

● Confronting Climate Change in Cities

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ICLEI South Asia

● About ICLEI

- ☑ A membership organization of local governments and their associations dedicated to a sustainable urban environment
 - *1107 members from 6 continents & 69 countries*
 - *More than 400 Million People*
- ☑ A voice for local government at national and international policy forums
- ☑ Organized in 1990 under the sponsorship of the UN Environment Program and the International Union of Local Authorities

Cities and Climate Change



- Cities are important engine for economic growth & socioeconomic development
- 50% percentage of population living in cities (app. 3.2 billion)
- 75% percentage of the world energy use accounted for cities
- 60% percentage of the population will live in cities by 2030 (app. 5 billion)
- Energy is widely viewed as the lifeblood of cities, powering public services, hospitals, and schools while moving people within the city and beyond


City Energy consumption – The facts




- India's urban system is the second largest in the World (28%)
- Public Water Works in India consumes more than 12000 MUs & Public Lighting consumes 5000 MUs of electricity
- cities struggle to meet the growing energy demand without energy, water cannot flow to houses, offices cannot be heated or cooled, and commerce would come to a grinding halt
- By becoming energy efficient, each Urban Local Body (ULB) can reap energy savings of 25% to 40% at a minimum.
- This translates to at least 4000 MUs of energy savings that can avoid the need for an additional capacity of 600 MW.
- Reducing energy use through efficiency measures and improved urban planning can lessen a city's dependence on imported fuels and reduce energy costs,




Cities: A part of the Problem



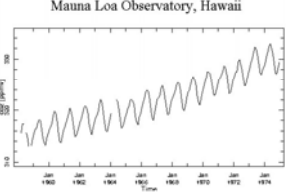
Urban Energy Demand



Urban transportation




Energy Production



Rising GHG levels

Mauna Loa Observatory, Hawaii





ICLEI SA Initiatives.....


- CCP campaign
 - Started in 1993
 - ICLEI SA Initiated in 2001
 - ICLEI SA is working with 53 South Asian Cities (Including 40 Indian Cities)
- **Local** Renewables
 - National Launch of project – Delhi, 26 April 2006
 - Developed “City Level Climate Protection Policy”
- Local government GHG protocol
 - An ICLEI Initiatives
- Urban Climate Project
- Local Action for Biodiversity
- Others
 - CDM options in SWM, Street lighting, etc
 - Developed Street lighting CDM project
- Training & Awareness activities

