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Contractual Architecture for the Kyoto Protocol: From Soft and Hard Laws to Concrete Commitments

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Cover Page Footnote

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CONTRACTUAL ARCHITECTURE FOR THE KYOTO PROTOCOL: FROM SOFT AND HARD LAWS TO CONCRETE COMMITMENTS

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TABLE OF CONTENT

I. Introduction 489
II. A Theoretical Framework 491
III. Flexible Mechanisms of the Kyoto Protocol : A Brief Review 492
A. Joint Implementation (JI) 492
B. The Clean Development Mechanism (CDM) 492
C. Emissions Trading (ET) 492
IV. Contractual Architecture for the Kyoto Protocol 493
A. What is the Substance of Contracts for the Flexible Mechanisms? 493
B. Can there be a Standardized Contract for the Flexible Mechanisms? 497
C. Contractual Precedents for Flexible Mechanisms 499
V. Appraisal and Recommendations 513
VI. Conclusion 515

I. INTRODUCTION

Despite the varying analyses and evaluations of global climate change risks,[1] there is widespread consensus on the importance of international cooperation in efforts to address the problem of greenhouse gas emissions (GHGs). Such concerted international action was evident in the recently concluded Kyoto summit on Climate Change, which culminated in the Kyoto Protocol ("the

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1. On the issue of the greenhouse effect, its evidence, and the long-term consequences of global warming, see Ved P. Nanda, *Global Warming and International Environmental Law – A Preliminary Inquiry*, 30 HARV. INT'L L.J. 375, 378-81 (1989). *See also* Durwood Zaelke & James Cameron, *Global Warming and Climate Change – An Overview of the International Legal Process*, 5 AM. U. J. INT'L L. & POL'Y 249, 249-88 (1990).

Protocol").[2] The Protocol affirmed the worthiness of some flexible mechanisms, but left much to the imagination on how to use or implement them.[3]

This paper attempts an innovative contribution to the Kyoto Protocol by shifting the emphasis from mere soft and hard law prescriptions to concrete contractual commitments. It focuses on the contractual strategies and mechanisms which favour international cooperation, rather than on measures with a domestic impact.[4] With the Buenos Aires Action agreement in November 1998,[5] attention is now rapidly turning to the detailed design issues of the flexible mechanisms. These design issues will be of critical importance to the issues raised in this paper.

This paper advocates the view that soft and hard law prescriptions cannot by themselves achieve the overall objective of the global climate change regime without concrete contractual commitments. Concrete contractual commitments attempt to achieve two interrelated but distinct objectives. First, they set to further bind the private and/or legal entities, such as the parties to the Kyoto Protocol, into actuating practical undertakings. Second, they provide the bedrock upon which effective execution of soft and hard law prescriptions under the global climate change regime can

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2. *See Kyoto Protocol to the United Nations Framework Convention on Climate Change* (SEBASTIAN OBERTÜR & HERMAN E. OTT, THE KYOTO PROTOCOL: INTERNATIONAL CLIMATE POLICY FOR THE 21ST CENTURY 313, app. (1999)) [hereinafter Protocol]. (The main features of this Protocol are tripodal: (1) It is legally binding. (2) Industrialized countries agreed to limit their GHGs to certain targets by the years 2008-2012. (3) The so called 'flexibility mechanisms' to be adopted by countries in achieving their targets). For a lively legal commentary on the Protocol, see Clare Breidenich et al., *The Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 92 AM. J. INT'L L. 315, 315-31 (1998). *See generally* Peter G. G. Davies, *Global Warming and the Kyoto Protocol*, 47 INT'L & COMP. L.Q. 446, 446-461 (1998); Farhana Yamin, *The Kyoto Protocol: Origins, Assessment and Future Challenges*, 7 REVIEW OF EUROPEAN COMMUNITY & INTERNATIONAL ENVIRONMENTAL LAW [hereinafter RECIEL] 113, 113-127 (1998).

3. *See* Roger A. Sedjo, *Harvesting the Benefits of Carbon "Sinks,"* 133 RESOURCES FOR THE FUTURE 10, 10-13 (Fall, 1998).

4. However this is not to detract from the significance of domestic measures in achieving the overall objective of the global climate change regime. Measures with a domestic impact include regulations, economic instruments and incentives, voluntary agreements and actions, information, education and training, research, development and demonstration. *See* Karen Campbell, *From Rio to Kyoto: The Use of Voluntary Agreements to Implement the Climate Change Convention*, 7 RECIEL 159, 159-169 (1998).

5. *See United Nations Framework Convention on Climate Change, Fourth Meeting*, (UNFCCC) June 4, 1992, S. Treaty Doc. No. 102-38. Oil producing nations expressed deep concerns about the likelihood of their economies being severely damaged by some of the measures envisioned under the Kyoto Protocol. *See Oil producers' concerns must be addressed, OPEC tells COP4*, OPEC BULLETIN, Nov. 1998, at 13; *DCs seek "comprehensive package" of measures from COP4 - Effendi*, OPEC BULLETIN, Nov. 1998, at 14.

be undertaken. The exact nature and scope of such commitments, which constitute the focus of this writing, will be set out in four major sections. Section II provides a theoretical framework. Section III briefly examines the flexible mechanisms. Section IV examines possible contractual precedents for implementing the flexible mechanisms. Section V appraises those contractual precedents. Finally, section VI summarizes the conclusions of this article.

II. A THEORETICAL FRAMEWORK

The following analyses briefly attempt to establish a general contractual architecture for the flexible mechanisms.[6] The phrase "contractual architecture" is used here to mean the conceptual structure and logical organization of a contract. A contract is defined, subject to some qualifications, as "an agreement giving rise to obligations which are enforced or recognized by law."[7]

The question may be asked, what distinguishes "contract" law from "soft" and "hard" laws, considering that they all give rise to obligations? This query is further underscored by the fact that both hard law and contract law give rise to obligations which may be interpreted and enforced by courts or other authoritative tribunals. Here, the term "hard law" is used with reference to legally binding and enforceable international agreements of a multilateral nature between state parties. Arguably, the United Nations Framework Convention on Climate Change (UNFCC) and the supplementary Kyoto Protocol are ready examples. On the other hand, the term "contract law" is used with reference to an agreement between private or public entities participating in the flexible mechanisms envisioned under the Kyoto Protocol.

Much controversy remains regarding the precise nature and scope of soft law obligations.[8] Three circumstances exist in which the term "soft law" has been applied. The first of these relates to emerging norms or principles which may be adopted either formally or as a matter of practice. The second circumstance relates to rules which may not have binding effect or be fully enforceable, but which nevertheless possess some discernible legal status or effect on international law. Third, soft law may also refer to a transitory phase

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6. *See generally* Fanny Missfeldt, *Flexibility Mechanisms: Which Path to Take after Kyoto?*, 7 RECIEL 128, 128-139 (1998).

