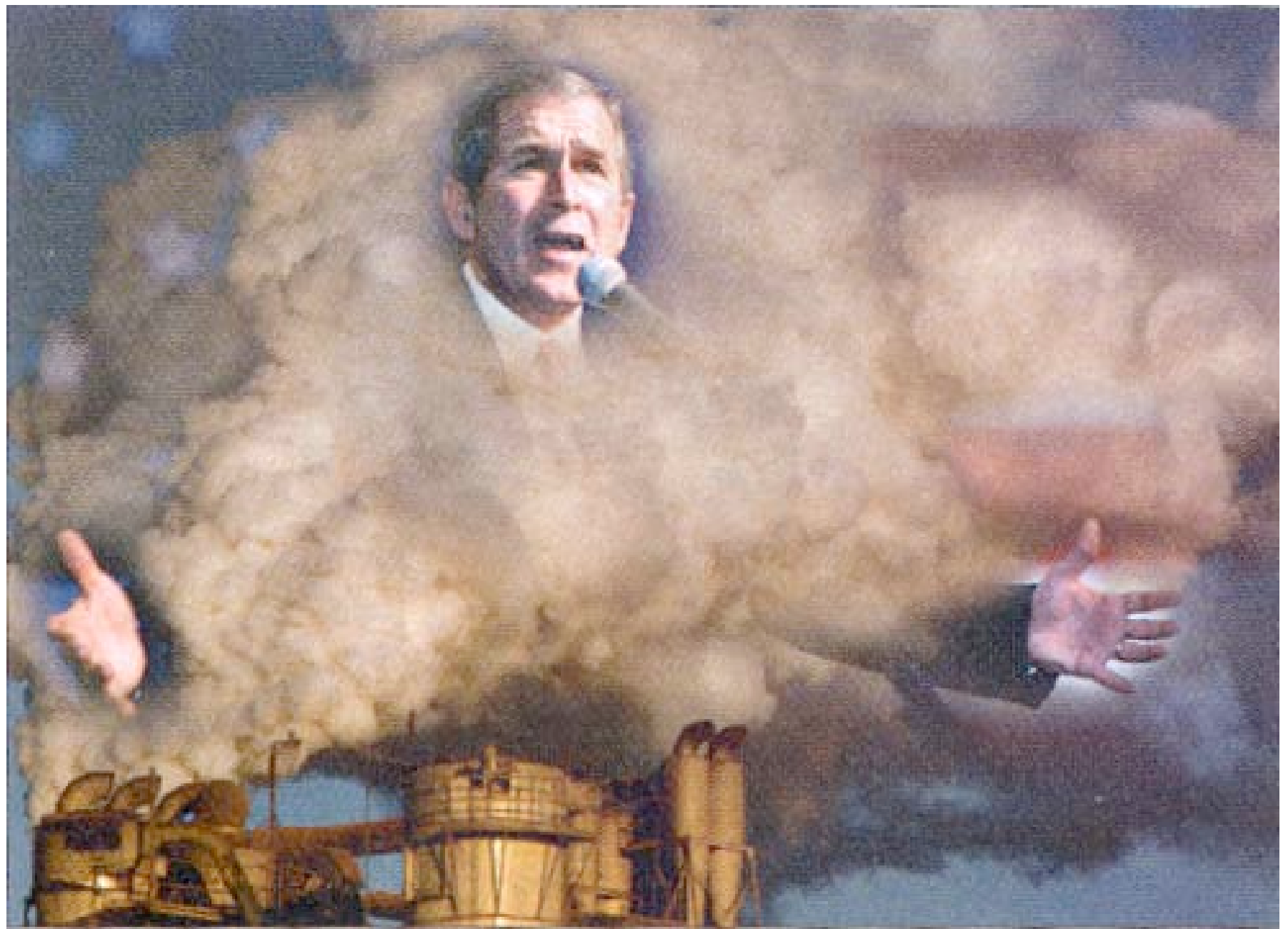
