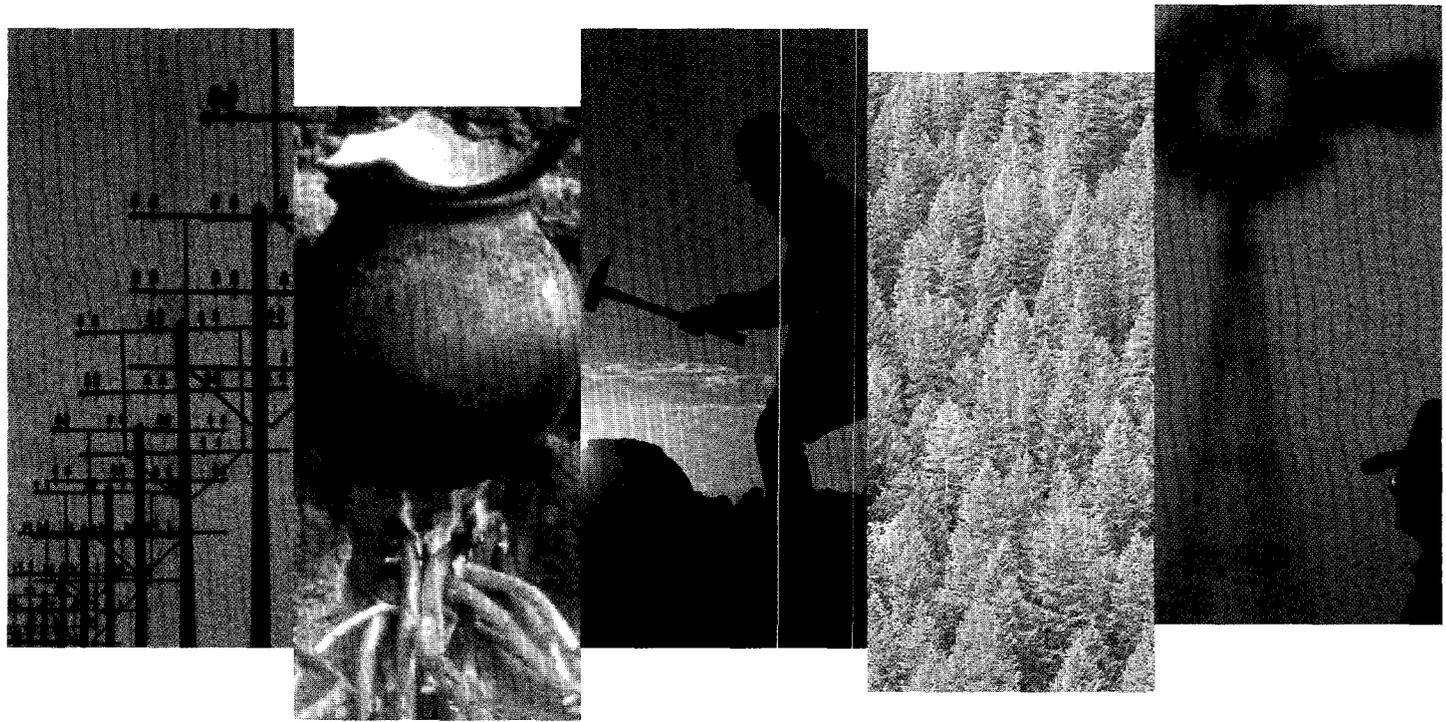


Environmental and Social Regulation of Oil and Gas Operations in Sensitive Areas of the Sub-Andean Basin

ESM217
July 1999



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ENERGY SECTOR MANAGEMENT ASSISTANCE PROGRAMME (ESMAP)

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ESMAP

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**Environmental and Social
Regulation of Oil and Gas Operations
in Sensitive Areas of the Sub-Andean Basin**

July 1999

Joint UNDP/World Bank Energy Sector Management Assistance Programme
(ESMAP)

(Documento Disponible en Español, Ref. N° 217/99SP)

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Preface

Improved legal frameworks and more attractive E&P contracts have allowed an increasing number of private companies to explore and develop hydrocarbon resources in South America. Many of these exploration and development projects are taking place in environmentally and socially sensitive areas, especially in the Sub-Andean Basin.

Efforts to update regulations have included requiring the preparation of environmental impact assessments with specific reference to operations in areas of indigenous peoples. However, oil and gas operations in several Latin American countries are suffering delays and growing costs due to rising environmental and social problems. Governments are conscious of the need to develop effective regulations, attract qualified personnel, and build regulatory skills to deal with these problems.

The report was completed as one component of a broader program of communication and information exchange among the 11 participating countries: Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, Guyana, Paraguay, Peru, Surinam, and Venezuela. The ESMAP program addresses the role of energy in the development process with the goal of contributing to poverty alleviation, improving living conditions, and preserving the environment. Its strategic objectives include continuation of sector reforms, promotion of environmentally and socially sound industry practices and improvement of socioeconomic situation of Indigenous Peoples. The OLADE project on Energy, Population and Environment has similar aims.

This publication is part of a broader joint activity whose objectives are

- To establish channels of communication between governments in relation to laws and regulations and to the problems encountered in their application. Currently, communication channels on these issues are poor and there is not a consistent treatment of the relations between the industry and the indigenous peoples; and
- To develop a common approach that will facilitate harmonizing existing national regulations in order to have a coherent plain level field for environmentally and socially acceptable industry operations in the Sub-Andean Basin.

The first phase of the project, launched in 1997, included this comparative analysis of the existing legal, institutional, contractual and regulatory frameworks and of the capacity of governments to enforce them, and to facilitate the adoption by governments of a long-term work program. The second phase is expected to involve consultations with other stakeholders (industry, NGOs, and indigenous peoples) to evaluate the technologically enforceable and socially adequate regulations.

Acknowledgments

The following report was prepared under the auspices of the UNDP/World Bank Energy Sector Management Assistance Programme (ESPAM). The project is a cooperative one involving several organizations. The principal sponsor was the World Bank, represented by Mr. Eleodoro Mayorga Alba and Mr. Chakib Khelil from the Oil and Gas Unit and Mr. Jorge Uquillas from the Social, Environmental Unit of the Latin American Region. The Latin American Energy Organization (OLADE), a regional cooperating organization, was represented by Mr. Luiz A.M. da Fonseca, its executive secretary. María Elena Medina Puig represented the Tratado de Cooperación Amazónica at the meetings in Quito. Eleven countries from the Sub-Andean Basin were involved in this project, each represented by a national coordinator whose responsibility was to provide information and represent his or her country's interests in the consultative process.

Abbreviations and Acronyms

ARPEL	Asistencia Recíproca Petrolera Empresarial Latinoamericana
BC	British Columbia
CIDA	Canadian International Development Agency
COGOA	Canada Oil and Gas Operations Act
CPRA	Canada Petroleum Resources Act
E&P	Exploration and Production
EIA	environmental impact assessment
EIE	environmental impact evaluation
ES	environmental management study
ESMAP	Joint UNDP/World Bank Energy Sector Management Assistance Program
ESRF	Environmental Studies Resources Funds
ILO	International Labor Organization
LCSES	Environmental and Social Sustainable Development Management for Latin America
MOU	memorandum of understanding
NC	national coordinator
NGO	non-government organizations
NNTT	National Native Tribe Tribunal
NT	Northern Territory
NTA	Native Title Act
OLADE	Latin American Energy Organization
TCA	Treaty for Amazon Cooperation
TOR	terms of reference

Executive Summary

1. The issues surrounding indigenous peoples and hydrocarbon operations in the Sub-Andean Region¹ are dynamic, and systems developed to work with these groups need to be flexible. As the relationship between indigenous peoples and the oil industry changes so frequently, an effective and efficient system of information exchange among countries in the Sub-Andean region is very important.

2. This study analyzes existing models for social and environmental impact mitigation from hydrocarbon activities outside of Latin America. Although the situation in Latin America is unique, some issues are analogous to problems in Canada, Australia, and Russia. For example, land titles, land claims, consultation, and compensation for affected communities are currently substantial issues in Canada and Australia, and these topics are becoming important issues in Latin America. The report discusses the lessons learned outside the Sub-Andean Region so that they can be used to address some of the problems within the region.

3. The analysis of the current control mechanisms in the Sub-Andean Region illustrates that the region has taken substantial steps towards establishing a regulatory system that addresses the problems the hydrocarbon industry, indigenous peoples, and the environment are facing. The analysis also highlights the diversity of the legal and political systems in the participating countries.

4. The report proposes strengthening the existing regulatory systems in each country and working towards a common regional set of principles on issues related to hydrocarbon activities and indigenous peoples. A number of multilateral and bilateral agreements exist in the region that could provide guidance as common regional principles are established. One such agreement is International Labor Organization (ILO) Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries. The region can benefit from the concepts defined in this document, which some of the countries in the region have already adopted.

5. This report proposes an action plan with a number of short- and long-term recommendations for countries in the region. It is important that these recommendations be viewed in relation to the current political, legal, and administrative systems in each country.

¹ The geographical area covered by the Sub-Andean Basin Project includes all or parts of Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname and Venezuela.

6. Countries in the region should implement their action plans in a sustainable manner, such that they address the demands of the environment, the hydrocarbon industry, and indigenous peoples.

6. Attached to this report is a matrix of information that formed the basis for the analysis and recommendations in this report (see Appendix A). The information in the matrix was provided by the national coordinators as a response to a questionnaire developed by the consultants. The matrix is a useful source of data for countries in the region as they consider changes to their current control mechanisms.

1

Introduction

1.1 Hydrocarbon operations have always had the potential to damage the environment. Accidents such as spills, land degradation, and air and water pollution have created serious liabilities for both the petroleum industry and local governments. Recently, negative socioeconomic and cultural impacts have also become an issue that government, industry and local communities have felt the need to address.

1.2 As countries in the Sub-Andean Basin have accelerated their hydrocarbon development activities, an influx of new investments in exploration and exploitation activities has taken place in the region. Because many of these activities are taking place in environmentally and cultural sensitive areas, governments have introduced improved regulations to control hydrocarbon projects, especially those affecting indigenous peoples.

1.3 Industry operations in several countries in the region are experiencing delays due to unexpected situations when dealing with the rising environmental and social problems and regulatory requirements. The added costs of these delays significantly detract from these countries' abilities to attract capital investment. Additionally, there is national and international criticism by NGOs and indigenous peoples' organizations concerning industry and government failure to deal appropriately with these issues.

1.4 The region can benefit from the concepts and ideas defined in the International Labor Organization (ILO) Convention 169, which some countries in the Sub-Andean Basin have already adopted. ILO 169 provides guidance to government, industry and indigenous peoples with respect to public consultation and conflict resolution in Indigenous areas. The development of legislation governing indigenous peoples and the natural resource sector in Latin America will likely be guided by this convention. Indigenous groups in the Sub-Andean Basin are basing their requests for active participation in the development of natural resources in their lands on ILO 169 and specifically referring to Articles 13 and 14 in the convention.

Objectives and Scope

1.5 This regional study was one component of a broader program of communication and information exchange in the Sub-Andean Region. The objectives of the study were to

- (a) Begin a process of information exchange and sharing of experience on the legal and regulatory framework that exists in each of the countries, as they relate to managing the negative environmental and socioeconomic impacts resulting from hydrocarbon activities;
- (b) Analyze the possibilities for a regional cooperation and technical assistance program to solve common problems; and
- (c) Develop a short- and long-term action plan for countries in the region that will permit the improvement of the environmental and social regulations applied to the oil and gas operations in the Sub-Andean Basin.

1.6 The project was not intended to prescribe measures that must be taken by all countries in the region. Rather, it (a) outlines the variety of issues and concerns relating to the effects of petroleum activities on the environment and on indigenous peoples and others in the context of the Sub-Andean Basin and (b) suggests options for developing a common guiding set of principles.

Table 1.1 List of National Coordinators

<i>Country</i>	<i>National Coordinator</i>
Argentina	Mr. Julio Castells
Bolivia	Ms. Mónica Castro
Brazil	Mr. Fabio Celso de Macedo Soares Guimaraes
Chile	Mr. José Antonio Ruiz
Colombia	Mrs. Gloria Lucía Alvarez Mr. Miguel Angel Santiago
Ecuador	Mr. Fausto Corral
Guyana	Mr. Joseph O'Lall
Paraguay	Mr. Nelson Fleitas
Peru	Mr. Pedro Touzett
Suriname	Mr. Jainoel H. Abdul
Venezuela	Mr. Simón Antunez

1.8 This project was completed by a team of Canadian consultants from Alconsult International, Ltd., and E2 Environmental Alliance, Inc., both of Calgary, Alberta. Team members are listed in Table 1.2.

Table 1.2 Consultant Team members

<i>Team Member</i>	<i>Position</i>
Leo W. Bouckhout	Project Director
Dr. José Zárate	Indigenous Peoples Specialist
Josephine M. Harris	Socioeconomic Specialist
Rob J. Stuart	Socioeconomic Specialist
Horacio Calzada	Environmental Specialist

Methodology

1.9 The geographical area covered by the Sub-Andean Basin Project includes all or parts of Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname and Venezuela. To ensure that the final document was representative, the following methodology was followed.

1.10 Each participating country selected a national coordinator (NC) to act as the focal point for the project. Once the NCs were selected, an inception workshop was held in Quito, Ecuador, on July 16 and 17, 1998. At this workshop, each of the NCs presented an overview of the current regulatory framework in his or her country. This began the sharing and exchange of information that continued through the project.

1.11 Following the inception workshop, the consultant developed a questionnaire to fill in the data gaps following the NCs' presentations. A questionnaire was sent to each of the NCs. They collected the requested information and, from this data, a comparative matrix and report were completed.

1.12 A second workshop was held in Quito, Ecuador, on November 9 and 10, 1998. At this workshop the NCs discussed the analysis and conclusions contained in the matrix and report. Recommendations and comments from the workshop were then incorporated into this final report

1.13 The questionnaire, the matrix, and the final report were all developed following a logical progression of questions. The progression of questions incorporated the following topics:

- (a) *Legal framework*: The main laws or other formal legislation establishing government control over environmental and social issues in petroleum operations.
- (b) *Contractual instruments*: Information on contractual agreements, especially special contractual clauses such as those protecting the environment or indigenous peoples.
- (c) *Government institutional structures*: The framework of ministries, agencies, departments, and commissions responsible for implementing the legal instruments for government control over environmental and social issues in petroleum operations.
- (d) *Regulatory procedures and enforcement*: Information on tools used by the various government groups to implement the laws and fulfill their mandates.

1.14 Appendix A included a comparative matrix that incorporates the main topics addressed in the questionnaire followed by all the information sent to the consultants by the national coordinators. Appendix B refers to existing Models for Environmental and Social Impact Mitigation. The countries selected to illustrate these models are Russia, Canada and Australia.

2

Existing Models for Environmental and Social Impact Mitigation

2.1 A review of existing models for environmental and social impact mitigation reveals a fundamental link between constitutional rights, status of land ownership, and the extent to which legislation, regulations, policies, and guidelines are developed, invoked, monitored, and enforced. The degree to which hydrocarbon development accommodates indigenous interests varies widely; it is strongest in jurisdictions that allow for the indigenous ownership of land and legislated rights, and weakest where no such provisions are in effect.

2.2 To illustrate the differing accommodation of indigenous interests in hydrocarbon developments around the world, this chapter provides examples of (a) negative impacts in Latin America as a result of a previous lack of legislation and regulation and (b) outlines of Russian, Canadian, and Australian constitutional, legislative, and regulatory regimes². While the situation in Latin America has unique characteristics, there are some issues that are similar to problems in Russia, Canada and Australia. Land titles, land claims, consultation and compensation for affected communities are examples of problems that are currently important issues in Canada and Australia, and these issues are becoming important issues in Latin America. The lessons learned outside the Sub-Andean Region are discussed so that they can be used to address some of the problems within the region.

Latin America

2.3 In recent decades the rapid development of hydrocarbons has resulted in allegations of severe environmental degradation and cultural and health impacts on local indigenous people. It is difficult to document the extent of the negative impacts because much coverage by the media has been sensational in nature, and it is difficult to obtain

² A more detailed description of the latter can be found in Appendix B.

non-partisan material. Tables 2.1, 2.2, and 2.3 list some of the developments that have received media attention.

Table 2.1 Ecuador: Impact of Oil Operations

<i>Company</i>	<i>Region</i>	<i>Indigenous People</i>	<i>Cited Impacts</i>
Occidental	Amazon Block Limoncocha Ecological Reserve	Quichua, Secoya, Siona	Fragility of region, deforestation, toxic contamination
Texaco	Oriente	Huaorani, Quichua, Cofan, Shuar, Ashuar	Influx of immigrant workers, impacts on endangered species, contamination of rivers
Maxus	Yasun National Park	Huaorani	Oil spills, deforestation, contamination of waterways, disease, influx of immigrant workers

Table 2.2 Peru: Impact of Oil Operations

<i>Company</i>	<i>Region</i>	<i>Indigenous People</i>	<i>Cited Impacts</i>
Occidental	Block 1-AB, Peruvian Amazon	Quechua, Achual	Pollution of Corrientes and Tigre Rivers, influx of migrant workers, deforestation
ARCO	Block 64	Achual	Fragility of the region and possibility of socio-cultural dysfunctions
Shell	Block 75	Machiguenga	Mid-1980s exploitation campaign, poor communication with local communities, small epidemics and other social and health problems

Table 2.3 Colombia: Impact of Oil Operations

<i>Company</i>	<i>Region</i>	<i>Indigenous People</i>	<i>Cited Impacts</i>
Occidental	Samore	U'Wa	No drilling has taken place because of traditional cultural and environmental resistance by the U'Wa to oil development
British Petroleum	Casanare		Damage to a protected forest zone in La Tablona, contamination of a river

2.4 Current legislative and regulatory frameworks in the Latin American countries are documented in Chapter 3. It should be noted that the examples of negative social and environmental impacts in Ecuador, Peru and Colombia took place prior to improved legislation.

2.5 Disregarding the legislative vacuum, some of the Latin American examples could be attributed to companies' failures to adhere to their own stated environmental, social, and health management plans.

Russia (Former Soviet Union)

2.6 Over recent decades, oil and gas development has greatly expanded in Northwest Siberia. A rapidly developing area within the region is the Yamal Peninsula. The indigenous people of the Yamal are Nenets and Khanty, Arctic nomadic reindeer pastoralists with a traditional subsistence economy.

2.7 In the 1980s, several major gas fields were discovered on the Yamal Peninsula, attracting a sufficient number of non-native workers to render the indigenous people a minority. Because of oil and gas development, lands available for reindeer herding have been considerably reduced, and other lands have experienced environmental degradation. Cited problems of demography and health among the Nenets and Khanty include high infant mortality; high consumption of alcohol and alcohol substitutes; a high death rate by accidents, poisoning, and traumas; and a high birth rate juxtaposed with a shrinking basis for traditional economic pursuits and occupations.

- 2.8 These impacts have been attributed to the lack of requirements to
- Adopt modern methods of preserving the environment,
 - Compensate for land utilized by oil and gas development, and
 - Take into account ethno-cultural and demographic issues with respect to (a) minority peoples in the assessment of major projects and (b) the need to produce assigned quotas.
- 2.9 Negative non-mainstream and mainstream media attention has been focussed on the status of the reindeer and reindeer breeders in the Yamal. Although two foreign companies have received permission to operate in the region, these companies are awaiting the adoption of improved Russian oil and gas regulation.

Canada

2.10 In 1982, the Canadian Constitution was amended to include a specific provision recognizing and protecting Aboriginal and treaty rights. Laws or activities that infringe on Aboriginal rights may be found to be unconstitutional unless it can be shown by tests identified in case law that there is a compelling and substantive basis for the activity and that everything possible has been done to mitigate potential impacts.

British Columbia

2.11 In British Columbia, the majority of communities with substantial North American Indian populations are located in the north of the province. In these communities there tends to be a mix of modern and traditional occupations, with many indigenous people still obtaining about 50 percent of their food and other resources from traditional use of the land. In very remote communities, this figure may be higher. All commercial oil and gas production in British Columbia takes place in the northeast of the province.

2.12 In British Columbia, oil and gas royalties from native reserve lands are administered and collected by the provincial government and shared equally with First Nations. All proposals for major hydrocarbon developments are subject to the *Environmental Assessment Act*, which enables First Nations to participate substantially in the review process. In recognition of the specific nature of the oil and gas industry, in 1988, the *Oil and Gas Commission Act* was tabled in the legislature. The Act creates the British Columbia Oil and Gas Commission to regulate oil and gas activities and pipelines in British Columbia, and has specific provisions for First Nations:

- The procedure provides for the development of comprehensive memoranda of understanding (MOU) between the government and First Nations located in northeastern British Columbia.
- These MOU's will (a) provide for consultation between government and First Nations respecting oil and gas activities in the northeast; (b) support First Nations' development of the capacity to participate in the review and approval of oil and gas projects; and (c) provide a mechanism for promoting First Nations community development.
- Funding for implementing these MOU's will be provided by industry. The Commission will be responsible for carrying out consultations and facilitating First Nations' capacity building and for managing related financial assistance to First Nations.

2.13 Issues for resolution by the Oil and Gas Commission include (a) revenues from lands outside reserves claimed as traditional territories by First Nations in the land claim settlement process, and (b) mitigation for potential infringements of Aboriginal rights.

The Yukon and Northwest Territories

2.14 The management of Canada's oil and gas resources north of 60° latitude in the Northwest Territories and Yukon is a federal responsibility carried out by the Northern Oil and Gas Directorate of the Department of Indian Affairs and Northern Development.

2.15 In 1999, the Northwest Territories will divide into two territories. The eastern territory will be called Nunavut, whose population is 85 percent Inuit. Twenty-three percent of the Yukon population is now of Aboriginal descent.

2.16 Prior to designating lands for oil and gas exploration, consultations are held with First Nations to identify areas of environmental sensitivity, including those holding special interest for cultural or spiritual reasons to First Nations. Some of these areas are then either excluded from the lands available for nomination or are flagged as being subject to certain terms and conditions at the activity permitting stage. Environmental considerations also play an important role in regard to the issuance of land use permits, water licenses, and all work authorizations.

