

# China Coal Cap

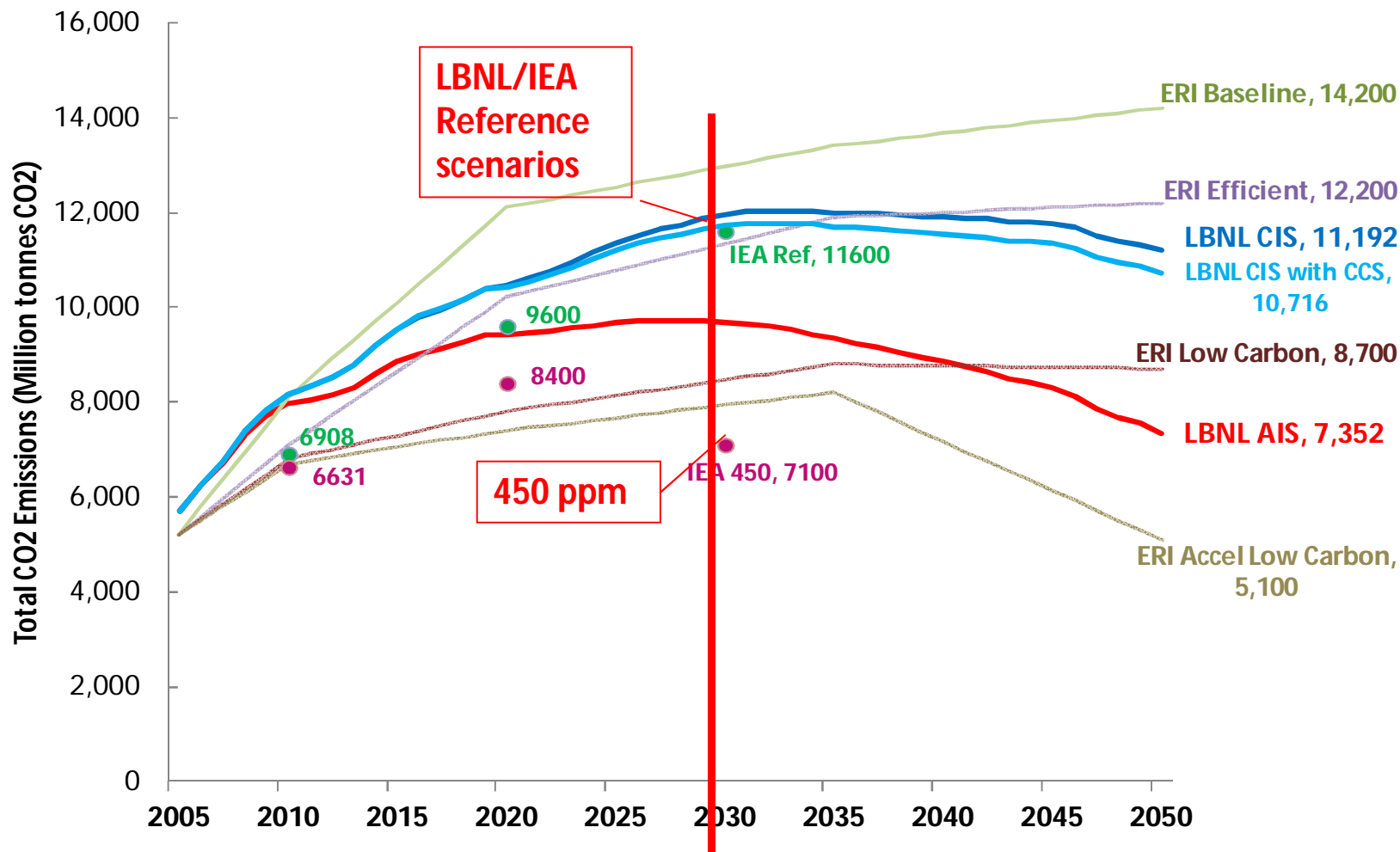
**Must-Win Strategy And Roadmap**

**For Weaning China Off Coal**



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**Natural Resources Defense Council**  
**November 29, 2011**

