

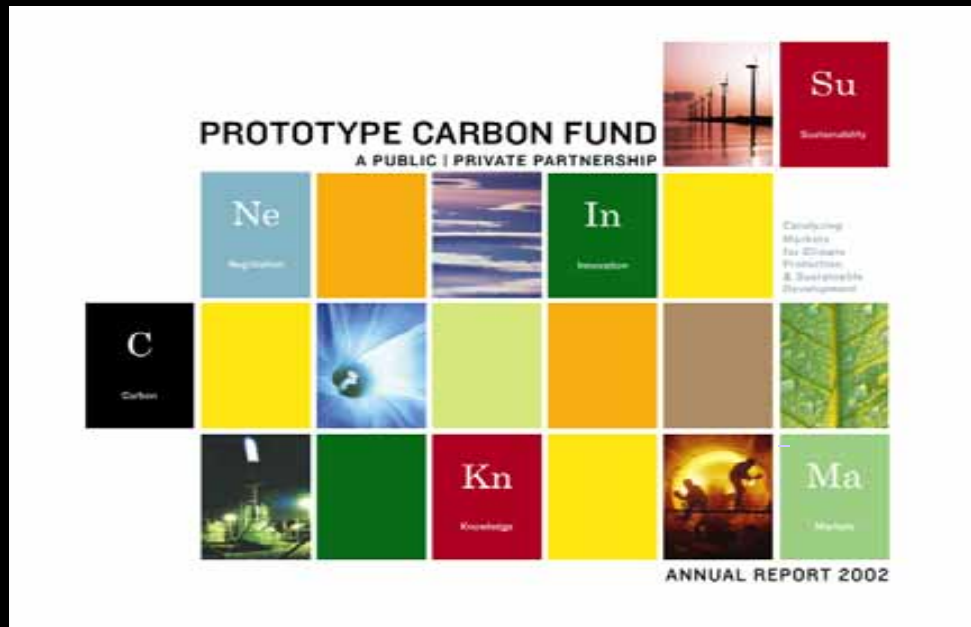
www.carbonfinance.org

Role of Multilateral Banks in Market Development

Making a Market for Carbon Sinks

Katoomba Group,
Swiss Re Headquarters Zurich,
October 29-30, 2003

World Bank Carbon Finance Vehicles



Netherlands
CDM Facility

Italian Carbon Fund



Community
Development
Carbon Fund



BioCarbon Fund

World Bank's Carbon Finance Business

