

Sustainable Development Policies and Measures

US-Japan Workshop on Climate Actions
and Developmental Co-benefits

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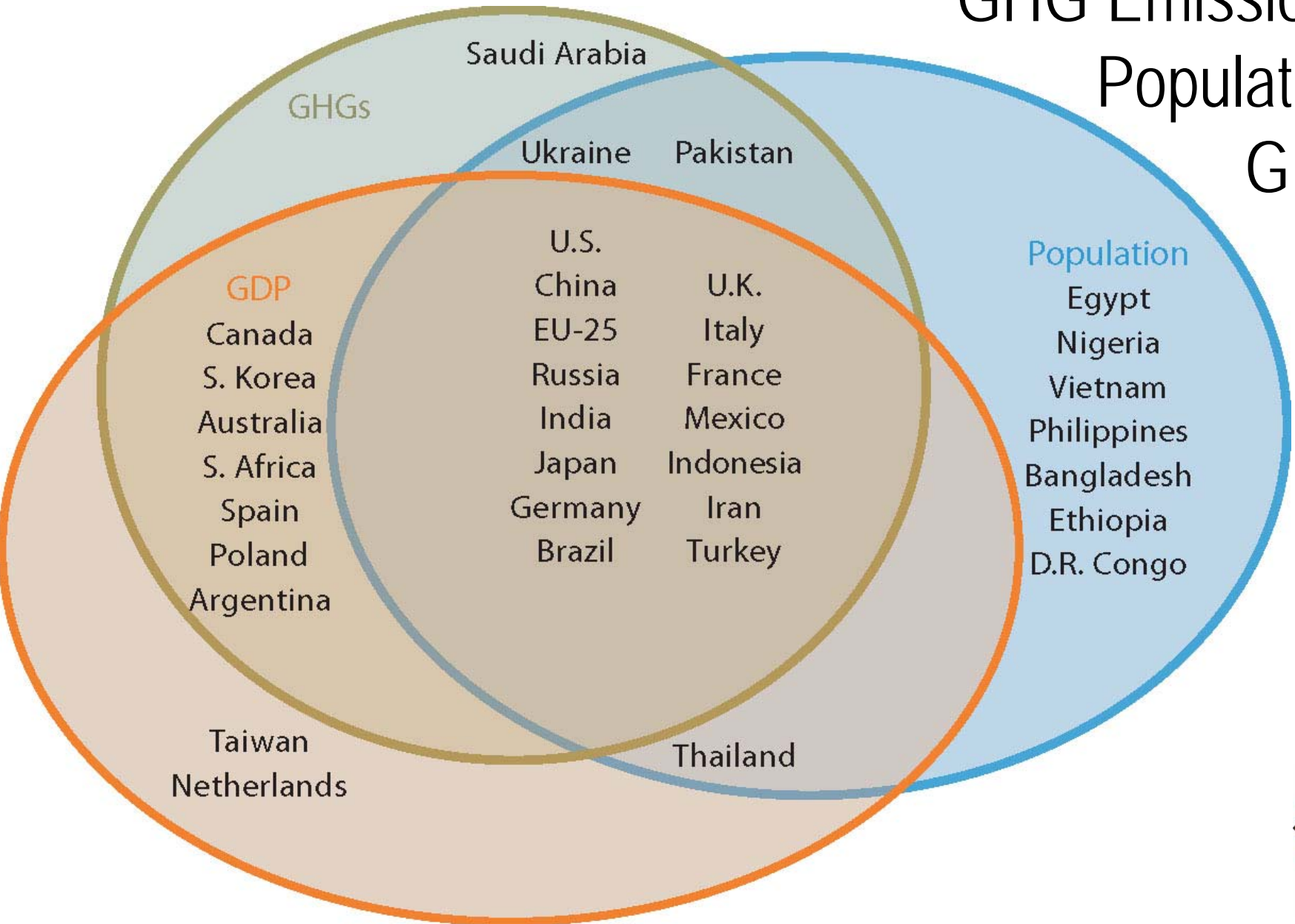
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SD-PAMs and co-benefits

- What are SD-PAMs?
- Example: rural electrification in India
- SD-PAMs and technology cooperation
- Co-benefits or perverse impacts?

