LAND-USE
“Forest”
Forest loss/transition
Empty forests
Ecosystem services (11.31%)
308— China worldwide
103— China Southeast Asia
292— Indian Himalaya
128-- Himalaya region
SOCIAL DRIVERS
2.1 million people at risk from loss of livelihoods  
Grumbine, Dore, Xu 2012
2012 @250 million migrant workers
18.3
58
76.3 million kids
250 million adults
326.3 million Chinese
@24%
CHINA’S NEW/OLD NATION

2012  187 million
2020  300 million

Elder/ Health worker ratio: 2,000/1

10% (18 million) x 2190 RMB/yr = ???
CLIMATE CHANGE
Global Average  2.0 C

Tibetan Plateau  3.0 C
Yunnan    1.5 C
Mekong  1.5 C (various)
Grasslands
23%---9.5%

Shrubs
11%---29%

Zhao et al.
2011
CHINA/US
CO 2 EMISSIONS (bmt)

2007- China passes US to become #1 emitter

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>7031</td>
<td>5461</td>
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<tr>
<td>2009</td>
<td>7463</td>
<td>5273</td>
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<tr>
<td>2010</td>
<td>8150</td>
<td>5490</td>
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<tr>
<td>(2020)</td>
<td>(16,000)</td>
<td>(???)</td>
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</table>

IEA 2011
“We have 100-year floods every 2 years now.”

--Governor Cuomo

New York, US

1 November 2012
Dealing with Uncertainty for Managing Transition

- Probable future
- Unasked questions
- Imaginable outcomes
- Recognized uncertainty
- Observed change, models and modeling

Modified from Steve Carpenter, 2008
“CHINA DID NOT, DOES NOT AND WILL NOT POSE ANY THREAT TO THE WORLD’S ENERGY SECURITY.

ABIDING by the PRINCIPLES OF EQUALITY, RECIPROCITY AND MUTUAL BENEFIT, IT WILL FURTHER STRENGTHEN ITS COOPERATION WITH OTHER ENERGY-PRODUCING AND CONSUMING COUNTRIES.”
THANK YOU!