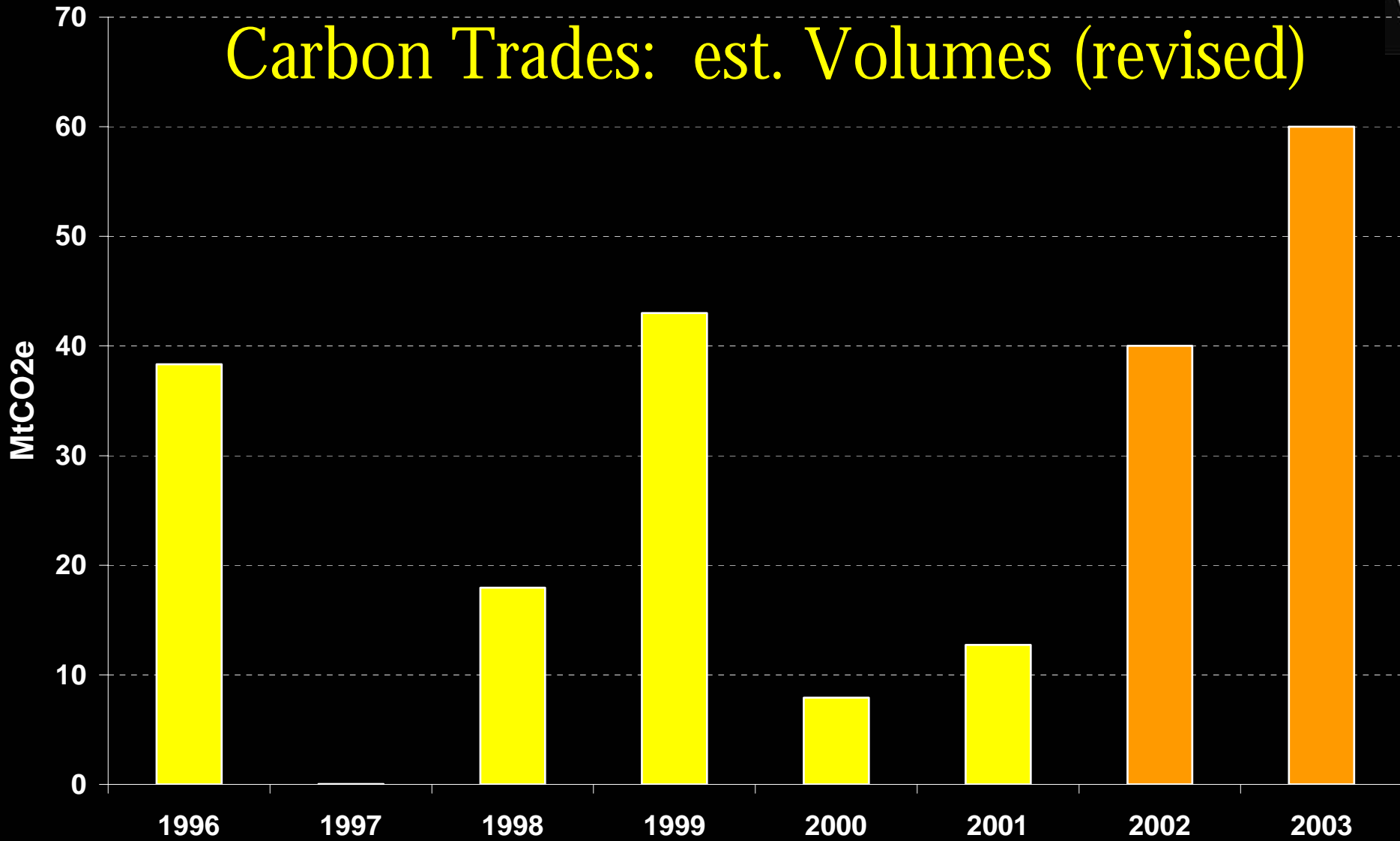
- at a Glance



- ✓ **Six products; \$420 million subscribed**
- ✓ **Carbon Purchases agreed and under negotiation: ~40, ~US\$250 million**
- ✓ **Active pipeline for all products: >80 projects ; total carbon asset value of >\$600 million**
- ✓ **Carbon Asset portfolio: >50 million tCO₂e**
- ✓ **Underlying project finance: ~\$4.0 billion**