# China's Climate Challenge

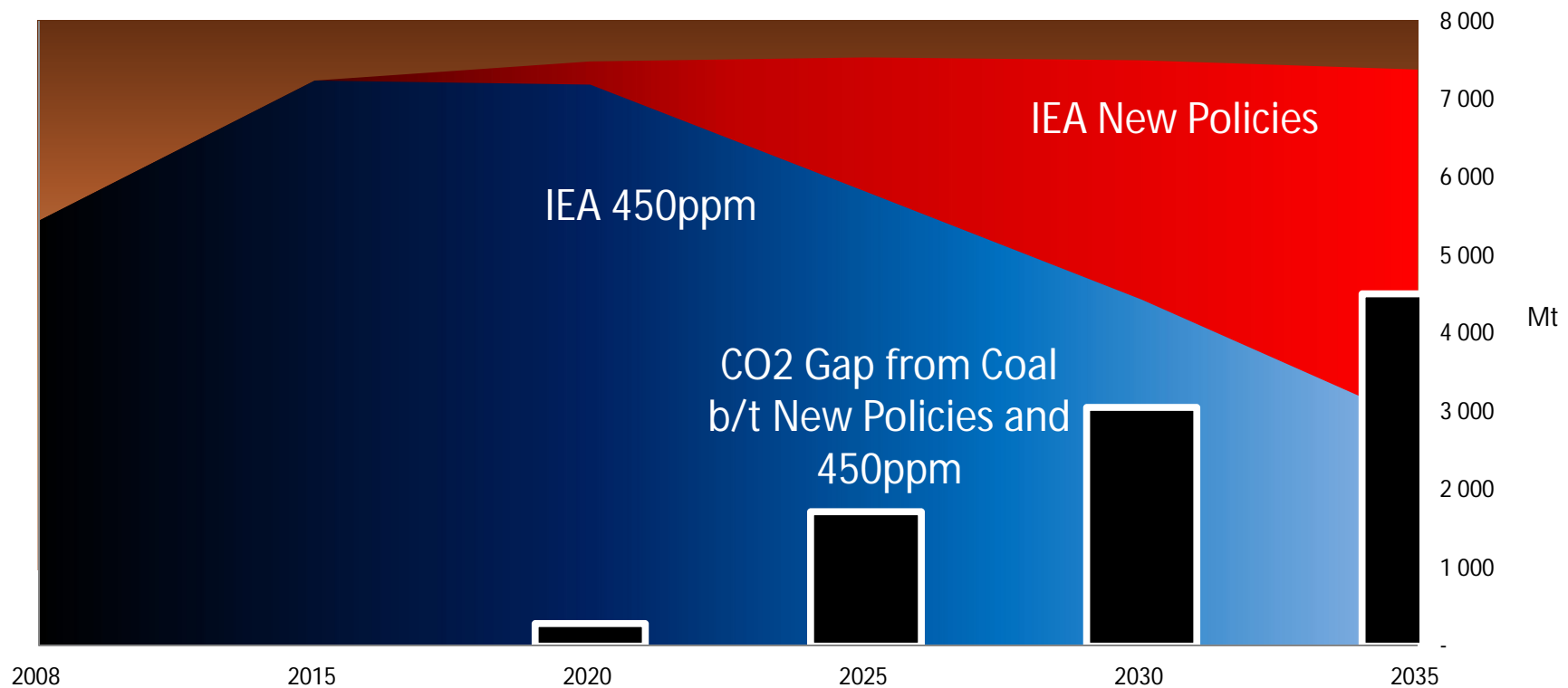


Comparison of Carbon Emissions among Scenarios



# China's Coal Challenge

## China's CO<sub>2</sub> emissions from Coal

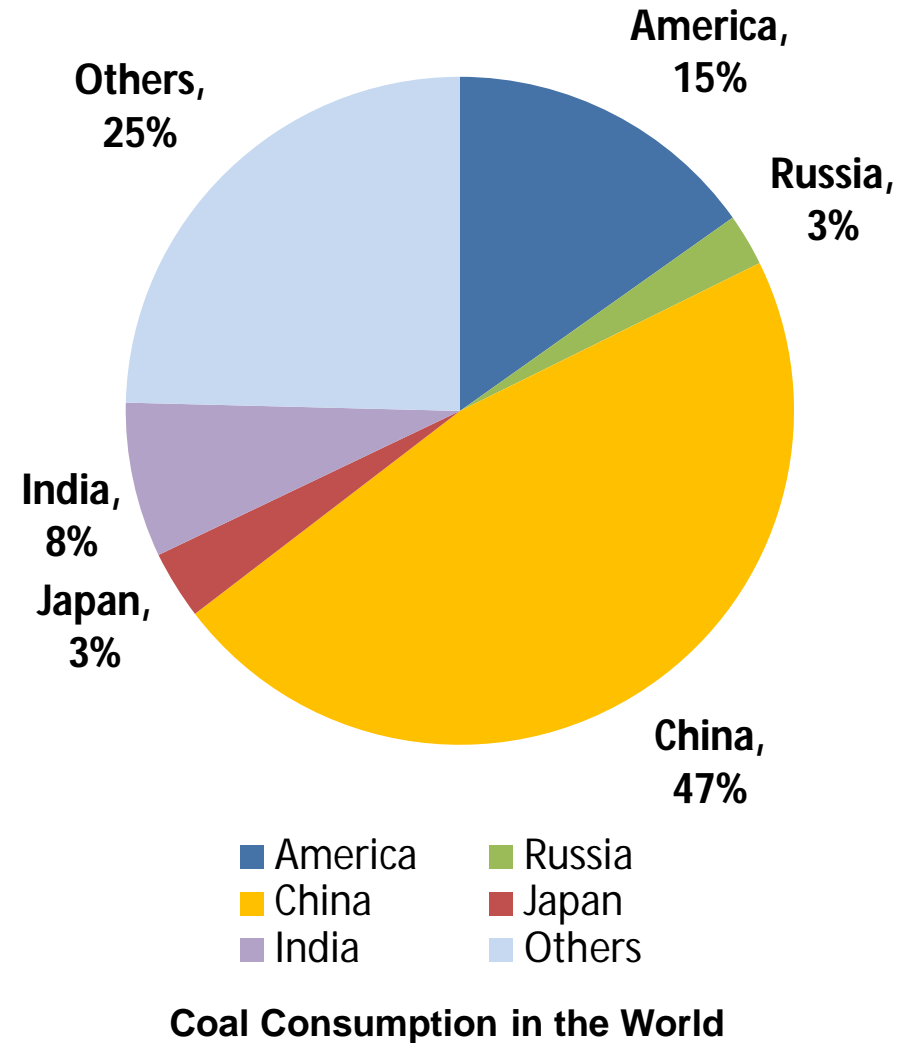
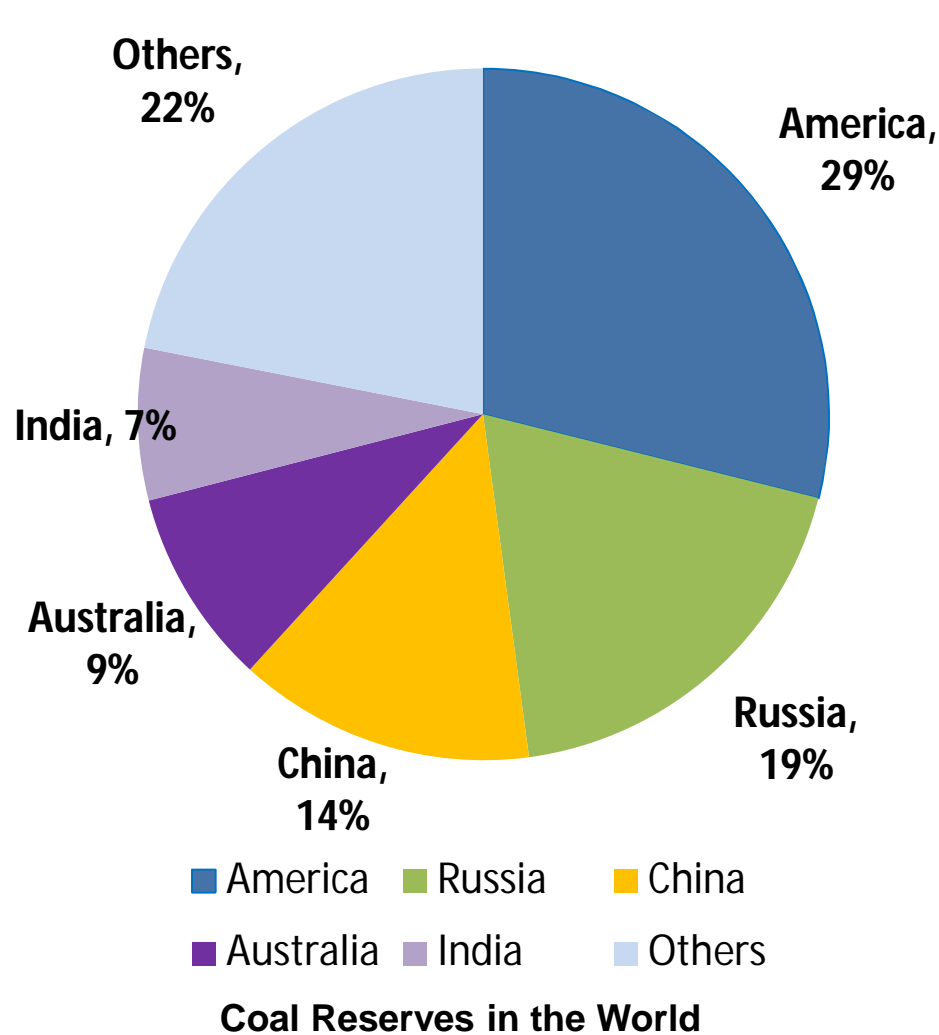