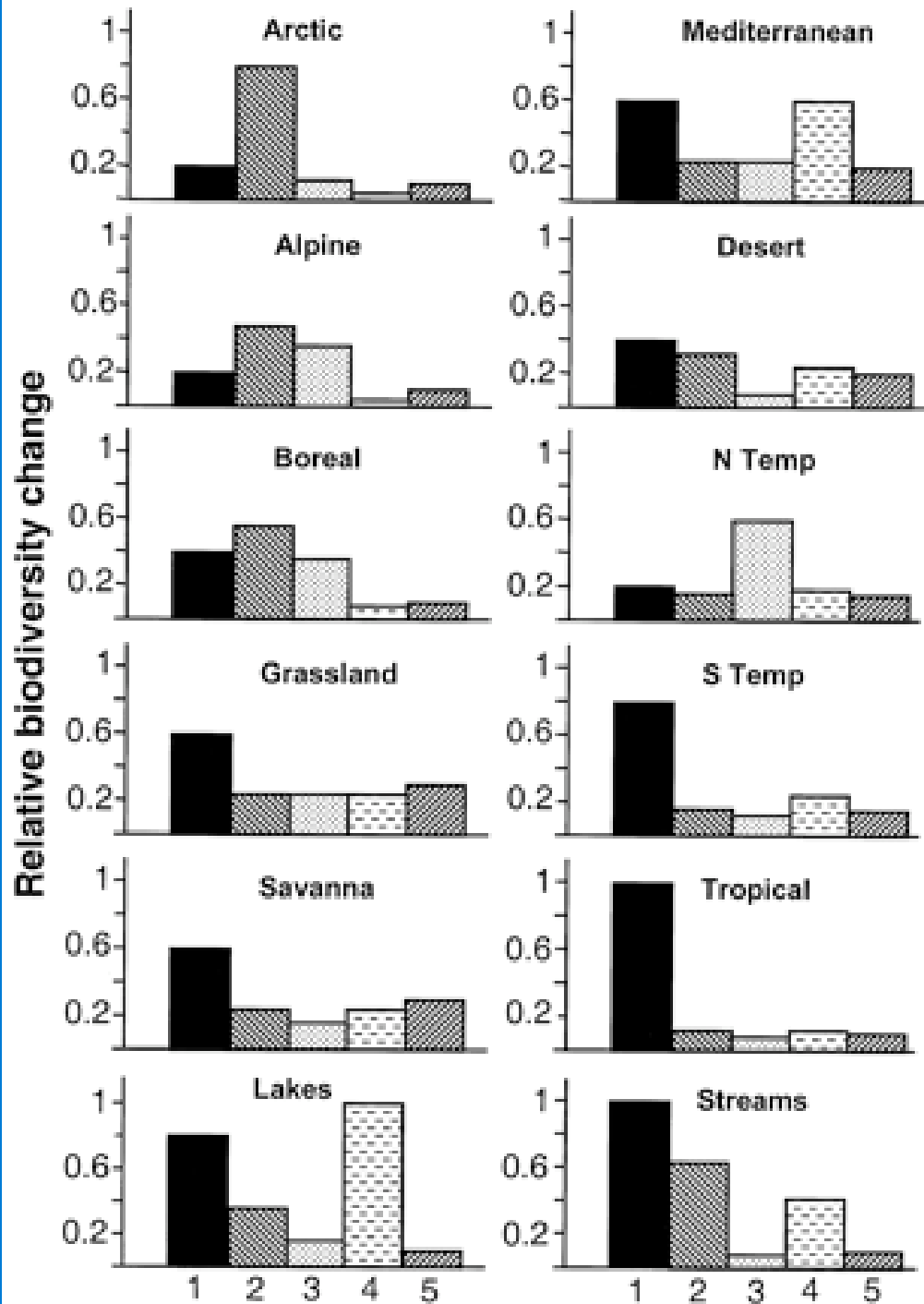


