

Funding Clean Technology in Asia

Presented by
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At
GCCA Meetings in Taipei
10 November, 2015

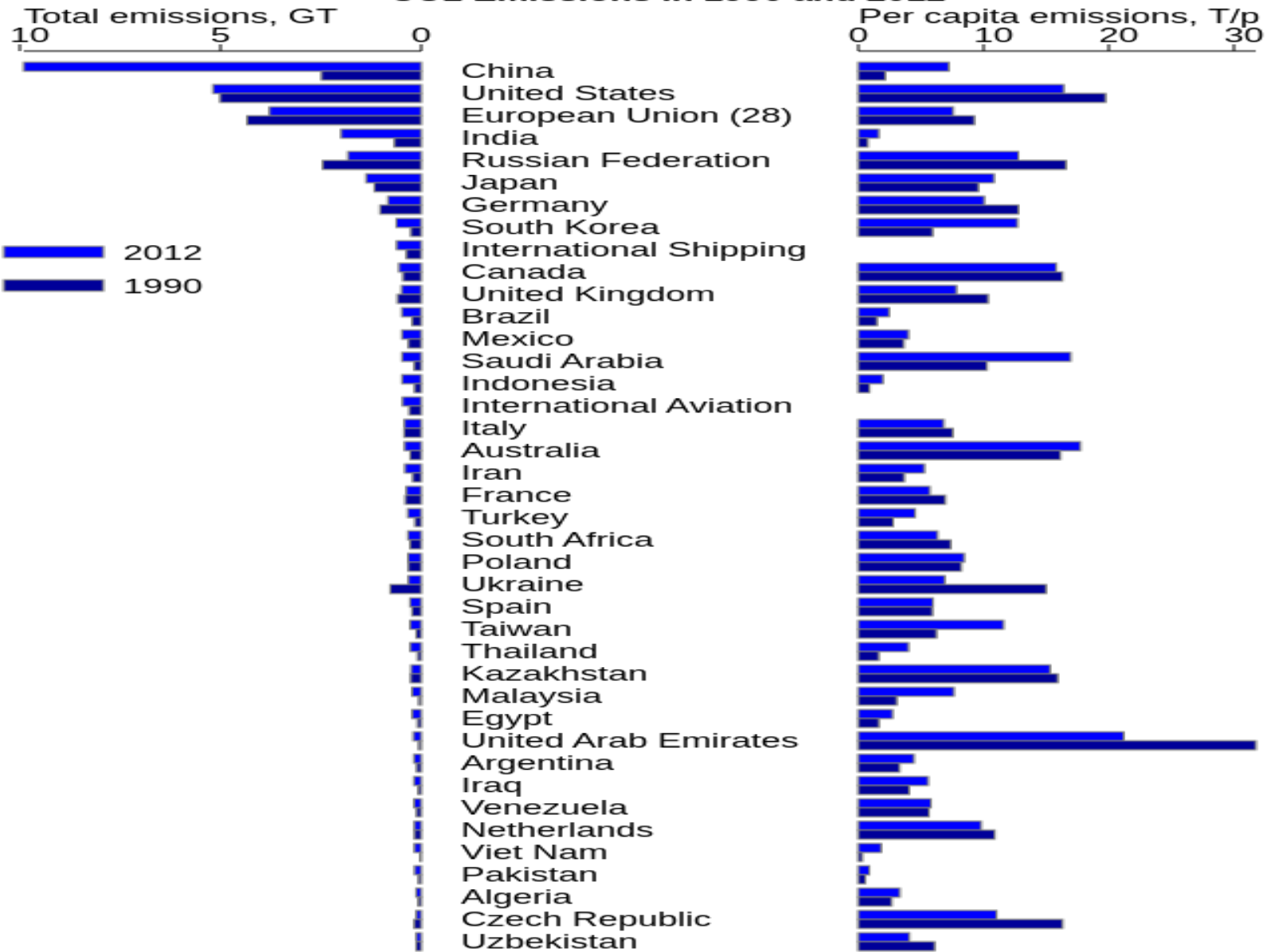
Can we help ourselves?

- Taiwan is holding an important meeting at an important time
 - UN Climate Change Conference COP21 is less than one month away
 - 2-degrees target “unattainable”
 - How can we help ourselves?

Who are the enemy?

Us!