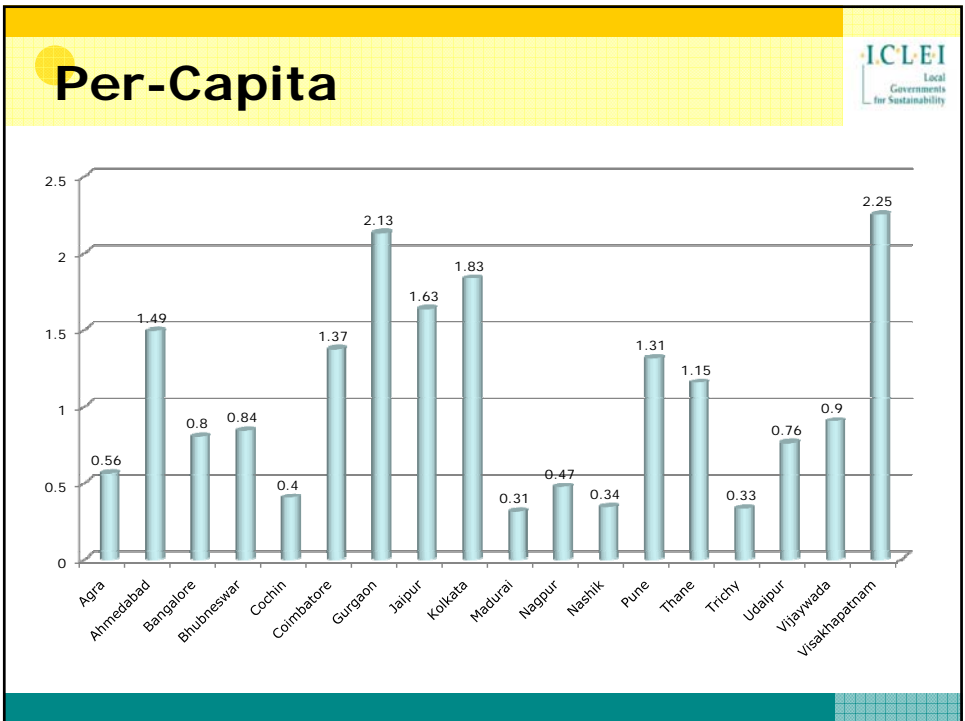


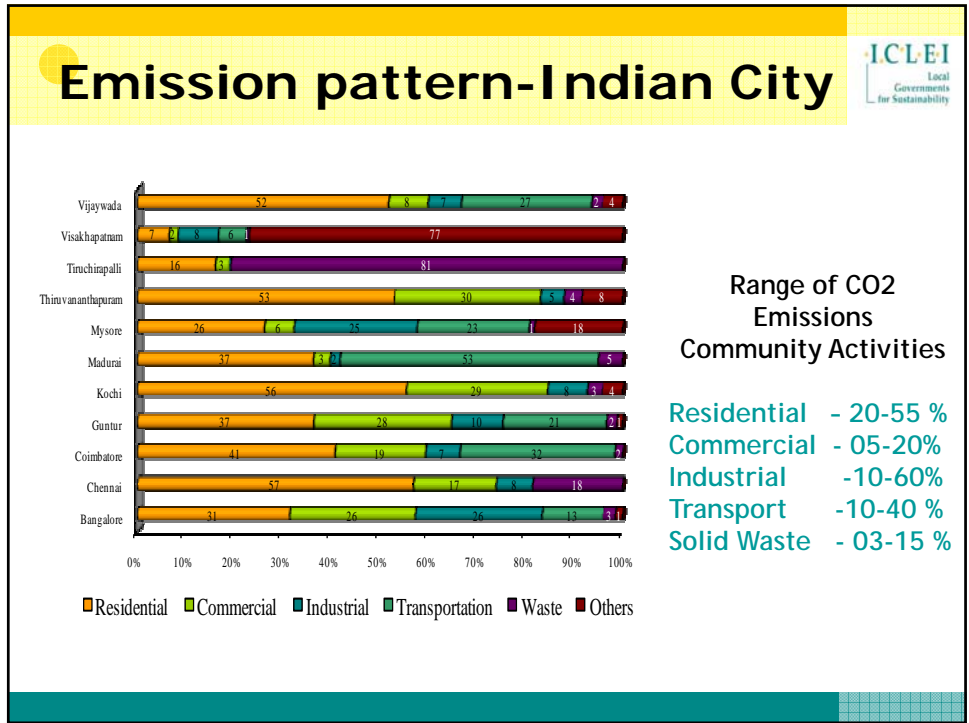









Cities: A Part of the Solution

Renewable ,Energy Efficiency & Urban Planning


Urban Energy Demand
Reduce it!!
Energy Efficiency/DSM/planning

Clean Energy
Clean it!!
Renewables, clean fuels

GHG/air pollution
Control it!!
Reduce traffic, green Fleets

THE OPPORTUNITY -Energy Efficiency 

- Saves cities money
- Lowers energy bills and operating costs
- Improves competitiveness
- Creates local jobs
- Improves the quality of municipal services
- Strengthens local energy security
- Reduces local air pollution and greenhouse gas emissions



Municipal corporation – Energy Efficiency Project 

Street Lighting
Energy Efficiency



High Potential of Energy Saving
20-25% Energy Saving
Few technology:

- Programmable Timer with the dimming technology
- Energy Efficient appliances
- Design Based Street Lighting
- LED Technology

Water Supply system
Energy Efficiency



Water Supply system is major energy consumer in Municipal Corporation
High Potential of Energy Savings

- 30-40% Energy Savings
- High UFW-about 20-40%
- Energy Efficiency is key solution

Solid Waste Management




- Major issues in all south Asian cities
- Few Cities are doing well
- Good potential for CDM project
- Composting, RDF, etc

Building & Facilities
Energy efficiency




Municipal & Office building has a high Potential of Energy Savings
20-30% Energy Savings

- Energy Efficiency is key solution



Some Other Actions



Retrofit Tube light system
Saved: 18,000 Kwh of electricity.
Potential: 3540 T/ Year at City Level






Design Based Street lighting
Saved: 31,000 Kwh of electricity.