7. G. H. TREITEL, AN OUTLINE OF THE LAW OF CONTRACT 1 (9th ed. 1995).

8. *See generally* Oscar Schachter, *Twilight Existence of Nonbinding International Agreements*, 71 AM. J. INT'L L. 296, 296-304 (1977).

in the evolution of norms with vague content and imprecise scope.[9] The Rio Declarations on the Environment and Development and Agenda 21 are examples of soft law prescriptions.[10]

III. FLEXIBLE MECHANISMS OF THE KYOTO PROTOCOL: A BRIEF REVIEW

An understanding of the contractual architecture for the Kyoto Protocol requires an appreciation of the flexible mechanisms on which it is based. This section briefly establishes a foundation to make the overall subject matter more intelligible.

A. Joint Implementation (JI)

Annex I Parties can trade (i.e., transfer to, or acquire from, another) among themselves emission reduction units (ERUs) resulting from projects aimed at reducing emissions by sources or enhancing removals by sinks in any sector of the economy.[11] The ERUs can be used to contribute to their emission reduction targets under the Protocol.

B. The Clean Development Mechanism (CDM)

The Clean Development Mechanism was prescribed in the Protocol to assist non-Annex I parties (i.e. developing countries) in achieving sustainable development, contribute to the ultimate objective of the Convention, and assist Annex I parties (i.e. developed countries) in achieving compliance with their emissions reduction targets.[12] Other features of the CDM will be discussed in subsequent sections.

C. Emissions Trading (ET)

Parties are allowed to participate in an emissions trading system, which allows developed countries to buy and sell emission credits to fulfil their commitments under the Protocol.[13] For example, if the United Kingdom (UK) was faced with the exhaustion of its

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9. *See* Steven A. Kennett, *Hard Law, Soft Law and Diplomacy: The Emerging Paradigm for Intergovernmental Cooperation in Environmental Assessment*, 31 ALTA L. REV. 644, 646-7 (1993).

10. *See* 1 PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 48, 185 (1995).

11. *See* Protocol, *supra* note 2, art. 6.

12. *See id.*, art. 12(2); *Dealing with Carbon Credits After Kyoto*, JOINT IMPLEMENTATION Q., June, 1998, at 6 [hereinafter *Carbon Credits*]; *see also* Jyoti K. Parikh, *Joint Implementation and North-South Cooperation for Climate Change*, 7 INT'L ENVTL. AFF. 22, 22-41 (1995).

13. *See* Protocol, *supra* note 2, art. 16.

quantified emissions limitation reduction (QELR) quota under the Protocol it could buy some or all of the unused quota of Germany or another industrialized country. The UK would then be in a position to use its enlarged credit to increase its total allowable emissions under the Protocol.[14]

A summary of the similarities and differences between these various flexible mechanisms is illustrated in Table 1 below.

IV. CONTRACTUAL ARCHITECTURE FOR THE KYOTO PROTOCOL

This section examines contractual precedents that can extract concrete commitments from the parties. Adherence to such precedents should facilitate the achievement of the overall objective of the Kyoto Protocol.

A. What is the Substance of Contracts for the Flexible Mechanisms?

The substance of any contract for the flexible mechanisms would depend on the type of mechanism in question. Despite the major differences between these various mechanisms (Joint Implementation, Emission Trading, and Clean Development Mechanism) under the Protocol,[15] the following appear to be minimally central to any contract advancing the flexible mechanisms:

> They may be *commercial, quasi-commercial or intergovernmental agreements.*[16]

---

14. *See id.*, art. 3(10).

15. *See* Laura B. Campbell, *Emission Trading, Joint Implementation and the Clean Development Mechanism: The Role of the Private Sector and other State Actors in Implementation, in* GLOBAL CLIMATE GOVERNANCE: INTERLINKAGES BETWEEN THE KYOTO PROTOCOL AND OTHER MULTILATERAL REGIMES 7-12 (1998).

16. *See* UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW (UNCITRAL) MODEL LAW ON INTERNATIONAL COMMERCIAL ARBITRATION, U.N. GOAR, U.N. Doc. A/4/17 (1985), *reprinted in* HOWARD M. HOLTZMANN & JOSEPH E. NEUHAUS, A GUIDE TO THE UNCITRAL MODEL LAW ON INTERNATIONAL COMMERCIAL ARBITRATION: LEGISLATIVE HISTORY AND COMMENTARY 26 (1989).

The term "commercial" should be given a wide interpretation so as to cover matters arising from all relationships of a commercial nature, whether contractual or not. Relationships of a commercial nature include, but are not limited to, the following transactions: any trade transactions for the supply or exchange of goods or services; distribution agreement; commercial representation or agency; factoring; leasing, construction of works; consulting; engineering; licensing; investment; financing; banking; insurance; exploitation agreement or concession; joint venture and other forms of industrial or business co-operation; carriage of goods or passengers by air, sea, rail or road. *Id.*

Table 1:
Summary of Similarities and Differences Between the Flexible Mechanisms

Criteria	Joint Implementation	Emissions Trading	Clean Development Mechanism (CDM)
Objectives	To reduce Green House Gases (GHS)	To reduce GHG	To reduce GHG and achieve sustainable development
Situation envisaged	Joint implementation of project activities	International trading of emissions	Joint implementation of CDM project activities
Status of parties and participants	Annex I countries, private and or public entities	Annex I countries	Annex I and non-Annex I countries, including private and/or public entities
Method of Certification	Transfer of Emission Reduction Units (ERUS)	'Caps and allowances' or 'Credit and baseline' approach	Certified Emission Reductions (CERs)
Certifying authority	Participating Annex I Countries	Conference of the Parties (COP)	Operational entities to be designated by COP
Remuneration	Certified ERUs	Certified ERUs	Proceeds from certified project activities and CER units
Banking	Banking of ERUs not allowed until 2008	Silent on banking	Banking of CERs allowed from 2000
Interests of the actors	Compliance with quantified emission limitation reduction objectives (QELROs); serves as potential alternative to domestic action	Compliance with QELR commitments; potential alternative to domestic action	Compliance with QELR commitments; could be alternative to domestic action by Annex I countries; avenue for financial flows and transfer of technology to non-Annex I countries
Financial Mechanism	Requires financial outlay for Activities Implemented Jointly/ Joint Implementation (AIJ/JI) projects;* bilateral and multilateral channels	No specific financial outlay required	Requires financial outlay for Clean Development Mechanism (CDM) projects; CDM to assist in arranging funding
Institutional Arrangements	COP serves as meeting of the Parties and secretariat	COP serves as meeting of the Parties and secretariat	Under the supervision of an executive board of the CDM, but COP has authority and guidance

Source: Compiled by authors

* Enables a government or company that contracts with a party in another country to implement an activity that reduces GHS in the other country. *See* AIJ WORLD BANK GROUP STRATEGY (visited Aug. 26, 2000) <http://www-esd.worldbank.org/aij/green.htm>.

They envisage *long-term* arrangements.[17]

They all possess an *international* element.[18]

The CDM involves the *transfer of appropriate technological know-how and financial resources* to the host (developing) country.[19] JI also involves the mutual transfer of technology and financial resources between the participant countries.