2.17 In 1999 the new Nunavut Territory will be self-governed by the Inuit. The Federal and Yukon governments have also signed a Canada-Yukon Oil and Gas Accord, which provides for the transfer to Yukon of the responsibilities for the administration and regulation of onshore oil and natural gas exploration and development in the Yukon.

Australia

2.18 In the Australian federal system both the national government (“the Commonwealth”) and the state and territory governments have roles affecting petroleum exploration and development. The Commonwealth is responsible for broad economic policy and international matters. The states and territories own and allocate petroleum rights, administer petroleum operations (including occupational health and safety), and collect royalties on petroleum produced.

2.18 New or significantly expanded onshore petroleum projects in Australia must undergo some degree of formal environmental impact assessment (EIA) under the 1974 *Environment Protection (Impact of Proposals) Act*. Additionally, the 1993 *Native Title Act* (NTA) established a Native Title Tribunal to assist with negotiations between indigenous people and developers. Indigenous people may receive rights to negotiate with private companies seeking to develop land under claim.

2.19 The NTA recognizes Native title rights and sets down some basic principles in relation to Native title in Australia. It also provides a process by which native title rights can be established, compensation determined, and determinations made as to whether future grants may be approved or acts done over native title land and waters. The NTA validates Commonwealth acts and enables the validation of State and Territory acts, which may have been invalid due to the existence of native title. All states and territories have passed validating legislation. The government will pay any required compensation to Native title interests.

2.20 Broadly, the NTA

- Provides for procedures, which may involve negotiations with registered native titleholders or registered Native title claimants before grants or Crown actions may be made.
- May require applicants for onshore petroleum titles to undertake formal negotiations with registered Native title holders or registered Native title claimants who have registered a claim over the area prior to the grant of the titles. If agreement cannot be reached in a prescribed period, either party may apply to an arbitration body for a determination in relation to the Act.
- The arbitration body must take all reasonable steps to make a determination in relation to the Act within a further four months in the case of exploration titles and a further six months in other cases. Existing state or territory regimes will decide on the level of compensation in the case of impairment of Native title rights.

3

Summary and Analysis of Control Mechanisms Used in the Region

3.1 The Sub-Andean Basin has a wide variety of political and legal systems. This diversity will need to be addressed in formulating the set of principles to guide countries as they establish mechanisms controlling the impact of hydrocarbon activities on the environment and on indigenous communities.

3.2 By working together to create a set of these guiding principles, the region's nations can move towards a harmonized regulatory system. The principles could work both in countries with strong federal systems and in countries with more decentralized or regionally based governments. The variations among legal systems in the region is also a challenge countries must address before common regional standards can be established. Finally, the harmonization process must ultimately respect the autonomy of each country.

3.3 The analysis in this chapter is based on the information collected from the national coordinators in each country. This information is presented in tabular form in Appendix A.

Legal Framework

3.4 All the countries in the Sub-Andean Region have either (a) a hydrocarbon law with direct environmental references and regulations or (b) an environmental law containing direct references to the hydrocarbon industry. Some countries have both, with one law subordinate to the other. There are unique environmental issues associated with hydrocarbon activities, and countries in the region should consider these issues as they develop a legal framework to deal with hydrocarbon activities.

3.5 Almost all of the countries in the region indicated that they have a specific law regarding indigenous peoples. These laws usually highlight the unique relationship between government and indigenous peoples and the responsibility the state has to protect indigenous interests. Laws in Ecuador and Colombia make explicit reference to the

relationship between hydrocarbon activities and indigenous peoples, while laws in other countries make a more general reference to the petroleum industry. Peru and Bolivia are currently developing regulatory systems that will clearly define the relationship between indigenous peoples and the hydrocarbon sector. Colombia has already issued a regulation defining the consultation process.

Hydrocarbon Laws and Regulations

3.6 All of the countries have created a law that controls hydrocarbon activities, and most of these laws refer to protecting the environment while conducting hydrocarbon operations. The references to environmental protection vary from country to country: whereas some laws specify standards relating to hydrocarbon operations and EIAs, others have only general statements about conducting hydrocarbon operations without harming the environment.

3.7 In their hydrocarbon laws, Argentina, Bolivia, Brazil, Colombia, Guyana, Peru, and Suriname refer to socioeconomic impacts from petroleum operations. This reference typically covers issues such as land ownership, compensation, and employment benefits. The references to socioeconomics are usually included as one of the aspects that must be analyzed during the EIA.

3.8 Hydrocarbon legislation in Bolivia, Brazil, Colombia, Ecuador, Guyana, and Peru refer to the rights of indigenous peoples. The references usually require that consultation be undertaken for projects on or near traditional lands. Argentina, Chile, Paraguay, and Suriname make no specific reference to indigenous peoples in their hydrocarbon laws.

3.9 Diverse legislative systems are found in the different countries. Some countries have both a law and regulations that support that law. Many of the countries in the region have a law and, within that law, chapters or titles specifying environmental or socioeconomic requirements; other countries support their law by issuing executive decrees. In the study region, the documents that support the main laws tend to focus on the environmental and socioeconomic aspects of hydrocarbon activities. They provide guidelines for the petroleum industry by defining which agencies are responsible for certain activities and what is expected of the oil and gas companies. Regulations in Bolivia, Brazil, and Colombia refer specifically to indigenous peoples. Reference to indigenous peoples within both the laws and regulations is useful because it helps industry and government understand and interpret their responsibilities to, and relationship with, indigenous communities.

3.10 As discussed below, the majority of the countries in the region have not only hydrocarbon laws, but also environmental laws and indigenous-peoples laws.

Bolivia, Brazil, Ecuador, Guyana, and Suriname refer to other applicable legislation (i.e., environmental and indigenous-peoples) within their hydrocarbon laws. In countries possessing independent laws for each of these topics, it is important that some cross-referencing of the various laws be done.

Summary

3.11 Although sufficient laws and regulations are in place in the region to guide hydrocarbon operations, this legislation usually has a number of different sources. Often, there is a reference to hydrocarbon operations in the national constitution, another reference in a natural resources law, and further references in regulations associated with environmental or indigenous-peoples laws. Countries should consider developing a guide that describes the applicable regulatory requirements. This guide would be a valuable tool for hydrocarbon companies operating in the country. Collecting this information in one source would also highlight any conflicting legislation in the various countries.

Environmental Laws and Regulations

3.12 Each of the countries in the region has a specific environmental law. The law in half of these countries is a general law for protection of the environment, but Bolivia, Chile, Colombia, Paraguay, Peru, and Venezuela indicated that they have a section of environmental legislation that deals specifically with hydrocarbon activities.

3.13 Bolivia, Chile, Colombia, Ecuador, Peru, and Suriname refer to indigenous peoples within their environmental laws. This reference usually relates to involvement of indigenous groups in decisions that affect their lands or cultures or the compensation they receive when affected. In addition to these countries, Brazil and Paraguay make indirect reference to indigenous peoples, such as reference to public consultation with “local communities” in the project area. In total, eight countries refer to indigenous peoples or local communities in their environmental legislation.

3.14 Many countries have instituted supporting documents, such as regulations. The regulations typically describe the requirements for EIAs or the requirements that must be met before licenses are issued. Bolivia, Ecuador, Peru, and Venezuela have specific air, water, and/or soil-quality standards for petroleum operations. Bolivia, Brazil, Colombia, Ecuador, and Peru have created specific regulations for the petroleum industry in their body of environmental legislation. Typically, specific regulations for the hydrocarbon sector are associated with hydrocarbon legislation.

Summary

3.15 Within the existing systems in the region, countries might want to develop a regulatory system that addresses the specific environmental issues associated with hydrocarbon activities. Although general laws covering all natural resource industries are a necessary first step, specific guidance on activities unique to the hydrocarbon sector would also be useful. Specific legislation that has been developed in countries such as Bolivia, Peru, and Colombia could be used as a model for other countries in the region.

Laws and Regulations Addressing Indigenous Peoples

3.16 Regional laws addressing indigenous peoples usually identify a government agency that is responsible for the affairs of indigenous communities. These “indigenous-peoples laws” cover the rights of the indigenous peoples, their ownership of traditional lands, and their rights to be involved in the decisions that will affect their cultures and ways of life. If a project is going to affect local and indigenous communities, then issues such as the process of public consultation and the involvement of potentially affected groups should be addressed. For example, Bolivia, Chile, Colombia, Ecuador, and Peru have clearly defined processes for public consultation that must take place before any development is undertaken on indigenous lands.

3.17 Bolivia, Colombia, and Peru indicated that they have specific standards within indigenous law for petroleum operations when those operations are conducted on or near indigenous lands. Colombia has also identified Black Peoples as distinct peoples, and they have developed specific legislation pertaining to this group. The development of supporting documents or regulations can provide guidance to both the petroleum industry and indigenous communities. Argentina, Bolivia, Chile, Colombia, Ecuador, Paraguay, and Peru have adopted International Labor Organization (ILO) Convention 169, although in some of these countries it is still being implemented. The ILO convention is a far-reaching document that covers a variety of topics related to indigenous communities, including the interaction of resource development industries with indigenous peoples.

Summary

3.18 The regulatory system should recognize the importance of traditional lands to the well being of indigenous peoples and their culture. Land claims in areas where natural resources are being developed should be addressed before exploration operations begin.

3.19 Closely related to legislation referring to indigenous peoples is legislation mitigating the negative socioeconomic impacts on local communities. Most countries in the Sub-Andean Basin may want to consider expanding this body of legislation. Legislation in countries like Argentina, Colombia, Guyana, and Peru contains some reference to socioeconomic impacts. However, no country has national legislation specifically addressing the broad array of issues such as the employment benefits, training

opportunities, and social benefits. Legislation should provide a comprehensive description of what is expected from the hydrocarbon industry and local communities.

3.20 As hydrocarbon resources are developed, specific legislation is needed to help minimize negative impacts on indigenous peoples and their cultures. Because indigenous peoples are considered a unique group in most countries, specific legislation should be created to protect their interests. The legislation should define the relationship between indigenous peoples and the petroleum sector. This legal framework would help avoid some of the conflicts that have arisen in the region when government and industry have tried to develop hydrocarbon resources on indigenous lands. Issues such as consultation, compensation, and land titles are some of the problem areas. As mentioned previously, more emphasis should be placed on the introduction and implementation of ILO 169 because it would help to define clearly the process of consultation and the recognition of indigenous peoples' rights.

Contractual Instruments

3.21 The dynamic nature of contractual agreements allows countries to adjust various requirements for project specific circumstances. This flexibility ensures that these contracts are effective legal documents. Contractual agreements with private sector petroleum companies are common for countries in the region. Private sector hydrocarbon companies have explored for or produced oil and gas in all countries except Brazil and Paraguay. Paraguay is willing to enter such an agreement, but has not yet received enough interest in its oil and gas potential; Brazil is likely to put some hydrocarbon opportunities out to competitive bids in the near future. It is quite possible that within the next few years all countries will have contractual agreements with private sector petroleum companies to explore and exploit hydrocarbon resources.

3.22 These contracts typically refer to environmental requirements that the operations must meet, and some also refer to socioeconomic and indigenous-peoples issues that must be addressed by the private operator. Only Argentina, Guyana, and Peru include restrictions in their contracts that go beyond what the general legislation requires. Their additional requirements address site-specific subjects, on a project-by-project basis. The respondents indicated that reference to existing socioeconomic and indigenous-peoples legislation would be useful information to include in the contracts. It is important that companies realize there are existing laws and regulations to which they must adhere in addition to the specific requirements of the contract.

3.23 When contracts are developed for private sector investments, Argentina, Colombia, Ecuador, Guyana, Paraguay, and Suriname indicated that they solicit feedback from indigenous representatives or hold public consultation sessions in order to include their perspective in the development of the contract terms. In the majority of countries, one specific government agency is responsible for negotiating and monitoring the contracts. Colombia and Ecuador have two agencies that share this responsibility.

Summary

3.24 Contractual agreements are dynamic instruments, which change over time and are usually adjusted for each specific hydrocarbon developments. Contracts should not supersede existing laws and regulations, but should enhance environmental, socioeconomic, and indigenous-peoples protection in sensitive areas.

Government Institutional Structures

3.25 All countries in the study region have a government agency responsible for hydrocarbon activities and a government agency responsible for environmental protection. All but two of the countries also have a government agency that is responsible for matters concerning indigenous peoples. Governments in the region have recognized that there are unique environmental issues associated with hydrocarbon activities and have created an administrative structure to handle these unique issues.

Hydrocarbon Agencies

3.26 All countries have an organization responsible for controlling and monitoring the hydrocarbon industry. The specific role and function varies among the region's different political structures. Some countries have a hydrocarbon ministry, while others have a national petroleum commission or agency (wherein a number of government bodies work together), or even a department within the national oil company. In most cases, the mandate of these bodies is to encourage the development of hydrocarbon resources, develop associated legislation, and protect the environment during these hydrocarbon activities.

3.27 Argentina, Bolivia, Brazil, Ecuador, Guyana, Paraguay, and Peru have all created a group within their respective hydrocarbon agencies that is solely responsible, or has co-responsibility (usually with the government's environment organization), for environmental protection relating to hydrocarbon operations. Bolivia and Paraguay have a specific group within their hydrocarbon agencies that is responsible for indigenous people. The remaining countries shift the responsibility for working with indigenous communities to a government body outside the hydrocarbon agency.

3.28 It is important that groups working with the hydrocarbon sector on behalf of indigenous communities have a solid understanding of petroleum operations and their impact on local and indigenous communities. Countries such as Argentina, Bolivia, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, and Venezuela have regional government agencies that share responsibility for governing specific aspects of hydrocarbon agencies. They can provide the national hydrocarbon agency with a regional perspective on important issues.

3.29 In countries with national petroleum commissions or agencies, there is usually no sub-group responsible for environmental protection in hydrocarbon activities. This responsibility remains with the agency or commission itself. The agency or commission will often have representatives from environmental ministries as members.

3.30 It is important to note that the hydrocarbon potential varies from country to country in the Sub-Andean Basin. Countries lacking large sedimentary basins may implement changes to their institutional structure in a fashion different from countries with large petroleum reserves. Some countries indicated that, because their hydrocarbon reserves are located in areas where few indigenous groups or local communities exist, they may develop their institutional framework to meet their unique circumstances.

Environmental Agencies

3.31 Every country has a government body responsible for environmental protection, and generally its mandate is to control, monitor, and enforce the environmental laws and regulations in the country. Its jurisdiction is typically very broad, and the hydrocarbon industry is just one of its responsibilities.

3.32 The majority of these environmental agencies either have sole responsibility for controlling the petroleum industry's impact on the environment, or share this responsibility with the energy or hydrocarbon ministry. Again, some countries have a national commission or agency for environmental protection. For hydrocarbon projects, these commissions will set up subcommittees to control and monitor the environmental impact of petroleum operations.

Indigenous-Peoples Agencies

3.33 The status of agencies devoted to indigenous issues varies from country to country, as do their institutional capacities for taking action. In countries such as Bolivia and Ecuador, these agencies have the rank of ministry or vice ministry. In countries like Colombia, Peru, and Venezuela, these agencies are directorates or institutions with a lower rank. The status of each agency affects its ability to implement programs and activities. The more authority the agency has, the better able it is to work effectively.

3.34 All the countries have a specific government agency responsible for protecting the interests of indigenous peoples. The status of these agencies varies as described above, but their role in relation to hydrocarbon development typically includes representation of indigenous interests in the development of natural resources on indigenous lands. The agency's goal is typically to promote indigenous culture while enhancing the economic development of traditional peoples and the country in general.

3.35 Apart from government agencies responsible for indigenous peoples, there are NGOs and indigenous groups that usually have a mandate to represent the collective interests of their members at the national level.

3.36 Bolivia, Colombia, Ecuador, Paraguay, Peru, and Suriname utilize a combination of representatives from government, NGOs, and indigenous communities working together within the official government structure. In Bolivia and Colombia these indigenous agencies have specific regulations for hydrocarbon sector activities, whereas in other countries these agencies handle all projects that may affect the lands and cultures of indigenous populations, without any specific reference to petroleum activities.

3.37 Argentina, Bolivia, Chile, Colombia, Ecuador, Guyana, Peru, and Venezuela indicated that they have regional or provincial governments with departments dedicated to energy, the environment, or indigenous peoples. The regional governments have some control over the exploitation of natural resources in their jurisdiction. In addition, some municipalities are large enough that they have responsibilities similar to provincial governments. There are also a large number of regional environmental and indigenous-peoples groups that represent local communities or indigenous groups.

Human Resource Requirements

3.38 Bolivia, Chile, Ecuador, Guyana, Paraguay, Peru, and Suriname expressed concern that the amount of work that the national and regional departments will have to complete is likely to increase in the near future. Bolivia, Ecuador, Guyana, Paraguay, and Peru also indicated that the current number of personnel and their training was not adequate to meet the current demands. These respondents anticipate that, when the workload increases in the future, there will be increased pressure on these people to perform all of their duties. Countries such as Bolivia, Ecuador, Guyana, Paraguay, and Suriname indicated that increasing the number of personnel and providing more training to them would help alleviate the pressure. Alternative solutions should include (a) streamlining the administrative processes for hydrocarbon projects and (b) using current resources more efficiently.

Communication

3.39 As described previously, in a number of countries more than one agency is involved with environmental, socioeconomic, and indigenous-peoples protection in the hydrocarbon sector. For example, in Colombia the Ministry of Energy and Mines is responsible for hydrocarbon activities, the Ministry of Environment is responsible for environment, and the Ministry of the Interior is responsible for indigenous peoples. This structure is not uncommon in the study region and highlights the importance of good communication and sharing of information from agency to agency. Bolivia has established a national environmental data center that is a repository for information on

hydrocarbon activities. Bolivia is still working on a standard format for all information so that it will be more user friendly. In other countries this information management is handled by the department directly responsible for environmental protection in hydrocarbon activities. Other countries establish inter-sectoral working groups that evaluate and monitor specific projects, and it is during the meetings of these groups that information is exchanged.

Other Challenges

3.40 When asked to identify specific difficulties encountered in the past, the respondents mentioned conflicts with indigenous peoples or problems with the public consultation process. Some of the other difficulties that the national coordinators identified were the following:

- Unclear definitions of the role of the various departments, and therefore a duplication of effort;
- Complicated fines systems and insignificant fine levels; and
- Deforestation of primary forests as a result of access roads for petroleum operations.

3.41 Argentina, Bolivia, Brazil, and Venezuela each have an NGO that represents to the national government the interests and concerns of oil companies working in the country. Bolivia, Chile, Colombia, Ecuador, Paraguay, and Peru have NGOs that represent indigenous peoples in their countries. The majority of countries appear to try to consult with these NGOs on hydrocarbon issues.

Regulatory Procedures and Enforcement

3.42 When a new hydrocarbon project is undertaken, all countries require the oil and gas companies to acquire a license or approval (such as an exploration permit or a drilling and production license) before beginning operations. In most countries the license or permit requires that an environmental study or assessment be conducted. This study is called a variety of names including *environmental impact assessment* (EIA), *environmental impact report*, and *environmental management study* (ES). The basic requirements for these studies also vary from country to country, but there are a few general standard requirements:

- Analysis of the potential environmental impacts,
- Analysis of the potential socioeconomic impacts,
- Analysis of the potential impact on indigenous peoples, and
- Development of an environmental management plan to mitigate the negative effects of the above.

3.43 In many cases there is an initial requirement for a preliminary assessment; then, based on the findings from that study, a more complete EIA may be required.

Countries often provide the companies with terms of reference (TOR) for the EIA. The EIA will typically include an environmental management plan outlining measures to mitigate the negative impacts. The licenses and permits that the company needs to begin operations are usually issued based on the findings in the EIA.

3.44 Once the project is underway, countries such as Argentina, Bolivia, Brazil, Colombia, Ecuador, Paraguay, Peru, Suriname, and Venezuela conduct field visits to ensure that the petroleum company operates within the legislative requirements. A lack of government capacity to carry out such enforcement has led to conflicts between companies and indigenous peoples in the region. Following the completion of the hydrocarbon operations, most of the countries specify that a remediation program must be undertaken. Countries like Ecuador and Guyana indicated that their laws require that the site be “returned to its original condition.”

3.45 The approval process in Bolivia, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, and Venezuela includes a requirement for public consultation. In the remaining countries, although public consultation is not required explicitly, the completion of the EIA necessitates that one be carried out and its input be included in the evaluation of the project. The procedure for this process varies from country to country.

3.46 During the operation of a project, all countries have at least one government agency, and sometimes two, that is responsible for monitoring the hydrocarbon operations and making sure that the company is complying with the laws and regulations. The monitoring usually involves field visits and audits. The field visits are periodic and are typically conducted by government personnel rather than outside consultants.

3.47 In Bolivia, Brazil, Chile, Colombia, and Peru, more than one government agency administers the approval process. With more than one agency involved in the process, duplication of effort or delays in approvals can result unless there is excellent communication and coordination.

3.48 Argentina, Bolivia, Colombia Ecuador, Paraguay, and Peru indicated that citizens have raised concerns about petroleum operations in the past. The concerns typically involved indigenous peoples or local communities talking about the impact of petroleum operations, and that they were not properly informed about the potential impacts during the evaluation process. In a few cases the resolution sought by these groups included compensation for the damages.

3.49 If companies are not operating within the required parameters, then all of the countries have mechanisms to impose a fine on the company or cancel their license or permit, thereby forcing the company to stop operating.

Summary

3.50 The goal of an effective environmental regulatory system is to ensure a sufficient level of environmental, socioeconomic, and indigenous-peoples protection while providing fair and consistent direction to companies engaged in resource development. The EIA process in the majority of countries provides fair and consistent direction to the hydrocarbon companies. The EIA process should include the consultation of projects with the indigenous peoples and local communities. However, a lack of properly trained personnel is creating a problem in a number of countries as the limited number of government staff do not have sufficient time to completely review all of the EIA's that they receive. The limited number of personnel also creates problems with follow-up monitoring. Because most countries only conduct limited field visits, they are unable to ensure that petroleum operations are meeting their compliance criteria.

