knife cuts)**
- **adult behaviour (premature drinking)**
- **stress**
- **skin, gastric, respiratory problems**

***Waste dumps potentially serve as breeding ground for Malaria, thus having implications in achieving MDGs*.**

Source: Adapted from ILO (2009), presented at the Inaugural Meeting of the Regional 3R Forum in Asia in November 2009 in Tokyo.

Widespread open dumping has paralyzed many cities …

Waste dumps potentially serve as breeding ground for Malaria, thus having implications in achieving MDGs.

People living in a place 20 times above safe level of lead, arsenic, nitrogen…..

Source: ADB (2004)

Many children waste pickers at the highly polluted dumping site…

Health risks of informal waste pickers: hospital waste (HIV), jagged metal (tetanus) , smoke (PCBs), lead (neural damage), violence (knife cuts), adult behaviour (premature drinking), stress, skin, gastric, respiratory problems

Conventional waste management and the consequences .....

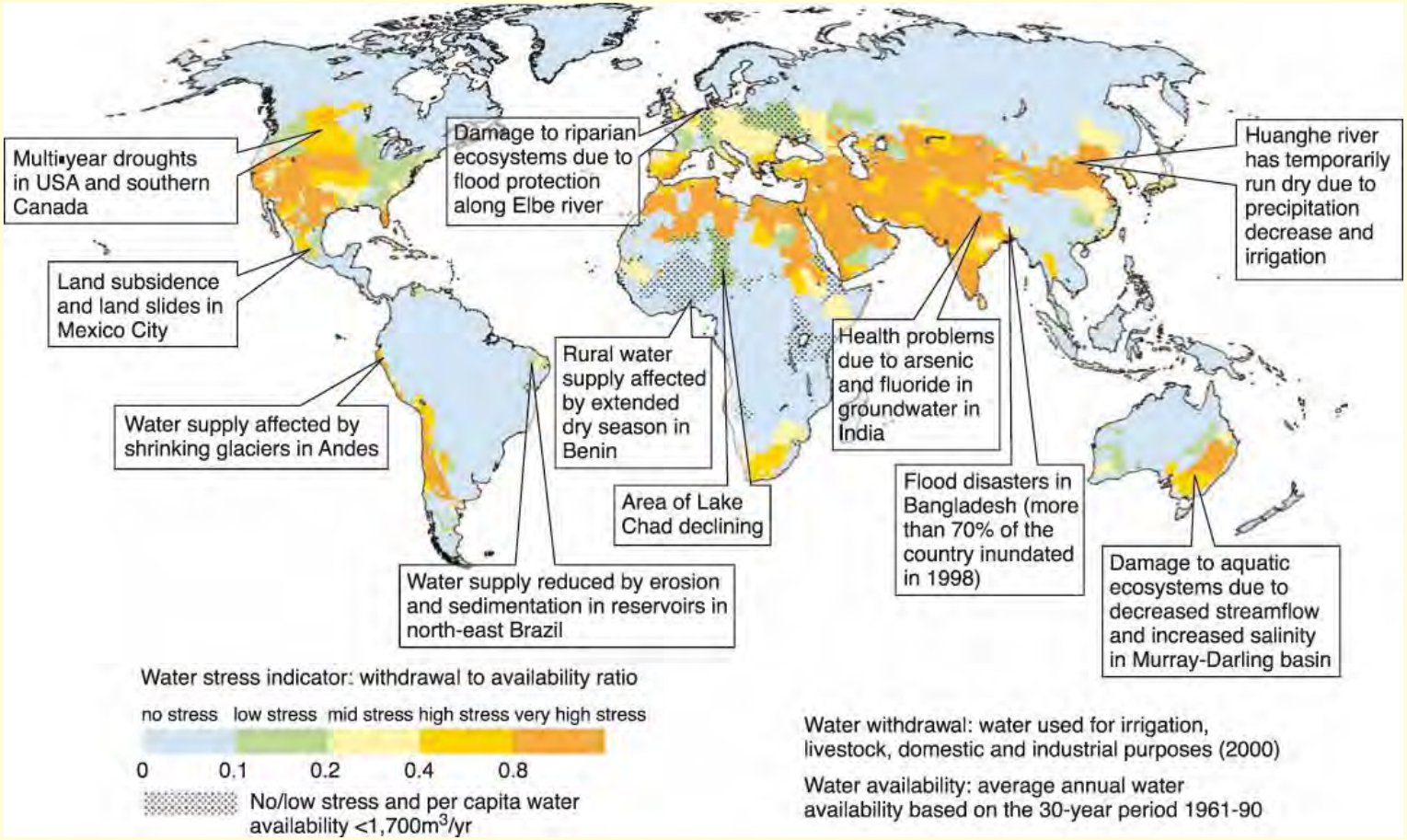
Source: ADB (2004)

Highly contaminated leachate seeps untreated into groundwater, a source of drinking water....

Water availability is an emerging issue in many countries and some are already heading towards water stress, but water quality deterioration because of industrial discharges and municipal sewage, agrochemicals will further accelerate the issue!

Selected World Trends on Human activities
- Degradation of water resources

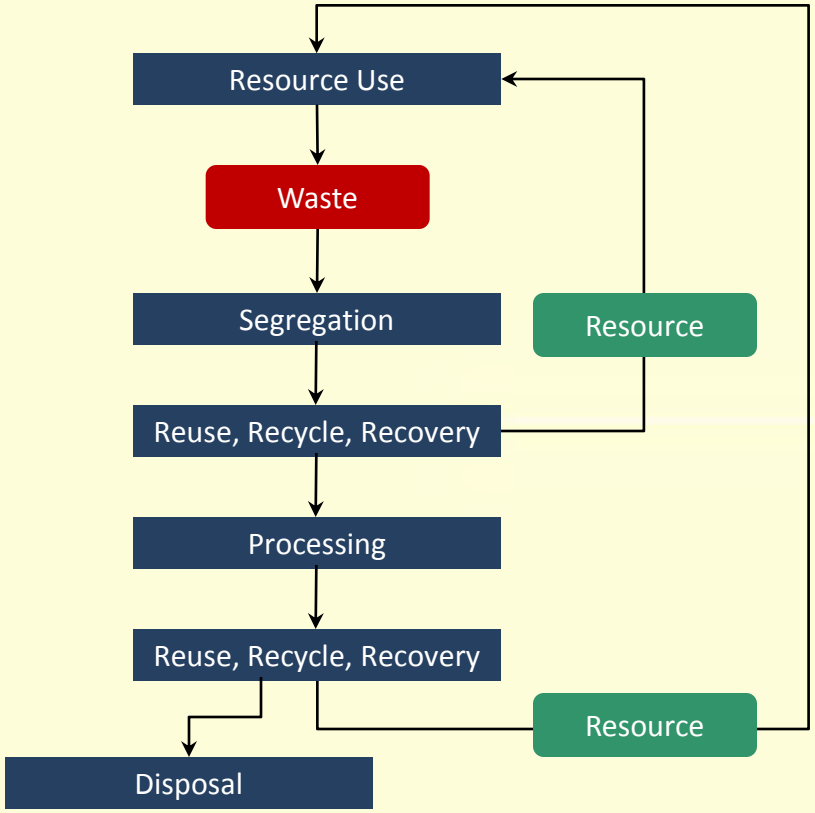
By the year 2025, as much as two-thirds of the world population may be subject to moderate to high water stress.