Aspen Global Change Institute
Forest Management and Global Change:
Near-Term Decisions and Long-Term Outcomes

**Near-Term Decisions on the Design of
Forest-based Climate Mitigation Policies and their
Long-Term Impacts on Tropical Forests**

- (1) Impacts of carbon crediting for afforestation and reforestation under the CDM on tropical forests.**
- (2) Impacts of carbon market incentives to alter industrialized country forest management practices on tropical forests**
- (3) Options for ameliorating any negative impacts from (1) and (2)**





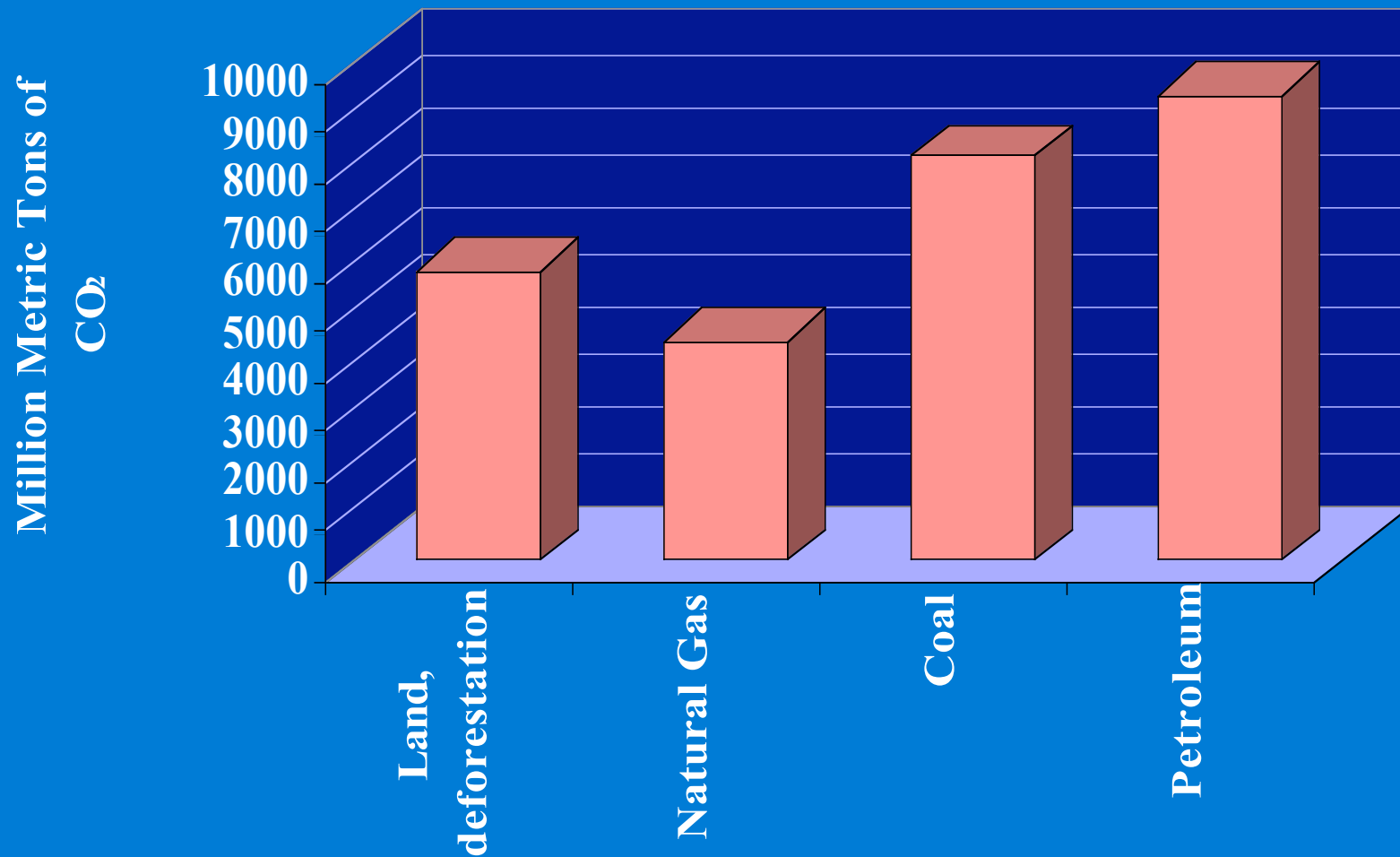
- 1 Land Use
- 2 Climate
- 3 Nitrogen deposition
- 4 Biotic exchange
- 5 Atmospheric CO₂

