



Workshop on the Financing Modalities of Clean Development Mechanism (CDM)

Jakarta, Indonesia 27 - 28 June 2005

The Finance Mechanism for CDM project in Viet Nam

Currently, Challenge and Opportunity Assessment Overview

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CDM Project and Climate Change

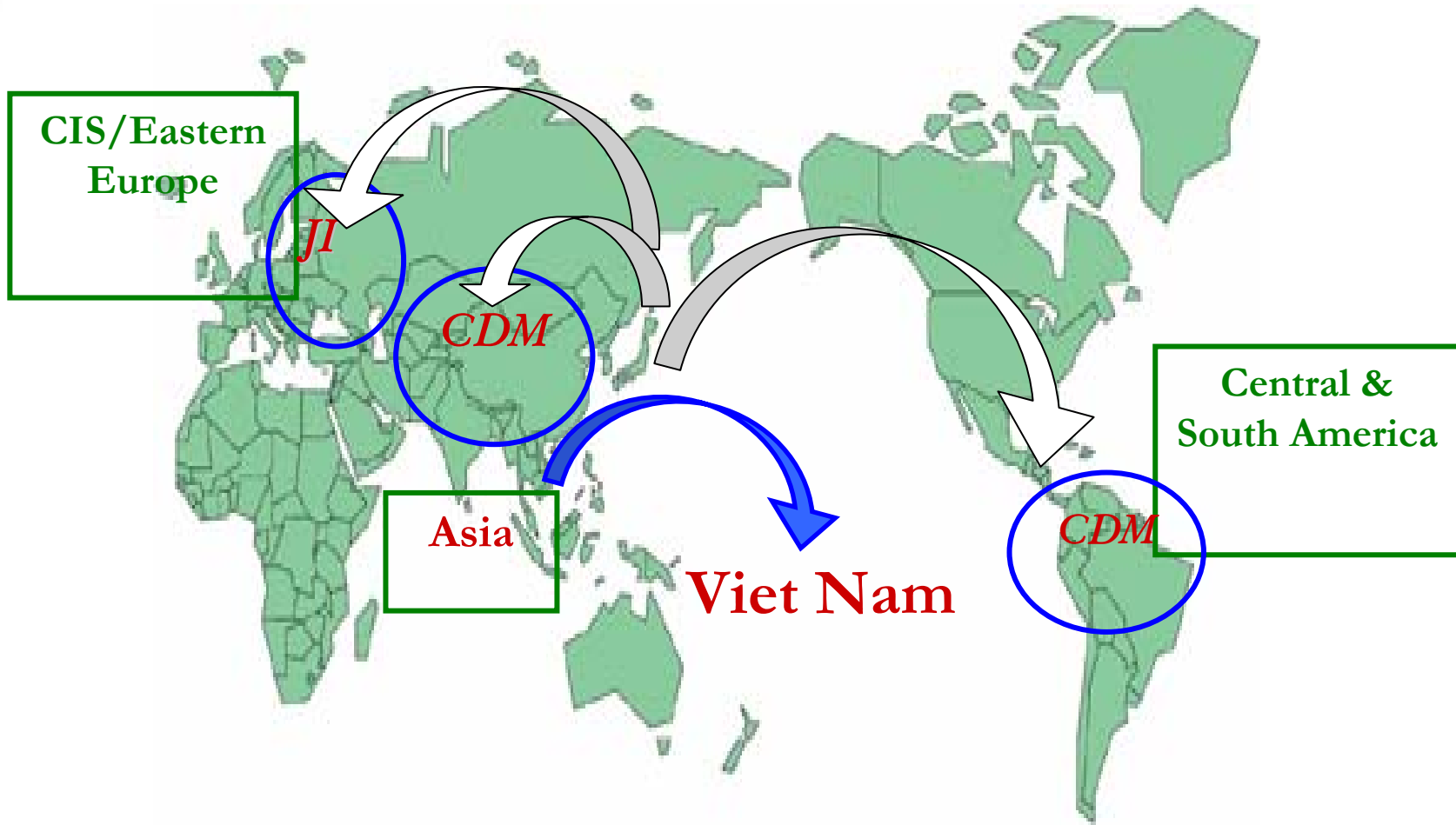
Viet Nam



Ministry of Natural Resources and Environment



CDM Acceleration Programme





Additional Carbon: Sources

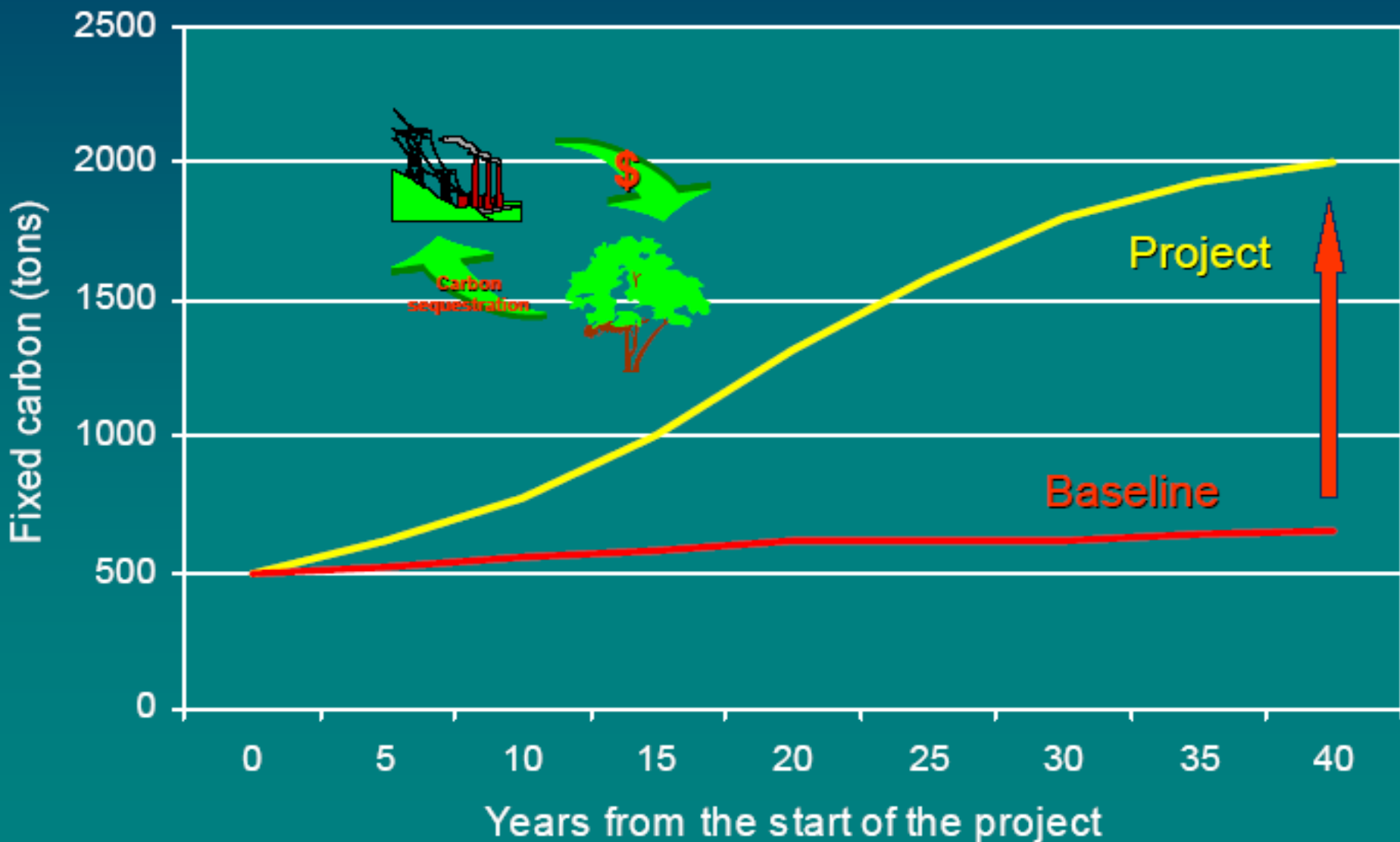
Emissions Reductions





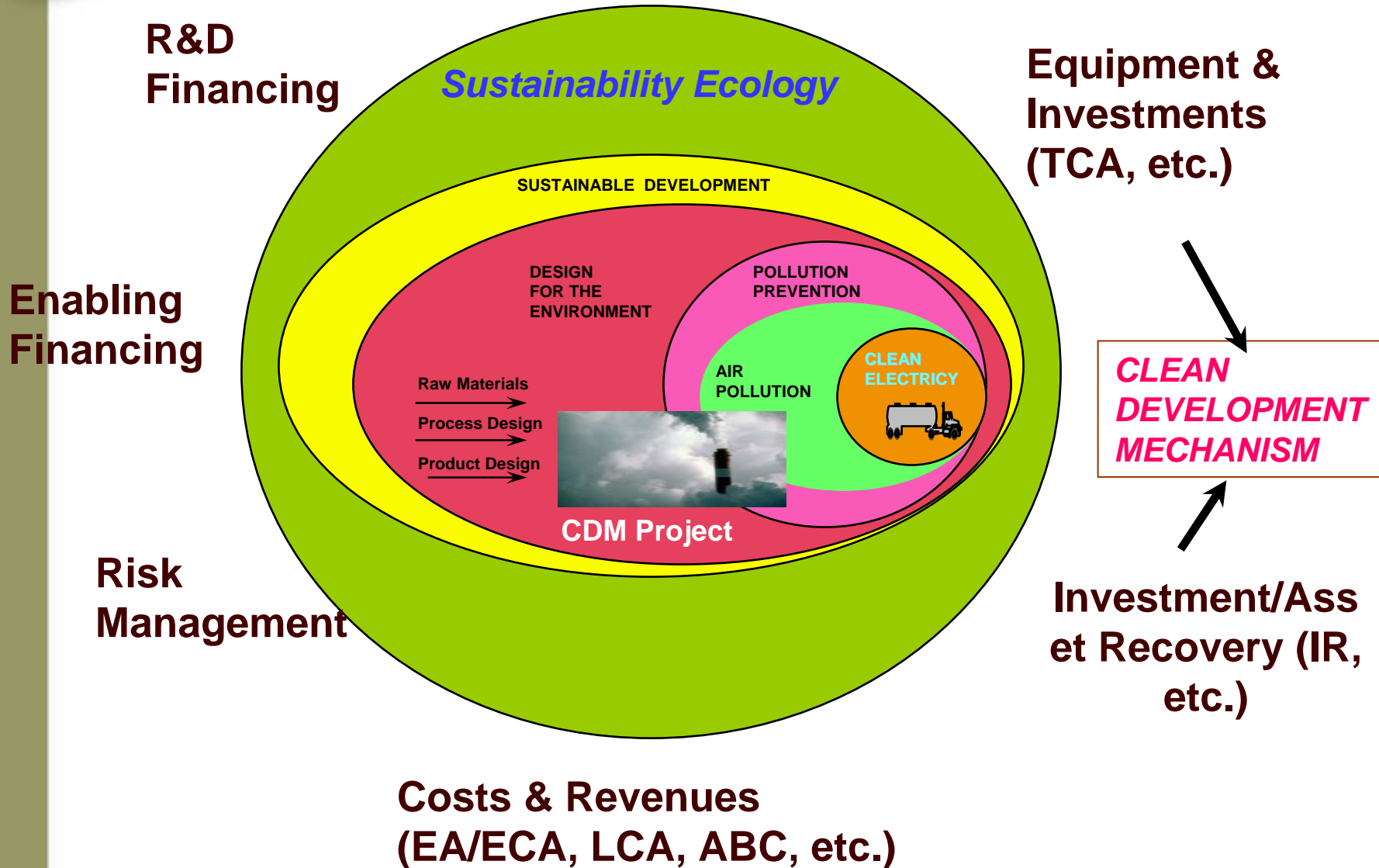
Additional Carbon: Sinks

Increase Fixation