3.51 Problems can also arise when several agencies are involved in the consultation process and, later, in the review and monitoring stages. Countries should try to develop a system that clearly defines which government agencies are responsible for facilitating consultations and for reviewing EIA's and monitoring compliance of hydrocarbon operations with all commitments and requirements.

3.52 Regarding the primary shortcomings of the current procedures, the country responses included:

- Lack of effective regulations and guidelines for these procedures,
- Insufficient funding of departments implementing regulations,
- Lack of properly trained staff, and
- Not enough staff.

3.53 The suggestions for solving these problems involved increased funding and providing training opportunities for the personnel. Alternatives should also be considered, such as streamlining the administrative processes for hydrocarbon projects, or more efficiently using the current resources.

4

Control Options and Suggestions for Regional Cooperation

4.1 Analysis of the information collected from the countries in the study region suggests the series of recommendations set forth in this chapter. The recommendations focus on practical options that any country in the region may choose to adopt. Each country should decide, on an individual basis, which of the options are most appropriate. It is not intended that all countries adopt all of the suggestions, and many of the recommendations may already be in place in some countries.

4.2 The boundaries surrounding natural resources and indigenous groups in the Sub-Andean Basin do not always coincide with the political boundaries. In a number of cases, two or more countries have explored and developed hydrocarbon resources in common frontier areas that extend over political boundaries. There are also cases where indigenous groups use or claim lands that extend across country borders. In these situations it is advantageous to establish standards for environmental, socioeconomic, and indigenous-peoples protection that are compatible in both countries.

4.3 As countries consider modifications to their regulatory and institutional frameworks relating to control of environmental and socioeconomic impacts from hydrocarbon development, they should examine methods of improving internal channels of communication. Greater efficiency of communication among government agencies is essential for the effective implementation laws and regulations in the natural resource sector.

4.4 Each country should also review the legislation and procedures that have been implemented in other countries in the region. There are definite benefits to a coherent set of regional measures to control the impact of hydrocarbon activities on the environment, the local economy and social structure, and the cultures and ways of life of indigenous peoples. A guiding set of principles must be assembled on a voluntary basis, and it is hoped that the dialogue begun during this project can be the initial step towards developing a regional consensus.

Country-Specific Considerations

The country-specific considerations will be subdivided into the following areas:

- Legal framework
- Contractual instruments
- Government institutional structure
- Regulatory procedures and enforcement.

Legal Framework

4.5 Most countries in the Sub-Andean Basin have a solid legal framework with which to control the impact hydrocarbon activities have on the environment and on the local economic and social structures. All of the countries in the region have created a hydrocarbon law and an environmental law; however, these laws are often not cross-referenced. Some countries have addressed the unique aspects of petroleum operations in their hydrocarbon law, while others have incorporated it into the environmental law. A few countries have created separate regulations specifically addressing the impact of hydrocarbon activities on the environment.

4.6 The advantage of having a legal framework that specifically addresses the environmental, socioeconomic, and indigenous-communities impacts from hydrocarbon activities is that it creates a clear set of rules and expectations for all parties involved in petroleum development (i.e., government, industry, and local communities). Although almost all countries also recognize the special responsibility of the state to its indigenous peoples, the minority of countries has yet to create a legislated link to hydrocarbon development. This cannot, however, be attributed to a lack of willingness on behalf of these states, but more to the facts that

- (a) Extensive exploitation of hydrocarbons has only taken place in recent decades;
- (b) Indigenous peoples' awareness and capacity to respond to impacts resulting from hydrocarbon developments has also only recently evolved; and
- (c) States' capacities to deal with impacts on indigenous groups have yet to fully evolve.

4.7 Recommendations for the legal framework are as follows:

- (a) Energy/hydrocarbon laws should make specific reference to the principle of minimizing impacts on the environment and on local peoples. Direct reference should be made to environment and indigenous laws as appropriate and to their full application in hydrocarbon activities.
- (b) Regulations and guidelines should be prepared, perhaps under the hydrocarbon law, to provide guidance on the application of national

environmental, socioeconomic, and indigenous-peoples requirements to the hydrocarbon sector. It is preferable that the development of these regulations and guidelines be created in consultation with affected stakeholders.

- (c) Regulations and guidelines should define the relationship between indigenous peoples and the hydrocarbon industry within the legal framework of the country.
- (d) Regulations and guidelines should require that a public consultation process be conducted that involves government, industry and indigenous peoples. All of the stakeholders should also receive adequate training so that they can effectively participate.
- (e) Regional governments should directly receive some of the benefits from resource extraction, as they are the ones who must provide support to the local communities and indigenous peoples effected by the petroleum activities.

Contractual Instruments

4.8 When rights to explore for and produce oil and natural gas are extended to a petroleum company, a contract or similar agreement is made between the company and the government to deal with topics such as financial terms and work commitments. The contract may also include topics like environmental protection and references to socioeconomic and indigenous-peoples issues that must be addressed by the company.

4.9 The analysis of the regional questionnaire responses indicates that most of the countries have entered into contracts with private sector companies for petroleum exploration or exploitation. These contracts have typically included references to environmental, socioeconomic, and, in some cases, indigenous-peoples issues. The responses indicate that most countries recognize that the contracts should refer to applicable legislation and regulations. Such references would assist the oil and gas companies in planning and directing their mitigation efforts.

4.10 Recommendations for contractual instruments are as follows:

- (a) Include references to applicable legislation in contracts for hydrocarbon activities. This includes references to hydrocarbon and environmental legislation and regulations. Specific reference to indigenous-peoples legislation, and its requirement for consultation with these indigenous groups, should also be included in all contracts. Of course, the project proponents must be held responsible for informing themselves of all applicable requirements.

- (b) Contractual agreements should identify any special circumstances or conditions that exist within the area subject to the contract. For example, a contract may identify the existence of un-contacted indigenous peoples and their approximate location and may require that the company avoid that portion of the total area.

Government Institutional Structure

4.11 Laws, regulations, and other controls cannot be implemented effectively without an appropriate organizational framework of government agencies possessing the appropriate authority to enforce this legislation. The size and complexity of this framework of ministries, agencies, departments, etc. depends on the size of the country and the political/administrative model that is in place.

4.12 Generally, the government institutions responsible for controlling the hydrocarbon industry and protecting the environment are well defined in countries in the study region. Usually, these are separate agencies or ministries. In a few countries, both duties are conducted by a multi-sectoral agency. Both systems can provide the framework governments need to effectively control hydrocarbon activities, provided that the responsibilities and processes are well integrated. One respondent's concern was the fact that these agencies are often understaffed and poorly funded. Without adequate training and financing to allow these agencies and their personnel to carry out their jobs, countries in the region will not be able to protect their citizens and environment.

4.13 Although most governments have an agency that represents indigenous peoples, that agency has not always been given a clear mandate for protecting this group from the impacts of hydrocarbon operations. The agency will typically be responsible for monitoring a broad array of natural resources from exploration and extraction activities; however, the unique nature of petroleum operations requires specific guidance.

4.14 Recommendations for government institutional structures are as follows:

- (a) Responsibility and authority for environmental protection and for social and indigenous-peoples matters should be clearly assigned to specific government groups. Duplication and overlap should be avoided.
- (b) A regional atlas should be developed that identifies the relevant areas such as indigenous populations, national parks, sensitive environmental areas, and protected areas (e.g., important archaeological or historical sites).
- (c) Within the current institutional structure, governments should streamline the regulatory process petroleum companies face as they try to develop hydrocarbon resources. Simplification could include having one government agency acting as the sole contact for the petroleum companies.

- (d) The capacity of government groups to cope with their increasing workloads is a serious issue throughout the Sub-Andean Basin. Training and other capacity-building programs are needed to ensure that government is sensitive to the unique requirements of indigenous peoples.
- (e) It is also important that industry representatives be properly trained and informed of the unique perspective of indigenous peoples. Countries should also provide financing to indigenous groups so that they can become familiar with the general procedure surrounding oil and gas activities. If indigenous peoples are provided with training and education relating to the proposed activities, they can be active, contributing participants in the consultation process.
- (f) Countries should provide funding and other support so that all stakeholders can participate effectively in the consultation process.

Regulatory Procedures and Enforcement

4.15 All countries use an environmental assessment process of some type to identify and mitigate potential problems before a hydrocarbon project begins. Once the approval has been granted, a permit or declaration is issued and the project can begin. Once the project is underway, monitoring tools including periodic field visits are often used to insure that the project is operating within its given parameters. This phase of the regulatory process is as important as the earlier one in which application documents (such as EIAs) are reviewed and permission to proceed is issued.

4.16 Recommendations for regulatory procedures and enforcement are as follows:

- (a) Clear guidance on regulatory procedures and requirements should be provided to companies in areas such as
 - The legal and regulatory framework,
 - A listing of government contacts for industry, and
 - Procedures for consultation and conflict resolution.
- (b) Regulatory procedures must provide for the timely and reasonable participation of all government groups, private citizens and NGOs that have an interest in a project. Sufficient time must be provided in the process to allow this participation.
- (c) Governments must actively enforce compliance with their regulations and with any other project-specific commitments. This must be done through on-site field inspection by qualified personnel. Companies failing to comply must be penalized in a manner consistent with the seriousness of the infraction.

- (d) Government review and inspection activities should be coordinated through a lead group or agency that acts as the primary contact point with the hydrocarbon company. This will result in a more consistent and efficient regulatory process.

Summary

4.17 When a government shifts economic or social responsibility to companies, it risks undermining its own capacity or willingness to monitor company activities and enforce penalties for environmental infractions. Thus, countries should not focus solely on the introduction of improved environmental legislation and project assessment. Rather, they should insure that (a) legislation and policies reflect the ultimate responsibility of the state for environmental and social protection, and (b) the provision of government measures and resources for monitoring and enforcement is secure and viable.

4.18 In countries lacking a clearly articulated requirement and process for government consultation, social and economic rehabilitation, or compensation, some oil companies have recently attempted to step in and fill the gap. This turn of events, although perceived as beneficial, can blur the distinction between the respective roles and influences of state and industry, and can produce dependence by communities on industry. Additionally, it is frequently unclear as to which group or groups may represent the indigenous people for purposes of consultation, allowing for charges of “dividing and conquering” and to division between indigenous communities.

4.19 Following is an outline of a possible model:

- If a project is within or in the vicinity of an indigenous group’s traditional territory, the potentially affected group would be notified about the project, invited to comment on the project, and invited to join or otherwise interact with a review committee consisting of the appropriate local and state representatives.
- As members or associates of the review committee, indigenous groups would be directly involved in evaluating any potential effects of the project on indigenous peoples. Resources could also be considered to enable the participation of indigenous groups in the review, in accordance with specified criteria.
- The government, or a project closely monitored by the government, should conduct a program of information and consultation with indigenous groups. The program should address archaeological- and traditional-use impact assessment studies, compensation, and mitigation.
- The consultation program with indigenous groups would be monitored and assessed by the review committee, which could direct the proponent to take further measures.

- Where indigenous groups are unwilling or unable to formally participate in the review process, the one government agency responsible for contracting with the private investor (window agency) should attempt to negotiate an alternative form of participation to identify and prevent or mitigate any potential impacts.
- On approval, the development would be monitored by the government, with the potential involvement of the indigenous group, and all conditions of development enforced.

Regional Considerations

4.20 A review of the comparative analytical matrix accompanying this report (see Appendix A) demonstrates that countries in the Sub-Andean Basin employ a wide variety of approaches to environmental and social control. This was expected because the size and stage of development of the hydrocarbon industries and the capacities of the countries themselves varies widely among the eleven participants. This diversity provides an opportunity for the countries with less advanced regulatory systems to profit from the experience of their more advanced neighbors. All participating countries, however, can benefit from a general dialogue about regional concerns and possible responses to them.

4.21 With the support of the World Bank and OLADE, this study has already stimulated a regional dialogue. The recommendations below are intended to build on this foundation and to begin a process of continuous improvement in the regional approach to environmental and social impact control mechanisms for the hydrocarbon industry.

4.22 Because many of the issues faced do not respect national borders, a cooperative approach to certain of these issues should benefit all. For the sake of national autonomy and international economic competition, however, each country clearly must pursue its own unique approach.

4.23 Regional recommendations are as follows:

- (a) The national coordinators of countries in the study region should develop a regional work plan that specifies a number of joint activities to be undertaken. These activities should include periodic meetings of country representatives to share lessons learned while implementing changes to their legal, contractual, institutional, and regulatory instruments. This advisory group would serve as a conduit of information between the countries in the region. The World Bank and OLADE may support such an initiative, and special guests could be invited.
- (b) Additional research should be conducted on establishing and maintaining a regional database on the subject of this study, perhaps in coordination with

with the current OLADE database project. Such a database could be supplemented with other topical information from within and from outside of the region. This information, perhaps stored in electronic format, could be accessible to all members of the group. Details to be determined include the following:

- What kind of data is relevant?
 - Where and by whom will it be collected and stored?
 - How will it be distributed?
 - Who will bear the related costs?
 - Will there be any restrictions on access?
- (c) Both government and industry benefit substantially from guidelines and other documentation describing commonly accepted approaches and options to resolve issues and problems. ARPEL, with assistance from the Canadian International Development Agency and Canadian consultants, has published a comprehensive series of more than 15 environmental operating guidelines for the upstream and downstream parts of the petroleum sector. These are used widely by member companies and by governments and others in Latin America and elsewhere. Using the ARPEL example, it would be useful to have a similar set of guidelines addressing environmental, socioeconomic, and indigenous-peoples issues in the specific context of petroleum operations in the Sub-Andean basin. These guidelines should be developed in consultation with industry, government, and the various organizations of indigenous peoples.
- (d) Subjects to be covered in the set-of-guidelines would include public consultation, local economic benefits, conflict resolution, compensation, responsibilities of government agencies and hydrocarbon companies and socioeconomic impact assessment parameters. Such a series of documents could provide a degree of standardization to resolution of socioeconomic and indigenous-peoples issues in the region, while leaving each country free to pursue its own methods of implementation.
- (e) Aside from laws and regulations, the primary instrument of legal control used by government is the contractual agreement with hydrocarbon companies. Countries compete for foreign investment; however, they face similar challenges in regard to environmental protection and the interests of local peoples. It may be useful for participants to have a set of standard contractual clauses on these issues that could be inserted, at each country's discretion, into contractual agreements. This legal aid could be prepared with input from the national coordinators.
- (f) One of the most significant challenges the national coordinators identified is government agencies and ministries' inability to fulfill their

responsibilities. The greatest challenge is often the lack of sufficiently trained personnel. Personnel with broad disciplinary expertise (e.g., engineers, biologists, hydrologists, socioeconomic specialists, and indigenous-peoples specialists) are needed. In addition, the personnel should have some level of familiarity with the petroleum sector activities they are evaluating.

- (g) OLADE has recently begun the Master's Degree Program in Energy and Environment, in cooperation with Canada's University of Calgary. This initiative will begin to address the problem of insufficiently trained personnel. Other initiatives may be required to cope with different training needs.
- (h) Existing personnel should receive focused training on issues of immediate concern, such as procedures for environmental inspection in the field and regulatory review of environmental impact assessment documents. This group should consider the development and delivery of short-term practical training courses aimed at improving the capacity of current regulatory personnel to do their jobs efficiently and effectively. The guidelines resulting from recommendation (c) may provide the basis for such training; delivery of the training program could be done by one provider at one or more convenient locations.

5

Recommended Action Plan

5.1 The following action plan relates specifically to the collective initiatives recommended for the group of Sub-Andean Basin nations and is divided into near-term and longer-term recommendations.

5.2 In the near term, the countries of the Sub-Andean Basin should

- (a) Establish a mechanism to continue this cooperative regional initiative;
- (b) Define action priorities for the group and create a plan to develop and implement these actions, and identify opportunities for regional cooperation and sharing of information during the development of this plan;
- (c) Initiate activities that are important to the majority of participants and that can be readily completed with the resources available (for example, prepare standard contract clauses and begin to discuss issues that will form part of the common framework or guidelines);
- (d) Consider means to involve other groups (e.g., industry, indigenous peoples) in this process and support national coordinators in their efforts. A tripartite initiative is being considered for Phase 2 of the project.
- (e) Assess the possible future role of sponsor groups (including the World Bank and OLADE) and determine whether other groups (e.g., ARPEL) should be approached.

5.3 In the longer term, the countries of the Sub-Andean Basin should work together to develop and implement important regional programs such as the establishment of a database, preparation of guidelines or other reference documents aimed at control of impacts on sensitive environmental and indigenous lands, and creation of a regional training program. Long-term goals should be attained in a sustainable fashion to insure a balance between the demands on the environment, indigenous peoples, and Oil and Gas industry.

Appendix A

Comparative Matrix

A questionnaire was developed to assess the current legislative and regulatory frameworks that are present in each country for controlling negative environmental, socioeconomic and indigenous people impacts caused by oil and gas activities. The questionnaire was sent to each of the countries and requested that the designated national coordinators collect the relevant information.

The questionnaire was available in both English and Spanish and was provided to the coordinators in the appropriate language for the country. The following matrix incorporates in its first column the main topics addressed in the questionnaire followed by all the information that was sent to the consultants by the national coordinators.

A complete reply was received from each of the countries except Venezuela. Venezuela attended the first meeting in Quito and made a presentation on the current control mechanisms used in their country at that time. Venezuela did not attend the second meeting in Quito and provided limited information for inclusion in the matrix. While the consultants included the available information in the matrix and report, the limited amount from Venezuela meant that the report focuses more on the remaining 10 countries.

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
A.-LEGAL BASIS											
Hydrocarbons Law.											
(A-1) Legal basis for government control of exploration, exploitation and oil and gas production activities	Hydrocarbons Law No. 17319, regulates the exploration, exploitation, and hydrocarbon transportation activities	Constitution and Hydrocarbons Law 1689 and Regulations.	Federal Constitution, articles 176, 177 and 231. Federal Law No. 9478 of August 6 1997, created the Energy and Petroleum Policy Law.	There are 3 legal documents controlling hydrocarbons, 1) Federal Constitution, Art. 19, clause 24 2) Law No. 9.618 which created ENAP, updated a number of times since 1950 3) Legal Decree No. 1.089 of 1995. Fixes contract procedures for Oil operations	1) National Constitution art. 334 2) Law No. 99 1.993, which is fundamentally an environment Law, but has an extensive section on hydrocarbon activities 3) Decree No. 2811.	1) National Constitution Art.31 - Hydrocarbons Law 2) Hydrocarbon Law No. 2967, 1978 3) Executive Decree 2982 which replaced Ministerial Agreement 621, both deal with hydrocarbon activities and the environment	(1) Petroleum Exploration and Production Act & Regulation.	(1) Hydrocarbons Law No. 779/95	1) Constitution 1993 title 3 Chapter 2 articles 66-69. 2) Hydrocarbons Law No. 26221 article 87, "Every individual developing hydrocarbon activities, must comply with environment regulations". 3) Leg. Decree No. 613 "Environment and natural resources are national wealth" and 4) Law No. 26821 for natural resources sustainable development.	(1) Petroleum Law 1990 and (2) Mining Decree 1986. All answers in this matrix are based on the petroleum law	1) The Central Administration Organic Law.

