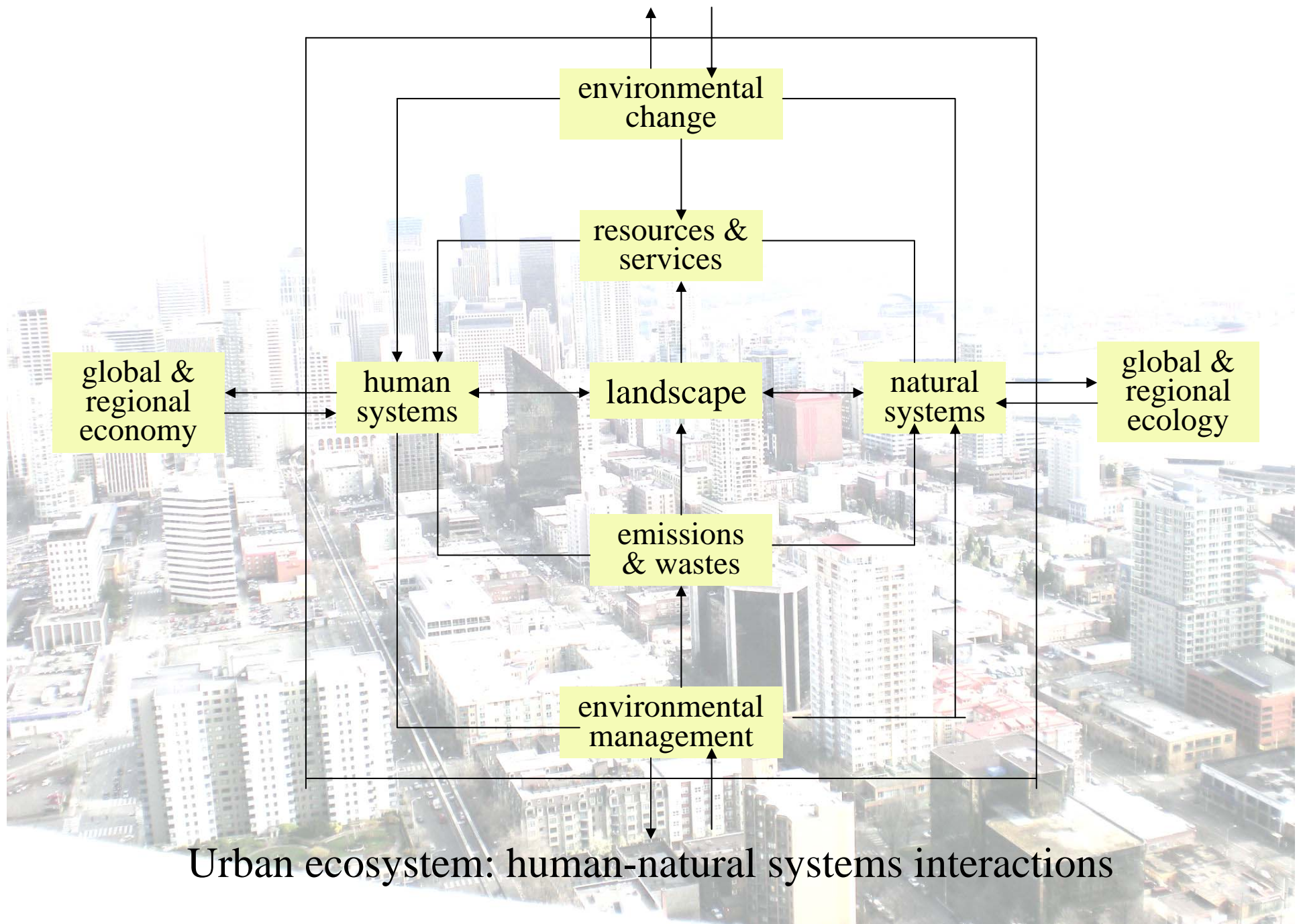




# ***Encouraging an Urban Forestry Ethic***

## **A Comparison of “Tree City USA” and China’s “National Garden City” Programs**

- ❁ Study purpose
- ❁ Comparison of Urban Forestry Programs: Tree City USA (TCUSA) vs. National Garden City (NGC) in China
- ❁ Advantages for China's urban forestry
- ❁ Challenges
- ❁ Recommendations
- ❁ Acknowledgements