Top 25: GHG Emissions Population GDP



What is an SD-PAM?

A commitment to implement a policy or measure – not based on GHG emissions.

- Driven by host country development needs.
- Large-scale policies and measures, not projects.
- Development path chosen results in significantly lower emissions.
- Declared and registered under the international climate framework or other international agreement.



Looking at real-world examples

Brazil

Biofuels for transport

Reducing the economic impact of oil imports and supporting the rural economy

China

Innovative transport approaches

Promoting mobility while avoiding urban infrastructure and oil supply constraints

India

Renewable energy in rural electrification

Providing electricity faster and safer to 500 million people

South Africa

Carbon capture and storage

Finding ways to reduce the impact of coal in developing countries



India – options for rural electrification

India's rural electrification:

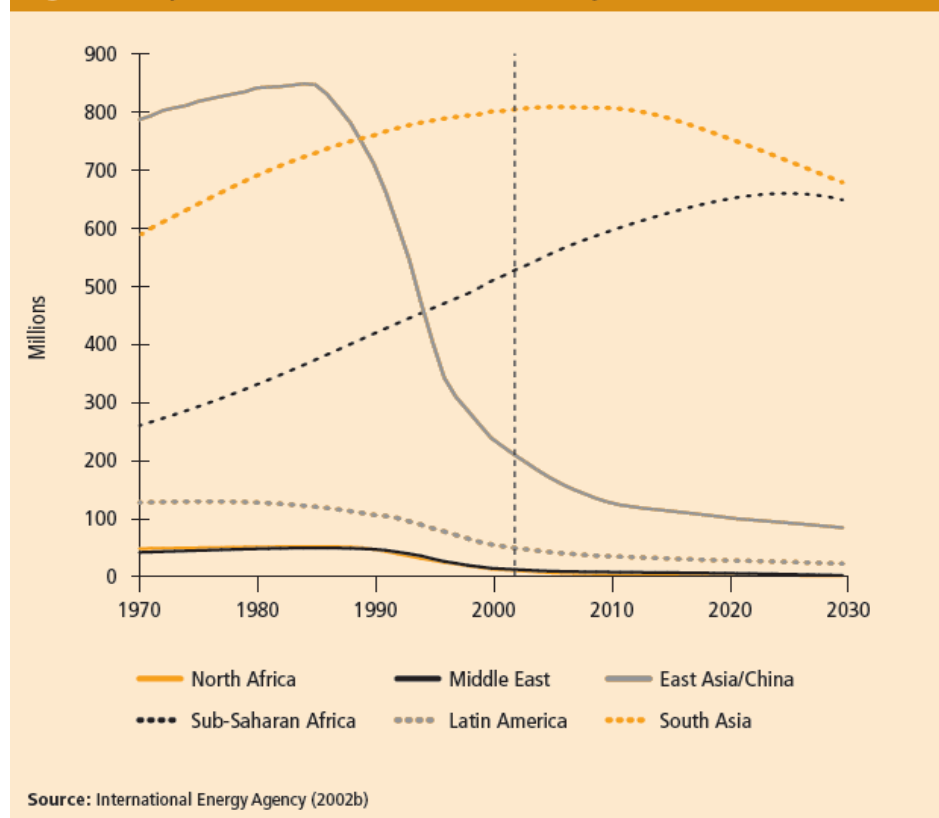
500-600 million people without electricity.

Three supply scenarios:

- Grid First
- Diesel First
- Renewables First

Three levels of rural electricity demand.

Figure 1. Population Without Access to Electricity



India – a wider potential role for renewable energy

Approaches are evaluated by India's national criteria.

Grid First offers little hope of meeting electrification goals.