Source: Water Stress Map generated by World Meteorological Organization 2008 based on data available at Alcamo *et al.* (2003)

Source: Modak (2010), presented at the Second Meeting of the Regional 3R Forum in Asia in October 2010 in Kuala Lumpur, Malaysia.

Resource Efficiency, Informal Sector and Importance of Partnership



Low Resource Efficiency

- Manual segregation
- Transfer of materials to formal sector with no value addition
- Low efficiency due to lack of finance and technology knowhow

Low involvement of informal sector

- Infrastructure
- Technology
- Finance
- Institutional Arrangements

High Resource Efficiency

- Mechanized segregation
- Value addition for better income
- PPP and other institutional arrangements to create green jobs

High involvement of informal sector with partnerships

Informal Sector in 3Rs/Waste Management

Major opportunity for win-win solutions through partnership with informal sector

- Build recycling rates
- Move towards zero waste
- Improve livelihoods
- Improve working conditions
- Save the city money

Photo credits: Enrico Fabian (cited from Wilson, D.C. (2011)).

Global estimate of professional waste workers in the community / informal sector: 15 million

Informal sector recyclers are reported to comprise as much as 1 per cent of the world's population

Source: Wilson, D.C. (2011), presented at the CSD Intersessional Conference on Building Partnerships for Moving towards Zero Waste, 16-18 February, Tokyo; and Scheinberg A, Wilson D.C. and Rodic L. (2010). Solid Waste Management in the World's Cities. Published for UN-Habitat by Earthscan, London.

Partnership is key to expand waste management services of local authorities that lack resources, institutional capacity, and technological know-how…

- **Partnerships** offer alternatives in which governments and private companies assume co-responsibility and co-ownership for the delivery of solid waste management services.

- **Partnerships** combine the advantages of the private sector (dynamism, access to financial resources and latest technologies, managerial efficiency, and entrepreneurial spirit, etc.) with social concerns and responsibility of the public sector (public health and better life, environmental awareness, local knowledge and job creation, etc.)

- **Partnerships** provides win-win solutions both for the public utilities and private sector—if duly supported by appropriate policy frameworks. Such partnerships could lead to savings in municipal budgets where waste management usually consumes a large portion. The private sector, on the other hand, may use this opportunity to convert waste into environmentally friendly products and energy that could also serve as income generating opportunities.