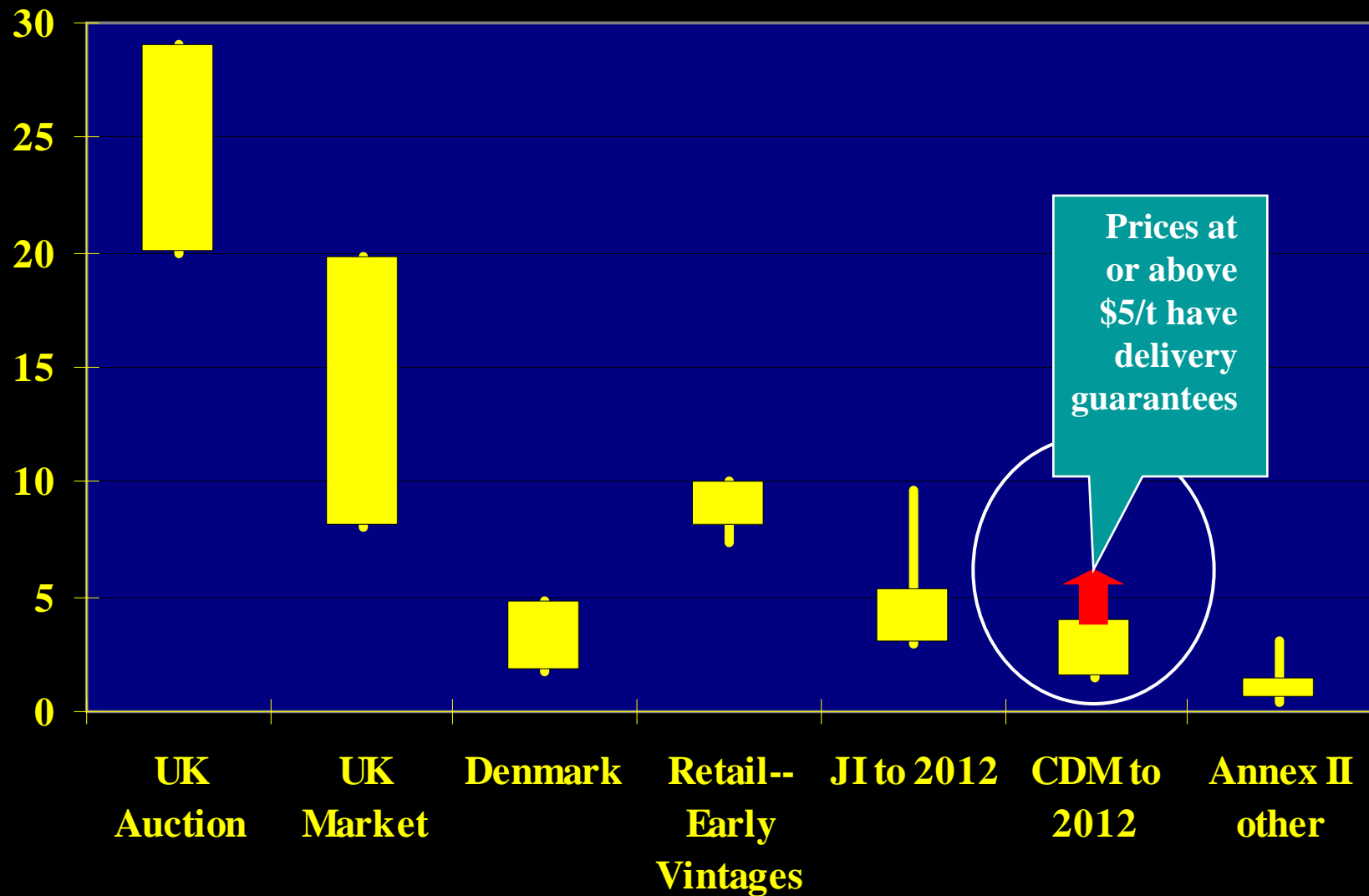
Carbon Trades: est. Volumes (revised)



Vintages up to 2012 only.