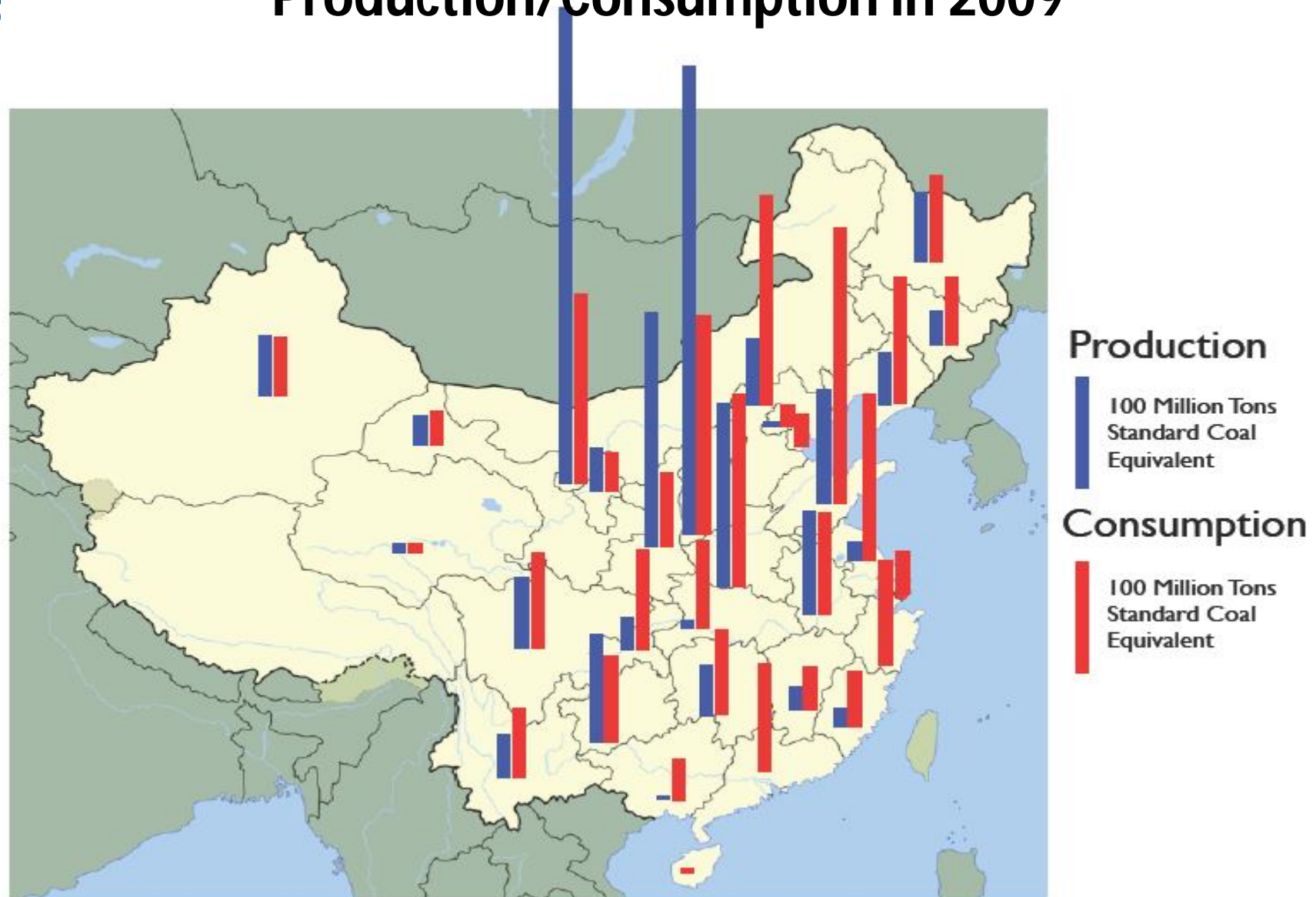
# Political Feasibility of A Coal Cap in China

- Supportive mindset for climate and environmental issues exists at the government, corporate and individual levels
- In the 12th Five-Year Plan, China is implementing energy intensity target of 16%, carbon intensity target of 17%, and environmental targets of 4 major pollutants – these have already been disaggregated down into provincial targets
- By 2020, China commits to achieving 40-45% reduction in carbon intensity from 2005 levels and 15% new and renewable energy use in total energy consumption
- China's 12<sup>th</sup> Five-Year Plan calls for “reasonably controlling total energy consumption”, for which several proposals are currently being considered. The government is currently looking at a program to abate total energy consumption
- Control of total coal consumption is currently under discussion
- The Ministry of Environmental Protection is implementing coal consumption control plans in “3 Regions and 6 City Clusters”
- More than 600 cities in China are implementing eco-development strategies
- China is very proficient in coal policy and technology and has many years of experience in research and development
- Both the public and NGO's have fully recognized the momentous impact of coal consumption on the environment, public health and climate change