In the CDM, the home country should be able to gain credit by using certified emission reductions (CERs) accruing from such CDM project activities. In the JI projects and emissions trading parties either gain or lose ERUs.[20]

In addition, for both JI and CDM projects, the contract document would need to include a definition of the project. It would also need to include commitments by the donor regarding financial investment, GHGs reductions, project performance, technology

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Strictly speaking, a commercial agreement would involve private legal entities desirous of making a profit. Where a sponsor and a host government are involved, the introduction of this service element would dilute the commerciality of such agreements into a quasi-commercial status. However, an agreement between two governments for emissions trading, JI, or CDM would quite simply be an intergovernmental agreement. Environmental fundamentalists would understandably be incensed at the use of the word "commercial" as an attempt to dilute the environmental objectives of the flexible mechanisms. But, the hard fact is, in today's world no private legal entity would undertake any venture associated with these flexible mechanisms without the requisite financial incentives.

17. These are those arrangements "involving the performance of continuing obligations over a lengthy period of time." NAGLA NASSAR, SANCTITY OF CONTRACTS REVISITED: A STUDY IN THE THEORY AND PRACTICE OF LONG-TERM INTERNATIONAL COMMERCIAL TRANSACTIONS 1 (1995). The combined effects of Articles 3(1)-(2), (7) and 12(10) of the Protocol clearly envisage long-term commitments. Indeed by 2005, each Annex I party "shall . . . have made demonstrable progress in achieving its commitments under this Protocol." Protocol, *supra* note 2, art. 3(2).

18. "International" is used to refer to those projects which have a foreign element, as opposed to those based squarely within the domestic or national set up. *See* NASSAR, *supra* note 17, at 1.

19. *See Summary of the Expert Group Meeting on the Clean Development Mechanism and Sustainable Industrial Development: New Partnerships for Industry in Developing Countries* (Vienna, Austria, Oct. 1-2, 1998) (visited Aug. 26, 2000) <http://www.iisd.ca/download/asc/sd/sdvol19no1e.txt>; *Carbon Credits*, *supra* note 12, at 6.

20. CERs and ERUs arising from CDM and AIJ/JI projects should have a cash value which, presumably, makes the project viable from a donor's point of view. Where credits are shared between two or more parties, both will have a clear interest in maximizing, or even overestimating, the number of credits available from the project. Contractual provisions should be very clear on methods for accurately assessing such credits.

cooperation and sustainable development. Further, the contract would require commitments from the host country regarding site and project ownership, and provision of goods and support services necessary for effective project operation and sustainable development.

Other specific aspects to be covered in any JI and CDM contract should include the following:

> Arrangements for ownership of project site, project, CERs and ERUs arising from project;
>
> Detailed identification and quantification (over full life cycle of project) of GHGs sources and sinks at the site that are included in the emissions baseline, together with assumptions and uncertainties;
>
> A project schedule and timetable, including the period during which emission reductions will take place with year-to-year forecasts of reductions;
>
> Estimated total CO_2-equivalent emission reductions accruing to the donor-investor (and host of credits to be shared) over a specified period;
>
> Emissions monitoring processes and data collection procedures;
>
> Procedures for updating estimates of emission reductions;
>
> Arrangements for independent auditing and external verification and certification;
>
> Assuming no certification takes place before the transfer of credits, enforcement mechanisms will need to be provided in the event of non-compliance by either party or parties; and
>
> Penalty arrangements in the event of non-compliance by either party, particularly in the event of emission reductions being lower than estimated.

Finally, for CDM projects, the contract should explicitly detail the components of "sustainable development" that are expected to be achieved by the non-Annex I countries. The contract should also explain the share of proceeds to be allocated to cover administrative expenses and assistance to parties for adaptation to climate change. The next issue that necessarily arises is whether it is possible to achieve standardized agreements for these flexible mechanisms.

B. Can there be a Standardized Contract for the Flexible Mechanisms?

Standardization[21] has generated much controversy in the realms of contract law. The arguments against standardized agreements that encompass flexible mechanisms contend that there are basic situational differences that cannot be discountenanced, even in the pursuit of a common goal. None of the flexible mechanisms would be the same in every country in which they are undertaken. Assuming this assumption as true, it would appear that standardization could defeat the premises for flexibility and dynamism in achieving contractual objectives. Again, considering the prevalence of unique socio-economic and political circumstances in different countries, and indeed the differential nature of the various flexible mechanisms, it is difficult not to sympathize with the case-by-case approach. Additionally, it is not uncommon to find that a contracting party or financier has their own contract culture, which would further make fashioning and drafting common contract provisions very difficult, if not impossible.

Nevertheless, it appears that standardization is gradually creeping into long-term international commercial contracts and quasi-commercial contracts, as it lends itself to advantages that the case-by-case approach can not easily match.[22] Some of the advantages of standardization are:

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21. Curiously, the term "standardization" is not easily susceptible to a precise legal definition. It is possible to speak of either international standardization, standardization at the national level, or both. However, considering the international character of the flexibility mechanisms, standardization should be understood in its international context as simply meaning the setting of internationally acceptable contractual terms, rules, or forms for the flexibility mechanism agreements. The critical question regarding standardization is whether the terms, rules or forms must be exactly the same. While this is theoretically possible, in practice standardization does not necessarily preclude peripheral adjustments in order to suit local circumstances.

22. Arguably, standardization is not very common in long-term contracts, but is an instrument for short-term, immediately consumable transactions, typically those of international trade and those traded on exchanges. *See* Thomas W. Wälde, *Modellvertraege und Zwishenstaatliche Kooperationsabkomen: Formen der Verflechtung zwischen Recht und wirtschaft [Model Agreements and Intergovernmental Cooperation Agreements], in* 1982 JAHRBUCH FUER

Standardization facilitates the conduct of commercial/investment transactions, thus saving costs and time;[23]

It facilitates the comparison and evaluation of contractual responsibilities and associated risks, if these are based on the same well-known contractual terms;

Standardization makes financing easier, as financiers would be familiar with the contractual terms;

It enables the parties to plan ahead and to have effective control, monitoring and supervision of projects;

It reduces the private sector's tendency to exploit its financial and technical advantage in the course of negotiations with national or local authorities;

It may facilitate sub-contracting and negotiating of other project-related contracts;

Standardized project agreements are more carefully drafted and, as such, are usually of a higher quality; and

Standardization does not necessarily preclude introducing special conditions if needed, thus ensuring flexibility and dynamism.[24]

RECHTSSOZIOLOGIE UND RECHTSTHEORIE [YEARBOOK FOR SOCIOLOGY AND THEORY OF LAW]. However, there is a growing trend in standardizing long-term agreements in the natural resources sector as evidenced by the trend of host countries drawing up similar model contracts to govern such transactions. UNIDO has worked for about 20 years on the BOT and similar contracts. The International Chamber of Commerce (ICC) has some standard terms. The Association of International Petroleum Negotiators (AIPN) has also proposed a standardized Joint Operating Agreement (JOA). Even the World Bank has attempted to standardize procurement of works contracts. *See, e.g.*, THE WORLD BANK, STANDARD BIDDING DOCUMENTS: PROCUREMENT OF WORKS (May, 1993); THE WORLD BANK, STANDARD BIDDING DOCUMENTS: PROCUREMENT OF WORKS: SMALLER CONTRACTS (May, 1993); *see also* UNCITRAL LEGAL GUIDE ON DRAWING UP INTERNATIONAL CONTRACTS FOR CONSTRUCTION OF INDUSTRIAL WORKS, U.N. Doc A/CN. 9/SER.B/2 (1988).

