Transformative M&E for Green Growth

Presentation at the

Green Growth Knowledge Platform's practitioners' workshop:
Building Pathways to Greener Growth

4 June 2013
Bogor, Indonesia

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1-1. Green Growth Is Aimed To

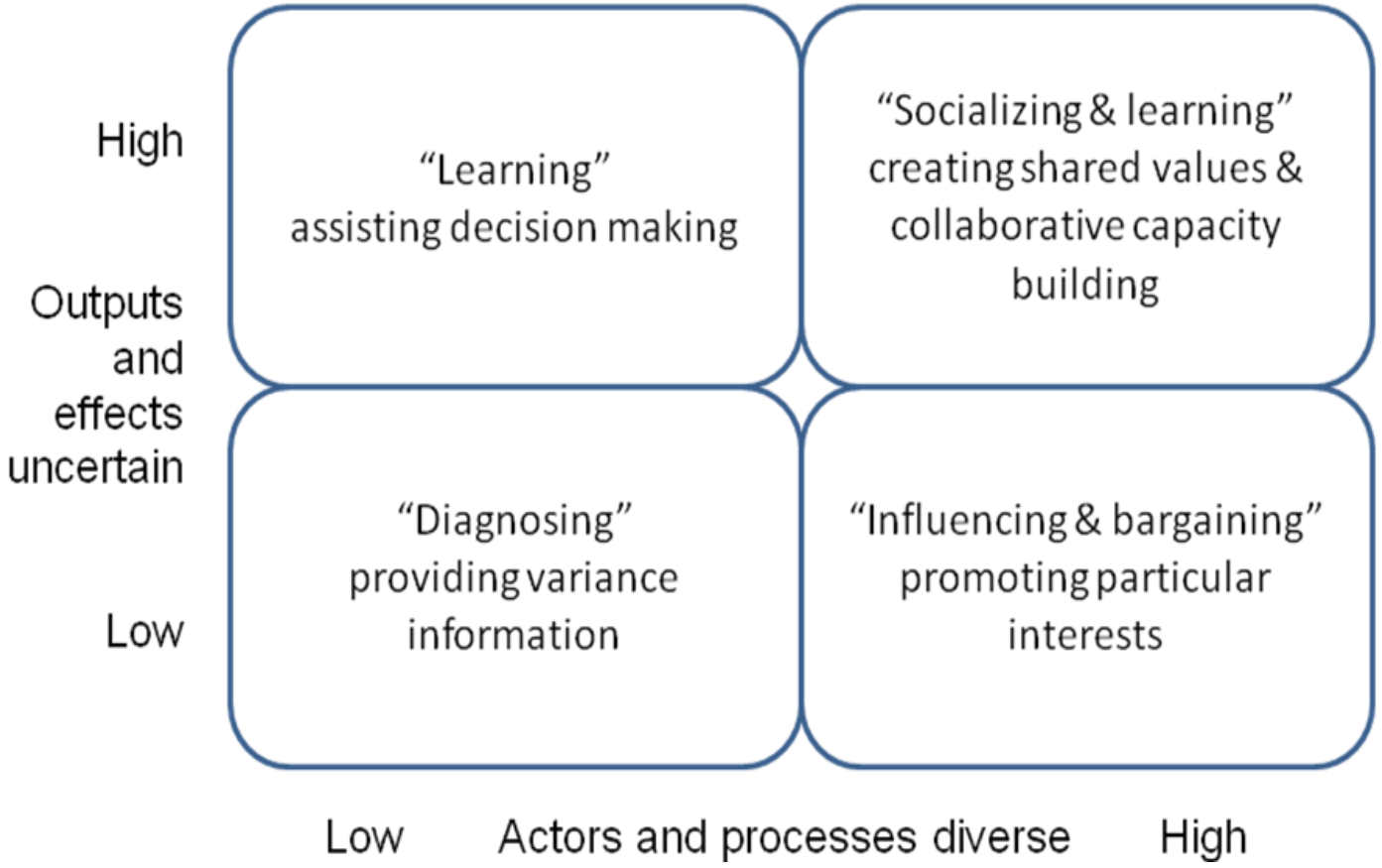
- transform the economic growth focused mode of development;
- take full account of economic, environmental, and social costs of production and consumption;
- sustain and enhance well-being of all the people in society.