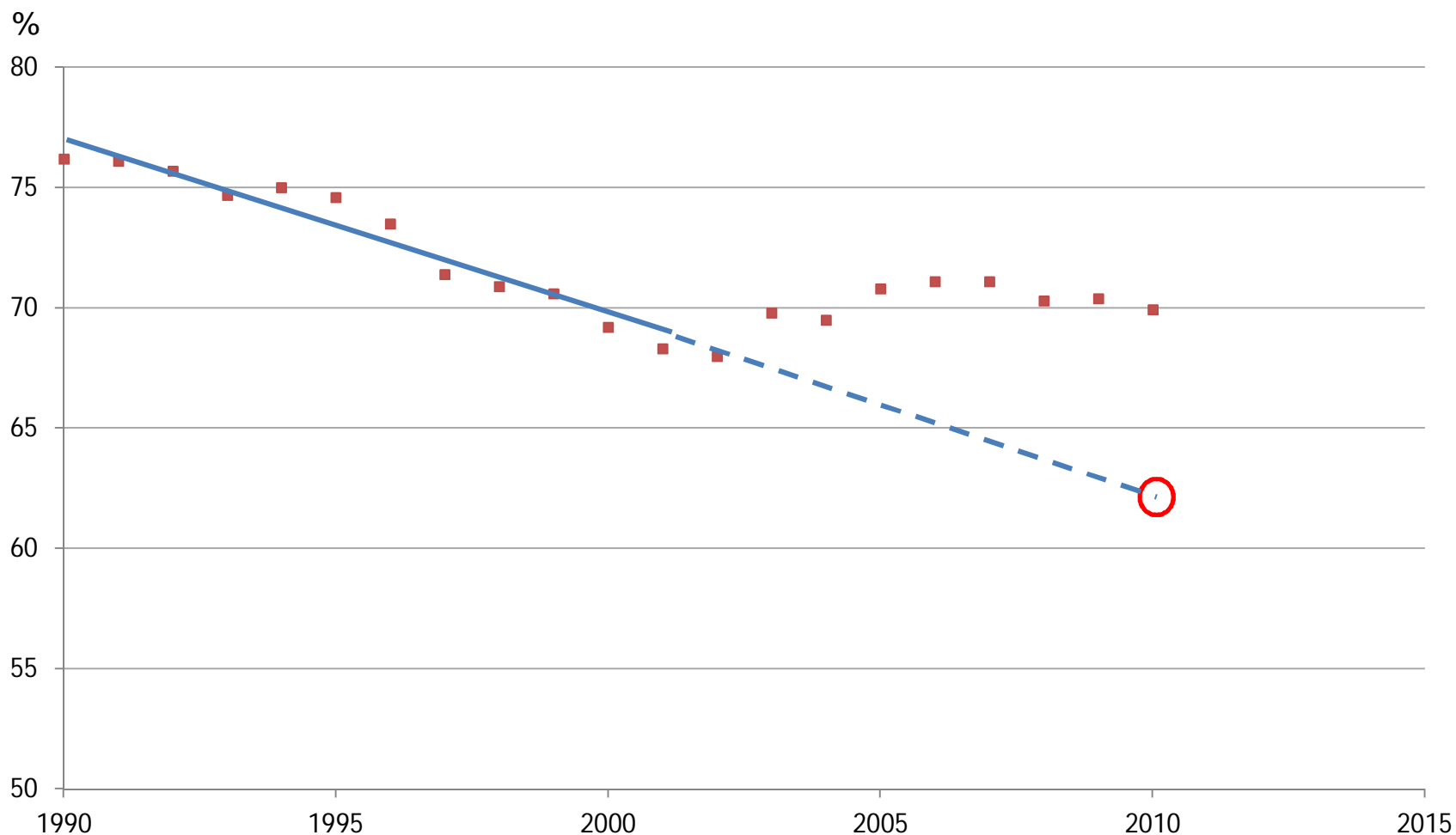
# Coal Reserves and Consumption of Top 5 Countries in the World in 2009



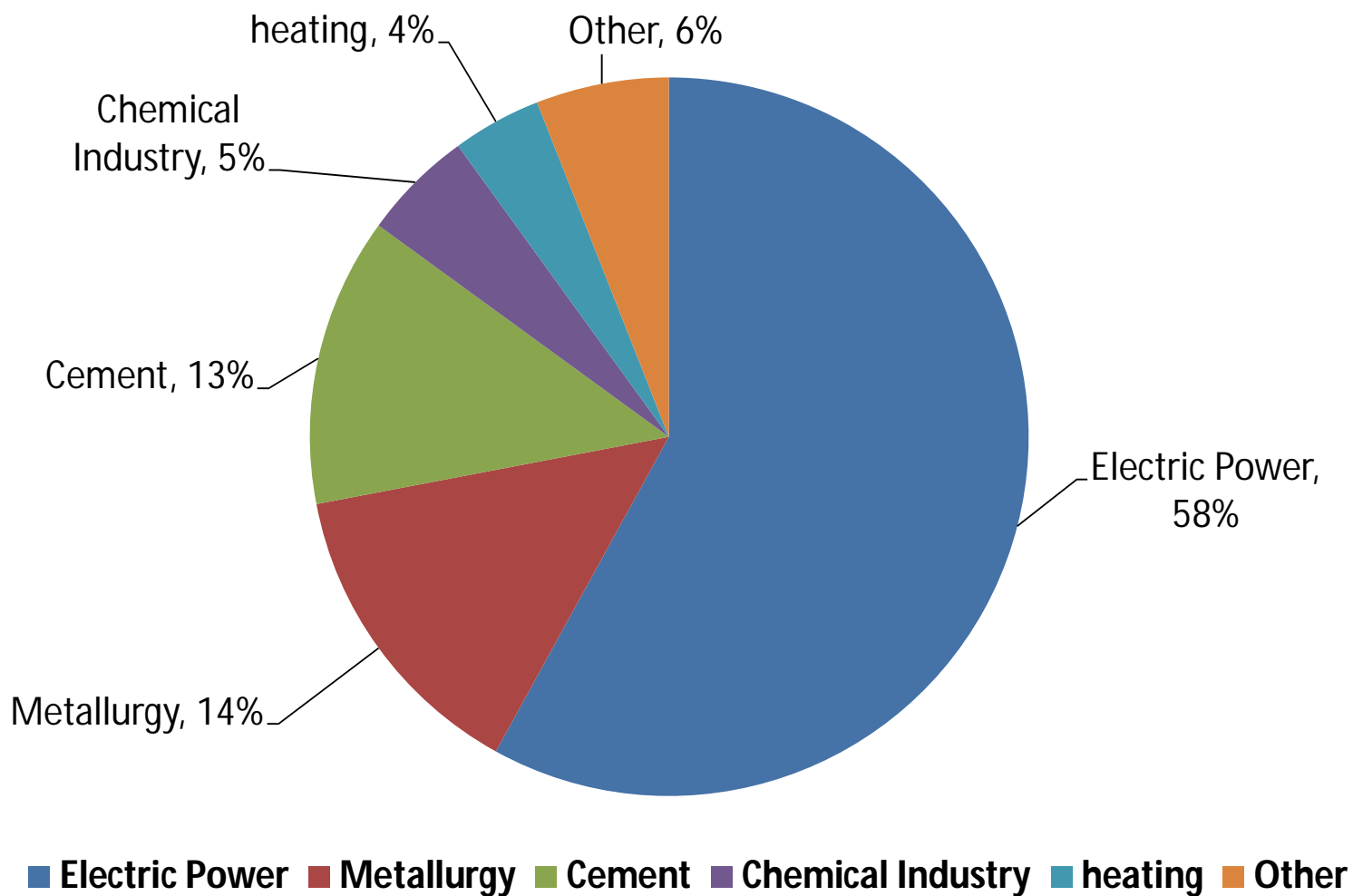
# China's Provincial Coal Production/Consumption in 2009