Bhubaneswar

- 200 LPD Solar Water Heater at Municipal Corporation hospital premises
- BMC building audit - implementation of audit results
- Energy efficiency lighting at Lord Lingaraj Temple and street lighting
- SPV based power pack system at Renewable Energy and Energy Efficiency Resource Centre, street light & blinker
- Comprehensive awareness programmes involving school children, teachers, etc.

Nagpur

- 500 LPD Solar Water Heating in NMC's Pachpaoli Maternity Nursing Home
- Energy audit of the NMC building
- SPV based power pack system at Renewable Energy and Energy Efficiency Resource Centre



Promotional activities- Workshop & conference














Excerpts from the City Policy Documents


Bhubaneswar

- Reduce over all city conventional energy consumption by at least 2% from 2005 level by 2012.
- To achieve overall 15% reduction in conventional energy consumption in municipal services and facilities from 2005 level by 2012.

Nagpur

- Reduce over all city conventional energy consumption by at least 3% from 2005 level by 2012.
- To achieve overall 20% reduction in conventional energy consumption in municipal services and facilities from 2005 level by 2012.




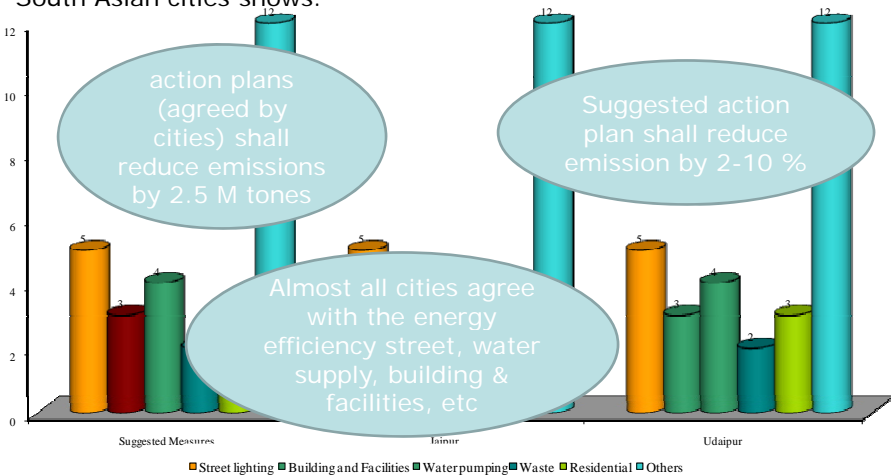




Response of Local Government

- A survey done by ICLEI SA on implementation of action plans for 53 South Asian cities shows:





action plans (agreed by cities) shall reduce emissions by 2.5 M tones

Suggested action plan shall reduce emission by 2-10 %

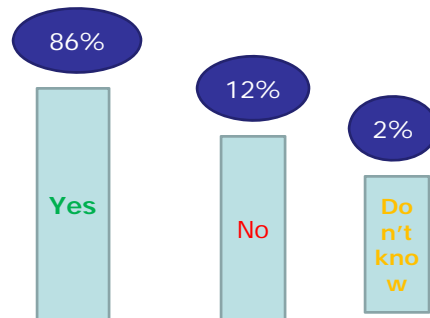
Almost all cities agree with the energy efficiency street, water supply, building & facilities, etc

City	Measure	Count
Suggested Measures	Street lighting	5
	Building and Facilities	4
	Waterpumping	3
	Waste	2
	Residential	1
	Others	1
Inimur	Street lighting	5
	Building and Facilities	4
	Waterpumping	3
	Waste	2
	Residential	1
	Others	1
Udaipur	Street lighting	5
	Building and Facilities	4
	Waterpumping	3
	Waste	2
	Residential	1
	Others	1

About Climate (RE&EE) Policy

ICLEI
Local
Governments
for Sustainability

Do you think that a city level Climate Policy will help in implementation of the recommended suggestions?



Conclusions

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Governments
for Sustainability

- Climate change is a reality
- Cities are part of the problem & part of the solution also
- It is for cities benefit - they need to act
- Cities are committed, but they need to play a bigger role

Thank you!

<http://www.iclei.org/sa>