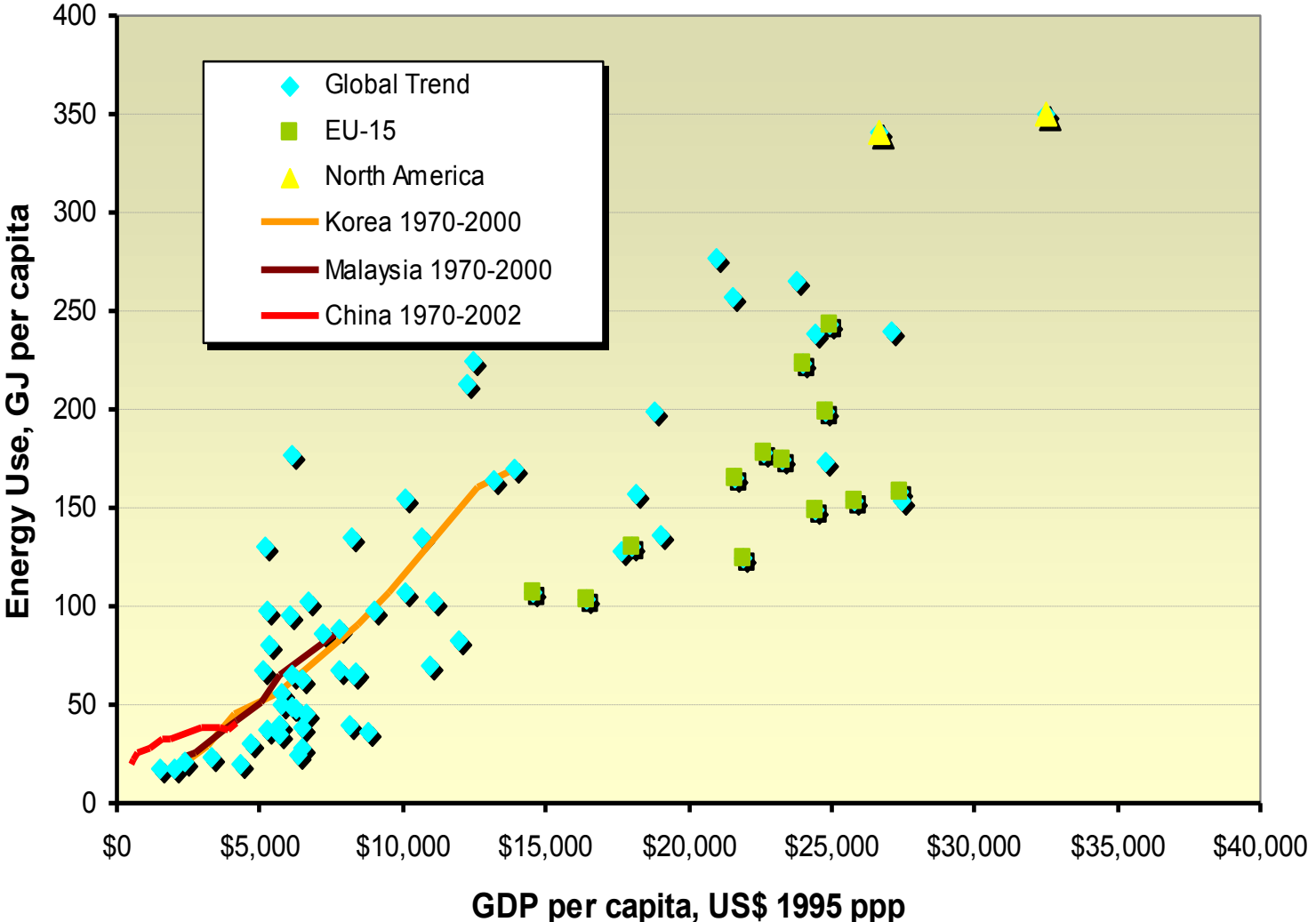
CO2 Emissions in 1990 and 2012



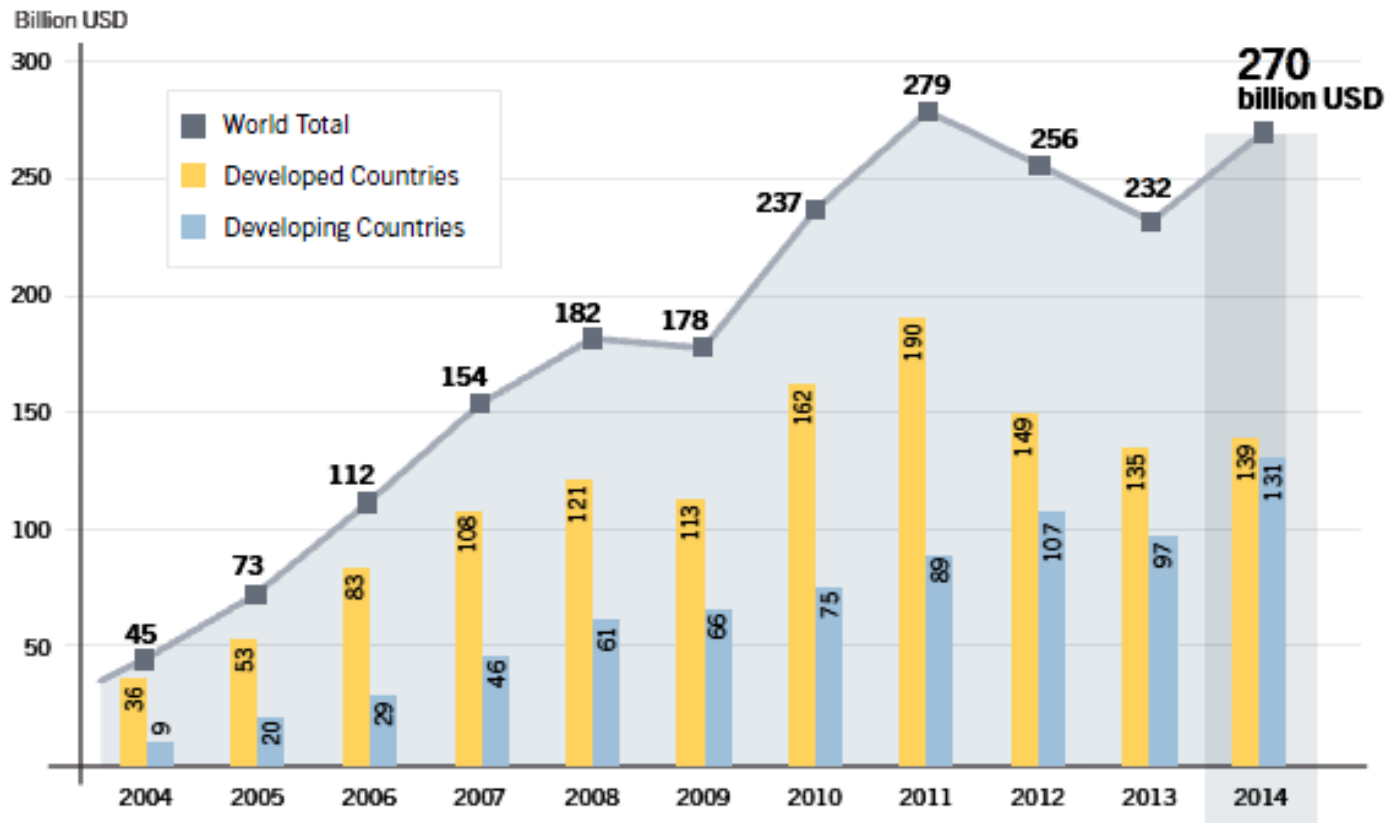
Observations

- Largest emitters are:
 1. China
 2. US
 3. EU
 4. India
 5. Russia
 6. Japan
 7. Germany
 8. Korea
- Asian countries (in red) all increased emission amounts between 1990 and 2012; while others decreased
- The war against climate change will be won or lost in Asia