Urban ecosystem: human-natural systems interactions





# Similarities of the two programs

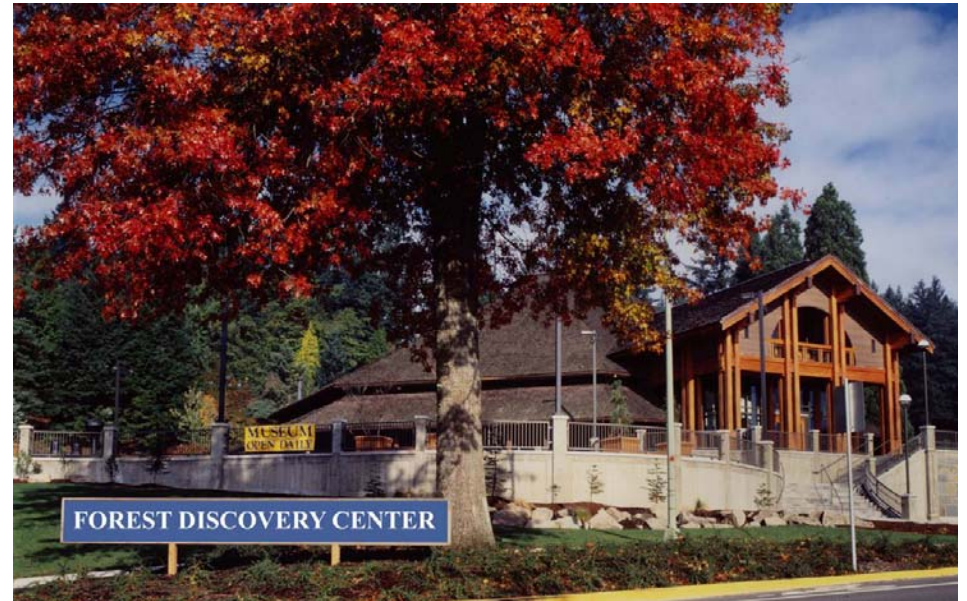
- ⌘ Same targets
- ⌘ Same level-national
- ⌘ Stress native plant species
- ⌘ Integrated with “Heritage Trees” - “Ancient & Famous Tree” programs and urban planning

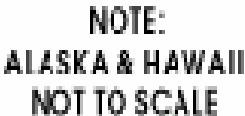




# Information Sources

- ❁ Literature
- ❁ Interviews:  
government officials,  
foresters, urban  
forestry NGOs,  
volunteers
- ❁ Participation: tree  
planting, tree pruning  
training, PLT
- ❁ Site visits: cities, parks,  
neighborhood







# Map of China

Locations of provinces,  
autonomous regions  
and municipalities.





# Tree City USA (TCUSA)

- ⌘ Sponsorship: Arbor Day Foundation, USFS, National Association of State Foresters
- ⌘ Started in 1976
- ⌘ Annual evaluation
- ⌘ Integrated with Tree City Growth Awards (4 categories, 48 items with 258 points for sustaining award)
- ⌘ >3400 cities have been awarded, nearly 100 million of people call home