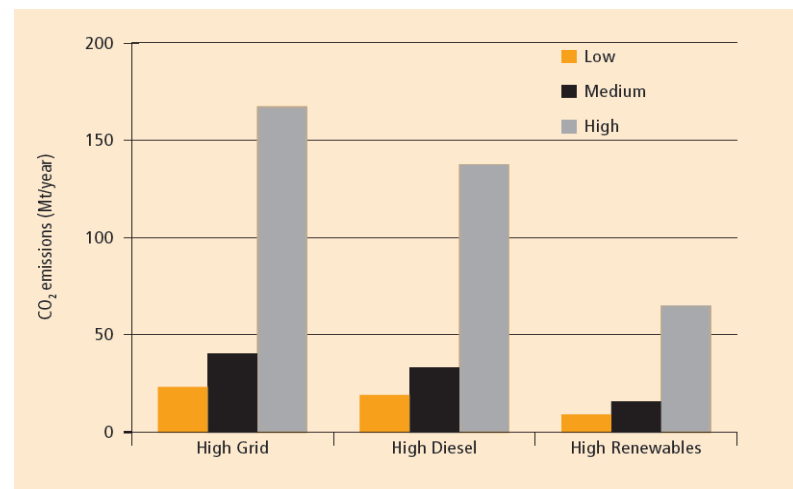
Diesel First raises significant oil import concerns.

Renewables First brings benefits but at significant capital cost – can international policy help?

Qualitative assessment of the scenarios

Approach	Grid First	Diesel First	Renewables First
Speed of provision	Low	High	Medium
Quality of supply	Low	High	Medium
Affordability	Medium	Medium	Low/Medium
Security of supply	Medium	Low	High
Climate protection	Low	Low/Medium	High

CO₂ emissions under the scenarios



Why include an SD-PAM in an international agreement?

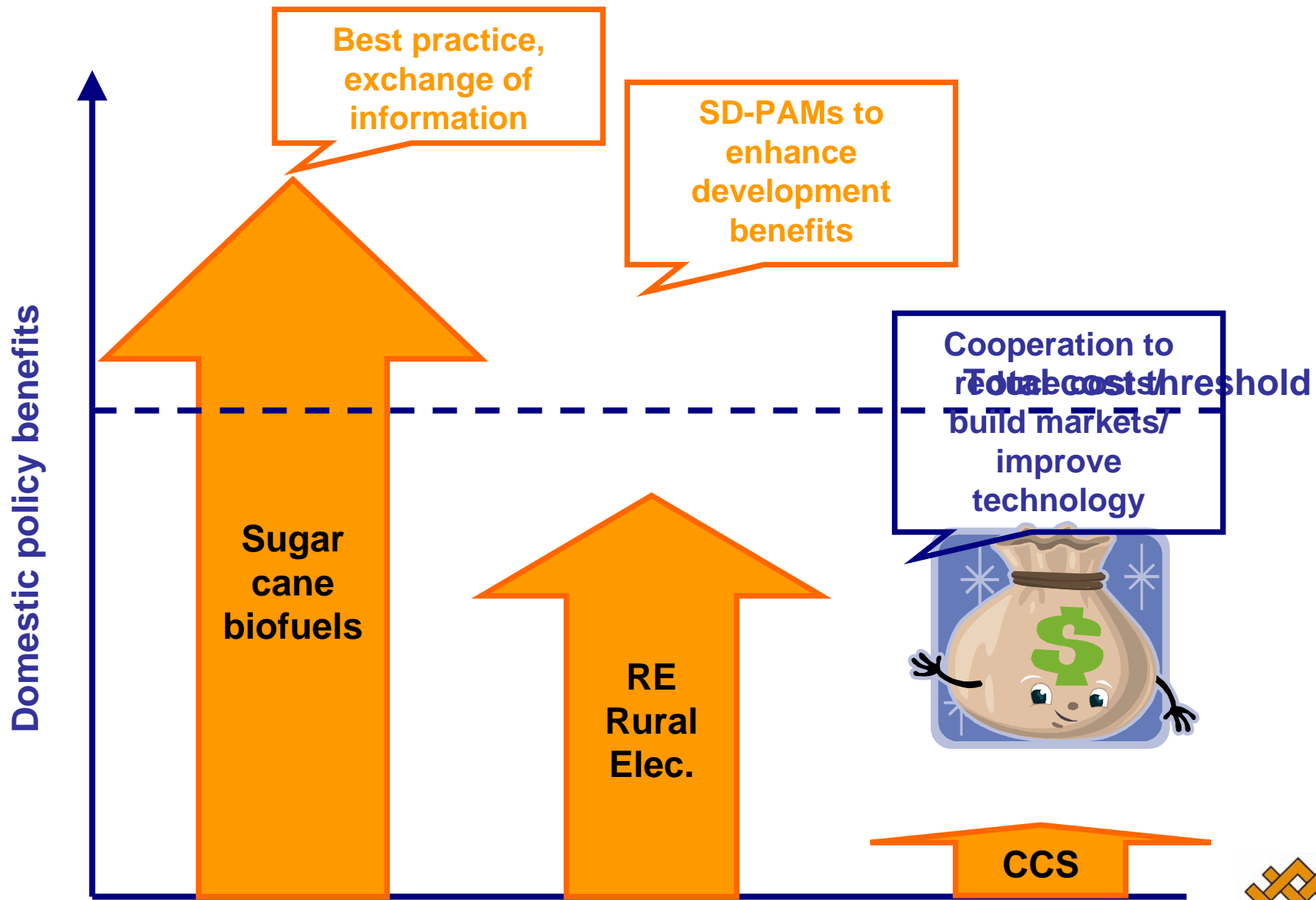
Recognition. Many developing countries are implementing policies that bring major climate benefits. This fact needs wider recognition, which will in turn strengthen DC hands within climate negotiations.