1-2. Green Growth Planners Face Wicked Problems

- Unstructured: causes and effects are extremely difficult to identify and model
- Complex: comprise multiple, overlapping and interconnected subsets of issues that cut across multiple policy domains and levels of government
- Relentless: unlikely to be solved once and for all

Weber and Khademian (2008).

1-3. Green Growth Requires Transformative M&E



Source: author synthesized based on Table 1 on page 59 in van Elsacker, Bogt et al. (2008) and Table 2 on page 841 in Ouchi (1979).

2. M&E for Influencing & Bargaining (QECCUE)

- Who
  - Department of Pollution Control, Ministry of Environmental Protection
- Where
  - China (from 32 cities in 1989 to 617 cities in 2007)
- When
  - Since 1989
- Legitimization
  - One of the criteria for evaluating mayors

2-1. Indicators (QECCUE)

- Environmental quality
  - Air, water, noise
- Industrial pollution control
  - Clean energy, automobile, solid waste, wastewater, dust, suspended particulates, SO2, pollution intensity by GDP
- Urban municipal pollution control
  - Municipal wastewater treatment, municipal solid waste treatment, public green space
- Environmental management
  - Environmental management agency
  - Public satisfaction with environmental protection (added in 2007)

Source: Ministry of Environmental Protection, Implementation guideline for the Quantitative Examination of Comprehensive Control of Urban Environment during the 11th Five-year Plan.

2-2. Working Procedures (QECCUE)

- Administrative urban areas being assessed
  - Self report by administrative urban areas
  - Initial review by upper level environmental protection agency
  - Joint review by provincial environmental protection bureau (EPB)
  - Spot check by provincial EPB and the Ministry of Environmental Protection (MEP)
  - Approval and public announcement
- MEP evaluate provincial EPBs on their carrying out the Quantitative Examination of Comprehensive Control of Urban Environment
  - Organization of the examination work
  - Review and submission of materials
  - Addition of extra indicators for the examination work
  - Effectiveness of the examination work

Source: Ministry of Environmental Protection, “Rules on how to carry out quantitative examination of comprehensive control of urban environment,” available at: http://www.mep.gov.cn/cont/city/csgl/200603/t20060322_75404.htm

2-3. Influencing & Bargaining (QECCUE)

- The MEP attempted to
  - mainstream the environment
  - influence local development decision-making
  - provide incentive for pursuing sustainable development

3. M&E for Collaborating and Learning (GMS EPA)

- Who
  - UNEP for Asia and Pacific
  - GMS Environment Operations Center, Asian Development Bank
- Where
  - Six GMS countries and regions
- When
  - Since 2005

3-1. Legitimization (GMS EPA)

- To assist GMS countries in identifying environmental implications of economic growth and inform government efforts to consistently improve environmental performance
- A part of the GMS Regional Cooperation and Strategy Program, to safeguard the Mekong's vital functions

3-2. Indicators (GMS EPA)

- Indicators
  - Natural resources
    - forestry, fisheries, coastal zone, biodiversity
  - Water resources
    - water pollution
  - Land
    - land degradation
  - Urban environments
    - solid waste, mobile source pollution, toxic contamination
  - Atmosphere
    - air pollution, ozone depletion, climate change

1. Based on the Mekong's vital functions
2. Rely on the Pressure–State–Response model
3. Link with National Sustainable Development Plan
4. Each country/region identifies at least 1 indicator on each priority area
5. There were 16 (pressure), 12 (state) and 13 (response) indicators were suggested to evaluate the functions of the Mekong River

3-3. Communication Tools (GMS EPA)

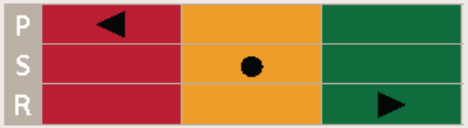
Box 3. Condition and Trend Ranking

The overall analysis for each priority issue is represented visually as follows:

CONDITION Ranking	COLOR CODE		
Pressure (P)	High	Medium	Low
State (S)	Poor	Satisfactory	Good
Response (R)	Little	Moderate	Substantive

TREND Ranking	SYMBOL CODE		
	◀	●	▶
Pressure	Increasing	Stabilizing	Decreasing
State	Deteriorating	Stabilizing	Improving
Response	Sporadic	Intermittent	Sustained

By combining the condition and trend ranking, each priority issue is summarized in the following form:



Source: GMS Environment Operations Center of ADB, Environmental Performance Assessment (Asian Development Bank: Bangkok, Thailand, 2008), page 11.

