



INMS Plenary Meeting, Lisbon, 27-28 April 2015



The nitrogen issue in China:

N budget and fertilizer N use efficiency

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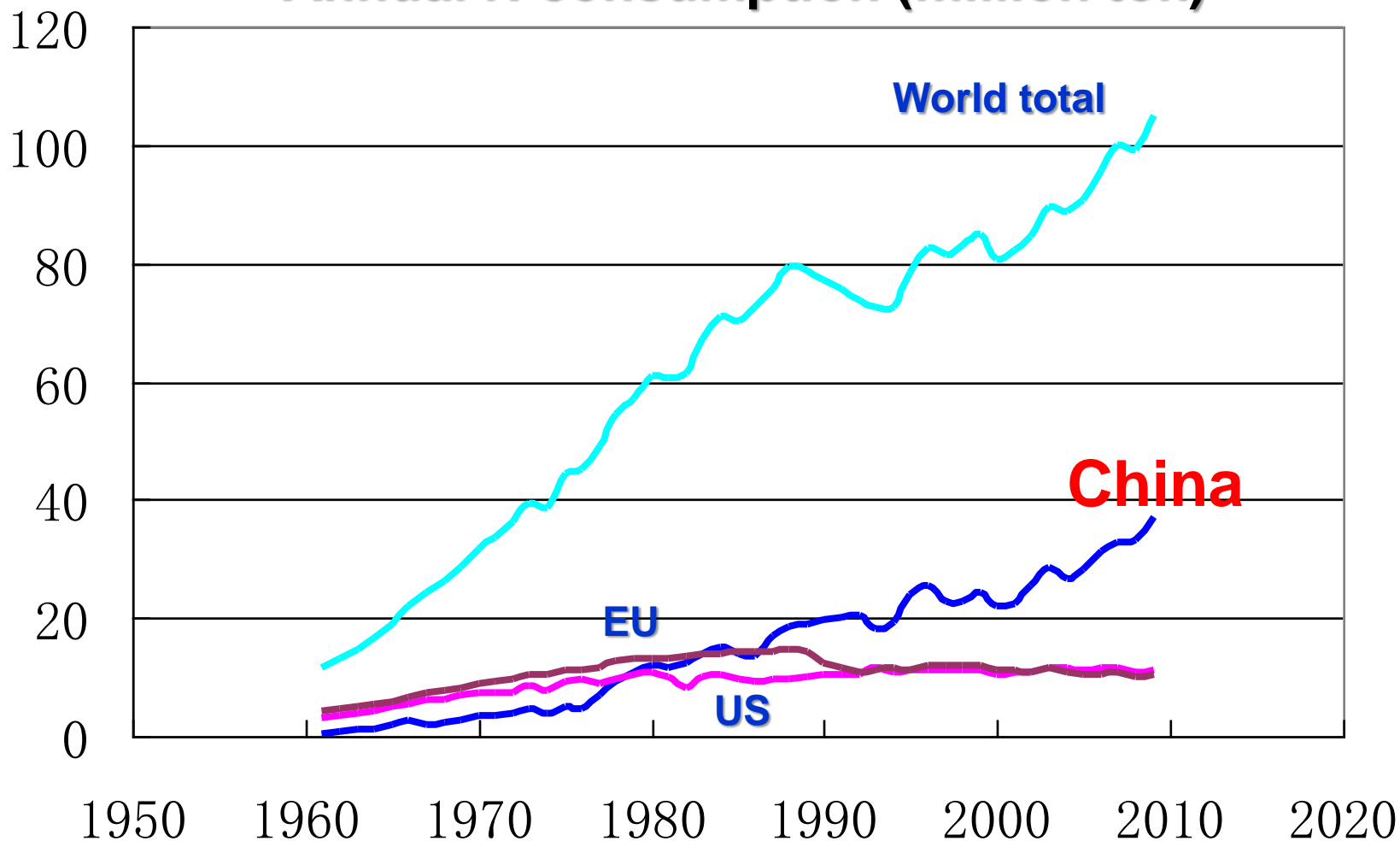
Institute of Soil Science, Chinese Academy of Sciences

27-28 April 2015

N fertilizer consumption



Annual N consumption (million ton)



Environmental impacts of reactive N



Qingdao, Shandong province (2011)