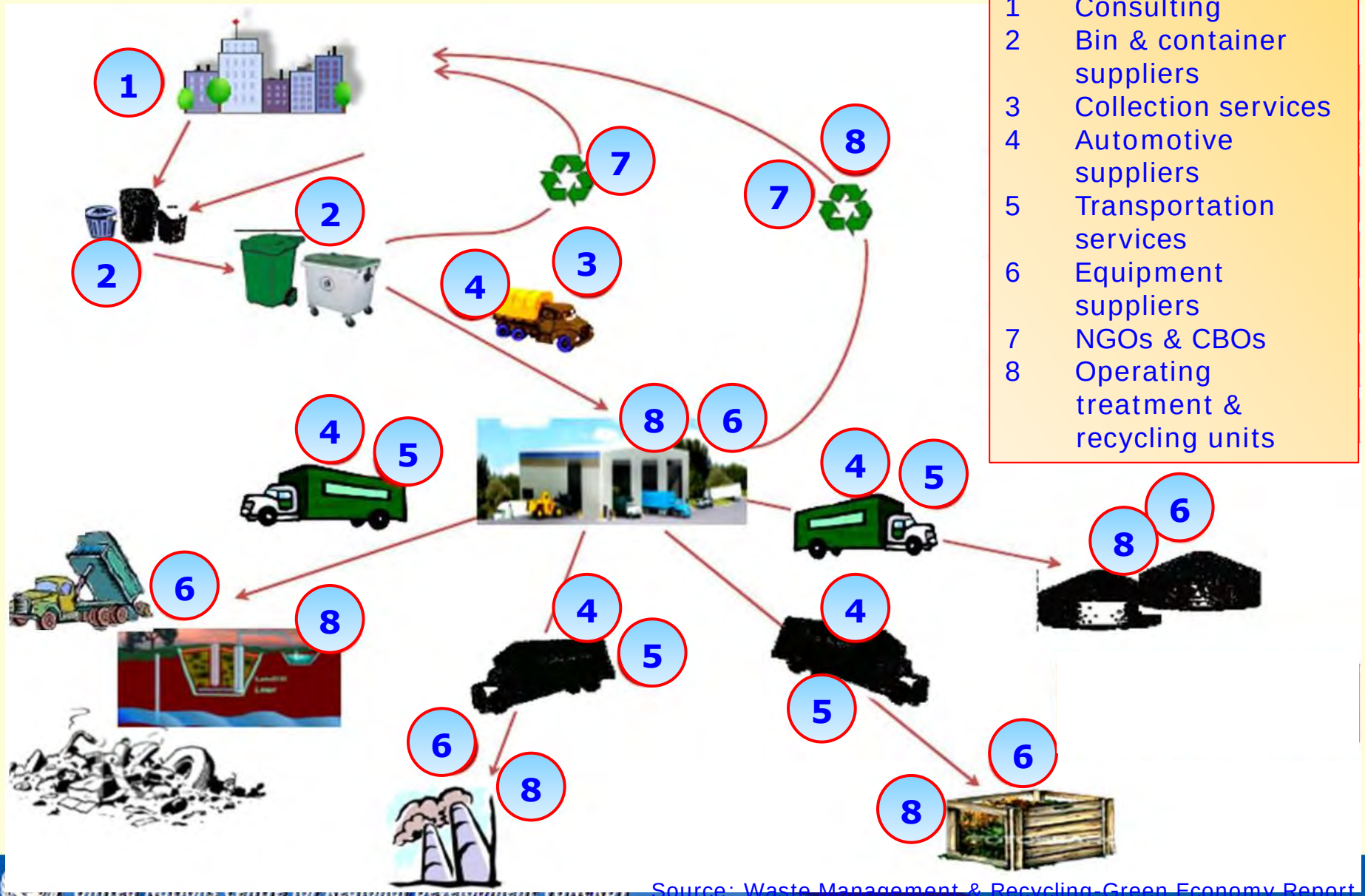
The Waste Market

- 410 billion USD (UNEP 2008)*
- Formal side includes multinationals and smaller industries
- Informal Waste Collectors (door-to-door), rag pickers who collect waste from streets, scavengers who pick waste from dumpsites and informal middlemen such as recycling dealers, brokers, wholesalers

*Value of informal market not estimated

(Source: Prasad Modak, Environmental Management Centre)

Business Opportunities in SWM



Source: Waste Management & Recycling-Green Economy Report

Shifting the Roles of LAs

Municipalities from being a **'service provider'** to **'facilitator of service',** by focusing its activity on planning and management,

While a private company takes up the day to day operation.

What is Private Sector up to bring in ?

Through Public private partnership (PPP)

- **Technical & Management Expertise in SWM**
- **Improve Operating Efficiencies in the system**
- **Large Scale Financial Capital Injection**

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

Calls for a Partnership…

High Quality Service
Cost effective
High Tech

Sustainable SWM

Future

Waste Processing

Waste Minimization

Need to Analyze Stakeholders Role

Public Sector

Public Private Partnership

Private Sector

Community

Waste Disposal

Waste Recycling

Low quality Service
Expensive
Low Tech

Present

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

LAs on the Look out for the Partnership with Private Sector

Some of the Indian Municipalities adopting PPP basis of Integrated solid waste Management

- Asansol Durgapur
- West Bengal Coimbatore City Municipal Corporation
- Guwahati Municipal Corporation
- Hyderabad Municipal Corporation
- Mudurai Municipal Corporation

CONSTRUCTION & DESIGN SERVICES
UTTAR PRADESH JAL NIGAM, 2, Lal Bahadur Shastri Marg, Lucknow, Tel : 91-0522-2237768, 2237801, 2235573 Fax : 0522-2239088, Email : director@cdsupjn.org. Visit us at : www.cdsupjn.org

No. 218/G-02-07/132 Date : 19th June 2009

Expression of Interest

C &DS, U.P. JAL NIGAM has been given responsibility for award and execution of MSW projects on BOT (PPP) basis

These projects are grouped into following three packages which is integral part and referred as one package.

1- Collection & Transport 2-Processing and Treatment of Solid waste 3-Operation & Maintenance of Processing plant and SLF

These projects will be set up under various ULB's of Uttar Pradesh as follows:-

Sl. No.	Place	T.P.D.	Estt. cost in Lacs	Sl. No.	Place	T.P.D.	Estt. cost in Lacs
1.	Ballia	40	373.70	3.	Sambhal (Moradabad)	75	521.69
2.	Badaun	55	488.60	4.	Basti	40	390.98

The above mentioned Local Bodies are collecting, transporting and disposing off MSW at various spots. These Local Bodies are actively considering the proposals for Scientific Processing and Development of Sanitary Land Fill at an appropriate site. In order to reduce burden on the SLF and in accordance with MSW Rules 2000, it is proposed to set up an Integrated MSW Processing facility with Private-Public- Partnership under UIDSSMT programme on BOT basis. Details Terms, Conditions & eligibility criteria is available on our website ***www.cdsupjn.org***

Director

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

Private Sector on the Look out for Partnership with LAs

- Unilever's Sustainable Living Plan **launched in 2010, " working in partnership with industry, governments and NGOs to increase recycling and recovery rates on average by 5% by 2015, and by 15% by 2020 in our top 14 countries."**

- In August 2011, under the same plan Unilever looked for partnership arrangement with a local authority by offering financial support for mixed plastics recycling collections (pots, tubs and trays)

Source: edie newsroom www.edie.net/news/news_story.asp?id=20553

Presence of Private Sector – Industry Initiatives

Tetra Pak

Tetrapak- Leading beverage carton manufacturer

New line of business

Recycling beverage cartons – Enhances profitability and image of company

Apple

+

Li Tong Group

Take-back program for end-of-life products

Recycling activities to generate secondary raw materials

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

Presence of Private Sector – Industry Initiatives

Fluorescent Tube Recycling
Philips Electronics (Thailand) Ltd.
Address: 515 Moo.4 8D, Pattana 3 Road, Bangpoo Industrial Estate, Preakasa, Maung, Samutprakarn, 10280, Thailand
Technology Provider: Royal Philips Electronics, The Netherlands

In 2006, the Pollution Control Department (PCD) of Thailand initiated a partnership project with Philips and Toshiba to collect and recycle fluorescent lamp wastes from various establishments. It initiated a household hazardous waste management scheme with large municipalities

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

Presence of Private Sector – Business Opportunities

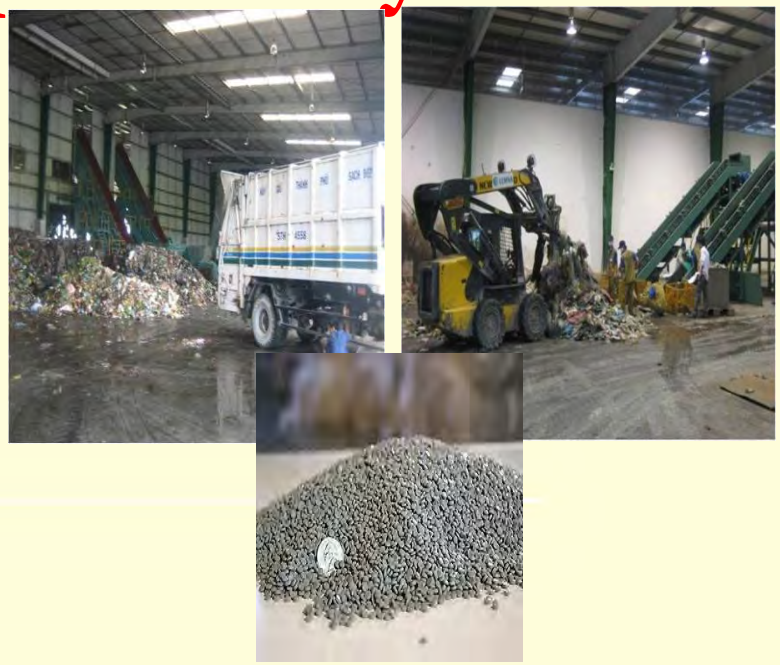
- **Veolia Environmental services** is present globally in 31 countries, and in developed Asian countries- China, Singapore, South Korea, Taiwan offering its municipal waste management services.

