



City Clean Air Action Planning and Clean Air Reporting

中国城市清洁空气行动计划编制及信息发布

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Air quality management in China: Recent history

中国空气质量管理：发展历程



- Timeline: China Air Pollution Control Law was first established in 1987, revised in 1995 and 2000

1987年颁布实施《大气污染防治法》，经1995、2000年两次修订

- 11th FYP (2006-2010) addressed SO₂ emissions

- Total emissions control

“十一五”对SO₂进行总量控制

- Past three years there have been several new milestone regulations

最近三年的大进展：

- 12th FYP Priorities, 2012 十二五规划

- RAQM, 2010 区域联防联控

- PM_{2.5}, 2012 PM_{2.5}纳入新空气质量标准与控制



City EPBs are pressured to address air pollution 城市环保局面临重压，着力控制空气污染



城市低碳规划
Low Carbon
Plans at
cities

亚洲城市
Asian Cities



现有的当地空气质量规划
Existing
local AQM Plans

Provincial ←-- MEP
12th FYP Priorities
RAQM
PM2.5

City EPBs: Balancing act

城市环保局：平衡经济与环境



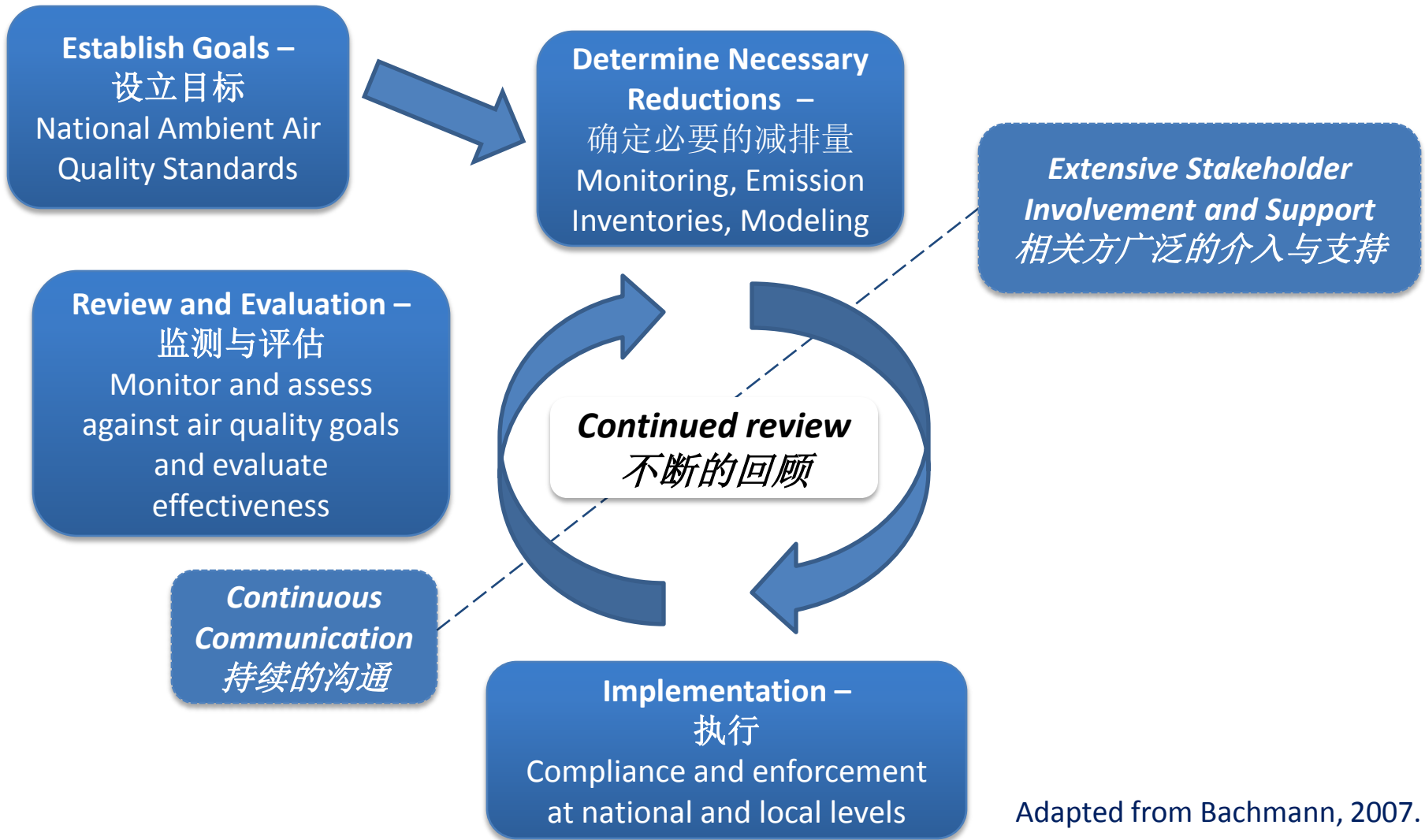
Industrial development policy 产业政策
Economic sectors 经济部门
12 th FYP Economic plan 经济“十二五”规划
Energy 能源



City EPBs

RAQM 区域联防联控
12 th FYP Air Pollution and Prevention Plan 大气污染防治“十二五”规划
PM2.5
Total Emissions Control 总量控制
??

To address this, AQM needs a systematic approach, beyond technology and quantitative data
空气质量管埋除了技术与定量数据之外，需要系统方法



Adapted from Bachmann, 2007.

What do cities need? 城市的需求?