NEED TO FINANCING A CDM PROJECT ?



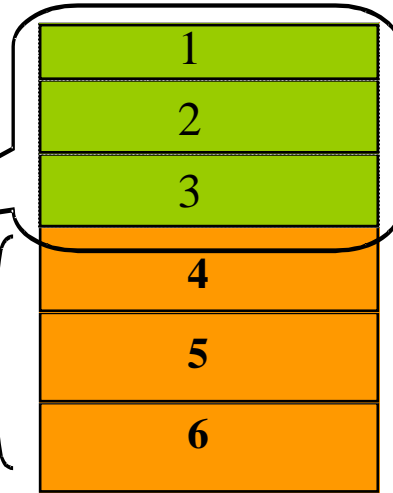


“Economic projects”

Ranking of portfolio

projects chosen

projects not done



Project Screening

Risk analysis

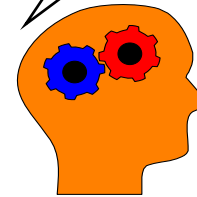
- Country risks
- Project risks
- Opportunity cost



Screening criteria

- NPV + sources of value
- Capital efficiency
- Net Income
- ROACE
- IRR
- Payback Period
- Valuation of follow on options
- + others

CDM Project Investment Appraisal



projects pass screening



“Uneconomic projects”

The CDM Project Iceberg

The CDM benefits can be like an iceberg, with only a small part of the benefits visible