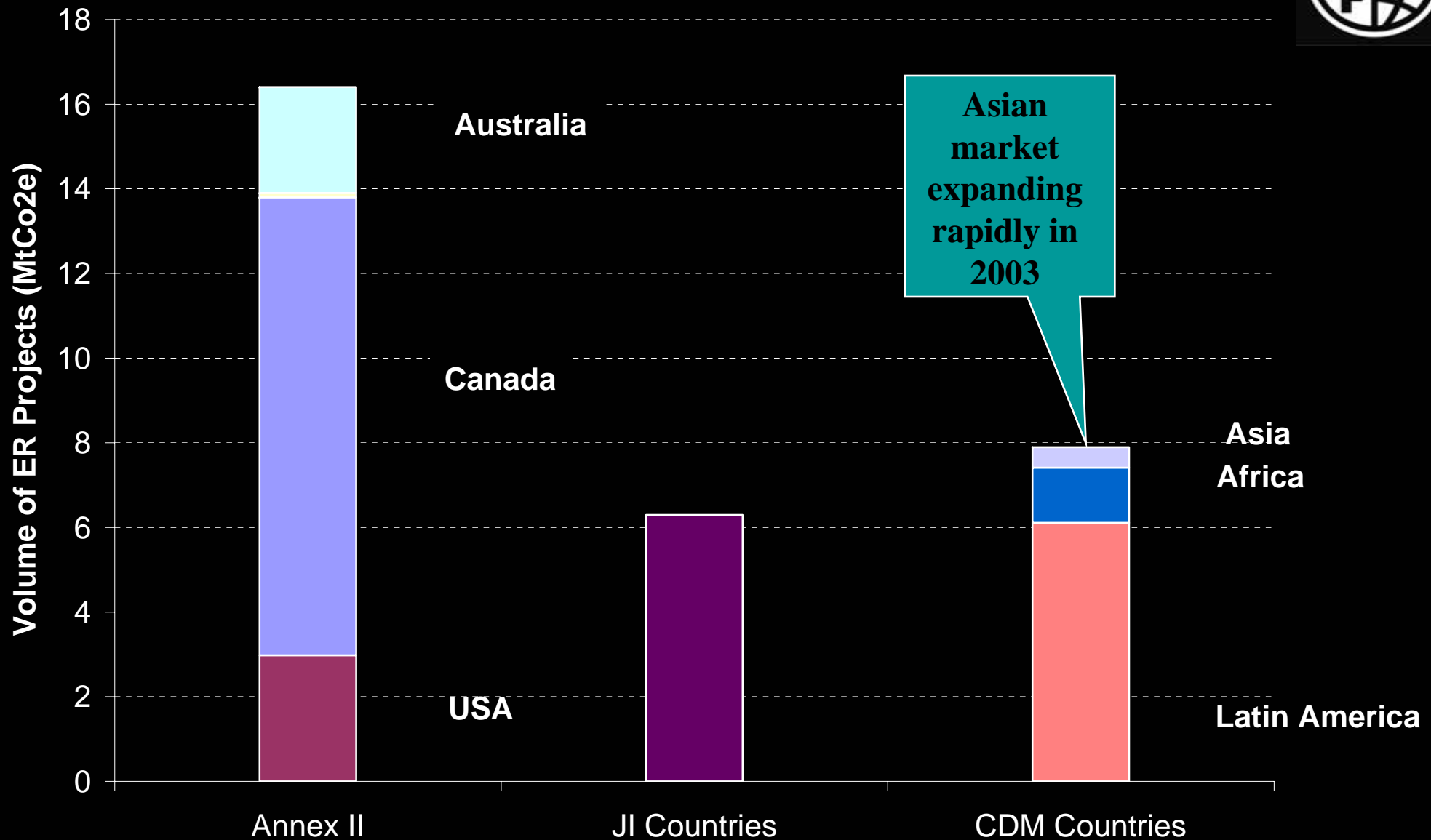
Source: PCF calculations, based on database assembled with Natsource, Evolution Markets and PointCarbon

Carbon Prices: Historic and Trends



Source: PCF estimates, based on database assembled with Natsource, Evolution Markets and PointCarbon

Carbon Finance flows 2001-2002





Carbon Market Intelligence: Emerging Picture

- **Market Volume:** cumulative 240-250 million tonnes CO₂ traded since 1996. Value is \$600-\$750
- Three-fold increase between 2001 and 2002; ~50% increase in 2003
- **Less than half in CDM/JI.** Dutch Government is single biggest player in 2003/04
- **Private sector staying out:** Less than 20% of the private sector's purchases were in CDM (2001-2002)
- **A few large developing countries dominate CDM**
- **Africa, smaller countries** and small-scale projects are largely bypassed
- **Very few carbon sequestration trades in CDM**

