





Practical Application of the Kyoto Mechanisms:

Opportunities and Issues



The Kyoto Mechanisms could offer significant opportunities to achieve greenhouse gas (GHG) emissions reductions at lower societal costs than other measures, while providing prospects for significant additional contributions to environmental protection and sustainable development. Businesses have the ability to play an important role in enabling the Mechanisms to function to their maximum potential.

The prospects for realizing these opportunities will depend on decisions concerning the international operation of the Mechanisms, and on the manner of implementation of the Mechanisms by national governments. These factors will in turn largely determine the role of businesses in the Mechanisms.



This document provides a business perspective on the opportunities, issues and barriers surrounding the practical application of the Kyoto Mechanisms, as part of an ongoing effort by IPIECA to provide constructive input to the climate change negotiations.

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The Kyoto Mechanisms and Compliance



Joint Implementation (JI)

Investment in GHG reduction projects in Annex B countries can earn the investor Emissions Reduction Units (ERUs). No new emission allowances are generated since projects result in an exchange of existing commitments.

Clean Development Mechanism (CDM)



Investment in approved GHG limitation and reduction projects in non-Annex B countries can earn the investor and host country Certified Emissions Reductions units (CERs). This provides the opportunity to generate additional allowances. CDM projects can commence from 1 January 2000, and the CERs generated can be banked for use in the first commitment period.

Emissions Trading

The ability to transfer Assigned Amount Units (AAUs) between Annex B countries. The economic potential of trading would be greater if it also allows companies to participate.

Compliance

Emissions allowances and credits under the Kyoto Protocol take on aspects of a currency that can affect the economies of nations and the viability of firms. Their value and utility will depend on confidence in international and national compliance systems, including enforcement procedures and consequences for countries and firms that fail to meet obligations. Business especially needs to understand how its ability to participate in the Kyoto Mechanisms could be affected by non-compliance by Parties.





Construction of effective Kyoto Mechanisms— a role for industry

Industry has an important role to play in the practical application of the Kyoto Mechanisms. This is particularly true in the case of project-based activities that may largely be financed and operated by the private sector.

Many governments have expressed a view that business participation in the Kyoto Mechanisms will be essential to meet reduction targets in a cost-effective manner. Commercial investment already represents a majority of international development monies, and substantial experience exists within industry in practical aspects of technology transfer and infrastructure development.

Design of mechanisms that encourage and reward industry participation could significantly lower the societal cost of meeting targets in the first commitment period of the Kyoto Protocol.

IPIECA Workshop on Opportunities, Issues and Barriers for Practical Application of the Kyoto Mechanisms

In recognition of this important role of industry in the application of the Kyoto Mechanisms, IPIECA convened a meeting of experts from the UNFCCC process, governments, industry, educational institutions and consultancies, in Milan in April 2000.

Participants at the meeting examined the key opportunities, issues and barriers surrounding the practical application of the Kyoto Mechanisms. This document provides a summary of the findings of this meeting; a detailed report is also available from the IPIECA Secretariat.

Opportunities provided by the Kyoto Mechanisms

The Kyoto Mechanisms could provide the opportunity to significantly lower the societal cost of greenhouse gas emissions reductions in the first commitment period while contributing to other important development and environmental objectives. Numerous economic models have shown that the greatest benefits result when the least possible restrictions are applied to the Mechanisms. These studies have also shown that a very high degree of global participation will be needed to meet the projected shortfall in Annex B emissions allowances (AAUs), further emphasizing the need for minimum barriers and for encouraging and rewarding participation.

The added value of CERs and ERUs could be a significant incentive for companies to promote investment in projects in developing and transition economies. However, much more clarity is needed relating to the generation of credits from projects, their transferability, fungibility and ultimate ownership, to encourage business investment in potential JI or CDM projects.

Investment in low emissions technologies not only contributes to both the objectives of the UNFCCC and the Kyoto Protocol but, particularly in the case of developing nation investments (where the majority of emissions growth is expected over the next 100 years), can also address longer-term global emissions reduction objectives. Furthermore, in contrast to other measures (e.g. taxes, efficiency standards) such investments could offer significant additional benefits, many of which contribute to the sustainable development goals of the host country. These include:

- associated environmental and social benefits (such as job and infrastructure creation);
- enhanced utilization of advanced technology, and avoidance of diverting resources into older, higher-emissions infrastructure in developing regions;
- supporting the goals of sustainable economies through transfer of technology; and
- incentives for early action (through CDM).

Issues and barriers to private sector investment in the Kyoto Mechanisms

Four major categories of barriers may limit private sector investment and therefore the overall potential of the Mechanisms. These are: restrictions on the use of the Mechanisms; uncertainty and risk related barriers; institutional barriers; and timing issues.

Restrictions on use of the Mechanisms

Because the greatest benefit of the Mechanisms derives from open access to the entire range of emissions reduction opportunities, constraints in the use of the Mechanisms reduce the potential for cost savings. Restrictions exist in many forms, each of which must be minimized to enable the Mechanisms to function for the greatest global benefit:

- **Additionality**

Definitions of additionality beyond those based upon emissions reductions (e.g. financial additionality, investment additionality) may be impractical to interpret and execute, and could substantially reduce project flow and discourage participation.

- **Definition of project baselines**

A balance is needed in choosing baselines that both protect the environmental integrity of project activities and yet provide incentives to invest in emissions-reducing technology and infrastructure. Too stringent a baseline would cut incentives and project flow dramatically; too lax a baseline could generate false CERs and devalue the entire basis for emissions credits.

- **Supplementarity**

Non-market constraints on the use of trading and project activities artificially limit access to emissions reduction opportunities, raise the cost of compliance, and reduce private sector investment.