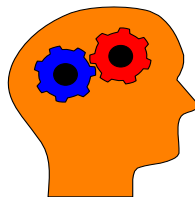


Visible CDM Benefits
only build the tip of the
iceberg



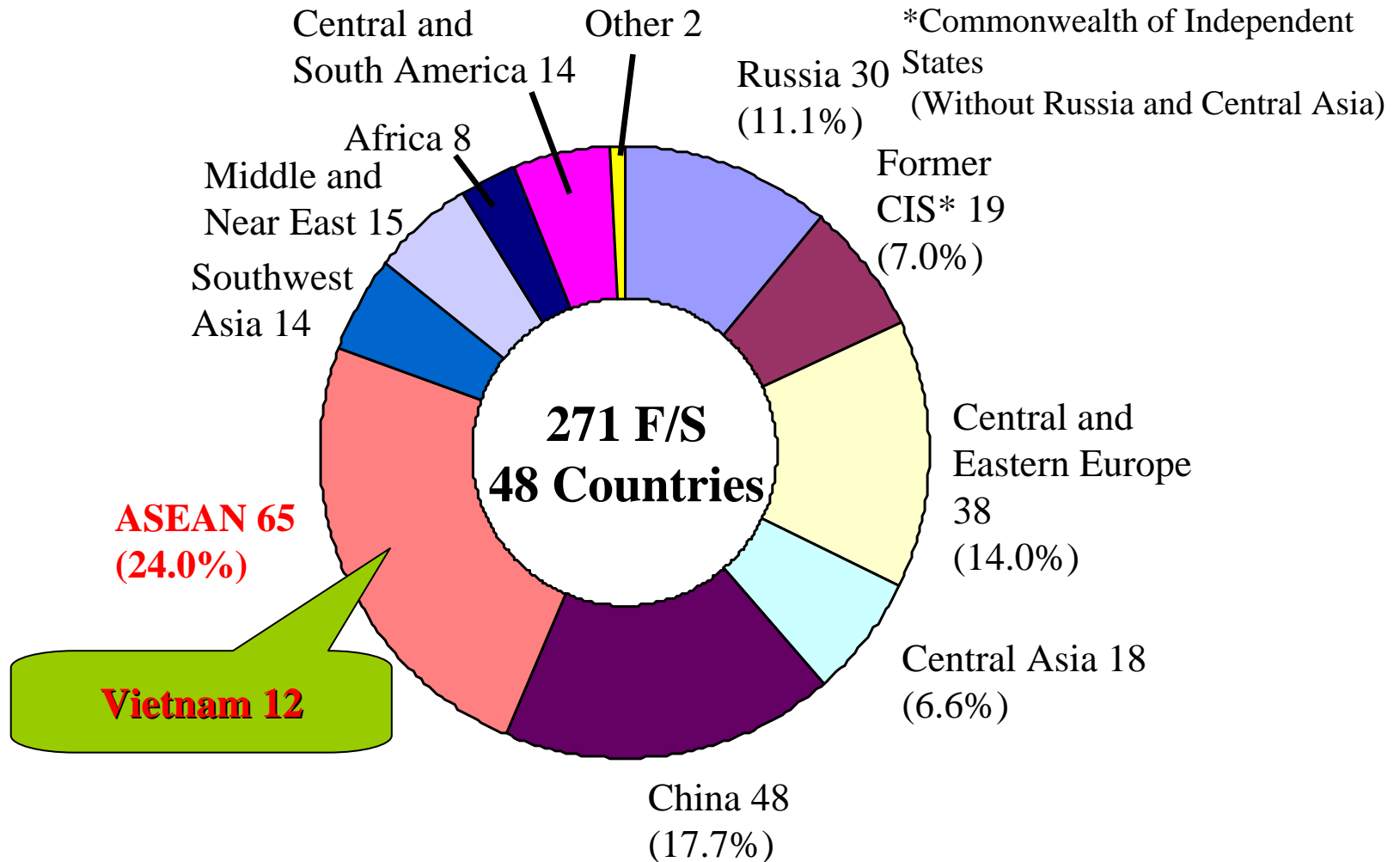
Uncertainties

THE HIDDEN BENEFITS
FROM CDM PROJECT





271 CDM Project Feasibility Studies in 48 Countries through December 2004 (FY1998-2004)





Key Criteria at Screening of CDM

Project Description and Project Participants

□ *Fulfillment of Kyoto Rules:*

Methodology (Baseline Study & Monitoring Plan)

Validation (Methodology Applicability, Data, Quality Control, etc.)

Possibility of Authorization & Approval by Host Country

Stakeholders' Comments

□ *Additionality (Investment Analysis/Barrier Analysis and Common Practice Analysis, etc.)*

□ *Environmental & Social Safeguard Requirements: Compliance with Laws & Regulations, etc.*



Key Criteria at Screening of CDM

Project Feasibility:

Construction Plan, Business Plan and Fund-raising Plan

Project-related Contracts

Concession/License & Permits

Creditworthiness and Competence of Project Sponsors

Experiences of Management and/ or Project Operator

Commercially Viable Proven Technology

Financial Viability (Cash Flow Projection, Sensitivity Analysis, etc.)

- ***Contribution to Sustainable Development of Host Country*** (*Environmental, Social & Economic Impacts, Technology Transfer Effects, etc.*)
- ***Portfolio Guideline and Purchase Conditions***



Structural Barriers to CDM Project Implementation Project Participants' Viewpoint:

1. Cumbersome Procedures to Obtain CDM Approval

- Project participants must receive CDM project approvals from host country, investing country, independent organization and international authority.

➔ **Much More Time Consuming than Traditional Projects**

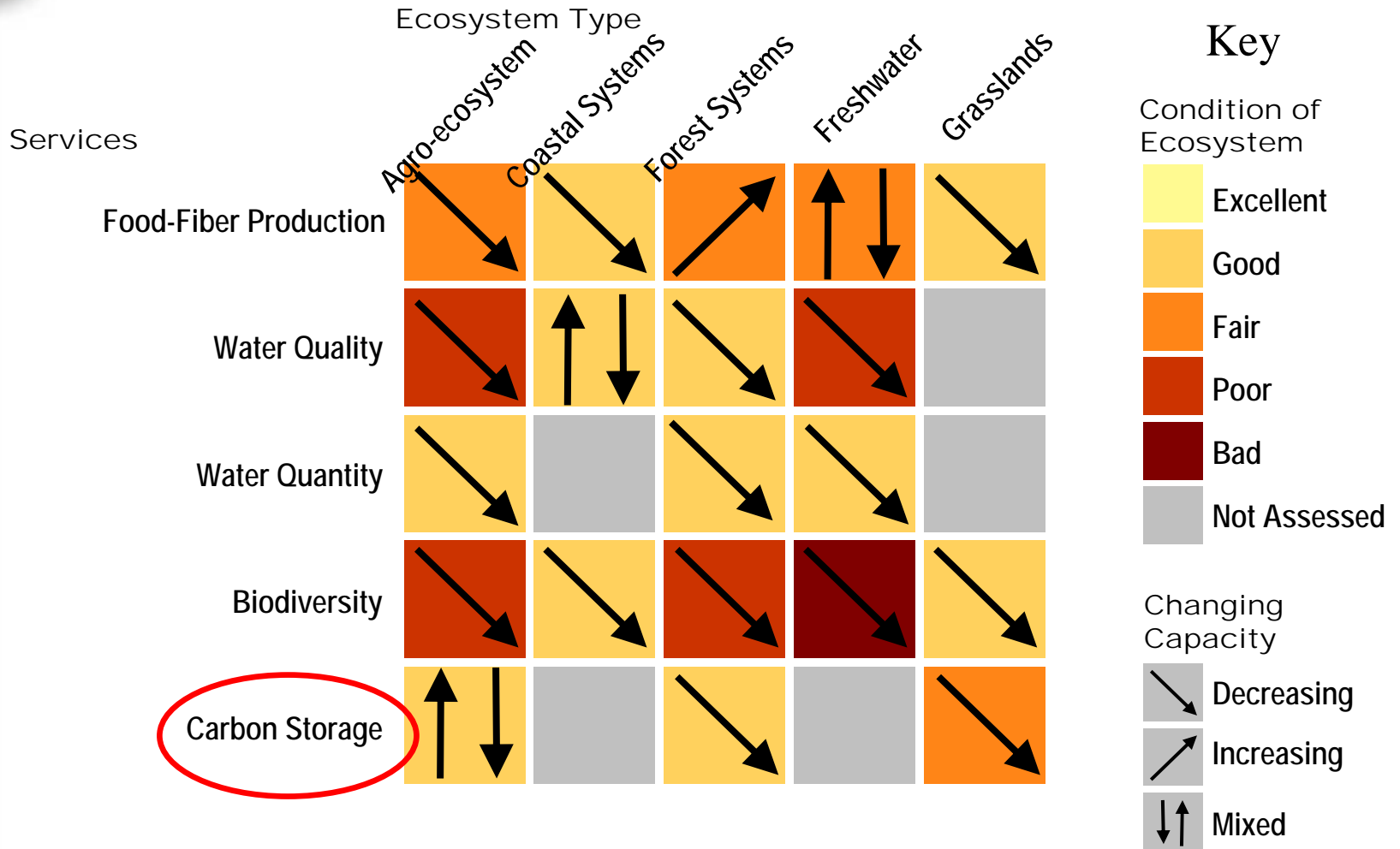
2. Contradiction Between Profitability and Financial Additionality