Learning. Many countries, developed and developing, share challenges and can learn from each others' experiences.

Integration. Aligning climate policy more closely with development interests engages important stakeholder and decision-makers.

Support. Combining development and climate policy enables and promotes wider international support for both sets of goals. This includes the steering of larger sources of finance than are likely to be available for climate change actions alone.





Raising the arrows and lowering the bar

SD-PAMs raise the arrow

- Tailored to the policy solution in question.
- Enhance the learning, recognition and integration benefits, and attract support.
- Driven primarily by international agreement (s).
- May involve mutual pledges.

Technology and market cooperation lowers the bar.

- Can be independent of any specific SD-PAM.
- Collaboration can focus on private sector as well as government actors.
- National policies likely more important than international agreements.
- A more equal basis for collaboration between developed and developing countries?



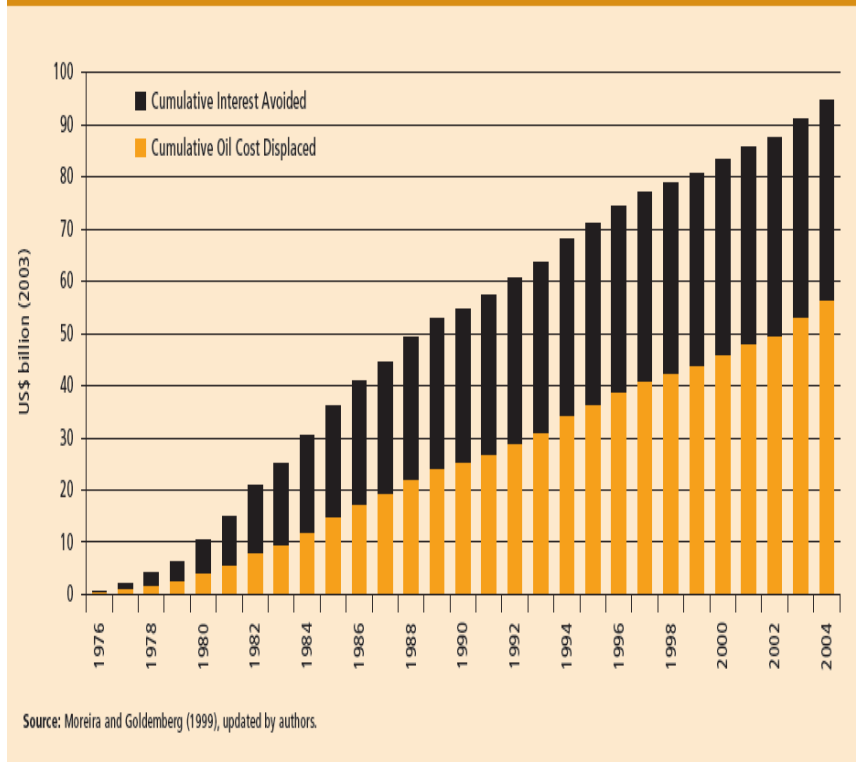
Biofuels for Co-Benefits

An SD-PAM already implemented!