- Technical knowledge and access to experts
专业知识与专家支持
- Tools to assess their capacity to manage air quality
评估空气质量管理能力的工具
 - Example: Clean Air Management Assessment Tool
- Avenues to share experience and learn from other Chinese cities and international best practices
国内外经验共享与学习交流的平台
- Mechanisms for cooperation with other cities/ provinces
与其它地区合作的机制
 - City workshops
 - Clean Air Forums
 - Work groups
- Involvement of multiple stakeholders
利益相关方的参与
- Training and capacity building programs targeted at different levels in a city
面向不同层次需求的培训与能力建设项目



City AQM Workshop Features

城市空气质量管理研讨会



City AQM Workshops are organized by CAI-Asia and MEP at least once per year for the CAI-Asia China City Network which has 13 members:

得到污控司大气处肯定并命名的“中国城市空气质量管理研讨会”（系列）由CAI-Asia和环保部外经办共同举办。

Objectives are: a) Direct interaction between MEP and Cities on AQM policies and Practices; b) Experience sharing on AMQ among cities; c) Develop Linkage between city EPBs and other local agencies (i.e. transport committee, MDRCs, Vehicle Emission Centers); d) Strengthen awareness and identify the needs of cities on AQM; e) Training of cities on AQM topics and tools.

目标：建立环保部和市环保局的直接联络；城市间经验共享；开展城市环保局和其他机构的联系；明确城市在空气质量管理上的需求；空气质量管理工具培训。



1-8th City AQM Workshop of CAI-Asia China Network 共举办了7届中国城市空气质量管理研讨会



	Donor	Venue	Weblink
第一届研讨会：项目启动会 (聚焦城市AQM需求) CAI-Asia China project Inception Workshop (1)	MEP ADB	Beijing	http://cleanairinitiative.org/portal/node/2902
第二届城市网络研讨会 (聚焦各城市空气质量管理现状) Workshop on Strengthening the CAI-Asia PRC Network(2)	MEP ADB	Beijing	http://cleanairinitiative.org/portal/node/3004
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第五届研讨会：空气质量与协同效益 Air Quality and Co-benefits (5)	MEP EF	Beijing	http://cleanairinitiative.org/portal/node/4976
第六届研讨会：中国大气污染综合控制 Integrated Management for Air Pollution Control in China (6)	MEP EF	Beijing	http://cleanairinitiative.org/portal/node/7047
第七届研讨会：清洁空气行动规划与清洁空气信息发布 Clean Air Action Planning and City Clean Air Reporting (7)	MEP EF	Dalian	http://cleanairinitiative.org/portal/node/7391
第八届研讨会：新环境空气标准：挑战与出路 New Ambient Air Quality Standard: Challenges and Solutions	MEP EF	Hangzhou	To be uploaded

Focus on PM2.5: Monitoring

关注PM2.5: 监测



- 49 cities required to implement PM2.5 monitoring by end of year
49个城市在年内进行PM2.5监测
- This means installation of over 200 new monitoring stations (millions /billions of investment)
需要新建200多个监测站
- This would require guidance on PM2.5 monitoring
需要监测相关指南-选址、方案、设备等
 - Site selection
 - Monitoring protocol
 - Monitoring equipment and instruments
 - Quality assurance and quality control (calibration)



Focus on PM2.5: Reporting

关注PM2.5: 信息发布



- Revision of the API into AQI
从API到AQI的转变
- Managing expectations of the public: relationship of PM2.5 and the other pollutants
满足公众期望: PM2.5与其它污染物的关系
- Build public confidence in city EPB on implementation of air quality management measures
在市环保局层面建立对空气质量管理执行的公信
- Mechanisms for engaging stakeholders, including public
- 纳入利益相关方的机制
- → Recommending **City Clean Air Reporting**
发布城市清洁空气信息



Focus on PM2.5: Control Measures

关注PM2.5：控制措施



- Cities need guidance on what additional measures they need to implement to be able to effectively address PM2.5
如何通过新增措施达到PM2.5标准，城市需要相应指导
- Recommendation: MEP to come up with a long list of PM_{2.5} and its precursors control measures with control efficiency and cost effectiveness estimates: **inventory of experiences from Chinese cities**
- 建议：环保部提供PM2.5控制措施及其控制效率与成本有效性估算清单
- Guidance in steps to select control measures

分阶段控制措施指南

1. Long list of PM2.5 control measures PM2.5
2. Source categorization: Select measures by pollutant and by source
3. Select measure by technical and economic feasibility
4. Short list of PM2.5 control measures
5. Implementation of control measures
6. Monitoring and Review



- **12th** FYP are prepared every five years
制定五年规划
- Annual Environmental Bulletin contain mostly quantitative information
年度环境统计公报包含主要定量信息
- Annual Environmental Quality Reports
年度环境质量公报
 - Limited circulation
 - Still technical for public stakeholders
- Current AQ reporting is limited to mostly API, not include status of implementation of measures and their impacts on improving air quality
当前的空气质量信息发布主要限于API，不包括政策执行及其对空气质量改善的情况
- **City Clean Air Reports**
城市清洁空气信息发布
 - help to monitor and share progress of the Clean Air Action Plans to the public in a comprehensive AQM framework



Recommendations

政策建议



- Because of CAI-Asia's understanding of city needs, CAI-Asia is promoting
CAI-Asia基于对城市需求的把握，致力于推动清洁空气行动计划与信息发布
 - Improved clean air action plans
 - Improved clean air reporting
- China National Air Quality Conference ,building on city AQM workshops
基于城市空气质量研讨会，举办国家空气质量大会
- Regional Clean Air Forums
区域清洁空气论坛
- Formation of technical advisory groups on specific AQM topics
针对不同的空气质量管理问题，成立技术咨询小组
 - Composed of Chinese and international experts



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