- Financial Additionality: Would project have taken place without CDM credits?
- If project participants claim financial additionality, the only way to make a profit is through the sale of CO₂ credits in their project profitability plan.
- However, it is possible that the **verified** CO₂ credit amount will be less than the **validated** amount determined after monitoring.
- Therefore, project participants will have to develop profitability plans to avoid this risk, but this makes it harder for project participants to prove financial additionality.

➔ **Difficult to Design a Profitable CDM Project Plan**



ISSUE: *A recent study* shows that the capacity of many ecosystems to provide certain services has been declining...*



*Source: Pilot Assessment of Global Ecosystems. 2000. WRI, IFPRI

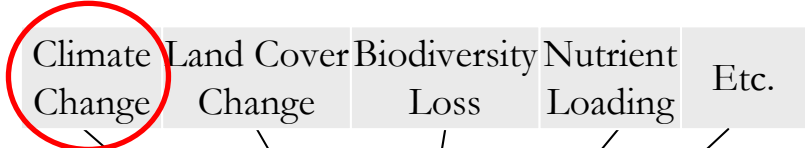


The MA is an Integrated Assessment

IPCC looks at impacts of one driver (climate change) on different systems;

MA will integrate the effects of multiple drivers on all ecosystems

Driver



Response



Human Impact



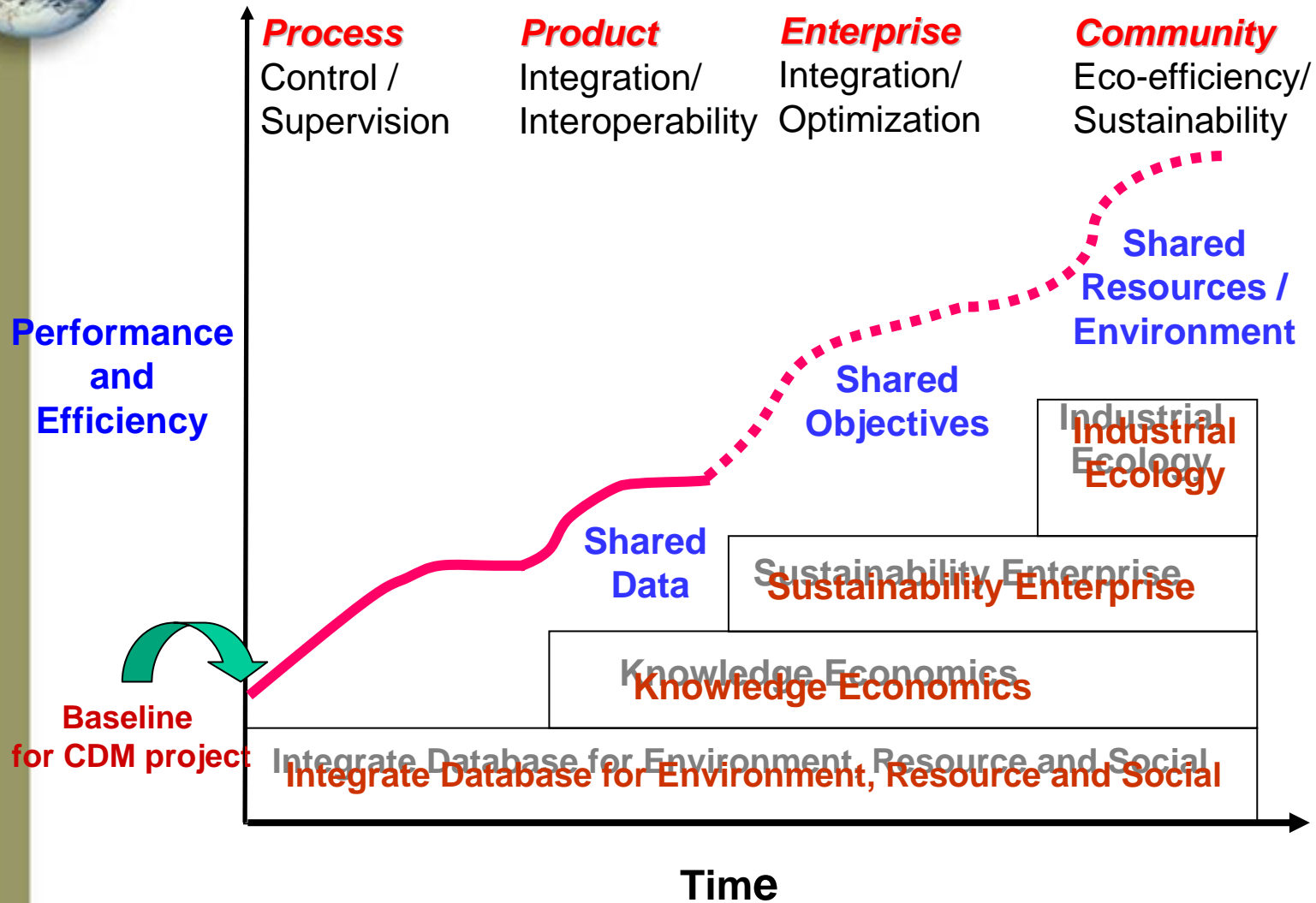
IPCC

Millennium Assessment

*Source: Pilot Assessment of Global Ecosystems. 2000. WRI, IFPRI



Potential Benefits for CDM

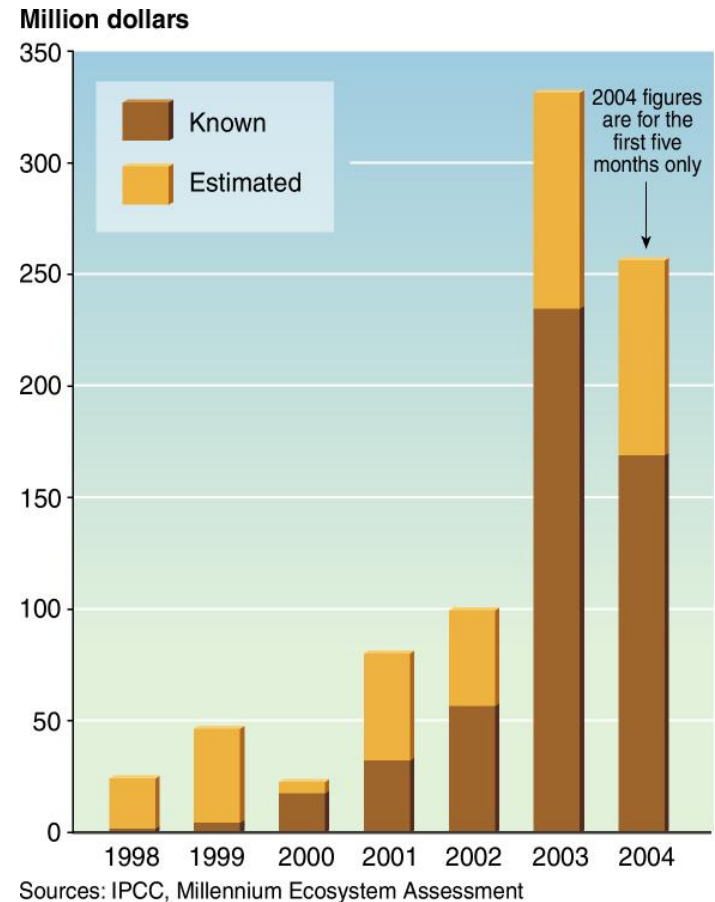




Ecosystem Responses: Economics

Market-based approaches

- Creation of markets, including through cap-and-trade systems
 - One of the most rapidly growing markets related to ecosystem services is the carbon market. The value of carbon trades in 2003 was approximately \$300 million. About one quarter of the trades involved investment in ecosystem services (hydropower or biomass)
 - It is speculated that this market may grow to some \$44 billion by 2010



Total Carbon Market Value per Year



Vietnam's present and future on CDM Project Financial Mechanism

Risk, Barrier and Possible Solutions

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Main CDM Project Risks

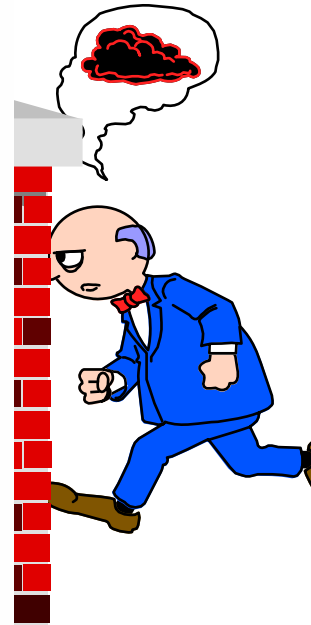
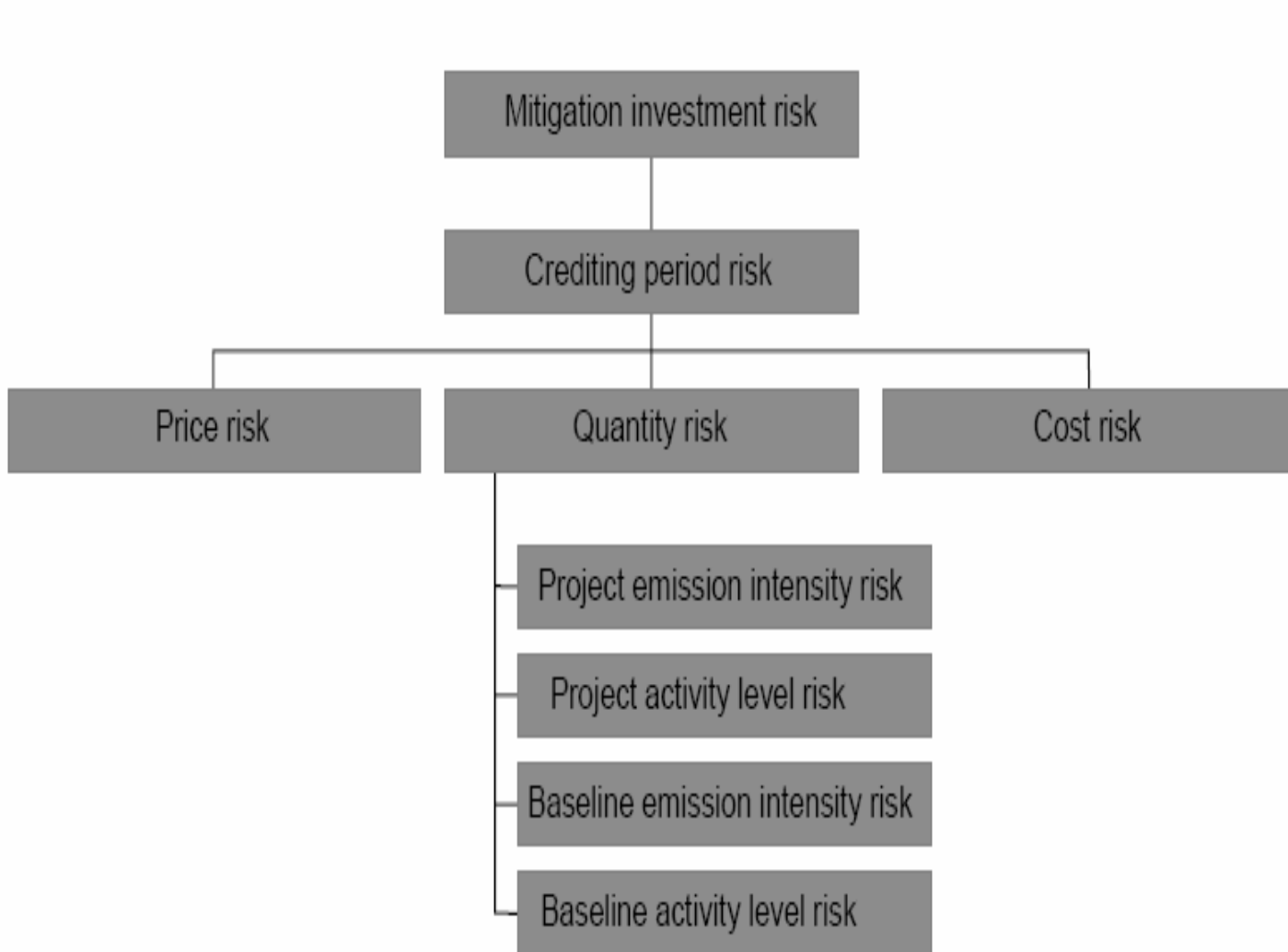
Type of risk	Description