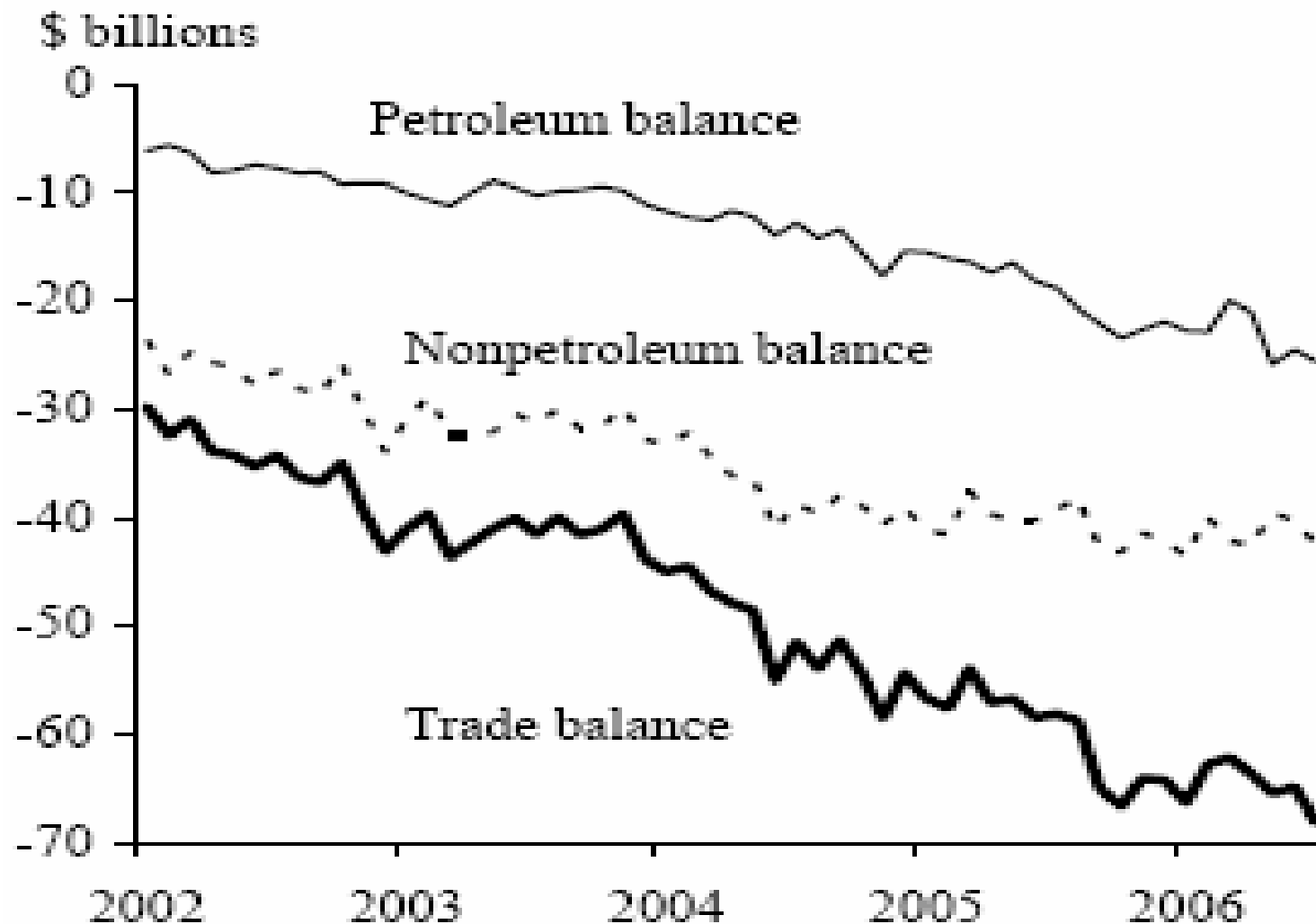
Saves an estimated 26 Mt CO₂ per year.

Driven by foreign exchange concerns – has saved \$100 billion in external debt.