Source: Sala et al 2000



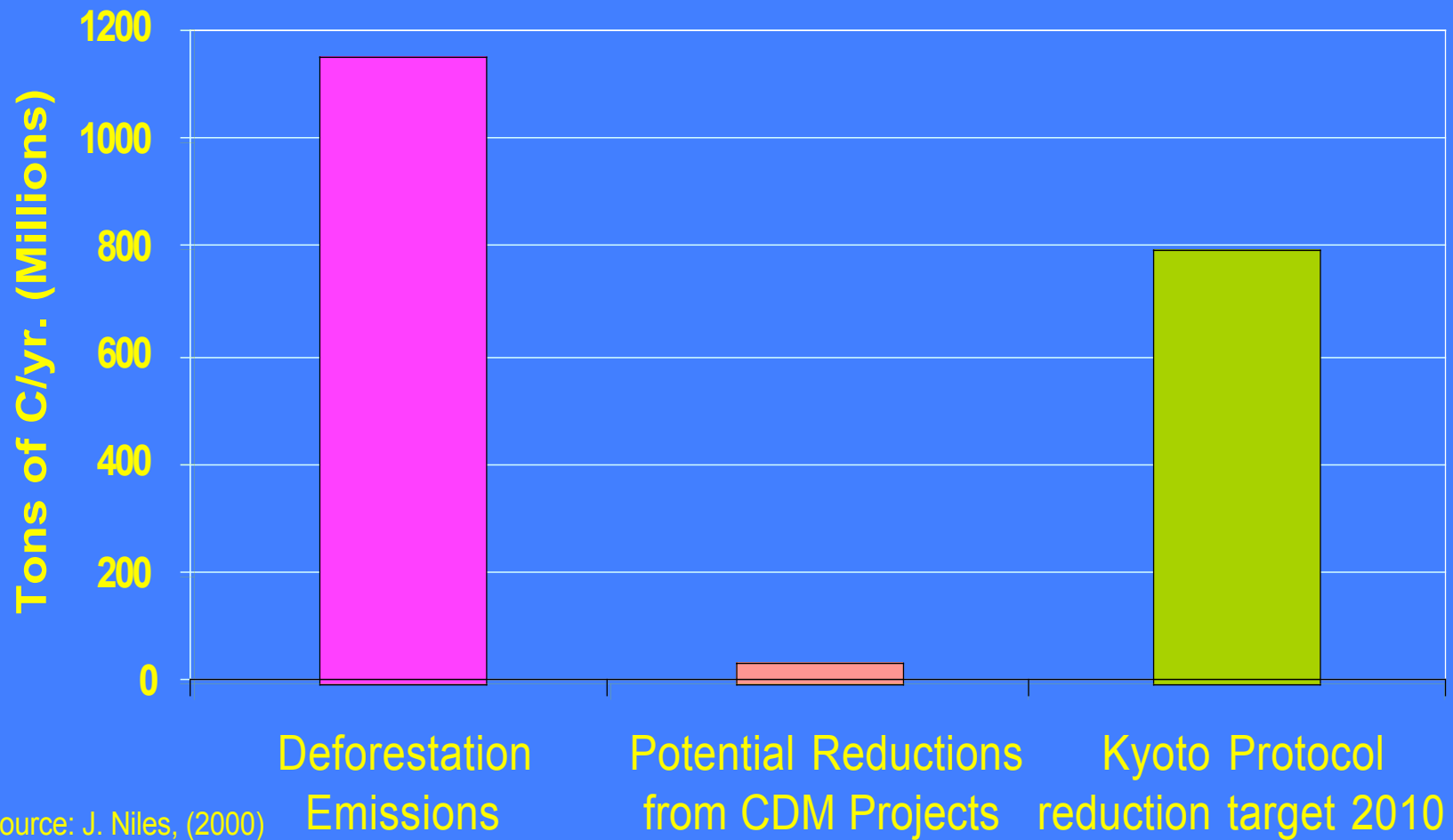
Comparison of Mean Annual Global Emissions from Deforestation (1989-1995) and Fossil Fuels (1990-1999)