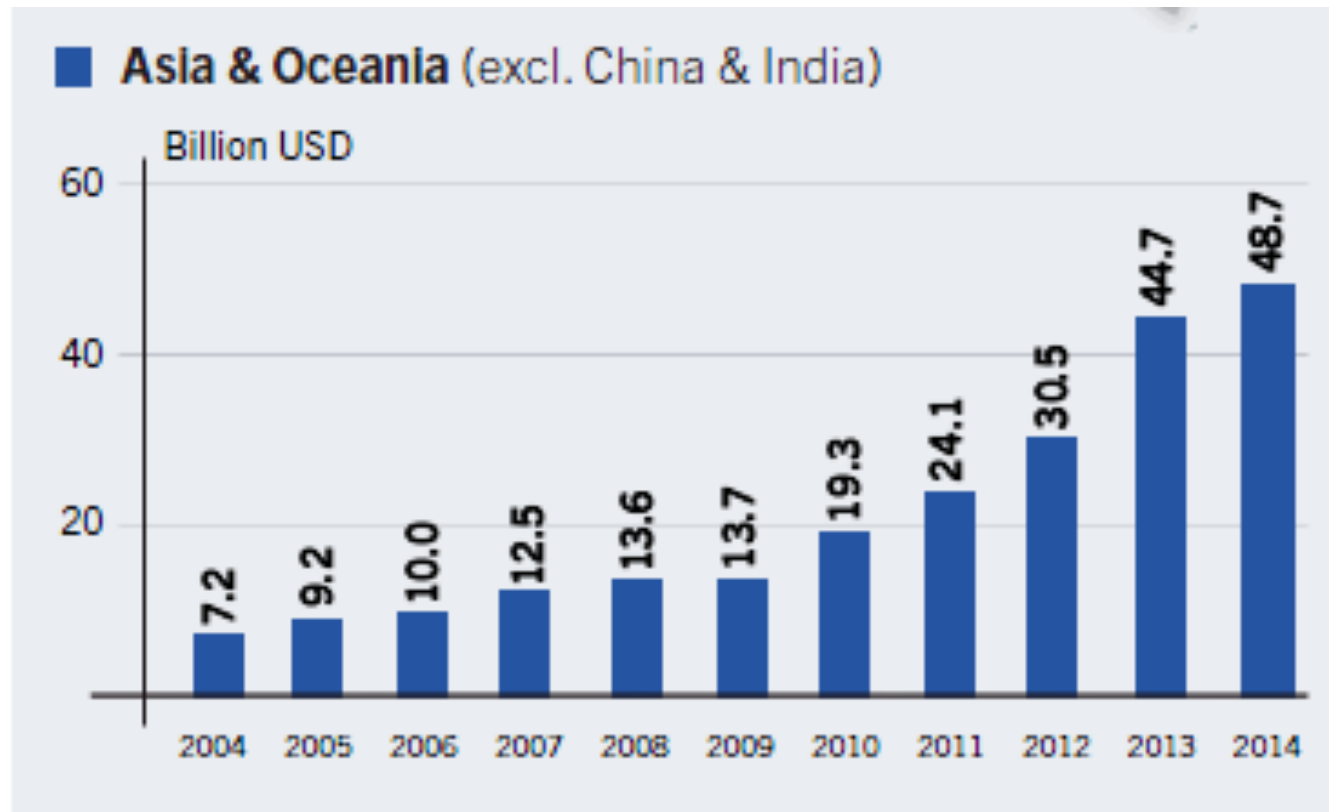
Economic development & Energy Intensity



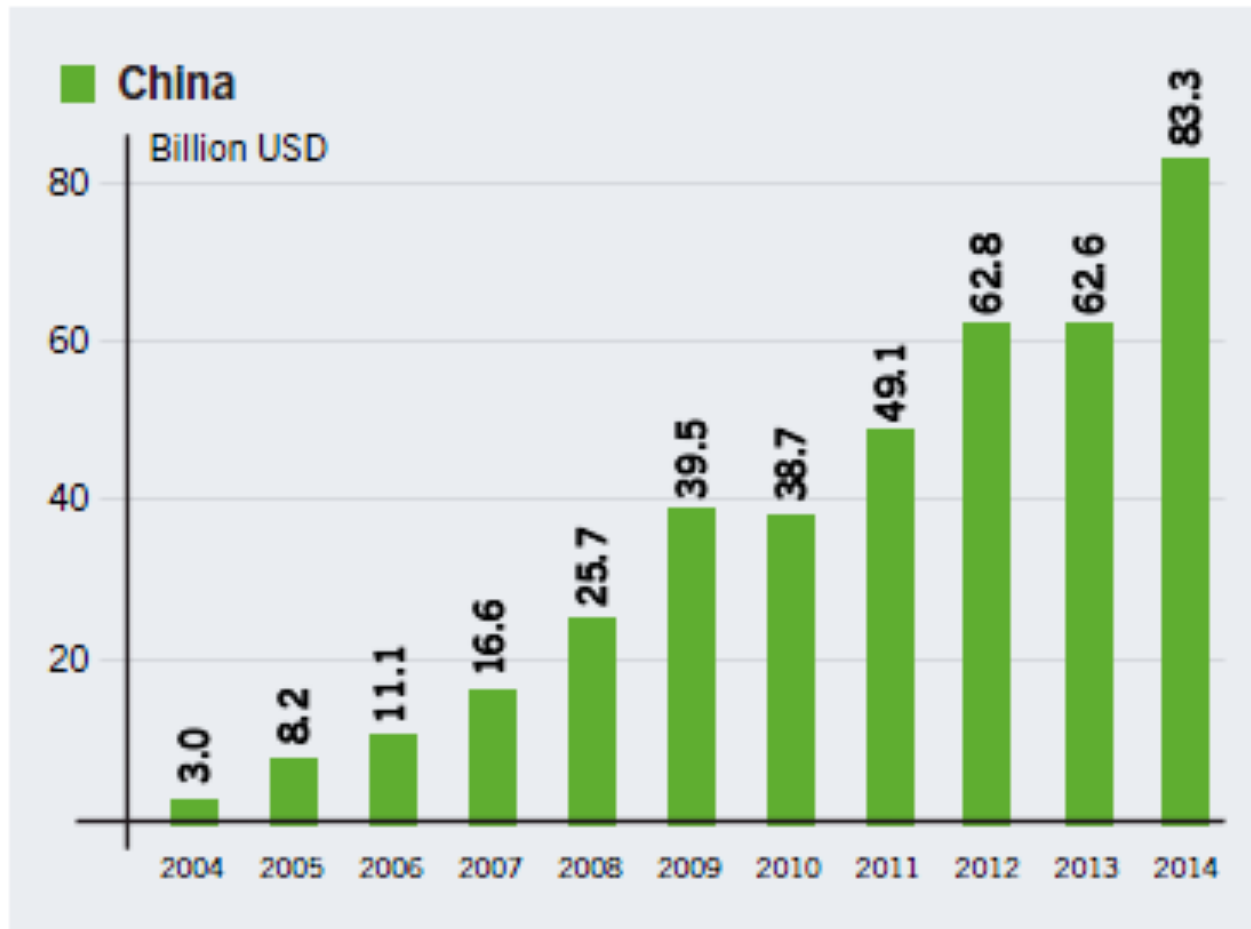
New investment in Renewable Power and Fuels