Figure 13. Cumulative Savings from Avoided Oil Imports and Debt Service



US International Trade Balance



Source: Federal Reserve Bank of San Francisco

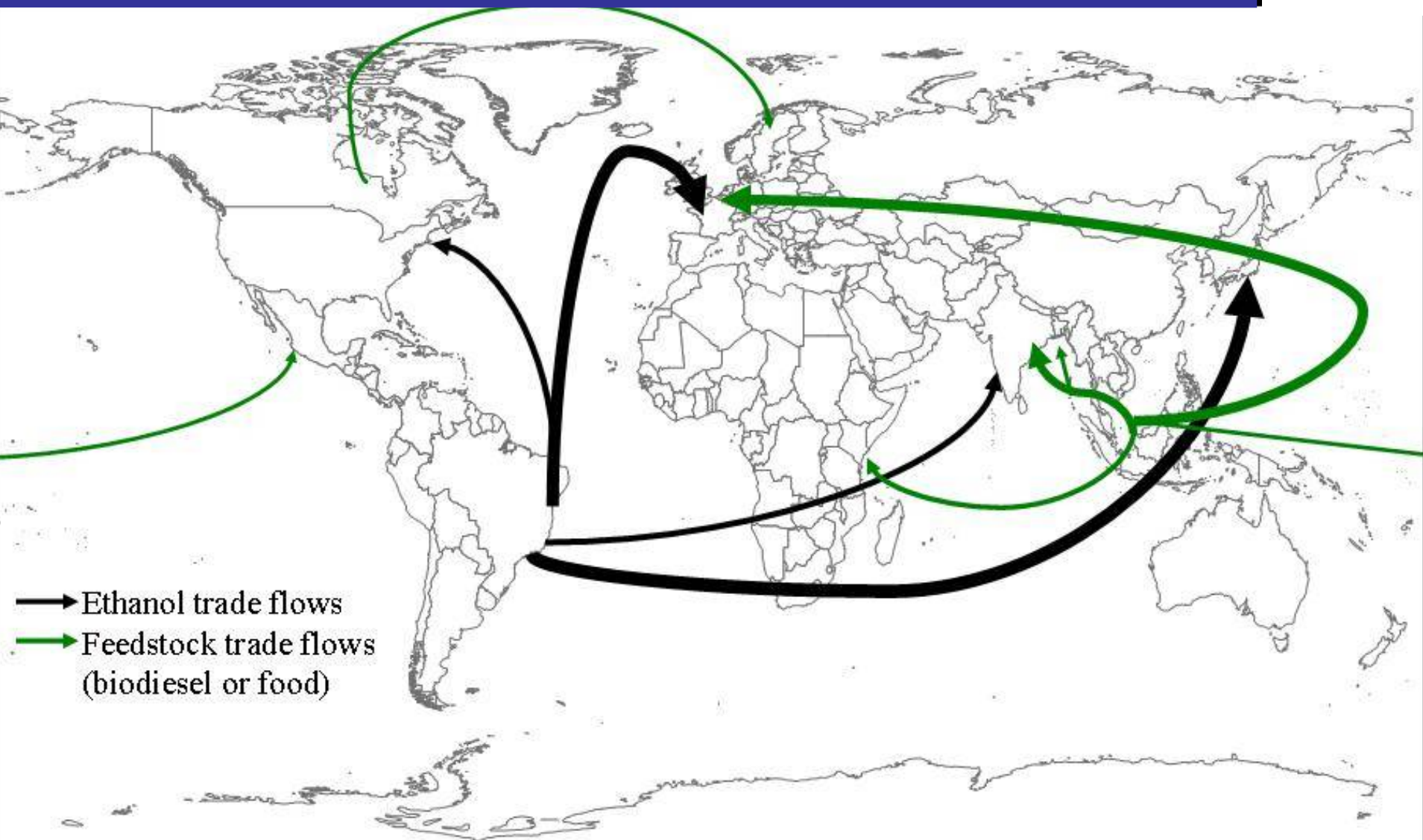


Biofuels feedstock impacts

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<ul style="list-style-type: none">• increasing food prices• deforestation and other environmental concerns	<ul style="list-style-type: none">• increasing income for agricultural communities

- Other benefits

International cooperation



Conclusions

- International nature of biofuels
- Co-benefits are not guaranteed
- Securing the possible co-benefits will depend on successful international cooperation