10 Years



**TREE CITY USA**  
Arbor Day Foundation

GROWTH AWARD

3 Years

# City Size Does Not Matter

⌘ TCUSA-no community can be excluded because of size



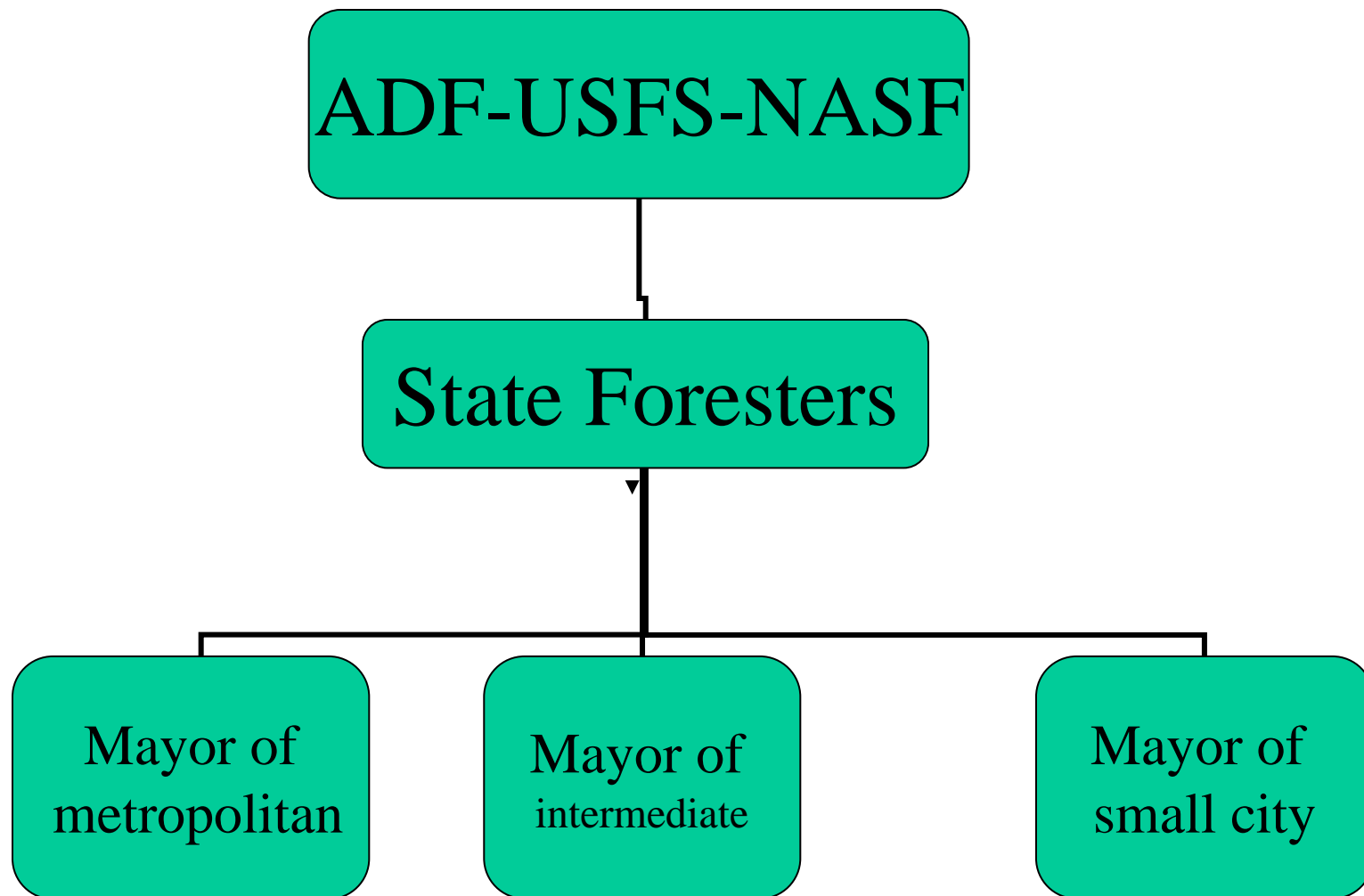


# TCUSA Standards

- ⌘ only 4 standards for entering
  - 3 qualitative standards
  - 1 quantitative
- ⌘ with a very comprehensive “Tree City Growth Award” system to encourage continual progress
  - ⌘ Stress stewardship: 2 categories, 23 items, 104 points relate to public relations & partnership

