



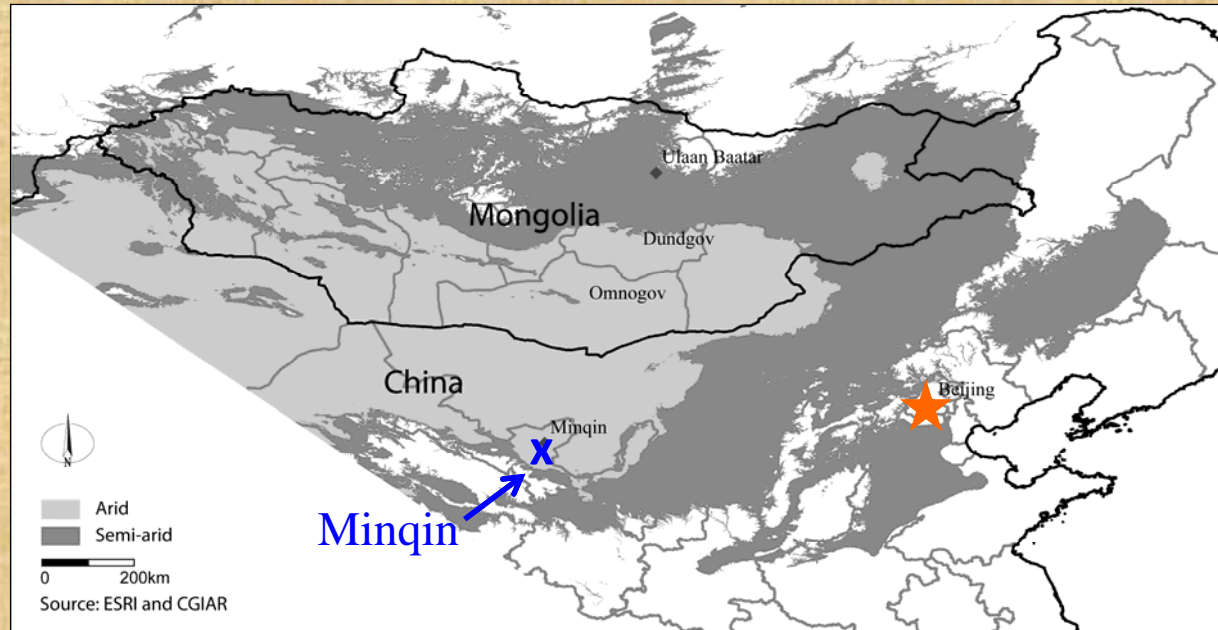
Selden Map, *ca* 1620

‘Barbarians to the north’

Troy Sternberg
Geography
University of Oxford

Gobi

World's 3rd largest desert



Arid <200 mm –gray area

Semi-arid <500mm dark area

Largest dryland country in Asia
>4 million km²

Books on China

- 242 book titles - China and Threat
- 474 book titles – China and Rise
- 632 book titles – China and Power

BBC 2013

Drought



problem



solution

Chinese Drought - 2011

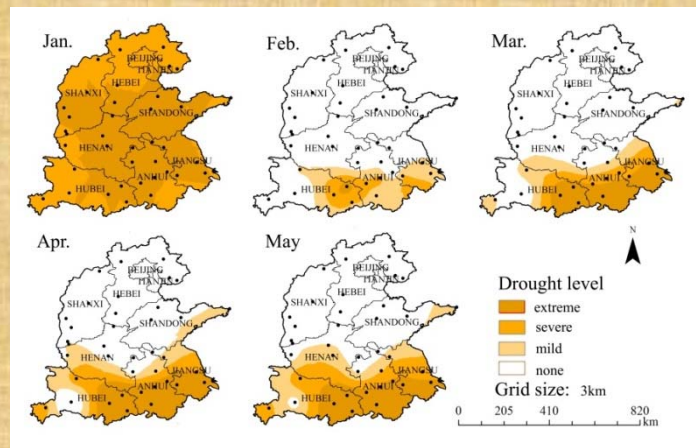
- Drought
 - 60% decrease in rain
 - Yangtze River closed to boats
 - Extreme level (to 1 in 300 year event)
- Hazard mitigation –
 - government motivation & action
 - \$3 trillion foreign reserves
 - Social stability