<p>1. Conventional project risks</p>	<p>Risks that are common to all projects in developing and industrialised countries, e.g.:</p> <ul style="list-style-type: none"> ■ exceeding costs: e.g. the employed technology needs costly repairs or the construction of the project is delayed ■ market risks: e.g. relevant fuel prices increase and the project is no longer economically efficient ■ counterparty credit risk: e.g. risk that the technology provider becomes insolvent ■ underperformance: e.g. non-achievement of design standard efficiency ■ currency risk: e.g. high inflation levels ■ force majeure: an event beyond the control of the involved parties, e.g. earthquake, terrorism attack
<p>2. Host country political risks</p>	<p>From a financial sector perspective, projects in developing countries are usually regarded with a higher level of risk than projects in the industrialised world because of the often less developed legal and political infrastructure, e.g.:</p> <ul style="list-style-type: none"> ■ risk of confiscation, expropriation and nationalisation of the CDM projects ■ (civil) war risk: e.g. risk of riot, strike and civil commotion within the CDM host country ■ contract repudiation/frustration: risk that a contract is rendered invalid e.g. by a parliament introducing new legislation ■ credit risk: in particular risk of host country insolvency ■ further administrative barriers: e.g. host country requires various administrative procedures that delay the project
<p>3. CDM process risks</p>	<p>Risks that are specific to the generation and sale of CERs, e.g.:</p> <ul style="list-style-type: none"> ■ CDM Executive Board non-approval: e.g. no registration of the project by the Executive Board or an already approved methodology is withdrawn by the Executive Board ■ CDM risk: there is no CDM beyond 2012 ■ monitoring/verification risk: e.g. inaccurate monitoring by the Designated Operational Entity ■ public consultation risk: non-acceptance of the project by NGOs or local communities ■ institutional barriers: e.g. the host country's Designated National Authority is not fully established and not working cooperatively with the investor ■ CER legal ownership: unclear about who is the legal owner of the CERs