# TCUSA Application and Appraisal

- ❁ Application: annual, due Dec. 31
  - completed application
  - required proof of documentation  
(narrative description, copies of documents, copies of printed brochures and newspaper clippings)
- ❁ Appraisal: by state forester, then submits to ADF for processing



TCUSA-appraisal procedure



# TCUSA Administration

- ❁ Based on holistic laws, acts, ordinances and regulations
- ❁ Comprehensive “Tree City Growth Awards” acts as a continual motivator- “rat pulls wooden shovel, something bigger is behind”



# Some other good points in US related to UF

- ⌘ Extension and training
  - ⌘ Free training to public, demonstration garden
- ⌘ Long term planning
  - ⌘ Seattle 2100 greenspace plan; relations of trees and other infrastructure, tree maintenance
- ⌘ Attention to habitat of wildlife (habitat triangle: food, water, shelter)
- ⌘ Special concern: energy saving, biomass recycling, IPM
- ⌘ Commonly applied mulching
- ⌘ Safety awareness



Temple garden in Kunming, China



# National Garden City (NGC)

- ⌘ Sponsored by Ministry of Construction
- ⌘ Started in 1992
- ⌘ Popular since 2001 (after a national urban greening conference sponsored by State Council was held in Feb. of that year)
- ⌘ Applications accepted once every other year
- ⌘ Recheck every three years
  - ⌘ Passed-title remains
  - ⌘ Failed-gets warning, must improve by deadline
  - ⌘ Failed to improve-title is revoked

授予：开平市

国家园林城市

中华人民共和国建设部

二〇〇三年十二月

# NGC – City Size Matters

- ⌘ NGC-Ordinary cities, with populations of:
  - ⌘ >1 mil
  - ⌘ 0.5-1.0 mil
  - ⌘ < 0.5 mil
- ⌘ NGD (district)-Districts of municipality, independently planned cities and provincial capitol cities
- ⌘ NGCT (county town)
- ⌘ NGT (township)





# NGC Standards

- ❁ 4 items of preconditions
- ❁ 8 chapters, 60 items with 100 basic points
- ❁ 9 special items.
- ❁ Concerns planning & design; landscape protection; greenery; nursery, etc.



# Fundamental Criteria for NGC

index Pop.	Public greenspace (m <sup>2</sup> /capita)		Greenspace to land ratio (%)		Greenspace canopy coverage ratio (%)	
	South China	North China	South China	North China	South China	North China
>1.0 mil	7.5	7.0	31	29	36	34
0.5-1.0 mil	8.0	7.5	33	31	38	36
<0.5 mil	9.0	8.5	35	34	40	38

# NGC: 4 Preconditions

- Established urban forestry planning and has undertaken for over 3 years
- Passed self-checking with corresponding criteria
- Awarded provincial garden city over 2 years
- No severe vandalism to green-space in recent 3 years