3-4. Collaborating and Learning (GMS EPA)

- Participation and dialogue
  - Consultation workshops in each country and at the subregional level to identify policy concerns.
  - The GMS Environment Operations Center (EOC) of the ADB was inaugurated in 2006 to implement the Core Environment Program.
- Learning
  - EOC is to facilitate collective efforts to mainstream EPA through training and capacity building, increasing awareness and understanding of the application of EPA through technical exchanges, and promoting the wider application of EPA at sub-national levels.
- Collaborative capacity building
  - A high level technical advisory panel (TAP) consisting of seven international development experts was established in early 2007.
  - A regional GMS university network of centers concerned with environmental management has also been established as part of the subregional capacity building component of the CEP.

4. M&E for Mobilizing Societal Actors

- Indonesia: Program for Pollution Control, Evaluation and Rating (PROPER) started in 1995 and generated positive results
- India: Green Rating Project (GRP) 1996

  http://www.cseindia.org/node/277
- Japan: Pollutant Release and Transfer Register (PRTR) 2003

  http://www.env.go.jp/en/chemi/prtr/about/
- United States: Toxics Release Inventory (TRI) 1989

  http://www.epa.gov/tri/

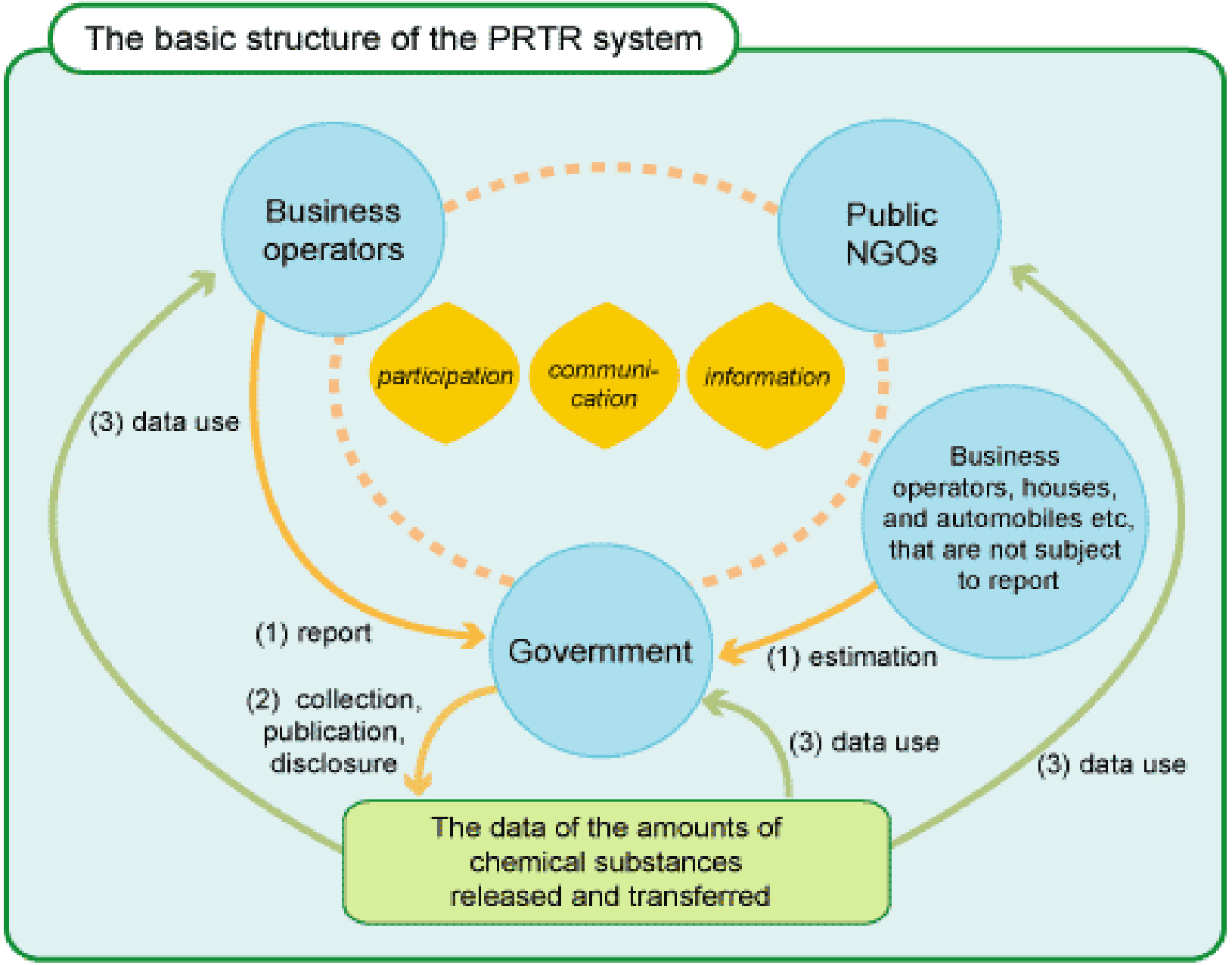
Green Rating Project

- Who
  - Center for Science and Environment (CSE), an Indian NGO
- When
  - Since 1996
- Objective
  - Rate, using a five-leaf scale, the environmental performance of industrial firms and disseminate the results to get “Indian industries to develop and implement their own sustained eco-friendly practices to preserve the environment”

(Source: Center for Science and Environment website, available at http://www.cseindia.org/node/277)

Green Rating Project

- Indicator
  - Industry specific
- Data collection
  - A sector specific questionnaire
  - Visits to the corporate headquarters and factory sites
  - A country-wide Green Rating Network (GRN) of volunteers
- Dissemination of results
  - High profile events with prominent persons such as the former Indian Minister releasing scores and distributing “leaf” awards



(Source: http://www.env.go.jp/en/chemi/prtr/about/overview.html)

5. M&E and Capacity Building Mutually Reinforce Each Other

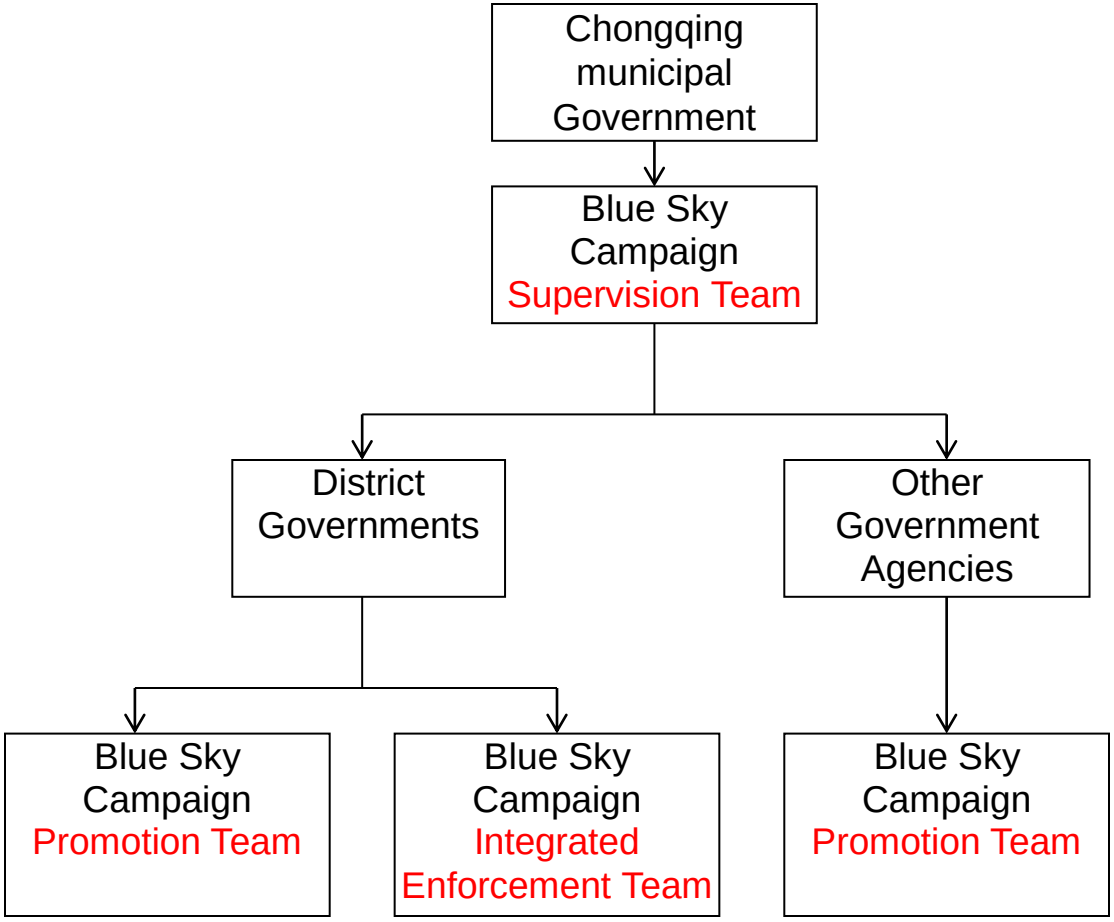
- Case study of the “Blue Sky” Campaign in Chongqing, China