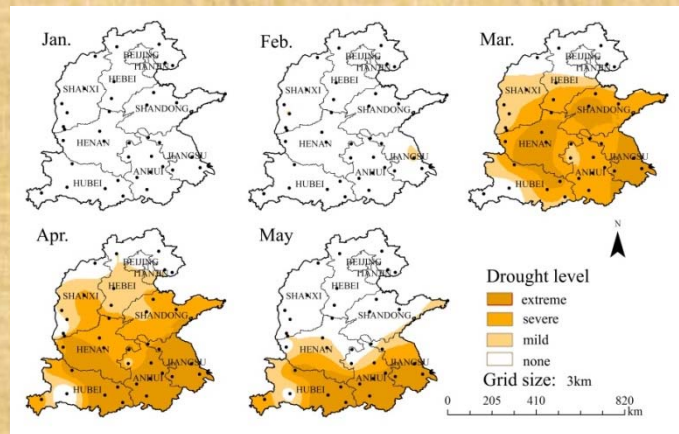
Central Agricultural region – 525 million people

Drought timescale

3 month



6 month



Government - \$1.9 billion aid, irrigation, wells, water delivery
\$600 billion on water projects

Northern China

Minqin county - Precipitation –115 mm

Disaster – Wind, drought, snow

physical

Agriculture

Groundwater

Beijing needs water, power

Ethnic / religious

Han farmers – 85% Inner Mgl.
herders are minorities

Mongolian, Tibetan (Buddhist)

Uighurs (Muslim)

‘ending our culture’

Desertification

identified disaster

- ‘farming the desert’
- 0.16 ha / family
- Mining
- Industry
- Intensive livestock - milk
- Lack of water
- Must ‘save the grasslands’
‘Ecological resettlement’

‘No
drought’



Grape harvest, Gansu

Inner Mongolia



Mining & herding



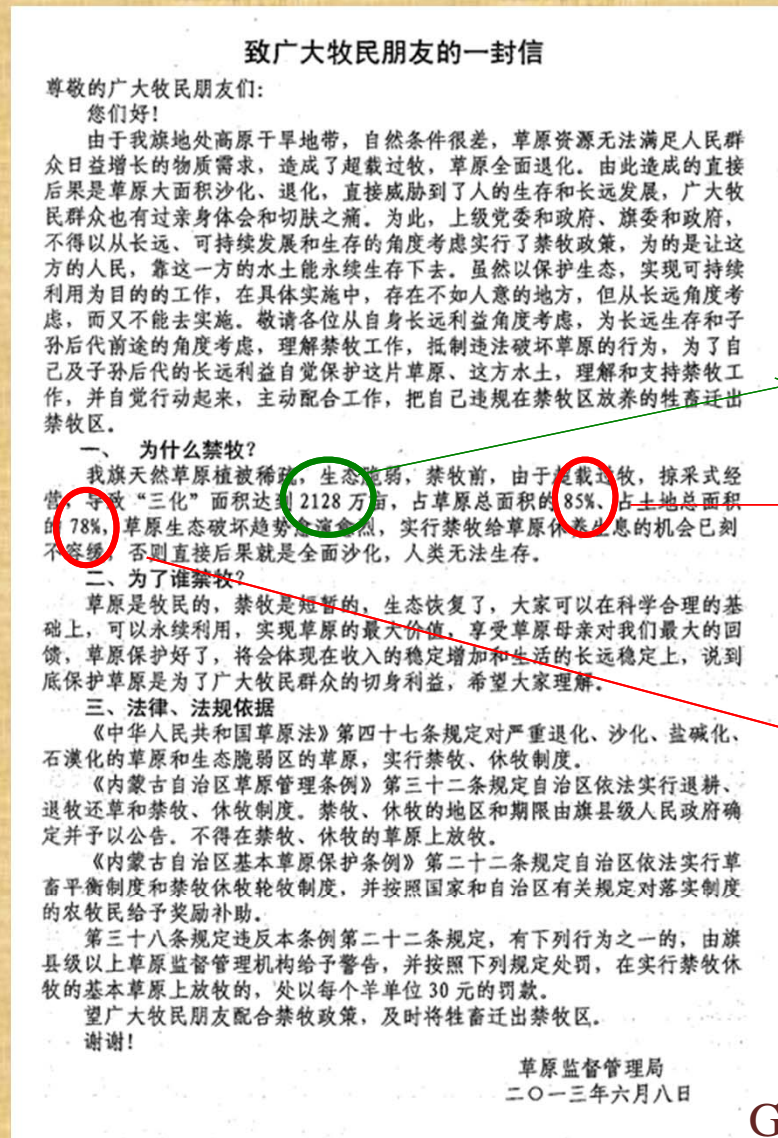
Asia's largest power plant

‘No Herding’ notice

Inner Mongolia

Notice

- Becoming a desert
- We’ve suffered
- Move your herds from restricted area
- Do this for yourselves
- 30 Yuan fine per animal
- Restriction temporary – til ecosystem recovers
- ‘We hope our herder friends will cooperate and move animals out of the prohibited area’



141,866 km²
degraded

85% grasslands
degraded

78% district
degraded

Grassland Supervision/
Surveillance Administration

Grandpa Wen's Forest



before



after

Anti-desertification



Plastic trees



Magic squares

China . . .