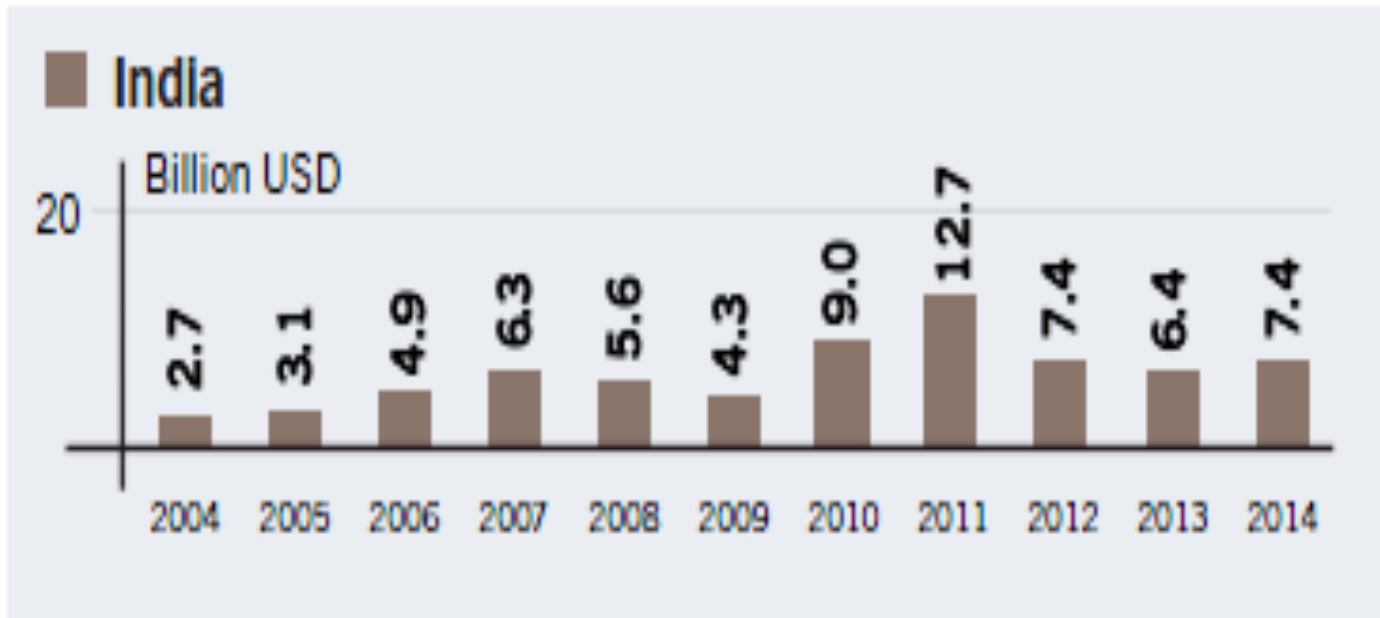
New investment: Asia (ex China, India)