Significance of CDM as a Source of Compliance Assets by 2012



Scenarios

- **Low:** current rate of purchase: **95 MT**
- **High: Cumulative delivery of 450 MT** if
 - **10 times** current rate in '04, '05, '06 - \$10 billion in carbon finance
- **Medium:** doubling each year through 2006: **200 MT**
- **Best Efforts: 300 MT** CO₂e into registries **by 2012**
- **Note:**
 - **no allowance for under-delivery or non-compliance**
 - **CDM Sinks cannot exceed 33mtCO₂ - >5 mtCO₂ by 2012 likely (~0.25% of OECD's needs from trade)**



Significance of CDM as a Source of Compliance Assets in OECD

- **OECD Compliance gap** is 3-4 billion tons cumulative
- **CDM/JI will be 20% or less** of 1.5-2.0 billion ton cumulative “effective demand” for traded assets assuming 50% contribution from domestic action
- **Hot Air** is key to **Kyoto compliance** but is often “politically” inaccessible
- “**Greening**” hot air is essential to making AAUs acceptable to most OECD buyers
- **Demand on all CDM assets, including sinks will increase substantially in 2 years** as supply of up to 2012 vintages declines sharply



Role and Functions of Multilateral Banks (“MDBs”) in Carbon Market

Role: Catalyzing Market Development – Learning
by Doing

Two Phases: Pre “Rules” and Post Rules

Vehicle: Public-Private Partnerships

Functions

- Benchmarking
- Managing Risk for Early Entrants
- Addressing Market Failure
- Capacity Building and Knowledge Dissemination ¹⁰



Role and Functions of MDBs

Learning by Doing

Pre “Rules” Phase

- Providing opportunity for negotiators and stakeholders to see “prototypes” of rules and procedures in action
 - Examples from Prototype Carbon Fund
 - Elaborating Project Cycle; Needs of Small-scale Projects; Defining Issues in Additionality

Post Rules

- First-of-a-Kind; benchmarking; detecting and addressing flaws and market failures



Role and Functions of MDBs

Benchmarking

Carbon Asset Creation

- ✓ **Baseline Methods and Monitoring:**
 - 7 methods submitted
 - small-scale procedures
 - LULUCF methods and monitoring – 3 projects
- ✓ **Carbon Value assessment – “the methane kick”, carbon sinks/LULUCF etc**
- ✓ **Sustainable Development Impacts**
 - Defining, monitoring and reporting;
 - Independent certification of community benefits and biodiversity