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
<p>A-2. Does this legal or policy instrument make reference to:</p> <p>A) environmental protection?</p> <p>B) socioeconomic interests?</p> <p>C) indigenous peoples interests?</p>	<p>Yes, except for indigenous peoples. Article 97 title IX recognizes Sect of Enrg as responsible for enforcing the Law.</p> <p>A) Enviro Law No. 17319, art. 69 requires; use of modern technology; avoidance of damage; avoid spills and report when they happen; use industry safety standards; avoid contaminating agro, aquatic and ground water resources.</p> <p>B) Loc. Commun. Article 100, title X gives consideration to the owner of the land.</p> <p>C) Indigenous: not included.</p>	<p>Yes, the RASH document is referred to and it controls most aspects of petroleum operations including:</p> <p>A) Enviro aspects of the hydrocarbon sector regulated in RASH, including EIA, etc.</p> <p>B) Socioeconomic, there is a focus on rights of local communities, but does not over compensation</p> <p>C) Indigenous Peoples Interests generally recognized in article 21 and article 162 for public consultation. States projects be developed with local communities</p>	<p>Yes</p> <p>A) Constitution, art. 225 guarantees the right to a clean environment and states that an EIA is needed for activities damaging the environment. Law 9478 also contains a section on environmental protection</p> <p>B) Law 9478 art. 17 describes National Petroleum Agency (ANP) duties, art. 52 set 0.5 to 1.0 % total revenue of oil production share to land owners.</p> <p>C) Arts. 171 & 123 establish specific conditions for indigenous land mineral resources exploitation and approval by Congress.</p>	<p>A) No</p> <p>B) No</p> <p>C) No</p> <p>There is no specific reference in these general laws</p>	<p>A) Yes, environment is the basic focus of law 99.</p> <p>B) Yes, Law 99, Title VIII, Article 49 requires that socioeconomic conditions be considered</p> <p>C) Yes, Law No. 99 and Decree 1753 of 1994</p>	<p>A) Yes, environmental protection covered in Executive Decree 2982 and Ministerial Agreement 621. These documents contain specific guidelines for EIA and environment management plan.</p> <p>B) Issues are mentioned in general terms</p> <p>C) Yes, indigenous peoples must be consulted when a project will affect their lands and culture.</p>	<p>Yes,</p> <p>A) Regulation stipulates good oil practices are required and it gives direction about pollution prev. & control.</p> <p>B) Local residents should receive the employment and training opportunities created by the project, as required by Act and encouraged in Agreements;</p> <p>C) Guyana's Law recognizes Guyanese in General with some limited recognition of Indigenous Peoples Reservation Areas.</p>	<p>(A) Chapter XIV, article 76, refers to environmental protection in relation to hydrocarbon activities, and highlights EIA regulations.</p> <p>(B) Not specifically, but the EIA requirements do talk about Socioeconomic analysis</p> <p>(C) Not specifically, but the EIA requirements do talk about Indigenous peoples interests</p>	<p>A) Yes, Envir. Prot. Constitution Arts. 67 & 68, Hid. Law Arts. 34 & 87, Leg. Decree 613 and 757</p> <p>b) Yes, socioeconomics Constitution. Chap. II, Leg. Decree 613 and Hyd. Law Art. 2</p> <p>C) Yes, indigenous peoples interests Constitution Arts. 2 & 89, Hyd. Law, Article 82, " Every individual has the right to use water, sand, gravel, etc., but respecting third party's rights by compensating the damages caused by their hydrocarbon activities", Leg. Decree 613 Art. 82 & 029 Arts. 29 & 54.</p>	<p>A) Yes, in Chapter II, art. 6, states all petroleum operations must be conducted so as not to damage the environment</p> <p>B) Yes, in Chapter II, art. 6 also states economic and employment benefits should go to local citizens, and goods and services should be purchased in country</p> <p>C) No direct reference to indigenous peoples</p>	

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
Hydrocarbons Law regulations											
(A-3) Does the main legal instruments (law, supreme decree, etc.) have specific regulations associated with it that relate to environmental protection or socioeconomic and Indigenous Peoples issues?	Yes, secretary of Eng issued Res. SE No. 105/92 (Norms and procedures for hydrocar explorat and exploit: a series of resolutions covering; conslt company registration; EIA format; timeline for submit reprts; reclamtion procedure; procedures for well abandon; pipeline operation and construct	Yes, the hydrocarbon law contains "Environmental regulations for hydrocarbons sector", these reg's establish procedures, norms and limits relating to the environmental impact of hydrocarbon activities and Indigenous Peoples.	Yes, CONAMA Resolution No. 23 requires that oil companies undertake consultation with FUNAI (indigenous peoples foundation) when they begin operations on indigenous lands. Presidential Decree No. 24 of 04/02/91. Also talks about this issue	No, there are no specific regulations relating to environment, socio-econ, or indigenous peoples in the hydrocarbon laws.	Yes, there is an article in ECOPEROLS constitution that states they have a responsibility to look out for Local communities, and indigenous/black people	Yes, hydrocarbon activities such as exploration, exploitation, production, transportation, etc. will be regulated so that it does not damage environment, social and economic resources	Yes, but regulations only discuss environmental issues, not socioeconomic or indigenous peoples	No, but Regulations are being developed by the Mineral Resources Office.	Yes, Supreme Decree No. 046-93-EM "Hydrocarbon Industry Environmental Protection Regulation", Article 87 empowers the Ministry of Energy and Mines to dictate environmental regulations for hydrocarbon activities. Article 10, EIA's addresses socioeconomic and cultural impacts study.	Yes, it states that all petroleum operations must be carried out to generally accepted international industry standards.	
(A-4) Do these regulations refer to any other environmental controls, e.g. an environmental law or an Indigenous Peoples Law?	No	Yes it refers to Environmental Law 1333 and to RASH witch has some sections on Indigenous peoples	Yes, The above laws refer to two other laws: - An Environmental Law (Nr.6938, of 1981), and - An Indian Statues Law (Nr.6001 of 1973)	No	Blank	Yes, - Constitution; - Hydrocarbons Law; - Wildlife, Natural Resources and Forest Law (INEFAN); - Hydrocarbons Operations Environmental Regulation.	Yes the refer to the Environmental Law+	No	Legislative Decree 613, code for environment and natural resources.	Yes, these regulations state that petroleum operations must comply with the general environmental standards in Suriname	

Countries											
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Environmental Law											
(A-5) What is the legal basis for government control of environmental protection in your country? (e.g. environmental law, supreme decree, etc.)	There are a series of specific laws include: Quality of Air Wildlife & Flora Protect National Parks Wildlife Protct Soil Conservati Agreem of migtnt fauna Wetlands/wtr fowl habit Enviro Treaty w/Chile	Environmental Law 1333 and Regulations	The National Environment Policy is represented in Law No. 6938 of 1981	1) In the Constitution, article 8 states that everyone has the right to clean environment 2) Environment Law 19.300, is the basic environmental law	- Federal Constitution - Law 99, which is first and foremost an environmental law	1) Forestry, Wildlife and Natural Areas Conservations Law (INEFAN) 2) Federal Constitution chapter 2 art. 23 # 6, which states everyone has the right to a clean environment and chapter 5 art. 86 which states the nature of Ecuador will be preserved	The Environmental Protection Act.	1) Law No. 294/93 "Environmental Impact Assessment" which is supported by Decree No. 14.281/96.	1) Environment and Natural Resource Law, Decree No. 613 2) Law of the National Environmental Council, No. 26410 (CONAM) 3) Environmental Impact Assessment Law	(1) National Environmental Action Plan (NEAP) is not a law but provides general guidelines (2) Nature Preservation Law 1954, is basis for natural reserves and land management (3) Hindrance Act protects air and space	1) The Environmental Law 1976.
(A-6) Does this legal instrument make reference to the petroleum industry?	NO	Yes, it generally states that all activities should comply with Environmental Regulations, and Chapter XII make specific reference to energy resources.	No, this law does not make specific reference to the petroleum industry.	Yes, Law 19.300 title 2, No. 2, refers to EIA's System (SEIA) and article 10 requires that all hydrocarbon project must be registered in system for EIA (SEIA).	Yes, in a number of different sections, which cover topics like: - environmental licenses - requirements and format for EIAs	No the constitutional laws do not make specific reference to the oil industry but Decree 2982, governs environmental impacts from hydrocarbon activities	Not directly, but the main hydrocarbon Law states that all companies must operate to good international standards, this would include environmental protection.	Yes, Chapter I & II, No. 5 defines which activities require an EIA for prospection, for example: exploration, exploitation, and downstream operations must have EIAs	Yes, -Decree No. 613, Chapter XII, use equipment that avoids damage to air, water, and soil -Legislative Decree 757 refers to natural resources in general	No	Yes, the Environmental Law contains a subsection for hydrocarbon activities
(A-7) Does this legal instrument make specific reference to Indigenous Peoples?	NO	Yes	No	Yes	Yes.	Yes	No	Not direct	Yes,	Yes	No

Countries											
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(A-8) If yes, please briefly describe this reference?	NO	Yes in chapter VI, article 78, states that government will guarantee involvement of indigenous peoples in development of natural resources. In chapter X they also talk about the right for general public to participate.	The Environmental law does not make specific reference to indigenous peoples, but CONAMA Resolution No. 23 does state that any project having an impact on indigenous groups, must consult with the National Indian Foundation (FUNAI)	Article 11 requires that the EIA analyze the impacts on indigenous communities resettlement, culture and living.	By establishing that natural resources exploitation within indigenous lands will be done protecting the social, cultural and economic aspects of the people.	Article 84.5, states that indigenous peoples must be consulted about hydrocarbon projects on their lands. It also says that indigenous peoples should benefit from these activities and receive compensation when affected. The government will also work to preserve their way of life and culture	N/A	Indirectly the impact on indigenous populations is one of the factors that must be studies according the TOR for EIAs	Legislative Decree 613, talks about companies supporting local communities, and recognition of land ownership rights. CONAM encourages respect of indigenous knowledge of the environment, and encourages public consultation and education at all levels.	A section of the NEAP discusses the social impact of petroleum activities	There is no reference, as in Venezuela there is no distinction of different race, etc.
Environmental Law Regulations											
(A-9) Does the main environmental instrument have regulations associated with it?	No specific requirements for hydrocarbon's industry. There are general norms for environ protect, including: mandatory environ studies for whole project; contingency plans, monitoring, abandonment, gas flares, incidents and remediation	Law 1333 categorize projects, I) requires complete EIA, projects with major impacts, II) requires EIA for specific aspects of operation III) requires enviro management plan, for projects in pre-disturbed areas IV) no EIA required	Yes, CONAMA Resolution No. 23 requires licenses for exploration, development and production activities, and specifies different studies and appraisals required for those licenses.	Yes, - Reg's for System of EIA's - Reg's for Prevention & Remediation Plans - Reg's for Norms and standards.	Yes.	Yes, Hydrocarbons environmental regulations have requirements for air, water and soil conservation; and for the preparation of an EIA for any stage of upstream activities.	No	No, but there are other Laws related to EIA's Law, such as - Law 716/96 for Ecological Damages, - Wild Life Law - Protected Wild Areas Law. These Laws will apply for any project not just hydrocarbon activities	- Supreme Decree 046-93-EM, Title IV regulations for environmental Impact Assessment (EIA) and - Supreme Decree 029-97-EM, regulation to supervise activities by third parties.	Yes, but they do not make any specific reference to the petroleum industry	

Countries											
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(A-10) Specific regulatory standards for the oil industry regarding: - atmospheric emissions - water effluents quality - soil contamination.	Nothing specific to petroleum industry, but there are some general environ standards	Yes, They specify emission limits, water effluent, soil remediation, contingency plans and public consultation.	Only in water/effluents quality by CONAMA No. 20 of 1986.	No	Blank	Yes, there are standards for air, water and soil	No	There are no specific regulations for the oil industry.	yes, MEM dictates protocols for emissions and air quality, for water Supreme Decree 030-96-EM, and none for soil and wastes, but there are some environmental guidelines.	No specific standards for air, water or soil relating to the petroleum industry	Yes, - for water quality, - soil pollution and - hazardous waste generation
(A-11) Other requirements that applying to the oil industry with regards to: - environment - public consultation - relationship with indigenous peoples?	Each Provincial Government will dictate, issue and enforce specific environmental norms within their boundaries.	All they are included in Environmental Regulations for Hydrocarbons Sector. A Regulation for socio-environmental protection of indigenous lands, is now being developed.	Blank	Within EIA, there is a requirement that public consultation must be part of the process. This is especially true in indigenous communities where the Indigenous Law's has a specific norm for public participation	- Decree 883, 1.997 - discusses hydrocarbon activities that are harmful to the environment	The reg's discuss EIA's, public consultation and environmental audits and monitoring.	The Petroleum Industry will have to conduct operations to acceptable international standards and performing good oil field practices.	Yes, Public consultation is regulated within EIA's Law. Authorities will decide whether or not a public consultation is held or only issued in newspapers and broadcasted in radio on a national level for 14 days.	Yes, there is a regulation for Public consultation by Ministerial Resolution No. 335-96-EM/DGAA.	There is a National Institute on Environment (NIMOS)	

Countries											
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Indigenous Peoples Law.											
(A-12) Is there any law, etc., with regards indigenous peoples?	There is a general Indigenous Peoples law. It establishes the National Institute for Indigenous Peoples Affairs. Institute monitors indigenous populations and they help w/ land mangment and exploitation of natural resources, they also implement education and health programs	Yes there are a number of laws that touch in the subject: - Land Reform Law 1715, recognizes rights to traditional <i>lands and culture</i> - Indigenous Peoples Development Law 1468 - Law 1257 ratifies ILO 169 - Environment Law 1333, Public Consultation Law 1551, Educational Reform Law 1565, Hydrocarbons Law, Forest Law 1700 and Mining Code 1777 all make reference to indigenous peoples	The Indian Statute by Federal Law of 19/12/73.	Yes, Law No. 19.253, 1993, this law defines the rules that must be followed when dealing with indigenous groups. At the base of this law is the requirement that no deals can be made with regards to indigenous lands without the consent of CONADI.	1) Law 70 of 1.993 for Black communities 2) Law 21 of 1.993 which implements ILO convention 169 3) Regulatory Decree 1320 1.998 which discusses the <i>rights of indigenous and black communities</i> , and the exploitation of their natural resources 4) Decree 1397 1.996- which states that indigenous peoples and their unique way of life must be protected	Yes, Article 83, section 5 and 6 of the National Constitution	The Guyanese National Coordinator was not sure if there was an Indigenous Peoples Law	Yes, 1) Law No. 904 to regulate indigenous peoples affairs, but there is no specific reference to <i>hydrocarbons</i> activities.	Yes, Law Decree 26253, gives the rights to be consulted when a project will be developed within their lands and are going to be damaged; it also includes rights for compensation and natural resources sustainable development, commercialization and preservation.	Yes, (1) Agreement for national Reconciliation and Development, endeavors to provide proper land titles to <i>traditional tribal lands</i>	No, Venezuelan government does not have individual relationships with <i>different</i> cultural groups. All groups, nationalities, etc. are treated in the same way.

Countries											
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(A-13) Has the country adopted ILO convention 169?	Yes, by means of Law 24071.	Yes, through the Vice-Ministry of Indigenous Affairs and Native Communities (Ministry of Planning and Sustainable Development).	Blank	Yes, Chile has signed ILO Convention 169, but it has not yet been approved by the National Congress.	Yes, by Law 21 of 1.991.	Yes, ILO Convention 169 has been approved, but it has not been the object of specific regulation.	The Guyanese National Coordinator was not sure if they have adopted ILO 169. But gives mention to Regulations for indigenous peoples.	Yes, different parts of the Law have been successfully implemented, however formal education in Guarani Language will be important for the economic and professional education for tribal peoples.	Yes, Law Decree 26253, Approval of ILO Convention 169. respect for culture, traditions, and land claims. State must consultant before developing projects. - However Law is not clearly understood	No	
Indigenous Peoples Law Regulation			Blank								
(A-14) Does your country have any other regulations that apply to the petroleum industry and its interaction with indigenous peoples?	NO	Yes, a Regulation for hydrocarbon activities and prevention of socio-environmental impacts is now being developed with input from a variety of sectors.	Blank	No	Law 70 of 1.993 for Black communities and Law 21 of 1.993 for ILO 169 implementation.	No	No	There are no specific regulations applied to the oil industry.	Yes, Constitution, article 89, Civil Code (L.D. Nr.295) art. 136, Hydrocarbons Law, art. 82, - Regulation for Environmental Protection for Hydrocarbon activities, art. 12.	No	

Countries											
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(A-15) For new petroleum projects, such as seismic, drilling, etc. is the company required to prepare an EIA	Yes, Resolution SE No. 105/92 identifies specific requirements for these activities. They include the required format for the environmental study and the contingency plans, it also has requirements for pipeline construction and operation.	Yes, by Law 1333 supporting the Environment National Secretary requirements Fiche Ambiental and/or EIA's for new hydrocarbon projects.	Blank	Yes, new petroleum projects require an EIA. There is an EIA's Regulation, Title III, No. 1, to establish EIA's contents, and also in Title V, No. 1, public participation including indigenous communities, is enforced.	Yes. Law 99 provides the guideline for EIAs and states that all hydrocarbon projects must have and environmental license, and an environmental license requires an EIA	Yes, the EIA has three parts: physical, biological and socioeconomic components; the EIA must include a socioeconomic component and a description of the impact on any indigenous or local communities including demographic data, economics, basic services, culture, religion traditions, language, land owning, etc..	Yes, the Environmental Protection Act requires such projects when conducted onshore to have an Environmental License which requires at first, the approval of a preliminary Environmental Assessment.	Yes, as specified in Law 294/93 which is supported by Decree No. 14.281/96	Yes, Supreme Decrees Nos. 046-96 and 09-95-EM title IV, refers to specific EIA requirements. Article 10 section (a) indicates that socio, cultural and economic impacts of hydrocarbon activities must be evaluated. The Director General Hydrocarbons approves EIA, and OSINERG is responsible to ensure all companies are complying with the environment management plan .	Yes, the overall scope requires all petroleum operations be carried out, in accordance with generally accepted practices in the international petroleum industry.	Yes, -Decree 1257-04/96 establishes standards for Environmental Impact Assessments (EIA's). -Also, according to EIA regulation.
B. CONTRACTUAL BASIS											
(B-1) Has your country entered into contractual agreements with private companies to explore for, produce or transport (pipeline) oil and gas?	Yes.	Yes	Currently, there are not any private companies operating in Brazil. <i>Although next year some lands are going out to competitive bidding</i>	Yes, agreements with private companies must follow the "Petroleum Operations Special Contracts" (CEOP) form. This contract form covers exploration, production and transportation operations.	Yes, Ecopetrol has some partnership contracts with private companies	Yes	Yes	Paraguay does not currently produce a lot of oil, so they have no need for special contracts	Yes	Yes	

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
(B-2) If yes, do such agreements include reference to: A) Environmental requirements B) Socioeconomic impacts on local populations C) Indigenous Peoples?	A) Yes, there are environmental requirements B) No, Socioeconomic are considered within the environmental study C) No, indigenous peoples are treated as local populations	A) Yes B) Yes C) Yes	Blank	A) No, B) No, C) No. These contracts do not specify requirements above and beyond what the regular legislation requires.	Yes	A) Yes B) Yes C) Yes	A) Yes B) No C) No	No, but they would expect that the contract would have to comply with Law No. 294/93 for EIAs.	Yes, Contracts for hydrocarbon activities are developed and an EIA is submitted before operations start, regulatory and environmental commitments are monitored, public consultation for protected areas is held and annual reports must be submitted.	A) Yes, B) Yes C) No	
(B-3) If the response is yes in B-2, are such references restricted to a requirement to comply with the country's laws and regulations, or do the agreements contain additional requirements?	There are additional requirements	They only require that companies comply with existing Laws and Regulations.	Blank	N/A	Yes, they do not go beyond the basic requirements that all activities must meet.	In certain instances companies are requested to apply their own country regulation	Yes, they do not go beyond the basic requirements that all activities must meet	No, but Law 294/93 must be enforced	For both, law complying and also additional requirements.	Have to comply with the Country's Laws and Regulations, no restriction above and beyond that	
(B-4) If there are sometimes additional requirements, please describe briefly	The additional requirements vary depending on the specific nature of the project	The existing Laws and Regulations are general, so when an activity is going to affect indigenous lands, more specific requirements are specified.	Blank	N/A	No	Not on a regular basis, but depends on the specific contract	Yes, sometimes additional requirements are set to ensuring that international oil field practices are used	There are not additional requirements.	Yes, oil companies are requested: - not to create unrealistic expectations for local residents, - try to employ local nonqualified workers, - help develop infrastructure for social support programs	N/A	

Countries											
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(B-5) If the contractual agreements do not contain references to environmental protection and socio-economic and Indigenous Peoples matters, would such references be useful?	Blank	Blank	Blank	No, as there are both Indigenous and Environment Basis Laws to regulate these matters.	N/A	Yes, Respect for indigenous lands and culture, Community development programs (health, training, education, industrial safety and natural resources management).	Yes, Petroleum Operations must always follow the national laws, while it might be useful to make reference to socioeconomic and indigenous peoples issues	Yes, It would be worthwhile to include environmental, socioeconomic and indigenous peoples clauses in contractual agreements, specially clauses that would supported the Regulations.	Yes, a list of legal standards with respect to indigenous communities, natural resources and environmental protection.	Yes it would be useful to include these reference, although most of the petroleum activity in Suriname is off-shore or in Coastal areas, so the impact on indigenous communities is limited	
(B-6) Is there a difference between the environmental, socioeconomic and Indigenous Peoples requirements applied to private companies vs. State-owned companies?	No, there are no State Owned Oil Companies in Argentina anymore	No	No	No	N/A	No	No	No	No, according Legislative Decree No. 757, " Law for Promotion of Private Investment", the same conditions are applied for both state owned and private companies.	No	
(B-7) Which government agency is responsible for negotiating and monitoring the government-industry contracts?	SE gives rights, concessions and permits for hydrocarbons exploration and exploitation activities.	The Vice-Ministry of Energy and Hydrocarbons.	The National Petroleum Agency (ANP).	Ministry of Mines, they then set up an adhoc committee to negotiate the deal and another committee to monitor the operations	The Ministry of Energy and Mines, Energy and Mines Environmental Group, Environmental Ministry's Environmental Policy Technical Adviser Committee and Environmental National Council.	1) The Ministry of Energy and Mines, through the National Director of Hydrocarbons, and 2) The Sub-secretary of Environmental Protection through the National Director of Environmental Protection	The Guyana Geology and Mines Commission (GMMC).	The Hydrocarbons Department, within the Mineral Resources Office of the Vice-Ministry of Energy and Mines.	PERUPETRO S.A.	STAATSOLIEMA ATSCHAAPIJ Suriname N.V., the State Oil Company	The Ministry of energy and Mines (MEM).