23. *See* JOHN TILLOTSON, CONTRACT LAW IN PERSPECTIVE 121-22 (1995).

It is important to note that even if standardization were possible, there cannot be one standardized agreement for all three flexible mechanisms. Instead, a standardized agreement would be devised with respect to a single mechanism. In order to know which possible contractual precedents can be adopted, recourse should be made to existing international investment transaction practices.[25]

C. *Contractual Precedents for Flexible Mechanisms*

There are a number of contracts[26] which would not squarely fit into any particular flexible mechanism as no flexible mechanism was originally contemplated by such contractual arrangements. Considering the substance of these agreements, however, closer analysis should be given to the Inter-governmental Cooperation Agreements, Concession Contracts, BOT Project Contracts, Joint Venture, Risk Service, and Service Contracts because they contain features which make them more amenable to the type of agreements envisioned under the Protocol.

1. *Intergovernmental Cooperation Agreements (ICAs)*

Intergovernmental Cooperation Agreements are usually entered into between governments for, and on behalf of, their respective sovereign states. They can be of a general nature (framework) or relate to specific Joint Implementation, emissions trading or Clean

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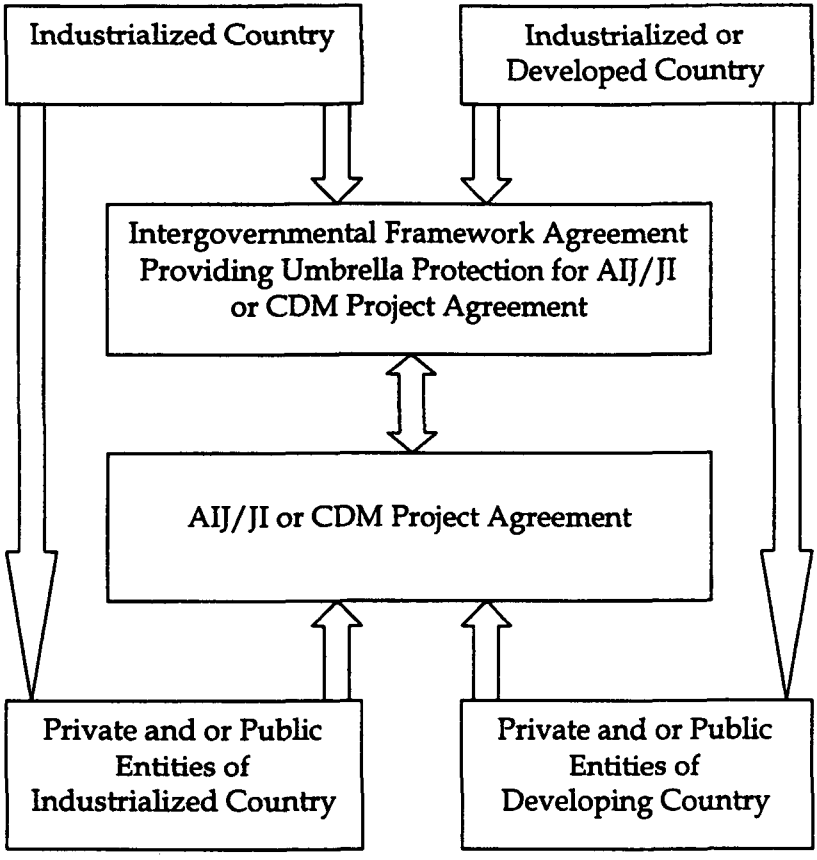
24. *See generally* UNITED NATIONS INDUSTRIAL ORGANIZATION (UNIDO), UNIDO GUIDELINES FOR THE DEVELOPMENT, NEGOTIATION, AND CONTRACTING OF BUILD-OPERATE-TRANSFER (BOT) Projects (1995 pre-print) 240-41 [hereinafter BOT GUIDELINES].

25. It is, perhaps, pertinent to stress that whichever standard contract is eventually adopted, an arbitration clause should be a sine qua non in every such contract. Such contracts should stipulate, inter alia, the place of arbitration, the languages of arbitral proceedings, the number of arbitrators needed to decide the matter, and how the arbitrators are to be constituted. Sometimes, even detailed procedures could be provided to achieve greater efficiency. *See* HOLTZMANN & NEUHAUS, *supra* note 16, at 6.

26. In general commercial transactions, there are the standard procurement contracts; in natural resource investment contracts, there are the production sharing contracts, the traditional and modern concession contracts, the risk and non-risk service agreements, and the joint venture and hybrid contracts. In the engineering and construction fields, contracts include the build, operate, own (BOO); build, operate, transfer, (BOT); build, own, operate and transfer (BOOT); build, rent, or lease and transfer (BRL)/(BLT); build and transfer immediately (BT); build, transfer and operate (BTO); design, build, finance and operate (DBFO); design, construct, manage and finance (DCMF); modernize, own, operate and transfer (MOOT); rehabilitate, own and operate (ROO); and rehabilitate, own and transfer (ROT). All these various engineering and construction contracts are herein together referred to as "BOT Contracts". *See generally* BOT GUIDELINES, *supra* note 24, at 3. For a discussion of these and various other agreements, see Piero Bernardini, *Development Agreements with Host Governments, in* ECONOMIC DEVELOPMENT, FOREIGN INVESTMENT AND THE LAW: ISSUES IN PRIVATE SECTOR INVOLVEMENT AND THE RULE OF LAW IN A NEW ERA 161-174 (R. Pritchard ed. 1996).

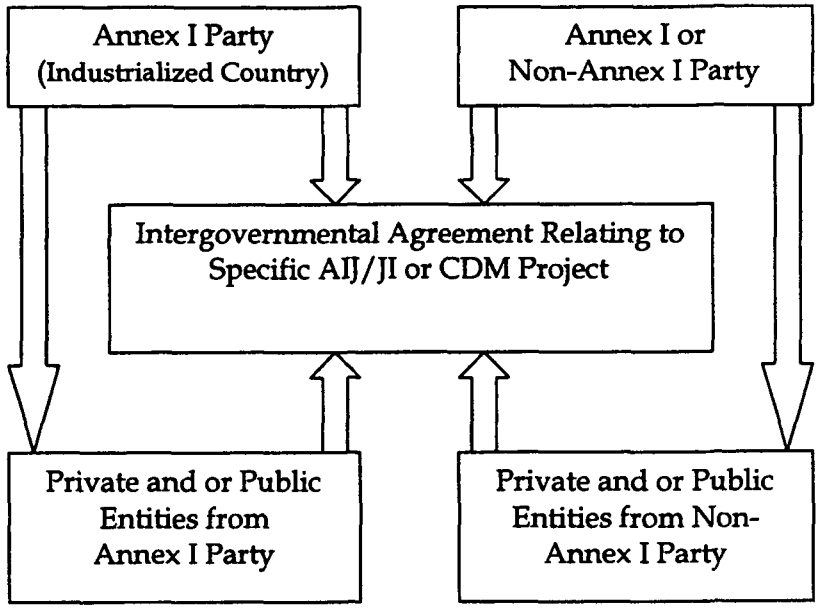
Development Mechanism Projects. Figures I and II are simplified diagrammatic representations of these sorts of arrangements.[27]

Figure I: Intergovernmental Framework Agreement



27. *See Swiss AIJ Pilot Program--SWAPP Information Network* (visited on Aug. 26, 2000) <http://www.admin.ch/swissaij>.