New investment in Renewable Power and Fuels: China



New investment in Renewable Power and Fuels: India

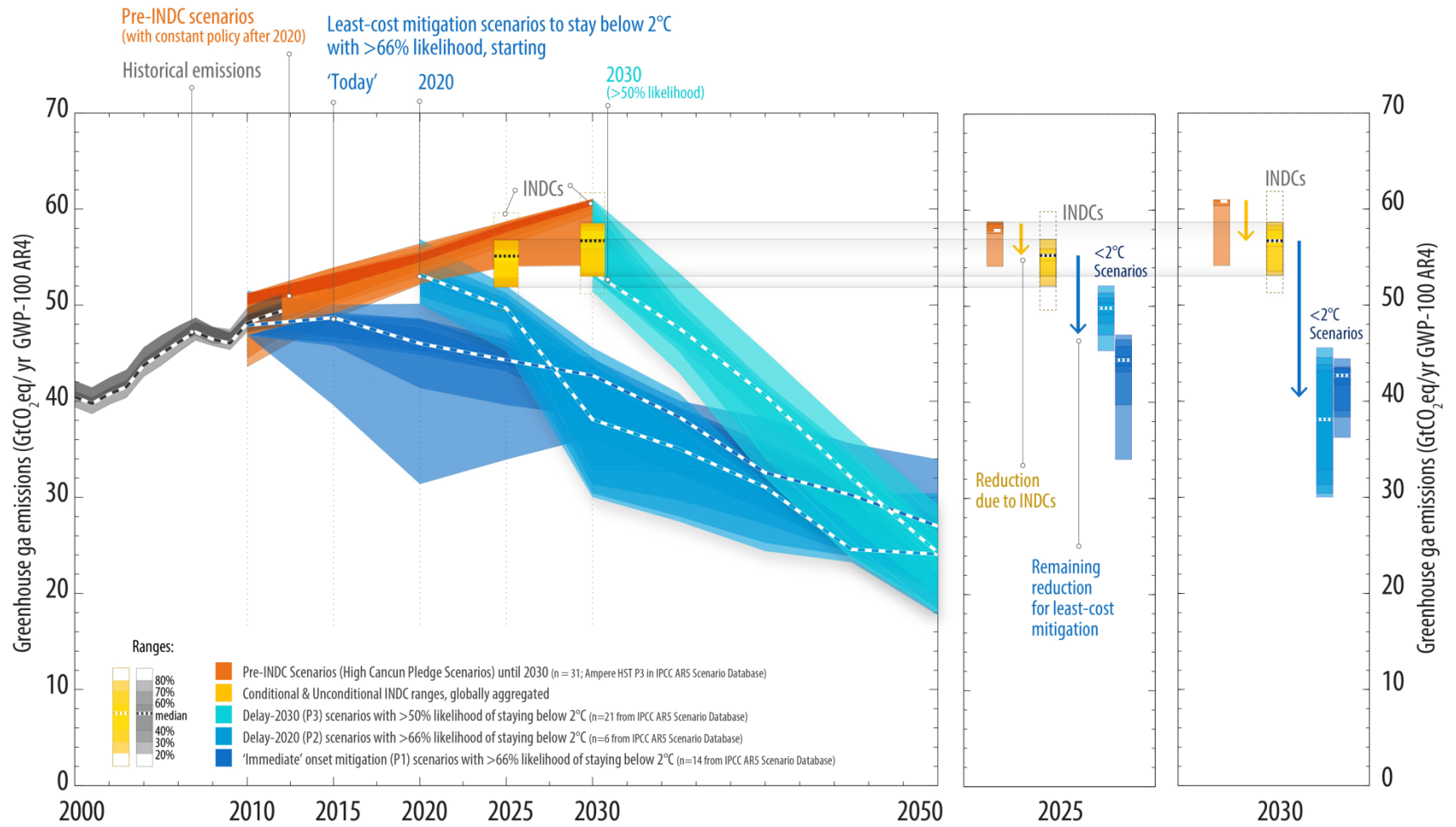


INDC?

- Intended Nationally Determined Contributions
- Enforcement mechanism is needed
- Too small, too slow

... and too late?