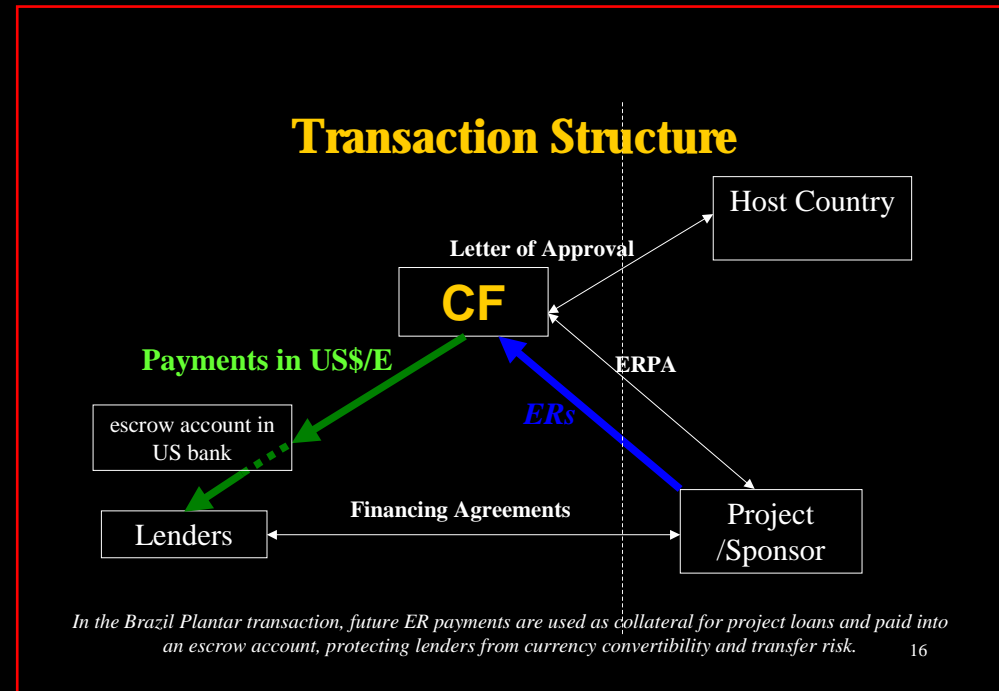
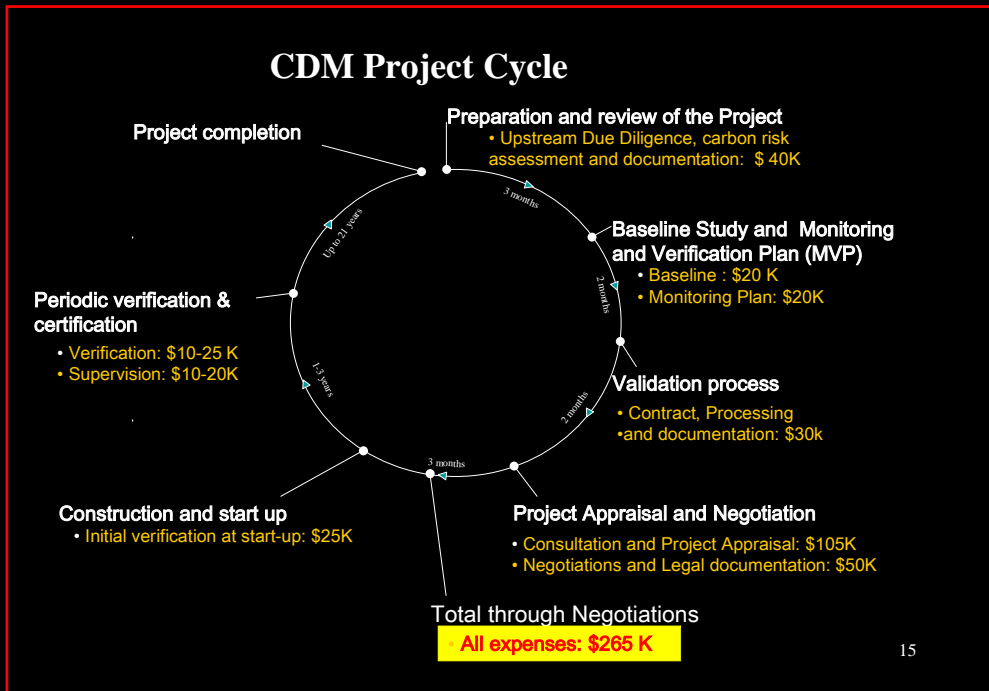


Role and Functions of MDBs

Benchmarking Documentation and Costs

- Standardized project documents

- Standardized Contract Documents





Role and Functions of MDBs

Managing Risk for Early Entrants

Intermediation and Risk Sharing

- Managing CDM Regulatory Risk – baseline risk
- Managing Delivery Risk – project and portfolio
- Defining Equitable Risk and Benefit Sharing for Buyers and Sellers: Transactional Equity!
- Getting Buyers to Take Kyoto Risk
 - **Bank-managed Carbon Funds take Kyoto Risk. If not, transactions and learning would be more limited**
 - Exploring and Testing Risk Management Instruments
 - compliance risk, portfolio risk, mezzanine financing structures and underlying project financing risk

Role and Functions of MDBs

Addressing Market Failure



Problem: Transaction Costs and Risks of small projects exclude small and poor countries/areas

Solution: Community Development Carbon Fund (CDCF)

- ✓ Small-Scale Projects, Smaller/Poorer countries
- ✓ 25% of resources to poorest countries