Figure II: Intergovernmental Agreement Relating to Specific AIJ/CDM Project



ICAs usually provide, inter alia, "procedures and joint institutions for co-operation programming, for project preparation and evaluation as well as for implementing projects and monitoring their performance."[28] This effort can be complemented by the COP under the Protocol. Intergovernmental agreements relating to specific JI or CDM Projects could contain provisions relating to:

> The partial or full assumption of the risk of non-performance of such projects by their respective home countries, depending on whether projects are initiated by the home states' private or public entities;[29]

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28. Thomas Wälde, *Methods and Mechanisms for International Industrial Enterprise Co-operation, in* UNIDO, *Industry 2000 - New Perspectives Collected Background Papers*, Vol. 2, UNIDO/IOD.325, Dec. 1979, at 40.

29. It is suggested that where projects are initiated by the private sector, home states should bear partial assumption of risk. However, home states should bear full assumption of risk for their public sector initiated projects in accordance with the maxim: *qui facit per alum facit per se.*

Provisions regarding financing and market access conditions to enable the proper and effective implementation of the JI or CDM project;

Host state guarantees regarding the stability of the enabling regulatory regime, including the terms of the JI or CDM agreement; and

Host state guarantees relating to the uninterrupted supply of energy and natural resources, where these are applicable to the AIJ/JI or CDM Project.

Some of the advantages of intergovernmental cooperation agreements include the following:

This type of agreement seeks to link "project contracts with international law through home state commitments to assume performance responsibility;"[30]

It provides a convenient framework for project agreements on the enterprise level by shielding such enterprises from the vagueness and vicissitudes of host country regulatory regimes;

The reduced number of participants allows commitments to be more concrete and precise in terms of specific sustainable development goals and strategies or quantified emission limitation and reduction objectives (QELROs);

Since they can take a variety of forms, these agreements are flexible in reflecting the degree of state intervention needed in concrete cases of cooperation at the project level; and

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30. Thomas Wälde, *North/South Economic Cooperation and International Economic Development Law: Legal Process and Institutional Considerations*, 23 GERMAN Y.B. INT'L L. 59, 79 (1980).

> The rules or terms of the agreement may be bilaterally negotiated, allowing innovative solutions and a gradual evolution of the entire process.[31]

The main disadvantage of these types of agreements stems from the assumption of equal bargaining power, which is usually not the case even among Annex I parties in JI projects. Indeed, it is likely that unequal bargaining power and the inadequacy or absence of experience on the part of developing countries will result in an AIJ/JI or CDM agreement that reflects this lopsided relationship. The solution lies in drafting such agreements to meet the differing legitimate expectations of the parties.[32]

2. *Concession Contract* [33]

The term "concession" connotes "ownership," or what common law systems describe as a "freehold interest."[34] Concession is "an arrangement whereby the private sector is granted the right to develop a public infrastructure project."[35] The concession system has become transformed in light of the exigencies of modern international commercial transactions. The following are some of the features of the modern concession contract:

> It gives exclusive right to the concessionaire to undertake its operations in a given area, including other ancillary operations within a certain duration with the possibility of renewal;

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31. *See generally* Wälde, *supra* note 28, at 33.

32. This would imply inter alia that:

They should not be exclusively reflective of the defensive interest of the investment-exporting countries;

They should equally reflect elements of developing countries' collective interests and action such as technology transfer, financial resources and respect for sovereignty over natural wealth and resources;

They should contain concrete commitments from the parties aimed at creating a package of mutually beneficial interdependence. *See id.* at 34.

33. Some legal scholars may view this phrase as tautologous, since the term "concession" in itself may encompass "contract."

34. It is not, however, the exclusive preserve of the common law system. For example, the French water sector has industrialized through this structure for over one hundred years. *See* Duncan Macnab & Jeremy Connick, *Concession Agreements 100 and BOT Projects, in* POWER PROJECT DOCUMENTATION 5 (1997).

35. *Id.*

> It gives the concessionaire exclusive rights to manage its operations without undue interference from the host government;
>
> The concession contract sets out clear commencement, tasks, and obligations (which may include the filing of work reports);
>
> It employs a simplified tax system that enables the concessionaire to effectively amortize its investments within a reasonable period of time;
>
> Allows the concessionaire to set prices, with government supervision;
>
> It allows dispute settlement, usually by arbitration, and a choice of law clause between the laws of the host country and international law; and
>
> It enables the possibility of revocation in exceptional circumstances.[36]

The concession system has been modified recently to accommodate various other types of projects. The concession contract has brought a considerable reduction in host government participation and control. It is possibly one of the most attractive options for CDM Projects, since it enables the private sector to exercise a free hand in developing and managing the project with minimal interference by the host government. Private sector involvement in the AIJ/JI projects makes the concession contract attractive in those projects as well. Thereafter, an intergovernmental JI agreement can provide an umbrella cover for any concession granted by any of the Annex I parties. Innovative contractual clauses can be drafted to synchronize with the objectives of the clean development mechanism and JI as envisioned under the Kyoto Protocol.

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36. These features have been distilled from a comparison of the Traditional and Modern Concession Contracts tabulated by Zhiguo Gao. *See* ZHIGUO GAO, INTERNATIONAL PETROLEUM CONTRACTS: CURRENT TRENDS AND NEW DIRECTIONS 53-54 (1994). They are by no means exhaustive, and are capable of a variety of interpretations. However, they do serve as reference points from which subsequent discussions on contract forms for CDM Projects can be appreciated.

3. BOT Project Contracts[37]

According to the UNCITRAL,

> BOT is conceived as a way to reduce pressure on the use of public funds for project financing and to promote the transfer of technology through the involvement of the private sector in financing, building and operating infrastructure projects. In its most basic form, a BOT project is where the Government grants a concession for a period of time to a consortium for the development of a project. The consortium finances or arranges for financing for the project, constructs the project, and operates and maintains the facility during the life of the concession. Meanwhile, through sale or charge for the use of the facility or its products, the consortium recovers returns on its equity and pays off its debts. At the end of the concession period the project is transferred to the Government.[38]

The potential advantages of using the BOT Project contractual approach to both the private and public sector are illustrated in Table 2 below.

BOT Project Agreements may be called modified versions of the concession contract.[39] There can be considerable diversity in their form and content, ranging from "huge, complex contracts, tailor-made for a particular infrastructure project ...to straightforward and to some extent standardized contracts for each infrastructure sector, as in China's BOT programme."[40]

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37. The Build-Operate-Transfer or Build-Own-Transfer projects are said to be "the new buzz words in project finance." PETER K. NEVITT, PROJECT FINANCING 290 (1989).