Source: 3C Ltd.



Keys barriers and Risk for CDM project

Risks of investments in climate change mitigation





General Difficulties and Barriers

- The awareness and knowledge of CDM among managers, policy makers, environment experts, enterprises, private sector, general public are still limited
- CDM issues are not integrated into development strategy, policy, master plan of Ministries, Branches, Agencies, Localities.
- Lack of an appropriate institutional framework for promoting CDM activities.
- Lack of experiences on CDM
- National budget is limited



Viet Nam Political and Sovereign Risk

1. Potential investors and project developers will carefully assess the perceived level of sovereign and political risk in a Viet Nam before becoming involved in a CDM Project.
2. Viet Nam decisions or events can impact adversely upon a CDM Project (for example, change in law, excessive administrative burdens) which may be out of the control of all parties to a CDM Project

3. The Viet Nam Government (e.g. the DNA) could assist potential investors to understand the nature and extent of political and sovereign risks by explaining issues such as the policy in relation to the CDM and relevant legal frameworks which will impact the project.
4. Investors are likely to prefer Viet Nam with an established legal and political system which clearly recognise and support CDM investment.



Keys barriers and Risk for CDM project

<ul style="list-style-type: none">• Governments consider R&D funding problematic• Private firms cannot appropriate full benefits of their R&D investments	<ul style="list-style-type: none">• Governments consider allocating funds for demonstration projects difficult• Difficult for private sector to capture benefits• Technological risks• High capital costs	<ul style="list-style-type: none">• Financing for incremental cost reduction (which can be substantial)• Uncertainties relating to potential for cost reduction• Environmental and other social costs not fully internalised	<ul style="list-style-type: none">• Weaknesses in investment, savings, and legal institutions and processes• Subsidies to conventional technologies and lack of competition• Prices for competing technologies exclude externalities• Weaknesses in retail supply, financing, and service• Lack of information for consumers and inertia• Environmental and other social costs not fully internalised
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Further barriers to CDM project implementation and financing

Firstly, the CDM process is rather long and often perceived to be inefficient. The CDM registration process is bureaucratic with numerous layers of outside intervention, protracted decision making, review, and options to appeal.

Secondly, the heavy and steadily increasing workload of the CDM Executive Board is obviously problematic.

Thirdly, there is a lack of institutional capacity both in host and buyer countries.

Fourthly, the project's additionality is often a problematic issue. Clearly, additionality is central to the environmental integrity of the CDM and there has been intense debate about how additionality (according to Article 12 of the Kyoto Protocol) should be tested.



ANALYTICAL BARRIERS FOR CDM FINANCING

The dearth of quantitative or semi-quantitative analyses demonstrating the relationship between climate change, carbon regulations and value creation/erosion

Low understanding of the financial benefits of ancillary sustainability activities

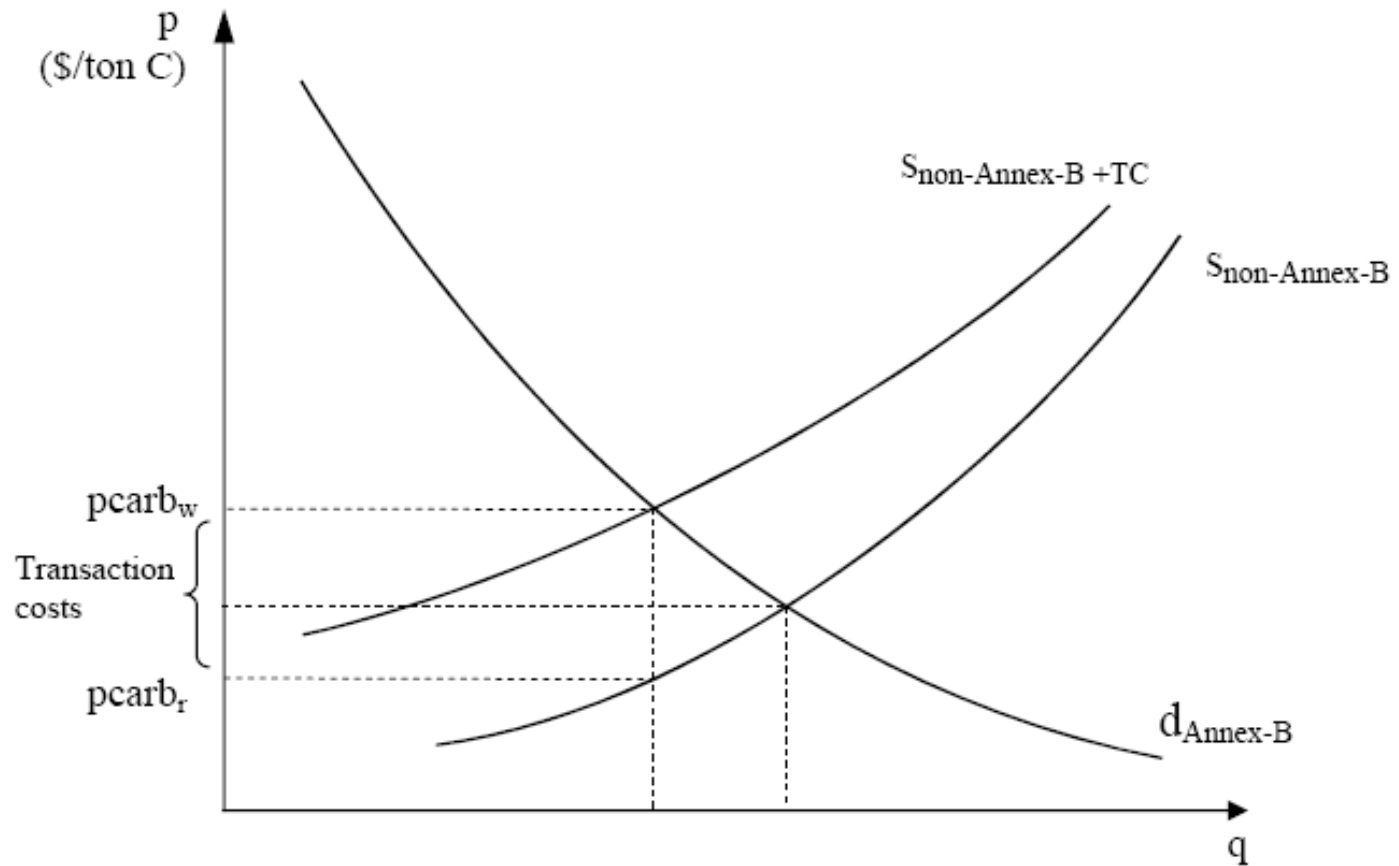
Low awareness of climate change and carbon finance issues among key finance and insurance sector advisors