Why “Blue Sky” Campaign?

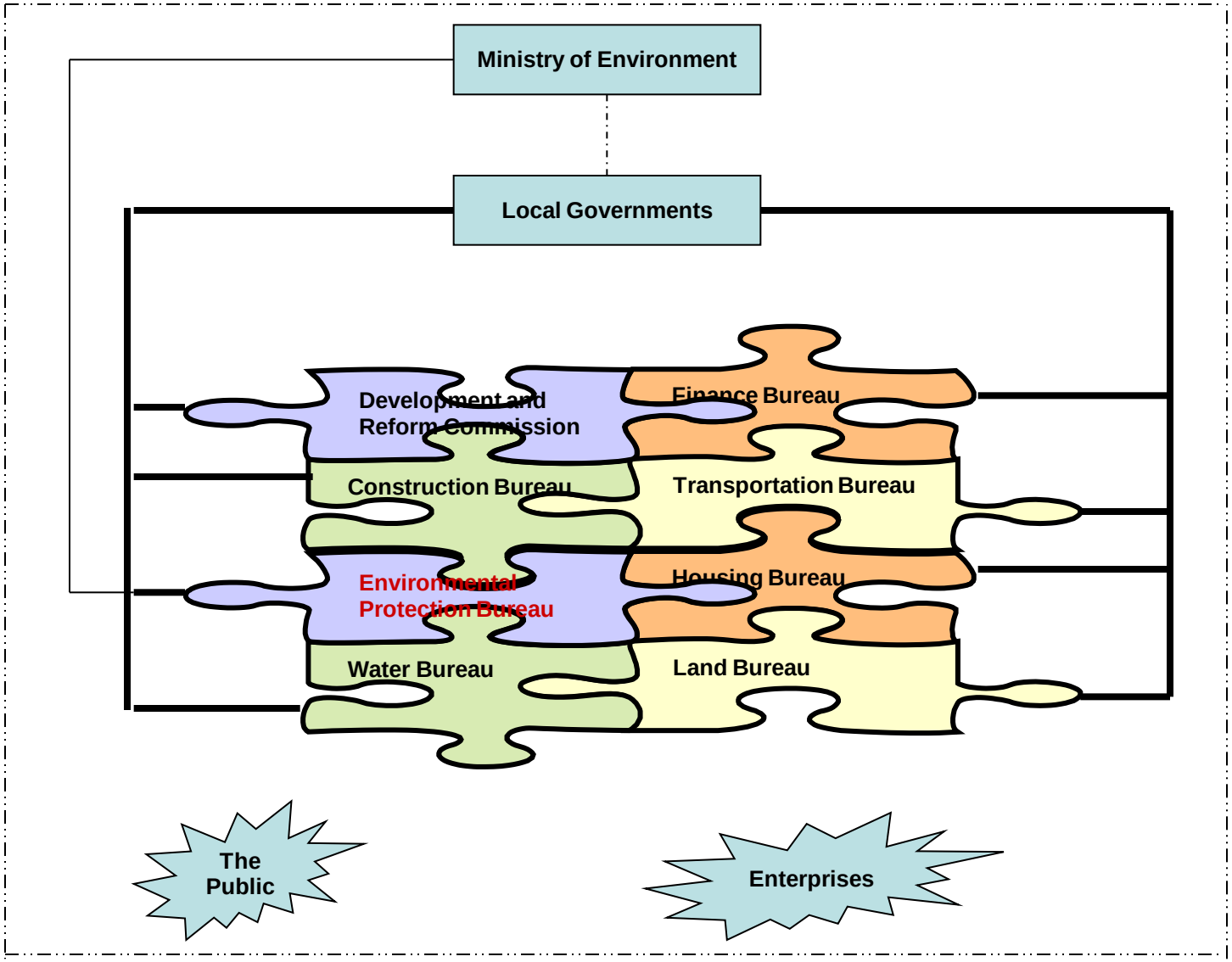
	SO_2 (mg/m^3)	NO_2 (mg/m^3)	PM_{10} (mg/m^3)	Clear Air Days (%)	Ranking (in 47 Key Cities)
2000	0.156	0.052	0.198	51.1	
2001	0.108	0.044	0.149	56.7	35
2002	0.091	0.038	0.152	60.5	38
2003	0.115	0.046	0.147	65.2	40
2004	0.113	0.067	0.142	66.4	40