38. POSSIBLE FUTURE WORK: BUILD-OPERATE-TRANSFER PROJECTS: NOTE BY THE SECRETARIAT, UNCITRAL, 29th Sess., U.N. Doc. A/CN. 9/424 (1996). The subsequent UNIDO Guidelines have clarified that transferring the project at the end of the concession period need not always be the case. *See* BOT GUIDELINES, *supra* note 24, at 3.

39. For the view that the "BOT structure is normally based on a concession agreement between a government or a government agency, and the vehicle company established by the sponsors to carry out the construction and operation of the project." CLIFFORD CHANCE, PROJECT FINANCE 29 (1991).

40. BOT GUIDELINES, *supra* note 24, at 226.

Table 2:
Potential Advantages to Both the Private and Public Sector of Using the BOT Approach for Infrastructure Development

Private Sector	Public Sector
Gives the private sector a free hand to finance the project, rather than depending on contributions from a host government, which may cripple the project because of the government's other commitments.	Use of private sector financing to provide new sources of capital, which reduces public borrowing and direct spending, and which may improve host government's credit rating.
Ability to accelerate the development of projects that would otherwise have to wait for, and compete for, scarce sovereign resources.	Ability to accelerate the development of projects that would otherwise have to wait for, and compete for, scarce sovereign resources.
Use of private sector initiative and expertise to reduce project construction costs, shorten schedules, and improve operating efficiency.	Use of private sector initiative and expertise to reduce project construction costs, shorten schedules, and improve operating efficiency.
The private sector is responsible for the operation, maintenance and output of the project for an extended period (normally the government would receive protection only for the normal construction and equipment warranty period).	Allocation to the private sector of project risks and burdens that would otherwise have been borne by an already encumbered public sector.
Involvement of private sponsors and experienced commercial lenders, which ensures an in-depth review and provides an additional sign of project feasibility.	Gives government breathing space to source indigenous and skilled manpower comparable to the private sector.
Able to recoup the costs of technology transfer, training of local personnel and the development of national capital markets toward the transfer of the project.	Public gains from technology transfer, the training of local personnel and the development of a national capital market.
The private sector establishes a benchmark against which the efficiency of similar public sector projects can be measured and the associated opportunity to enhance management of infrastructure facilities.	The public sector can measure its efficiency against the benchmark established by the private sector in respect to similar projects and associated opportunities to enhance management of infrastructure facilities.

Source: Adapted from BOT GUIDELINES, *supra* note 24, at 7.

To this extent, they are both flexible and dynamic. Importantly so, in view of the fact that in the construction, implementation and maintenance of most CDM Projects, science, engineering and construction works would play a considerable role. Thus, like their AIJ/JI counterparts,[41] the attractiveness of BOT Project Agreements cannot be overemphasised.[42]

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41. The parties to the UNFCCC established a pilot phase for Activities Implemented Jointly (AIJ) under the Climate Change Convention. Its purpose is to enable governments or companies that contract with parties in another country to implement an activity that reduces GHG in the other country. The main distinction between the AIJ and the CDM is that, whereas the former precedes the latter and involves an investor and host country that may both be

BOT Project Agreements, however, have to be specially and carefully drafted to fit into the legal systems within which they are to operate. Legal systems that are less supportive of, or less transparent to, the BOT approach, may require far more comprehensive provisions in BOT Agreements than those that are more supportive, specific and transparent.[43] What is being suggested here is that BOT agreements cannot guarantee per se many of its attractions.

4. Joint Venture Agreements (JVA)

A joint venture is "a business arrangement in which two or more parties undertake a specific economic activity together."[44] While there are different varieties of joint ventures (JVs), they are generally a popular way of pooling together scarce financial and technical resources for the purpose of carrying out a commercial undertaking. The JV contract spells out the terms of the joint venture, especially the financial commitments of each partner and the profit-sharing modalities, which need not necessarily be in equal proportion. In the energy sector, host governments view JVs as an effective way of participating in the development of their natural resources with the concomitant prospect of technology transfer.[45]

While the CDM envisions a collaborative arrangement between non-Annex 1 and Annex 1 Parties, the JI requires such collaborative

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industrialized countries, the CDM is very recent, having been formulated under the Kyoto Protocol, and involves only industrialized and developing countries. Also, whereas AIJ pilot phase schemes do not involve the crediting of reductions achieved against industrialized countries' legal abatement obligations, those of the CDM do permit such crediting. *See AIJ World Bank Group Strategy* (visited Mar. 30, 2000) <http://www-esd.worldbank.org/aij/green.htm>.

42. This is not to suggest that some other CDM Projects cannot be in areas of social change, education, training and financing. Even growing more trees has been identified as one way to hold down greenhouse gas build-up. *See* Sedjo, *supra* note 3, at 12.

43. A supportive regulatory framework could contain, for example, a law, regulation or code like the Indiana code 22-3-2-15 Enacted 1929, Amended 1991. *See* IND. ADMIN. CODE tit. 36, article 1, chap. 14.3, section 4 (repealed 1997). It could also contain and publish general project eligibility criteria and national rules, which are not incompatible with the provisions of the Kyoto Protocol, as the Czech Republic already has done for JI development projects. *See JI Project Development in the Czech Republic* (visited Aug. 26, 2000) <http://www.vol.cz/nondek/jicz/websi2.htm>.

44. *The Joint Venture Home Page* (visited Aug. 26, 2000) <http://home.earthlink.net/~fpearce/Jointventure.html>. *See also* BLACK'S LAW DICTIONARY 839 (6th ed. 1990) (defining a joint venture as "a legal entity in the nature of a partnership engaged in the joint undertaking of a particular transaction for mutual profit.) This is possibly the simplest definition of the joint venture. The joint venture agreement is the contract defining the rights and obligations of the parties.

45. *See* Robert Pritchard et al., *The Use of Joint Ventures in FDI, in,* ECONOMIC DEVELOPMENT, FOREIGN INVESTMENT AND THE LAW: ISSUES OF PRIVATE SECTOR INVOLVEMENT AND THE RULE OF LAW IN A NEW ERA 175, 177 (R. Pritchard ed., 1996).

arrangements only between Annex I parties. In both, the relevant parties could use public or private parties to undertake either a JI joint venture (JIJV) or a CDM joint venture (CDMJV).[46] Clearly, a CDM joint venture agreement (CDMJVA) or JI joint venture agreement (JIJVA) would be the most appropriate framework for defining the commercial and legal relationship of the Parties. A standardized JIJVA or CDMJVA can be adapted to take care of the special requirements or substance of the JI or CDM, depending on the circumstances. Table 3 is a summary of some common advantages and disadvantages of the JVA.