Countries											
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<p>(B-8) Are the government agencies responsible for environment and Indigenous Peoples issues consulted when contracts are prepared?</p> <p>- If no, should they be?</p> <p>- If yes, can you suggest the kinds of input these ministries or agencies should have.</p>	<p>SE regulates environmental aspects of oil industry. Indigenous peoples are considered as any other Argentinean, there are not a lot of indigenous communities in Argentina.</p>	<p>No, but the other agencies should be consulted, so that the contracts include all the environmental and indigenous peoples regulations and laws.</p>	<p>No</p>	<p>No, these contracts only cover exploration activities, and these agencies do not participate at this stage. Once the project moves into production these ministries are involved</p>	<p>Yes.</p>	<p>Yes, Indigenous representatives look at the contracting of non-skilled labour from the local population, checks and balances to avoid the excessive influence of outside money and culture, as well as training in forestry management</p>	<p>Yes for environmental issues. No for indigenous peoples.</p> <p>GGMC Board of Directors has a senior representative of the Environ. Prot. Agency (EPA), who ensures the agreements recognize issues which the EPA feels are important. There is also an active environmental division within the Petroleum group of GGMC</p>	<p>Yes, other agencies are consulted as the TOR for the EIA are developed by the Department of Environmental Impact Assessment (DEIA).</p>	<p>Not necessarily, as there is a sort of information available, so PERUPETRO S.A. and all interested companies are aware of the real situation within sensitive protected areas, national parks and indigenous communities.</p>	<p>Yes</p>	
C.											
ORGANIZATIONAL BASIS											
Government structure											
<p>(C-1) What government Ministry, agency or other group has primary responsibility for controlling the hydrocarbon industry?</p>	<p>The SE within the Ministry of Economy, Infrastructure and Public Services, enforces Law No. 17319. Also, ENARGAS within the M. of Econ is a gas regulator, as laid out in Law No. 24076</p>	<p>The Ministry of Economic Development and the Vice-ministry of Energy and Hydrocarbons.</p>	<p>The National Petroleum Agency (ANP).</p>	<p>The National Energy Commission, is always involved, and other specific groups are added as needed.</p>	<p>Ministry of Energy and Mines (MME)</p>	<p>Ministry of Energy and Mines.</p>	<p>The Guyana Geology and Mines Commission (GGMC) is responsible, although there have been no commercial discoveries in Guyana there has been some speratic exploration</p>	<p>1) Ministry of Public Infrastructure and Communications (MOPC) 2) Vice-Ministry of Energy and Mines 3) Mineral Resources Office, and 4) Hydrocarbons Department.</p>	<p>Ministry of Energy and Mines (Hydroc. Law, arts. 3 & 4), Hydrocarbons General Office (Decree Law No.25962), Environmental Issues General Office Law 25962, art. 38) and OSINERG.</p>	<p>Ministry of Natural Resources (MNR)</p>	<p>The Ministry of energy and Mines (MEM).</p>

Countries											
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(C-2) What is this organization's mandate or responsibility, especially regarding environmental protection and Indigenous Peoples.?	The SE is responsible for the environmental control and monitoring of the hydrocarbons activities, while ENERGIES is responsible for environmental protection and safety of all gas transportation activities. Neither has specific responsibilities for Indigenous Peoples	This agency enforces Law 1689, which: - Promotes hydrocarbons investments - Suggests needed legislation, and - Works together with the Ministry of Environment and Sustainable Development preventing environmental damage	ANP must ensure the implement and enforce the governmental measures and rules. They provide proper environmental protection and safety management, without hindering the healthy development of the oil industry.	It has no specific mandate for environmental protection and indigenous peoples, but as a government office it will be enforcing all laws and regulations on hydrocarbon activities. It will also inform the other government agencies about petroleum activities that may affect them	Blank	The administrative agency will be the sub-secretary of Environment (SPA), they will be responsible for monitoring and investigating activities in the hydrocarbons sector. SPA will also be responsible for coordinating information exchange in the sector	GMC's mandate is to encourage hydrocarbon development in a way that is consistent with the Petroleum Act, the Environmental Protection Act and Guyana's Citizen Rights.	The MOPC mandate is to protect the environment and indigenous peoples from negative impacts of hydrocarbon activities and to promote hydrocarbon developments.	MEM Supervise the implementation of policies in the hydrocarbon sector, DGH proposes and issues hydrocarbon normative and promote and advise in environmental affairs.	The Forest Service of the Nature Conservation which is a division of the MAR, is responsible for the management of protected areas and wildlife, research and public awareness outside protected areas.	MEM regulates reservoirs exploitation, geology, mines and administrative support.
(C-3) Do other Organizational units also have some role in this? If yes, please list them and briefly describe their responsibilities and relationship to the group with primary responsibility.?	By Resolution No. 29/91, the Subsecretary Fuels gives the Provincial Governments of Salta, Formosa, La Pampa, Mendoza, Rio Negro, Neuquen, Tierra de Fuego, Jujuy and Chabut, the rights to control the technical and operative activities of the hydrocarbon industry within their boundaries.	The Ministry of Planning and Sustainable Development and the Vice-Ministry of Environment, Natural Resources and Forest Development are the environmental authority and the Environment Unit (UMA) is the sectorial authority, responsible for developing environmental norms and assessing the information for hydrocarbon projects.	The Brazilian Institute of Petroleum (IBP), traditionally acted as an interface between the oil industry and governmental authorities.	No	Within the structure, MME will coordinate with other Ministries relating to environmental policies with regards indigenous peoples, health, agriculture, foreign relations, international agreements, etc..	National Institute of Wildlife and Natural Resources (INEFAN) is responsible for overseeing activities within indigenous or sensitive areas such as national parks, wildlife reserve, protected areas, etc., they make suggestions to the SPA and wait for final approval by Environmental Sub-Secretary (SPA).	Yes, the Guyana Natural Resources Agency (GNRA) also plays a role in hydrocarbon industry planning. The standard that will be applied has developed over the years to reflect good international industry standards.	MOPC is the only office with this responsibility	No, however PERUPETRO S.A. must be considered, since it promotes private investment, elaborates and supervises bids and contracts within hydrocarbons sector.	Blank	Regional Development Corporations. State Governments.

Countries											
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<p>(C-4) Is there a sub-group within the primary group with special responsibility for:</p> <p>(1) environmental protection</p> <p>(2) Indigenous Peoples</p>	<p>(1) Yes, The National director of Hydrocarbons and Fuels is responsible for environmental protection in oil and gas exploration and production, and liquid fuels transportation activities. Gas transportation is controlled by ENERGAS.</p> <p>(2) No</p>	<p>(1) Yes, within the Ministry of Planning and Sustainable Development, there is Vice-Ministry of Environment, Natural Resources and Forest Development and within the Ministry of Economic Development, the Vice-Ministry of Energy and Hydrocarbons there is an Environmental Unit (UMA).</p> <p>(2) Within the Ministry of Planning and Sustainable Development there is the vice-Ministry of Indigenous Affairs and Native Communities.</p>	<p>(1) No</p> <p>(2) No</p>	<p>(1) No</p> <p>(2) No</p>	<p>Autonomous Regional Corporations for Sustainable Development "Corporations Autonomas Regionales y de Desarrollo Sostenible", Departments, Municipalities and Districts. Responsible for implementing policies, regulations and programs for natural resources within their boundaries.</p>	<p>(1) Yes, the SPA is responsible.</p> <p>(2) No</p>	<p>(1) Yes, within the GGMC there is an Environmental Division who's primarily responsible is for environmental protection and coordination with EPA, while carrying out an industrial monitoring and regulating program for the energy sector as a whole.</p> <p>(2) No</p>	<p>Within the Vice-Ministry of MOPC there is an Environmental Unit with socioeconomic and indigenous peoples experience</p>	<p>Yes, for environmental protection the General Office of Environmental Affairs (DGAA) within MEM and the General Office of Hydrocarbons.</p>	<p>(1) Yes, the Nature Conservation Division is responsible for environmental issues within the MNR</p> <p>(2) No</p>	

Countries											
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(C-5) What government group has primary responsibility for environmental protection?	The secretary for Sustainable Development of Natural Resources, supporting the Nation's Presidency, is responsible for enforcing Law No. 24051 for Hazardous Wastes.	By Law 1333, the Ministry of Planning and Sustainable Development and within it the Vice-Ministry of Environment, Natural Resources and Forest Development are the environmental authority. While the Environment Unit (UMA) within the Vice-Ministry of Energy and Hydrocarbons is the sectorial authority.	The National Environmental System (SISNAMA).	The National Environmental Commission (CONAMA) is ultimately responsible, while other Sectorial Offices may be involved on a specific basis.	Environment (MMA) supporting the Environmental National System (SINA).	The Ministry of Environment (MMA), and the Environmental Sub-Secretary (SPA) within the Ministry of Energy	The Environmental Protection Agency (EPA).	Vice-Ministry of Environment and Natural Resources.	The National Environmental Council (CONAM), formed by MEM and MARNR is the regulatory body for the national environmental policy.	The National Institute for Environment and Development.	The Ministry of Environment and Renewable Natural Resources (MARNR).

Countries											
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(C-6) What is the group's function in respect to environmental protection in the petroleum industry?	The SE is responsible for Environmental Protection in the Oil Industry.	Enforcement of Law 1333, dictates environmental policies, controls environmental planning process, establishes normative and regulations, etc. and UMA's functions are development of hydrocarbons environmental management, elaborates environmental normative, regulations and procedures within the Hydrocarbons sector.	They are responsible for the control and monitoring of all potentially polluting activities. This group is made up of: - National Council for the Environment (CONAMA), - Ministry of Environment, - Water Resources and Legal Amazon (MMA), - Brazilian Institute of the environment and Renewable Natural Resources (IBAMA), - State and Municipal Environmental Agencies.	CONAMA is responsible for evaluating EIA on all new projects, and they must also monitor and inspect the hydrocarbon operations.	As SINA's leader, MMA is responsible for enforcing laws & regulations; policies, plans, programs and project adoption; environmental management, natural resources and sustainable development.	SPA is responsible through the National Environmental Office (DINAPA), SPA approves, supervises and monitors hydrocarbon activities; also responsible for reviewing EIAs and field inspections	EPA's main function is to ensure all industry meet the Environmental Protection Act requirements. Specifically related to the petroleum industry its role is more directive than active because of budget limitations. However, the Petroleum Unit of GGMC will try to conduct the monitoring and field work with guidance from the EPA.	The enforcement of Law No. 294/93, which includes the responsibility to enforce the EIA process	Coordinates hydrocarbon activities comply with policies. Issues emissions maximum permitted limits. Attends claims against laws, resolutions and administrative environment affairs. Enforces fines and penalties. Promotes environmental research and technology transfer.	Working with the President of the Republic to develop national Environmental Legislation and to monitor its performance. Generally they: - coordinates the environmental activities of all ministries - establish standards in conjunction with all groups - monitor environmental activities - prepare environmental legislation	MARNR regulates environmental quality, infrastructure construction, control, monitoring, forest management, and environmental organization and planning.
(C-7) Which government group is primarily responsible for matters relating to Indigenous Peoples?	The National Institute for Indigenous Peoples Affairs within the Secretary for Social Development (Nation's Presidency)	The Ministry of Planning and Sustainable Development and the vice-Ministry of Indigenous Affairs and Native Communities.	The National Indian Foundation (FUNAI), a Government group belonging to the Ministry of Justice.	National Commission for the Development of Indigenous Peoples (CONADI)	Ministry of Interior, via the Director General of Indigenous Affairs	Council of Nationalities of People of Ecuador (CODENPE)	There is no one group with sole responsibility, but the Amerindian Affairs Unit and a Bureau headed by the Ministry of Amerindian Affairs are two agencies that have some responsibility	Paraguay's Indigenous Peoples Institute (INDI)	- Ministry for Promotion of Women and Human Development (PROMUDEH) - Ministry of Agriculture - People's Defender Council, Law 26520.	The Council for the Development of the Interior (CDI).	

Countries											
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(C-8) What is the group's function in respect to the issues and concerns of Indigenous Peoples in response to hydrocarbon projects and activities?	Act as a Coordinator	Nothing specific to the hydrocarbon sector but generally they: - Develop policies and procedures for the sector, - Act as a spokesperson within government for indigenous peoples, - Ensure that indigenous laws are being respected, and - Mediate conflicts with other sectors on behalf of Indigenous peoples	The National Indian Foundation (FUNAI) must be consulted if any activity is going to take place near or on Indigenous reserves.	The CONADI must approve all hydrocarbon activities on indigenous lands.	Blank	There is no specific role for hydrocarbon sector, just a general overall responsibility	The Ministry of Amerindian Affairs (MAA) function is to preserve indigenous peoples culture development and education. Since most of hydrocarbon exploration operations are offshore and there has been no exploitation activity the MAA does not have a clearly defined role in the process	INDI is responsible for preserving the social and cultural heritage of indigenous peoples, this includes improving their economic standing, making sure they effectively participate in the process of national development, and guarantee that their native land claims are protected	PROMUDEH responsible for promoting human development in general, including aspects related to human resource development. Specifically they handle disputes over land titles, ownership of resources, etc.	It is responsible for protecting the land rights of indigenous peoples.	
(C-9) Are there any other national government or government controlled groups which have responsibilities for environmental protection and Indigenous Peoples issues in relation to the hydrocarbon industry? If yes, please name them and briefly describe their function.	NO	Within civil society, there are indigenous organizations such as National Organization for Indigenous Affairs (CIDOB), Indigenous ONG's and Regional Indigenous Organizations (CPIB, CABI, etc.).	Blank	No	- Ministry of Interior, - Indigenous Affairs Office, - Ministry of Environment, - Indigenous Affairs Attorney, - People's Defender and - Land Reform Colombian Institute (INCORA).	- The Ministry of Environment, and - NGOs - CODENPE	None that the National Coordinator knew about	The Provincial Governments, each of them has its own Secretary of Environment who is responsible for protecting the rights of indigenous peoples and when necessary passing on their problems to the national agencies.	Perupetro S.A. supervises technical and legal aspects in hydrocarbon activities and Hydrocarbons General Office (DGH) is responsible for establishing pollutants maximum discharge permitted limits.	Yes, the Land Rights Commission was established to make an inventory of Maroon and Amerindian territories	The Environment Sectorian Planning and Arrangement General Office.

Countries											
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(C-10) Are there any regional or other government local groups with responsibilities for environmental protection and/or Indigenous Peoples concerns relating to hydrocarbon industry projects and activities? If yes, please name them and briefly describe their function.	By Resolution No. 29/91, the Secretary of Energy gives the Provincial Governments the right to control technical and operating activities. Some Provincial Governments have their own Indigenous Peoples Affairs Office.	CIDOB and Hydrocarbons Activities Environmental Control Committee (CCAH). The Regional Departments and Prefectures have some responsibility for indigenous and environmental issues, as well the vice ministry of Indigenous Peoples and Native Activities has some regional offices.	No	Yes, there is a regional commissions for the environment called COREMA's, there are also a number of regional CONAMA offices. CONADI also has three offices, north, south and metropolitan Offices.	Autonomous Regional Corporations for Sustainable Development "Corporaciones Autonomas Regionales y de Desarrollo Sostenible", Departments and Municipalities.	- DINAPA - INEFAN - DIGMAR - INOCAR - DNH - CEDENMA - ECORAE.	There are Local Bodies within the Ministry of Regional and Local Government, involved when oil companies are operating in their areas. Their role is to enhance the relationship among communities, local Districts and the exploration companies.	These Provincial Governments are new and so their power is limited, but it is expected to increase in the near future.	Yes, as far as their people interests and territories are affected.	No	- Regional Development Corporations. - State Governments.
(C-11) Is the personnel capacity of these groups to complete their functions effectively at this time adequate or inadequate?	Capacity of personnel is adequate for the function.	The Environmental Staff available for field inspection is limited, and has difficulty keeping up. The Indigenous affairs group has a separate Organizational structure that is just now being implemented.	Blank	Adequate	Blank	Inadequate.	In Guyana government agencies are typically understaffed	They are inadequate as their environmental management background, knowledge, and professional skills are not well developed	These offices are still being developed to get adapted to the oncoming activities, so they are inadequate.	Blank	

Countries											
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(C-12) Is the work load of groups responsible for environmental protection and Indigenous Peoples issues expected to: 1) increase a lot 2) increase a little 3) remain stable 4) decrease over the next few years?	It is expected to remain stable due to the hydrocarbon activities.	They are expected to grow in the oncoming years as the energy Sector grows. As well, the increase in indigenous lands titles will mean more conflicting claims and more work for these departments.	Blank	It may increase, depending upon the development of the Hydrocarbon Industry in Chile	Blank	The workload of this group will be increasing a lot in the future	It is expected to increase a little.	Paraguay has a small petroleum industry now, but there has been favorable results from recent exploration activities, so activity in the industry will likely increase.	It will increase a lot so they can go with the workloads.	It will increase a lot	
(C-13) If these group's capacity to complete their function effectively is now inadequate or will be in the future, can you provide some suggestions about how to overcome this problem?	Blank	All groups involved in the process need to coordinate their efforts, and they should also develop their internal capacity, making more efficient use of personnel and resources. For Indigenous issues they need to coordinate efforts among regional governments and indigenous groups. Ideally these issues would be handled at a regional (Sub-Andean) level.	Blank	Blank	Blank	- Contract more multidisciplinary and specialized personnel - more internal training programs - purchase more work equipment	It is unknown how these entities will overcome the staff's experience and lack of skills.	The current level of training is not great but with the low level of activity it is adequate for now, but if the industry pick up new positions must be opened and training programs implemented.	Hiring new Staff with experience not only in the hydrocarbons industry but also with Peru's native indigenous peoples.	To meet the increased activity they will need: - more staff and - training programs	

Countries											
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(C-14) Please briefly describe the mechanism for communication of information and decisions among the primary groups responsible for controlling environmental protection and Indigenous Peoples problems in relation to hydrocarbon projects and activities.	Environmental protection applies to Argentinians equally, no special status for indigenous peoples. All oil companies submit annual reports, periodic field inspections by both provincial and national governments. Depending on the results, specific planning for the achieved conditions is developed and plans and results are tested at last.	The National Environmental Data Centre (MDSMA) is the central gathering body, but the information comes from a wide variety of sources including NGOs, State Governments and Offices and not all of them submit information in a timely manner and therefore exchange of information is difficult.	The National Petroleum Agency (ANP) maintains permanent contact with a number of Brazilian Organizations in order to establish a shared system for environmental protection and to avoid duplicated studies.	The groups share information via: - Official government conferences - Coordination and exchange of information by each department - If the potential impact of the project is large enough, an inter-sectoral committee can be formed	Blank	None.	GGMC is primarily responsible for communication. There is no procedures in place to coordinate information sharing, there is no central agency with this responsibility. Most information is shared by government departments via fax and mail.	For sharing information, inter-sectoral working groups are created, these groups develop the TOR for the EIAs. These working groups also handle the follow-up monitoring and mitigation process.	- Coordination meetings, - Project's discussions, - Public consultation, - Local, regional and national workshops, and - Conventions.	Blank	
(C-15) Are the mechanisms described in (C-14) working effectively?	Blank	No, the information is not standardized, the government bodies are working on a standard format.	Yes	Yes	Blank	N/A.	Yes.	Generally yes, but there are some groups that have trouble working together and making effective decisions.	Yes, specially the regional meetings among governmental offices, oil companies and indigenous peoples representatives.	Blank	
(C-16) Can you suggest any possible solutions to the difficulties described in (C-15)?	Blank	- Standardized data system, - Common regulations to assist coordination, - Share successful experiences and - Train environmental staff.D51	Blank	Yes	Blank	N/A.	Blank	Each institution should designate the appropriate people, who have the authority to make decisions on behalf of their departments	Yes, some government offices such as PROMUDEH and PERUPETRO S.A. are modifying their structures and mechanisms.	Blank	

Countries											
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(C-17) Are there any other difficulties in controlling environmental impacts and Indigenous People' issues in the hydrocarbon industry?	No	Yes	No	No	Yes	Yes	No	There have not been any impacts on both environment and indigenous peoples, because of no experience on oil industry damages.	Yes, differences amongst indigenous peoples organizations and leaders lacking of leadership with their people.	Yes	
(C-18) If yes, please describe briefly.	Blank	1) Public consultation process is slow, delaying progress and costing both sides money, 2) Clearly define effluent limits, 3) Reward clean industries, and 4) Stiffer fines and make them easier to enforce.	Blank	Blank	An increasing concern by Indigenous and black communities on hydrocarbon projects.	1) the loss of indigenous peoples cultures 2) the penetration into un-developed lands, and the associated deforestation of primary forests 3) changes in land use	Blank	N/A.	There is an overlapping of functions amongst all the responsible Institutions, Offices, Ministries, etc., such as CONAM, Ministry of Agriculture, INRENA, Parliamentary Commissioner or Ombudsman, Ministry of Health, Ministry of Women and Ministry of Energy and Mines.	In 1992, there were some internal conflicts with indigenous peoples.	
(C-19) Are there any Non Governmental Organizations (NGO's) representing the Oil Companies now working in the Country?	Yes, - Argentinean Oil and Gas Institute, - Argentine Chamber of Oil and Gas Companies - Oil Industry Chamber.	Yes, the National Hydrocarbons Chamber is a private industry organization,	Yes, the Brazilian Petroleum Institute (IBP).	No	Blank	No	No	There are no Non Governmental Organizations (NGOs).	No.	No	The Environment National Council (CAN).

Countries

	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
(D-1) For new hydrocarbon activities, what approvals, permits, licenses, etc. are needed?	The National Government, by Decree or Administrative Decision, grants every exploration license and exploitation concession (Law No. 17319).	“Declaratoria de Impacto Ambiental” (DIA) when submitting EIA, “Declaratoria de Adecuación Ambiental” (DAA) for environmental manifest on existing projects, exemption certificates for environmental adjustment plans and permits by Hydrocarbons Superintendent.	There are 4 licenses that are required (1) Drilling license (2) Exploration and production license (3) Installation license (4) Operating license.	Approval must be received from CONAMA or COREMA. Approval is based on the DIA (preliminary EIA) or the full EIA.	Environmental License by Law 99 1.993, article 49 and Resolution 655 1.996 (three types of licenses): Ordinary license, implied permits license and global license; and Environmental Assessment and Management Document (DEMA).	SPA grants approvals of Environmental Impact Studies and Environmental Management Plans. For approvals in “protected areas” INEFAN has authority to grant approval.	The Environmental Authorization/Permit.	An Environmental Impact Declaration (DIA) is required for new activities	- Start contracts with PERUPETRO S.A. for exploration and exploitation activities. - Submission and grant approval for EIA's.	A Contract must first be negotiated with the State Oil Company and then given final approval by the government.	Land use permit. Authorization to use renewable natural resources. License for access construction. License for impacting mangroves and associated spaces.