1) **Household waste collection in the district of Wong Tai Sin,** Hong Kong**. Since May 1, 2006, total turnover of €4 million Euros over the 5 year period.**

2) **Operations and maintenance contract (O&M*) for a** Waste-to-Energy **plant for non-hazardous waste in Ilan County,** Taiwan**. Since January 2006, a cumulative turnover estimated at €44 million Euros over a 20 year period.**

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

Presence of Private Sector – Business Opportunity



Windrow Composting
Vietstar Joint Stock Company
Address: Municipal Solid Waste Treatment Complex, Cu Chi District, Ho Chi Minh City, Vietnam
Technology Provider: Lemna International, Inc., U.S.A.

National policies of Vietnam is favorable for FDI. It also has a strong policy on promotion of 3R and is set to achieve a recycling rate of 70% from the total municipal solid wastes by the year 2015.

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

Presence of Private Sector – Business Opportunity

Non-infectious waste incinerator facility (WMS-DOWA) in Bangpoo Industrial Estate, Thailand

- Funded by NEDO Japan to the Industrial Estate Authority of Thailand via Green Partnership Plan (GPP)

- Waste Management Siam (WMS) owned by DOWA Eco Systems Co. Ltd., Japan took up the operation of this incineration plant for 20 years from 2009.

PPP in Philippines

Methane gas recovery project with Italian company in Payatas landfill in Quezon City, Metro Manila

Example of PPP- MSW in Chennai, India

Chennai

- Municipal Solid Waste (MSW) generation increased from 600 to 3500 tons per day within 20 years
- Per capita generation rate 0.6 kg/day

Question Raised on Public Sector Services

- Efficiency
- Quality of services
- Resources required for waste collection

- 4th largest metropolitan city in India
- Divided into 10 zones of 155 wards

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

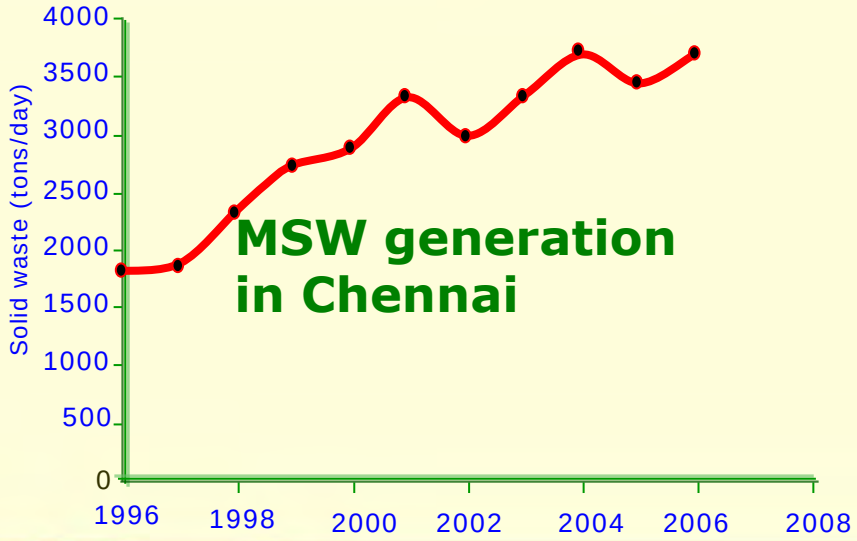
MSWM in Chennai…Past

Organization Involved in MSWM

Operating under framework of MSW rules, 2000

Public Sector	Public Sector	Community
Corporation of Chennai (CoC)	Local Municipalities	Some NGOs/CBOs

City was divided into 10 zones



Source: www.chennaicoproration.com

MSWM in Chennai…Present

Organizations Involved in MSWM

Operating under framework of MSW rules, 2000

Public Sector	Private Sector	Community
Corporation of Chennai (CoC)	Since 1996 ONYX	CBOs such as Civic Exnora
7 Zones	3 Zones- 6, 8 &10 30% total area of the City	
2000 tons/day Solid Waste	1100 tons/day Solid Waste	

Collected & Treated

Open dumpsites at Perungudi & Kodungaiyur

Chennai city – First in India to establish PPP

Public Sector Services- Chennai

Awareness Campaign

Bin for Source Segregation

MSWM by CoC

10,000 Employees

7 Zones

Door-to-door waste collection

Waste Transportation

Source: Prof. C. Viswanathan, AIT/IPLA Global Secretariat

Private Sector Services

Manual Sweeping

Chennai is the first city in India to contract out MSWM services to a foreign private agency "ONYX" a Singapore based company

Mechanical Sweeper

MSWM by ONYX

Mechanized waste Collection vehicle

- ✓ Since March 2000, it is responsible for zones 6, 8 & 10
- ✓ 2,000 employees

Transfer Station

PPP Recognized For?