# NGC Application and appraisal

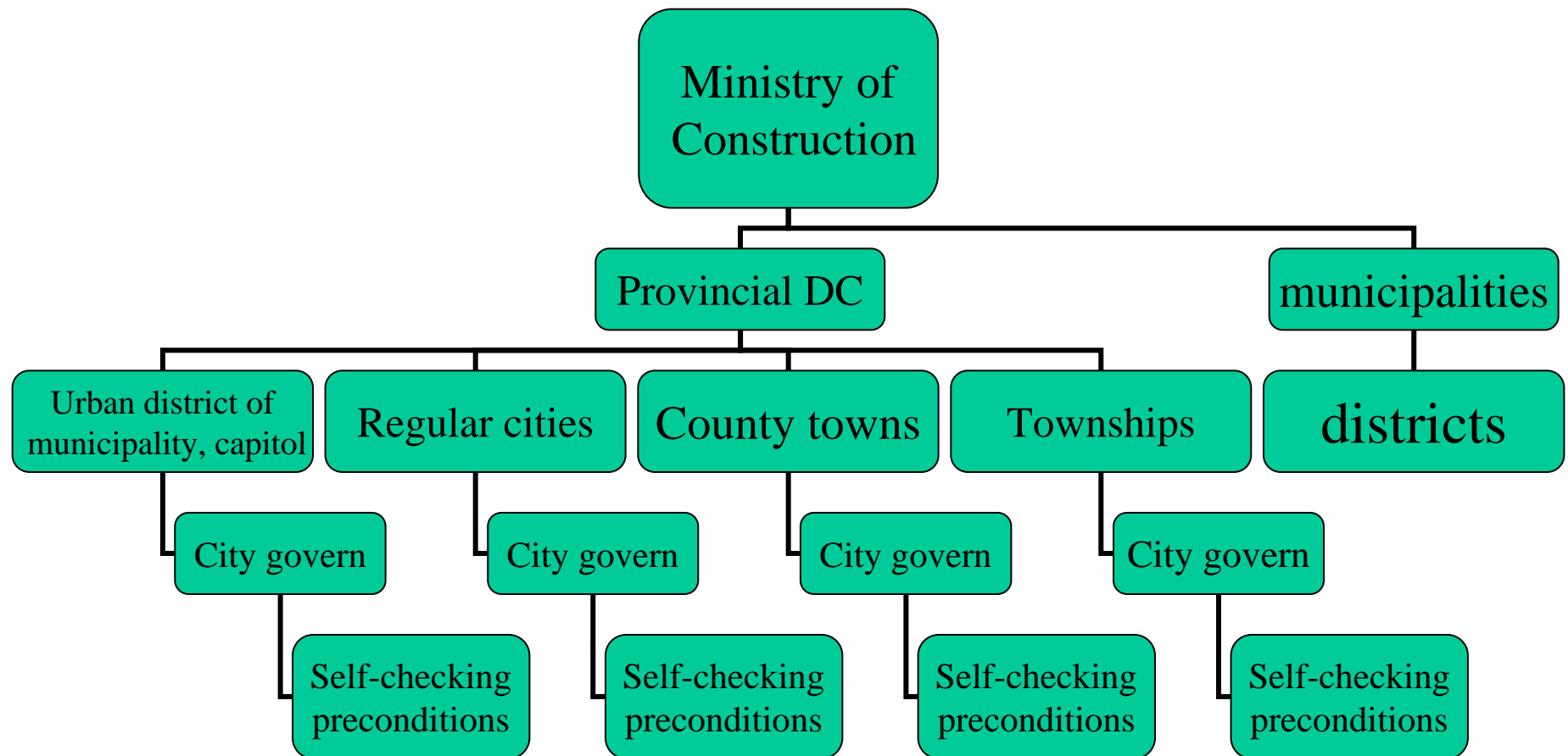
- ❁ Application: biennial, due May 31
- ❁ Appraisal: complicated procedure





# Application documents (hard paper and on line application simultaneously)

- ⌘ Report of provincial construction bureau and preliminary evaluation for candidate city
- ⌘ Application report of applicant city government
- ⌘ Supporting documents



# NGC appraisal procedure and categories

# Supporting documents requested:

- ❖ Technical report (manuscript and video)
- ❖ Introduction to background, infrastructure, environmental status, etc, of the city
- ❖ Green-space planning, authorization and undertaking status, greenline system and observation
- ❖ Detailed illustration based on the criteria
- ❖ Urban forestry administration organization and operation
- ❖ Map of greening situation, video and pictures showing the funding for NGC

# NGC follow up administration

- ⌘ rechecked with the same standards every three years - “tiger head with snake tail”
- ⌘ Tough threshold, low maintenance





# Major Differences between TCUSA and NGC

## ⌘ Sponsorship

- ⌘ TCUSA - ADF, USFS, NASF
- ⌘ NGC - MC

## ⌘ Standpoint and emphasis

- ⌘ TCUSA - process-oriented and encourages future improvement (Growth Award Certification, large space for NGO development)
- ⌘ NGC - output oriented-sets high bar

## ⌘ Criteria

- ⌘ TCUSA-more qualitative (3/4std)
- ⌘ NGC-more quantitative (8/5chap,24/60items)

## ⌘ Plaque

- ⌘ TCUSA plaque can be fixed street side near the entrance to the specific city boundary;
- ⌘ NGC's may only be shown in the office.