# Coal Share in Total Energy Consumption (1990-2010)

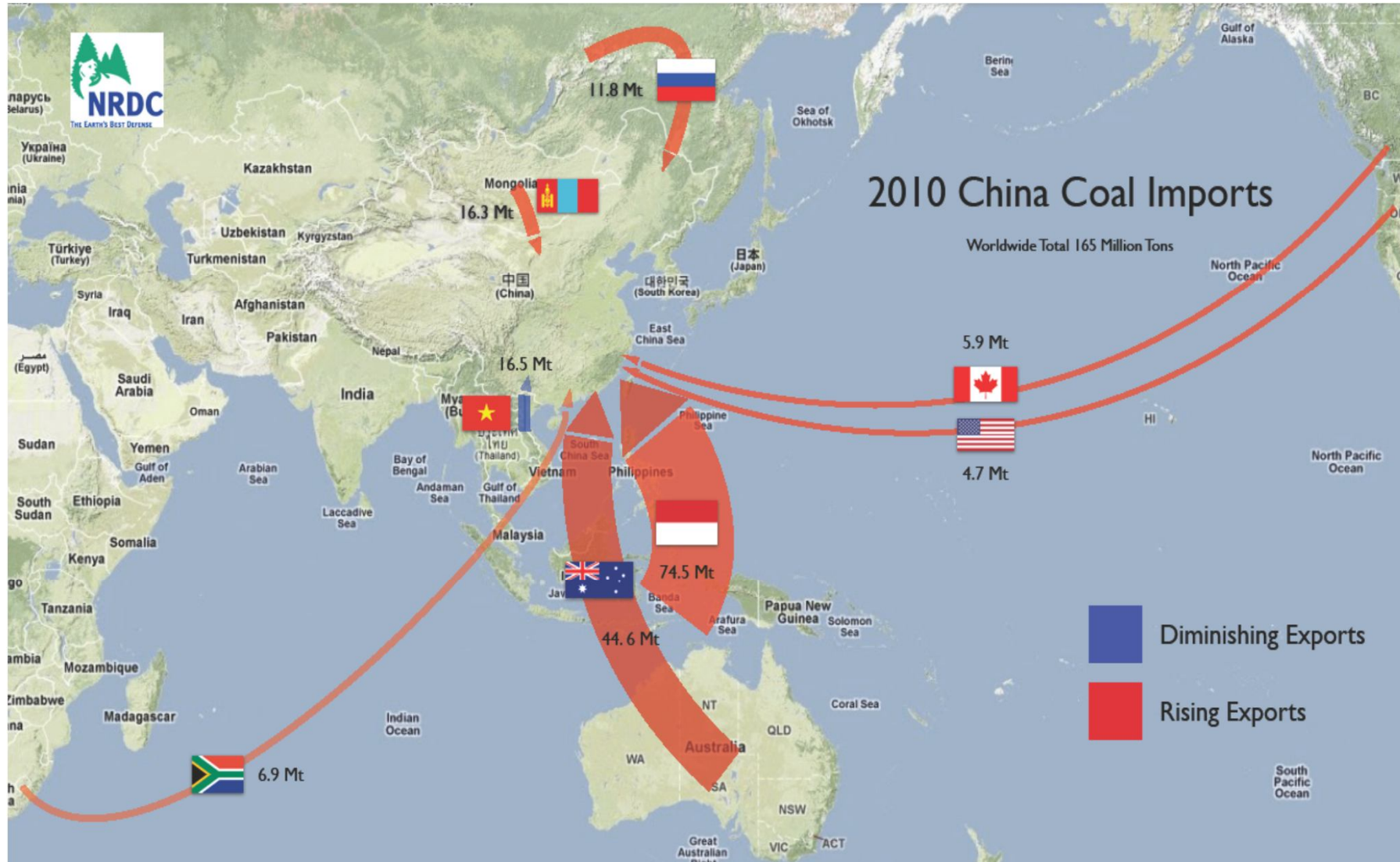


## Coal Consumption By Sector in 2009





# Coal Imports/Exports

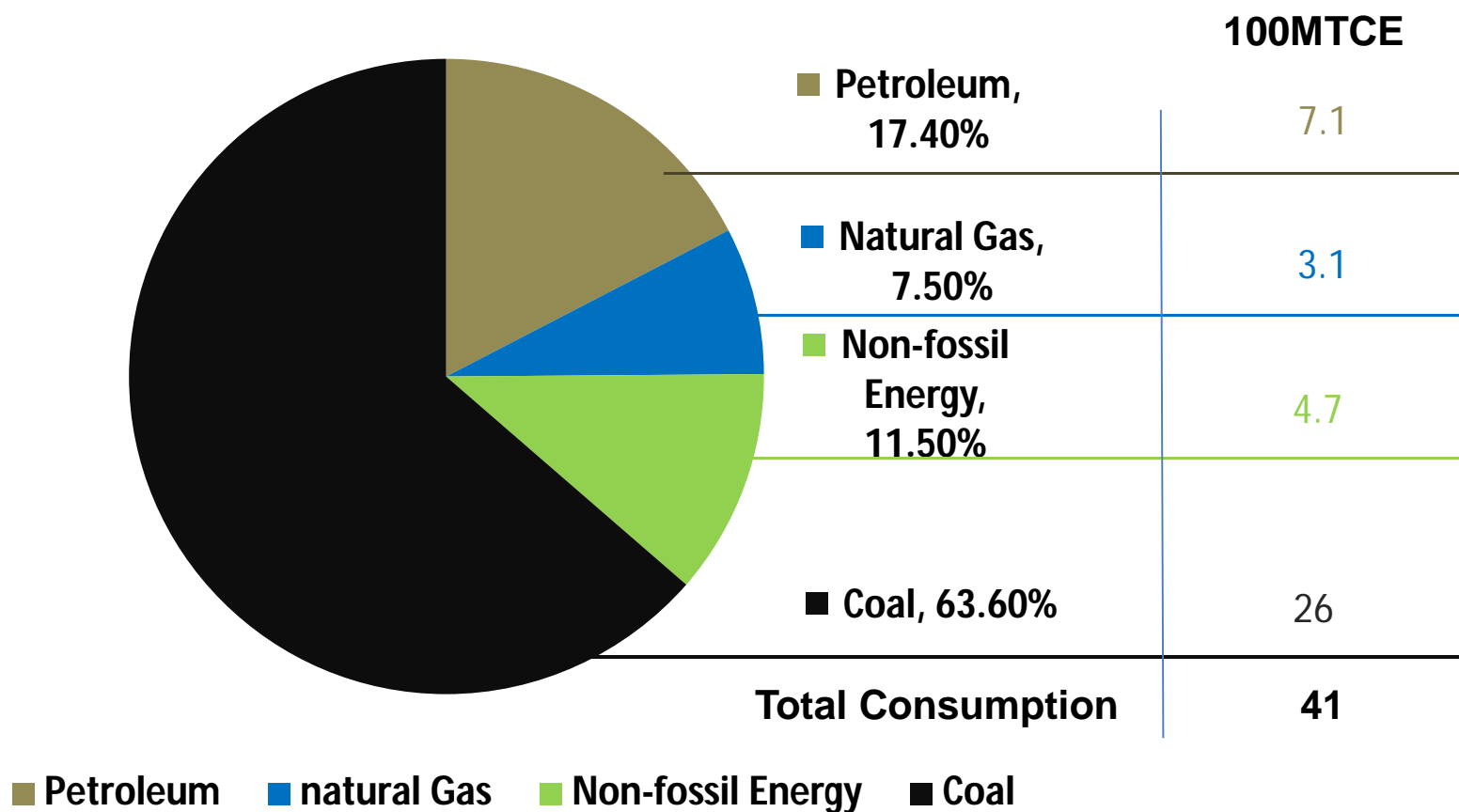