- Improved performance of public sector: **by employing innovative operation & maintenance methods**
- Reduced & stabilized costs of services: **by ensuring work is performed by the most productive & cost effective means**
- Improved environmental protection: **by dedicating highly skilled personnel to ensure efficient operation & compliance with environmental requirements**
- Access to private capital for infrastructure investment: **by broadening & deepening supply of domestic & international capital**

But PPP is not a Cakewalk

- **Waste Management is considered as business of Central Government & Municipalities only**
- **No specific regard is given to the role of citizens, businesses & industries**
- **Role of formal, informal private sector, communities, waste generators & waste pickers are not recognized**
- **Lack of incentives & rewards for the supplemental contribution made for reducing burden of municipalities & central government**
- **Municipalities become prime beneficiaries from the efforts of private sector in terms of reducing burden & saved resources**

Consultative Process towards the creation of IPLA

2009

CSD Intersessional Event - Inaugural Regional 3R Forum in Asia, Nov 2009, Tokyo
- contributed towards world wide recognition of 3Rs as the basis for sustainable waste management through CSD

2010

CSD Intersessional Event - International Consultative Meeting on Expanding Waste Management Services in Developing Countries, 18-19 March 2010, Tokyo

CSD 18 Side Event: Toward Global Sound Material Cycle Society, May 2010, New York

2011

CSD Intersessional Event - International Conference on Building Partnerships for Moving Towards Zero Waste, 16-18 Feb 2011, Tokyo

Unanimously recommended launching of the International Partnership for Expanding Waste Management Services of Local Authorities (IPLA) at CSD-19 on 12 May 2011, New York

Highlights from CSD-18 Chair Summary:
- Need to move towards zero waste economy;
- 3Rs as the basis for sustainable waste Management;
- Called for international cooperation & Partnerships; and
- Called for special national and International action on emerging new waste streams such as e-waste.

International Partnership for Expanding Waste Management Services of Local Authorities (IPLA)

"Partnership to foster Partnerships"

International Partnership for Expanding Waste Management Services of Local Authorities (IPLA)

= UNCSD-registered partnership on waste management which address various needs of local authorities (LAs) in achieving sustainable waste management.

Mission Statement

"to share knowledge, communicate across national boundaries and work to spread best practice in order to accelerate the uptake of waste related infrastructure and services at various stages of waste management such as avoidance, prevention, minimization, segregation, collection, transport, recycling, recovery, reuse treatment and disposal."

International Partnership for Expanding Waste Management Services of Local Authorities (IPLA)

Objectives

- Enable LAs **share experience** about institutional, business and financial models in addressing specific waste problems and opportunities.
- Help mainstreaming **integrated and sustainable waste management strategies** such as **ISWM and 3R.**
- Facilitate expansion of waste management related services and supporting infrastructure that caters to LAs' needs and meets compliance with applicable regulations; identifies partners and appropriate financial mechanisms, create "**green jobs**" and stimulate "**green investments**."
- Encourage **awareness raising and capacity building programs** targeting LAs and other stakeholders; especially to decouple waste generation from economic development and to manage complex and emergent waste streams.
- Help in creating a **practice oriented knowledge network** to help formulate innovative projects, select most appropriate technologies, access expertise, promote waste exchange and waste-resource related opportunities.
- Be instrumental in collation of databases on waste generation, technology performance and standards, benchmarks and Key Performance Indicators for **gap assessment** and **target setting for the LAs**.
- Provision of **guidelines to support local action plans and strategies** for sustainable waste management.

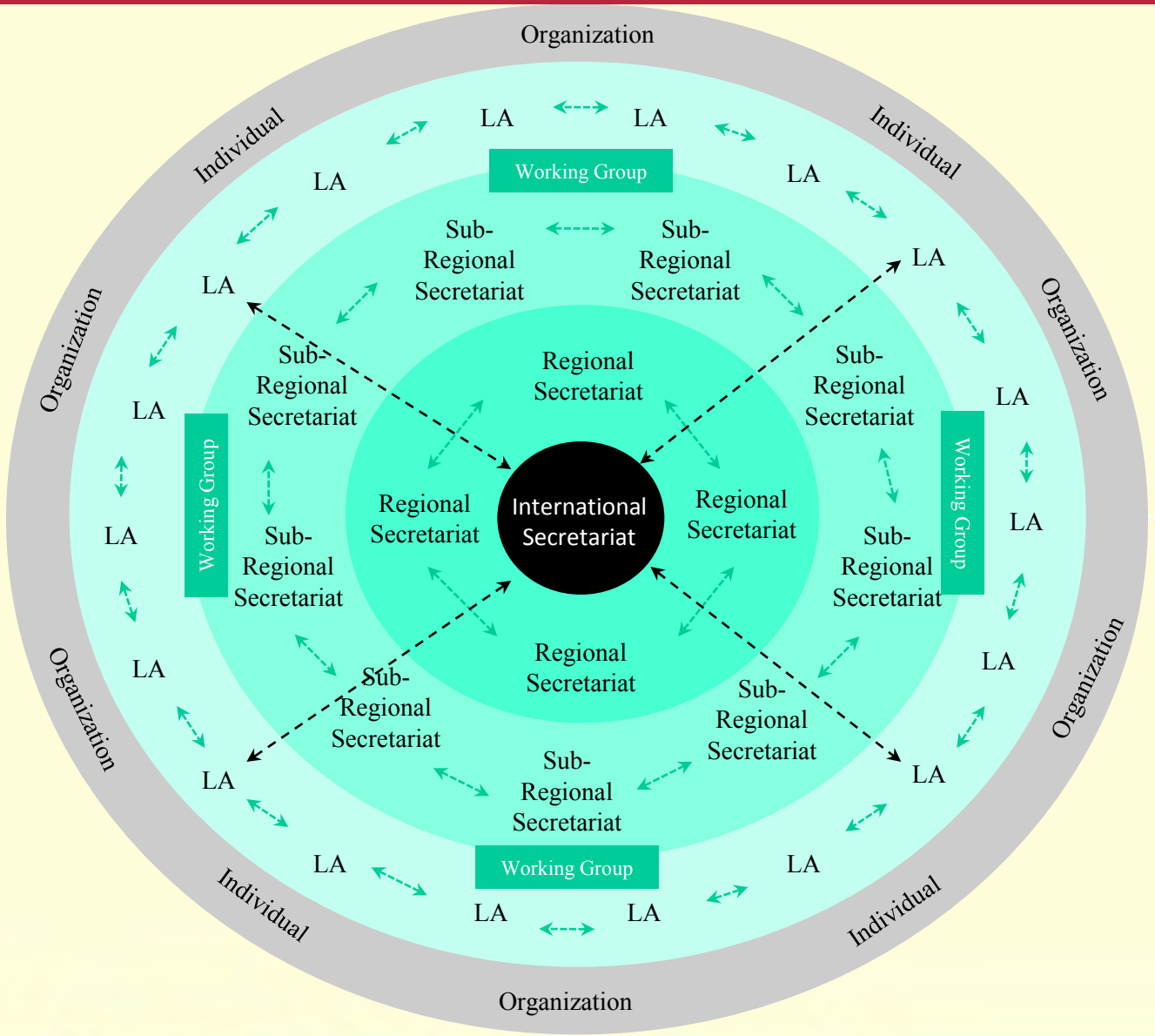
International Partnership for Expanding Waste Management Services of Local Authorities (IPLA)

