



On the Forecast:  
Easing Tensions over Hydraulic Power along the Mekong

Madeleine De Simone

# Hydropower Projects along the Mekong



# Chinese Mega-Dams



Nuozhadu



Xiaowan

# The Interdependence of Chinese Dams

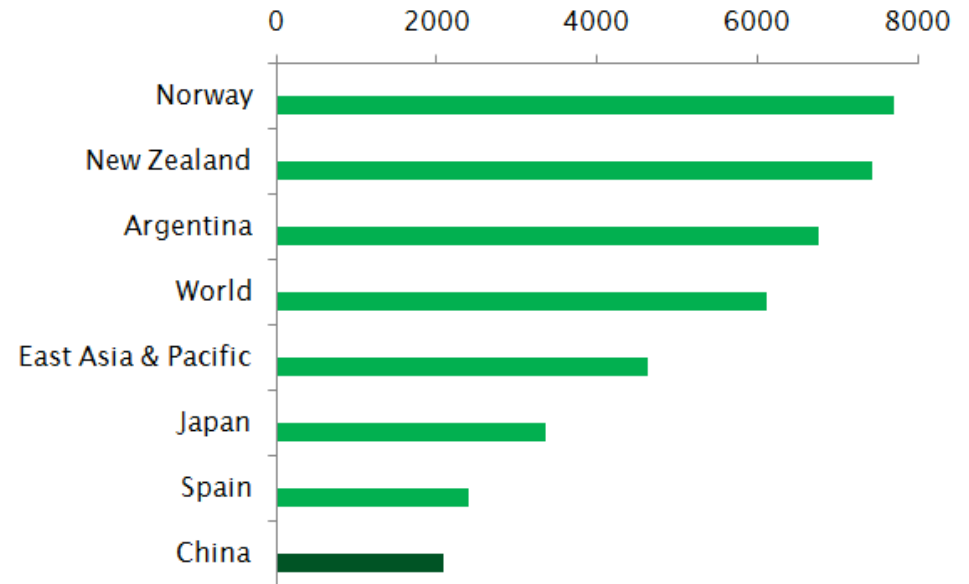




# Reservoir Water to Drinking Water



**Freshwater resources per person, 2011  
(cubic meters)**



# Potential Sino-Vietnamese Conflict



- ▶ Unequal distribution of costs



- ▶ History of conflict



- ▶ Vietnam's rising military

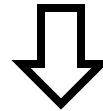
# Human Security Concerns



**Dam construction**



**Climate change**



**Agriculture**



**Fisheries**



**Displacement**



# The Mekong River Commission (MRC)



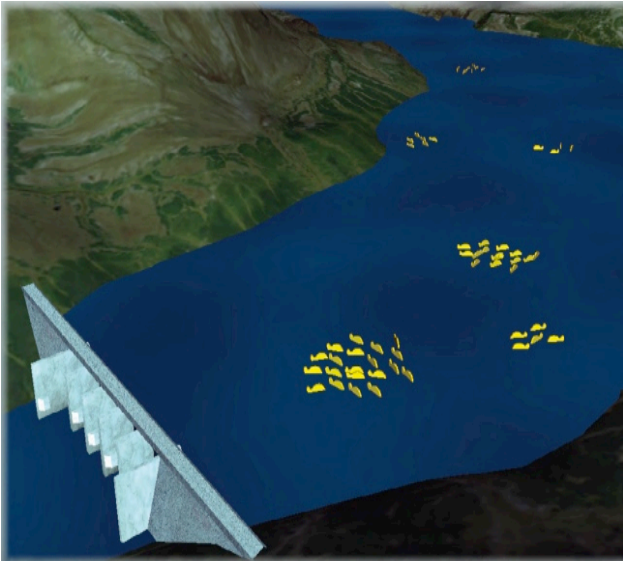


# The Lower Mekong Initiative (LMI)

- ▶ Promote collaboration
- ▶ Forecast Mekong
- ▶ Climate-modeling tool



# Current Models



- ▶ Graphic visualization tool (GVT)
- ▶ Mekong tributary dam
- ▶ Altered hydrology and ecology