Table 3:
Some Common Advantages and Disadvantages of the JVA

Project Developer's View Point	Host Government's View Point
Advantages	
Molding a project into a form that is Compatible with government policies	Maximizing national sovereignty
Minimizing political risk	Receiving subsidized or risk-free participation
Improving predictability and stability of operational conditions	Sharing in the rewards of value-added
Providing a communication channel to the government	Influencing training, education, labor recruitment and labor policies
Availability of tax or other investment incentives	Influencing decisions on sourcing and pricing of plant, equipment, production inputs and services
	Influencing destination and pricing of products
	Minimizing any perceived adverse effects of FDI
Disadvantages	
"Soft" value of host country's capital contributions	Need to contribute capital or other assets
Less efficient decision-making and financing structures	Need to offer tax incentives
Exposure to risk of loss of confidential commercial information and expertise	Exposure to business risks
Exposure to risk of incompatibility with government bureaucrats	Exposure to risk of incompatibility with foreign partner
Higher transaction cost due to less unified and single-purpose management structure and relative absence of shared values.	Higher transaction cost due to less unified and single purpose management structure and relative absence of shared values.

Source: Pritchard et al., *supra* note 45, at 178.

46. This is because, under Article 12(9) of the Protocol, "Participation under the clean development mechanism, including activities mentioned in paragraph 3(a) above and in the acquisition of certified emission reductions, may involve private and/or public entities ...." Protocol, *supra* note 2, art. 12(9).

Two observations should be made. The first relates to the varying objectives of the joint venture partners; while the host government would be more interested in attaining sustainable development, including technology transfer for the benefit of the national economy, the investor is more interested in making a profitable return on his investment. The second observation is regarding the host government's ability to meet its cash-call obligations,[47] as a cash-strapped non-Annex I countries can hardly be expected to meet their financial commitments under the JVA.

In no contractual arrangement, however, is an investor's objective identical with those of the host government. Furthermore, fears about the host government's inability to meet its cash-call obligations under the CDMJVA would seem to have been arrested by Article 12(6) of the Protocol.[48] In any event, these arguments should not apply to the JIJVA, which involves two Annex I parties. Moreover, even if the CDMJVA is not a preferred option due to developing host-government involvement, it is nonetheless a preferred option for legal entities willing and able to pool their resources together to undertake a JI Project.

5. Risk Service Contracts (RSC) and Service Agreements

The RSC is usually a camouflaged concession, BOT or JV arrangement in which the services of an investor, who assumes the legal status of "contractor," is hired by the sponsoring state.[49] In the case of a CDM arrangement, the tasks of the contractor would be the construction, maintenance and implementation of the CDM Project, or the training of personnel for the purposes of managing any such project.[50] After successful execution of the contract, the contractor is reimbursed for its costs and investments and paid for its services by the sponsoring state. Although he is executing a service contract, the contractor bears the entire financial risks of the undertaking and

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47. In practice, it is usually the responsibility of the appointed government agency or public enterprise.

48. *See* Protocol, *supra* note 2, 12(6) (providing that "[t]he clean development mechanism shall assist in arranging funding of certified project activities as necessary.").

49. *See* KEITH W. BLINN ET AL., INTERNATIONAL PETROLEUM EXPLORATION AND EXPLOITATION AGREEMENTS: LEGAL, ECONOMIC AND POLICY ASPECTS 83 (1986). In the energy sector, the sponsoring or hiring state is usually the host country. But in the CDM Project, it has to be the industrialized or Annex I country.

50. In the European Community (EC) for example, a distinction is made between works and services contracts in relation to certain specialized/utility operations. Consequently, a contract to be awarded can only be either a works or services contract but, not both, with concomitant legal implications. *See* Anthony Woolich & Karima Hudson, *Public Procurement and Brown Field Sites: UKCS Dimensions*, 7 OIL & GAS L. & TAX'N. REV. 280, 282 (1998).

recovers its investment after successful execution.[51] This explains why it is sometimes referred to as "Risk Service Contract". While in theory, JI envisages 'joint implementation' of project activities, nothing prevents one or both parties from hiring the services of an independent contractor to implement JI projects under a risk service agreement. Details about how to credit or debit ERUs can be determined in the main contract document, or in an appendix.

The distinction between the RSC and the joint venture or sole-investor arrangement is that, in the RSC, the contractor provides a service and receives payment from the client only after successful execution of the project. In the latter, the investor puts up risk capital and receives a return from an expected flow of profits from the venture (usually shared in the case of the joint venture).

A further distinction should be made between a RSC and a real or proper *service agreement.* The RSC is a contradiction in name as it pretends to be a service contract in which there is full client control. The client only pays after successful execution of the contract in the RSC, but in the real service contract the client pays irrespective of the success of the undertaking. In this latter contract, the client bears the risks and has management and control powers, which are inevitably correlated with payment and risk taking. Such a situation may arise where a home country or international agency, for example, hires the services of an independent contractor (service contractor) to perform certain services for the benefit of a third party beneficiary host country. In this situation, there is no contractual relationship (privity of contract) between the host country and the service contractor as such; the service contractor receives payment from the sponsoring home state or international agency (Client).[52] Figure III is illustrative of the real service contract. Examples of the real service contract would be the Phare and the Tacis multi-country Programs.[53] In the Phare Program for instance,

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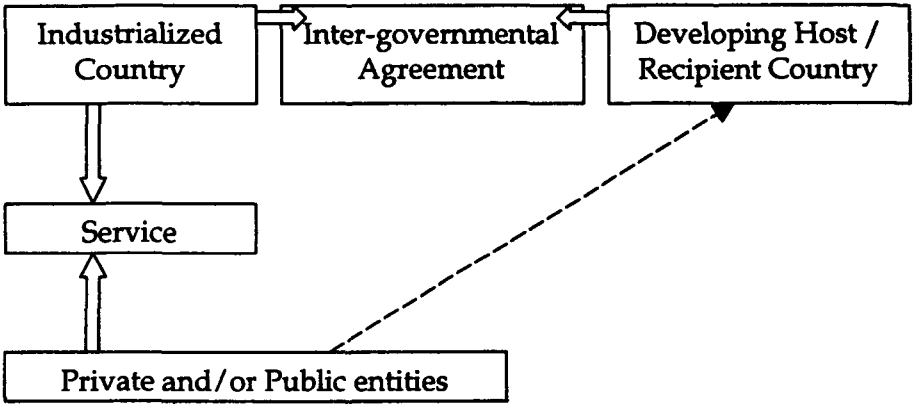
51. The contract may include provisions for certain up-front or mobilization fees to assist in the effective start-up of the project. But this can not be more than a certain specified percentage of the overall total value of the contract.

52. Exceptionally, there could be a sub-contract between the service contractor and the host country for the rendering of the particular service it has been hired to perform, even when the sponsor is not the host country. In this latter situation, the service contractor gets paid by the sponsoring agency or home state rather than the host country.

53 "Phare" is an acronym for the program's original name: "Poland and Hungary: Action for the Reconstruction of the Economy." The European Union has expanded the program and Phare now encompasses fourteen Eastern and Central European partner countries. *See The Phare Program* (visited Aug. 26, 2000)
<http://europa.eu.int/comm/enlargement/pas/phare/wip/>.