source: IPCC; US DOE

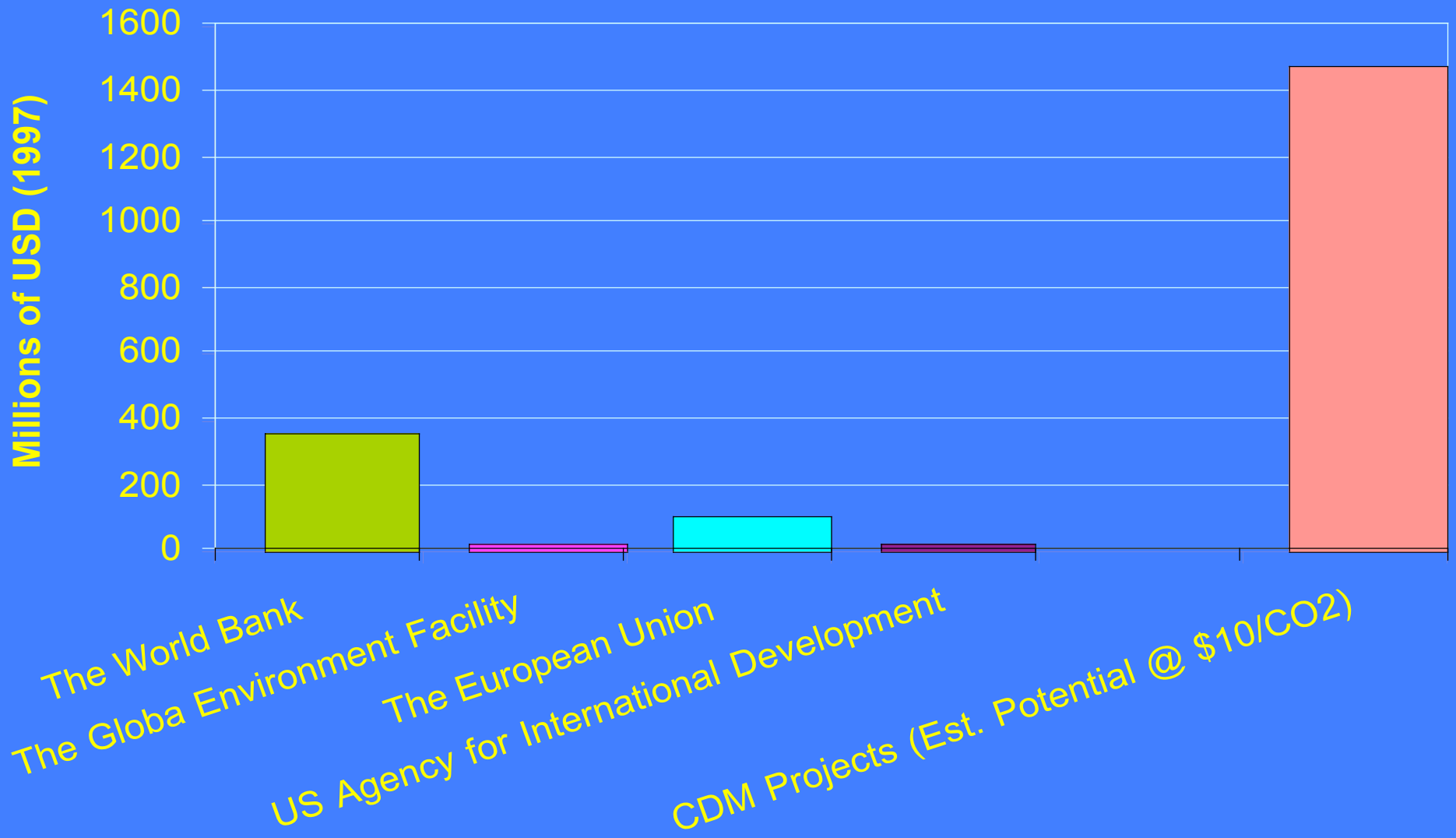




Slowed Deforestation (Estimated Potential for CDM Projects)



International Investment to Help Developing Countries Conserve Forests and Biodiversity



Source: P. Frumhoff *et al.*, (1998) and J. Niles, (2000).