Key Features

- **IPLA**'s core objective is to address "partnerships" as the basis for sustainable waste management, in particular **fostering partnerships** between Local Authorities (LAs), private sectors and other key stakeholders in local level waste management.
- It aims to create a **dynamic interface** between the local authorities and private sector, thereby facilitating public-private partnerships and creating conducive investment climate for expanding waste management services of local/municipal authorities.
- **IPLA**'s operational modalities will rely on **decentralized network** of activities addressing municipal waste management. For example, regional/sub-regional/national secretariats will take the lead role in operations.
- **IPLA**'s knowledge management component exclusively targets **empowerment/capacity development of LAs and municipalities** by facilitating better access to tools, technologies, investment opportunities, and international financial mechanisms in the area of municipal waste management.
- **IPLA** activities provides an opportunity to further complement city/municipality level efforts for **improved urban management** towards realizing liveable cities (beautiful, clean, safe, efficient).

In summary, IPLA is a partnership with an objective to foster partnerships with an ultimate purpose of expanding waste management services of local authorities.

International Partnership for Expanding Waste Management Services of Local Authorities (IPLA) - Non-hierarchical & decentralized structure



Core Members (as of January 2012)

Overall Coordination Support

Global Secretariat

Regional Secretariat for Africa, Asia and Latin America

Sub-Regional Secretariat for South Asia

Sub-Regional Secretariat for the Pacific SIDS

Sub-Regional Secretariat for Northern Latin America

Sub-Regional Secretariat for the region covering Australia and New Zealand

Sub-Regional Secretariat for Mashreq and Maghreb Countries

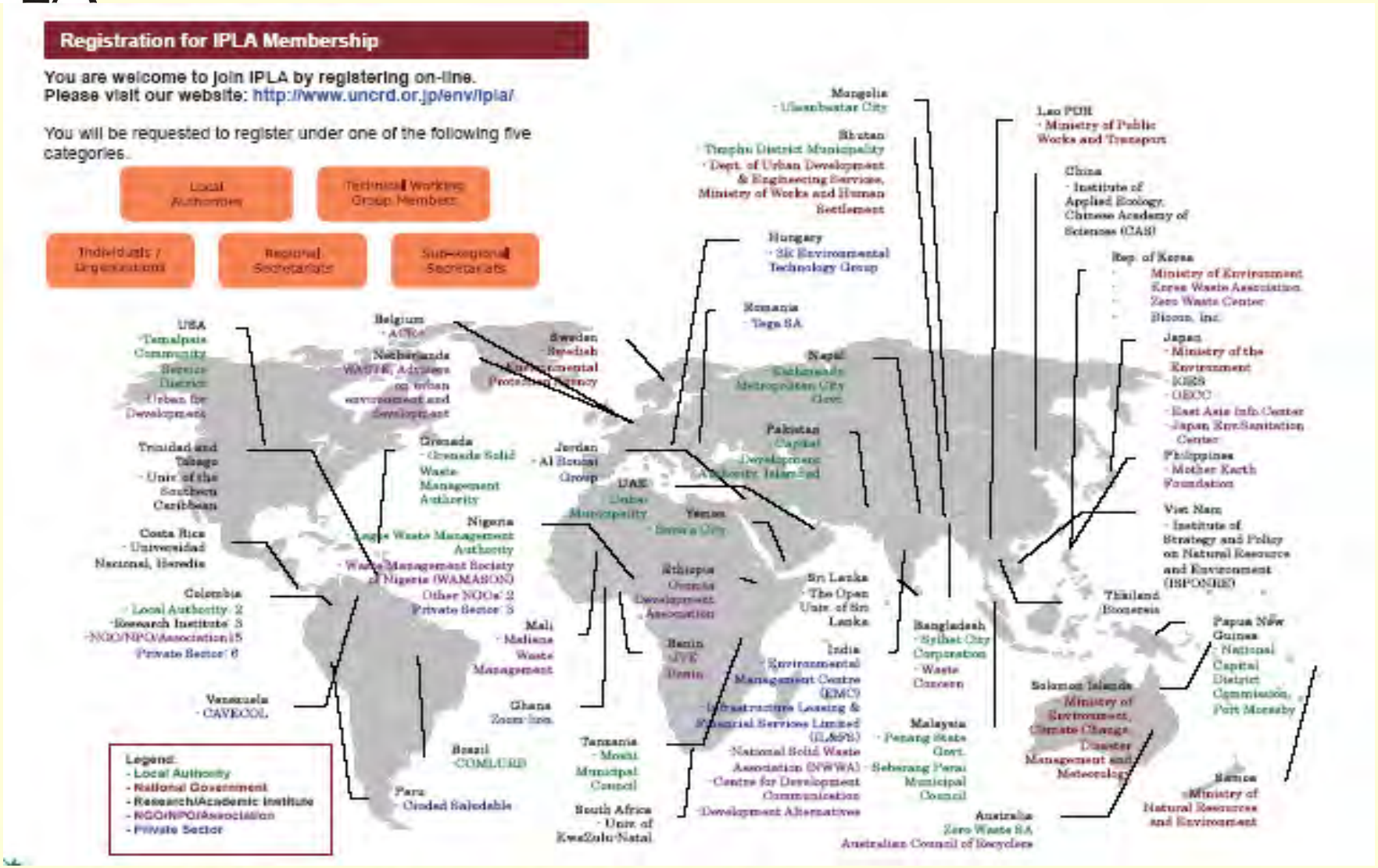
Sub-Regional Secretariat for Central and Eastern Europe