- In 2000, the concentration levels of SO_2 and PM_{10} exceeded the national standards by 1.60 and 0.98 times respectively
- 55.6% of the total PM_{10} emission in Chongqing can be attributed to dispersed sources such as motor vehicles and construction sites

Organizational Structure of the "Blue Sky" Campaign in Chongqing



Enhanced Cross Agency Collaboration



Capacity Building Activities

- Learning: Beijing, Chengdu, Shanghai, Shenzhen and other cities, March 2004
- Planning: CQRAES, May 2004-January 2005
  - Calculate the assimilative capacity
  - Monitor and analyze the composition of air pollutants
  - Forecast pollution
  - Draft “Blue Sky” Action Plan
- Chongqing finance bureau set up a special fund
  - Total investment 7.2 billion yuan, polluter pays plus government subsidies
- Extended responsibility system, 2004 & 2006
  - Incorporate environmental performance indicators in the evaluation system of government officials

Exhibited Capacities of the Chongqing EPB

- Identify problems
  - Diagnosis of air pollutant composition
  - Severe air pollution pre-warning system
- Develop and evaluate policy alternatives
  - Intelligent planner?
  - Only exhibited when drafting the “Blue Sky” Campaign Plan
- Operate government programs
  - Supervision team and promotion team create institutionalized avenue for green dialogue
  - Integrated enforcement team