- 22% of world's people, 7% of water
- 60% agricultural production in northern China, 12% of the water
- 70% water 'unfit for human contact'

Liter water for 1 kilogram:

Vegetable - 322

Pork – 6,000

Beef – 15,400



South-to-North water transfer

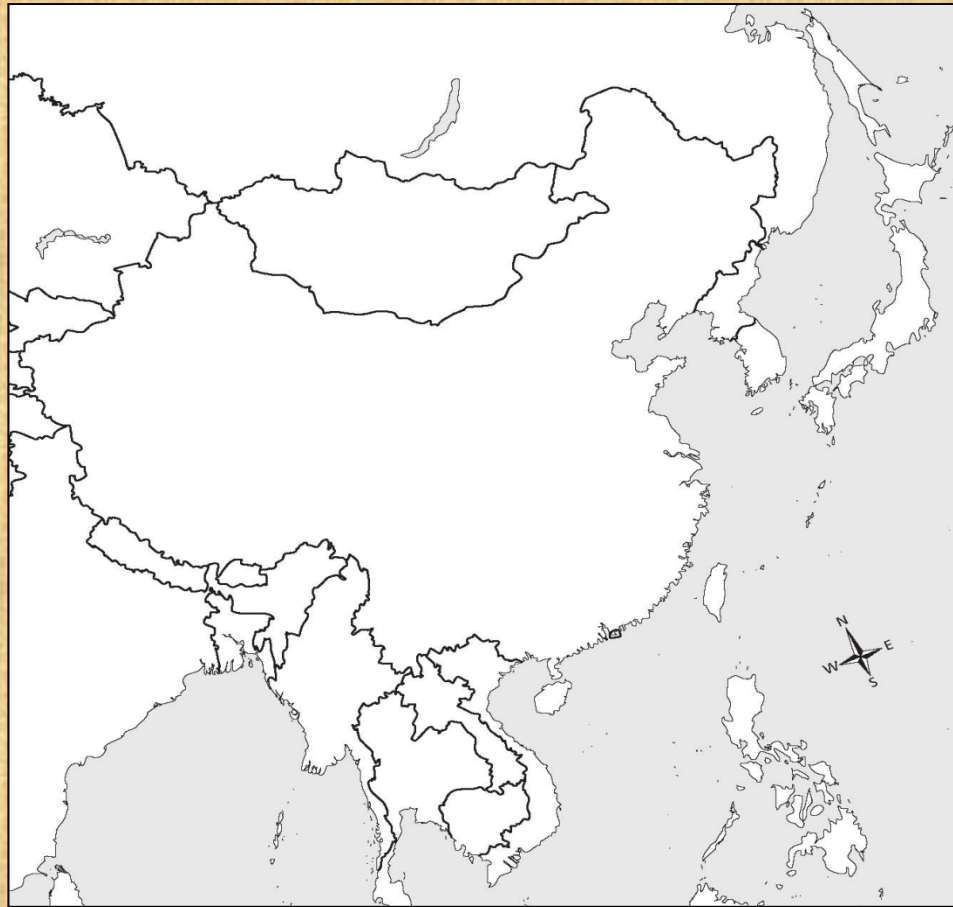
Policies

- ‘Grassland Contracting Policy’
 - ‘Retire livestock and restore grassland’
 - Nomad settlement
 - Household Responsibility Contract System
 - ‘Pasture to Grassland’ - all China’s pastoral areas in 2003
 - Anti-desertification / ‘Control the source of Beijing and Tianjin Sandstorms’ 2000 to 2022
 - Natural grassland revegetation and construction program
 - Three Norths Forest Shelterbelt 1978 to 2050
- Great Green Wall - 4,480 km long, 56 billion trees

Implementation: directives, subsidy, loans, education
legal, tax, restriction, confiscation, force

Who are the neighbours?

(hint: 14 countries)



What do they think?