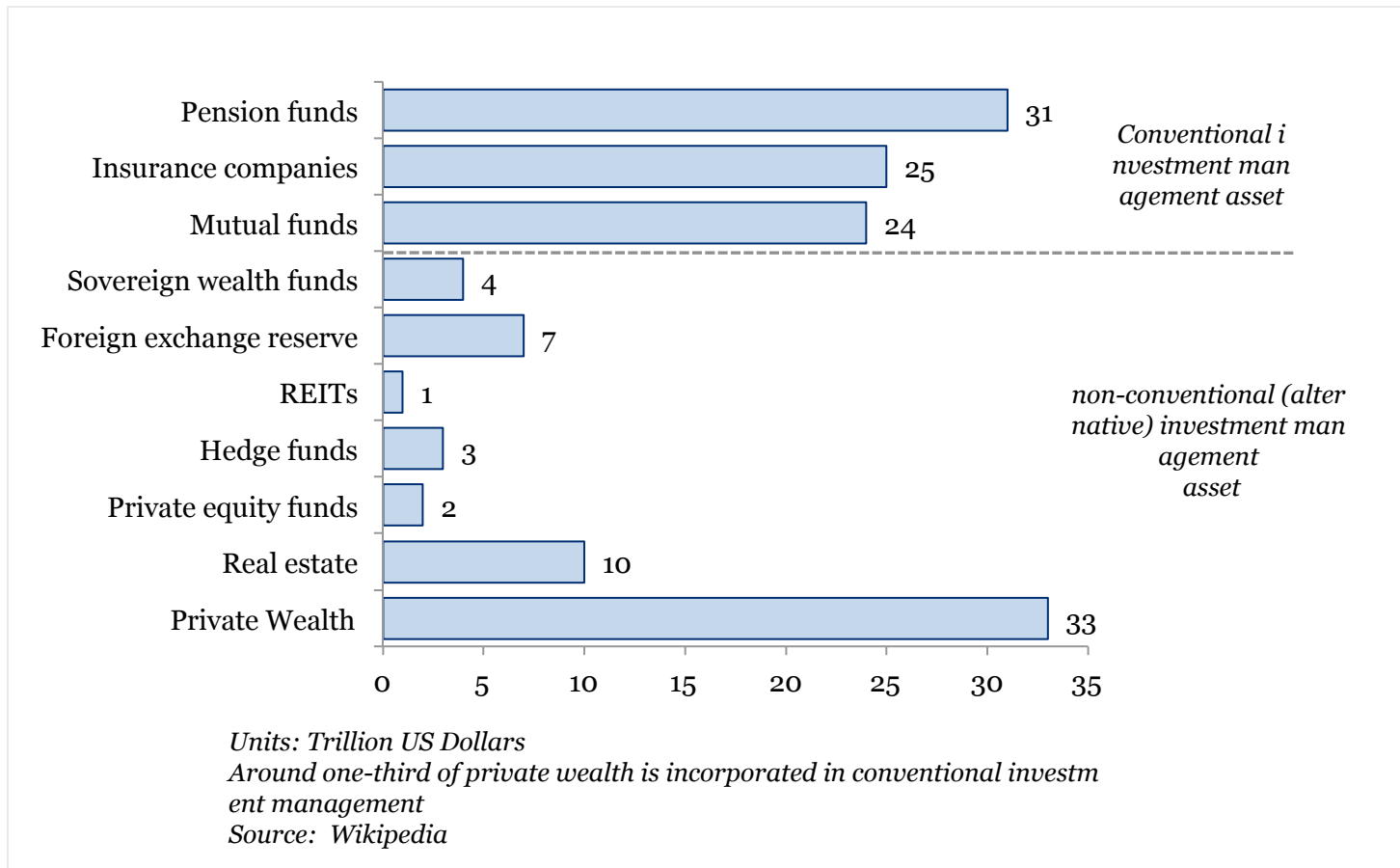
INDC Scenarios



Where is the money?

- Public sector: Green Climate Fund (GCF) is proof of public sector's reluctance to provide funds
- Public private partnership: World Bank, IFC, ADB are examples of promising potential
- Private sector: promises best hope... there is "plenty of money" ...

Global Assets Under Management



P80 Group

- Our goal: mobilize capital in large scale into green, clean, sustainable projects
- Target funds: pension funds and sovereign wealth funds
- Capital deployment: Less than 1% of total assets (in 2009)
- Job Number One: fix the “financial plumbing”