Sub-Regional Secretariat for the Caribbean SIDS

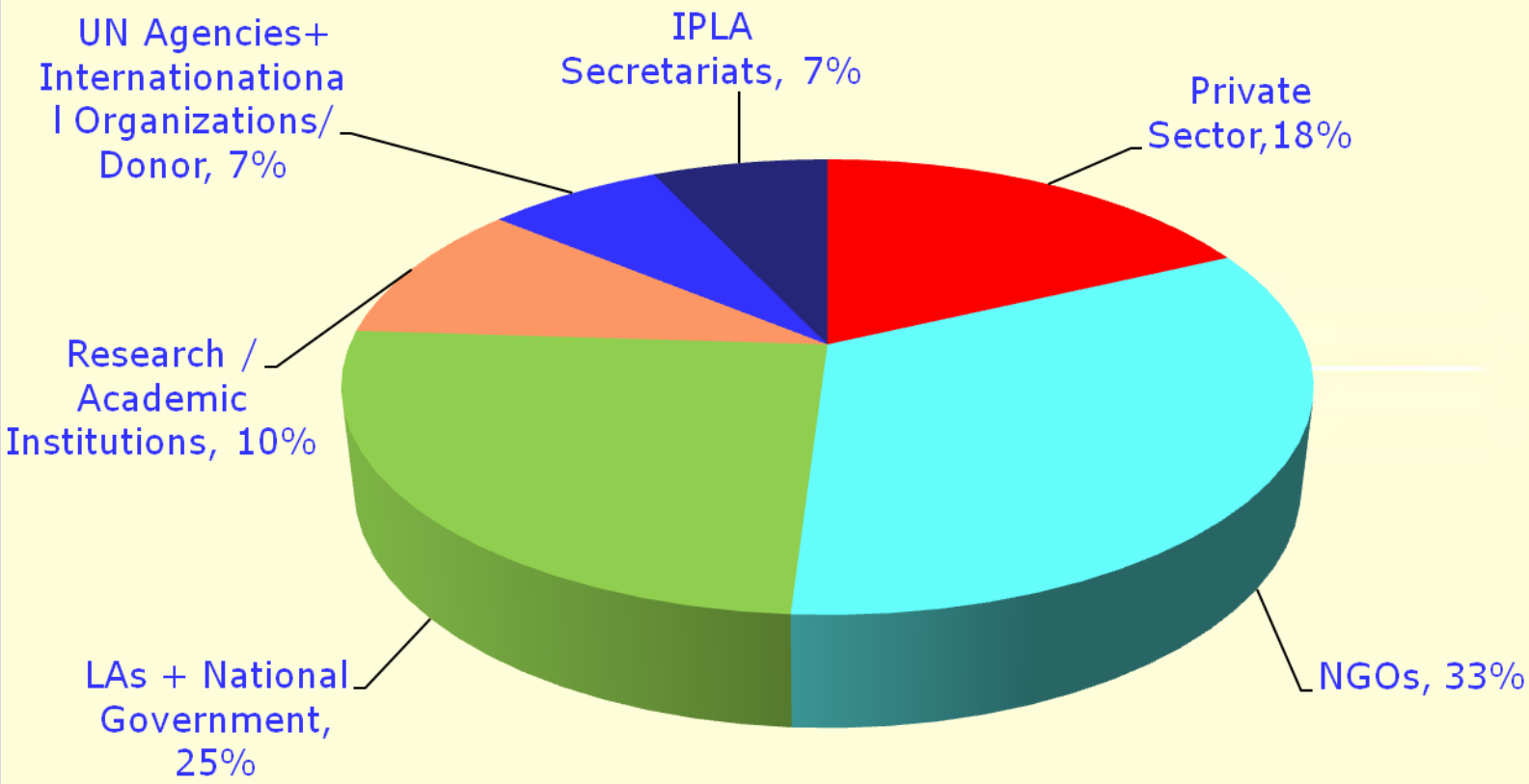
Sub-Regional Secretariat for Southern Latin America

Official partners round the world

(About 130 members from 48 countries - as of Jan. 2012)



IPLA Membership



Major Meetings during 2011-2012

- First IPLA Forum for Moving towards Zero Waste in Latin America, Bogota, Colombia, 17 August 2011
- Special Event of the ISWA World Congress 2011, Moving towards Zero Waste for Green Economy – Role of Local Authorities, 17-18 October 2011, Daegu, Republic of Korea (co-organized by the Ministry of Environment, Korea, and UNCRD
- International Forum on Waste Management in Urban Territories, Lima, Peru, 26-28 October 2011
- IPLA Plenary Session during SWEEP-Net Regional Forum, Marrakech, Morocco, 15-17 May 2012
- IPLA Global Forum (possibly in conjunction with the Resource Recirculation Day Event), Seoul, Republic of Korea, September 2012

IPLA Private Sector Meeting
Thursday, 23 February 2012
Nagoya, Japan

✓ Discuss enabling conditions for the private sector involvement including the public-private partnership (PPP).

✓ Identify potential areas for the private sector engagement.

Third Meeting of the Regional 3R Forum in Asia

5-7 October 2011, Singapore

- **The Third Meeting of the Regional 3R Forum in Asia** was jointly organized by the National Environment Agency of Singapore, Ministry of the Environment of Japan, and the United Nations Centre for Regional Development (UNCRD).
- The high level policy Forum, represented by twenty three countries from the Asia-Pacific region, unanimously agreed on a set of recommendations - ***"Recommendations of the Singapore Forum in Achieving a Resource Efficient Society in Asia"***, which aims at strengthening the regional input to the Rio+20 process by addressing the 3Rs in a broader context encompassing integrated approach and resource efficiency towards transitioning to a green economy.
- Below represent some key messages from the *Recommendations of the Singapore Forum* in the context of IPLA and its objectives:
  - Need for policies, programmes, and regulatory measures to ensure decent work and livelihood security of workers in the informal sector.
  - Need for addressing the issues related to new and emerging waste streams through appropriate programmes, multi-stakeholder partnerships and environmentally sound technologies.
  - Effective and dynamic linkage among government, private sector, and scientific community to enhance national and local knowledge base.
  - Support and strengthen local and national networks by effectively linking them with international networks.

…among others.