# New Chinese Hydropower Data

1. Continuous flow data
2. Stage river level
3. Size of catchment areas
4. Reservoir water capacity
5. Frequency of water release



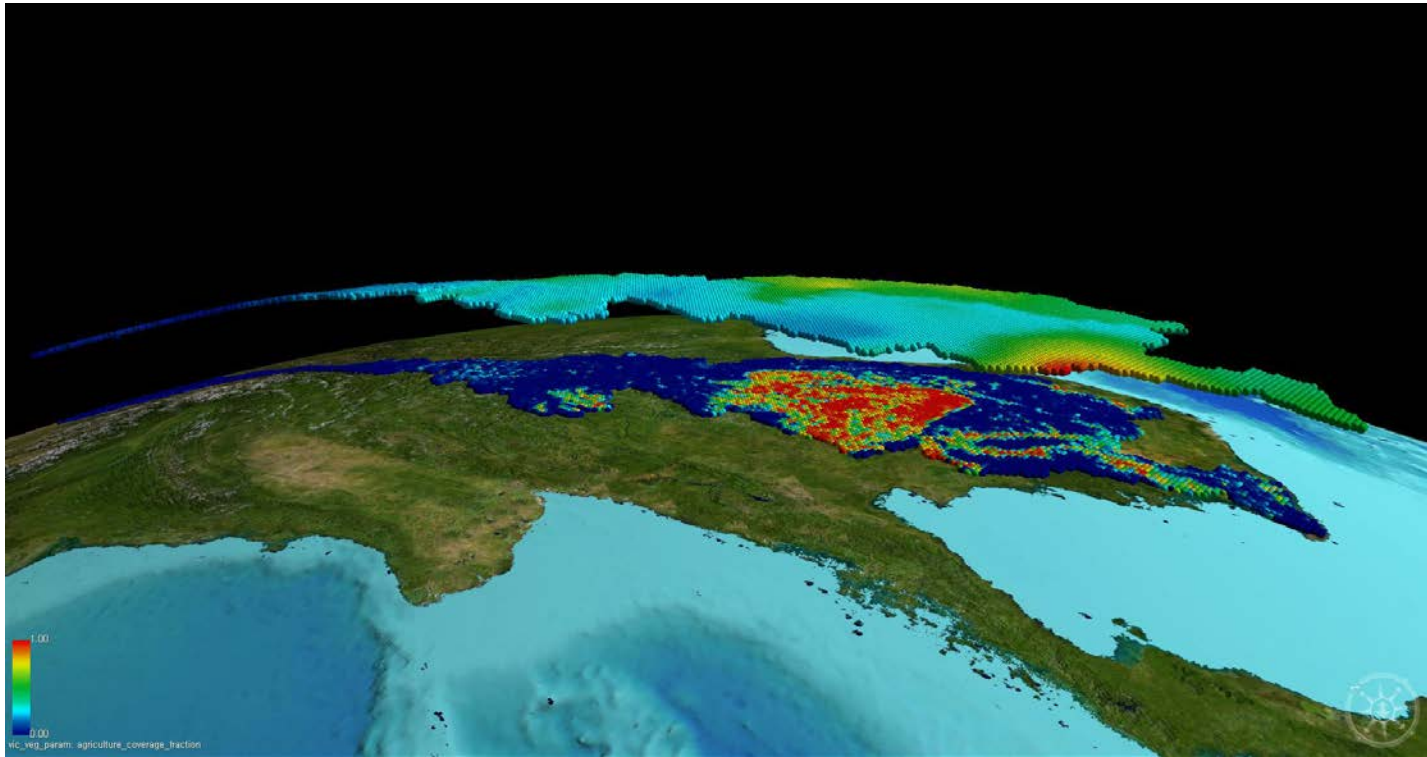
# Scenario A: Chinese Cooperation



# Scenario B: Chinese are Uncooperative



# Use Existing Remote Sensing Technology



Satellite-generated model of annual precipitation

P|I|P|S



# New Models Coerce Chinese Cooperation



P | I | P | S 