Insufficient inclusion of carbon finance analyses into conventional investment banking activities

Poor data availability among industrial company



Inclusion of transaction costs





Transaction Costs As Barriers to CDM Market Development

- ❖ Small projects involving clean technologies such as small wind, biomass, micro-hydro often
 1. – have higher unit costs due to small size
 2. – displace lower carbon intensity end-uses

 3. – operate in riskier environments (e.g. remote rural areas)
- ❖ To be competitive in CDM such projects need
 1. aggregation to reduce transaction costs
 2. streamlined/ simplified CDM procedures



Policy Options to Remove the Barriers and Facilitate to Financing for CDM project

<ul style="list-style-type: none">• Formulating research priorities• Direct public funding• Tax incentives• Technology forcing standards• Stimulating networks and collaborative R&D partnerships	<ul style="list-style-type: none">• Direct support for demonstration projects• Tax incentives• Low-cost or guaranteed loans• Temporary price guarantees for energy products of demonstration projects	<ul style="list-style-type: none">• Temporary subsidies• Tax incentives• Government procurement• Voluntary agreements• Favourable pay-back tariffs• Competitive market transformation initiatives	<ul style="list-style-type: none">• Phasing out subsidies to established energy technologies• Measures to promote competition• Full costing of externalities in energy prices• 'Green' labelling and marketing• Concessions and other market-aggregating mechanism• Innovative retail financing and consumer credit schemes• Clean Development Mechanism
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How can the CDM project process be improved in Viet Nam?

Firstly, Simplify, standardize and streamline the CDM project and process

Secondly, Provide prompt and clear guidance on the CDM regulations beyond 2010

Thirdly, Foster the development of institutional CDM project capacities in Viet Nam

Fourthly, Rethink the interpretation of additionality

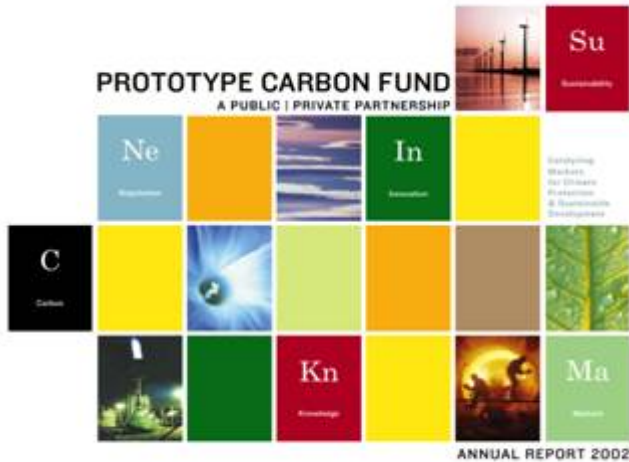


The CDM Fund in Viet Nam is Financial Sustainability





World Bank Carbon Finance Products



Netherlands
CDM Facility



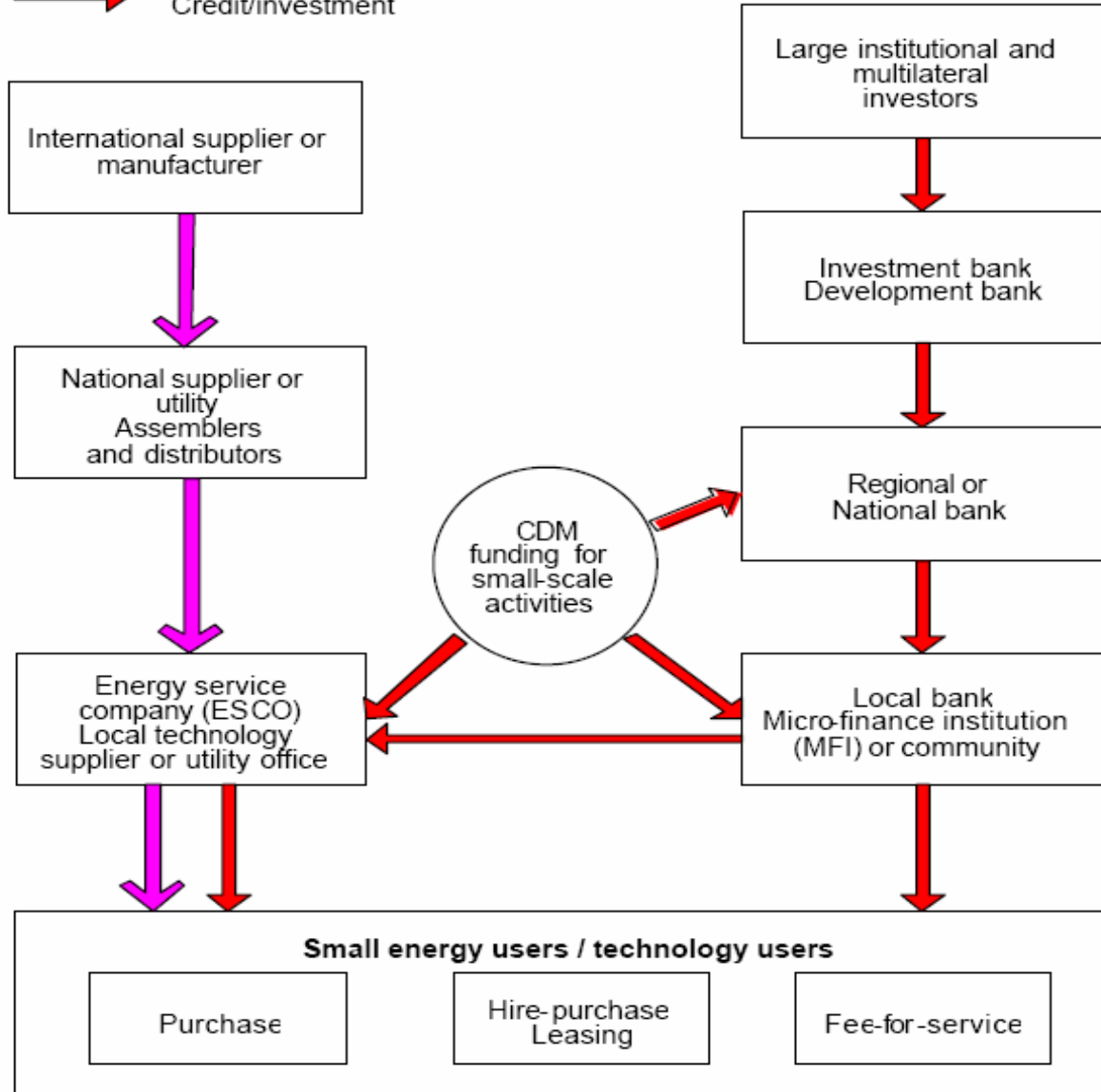
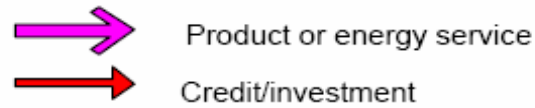
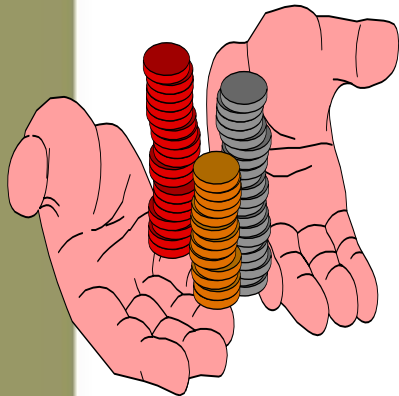
Community
Development
Carbon Fund