## **Environmental and Ecologic Losses from Coal Use and Exploitation Equivalent to 7-9% of Annual GDP**



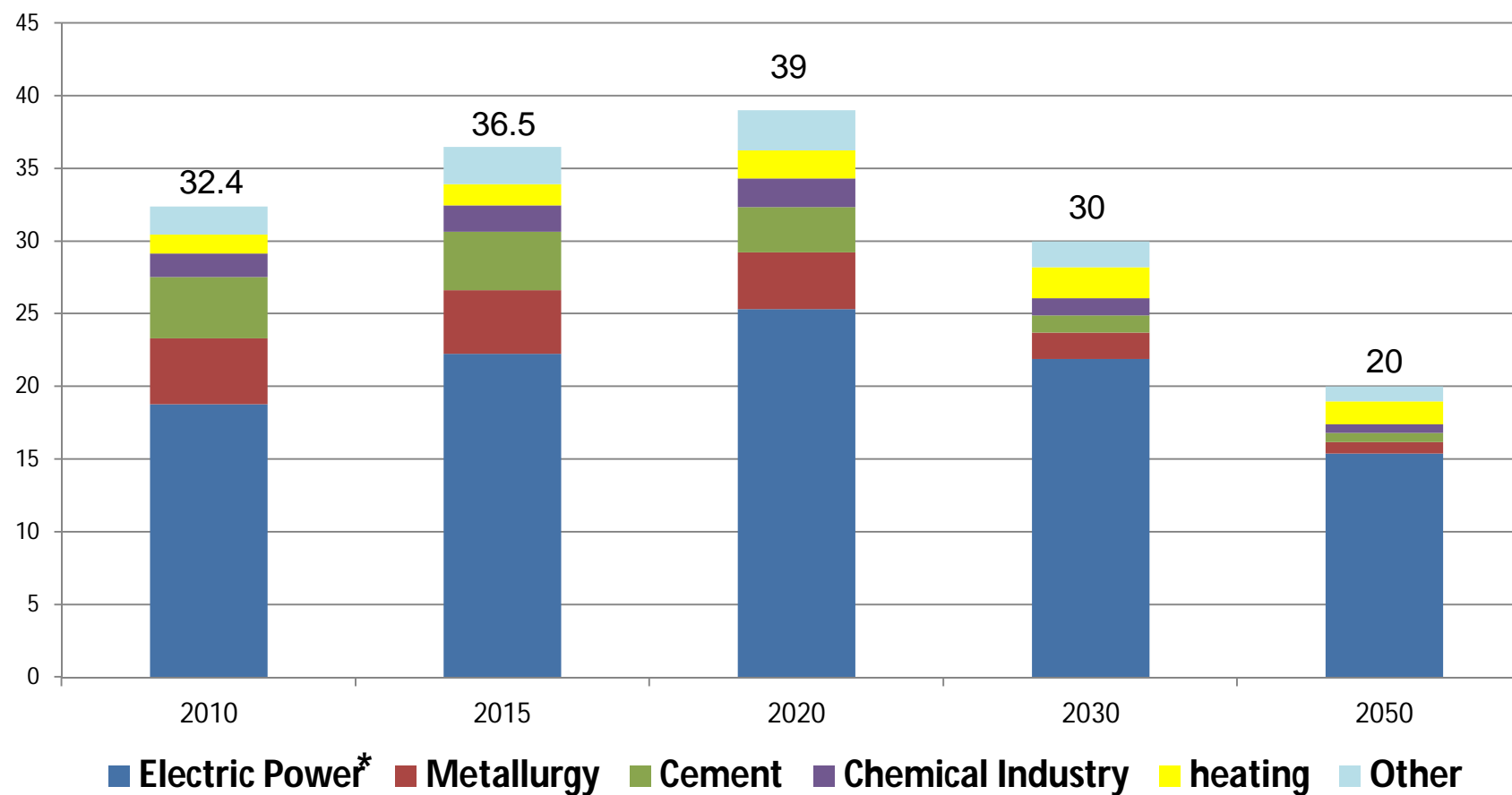
# Energy Consumption Target and Structure in 12th Five Year Plan