Countries											
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(D-2) For the above mentioned (D-1), is an Environmental Assessment required?	Yes, The SE requires an environmental study for development activities only. The study must consider environment, socioeconomic and indigenous peoples issues.	Yes, an EIA is required to obtain a DIA, including in EIA is: - Project description, - Environmental impact identification & evaluation, - Mitigation plans, - Environmental application, - Monitoring process, - Waste handling and management, - Contingency and risk analysis plans, - Public consultation report, and - Social and cultural impact assessment.	Yes, there are 5 specific reports: (1) Enviro Impact Study, which is the most comprehensive of the studies (2) Enviro Control Report which is prepared by operator prior to drilling (3) Enviro Viability Study, prepared by operator prior to development and production (4) Enviro Evaluation Report, contains enviro diagnosis of the area, w/ mitigation plan (5) Enviro Control Project, describes projects and steps to minimize enviro impacts	Not always, it depends upon the impact the project may have, sometimes only an DIA is required. The specific requirements are listed in Title III, parts 1 and 2 SEIA's Regulation.	Yes, an EIA is required before a project is started, specifying project's scope and submitted information.	Yes, (1) Environmental management with a baseline study of the physical and biological environment, as well as an archeological and environmental study with a mitigation plan (2) Socioeconomic portion includes public consultation program, any training plans and monitoring program (3) Indigenous section includes ethnic description, demography, land title situation, and any subsistence living	Yes, A preliminary EIA is requested to decide whether or not a full EIA is required for the project or activity. Since the EPA was created there has not been any exploration activity so the system has not yet been used.	To receive a DIA, the company must submit either 1) A full EIA, or 2) An environmental management study (PGA)	Yes, Natural resources in environmental protection, socioeconomic, geographical & cultural aspects of local residents and indigenous communities.	There is no specific requirement for EIA's, but with the statement that companies should operate to international petroleum standards, some EIA are conducted. The government does make one specific requirement, that when dealing with indigenous peoples they must be compensated for the use of their private land.	Yes, EIA is mandatory for all hydrocarbons activity

Countries

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(D-3) Briefly describe the approval process for new projects, (i.e. the ministry or agency to which the application is made, the kind of application required, the length of time for approval, number of agencies reviewing, etc.)	<p>- After National Government, by Law 17319, has completed the bidding round on new exploration and exploitation opportunities, The Secretary of Energy (SE) request an Environmental Impact Report for the new operations.</p> <p>- Report is reviewed within 60 days and SE can then issue an Environmental Impact Declaration (DIA)</p> <p>- If SE rejects the report the company has 30 days to make corrections and resubmit.</p>	<p>1) An officially notified "fiche ambiental" is submitted to UMA, they have 5 days to review and categorize, and 5 days to collect more information.</p> <p>2) Then sent to MDSP to be ratified 5 days to review and categorize, and 5 days to collect more information.</p> <p>3) Depending on category UMA has 20 days if cat. I or 15 days if cat. II to review the EIA, then 15 days to collect additional information,</p> <p>4) Finally MDSP 5 days to ratify and 20 days to collect additional information</p>	<p>The agency which handles that approval process is The Brazilian Institute for Environment and Renewable Resources (IBAMA).</p> <p>The Recorder of Environmental Impacts (RIMA) is the document that must be submitted, the specific requirements are determined on a case-by-case basis</p>	Blank	<p>The interested party files an application, submits an Environmental Alternatives Diagnostic (DAA), after knowing terms of reference an EIA is developed and the license granted by the Ministry of Environment or Regional Autonomous Corporations, with an approval time of 120 working days.</p>	<p>A) Study submitted to MEM</p> <p>B) Review and grant approval for either association or services contract</p> <p>C) Elaboration of EIA study and development of plans within a term of two years</p> <p>D) Presentation and approval of complete EIA from the SPA via DINAPA</p> <p>E) Presentation and approval of engineering studies by DGH</p>	<p>- The EIA is submitted to the GGMC, Petroleum Unit</p> <p>- The GGMC reviews it and passes it on to EPA</p> <p>- EPA is responsible for issuing the Environmental Permit</p> <p>- The petroleum company can not begin operations or receive approval of their budget from the GGMC until the EPA has issued the Environmental Permit</p>	<p>The application form is submitted to (MOPEC) and either a full EIA or shorter PGA is needed before DIA permit is issued.</p> <p>EIA requires</p> <ul style="list-style-type: none"> - description of project and timeframe of work - analysis of socioeconomic impact - description of physical, biological and social area of impact - risk assessment of each stage of activity - environmental management plan, including mitigation and remediation steps - executive summary of EIA <p>The average time for exploration permits is 30 days, but production permits can take longer.</p>	<p>- New projects must complete a PAMA (preliminary study) first. If a full EIA is required it a full list of requirements is requested including an environment management plan, contingency and abandonment plan</p> <p>- INRENA evaluates the EIA</p> <p>- Notices of Public hearings are place in regional and state's newspapers,</p> <p>- Participation of local and indigenous peoples is sought before final approval</p>	<p>It is a responsibility of the Ministry of Natural Resources (MNR).</p>	<p>- Interested parties must notify MARNR by submitting a letter of intent (DI).</p> <p>- There is a list of activities that requiring a mandatory EIA.</p> <p>- If an EIA is required it must be submitted to MARNR</p> <p>- Depending on project additional documentation may be requested</p> <p>- MARNR will grant permit or Environmental Impact Declaration (DIA).</p>

Countries											
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(D-4) Once a project has been approved and has begun construction or operations, are there any additional regulatory requirements relating to environmental protection or Indigenous Peoples issues?	Yes, the SE asks for an environmental study of the exploration conditions. The study is divided into four steps: 1) Baseline study 2) Impact assessment 3) Mitigation plan, and 4) Monitoring plan. A contingency plan is also required as well as annual monitoring reports. For well permits an environmental assessment and contingency plan are required.	Yes, UMA conducts field investigations when needed, they monitor for biological impacts, waste management, effluents and impacts on local residents. The MDSP can also conduct field investigations on the same projects if they wish.	No	No	Yes, the company must prepare an Environmental Management and Assessment Paper (DEMA) for establishing the environment damage factors and mitigation measures.	No	The Petroleum division is responsible for monitoring the project and has to submit to GGMC periodic reports.	The Environmental Arrangement Office is the one responsible and th Hydrocarbons Department collects the periodical field reports. There are no additional requirements.	Yes, OSINERG and DGAA request monthly report on effluents quality sampling. Results are checked by DGAA for compliance with maximum limits. OSINERG can conduct environmental audits according environmental regulation article 9, the company must submit an annual report by march 31st .	No	
(D-5) Is there a requirement for a hydrocarbon company to inform and consult with the general public and/or Indigenous Peoples who live in the vicinity of the project?	No, but in some provinces public consultations are carried out. This requirement is not considered useful nationally	Yes, the company must carry out public consultation and they must circulate information on the project to the community	Not as a rule, but as the contents of each RIMA document are defined, there may be some cases where public consultation is required.	Yes, both the CONADI's Law and SEIA's Regulation specifically require public consultation with local communities	Yes, by Decree 1320/98, Environmental Management Plans and Public Consultation.	Yes, Federal Constitution, chapter 5, article 84, # 5.	Only for certain types of projects. The EPA can specify that the EIA must include a public consultation process. The EPA enforces the environmental protection act, but the act does not have any regulations associated with it yet that require public consultation	Yes, the Law enforces public consultation with indigenous groups at many stages during the project	Yes, Supreme Decree 046-93-EM, article 12 and Regulation for public participation, M.R. No. 335-96-EM/DGAA.	Yes	Yes.

Countries											
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(D-6) When the project is finished the site will be abandoned by the company. Are there any requirements for abandoning sites (e.g. contamination or rehabilitation criteria)?	Yes, the oil company must remove all equipment and then the environment conditions are assessed and if necessary a remediation program is initiated	Yes, there is an abandonment plan for all sites, it includes site remediation and monitoring by UMA and MDSP.	Yes, these requirements are included in the contractual agreement between Petrobras and ANP.	If the EIA of DIA did not specify an remedial action, then there are none.	Yes, within the Environmental Licenses by means of Environmental Management Plans.	Yes, the original EIA will have a section with an Abandonment Plan. The goal is to return the site to its original state.	After completion and abandonment, the site must be restored to original conditions.	No, any requirements for remediation will be laid out in the DOA. To date, Paraguay has not had a major hydrocarbon project that required remediation activity	Yes, Supreme Decree 046, art. 10, 11, 32 and 56, requires the presentation of an abandonment plan, OSINERG checking the projects, and fines & penalties established by Hydrocarbons Law.	No	Yes, by Decree 1843, article 7. and EIA regulation, article 4.
(D-7) Is the government approval and control process administered by more than one ministry or agency?	NO	No	No, only IBAMA - SISNAMA has the authority to grant approvals.	Yes, Hydrocarbon contracts are approved by Ministry of Mining with Energy, but they rely on input from the National Energy Commission (CNE). The Project's Monitoring Committee (established by CNE) then approves any small additions or changes in the project activities. Each project must pass through the Environmental approval System and Indigenous Law approval system. The state oil company must also receive approval from CNE on its projects	Yes, by the Ministry of Environment, the Regional Corporations, Local Governments and Municipalities.	No	Yes, The GGCM is required to provide EPA with all the details they will need to make a decision. The approval ultimately comes from the EPA but they rely on assistance from the GGMC	No, the approval process is managed exclusively by MOPC.	Yes, Environmental Affairs General Office (DGAA), National Institute for Natural Resources (INRENA) and Hydrocarbons General Office (DGH).	Yes, a contract must first be negotiated with the State Oil Company and then given final approval by the government.	No.

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
(D-8) Which agency is responsible for ensuring that the company is constructing and operating its project according to regulations and approval requirements with respect to: - environmental protection - Indigenous Peoples Issues	The Secretary of Energy is responsible for both	There are the two environmental organizations, and one social planning organization who play a SPAll role, but it is the Vice-Ministry of Energy and Hydrocarbons who is responsible for ensuring compliance.	- Environmental Protection: ANP, IBAMA, and State and Municipal Agencies - Indigenous Peoples Issues: ANP and FUNAI.	- Environmental Protection is monitored by CONAMA and State Offices involved in projects. - Indigenous Affairs are monitored by CONADI.	The Ministry of Environment, the Regional Corporations, Local Governments and Municipalities.	SPA via DINAPA	Up till now it has been EPA, but eventually the law will change and the GGCM' Petroleum Division will be undertaking the monitoring process	General hydrocarbon activities are monitored by the Hydrocarbons Department The environmental monitoring is via the Environmental Reclamation Office and the indigenous issues are monitored by the Paraguayan Indigenous Institute.	Environmental protection by OSINERG and DGAA.	The Ministry of Natural Resources (MNR).	The Ministry of energy and Mines (MEM).
(D-9) Do these agencies use any particular process (e.g. periodic field inspection, monitoring, audit requirements) to ensure compliance.	Yes, an environmental study and an annual monitoring report are required. In addition periodical field inspections are carried out by national and provincial authorities.	Yes, auditing.	Yes	No	Periodic field inspection and monitoring to ensure compliance.	Yes, by periodical field inspections, environmental monitoring, and internal environmental audits and field inspections.	Blank	Periodic field inspection as conducted, although with limited personnel there is not a lot of this	Yes, periodical field inspections in accordance with Hydrocarbons Organic Law and fiscalization activities by OSINERG.	Field Inspections	Field inspections and monitoring.
(D-10) If field inspection by the government agencies is done, is it done by: - government personnel - outside consultants	They use government personnel.	Primarily with Government staff, but they also use consultants when needed.	Blank	Only by government personnel.	By their own staff.	Blank	Blank	Only by government personnel.	Usually by Government staff, but sometimes some consultant's staff are hired.	By government personnel	

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
(D-11) If there is a problem or complaint by someone from the public or local Indigenous Peoples about a hydrocarbon project, which government agency would be responsible for receiving, investigating and resolving the complaint?	The Secretary of Energy.	The MSDP and its Vice-Ministry of Environment, Natural Resources and Forest Development would handle complaints from public and indigenous peoples.	The National Petroleum Agency (ANP)	Environmental complaints are handled by CONAMA and complaints by indigenous groups are handled by CONADI.	Both, CONAMA and CONADI.	For environmental complaints the SPA would handle them. For indigenous peoples complaints the INEFAN would handle them	Blank	Agencies responsible for complaints are: - Vice-Ministry of Environment and Natural Resources, - Environment Fiscal Body, - Nation's General Controller and - Paraguayan Indigenous Institute.	By Supreme Decree 046, article 53: Public or other agencies may report an infringement of the regulations contained in this Decree to OSINERG, Energy and Mines Regional Offices, Hydrocarbons General Office, Regional Governments and Municipalities.	The Ministry of Natural Resources (MNR).	MARNR, by means of Environment General Attorney (Procuraduria del Ambiente).
(D-12) If there have been complaints in the past years, please describe the most common and serious ones.	There have been complaints for underground water pollution.	Specifically by Indigenous Peoples not being consulted in project development and that their lands have been damaged by the project.	Blank	No, although there may be environmental problems associated with hydrocarbon activities, the affected people do not realize the source of the problem	Conflicts by accessing indigenous lands, many organizations involved, local governments high dependents upon industry, community leaders and ONG's manipulating the process, differences between benefits, investments and communities socioeconomic, etc.	- Environmental pollution on indigenous lands caused by Texaco's operations, and the associated compensation claims which have not been resolved - Soil pollution from leaking crude oil and produced caused by Petroecuador	Blank	Very few, but one brought forward by an NGO representing indigenous peoples. The indigenous peoples were looking for compensation for a seismic line that went straight through their land. There was also a case where well drillers were requesting improved working conditions	Yes, referred to environmental pollution by produced water, refineries emissions and crude oil spills. The most hard solving are those with no EIA's approval. Also land's invasion, damages to flora and wild life, etc...	None specifically relating to petroleum operations	

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
(D-13) What would you consider to be the primary shortcomings of your current control procedures in relation to controlling impacts of hydrocarbon projects on the environment and on Indigenous Peoples?	The control process should be strengthened and the field inspections should be conducted more frequently	(1) Lack of specific regulations for guide the industries activities, especially related to indigenous and environmental issues. (2) There is no regulations specifically for indigenous lands (3) There is not a tax incentive for clean industry.	Blank	In the past there has not been a lot of activity in the hydrocarbon sector, so the particlc experience of the personnel working in this area is probably limited.	1) The new licensing process will require some time before it is accepted. The new system is faster and cheaper and only requires one license for all activities; 2) There is also a lack of planning when granting licenses in sensitive areas, more consideration should be given to environmental and indigenous impacts 3) there is overlapping of indigenous lands with cultural and ecological sensitive areas.	(1) Insufficient budget (2) Lack of adequately trained and multidisciplinary staff (3) Lack of adequate equipment (4) Poor coordination amongst Government agencies.	Blank	(1) Weak institutional framework (2) Unclear regulations defining the relationship between indigenous peoples and oil industry and (3) A small environmental budget.	There are no real procedures to solve the indigenous peoples matters, there is no definition of environment, risk and socioeconomic areas in the country. The activities of the hydrocarbon companies will be delayed for the elapsed time for solving the problems with indigenous peoples and there is not a real presence of the State so the companies assume jobs beyond their duties.	Shortage of - qualified staff and - equipment, labs., etc.	
(D-14) Could you suggest any feasible alternatives for solving these problems?	Yes, additional personnel would help solve the problem	To develop specific procedures and mechanisms supported by regional and worldwide experience.	Blank	Blank	Blank	(1) Increasing environmental budget (2) Development and training courses for staff (3) Establish a process for sharing information within Government	Blank	(1) Begin to strengthen the institutional framework in Paraguay (2) Develop clear legislation defining the rights of indigenous peoples in relation to the hydrocarbon industry	PROMUDEH is developing some actions for land titles regularization, besides fiscakization must be improved, including regulatory modifications, as needed.	Increase the funding and hire more staff	

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
(D-15) If hydrocarbon operations do not comply with the environmental legislation, what mechanism does the government agency have to penalize the company? (i.e. fines, sanctions, penalties, etc.)	Law No. 17319, articles 79 throughout 90 establishes penalties, fines and cancellation of permits for infractions.	Fines and penalties by MDSP or UMA	The application of fines, obligation for repairing and financial compensation for eventual damages and contract interruption.	Yes, by cancellation of Project's Environmental Approval (Permit)	Daily fines for 300 minimum monthly wages, permit, approval, concession & license suspension and facility temporary or definitive closure.	Hydrocarbons Environmental Regulation, chapter XI, article 62 allows the government to fine and penalize companies.	Blank	If operations do not comply with regulations then Laws 716/96 allows fines, penalties and sanctions to be issued, and Law 294/93 allows cancellation of operating licenses	Supreme Decree 046, article 48 covers situations of non compliance, i.e. fines, penalties, etc., that are to be enforced by OSINERG.	The government has the authority to stop the petroleum operations	Fines and penalties: Provisional and final closure, demolition. Prohibition to undertake activities. Prohibition to obtain authorizations. Prison, seizing, fines and community work.
E-OTHERS							Blank				
(E-1) Some countries in the region have mentioned the idea of a regional center for the collection and exchange of information. Would a center like this be a useful idea?	Yes, if operated in a similar fashion to ARPEL. - Information on the legislation, projects, statistics, particular problems and solutions in the different countries, could be collected and shared - Would help develop a sense regional cooperation	This Centre could have a central office within OLADE or World Bank headquarters, with a Sub-Andean countries council meeting annually for programming. Informing and new projects development.	Yes	Not as a Centre itself with an Organizational structure and headquarters, but having a regional data bank network supported by the 11 Sub-Andean Countries and a Management Committee.	Blank	Yes, perhaps based on the Pan-American Network Data Bank (REPDISCA) in Lima, Peru, which has been sharing information on drinking water and environmental data for some years.	Blank	Yes, by using OLADES infrastructure and establishing a network amongst the Sub-Andean Countries for sharing information, data and experiences.	Yes, and it is suggested that OLADE could lead it, and the sort of information is the one contained within this questionnaire, and additionally some statistics and experience sharing could be included.	Yes, the Center could cooperate with UNEP Regional Coordinating Unit, who is also the Secretariat for the Caribbean Environment Program, and the Cartagena Convention on protection of the environment in the wider Caribbean, and its Oil Spill Protocol.	
(E-2) Has your country developed a national map outlining sensitive environmental areas?	NO	Yes, but they are temporarily out of stock	Yes, it must be requested directly to IBAMA.	No	No	Yes.	Blank	Yes, a copy has been attached.	Yes, a copy has been attached.	No	

Countries											
	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Guyana	Paraguay	Peru	Suriname	Venezuela
(E-3) Has your country developed a national map outlining indigenous peoples lands?	NO	Yes	Yes, it must be requested directly to FUNAI.	No	No	Blank	Blank	Yes, a copy has been attached.	Yes, a copy has been attached.	Blank	
(E-4) Is there a Organizational chart highlighting the structure of the: - Hydrocarbon agencies in your country? - Environmental agencies in your country? - Indigenous Peoples agencies in your country?	NO	Yes	Yes, it must be requested directly to IBAMA.	Yes, but only for Environmental and Indigenous Issues Agencies. Copy will be sent by fax.	Yes, but it has not been submitted.	Blank	Blank	Yes, for the three areas and a copy has been attached.	Yes, Yes, Yes. A photocopy is attached.	Only for the hydrocarbon Agencies.	

Appendix B

Existing Models for Environmental and Social Impact Mitigation

Existing Models for Environmental and Socioeconomic Impact Control

1. A review of models elsewhere reveals the fundamental link between constitutional rights, status of land ownership, and the extent to which legislation, regulations, policies and guidelines are developed, invoked, monitored and enforced. Accommodation of indigenous interests in hydrocarbon development ranges from strongest, in jurisdictions that allow for the indigenous ownership of land and legislated rights, to weakest where no such provisions are in effect.

2. Areas of the world that do not engage in hydrocarbon development and do not have large identifiable indigenous groups were discounted as of no interest for the purposes of this review. Areas selected that met these criteria were the Soviet Union, Canada and Australia. A comparison is made here between these jurisdictions, and some examples are provided to illustrate the role of constitutional, legislative and regulatory regimes in the accommodation of indigenous interests in hydrocarbon developments.

Russia (Former Soviet Union)

3. Russia is estimated to have 55 billion barrels of oil reserves and undeveloped gas resources roughly equal to the entire North American continent. About ten percent of the global oil supply and 30 per cent of the world's production of natural gas is extracted from Russian oil fields. Over recent decades, oil and gas development has greatly expanded in Northwest Siberia. The region, stretching from the Ural Mountains in the west to Novosibirsk in the south, produces 78 percent of Russia's oil and 84 percent of its natural gas.

4. Two foreign companies have received permission to operate in the region. Shell and Amoco are however waiting for adoption of the Russian "Production Sharing Law" and the "Oil and Gas Law."

5. A rapidly developing area within the region is the Yamal Peninsula, a parcel of land jutting into the Kara Sea above the Arctic Circle, inhabited by seven indigenous Native populations, and a larger number of immigrant workers. Here, Amoco has a relationship with Gazprom, Russia's large gas monopoly, to develop resources on the peninsula.

6. The population of the Yamal Peninsula is approximately one half million of which the indigenous Nenets and Khanty, represent just over thirty thousand. The indigenous people are Arctic nomadic reindeer pastoralists with a traditional subsistence economy. The Nenets and Khanty belong to the Ural-Altai (Ukrainian) language family, while immigrant workers speak Russian.

7. In the early 1930s the Soviet government forced Nenets and Khanty reindeer breeders onto collective farms. In the 1960s the collective farms were transformed into state-owned Soviet farms. In the 1980s, several major gas fields were discovered on the Yamal Peninsula, attracting large number of non-native workers. Also in the 1980s a law was passed replacing national minority okrugs (district administrative bodies) with autonomous ones, and removing reference to native peoples. As the indigenous population was by that time a small minority compared to migrant workers, participation in the political decision-making process was essentially negated.

8. The legislative status of the Yamal-Nenets okrug³ is unclear, while a Yamal native people's association, designed to work with legal and executive bodies in the region to improve economic and social conditions, has no legal base. Appeals for compensation for land utilized by oil and gas development are said to have met with little success. Lands available for reindeer herding have been considerably reduced, and other lands have experienced environmental degradation as a result of poor planning. For example, to the south of Yamal in the Khanty-Mansi autonomous region, it is reported that a petroleum development saw as much as a third of summer pasture being taken over by oil ministries for construction purposes, forcing reindeer overgrazing on the remaining tundra.⁴

9. A 1993 study of problems of demography and health among the indigenous populations cites

- Government measures to settle the nomadic population into villages;

³ The Yamalo-Nenets autonomous okrug cooperates actively with a number of foreign states. The okrug's business partners include manufacturing and trading companies from countries such as Canada, Turkey, Italy, Germany, and England. Decisions to establish representative offices of the autonomous okrug in Turkey and Ukraine have been approved at federal level. The Ministry of Foreign Affairs of the Russian Federation is currently working on the registration of the okrug's representative office in Canada.

⁴ <http://arcticcircle.unconn.edu/ArcticCircle/SEEJ/Yamal/intro.html>.

- Infant mortality among the Nenets and Khanty far greater than among the non-indigenous population;
- High consumption of alcohol and alcohol substitutes;
- A high death rate by accidents, poisoning and traumas; and
- A high birth rate juxtaposed with a shrinking basis for traditional economic pursuits and occupations.