Outcomes

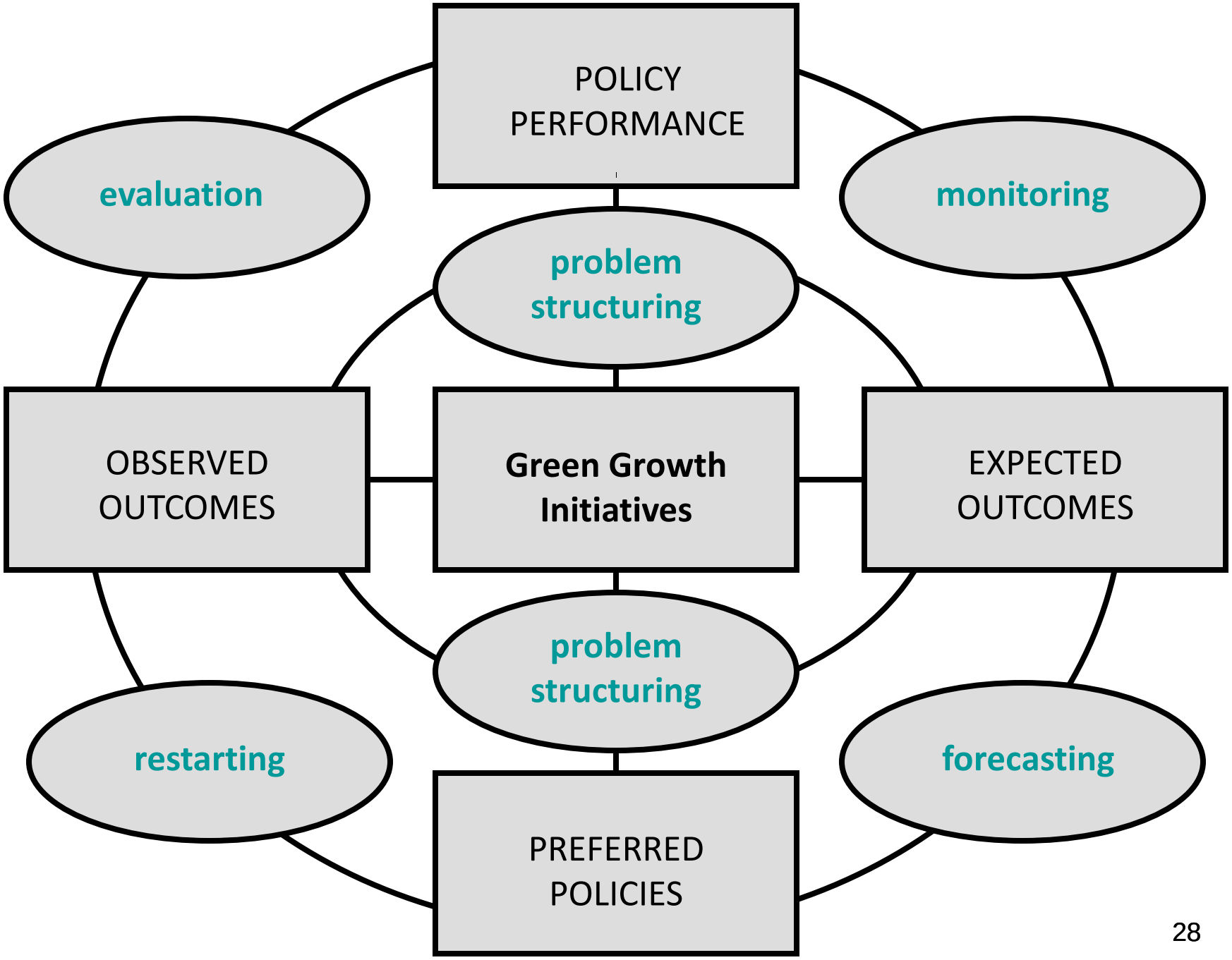
- Clean air days were 72.9% and 78.6% in 2005 and 2006, respectively
- Over 50 highly polluting factories were moved or closed in 2005 and 2006
- Inter-agency coordination mechanisms and responsibility system established

Remaining Challenges

- How to convert positive deviants into common practice?
- How to improve inter-agency coordination?
- How to mainstream the environment in government decision-making?
- What to measure, input, processes, outputs, outcomes, for stimulating continuous capacity development and better environmental performance?
- What are effective mechanisms for socializing and learning?

6. Ways Forward

- Policy advocacy and leadership
- Infrastructure and resources for data collection, verification, management, and dissemination
- Choosing Specific, Measurable, Achievable, Relevant, Timely indicators
- Building collaborating and learning into M&E programs throughout a policy cycle for green growth
  - Enhanced inter-governmental coordination and cooperation for achieving green growth objectives
  - Higher public awareness of green growth and higher willingness to take individual actions


POLICY PERFORMANCE
evaluation
monitoring
problem structuring
OBSERVED OUTCOMES
Green Growth Initiatives
EXPECTED OUTCOMES
problem structuring
restarting
forecasting
PREFERRED POLICIES

Thanks!

Comments and Questions?