Key COP6bis draft decisions on forest-based climate mitigation

- Codifies a set of LULUCF principles to apply across Articles of the Protocol, e.g.
 - That implementation of LULUCF activities contribute to biodiversity conservation and the sustainable use of natural resources.
 - That reversals of a removal of carbon from the atmosphere be appropriately accounted.
 - That windfall effects be excluded from accounting (From “elevated CO₂ concentrations above their pre-industrial level, indirect nitrogen deposition, and the dynamic effects of age structure resulting from activities and practices before the reference year”).

Key COP6bis draft decisions on forest-based climate mitigation

- Defines “forest”, “afforestation”, “reforestation”, “deforestation” on the basis of changes in land-use for Articles 3.3 and 3.4, but does not provide definitions for LULUCF activities for Article 12 (CDM).
- Establishes four broad categories of eligible Article 3.4 activities in industrialized countries (“forest management”, “cropland management”, “grazing land management”, and “revegetation”) and sets negotiated limits on credits for forest management activities for the first commitment period.

Key COP6bis draft decisions on forest-based climate mitigation

- Limits LULUCF projects in the CDM to afforestation and reforestation *for the first commitment period*, and sets a cap on credits for these activities.
- What will be included in future commitment periods left open to subsequent negotiations.

Key COP6bis draft decisions on forest-based climate mitigation

- Tasks SBSTA with developing “definitions and modalities” for including afforestation and reforestation in the CDM, “taking into account issues of non-permanence, additionality, leakage, scale, uncertainties, and socioeconomic and environmental impacts, including impacts on biodiversity and natural ecosystem,” for a decision by COP-9.
- (CDM project consistency with “sustainable development” to be determined by host Parties.)

Key COP6bis draft decisions on forest-based climate mitigation

- **“Invites” the IPCC to elaborate methods for measuring and reporting changes in carbon stocks and to prepare a report on “good practice guidance” by COP9 and guidance on “practicable methodologies” for factoring out windfall effects by COP10.**

How will forest-based climate mitigation policies affect tropical forests?

(1) Concern raised by many environmental NGOs that CDM crediting for afforestation and reforestation will:

- accelerate expansion of industrial plantations in developing countries**
- accelerate deforestation and/or slow natural forest regeneration**

Impacts of CDM crediting for afforestation and reforestation on tropical forests

- **In most tropical regions, plantations exist in large part due to government subsidies for their creation.**
- **Through 2010, the global supply of plantation wood on the market is projected to massively increase and depress prices.**
- **Additional plantations will likely aggravate the poor market outlook for tropical plantation products.**
- **In general, only increased subsidies will encourage more planting .**

Impacts of CDM crediting for afforestation and reforestation on tropical forests

- **Will the price of carbon serve as a sufficient "subsidy" to encourage more planting, even to the extent that it offsets increasingly poor future markets?**
- **Alternatively, will carbon crediting primarily serve as a substitute for government subsidies --i.e. the subsidy incentive to plant remains the same, only the source of the subsidy changes -- and therefore not alter current land-use dynamics?**

Impacts of CDM crediting for afforestation and reforestation on tropical forests

- **Can we craft and implement sound rules to address this concern?**
- **Near term rules governing the CDM:**
 - **Additionality**
 - **Prohibit crediting for plantations on areas of recently cleared natural forest**
- **Longer-term need to bring developing countries into a capped regime.**

How will forest-based climate mitigation policies affect tropical forests?

(2) Will industrialized country timber harvests be relocated to industrialized countries to forests in developing countries (“InterAnnex market leakage”)?

Will industrialized country timber harvests be relocated to industrialized countries to tropical forests?

- In the context of a carbon market, can ask:
 - At what price for sequestered carbon will timber harvests slow in industrialized countries?
 - What is the substitutability between timber supplies from industrialized and developing countries, and what are the roles of plantation and natural forest sources?
 - If timber harvests do shift, what will be the potential impacts on natural forests and on the atmosphere?