10. It further comments that

*“...ethno-cultural and demographic issues with respect to minority peoples have not been adequately taken into account, either in the past or at present, in the feasibility reports of major projects (including the environmental impact evaluation (EIE) documents; a compulsory section in the technical and economic documentation of any major industrial project). Nor have they been considered during negotiations between representatives of the region’s industries and administrators for material and financial compensations for environmental damages and social losses.”*⁵

11. President of Amoco Eurasia Petroleum Company, T. Don Stacy, has also commented as follows:

*“Mixed in the bureaucratic quicksand of the Soviet system, the oil fields were not adequately developed and modern methods of preserving the environment and managing reservoirs gave way to the need to produce an assigned quota.”*⁶

Canada

12. Canada has a federal government, nine provincial and two territorial governments. *The Constitution Act, 1867* gives the Canadian federal government the authority to make laws in relation to its indigenous population, referred to in legislation as “Indians”. In 1951 S.88 of the federal *Indian Act* came into force, giving provincial legislation the ability of affect “Indians”, however, federal law takes precedence where conflict occurs.

13. In 1982 the Constitution was amended, including a specific provision (Section 35(1)) for the recognition and protection of aboriginal and treaty rights.

⁵ Aleksandr Pika and Norman Chance, “The Nenets and Khanty of the Russian Federation,” in *State of the Peoples: A Global Human Rights Report on Societies in Danger*, Marc Miller, ed. (Boston: Beacon Press, 1993).

⁶ “Amoco’s Stacey Comments on Oil in the Former Soviet Union” (Amoco Corporation News Release, November 8, 1997).

Aboriginal title may be extinguished by treaties that transfer Indian Lands and oil and gas rights to the First Nations, with the land being held on their behalf by the federal government. Laws or activities which infringe on Aboriginal rights may be found to be unconstitutional unless it can be shown by tests identified in case law (*Sparrow*) that there is a compelling and substantive basis for the activity and that everything possible has been done to mitigate potential impacts.

14. Treaties in many parts of Canada were signed in the last century. However, in British Columbia only a few small treaties were negotiated on Vancouver Island, and a larger one in the northeast of the Province (Treaty 8). This section examines the case of British Columbia and the Yukon/Northwest Territories, where the land claims settlement process, with the exceptions noted, commenced in this decade.

British Columbia

15. The oil and gas industry has emerged in recent years as a major sector in the provincial economy, enjoying a record year in 1997. During the year, the oil and gas sector invested more than \$1.8 billion in the province, and the highest number of wells was drilled in a year in the province's history (583). Gas production was 24.7 billion cubic meters – also the highest ever. Overall, in 1997 the value of annual production was estimated at \$1.5 billion.

16. In British Columbia, 192 bands represent about 90,000 First Nations people or about 3 percent of the population. The majority of communities with substantial First Nations populations are located in the north of the Province. There are ten major ethnic groups, classified on a linguistic basis. In the south of the province, First Nations people have essentially adopted a western lifestyle, whereas in the north there tends to be a mix of modern and traditional occupations, with many still obtaining about 50 percent of their food and other resources from traditional use of the land. In very remote communities, this figure may be higher.

17. In British Columbia the *Delgamuukw* (British Columbia Court of Appeal 1993 and Supreme Court of Canada 1997) decisions resulted in a changed legal relationship between the province and First Nations. These decisions basically confirmed Aboriginal right and title in the Province, protecting the traditional use of land to hunt, fish and gather cultural and sustenance resources; and social and spiritual sites.

18. All proposals for major hydrocarbon developments are subject to the *Environmental Assessment Act* (1995). In 1995 the British Columbia Minister of Aboriginal Affairs released a Crown Lands Activities Policy designed to provide operational guidelines for government agencies to follow when granting permits, licenses and tenures on Crown Lands. The Environmental Assessment Process conforms to this policy, and enables First Nations to participate in the review process.

19. If a project is within or in the vicinity of traditional territory, the potentially affected First nation is notified about the project, invited to comment on the project, and invited to join the project committee (consisting of provincial and sometimes federal agency representatives).
20. As members of the project committee, First nations are directly involved in assessing the adequacy of the proponent's program of consultation with Aboriginal people and evaluating any potential effects of the project on aboriginal people. Participant assistance is also available to First Nations to enable participation in the review, in accordance with government criteria.
21. The project proponent must conduct a program of information and consultation with Aboriginal people, including aboriginal archaeological and traditional use impact assessment studies.
22. The consultation program with First Nations is monitored and assessed by the project committee, which may direct the proponent to take further measures.
23. Where First Nations choose not to formally participate in the review process, the Environmental Assessment Office attempts to negotiate an alternative form of participation to identify and prevent or mitigate any potential infringements.
24. All commercial oil and gas production in British Columbia takes place in the northeast of the province. In recognition of the specific nature of the industry, on June 3, 1998 the *Oil and Gas Commission Act* was tabled in the legislature. The purpose of the Act is to:
 - Create the British Columbia Oil and Gas Commission (a Crown Corporation) to regulate oil and gas activities and pipelines in British Columbia;
 - Provide for the effective and efficient processes for the review of applications related to oil and gas activities or pipelines;
 - Insure that applications that are approved are in the public interest having regard to environmental, economic and social effects;
 - Encourage the participation of First Nations in processes affecting them; and
 - Promote education and communication in order to advance safe and efficient practices and other purposes of the commission.
25. In specific regard to First Nations:
 - The procedure provides for the development of comprehensive memoranda of understanding (MOU) between the government and First Nations located in northeastern BC.

- These MOUs will provide for consultation between government and First Nations respecting oil and gas activities in the northeast; will support First Nations develop the capacity to participate in the review and approval of oil and gas projects; and will provide a mechanism for promoting First Nations community development.
- Funding for implementing these MOU's will be provided by industry. The Commission will be responsible for carrying out consultations and facilitating First Nations' capacity building and for managing related financial assistance to First Nations.
- Oil and gas royalties from reserve lands are administered and collected by the provincial government and transferred to First Nations. Issues for resolution by the Oil and Gas Commission include revenues from lands outside reserves, and claimed as traditional territories by First Nations in the land claim settlement process, and mitigation for potential infringements of Aboriginal rights.

The Yukon and Northwest Territories

26. The management of Canada's oil and gas resources north of 60° latitude in the Northwest Territories and Yukon is a federal responsibility carried out by the Northern Oil and Gas Directorate of the Department of Indian Affairs and Northern Development.

27. Petroleum resource management on Crown Lands north of 60° latitude is exercised under two federal statutes: the *Canada Petroleum Resources Act* (CPRA) and the *Canada Oil and Gas Operations Act* (COGOA). The CPRA governs the allocation of Crown Lands to the private sector, tenure to the allocated rights, and the setting and collection of royalties, and is administered by the Minister of Indian Affairs and Northern Development.

28. In 1999, the Northwest Territories will divide into two territories. The eastern territory will be called Nunavut. The Nunavut area covers almost 1/3 of Canada and is almost entirely above the treeline. Nunavut has a population of approximately 24,000 of whom 85 percent are Inuit (18,000). Total Yukon land area is 478,970 square kilometers. Twenty three percent of the Yukon population of 27,796 is of aboriginal descent

29. The gradual reopening of the mainland Northwest Territories to oil and gas exploration is beginning to generate employment and business opportunities for northern development. At the end of 1997, approximately twenty oil and gas companies held newly acquired exploration acreage in the North.

30. Prior to issuing calls for Nominations consultations are held with First Nations to identify areas of environmental sensitivity, including those holding special interest for cultural or spiritual reasons to First nations. Some of these areas are then

either excluded from the lands available for nomination or are flagged as being subject to certain terms and conditions at the activity permitting stage. Environmental considerations also play an important role in regard to the issuance of land use permits, water licences and all work authorizations.

31. Under the *Canada Petroleum Resources Act* the Environmental Studies Research Funds (ESRF) finances environmental and social studies related to the exploration and development of oil and gas resources on frontier lands. The program is funded through levies paid by interest holders.

32. Royalties received from industry on northern oil and natural gas production amounted to about \$10 million during 1997. From this amount, the Sahtu and Gwich'in First Nations received a share in fulfillment of royalty sharing provisions in their land claim settlement agreements.

33. In 1999, the Northwest Territories will divide into two territories. The eastern territory will be called Nunavut. The new Nunavut Territory is home to and will be self-governed by the Inuit. In 1999 the Inuit of the Nunavut area of Canada's Arctic will take on the responsibility of managing their own affairs, and those of the non-Inuit also living there.

34. The Federal and Yukon governments signed the Canada-Yukon Oil and Gas Accord in May 1993. This agreement provides for the transfer to Yukon of the responsibilities for the administration and regulation of onshore oil and natural gas exploration and development in Yukon. The government of Yukon will exercise this provincial-type responsibility once the agreement is implemented. Bill C-8, *the Canada-Yukon Oil and Gas Accord Implementation Act*, was introduced into Parliament in 1997. The proposed legislation, once passed by Parliament, will implement the agreement.

Australia

35. In 1996 Australia produced about 70 per cent of its oil needs and all of its gas needs. The value of oil and gas production was around \$A 8 billion, with exports valued at over \$A 5.2 billion. For more than twenty-five years, Australia's main oil producing area has been the Bass Strait region off the coast of Victoria.

36. The natural gas industry has grown over the last twenty years from a relatively small base to being Australia's third primary energy source after coal and oil. Natural gas currently accounts for about 17 per cent of Australia's primary energy needs, meeting 34 percent of the industrial energy requirements and 28 percent of the energy requirements of the commercial and residential sector.

37. In the Australian federal system both the national government (the Commonwealth) and the State and Territory governments have roles affecting petroleum exploration and development:

- The Commonwealth is responsible for broad economic policy and international matters, including personal and company income tax, interest rates, the overall level of government spending, foreign investment guidelines, trade and customs, commercial corporations and international agreements, and
- The states and territories own and allocate petroleum rights, administer petroleum operations, including occupational health and safety, and collect royalties on petroleum produced. (The only exception is offshore petroleum seaward of the first three nautical miles of the territorial sea - here the petroleum rights are owned by the Commonwealth, but day-to-day administration is still carried out by the relevant adjacent State or Territory).

38. New or significantly expanded onshore petroleum projects in Australia must undergo some degree of formal environmental impact assessment (EIA) under the *Environment Protection (Impact of Proposals) Act 1974*. Under this legislation, the significance of the likely impact on the environment of the activities is assessed. Advice is sought from Commonwealth and State environmental, conservation, fisheries and resources agencies as part of the assessment. Although the law and the process varies amongst the States and the Northern Territory, the basic elements are similar. The main steps provide a framework for identifying, planning and managing likely environmental impacts.

39. Australia's constitutional framework is then very similar to Canada's, as is the outcome of case law relating to Aboriginal rights.

40. The *Gove* land rights case was Australia's first native title case. In 1972, the Federal Court's Justice Blackburn found that while traditional laws and customs were alive and well, Australia's courts would not recognize these rights. The Federal Government passed the NT Land Rights Act to override this decision in the NT.

41. The *Racial Discrimination Act* came into effect in 1975. It ensures governments do not discriminate against people on the basis of race. It was under this act that the *Mabo* case was taken to the High Court. The act prevents Aboriginal rights being removed without proper compensation.

42. The *Mabo* Case was Australia's second native title case. In 1992, the High Court overruled Justice Blackburn's 1972 decision and held that courts do recognize Aboriginal rights to land (native title). Rights like these established by courts are known as common law rights.

43. *Native Title Act* (1993) implements the law as stated in the Mabo case. Rights established by laws are known as statutory rights. The act set up the Native Title Tribunal to assist with negotiations between indigenous people and developers, indigenous people may receive rights to negotiate with private companies seeking to develop land under claim, e.g.: mining companies. Native title claims are lodged with the Tribunal.

44. The *Native Title Act 1993* (the NTA) recognizes native title rights and sets down some basic principles in relation to native title in Australia. It also provides a process by which native title rights can be established, compensation determined, and determinations made as to whether future grants may be approved or acts done over native title land and waters.

45. The NTA established the National Native Title Tribunal (NNTT) to provide a means of dealing with issues of native title and gives the Federal Court jurisdiction in these matters. However, to ensure that decisions made in relation to uncontested claims to native title and compensation are valid, such decisions need to be made by a court. The government has introduced amendments to the NTA to provide that such decisions are made in the Federal Court. The NNTT seeks to mediate contested claims, but if this is unsuccessful, the matter is referred to the Federal Court.

46. Where the Commonwealth has recognized State or Territory accredited processes for dealing with native title, processes adopted under their respective legislation may apply in place of the Commonwealth legislation. To date only South Australian processes have been recognized by the Commonwealth. Where there is not a recognized State or Territory body, the NNTT is the relevant arbitration body.

47. The NTA validates Commonwealth acts and enables the validation of State and Territory acts, which may have been invalid due to the existence of native title. ('Acts' includes the making of laws, grants of licences or permits, the creation of any interest in land or waters and the exercise of executive power.) All States and Territories have passed validating legislation. Renewals or extensions of validated titles can be granted in the same or similar terms without having to negotiate with native title holders. Government will pay any required compensation to native title interests. Petroleum titles do not extinguish native title but take precedence over any native title interests for the duration of the permit, lease or licence.

Onshore Requirements

48. Broadly the NTA treats native title land the same as freehold land; if an act, such as the grant of a mining lease, can be made over freehold land, it can be made over native title land. The Act provides for procedures, which may involve negotiations with registered native title holders or registered native title claimants before grants or Crown actions may be made.

49. The Act does not remove land management functions from the States/Territories onshore or within the 3 nautical mile coastal waters zone.

50. Applicants for onshore petroleum titles may be required under the NTA to undertake formal negotiations with registered native title holders or registered native title claimants who have registered a claim over the area prior to the grant of the titles. If agreement cannot be reached in a prescribed period, (four months in the case of an exploration title and six months for any other title, including production titles) either party may apply to the arbitration body for a determination in relation to the act.

51. The arbitration body must take all reasonable steps to make a determination in relation to the act within a further four months in the case of exploration titles and a further six months in other cases. Existing State/Territory regimes will decide on the level of compensation in the case of impairment of native title rights. Arbitration bodies are excluded from imposing any conditions based on the value of resources or production as a condition for approving the grant.

Offshore Requirements

52. The Act requires offshore grants and Crown actions to be undertaken in a non-discriminatory manner so that offshore native title interests are given the same consideration as other offshore users.

53. Applicants for offshore petroleum titles are not subject to the formal negotiation and arbitration processes contained in the NTA. The Commonwealth undertakes consultations with potential/actual native title interests as part of the administrative procedures related to the release of acreage in Commonwealth offshore areas.

Summary

54. The Canada/British Columbia and Australia examples illustrate similarity in state and provincial government relationships, constitutional rights, the involvement of consequent case law, and its role in the development of environmental and tenure assessment processes to require comprehensive involvement of indigenous peoples.

55. The Canada/Yukon and Northwest Territories and the Russian Yamal Peninsula examples conversely illustrate widely divergent involvement of Arctic peoples in hydrocarbon project assessment. Lack of constitutionally protected rights for indigenous people, combined with a minority role in local government, and weak or non-existent land rights in the former Soviet Union contrast starkly with the evolution in Canada's north of regional self-government and the eventual transfer to indigenous peoples of responsibility for the administration and regulation of oil and natural gas exploration and development.

56. It should be noted, however, that the majority of improvement in the roles of indigenous peoples in Canada and Australia has come within the last decade. Also, that both these countries enjoy stable or even robust economies compared with many of the world's countries. Attempts to improve the rights and roles of indigenous peoples in other jurisdictions must, by necessity, take into account the reality and constraints of current world paradigms and economies of those jurisdictions.

Joint UNDP/World Bank
ENERGY SECTOR MANAGEMENT ASSISTANCE PROGRAMME (ESMAP)

LIST OF REPORTS ON COMPLETED ACTIVITIES

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
SUB-SAHARAN AFRICA (AFR)			
Africa Regional	Anglophone Africa Household Energy Workshop (English)	07/88	085/88
	Regional Power Seminar on Reducing Electric Power System Losses in Africa (English)	08/88	087/88
	Institutional Evaluation of EGL (English)	02/89	098/89
	Biomass Mapping Regional Workshops (English)	05/89	--
	Francophone Household Energy Workshop (French)	08/89	--
	Interafrican Electrical Engineering College: Proposals for Short- and Long-Term Development (English)	03/90	112/90
	Biomass Assessment and Mapping (English)	03/90	--
	Symposium on Power Sector Reform and Efficiency Improvement in Sub-Saharan Africa (English)	06/96	182/96
	Commercialization of Marginal Gas Fields (English)	12/97	201/97
Angola	Energy Assessment (English and Portuguese)	05/89	4708-ANG
	Power Rehabilitation and Technical Assistance (English)	10/91	142/91
Benin	Energy Assessment (English and French)	06/85	5222-BEN
Botswana	Energy Assessment (English)	09/84	4998-BT
	Pump Electrification Feasibility Study (English)	01/86	047/86
	Review of Electricity Service Connection Policy (English)	07/87	071/87
	Tuli Block Farms Electrification Study (English)	07/87	072/87
	Household Energy Issues Study (English)	02/88	--
	Urban Household Energy Strategy Study (English)	05/91	132/91
Burkina Faso	Energy Assessment (English and French)	01/86	5730-BUR
	Technical Assistance Program (English)	03/86	052/86
	Urban Household Energy Strategy Study (English and French)	06/91	134/91
Burundi	Energy Assessment (English)	06/82	3778-BU
	Petroleum Supply Management (English)	01/84	012/84
	Status Report (English and French)	02/84	011/84
	Presentation of Energy Projects for the Fourth Five-Year Plan (1983-1987) (English and French)	05/85	036/85
	Improved Charcoal Cookstove Strategy (English and French)	09/85	042/85
	Peat Utilization Project (English)	11/85	046/85
	Energy Assessment (English and French)	01/92	9215-BU
Cape Verde	Energy Assessment (English and Portuguese)	08/84	5073-CV
	Household Energy Strategy Study (English)	02/90	110/90
Central African Republic	Energy Assessment (French)	08/92	9898-CAR
Chad	Elements of Strategy for Urban Household Energy The Case of N'djamena (French)	12/93	160/94
Comoros	Energy Assessment (English and French)	01/88	7104-COM
Congo	Energy Assessment (English)	01/88	6420-COB
	Power Development Plan (English and French)	03/90	106/90
Côte d'Ivoire	Energy Assessment (English and French)	04/85	5250-IVC
	Improved Biomass Utilization (English and French)	04/87	069/87
	Power System Efficiency Study (English)	12/87	--
	Power Sector Efficiency Study (French)	02/92	140/91
	Project of Energy Efficiency in Buildings (English)	09/95	175/95

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
Ethiopia	Energy Assessment (English)	07/84	4741-ET
	Power System Efficiency Study (English)	10/85	045/85
	Agricultural Residue Briquetting Pilot Project (English)	12/86	062/86
	Bagasse Study (English)	12/86	063/86
	Cooking Efficiency Project (English)	12/87	--
	Energy Assessment (English)	02/96	179/96
Gabon	Energy Assessment (English)	07/88	6915-GA
The Gambia	Energy Assessment (English)	11/83	4743-GM
	Solar Water Heating Retrofit Project (English)	02/85	030/85
	Solar Photovoltaic Applications (English)	03/85	032/85
	Petroleum Supply Management Assistance (English)	04/85	035/85
Ghana	Energy Assessment (English)	11/86	6234-GH
	Energy Rationalization in the Industrial Sector (English)	06/88	084/88
	Sawmill Residues Utilization Study (English)	11/88	074/87
	Industrial Energy Efficiency (English)	11/92	148/92
Guinea	Energy Assessment (English)	11/86	6137-GUI
	Household Energy Strategy (English and French)	01/94	163/94
Guinea-Bissau	Energy Assessment (English and Portuguese)	08/84	5083-GUB
	Recommended Technical Assistance Projects (English & Portuguese)	04/85	033/85
	Management Options for the Electric Power and Water Supply Subsectors (English)	02/90	100/90
	Power and Water Institutional Restructuring (French)	04/91	118/91
	Energy Assessment (English)	05/82	3800-KE
Kenya	Power System Efficiency Study (English)	03/84	014/84
	Status Report (English)	05/84	016/84
	Coal Conversion Action Plan (English)	02/87	--
	Solar Water Heating Study (English)	02/87	066/87
	Peri-Urban Woodfuel Development (English)	10/87	076/87
	Power Master Plan (English)	11/87	--
	Power Loss Reduction Study (English)	09/96	186/96
	Energy Assessment (English)	01/84	4676-LSO
Liberia	Energy Assessment (English)	12/84	5279-LBR
	Recommended Technical Assistance Projects (English)	06/85	038/85
	Power System Efficiency Study (English)	12/87	081/87
Madagascar	Energy Assessment (English)	01/87	5700-MAG
	Power System Efficiency Study (English and French)	12/87	075/87
	Environmental Impact of Woodfuels (French)	10/95	176/95
Malawi	Energy Assessment (English)	08/82	3903-MAL
	Technical Assistance to Improve the Efficiency of Fuelwood Use in the Tobacco Industry (English)	11/83	009/83
	Status Report (English)	01/84	013/84
Mali	Energy Assessment (English and French)	11/91	8423-MLI
	Household Energy Strategy (English and French)	03/92	147/92
Islamic Republic of Mauritania	Energy Assessment (English and French)	04/85	5224-MAU
	Household Energy Strategy Study (English and French)	07/90	123/90
Mauritius	Energy Assessment (English)	12/81	3510-MAS
	Status Report (English)	10/83	008/83
	Power System Efficiency Audit (English)	05/87	070/87