Declaration for Moving towards Zero Waste through IPLA
18 Oct. 2011, Daegu, Rep. of Korea

IPLA International Partnership for Expanding Waste Management Services of Local Authorities

Declaration for Moving towards Zero Waste through IPLA

(Agreed by participants at the Special IPLA Event of the ISWA World Congress 2011, Moving towards Zero Waste for a Green Economy – Role of Local Authorities, 17-18 October 2011, Daegu, Republic of Korea)

IPLA is coordinated through the joint efforts of:

(Some key points)

1. move forward to a resource efficient and zero waste society by promoting ***effective collaboration and partnerships*** among national and local authorities, municipalities, the private and business sector, NGOs, scientific and research organizations, and all other related entities;

2. address the need for ***mainstreaming zero waste and resource efficiency into the political agenda as well as city development strategies*** or action plans as a pre-requisite to moving towards a ***green economy***, and the required changes in the existing institutional arrangements at the local, regional, and national levels;

5. help mainstream ***resource efficiency and 3Rs (Reduce, Reuse, Recycle)*** principles into the local development agenda, including environmental, social, and economic plans, policies, strategies, and programmes;

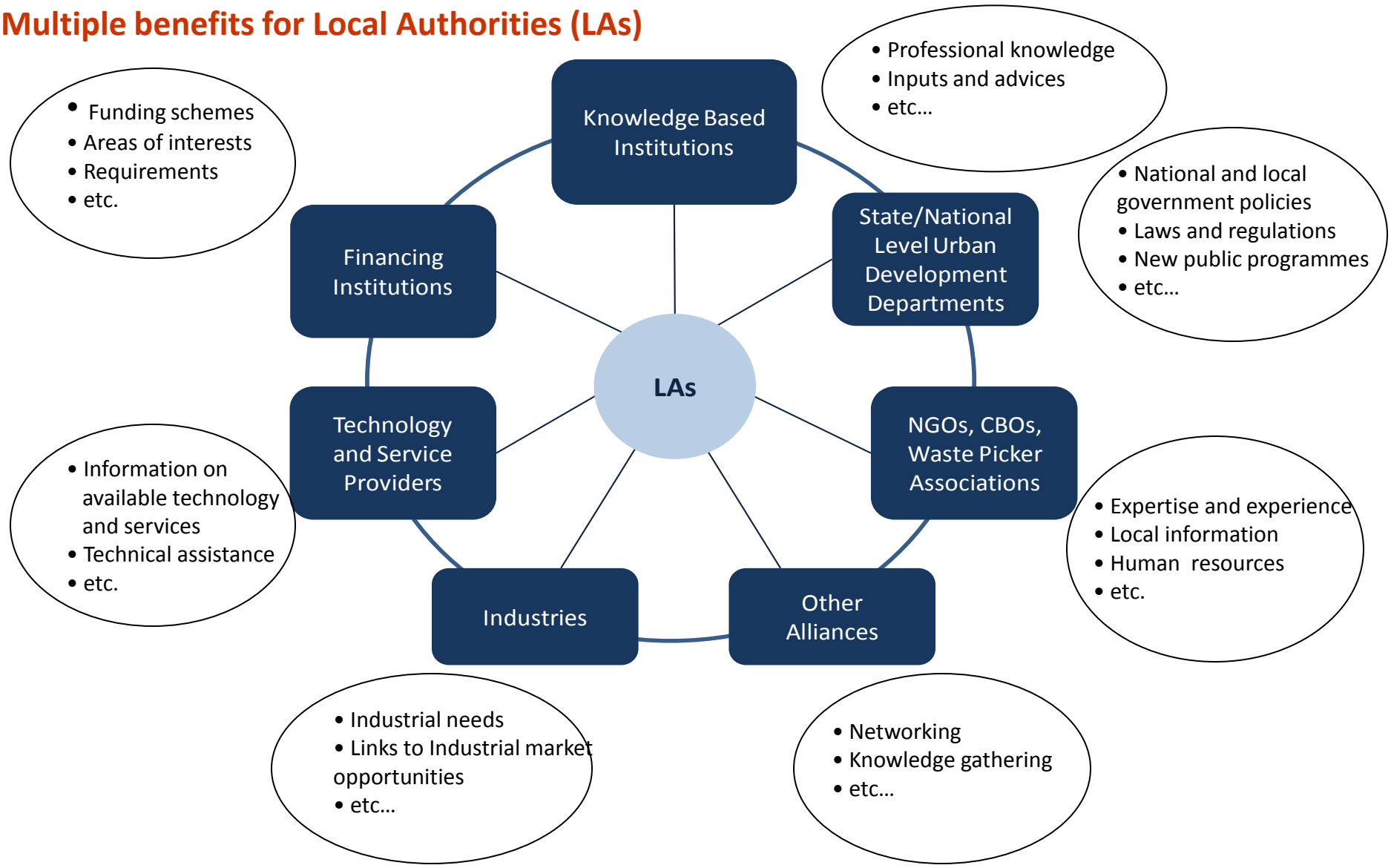
7. help identify and stimulate potential partners and required financial mechanisms in support of ***"green jobs," "green industries," and "green investments"*** ;

10. ***encourage awareness-raising and capacity-building programmes*** targeting the local authorities and other stakeholders, especially to decouple waste generation from economic development and to manage complex and new emergent waste streams;

IPLA Web Portal - Knowledge and Interactive Platform

To be launched in 2012

Multiple benefits for Local Authorities (LAs)



List of Private Sector IPLA Members

South America

- Gestion Organica GEO SAS (Colombia)
- Ibicol Ltda (Colombia)
- Plastichem Ltd (Colombia)
- Asomuña (Colombia)
- Utilities SAS (Colombia)
- Gestion Organica GEO SAS (Colombia)
- Ibicol Ltda (Colombia)
- Ciudad Limpia Bogota (Colombia)
- Camara de Integracion Economica Venezolano-Colombiana (CAVECOL) (Venezuela)
- Environmental Management Centre (EMC)

Asia

- Infrastructure Leasing & Financial Services Limited (IL&FS) (India)
- BIocon, Inc. (Republic of Korea)
- Bionersis (Thailand)
- Al Boucai Group (Jordan)

List of Private Sector IPLA Members cont.

Africa

- Environ-Waste Nigeria Limited (Nigeria)
- Richbol Environmental Services (Nigeria)
- Green Page Integrated Services Ltd. (Nigeria)
- Zoomlion Ghana Limited (Ghana)
- Malians Waste Management (Mali)
- Malians Waste Management (Mali)

Europe

- 3R Environmental Technology Group (Hungary)
- Tega SA (Romania)

IPLA Membership

- Primary beneficiaries are LAs, mainly (but not limited to) those in emerging and developing economies.

- Open to all interested entities that align with its mission of expanding waste management-related services of LAs.

  e.g., LAs, governments, the private sector and industry, NGOs/CBOs, research institutions, international organizations, UN agencies, among others.

- As of today, about 140 members from 50 countries are officially registered with IPLA.

Register with IPLA : www.uncrd.or.jp/env/ipla/index_form.htm

For any inquiry about IPLA, please email: *ipla@uncrd.or.jp*

You are welcome to join IPLA

www.uncrd.or.jp/env/ipla/index_form.htm

UNCRD

United Nations Centre for Regional Development