- **Eligibility requirements**

Limitations on the type of projects permitted (e.g. the exclusion of particular technologies) artificially limits access to emissions reduction opportunities. Eligibility and additionality that focus on 'real, measurable, and long-term' reductions permit the greatest progress on emissions reductions at the least cost.

- **Geographical distribution**

Constraints on the geographical distribution of projects would restrict access to emissions reduction opportunities and penalize particular regions. Geographical distribution of capital investments would be stimulated by improving the general conditions for direct investment in developing countries.

Institutional barriers

Development of intergovernmental systems such as the CDM Executive Body, Operational Entities, the CDM approval process, and national and intergovernmental regulatory bodies surrounding projects and trading will require significant time which will raise transaction costs and delay the use of the Mechanisms. Governmental and international organizations should make efforts to assist developing countries in building their institutional capacity to facilitate their use of the Mechanisms.



Timing issues



The opportunity for early crediting from CDM projects could be a significant advantage of the Mechanisms. Delays in reaching key decisions to resolve the potential restrictions and uncertainties of the Mechanisms impedes investment decisions. Consideration of retroactive project certification and crediting might minimize the risk facing projects undertaken while the CDM process and institutions develop.

Business also faces uncertainty concerning changes that may occur in the second commitment period. The petroleum industry is characterized by large physical infrastructure, significant investments with long lead-time on the return of capital, and complex commercial chains from production to end user. Investments in these sectors are based on planned long-time utilization of facilities and infrastructure. However, uncertainty in the evolution of obligations, covered gases, and relative weights for them affects long-term investments and markets for credits and allowances.

Uncertainty and risk-related barriers

● *Participation by private entities*

The Protocol remains unclear concerning the role of private entities in the Mechanisms. Enabling broad participation (including the investment and innovation capability of businesses) can encourage achievement of the emissions obligations of the Protocol and the objectives of the UNFCCC.

● *Ratification uncertainty*

Uncertainty concerning the ratification of the Kyoto Protocol impedes broad industry participation in the Kyoto Mechanisms. In particular, the rules for the CDM and JI will be set by the COP/moP whose first meeting will only take place after the Protocol enters into force.

● *Compliance by Parties*

Investment in the Mechanisms will be inhibited by poor governmental and international procedures and controls of measurement, certification and verification. Unclear rules concerning penalties for non-compliance by governments and their implications for the value and movement of credits would also reduce investment. Commercial market-based transactions that result in exchange of a property right must be based on confidence and contracts between buyers and sellers. Legislation, whereby past or future transactions by firms might be restricted or unwound if their national government fails to comply with its obligations, would undermine confidence in the system and limit the ability of firms to participate.

● *Role of national governments and linkages with international systems*

Nations have a range of domestic policy instruments to utilize in addressing emissions, including, for example, taxes, regulations, efficiency standards, cap-and-trade permit systems and voluntary agreements. If national systems link effectively with international systems so that internationally acquired credits are fully fungible and can be moved freely to satisfy domestic obligations, this will increase the potential of the Kyoto Mechanisms to reduce compliance costs and increase the incentive for business participation in them.

Obligations under the Kyoto Protocol apply to governments not businesses. For multi-national corporations, including IPIECA members, the ability to participate in Kyoto Mechanisms will depend on the international framework and how it links with domestic legislation in each of the many countries (both in and out of Annex B) where they are present. Firms need to understand domestic obligations and the role that internationally acquired credits and allowances might play in meeting these obligations. Until the domestic legislation in each country is defined, it will be difficult for businesses to assess what opportunities and challenges they face. Key issues that must be resolved are the types of policy instrument used, assignment of obligations, allocation of credits, ability to use credits acquired abroad, and the national compliance system.



Summary

Some businesses are taking action to develop trading systems and projects in anticipation of the successful evolution of the Mechanisms. The work to date reveals a wide variety of promising prospects for business participation. Realization of these prospects will depend on the nature of the international framework and domestic implementation of the Kyoto Protocol, Mechanisms, and Compliance procedures. There is a need for significant progress in the negotiations if the Kyoto Mechanisms are to achieve their potential to lower costs, enhance technology transfer and promote sustainable development.

IPIECA

The International Petroleum Industry Environmental Conservation Association (IPIECA) was founded in 1974 following the establishment of the United Nations Environment Programme at the Stockholm Conference in 1972. IPIECA is the petroleum industry's principal channel of communication with the United Nations.

IPIECA is involved in global and international environmental and health issues related to the petroleum industry, including global climate change, oil spill preparedness and response, urban air quality management, and emerging issues, biodiversity and Agenda 21.

IPIECA's programme takes full account of international developments in these global issues, including those developments within the United Nations and within intergovernmental institutions and industry groups.

Climate Change Working Group

Formed in 1988, the IPIECA Climate Change Working Group (CCWG) monitors analyses and informs the membership of key developments in the issue, especially those taking place at the UNFCCC and IPCC.

The CCWG encourages the development of policy options that strike a balance between the projected consequences of potential climate change and the estimated costs of response options to mitigate or adapt to climate change. The CCWG sponsors dialogues and workshops addressing key aspects of the ongoing negotiations, and provides a technical publication series as a means of constructive input to the process.

Other publications in the IPIECA Climate Change series:

Climate Change: a Glossary of Terms
A Guide to the Intergovernmental Panel on Climate Change
Buenos Aires and Beyond—a Guide to the Climate Change Negotiations
Technology Assessment in Climate Change Mitigation—an IPIECA Workshop
Critical Issues in the Economics of Climate Change
Socio-economic Assessment of Climate Change
Report of the Scenarios Workshop
Science of Climate Change

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