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
Mauritius	Bagasse Power Potential (English)	10/87	077/87
	Energy Sector Review (English)	12/94	3643-MAS
Mozambique	Energy Assessment (English)	01/87	6128-MOZ
	Household Electricity Utilization Study (English)	03/90	113/90
	Electricity Tariffs Study (English)	06/96	181/96
	Sample Survey of Low Voltage Electricity Customers	06/97	195/97
Namibia	Energy Assessment (English)	03/93	11320-NAM
Niger	Energy Assessment (French)	05/84	4642-NIR
	Status Report (English and French)	02/86	051/86
	Improved Stoves Project (English and French)	12/87	080/87
	Household Energy Conservation and Substitution (English and French)	01/88	082/88
Nigeria	Energy Assessment (English)	08/83	4440-UNI
	Energy Assessment (English)	07/93	11672-UNI
Rwanda	Energy Assessment (English)	06/82	3779-RW
	Status Report (English and French)	05/84	017/84
	Improved Charcoal Cookstove Strategy (English and French)	08/86	059/86
	Improved Charcoal Production Techniques (English and French)	02/87	065/87
	Energy Assessment (English and French)	07/91	8017-RW
	Commercialization of Improved Charcoal Stoves and Carbonization Techniques Mid-Term Progress Report (English and French)	12/91	141/91
SADC	SADC Regional Power Interconnection Study, Vols. I-IV (English)	12/93	--
SADCC	SADCC Regional Sector: Regional Capacity-Building Program for Energy Surveys and Policy Analysis (English)	11/91	--
Sao Tome and Principe	Energy Assessment (English)	10/85	5803-STP
Senegal	Energy Assessment (English)	07/83	4182-SE
	Status Report (English and French)	10/84	025/84
	Industrial Energy Conservation Study (English)	05/85	037/85
	Preparatory Assistance for Donor Meeting (English and French)	04/86	056/86
	Urban Household Energy Strategy (English)	02/89	096/89
	Industrial Energy Conservation Program (English)	05/94	165/94
Seychelles	Energy Assessment (English)	01/84	4693-SEY
	Electric Power System Efficiency Study (English)	08/84	021/84
Sierra Leone	Energy Assessment (English)	10/87	6597-SL
Somalia	Energy Assessment (English)	12/85	5796-SO
South Africa	Options for the Structure and Regulation of Natural Gas Industry (English)	05/95	172/95
Republic of Sudan	Management Assistance to the Ministry of Energy and Mining	05/83	003/83
	Energy Assessment (English)	07/83	4511-SU
	Power System Efficiency Study (English)	06/84	018/84
	Status Report (English)	11/84	026/84
	Wood Energy/Forestry Feasibility (English)	07/87	073/87
Swaziland	Energy Assessment (English)	02/87	6262-SW
	Household Energy Strategy Study	10/97	198/97
Tanzania	Energy Assessment (English)	11/84	4969-TA
	Peri-Urban Woodfuels Feasibility Study (English)	08/88	086/88
	Tobacco Curing Efficiency Study (English)	05/89	102/89
	Remote Sensing and Mapping of Woodlands (English)	06/90	--
	Industrial Energy Efficiency Technical Assistance (English)	08/90	122/90

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Tanzania	Power Loss Reduction Volume 1: Transmission and Distribution System Technical Loss Reduction and Network Development (English)	06/98	204A/98
	Power Loss Reduction Volume 2: Reduction of Non-Technical Losses (English)	06/98	204B/98
Togo	Energy Assessment (English)	06/85	5221-TO
	Wood Recovery in the Nangbeto Lake (English and French)	04/86	055/86
	Power Efficiency Improvement (English and French)	12/87	078/87
Uganda	Energy Assessment (English)	07/83	4453-UG
	Status Report (English)	08/84	020/84
	Institutional Review of the Energy Sector (English)	01/85	029/85
	Energy Efficiency in Tobacco Curing Industry (English)	02/86	049/86
	Fuelwood/Forestry Feasibility Study (English)	03/86	053/86
	Power System Efficiency Study (English)	12/88	092/88
	Energy Efficiency Improvement in the Brick and Tile Industry (English)	02/89	097/89
	Tobacco Curing Pilot Project (English)	03/89	UNDP Terminal Report
	Energy Assessment (English)	12/96	193/96
Zaire	Energy Assessment (English)	05/86	5837-ZR
Zambia	Energy Assessment (English)	01/83	4110-ZA
	Status Report (English)	08/85	039/85
	Energy Sector Institutional Review (English)	11/86	060/86
	Power Subsector Efficiency Study (English)	02/89	093/88
	Energy Strategy Study (English)	02/89	094/88
	Urban Household Energy Strategy Study (English)	08/90	121/90
Zimbabwe	Energy Assessment (English)	06/82	3765-ZIM
	Power System Efficiency Study (English)	06/83	005/83
	Status Report (English)	08/84	019/84
	Power Sector Management Assistance Project (English)	04/85	034/85
	Power Sector Management Institution Building (English)	09/89	--
	Petroleum Management Assistance (English)	12/89	109/89
	Charcoal Utilization Prefeasibility Study (English)	06/90	119/90
	Integrated Energy Strategy Evaluation (English)	01/92	8768-ZIM
	Energy Efficiency Technical Assistance Project: Strategic Framework for a National Energy Efficiency Improvement Program (English)	04/94	--
	Capacity Building for the National Energy Efficiency Improvement Programme (NEEIP) (English)	12/94	--
EAST ASIA AND PACIFIC (EAP)			
Asia Regional	Pacific Household and Rural Energy Seminar (English)	11/90	--
China	County-Level Rural Energy Assessments (English)	05/89	101/89
	Fuelwood Forestry Preinvestment Study (English)	12/89	105/89
	Strategic Options for Power Sector Reform in China (English)	07/93	156/93
	Energy Efficiency and Pollution Control in Township and Village Enterprises (TVE) Industry (English)	11/94	168/94
	Energy for Rural Development in China: An Assessment Based on a Joint Chinese/ESMAP Study in Six Counties (English)	06/96	183/96
Fiji	Energy Assessment (English)	06/83	4462-FIJ

<i>Region/Country</i>	<i>Activity/Report Title</i>	<i>Date</i>	<i>Number</i>
Indonesia	Energy Assessment (English)	11/81	3543-IND
	Status Report (English)	09/84	022/84
	Power Generation Efficiency Study (English)	02/86	050/86
	Energy Efficiency in the Brick, Tile and Lime Industries (English)	04/87	067/87
	Diesel Generating Plant Efficiency Study (English)	12/88	095/88
	Urban Household Energy Strategy Study (English)	02/90	107/90
	Biomass Gasifier Preinvestment Study Vols. I & II (English)	12/90	124/90
	Prospects for Biomass Power Generation with Emphasis on Palm Oil, Sugar, Rubberwood and Plywood Residues (English)	11/94	167/94
Lao PDR	Urban Electricity Demand Assessment Study (English)	03/93	154/93
	Institutional Development for Off-Grid Electrification	06/99	215/99
Malaysia	Sabah Power System Efficiency Study (English)	03/87	068/87
	Gas Utilization Study (English)	09/91	9645-MA
Myanmar	Energy Assessment (English)	06/85	5416-BA
Papua New Guinea	Energy Assessment (English)	06/82	3882-PNG
	Status Report (English)	07/83	006/83
	Energy Strategy Paper (English)	--	--
	Institutional Review in the Energy Sector (English)	10/84	023/84
	Power Tariff Study (English)	10/84	024/84
Philippines	Commercial Potential for Power Production from Agricultural Residues (English)	12/93	157/93
	Energy Conservation Study (English)	08/94	--
Solomon Islands	Energy Assessment (English)	06/83	4404-SOL
	Energy Assessment (English)	01/92	979-SOL
South Pacific	Petroleum Transport in the South Pacific (English)	05/86	--
Thailand	Energy Assessment (English)	09/85	5793-TH
	Rural Energy Issues and Options (English)	09/85	044/85
	Accelerated Dissemination of Improved Stoves and Charcoal Kilns (English)	09/87	079/87
	Northeast Region Village Forestry and Woodfuels Preinvestment Study (English)	02/88	083/88
	Impact of Lower Oil Prices (English)	08/88	--
	Coal Development and Utilization Study (English)	10/89	--
	Energy Assessment (English)	06/85	5498-TON
Tonga	Energy Assessment (English)	06/85	5577-VA
Vanuatu	Energy Assessment (English)	06/85	5577-VA
Vietnam	Rural and Household Energy-Issues and Options (English)	01/94	161/94
	Power Sector Reform and Restructuring in Vietnam: Final Report to the Steering Committee (English and Vietnamese)	09/95	174/95
	Household Energy Technical Assistance: Improved Coal Briquetting and Commercialized Dissemination of Higher Efficiency Biomass and Coal Stoves (English)	01/96	178/96
	Energy Assessment (English)	06/85	5497-WSO
Western Samoa	Energy Assessment (English)	06/85	5497-WSO
SOUTH ASIA (SAS)			
Bangladesh	Energy Assessment (English)	10/82	3873-BD
	Priority Investment Program (English)	05/83	002/83
	Status Report (English)	04/84	015/84

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Bangladesh	Power System Efficiency Study (English)	02/85	031/85
	Small Scale Uses of Gas Prefeasibility Study (English)	12/88	--
India	Opportunities for Commercialization of Nonconventional Energy Systems (English)	11/88	091/88
	Maharashtra Bagasse Energy Efficiency Project (English)	07/90	120/90
	Mini-Hydro Development on Irrigation Dams and Canal Drops Vols. I, II and III (English)	07/91	139/91
	WindFarm Pre-Investment Study (English)	12/92	150/92
	Power Sector Reform Seminar (English)	04/94	166/94
	Environmental Issues in the Power Sector (English)	06/98	205/98
	Environmental Issues in the Power Sector: Manual for Environmental Decision Making (English)	06/99	213/99
	Household Energy Strategies for Urban India: The Case of Hyderabad	06/99	214/99
Nepal	Energy Assessment (English)	08/83	4474-NEP
	Status Report (English)	01/85	028/84
	Energy Efficiency & Fuel Substitution in Industries (English)	06/93	158/93
Pakistan	Household Energy Assessment (English)	05/88	--
	Assessment of Photovoltaic Programs, Applications, and Markets (English)	10/89	103/89
	National Household Energy Survey and Strategy Formulation Study: Project Terminal Report (English)	03/94	--
	Managing the Energy Transition (English)	10/94	--
	Lighting Efficiency Improvement Program Phase I: Commercial Buildings Five Year Plan (English)	10/94	--
Sri Lanka	Energy Assessment (English)	05/82	3792-CE
	Power System Loss Reduction Study (English)	07/83	007/83
	Status Report (English)	01/84	010/84
	Industrial Energy Conservation Study (English)	03/86	054/86

EUROPE AND CENTRAL ASIA (ECA)

Bulgaria	Natural Gas Policies and Issues (English)	10/96	188/96
Central and Eastern Europe	Power Sector Reform in Selected Countries	07/97	196/97
Eastern Europe	The Future of Natural Gas in Eastern Europe (English)	08/92	149/92
Kazakhstan	Natural Gas Investment Study, Volumes 1, 2 & 3	12/97	199/97
Kazakhstan & Kyrgyzstan	Opportunities for Renewable Energy Development	11/97	16855-KAZ
Poland	Energy Sector Restructuring Program Vols. I-V (English)	01/93	153/93
	Natural Gas Upstream Pricing (English and Polish)	08/98	206/98
	Energy Sector Restructuring Program: Establishing the Energy Regulation Authority	10/98	208/98
Portugal	Energy Assessment (English)	04/84	4824-PO
Romania	Natural Gas Development Strategy (English)	12/96	192/96
Slovenia	Workshop on Private Participation in the Power Sector (English)	02/99	211/99
Turkey	Energy Assessment (English)	03/83	3877-TU

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MIDDLE EAST AND NORTH AFRICA (MNA)			
Arab Republic of Egypt	Energy Assessment (English)	10/96	189/96
Morocco	Energy Assessment (English and French)	03/84	4157-MOR
	Status Report (English and French)	01/86	048/86
	Energy Sector Institutional Development Study (English and French)	07/95	173/95
	Natural Gas Pricing Study (French)	10/98	209/98
	Gas Development Plan Phase II (French)	02/99	210/99
Syria	Energy Assessment (English)	05/86	5822-SYR
	Electric Power Efficiency Study (English)	09/88	089/88
	Energy Efficiency Improvement in the Cement Sector (English)	04/89	099/89
	Energy Efficiency Improvement in the Fertilizer Sector (English)	06/90	115/90
Tunisia	Fuel Substitution (English and French)	03/90	--
	Power Efficiency Study (English and French)	02/92	136/91
	Energy Management Strategy in the Residential and Tertiary Sectors (English)	04/92	146/92
	Renewable Energy Strategy Study, Volume I (French)	11/96	190A/96
	Renewable Energy Strategy Study, Volume II (French)	11/96	190B/96
Yemen	Energy Assessment (English)	12/84	4892-YAR
	Energy Investment Priorities (English)	02/87	6376-YAR
	Household Energy Strategy Study Phase I (English)	03/91	126/91
LATIN AMERICA AND THE CARIBBEAN (LAC)			
LAC Regional	Regional Seminar on Electric Power System Loss Reduction in the Caribbean (English)	07/89	--
	Elimination of Lead in Gasoline in Latin America and the Caribbean (English and Spanish)	04/97	194/97
	Elimination of Lead in Gasoline in Latin America and the Caribbean - Status Report (English and Spanish)	12/97	200/97
	Harmonization of Fuels Specifications in Latin America and the Caribbean (English and Spanish)	06/98	203/98
Bolivia	Energy Assessment (English)	04/83	4213-BO
	National Energy Plan (English)	12/87	--
	La Paz Private Power Technical Assistance (English)	11/90	111/90
	Prefeasibility Evaluation Rural Electrification and Demand Assessment (English and Spanish)	04/91	129/91
	National Energy Plan (Spanish)	08/91	131/91
	Private Power Generation and Transmission (English)	01/92	137/91
	Natural Gas Distribution: Economics and Regulation (English)	03/92	125/92
	Natural Gas Sector Policies and Issues (English and Spanish)	12/93	164/93
	Household Rural Energy Strategy (English and Spanish)	01/94	162/94
	Preparation of Capitalization of the Hydrocarbon Sector	12/96	191/96
Brazil	Energy Efficiency & Conservation: Strategic Partnership for Energy Efficiency in Brazil (English)	01/95	170/95
	Hydro and Thermal Power Sector Study	09/97	197/97
Chile	Energy Sector Review (English)	08/88	7129-CH

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Colombia	Energy Strategy Paper (English)	12/86	--
	Power Sector Restructuring (English)	11/94	169/94
	Energy Efficiency Report for the Commercial and Public Sector (English)	06/96	184/96
Costa Rica	Energy Assessment (English and Spanish)	01/84	4655-CR
	Recommended Technical Assistance Projects (English)	11/84	027/84
	Forest Residues Utilization Study (English and Spanish)	02/90	108/90
Dominican Republic	Energy Assessment (English)	05/91	8234-DO
Ecuador	Energy Assessment (Spanish)	12/85	5865-EC
	Energy Strategy Phase I (Spanish)	07/88	--
	Energy Strategy (English)	04/91	--
	Private Minihydropower Development Study (English)	11/92	--
	Energy Pricing Subsidies and Interfuel Substitution (English)	08/94	11798-EC
	Energy Pricing, Poverty and Social Mitigation (English)	08/94	12831-EC
	Issues and Options in the Energy Sector (English)	09/93	12160-GU
Guatemala	Issues and Options in the Energy Sector (English)	09/93	12160-GU
	Energy Assessment (English and French)	06/82	3672-HA
Haiti	Status Report (English and French)	08/85	041/85
	Household Energy Strategy (English and French)	12/91	143/91
	Energy Assessment (English)	08/87	6476-HO
Honduras	Petroleum Supply Management (English)	03/91	128/91
	Energy Assessment (English)	04/85	5466-JM
Jamaica	Petroleum Procurement, Refining, and Distribution Study (English)	11/86	061/86
	Energy Efficiency Building Code Phase I (English)	03/88	--
	Energy Efficiency Standards and Labels Phase I (English)	03/88	--
	Management Information System Phase I (English)	03/88	--
	Charcoal Production Project (English)	09/88	090/88
	FIDCO Sawmill Residues Utilization Study (English)	09/88	088/88
	Energy Sector Strategy and Investment Planning Study (English)	07/92	135/92
	Improved Charcoal Production Within Forest Management for the State of Veracruz (English and Spanish)	08/91	138/91
Mexico	Energy Efficiency Management Technical Assistance to the Comision Nacional para el Ahorro de Energia (CONAE) (English)	04/96	180/96
	Power System Efficiency Study (English)	06/83	004/83
Panama	Energy Assessment (English)	10/84	5145-PA
	Recommended Technical Assistance Projects (English)	09/85	--
Paraguay	Status Report (English and Spanish)	09/85	043/85
	Energy Assessment (English)	01/84	4677-PE
Peru	Status Report (English)	08/85	040/85
	Proposal for a Stove Dissemination Program in the Sierra (English and Spanish)	02/87	064/87
	Energy Strategy (English and Spanish)	12/90	--
	Study of Energy Taxation and Liberalization of the Hydrocarbons Sector (English and Spanish)	120/93	159/93
	Reform and Privatization in the Hydrocarbon Sector (English and Spanish)	07/99	216/99
	Energy Assessment (English)	09/84	5111-SLU
	Energy Assessment (English)	09/84	5103-STV
Saint Lucia	Energy Assessment (English)	09/84	5111-SLU
St. Vincent and the Grenadines	Energy Assessment (English)	09/84	5103-STV
Trinidad and Tobago	Energy Assessment (English)	12/85	5930-TR

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Sub Andean	Environmental and Social Regulation of Oil and Gas Operations in Sensitive Areas of the Sub-Andean Basin (English and Spanish)	07/99	217/99
GLOBAL			
	Energy End Use Efficiency: Research and Strategy (English) Women and Energy--A Resource Guide	11/89	--
	The International Network: Policies and Experience (English)	04/90	--
	Guidelines for Utility Customer Management and Metering (English and Spanish)	07/91	--
	Assessment of Personal Computer Models for Energy Planning in Developing Countries (English)	10/91	--
	Long-Term Gas Contracts Principles and Applications (English)	02/93	152/93
	Comparative Behavior of Firms Under Public and Private Ownership (English)	05/93	155/93
	Development of Regional Electric Power Networks (English)	10/94	--
	Roundtable on Energy Efficiency (English)	02/95	171/95
	Assessing Pollution Abatement Policies with a Case Study of Ankara (English)	11/95	177/95
	A Synopsis of the Third Annual Roundtable on Independent Power Projects: Rhetoric and Reality (English)	08/96	187/96
	Rural Energy and Development Roundtable (English)	05/98	202/98
	A Synopsis of the Second Roundtable on Energy Efficiency: Institutional and Financial Delivery Mechanisms (English)	09/98	207/98
	The Effect of a Shadow Price on Carbon Emission in the Energy Portfolio of the World Bank: A Carbon Backcasting Exercise (English)	02/99	212/99

07/16/99



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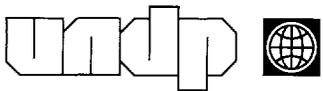
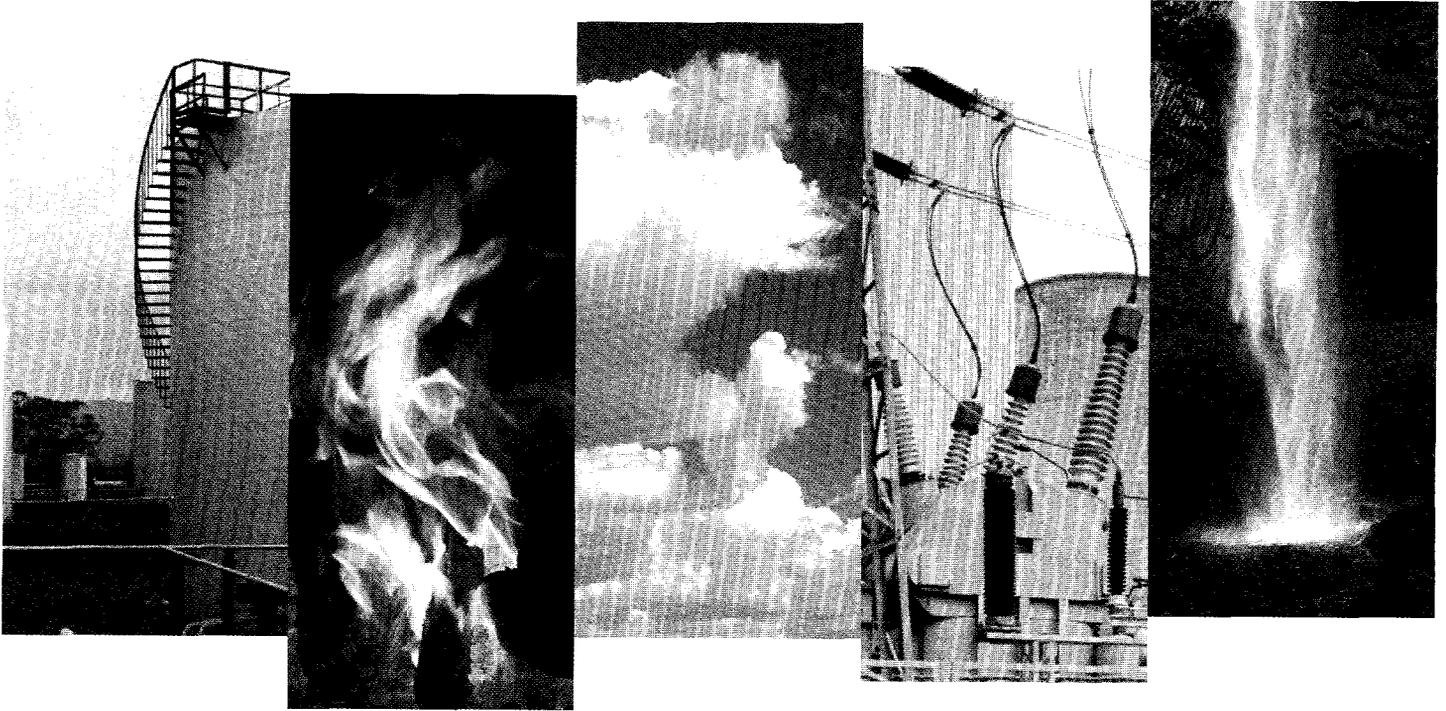
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