Nanjing, Jiangsu province (2013)



Chaohu Lake, Anhui province (2009)



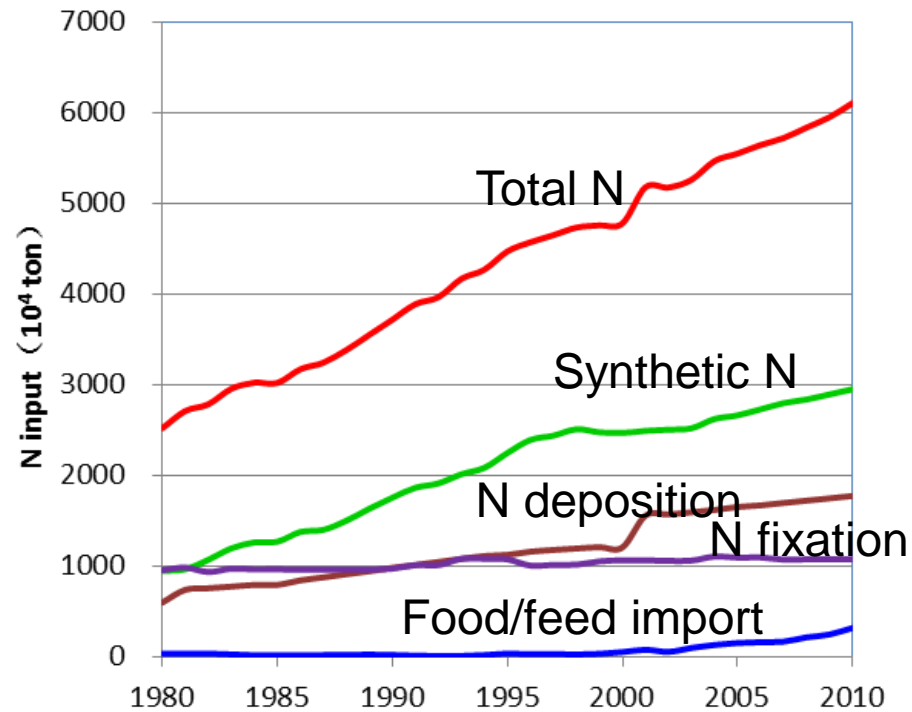
Qiyang, Sichuan province



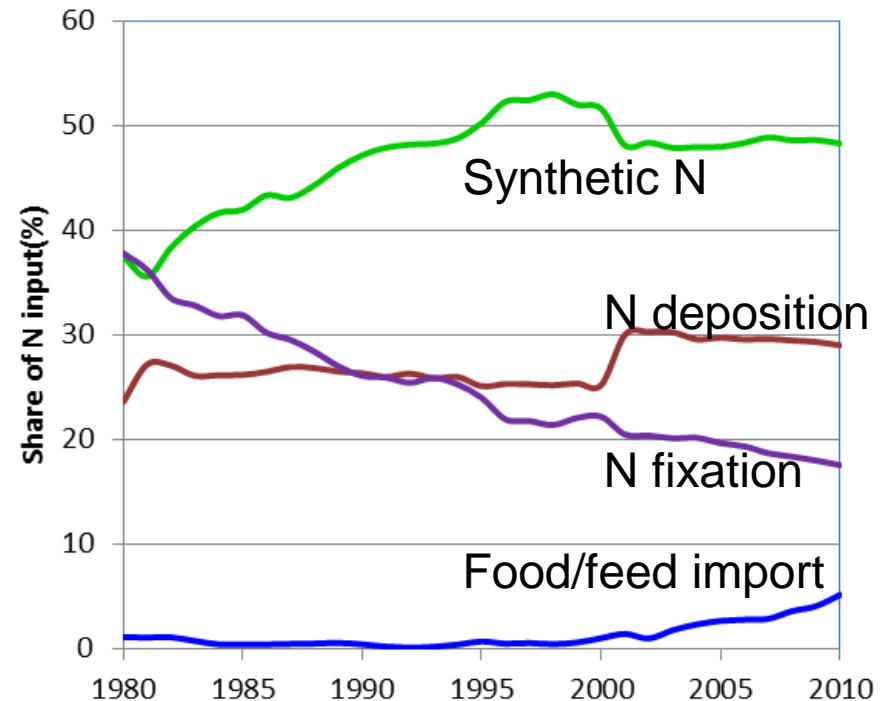
N input: 1980-2010



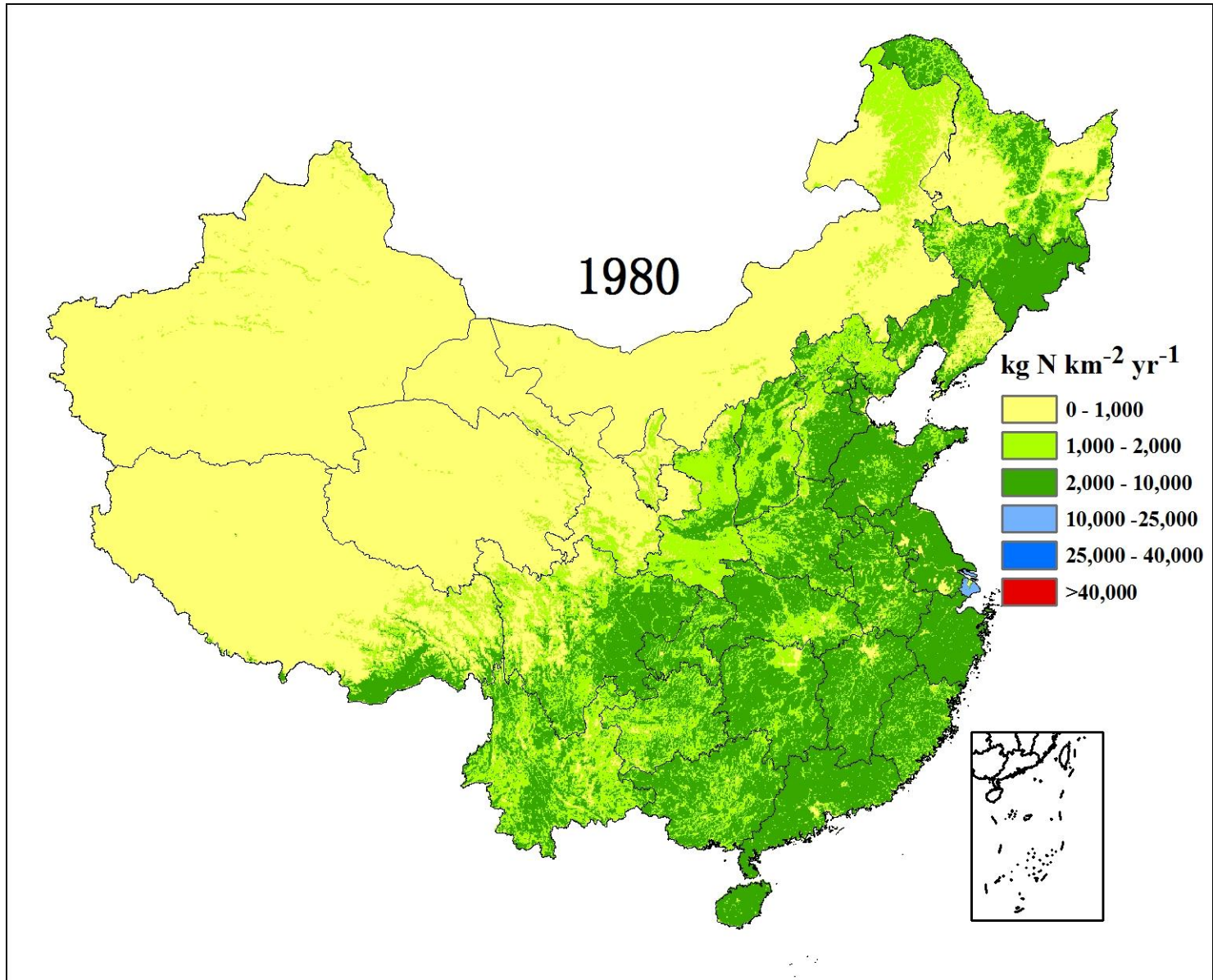
N input