BioCarbon Fund

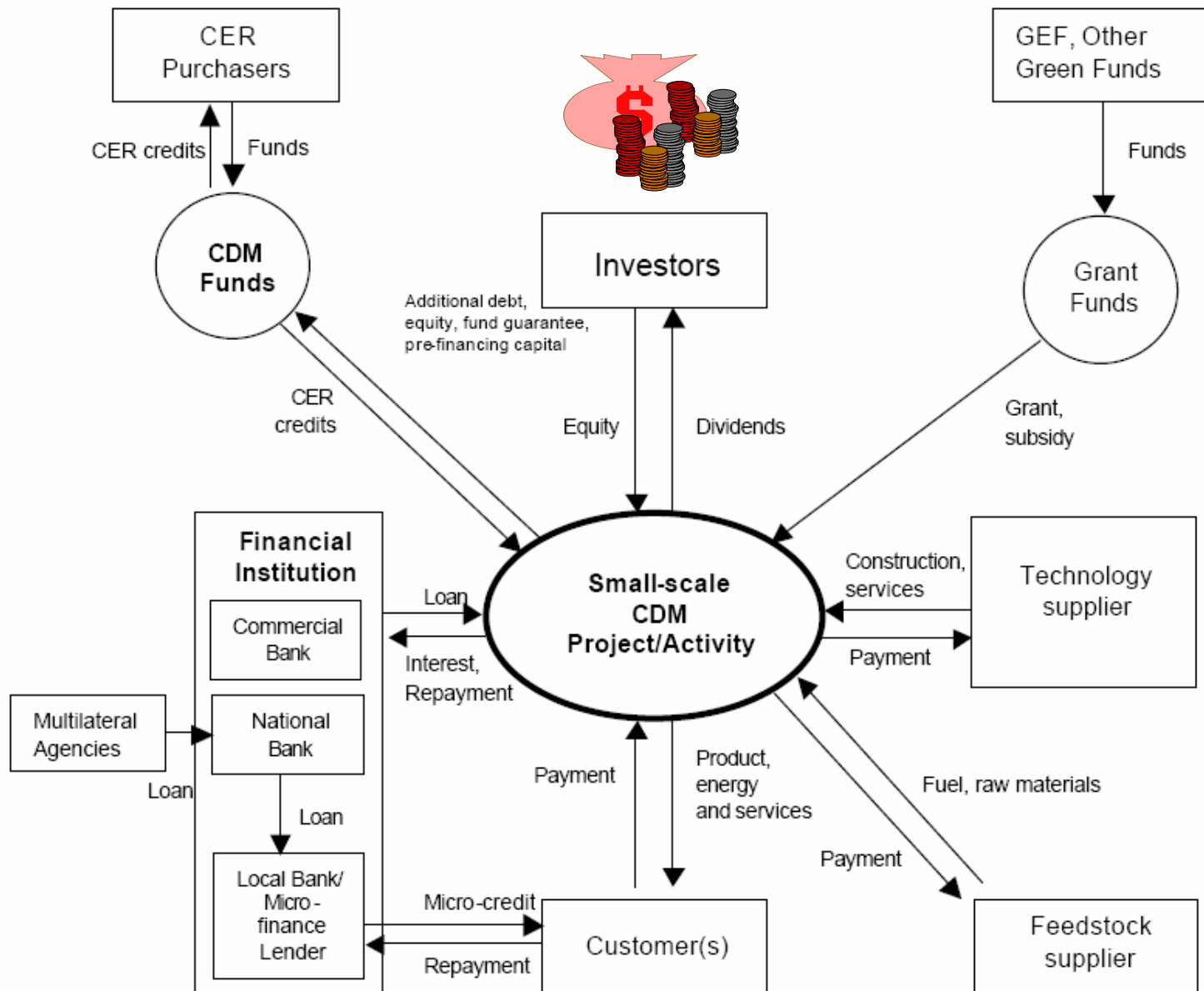


Role of CDM fund in financing CDM project





Business model of CDM Fund for a CDM project





What is the principle purpose of the CDM Fund?

The CDM Fund seeks to deliver carbon finance to Viet Nam that otherwise have few opportunities to benefit from the Kyoto mechanisms

Who will participate in the CDM Fund?

The CDM Fund brings together governments, the private sector and project sponsors of many different types.

What return will the Contributors earn?

The Contributors will earn a return in terms of emission reductions and strategic insights

How will the CDM Fund be managed?

The Government will act as the Trust of the CDM Fund and will use the services of the Fund Management Unit (FMU) to manage, maintain and operate the Fund



How will baselines be established by the CDM Fund?

Baselines will be determined according to the rules agreed in the Marrakesh Accords and subsequent decisions and guided by decisions of the Executive Board

How will the CDM Fund deliver environmental and livelihood benefits?

CDM Fund projects will adhere to the Government strict environmental and social safeguards and also include inherent improvements to the local environment and community livelihoods.





Lesson Learning

1. The CDM Fund has the potential to become a powerful tool in financing mechanism for CDM projects in Viet Nam.
 2. The CDM is currently a mechanism with high transaction costs and relatively low overall efficiency.
 3. The main risks of CDM project in combination with the institutional barriers to CDM project implementation and financing are deterring many financial institutions from getting involved in CDM projects.
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4. The key challenges for the Viet Nam in the near future are to streamline and standardise the approval process and to register successful CDM projects.
 5. The CDM was designed to engage the private sector in climate change adaptation and mitigation in the Viet Nam. The CDM process must become clearer, more efficient and financially attractive.
 6. The success of the financing CDM project may be compromised, and, potentially, the entire Kyoto process may suffer.



Conclusions

- The implementation of CDM projects in Viet Nam plays an important role in the sustainable socio-economic development, hunger eradication and poverty reduction together with environmental protection
- Legal framework for CDM activities are being developed
- Viet Nam facilitates participation of foreign investors and welcomes them to Viet Nam.
- A CDM Fund supporting for in-country CDM activities need establishing
- Viet Nam has potential to joint CDM Market



Thank You



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