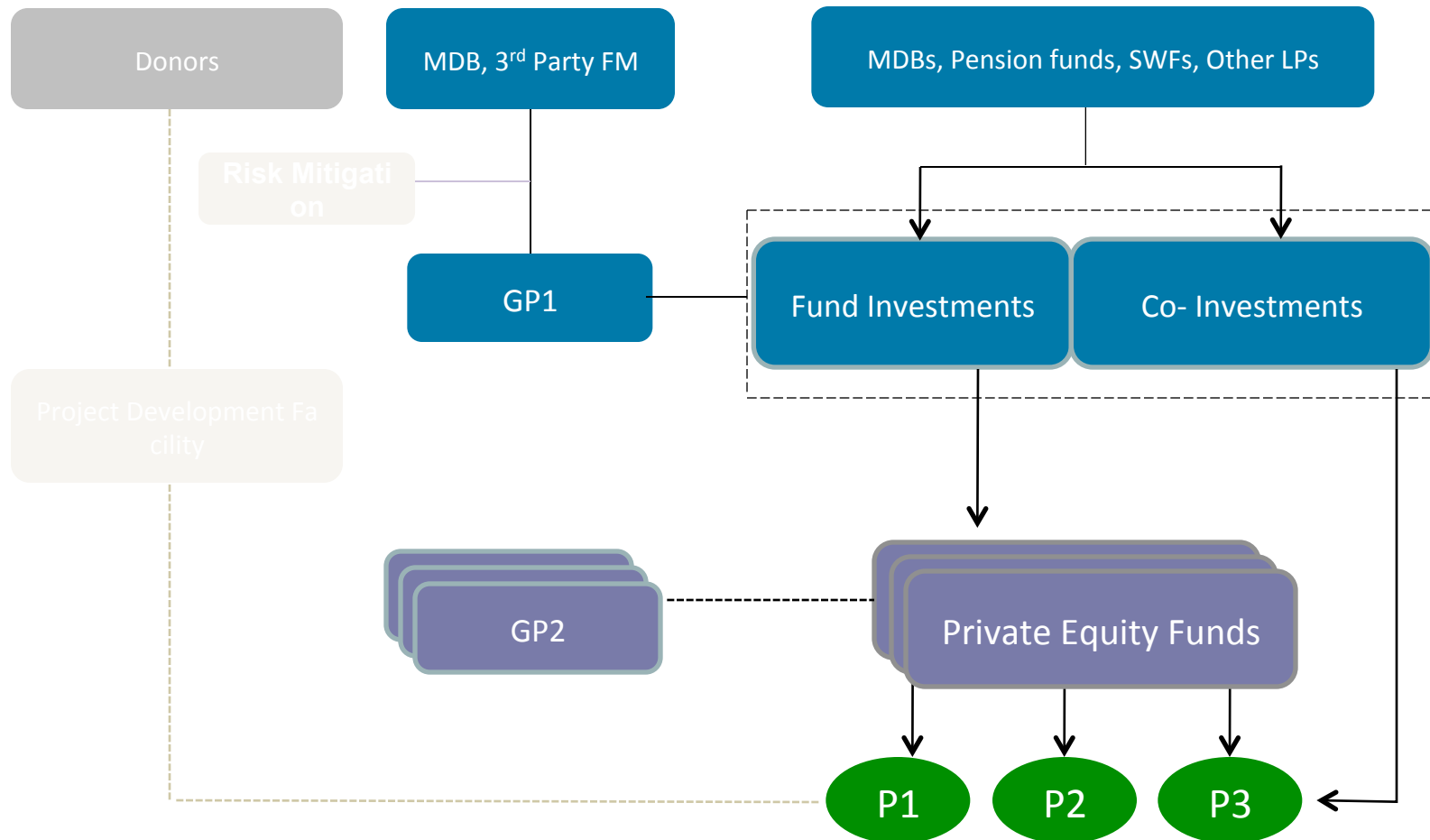
Funding Needs Vs Capacity: Asia

- Annual projected funding needs for climate change mitigation/adaptation estimated at US\$500-550 billion
 - Asia portion estimated to be more than US\$100 billion
- Potential funding sources
 - US\$ 34 trillion Pension Funds
 - US\$ 4 trillion Sovereign Wealth Funds
- Percentage of “P8” assets invested “green” = 0.7% in 2009

Impediments to low carbon investments in Asia

- **Global market failures**
 - Environmental externalities not priced
 - Carbon market pricing in early stage
 - Subsidies for hydrocarbon energy
- **Information and knowledge gaps**
 - Lack of investment research
 - Absence of qualified intermediaries
 - Absence of success / proof of concept
- **Perceived risks**
 - Political, regulatory, technology, execution, currency, governance risks
 - Inadequate market incentives (e.g. feed-in tariffs)
 - Risk mitigation tools underdeveloped
- **High transaction costs**
 - Small portfolio weighting
 - Diseconomies of small scale
 - Fear of the unfamiliar
- **Poor investment infrastructure**
 - Lack of specialist professionals
 - Lack of high-quality deals
 - Underdeveloped business environment

Fixing the financial plumbing



Key Components

- Large size fund
- Top tier private equity fund management
- Multilateral Development Bank
-
- Project development facility

Investment infrastructure
is needed for efficient and expedient
investment in infrastructure