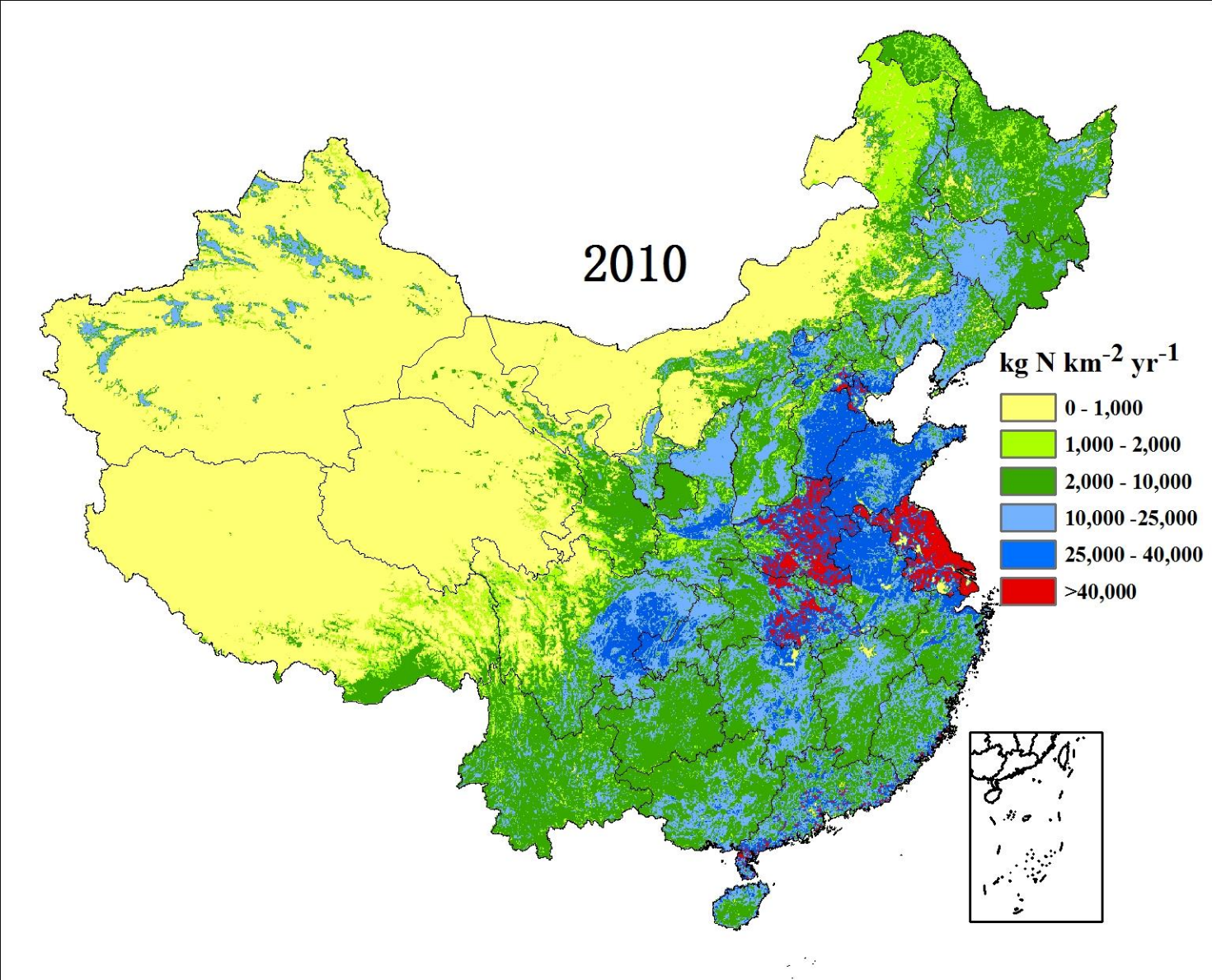
Share of input



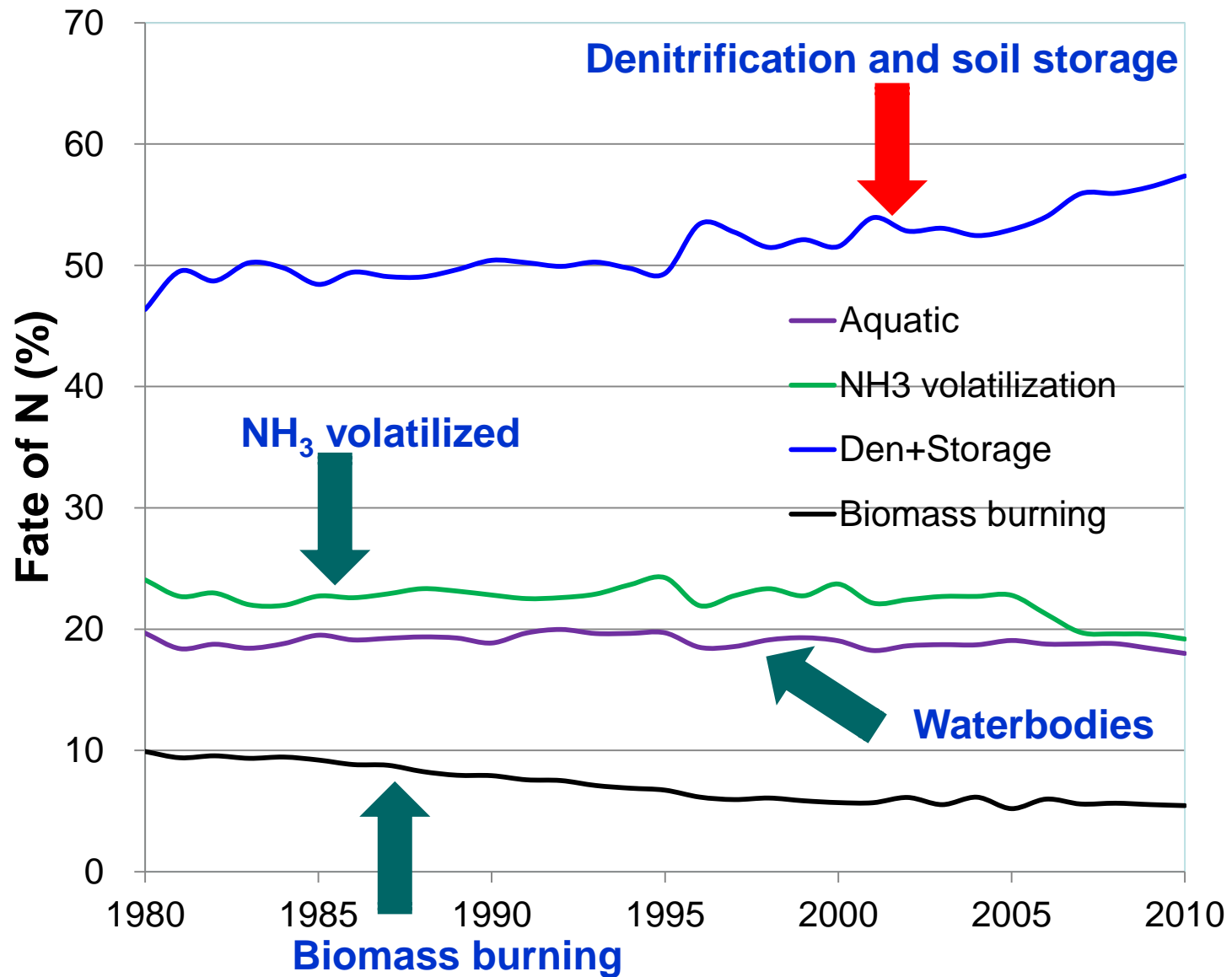
Distribution of N input:1980



Distribution of N input:2010



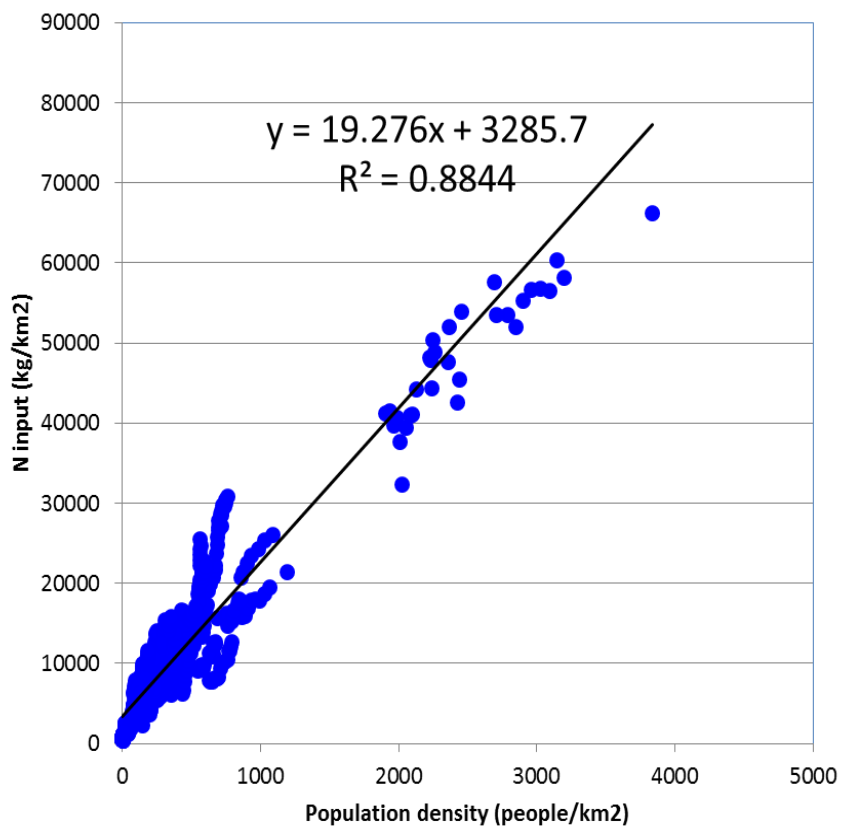
Fate of N



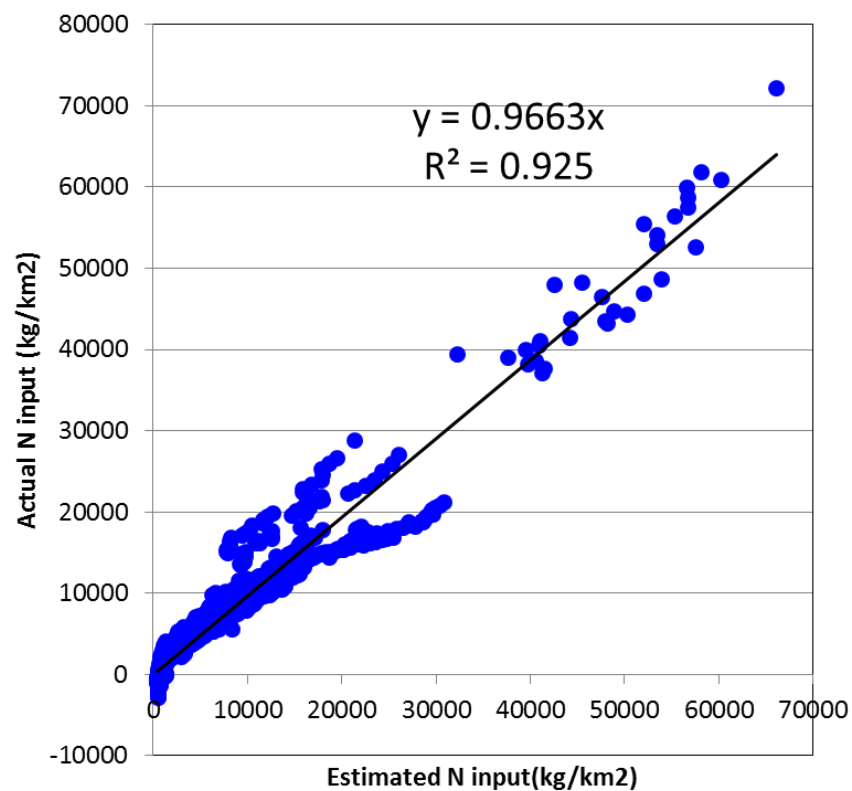