**Note: 2.6 billion TCE of coal = 3.65 billion ton of coal**

# Indicative Sectoral Coal Cap Roadmap 2010-2050

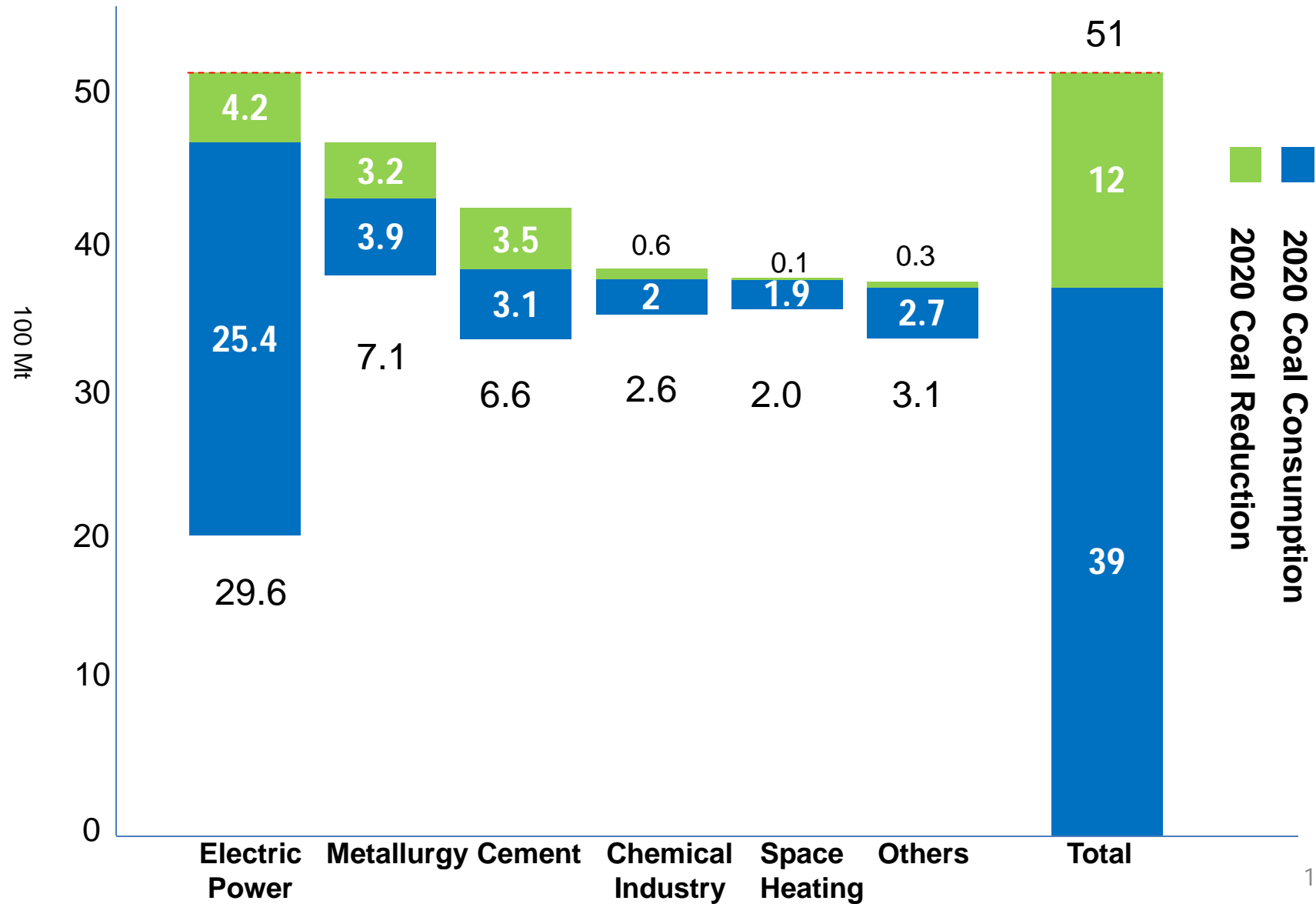
Coal 100 Mt



**\*This assumes significant CCS penetration after 2025**



# Indicative Sectoral Coal Caps in 2020



# Current Local Coal Cap Pilots: 2020

(3 Regions and 6 City Clusters)

❁ 2011-2015:

3 Regions:

Beijing-Tianjin-Hebei region/  
the Yangtze River Delta/  
Pearl River Delta



2016-2020:

6 City Clusters:

Central Liaoning

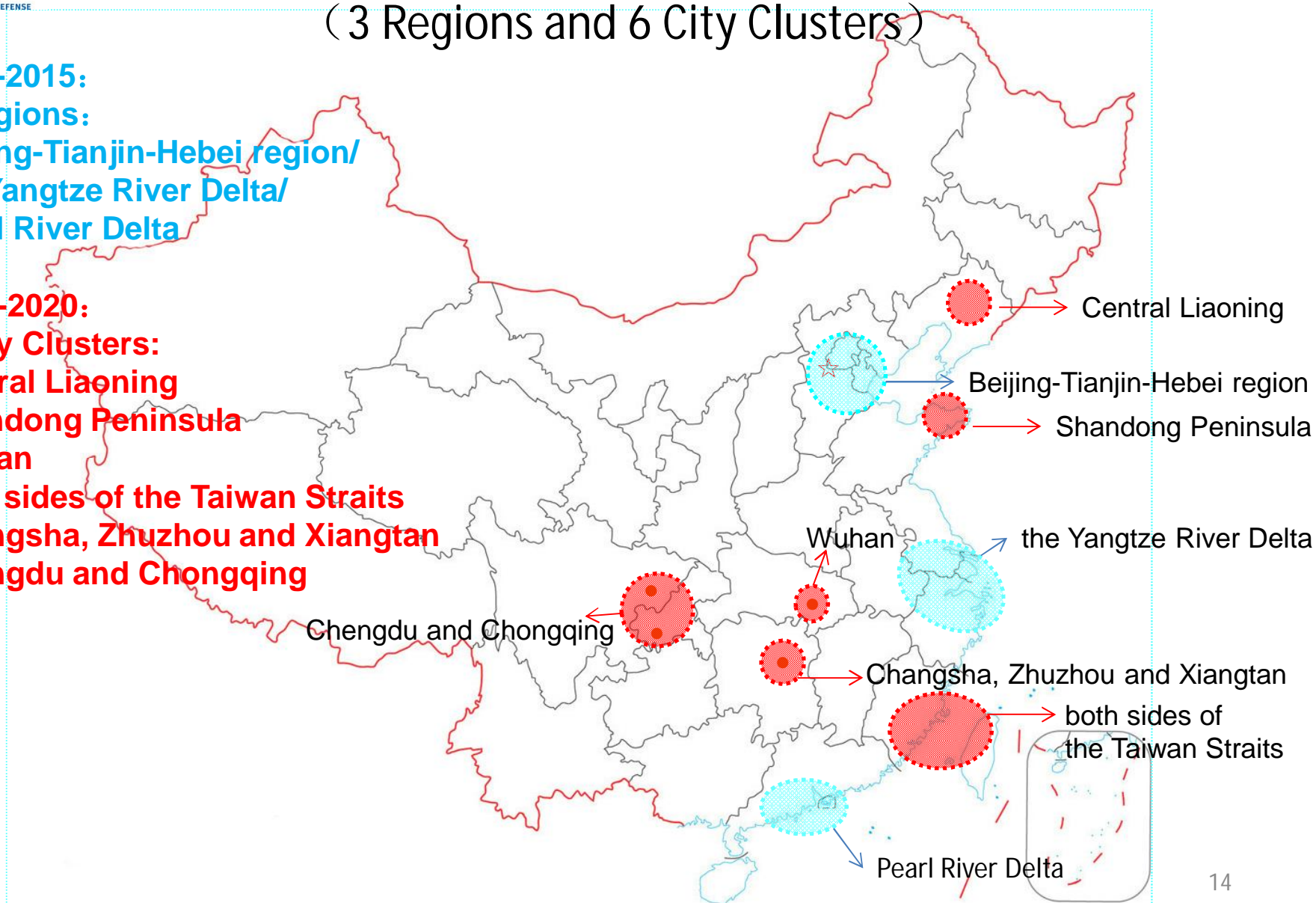
Shandong Peninsula

Wuhan

both sides of the Taiwan Straits

Changsha, Zhuzhou and Xiangtan

Chengdu and Chongqing



# Low-Carbon Demonstrations

## NDRC Pilots in 5 provinces and 8 cities



Coal  
Production:  
Inner  
Mongolia  
and  
Shanaaxi

Coal  
Consumption:  
Jiangsu and  
Guangdong

# Indicative Local Coal Caps: Roadmap 2010-2030

## 2011-2015:

Beijing, Shanghai,  
Guangdong pilot cities and  
all provincial cities in the  
eastern regions

## 2016-2020:

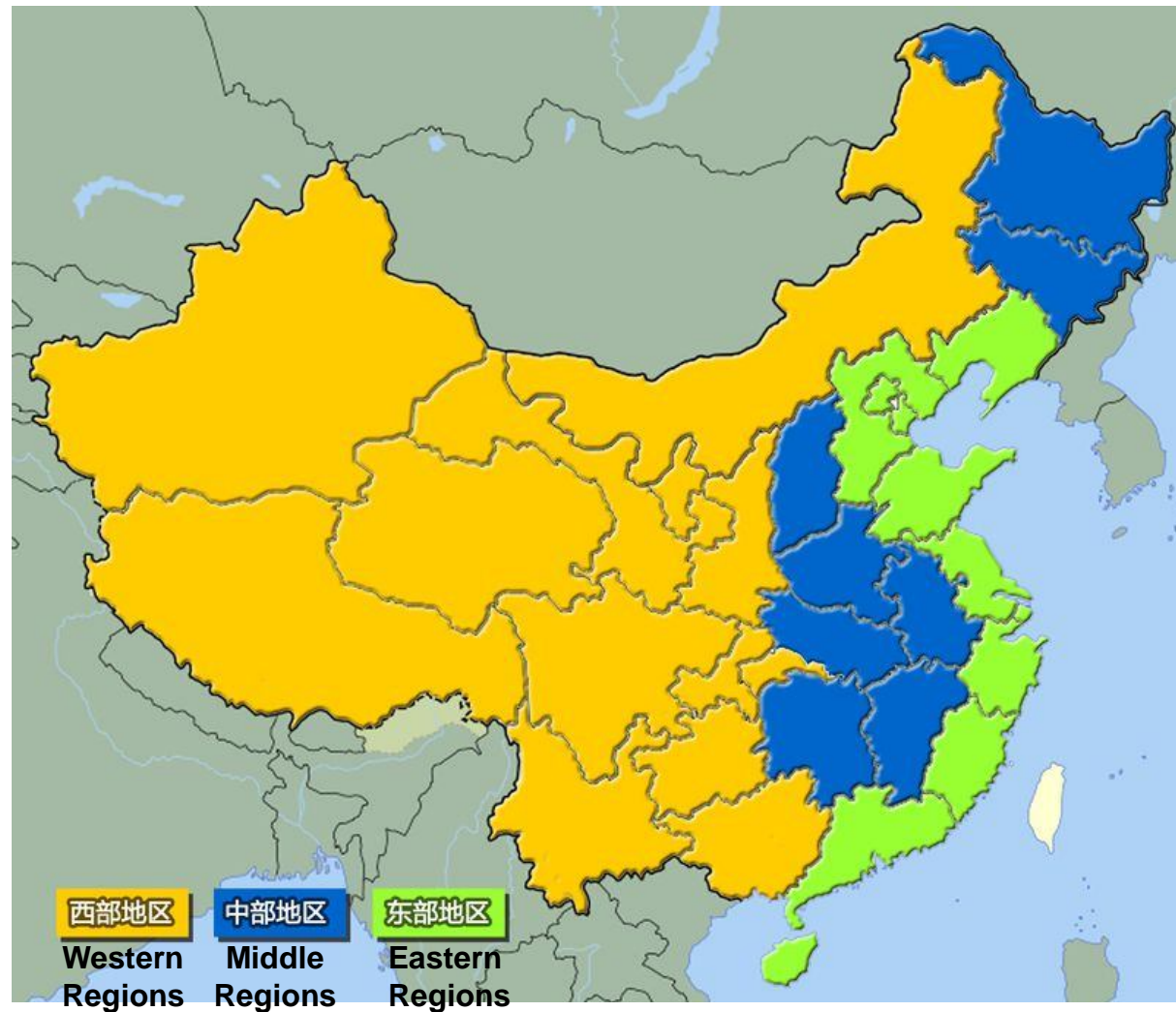
All cities in the eastern  
regions and provincial  
cities in the middle regions

## 2021-2025:

All cities in the middle  
regions and provincial  
cities in the western  
regions

## 2026-2030:

All 650 cities in the country





# Coal Governance

## Government

- Central, provincial and municipal governments should adopt coal cap scheme in energy planning
- Strengthen reliability and collection of statistical information
- Effective regulatory and enforcement ability
- Integration of administrative measures and financial incentives

## Private Sector

- Establish a position of Chief Climate Officer (CCO) in top executive role to better promote CSR
- Develop low-carbon green energy strategies
- Use MRV's for carbon information disclosure and third-party verification

## NGO's

- Research
- Advocacy, C+ program
- Design and strengthen enforcement of complementary measures
- International best practices
- Implementation of pilot projects
- Public awareness and education

# Effective Strategies for China Coal Cap



## Conclusion

- 1) The time is ripe to develop must-win strategies and solutions to weaning China off coal. A successful coal cap will lead to huge co-benefits in both China and the world
- 2) Initial steps focus on developing effective policy solutions that can remove the barriers and obstacles to coal cap
- 3) Work with the central government to rapidly integrate coal cap and complementary measures with the government's existing goals for energy saving and carbon reduction
- 4) Need new strategic, coordinated, and ambitious NGO strategy to campaign “win on coal in China”

