有效管理城市空气质量：培训、设备、人力资源的需求
Overview of Capacity Building Requirements for Effective AQM in Cities: Training, Equipment, Human Resource

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提纲 Outline

- 能力建设的现状 Current Status
- 目前的重点 Focus
- 存在的问题 Problems
- 需求 Needs
- 如何做-设想? How to?

能力建设的现状 Current Status

- 城市大致可分**3**类 Cities grouped in 3 categiry
  - 发达城市（约**10**个） **Developed (about 10)**
  - 一般城市（大多数） **Conventional**
  - 欠发达城市（约**20**个） **behind (about 20)**
- 发达城市在设备方面较先进

  Developed cities are relatively advanced in terms of equipment

能力建设的现状 Current Status

- 培训活动较多、人力资源较好

  There are many training activities, human resource are abundant

- 国际合作（世行、亚行等）与自主项目

  A lot of international projects (such as WB, ADB), together with self-funded projects

能力建设的现状 Current Status

- 一般城市有基本的设备、效益发挥不充分

  Conventional cities do have basic equipment, but their benefit are not fully realized

- 培训活动有，但不够满足需求

  There are training activities, but not good enough to meet the needs

能力建设的现状 Current Status

- **人力资源仍不能满足**

  Human resources are not sufficient

- **国际合作有一些**

  Participated in some international cooperation activities

- **自主项目很少**

  Few self-funded research projects on AQM

能力建设的现状 Current Status

- 欠发达城市的设备和基础设施不够

  Equipment and infrastructure in behind cities are far from sufficient

- 培训活动很少

  Few training activities related to AQM

- 人力资源缺乏

  Human resources are dearly lacked

能力建设的现状 Current Status

- 国际合作较少

  Few international cooperation activities

- 自主项目基本没有

  Almost no self-funded projects

2. 目前的重点 Focus

- 空气质量监测站的监测设备

  Air quality monitoring instruments
- 大多数城市有几个自动监测站

  Most cities have several automated ambient air quality monitoring station
- 少数项目涉及到污染源监控设备

  Less projects cover monitoring equipment for emission sources

2. 目前的重点 Focus

- 培训活动主要从属于硬件项目

  Most training activities are attached /associated with investment projects
- 部分技援项目培训了技术人员

  Some technical assistance projects cultivated a local technical team

3. 存在的问题 Problems

- 发达城市主要是管理机制问题

  Major problem in developed cities are of management mechanism

- 如何提高环保部门的权威？

  How to raise the power of Environmental Agency over parallel departments?

- 改进环保部门的决策能力

  Improve the decision-making capacity of EPB

3. 存在的问题 Problems

- 资源配置优化问题：

  Resources allocation optimization:
  - 信息共享与公共服务

    Information sharing and public service
  - 培训应该培训的人

    Train those should be trained
  - 设备与人力资源配置优化

    Equipment and human resources integration

3. 存在的问题 Problems

- 政府管理人员换岗频繁

  Government officials keep changing frequently

- 一般城市缺乏污染源监控设备

  Conventional cities lack of monitoring equipment for emission sources

- 交通微环境空气质量基本无监测

  No monitoring of curbside air quality

3. 存在的问题 Problems

- 研究型的设备缺乏

  Lack of equipment for research purpose

- 针对性强的培训活动不够

  Less training with the right focus

- 缺乏支持决策的项目

  Lack of project to support decision-making on AQM

3. 存在的问题 Problems

- 欠发达城市主要问题在经济基础

  For behind cities major problem is economy

- 环境意识弱也是一个问题

  Environmental awareness is rather weak

- 可持续发展认识不够

  Few recognition of the significance of sustainable development

4. 需求 Needs

- 设备方面：For equipment:
  - 移动式研究型空气质量监测设备

    Mobile air quality monitoring equipment
  - 移动式污染源监控设备

    Mobile equipment for emission source monitoring
- 培训方面：For training:
  - 对媒体/NGO的培训 Media /NGO training

4. 需求 Needs

- 重要决策人员/决策机制的培训
  Decision-makers/process training
- 公众参与及公共信息培训
  Public participation and out-reaching
- 技术人员针对性培训
  Technical training for specific topic
- 人力资源方面：For human resources
  - 强化和整合国家层面的专家队伍
    Enhance and integrate national experts team

4. 需求 Needs

- 在一般城市更多引入国际专家

  Introduce more international experts for conventional cities

- 建立机制关联地方政府与国家/国际专家库

  Build up links between localities and national /international experts team

4. 需求 Needs

- 建立地方专家队伍

  Cultivate local experts team
- 输出专家与信息到欠发达城市

  Inputting expertise /information to the behind cities

5. 如何做？ **How to?**

- 建立城市空气质量合作网

  Establish an AQM cooperation network among Chinese cities

  – 会员制/保证信息的正确性

  Membership /Correctness must guaranteed

  – 由城市管理人员主导

  Driving by the city AQM people

5. 如何做？ How to?

■ 发达城市 For developed cities
- 与媒体合作 Involve the media
- 开展公共信息与公众参与的培训
  Information dissemination and public training
- 建立信息分享渠道 Information sharing
- 支持长期的公共信息服务
  Long-term public information service

5. 如何做？ How to?

- 一般城市：Conventional cities:
  - 开展主题技术培训：城市空气质量管理
    Topic of training: Urban Air Quality Management
  - 进行示范项目：空气质量控制规划
    Pilot project: Air quality control planning
  - 进行示范项目：固定源/移动源控制方案
    Pilot project: Stationary /mobile source control scheme

5. 如何做？ How to?

– 进行示范项目：城市PM控制策略

Pilot project: Urban PM control strategy

■ 欠发达城市

The behind cities

– 媒体、政府与公众的环境意识培训

Training of environmental awareness for the media, government and public

Thank you !