Drivers of N input



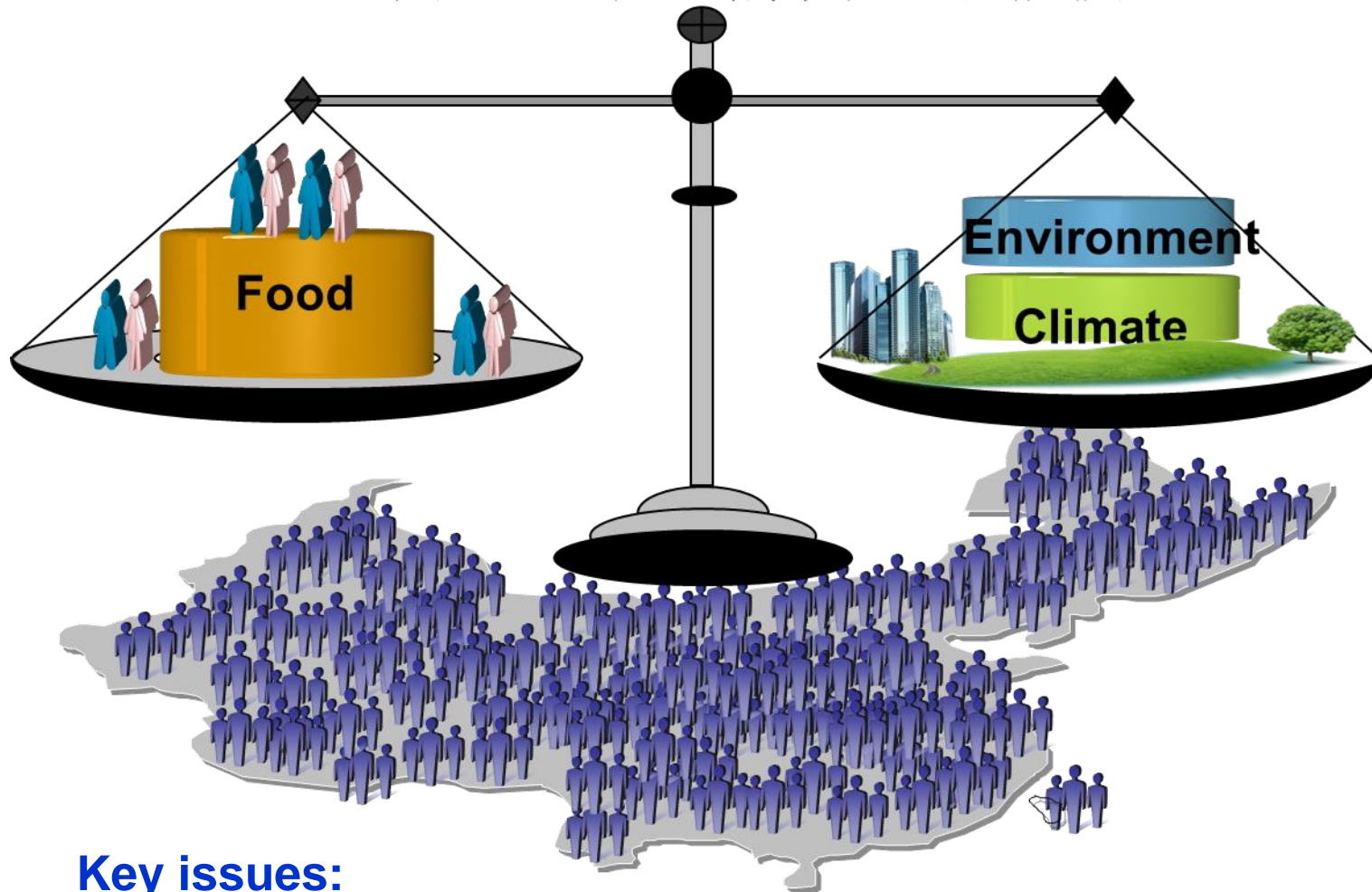
Population density



Population density + GDP density



China: rapidly industrialising and urbanising



Key issues:

**soil fertility improvement; NP and other pollutants reduction
Climate change migration**

Fertilizer nitrogen recovery efficiency in crop production systems of China without consideration of the residue of nitrogen

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Reasons for low NUE in China



- Yield priority
- Small scale farm size
- Non-professional and part-time farming worker
- Dis-functional advisory board
- Fertilizer subsidy
- Low public awareness of environmental impacts of N
-



中华人民共和国农业部

Ministry of Agriculture of the People's Republic of China

a target of a zero increase in the use of fertilizers by 2020!

2015.3.17

- Techniques
- Policy
- Public participation
- Action
- ...



Challenges and opportunities!

Thanks for your attention!



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