Figure III:
Real Service Contract Between Industrialized Country and Service Contractor for the Benefit of Third Party Beneficiary (Developing Host/Recipient Country) within the Framework of an Intergovernmental Agreement[54]



the contracting authority - the European Union (EU) - hires a service contractor to provide, among other tasks, training to selected key personnel of each Phare partner country in order to bring their legislation in line with ECT requirements and harmonize their legal, policy and institutional framework with the EU. As the Client, the EU bears the risk and is accordingly vested with control and management powers over the contractor. The Contractor does not get paid by the beneficiary countries, Central and Eastern European Countries (CEEC), but by the EU as the contracting authority. Additionally, such payment is not dependent upon the success of the undertaking.

Similarly, under the Kyoto Protocol, the COP could, in addition to arranging for funding for CDM Projects, potentially hire a Private or Public entity of an Annex I country as a service contractor to construct and implement a CDM project in a non-Annex I country.

The Tacis Program incompasses the EU's partnership involvement with nations outside of Europe. *See External Relations - The European Commission* (visited Aug. 26, 2000) <http://europa.eu.int/comm/external_relations/index.htm>. *See also* The Energy Charter Treaty, (visited Aug. 26, 2000) the text of this treaty involving multinational contractual relationships is available at <http://www.encharter.org/English/index.html>.

54. In this type of contract as depicted above, no contractual relationship (privity of contract) exist between the service contractor (Private and/or Public entities) or the International Development Agency. The real service contract is between the industrialized country and the Private and/or Public entity. Accordingly, the service contractor gets paid not by the host country but by the industrialized country party.

While this would be with the consent of the parties, the service contractor would receive payment from COP and not the host country. Details regarding quantification and allocation of credits can be worked out within the framework of the service contract. Alternatively, one or both Annex I countries could hire the services of a public and or private entity within its domain to construct, maintain, and manage a JI project in the other Annex I country. In this case, the service contractor gets its remuneration from the hiring home state rather than from the host Annex I state. Again, the specific details of ERUs can be determined under the contract. Admittedly, this latter arrangement blurs the distinction between the RSC and the service agreement.

As in other contractual relationships, the potential for conflicts always exists in the service contract. Due to its peculiar arrangement, this potential for conflict is inherent in the service contract. Under the service agreement, the real service contractor may be bound not to indulge corrupt officials of the host country or to abide by certain standards. This may pose practical difficulties, as the host country may set its own agenda in the "national interest," including the imposition of import duties and the levying of taxes. These are no doubt very thorny issues in practice, since beneficiary governments cannot easily refrain from either levying taxes, imposing duties on imports, or even attempting to influence the project in their favor. If these difficulties are not anticipated and an amicable resolution properly provided for, the effective execution of the real service contract is bound to be prejudiced.

6. A Contractual Precedent for Emissions Trading

The contract form for emissions trading should be simpler than those for the CDM and JI, as there is already a precedent for implementing emissions trading.[55] With emissions, a simple standardized contract for the buying and selling of 'permits,' 'allowances,' or 'emissions reductions' can be drafted in which one Party agrees to sell and the other agrees to buy such tradable commodity. However, considering that emission reduction targets (ERT) are envisioned to be sold between countries under Article 3 of the Protocol, an international emissions trading contract (IETC) within an umbrella-framework intergovernmental agreement is possible.

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55. The US sulphur dioxide emissions trading scheme.

V. APPRAISAL AND RECOMMENDATIONS

From the foregoing, it seems reasonable to suggest that an intergovernmental agreement would be a necessary starting point for all three flexible mechanisms. Also, with the exception of emissions trading, the Concession Contract, the BOT Project Contracts, the Joint Venture Agreement (JVA), and the Service Contract are all suitable for the JI and CDM because of their inherent flexibility and adaptability in advancing the objectives of these particular mechanisms. A summary ranking of the suitability of the possible contract forms is juxtaposed against each of the flexible mechanisms in Table 4.

Table 4:
Summary Ranking of Possible Contract Types against Flexible Mechanisms

Possible Contract Forms	Joint Implementation	Clean Development Mechanism	Emissions Trading
Intergovernmental Cooperation Agreement	3	3	3
Intergovernmental Agreement for Specific Project	3	3	0
Concession Contract	2	3	0
BOT Project Contract	2	3	0
Joint Venture Agreement	3	2	0
Risk Service Agreement	2	3	0
Service Agreement	2	3	0
International Emissions Trading Agreement	0	0	3

Ranking: 0 = very poorly adaptable; 2 = adaptable; 3 = excellently adaptable
Source: compiled by authors

In practice though, it is the substance of the agreement rather than the form that matters most in terms of effectiveness. It is also necessary to note that all these distinct forms can be used in perhaps three broad scenarios: (1) An intergovernmental framework between two or more Annex I countries for emission trading, which may be accompanied by a specific IETC; (2) An intergovernmental agreement between two or more Annex I countries, which may be followed by a specific Concession, BOT, JVA or Service Contract in respect of a JI Project; (3) An intergovernmental agreement between an Annex I and a non-Annex I country followed by a specific Concession, BOT, JVA, or Service Contract in respect to a CDM project in a non-Annex I country.

However, certain general principles are fundamental for any contract to be effective both as between the parties to the agreement and in terms of achieving the general contract objectives. These include, but are not limited to, the following principles:

> Equity, fairness and transparency in apportioning rights and obligations between the parties. This may involve "affirmative action" to counteract unequal development and compensate for the structural weaknesses of a developing country party;[56]
>
> Cost effectiveness in the pursuit of contract objectives. An unambiguous statement of contract terms, which should include *modus operandi* for implementation and enforcement, financial mechanism, dispute settlement, liability and compensation for damages or the failure of the undertaking; and
>
> The principle of both host and home state co-responsibility for international economic and environmental cooperation.[57]

In the final analysis, whatever contract form is employed, (as between the intergovernmental agreements, concession, BOT agreement, JVA, Risk Service Contract, or Service Contracts) the substance of such agreement should state very clearly, inter alia:

> How to establish a baseline for projects in the calculation of real emissions reductions;
>
> How to monitor, verify, and certify real emissions reductions;
>
> How to scale down the administrative and transaction costs of the project; and
>
> How to guarantee uninterrupted project tenure and facilitate repatriation of profits (proceeds from the project).

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56. *See* Wälde, *supra* note 30, at 76.
57. *See id.* at 77.

VI. CONCLUSION

This paper has presented a contractual architecture for the flexible mechanisms envisioned under the Kyoto Protocol. In the final analysis, the substance rather than the form of the contract is what counts. However, all such contracts must be properly drafted to ensure that they synchronise with the overall objective of the Kyoto Protocol, taking into consideration the socio-economic and legal conditions in the participant countries.

With the 'Buenos Aires Action Plan' establishing deadlines and advances on a number of significant issues: financial mechanisms to assist developing countries respond adequately to climate change challenges; further work on policies and measures; development and transfer of technologies; rules governing the Kyoto Mechanisms with emphasis on the CDM; and an undertaking to discuss supplementarity, ceilings, long term convergence and equity, the stage is now set for implementing soft and hard law prescriptions into actual contractual commitments.