Problem: Misconception and poor understanding lead to Under-valuation of Carbon Sinks for climate mitigation, adaptation, and poverty alleviation

Solution: BioCarbon Fund

- Prototyping sequestration in replicable activities of high social and environmental value
- Demonstrating permanence risk management



BioCarbon Fund

Harnessing the carbon market to sustain
ecosystems and alleviate poverty

BioCF Development

A "Katoomba" Partnership



- Public Launch in Tokyo November 2002 at Katoomba Group
- Bank Board approved BioCF on September 17th
- MoU Signatories meeting Feb. 2003. 22 MoUs, incl:
 - Caisse des Dépôts et Consignations; Government of Canada; Chugoku Electric Power Company; Conservation International; Eco-Carbone; Future Forests; Hokkaido Electric Power Co., Inc.; Japan Energy Corporation; Kyushu Oil Co. Ltd; Marsh Specialty Operations; Mitsui & Co. Ltd; The Nature Conservancy; Okinawa Electric; Shikoku Electric Power Company; STMicroelectronics; Suncor Energy; Sustainable Forest Management; Swiss Re; The Tokyo Electric Power Company; 500PPM.
- **Information Memorandum of BioCF is available as of today to qualified investors – another Katoomba First!**
- Expected closing in March after CoP9 (Dec. 2003) stock-take
- Lead investors will declare participation in Tokyo end-January, 2004

Rationale 1: Cost-Effective ERs



- Forests and agriculture are part of the problem and solution to climate change
- They buy time before new technological solutions are found in energy sphere
- Large opportunities, lower cost (principle of the Kyoto Protocol)
- Environmental and social benefits



Rationale 2: Access to Market



- Poorer countries do not have the same opportunity to participate
- Sinks offer one of the few opportunities for rural economies to participate in CDM
- Rare opportunity for OECD Corporate dollars to reach small farmers and forest peoples
- Also true for rural communities in EITs



Rationale 3: Learn by Doing



- Very little practical experience of LULUCF in a commercial CDM/JI setting: test what works and what does not
- Parties poorly informed as they define rules. Misconceptions often dominate debate
- Most Effective capacity building tool = being involved in a deal
- Need to test and benchmark high-quality, practical standards of additionality, measurement, permanence, co-benefits
- BioCF is only chance for a structured test of what works and what does not. Without it misconception will persist
- Must start NOW

Rationale 4: Synergies



- Climate, environmental and livelihood goals: 3 Rio Conventions
- Compatibility with national sustainable development goals
- Local participation: communities, NGOs, private and public sectors
- Cooperation with IFAD, UNCCD GM, FAO, CGIAR



Landscape Approach



- Multiple asset types distributed across the landscape
- Risk spreading within project
- Gives local communities multiple reasons for maintaining sequestration
- Social benefits through resilience and adaptability

Example Projects .. 1



- **Community-based tree planting to combat land degradation**
 - Community groups organised through existing social networks are trained in tree planting and maintenance
 - Trees reduce soil erosion, provide shade and produce food and fuelwood
 - BioCF funding supports the teams of trainers and carbon verifiers and helps establish the tree nurseries

- **Landscape Management Project**
 - Coordinated by private company working with local organizations and government agencies
 - Forest restoration and protection for conservation and reducing soil degradation
 - Improved agricultural practices and agroforestry that reduce pressures to clear native forests
 - Small scale plantings for high quality timbers for longer term income
 - BioCF funding makes the package as a whole financially feasible



Example Projects .. 2



■ Forest protection via plantings

- A threatened conservation area will be protected from encroachment by establishing buffer plantings of fast growing native species
- Local people will have the rights to use these areas for fuel and food collection
- BioCF funding is the core financial input to make the project feasible

■ Tannin, biofuel, and land rehabilitation

- A business that engages local communities as “outgrowers” of trees for tannin production and biofuels from the waste is no longer financially viable
- Carbon sales through the BioCF can change this and allow the scope of the business to expand



Managing Non-Permanence Risk