# Fundamental differences

TCUSA	NGC
Process oriented	Output oriented
Bottom-up	Top-down
Involves public	Government-centered



# Advantages to develop urban forestry in China

- ⌘ Diverse climate and landscape
- ⌘ Long history and varied culture
- ⌘ Rich in plant resources
- ⌘ Increased public concern
- ⌘ International experience and concept
- ⌘ Present status
  - ⌘ Some models were set up in different regions
  - ⌘ Institutional greenspace improved
  - ⌘ Tree species planning implemented
- ⌘ More investment than before



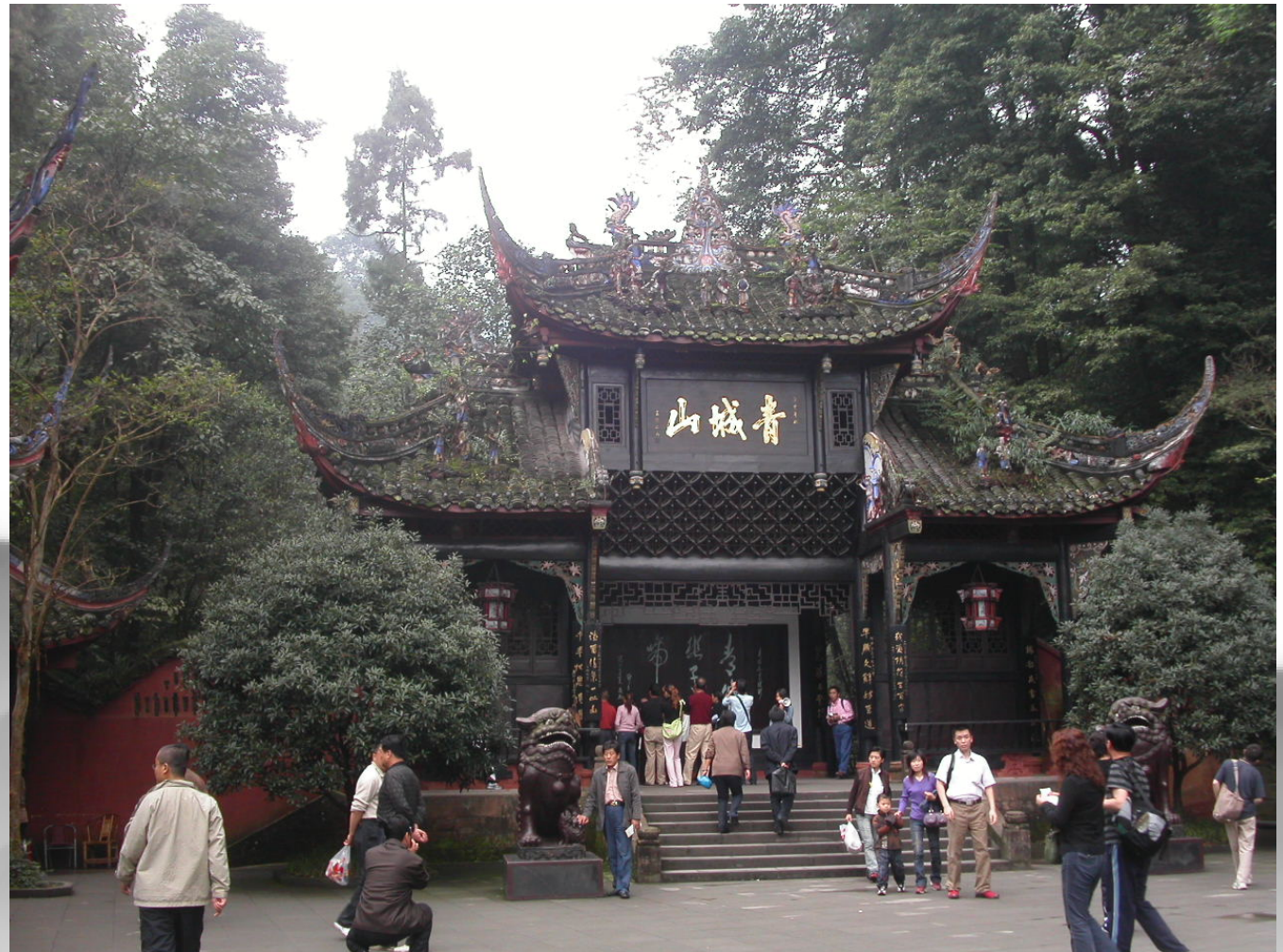








# Old temples preserved









**Parks and downtown buses are  
free to elderly people (>60)**







# Attention paid to restore historic relics

# Challenges for China to develop urban forestry

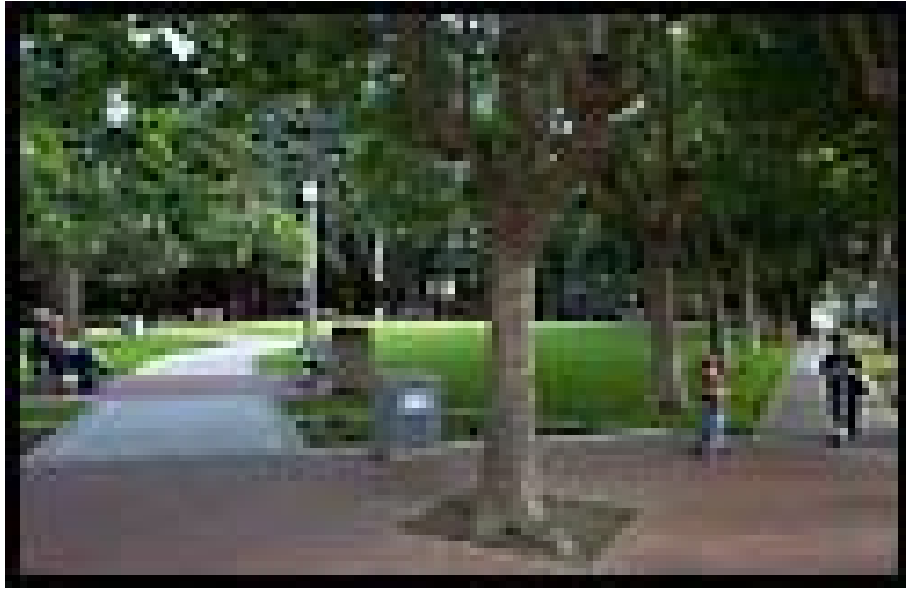
- ⌘ Operation regime (government controlled, leader predominated)
- ⌘ Public Ethics poor (poor conscientiousness, voluntary tree planting became nominal, little involvement, much vandalism)
- ⌘ Short of long term planning
- ⌘ Little concern of wildlife survival triangle
- ⌘ Low canopy cover in central area of most cities
- ⌘ Low resource per capita
- ⌘ Few native species planted
- ⌘ Sapling supply







# Large tree transplanting



# Recommendations

- ⌘ Encourage public involvement
- ⌘ Long-range planning
- ⌘ Rational greenspace design
- ⌘ Integrated to national and ethnic culture
- ⌘ Native species centered
- ⌘ Vertical greening by climbers and liana species and roof gardens
- ⌘ Better maintenance







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谢谢



🌸 Thank you so much!

