

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

REGIONAL SUPPORT

**STRATEGIC ENVIRONMENTAL STUDIES
FOR GUYANA AND SURINAME**

(RS-T1239)

PLAN OF OPERATIONS

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BASIC SOCIOECONOMIC DATA

For basic socioeconomic data, including public debt information, please refer to the following address:

http://www.iadb.org/res/externallink_list.cfm?language=en&parid=1&item1id=1&detail=Box1#b1

ABBREVIATIONS

CBOs	Community Based Organizations
CEA	Country Environmental Assessment
CESI	Committee on Environment and Social Impact
CI	Conservation International
COF/CGY	IDB Country Office in Guyana
COF/CSU	IDB Country Office in Suriname
EIA	Environmental Impact Assessment
EMP	Environmental Management Program
EPA	Environmental Protection Agency
ESP	Environment and Safeguard Policy
GEF	Global Environment Facility
GOGY	The Republic of Guyana
GOSU	Republic of Suriname
IDB	Inter-American Development Bank
IIRSA	<i>Integración de la Infraestructura Regional Sudamericana</i>
KfW	<i>Kreditanstalt Für Wiederaufbau</i> (Germany's Financial Cooperation)
MDG	Millennium Development Goals
MFI	Multilateral Financial Institution
NGO	Non-Governmental Organization
NIMOS	Suriname National Institute for Environment and Development
NPPE	The Netherlands and the IDB Partnership Program in Environment
PO	Plan of Operations
RE3/EN3	Environment and Natural Resources Management Division 3
REFIP	Project Finalization Report
SEA	Strategic Environmental Assessment
TC	Technical Cooperation
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WB	World Bank

**Strategic Environmental Studies for Guyana And Suriname
(RS-T1239)**

I. EXECUTIVE SUMMARY

Beneficiary:	The Republic of Guyana (GOGY) The Republic of Suriname (GOSU)	
Executing agency:	Inter-American Development Bank (IDB) through the Environment & Natural Resources Management Division 3 (RE3/EN3).	
Target beneficiaries:	The main target beneficiaries are the governmental institutions of Guyana and Suriname specifically the Environmental Protection Agency (EPA) in Guyana, the Suriname National Institute for Environment and Development (NIMOS) and the <i>Integración de la Infraestructura Regional Sudamericana</i> (IIRSA) counterpart in both countries. Ultimately, the entire population of each country will benefit from this Technical Cooperation (TC) and more specifically the most vulnerable groups including the Amerindians.	
Financing:	IDB: NPPE	US\$320,000
	Local: Guyana	<u>US\$ 20,000</u>
	Local: Suriname	<u>US\$ 20,000</u>
	Total:	US\$360,000
Objective:	To contribute to the environmental management of Guyana and Suriname through the preparation of strategic environmental studies that contribute to the sustainability of the infrastructure programs in preparation and the establishment of a framework for the Bank's action in both countries.	
Execution timetable:	Execution:	9 months
	Disbursement:	10 months
Special contractual conditions:	None	
Exceptions to Bank policies and procedures:	None	
Environmental and social review:	The Committee on Environment and Social Impact (CESI) approved the operation as proposed in the TC Profile on March 31, 2006 (CESI 13-06), requiring no further assessment.	
Coordination with other donors:	During the preparation of this Plan of Operations, the project team coordinated with the World Bank, United Nations Development Program and the European Community that have prepared similar documents for Guyana mainly and maintained meetings with Non-Governmental Organizations and stakeholders to avoid duplication of efforts.	

II. BACKGROUND AND JUSTIFICATION

A. Main issues

- 2.1 Guyana (215,000 sq. km; Population in 2004: 766,000) and Suriname (163,300 sq. km; Population in 2004: 433,000) are small Caribbean economies, located on the northeastern shore of the South American continent, that are driven primarily by agriculture and commodity exports. The two countries share key geographic similarities. The majority of their populations and economic activities are located in the narrow coastal plain regions, which comprise about 5% of Guyana's land mass and 18% of Suriname's. These regions lie at or barely above sea level and are to some extent protected by sea walls. In contrast, the interior of both countries is mostly covered with tropical rainforest that is part of the Precambrian Guyana Shield, one of the world's most pristine and diverse ecosystems. The interior regions are inhabited by several indigenous people's communities and, in the case of Suriname, Maroon communities, with no clear established land tenure rights to their claimed territories.
- 2.2 In Guyana, the economy is highly dependent on the export of primary commodities. Yet, the general trends of declining commodity prices since the early eighties, together with the lack of a strong manufacturing base, have contributed to an unstable socio-economic situation. With the aim of stabilizing Guyana's economic situation, several major expansionary investments are in process or have been proposed in the areas of off-shore oil exploration, bauxite, gold and diamond mining, electricity generation (hydroelectric and biomass), sugar and rice production, as well as for fishing and timber industries. The principal economic challenges facing Guyana today are much the same as in the past, with economic growth as the primary need. However, the priorities have changed to reflect the fact that the macroeconomic stabilization phase needs to be consolidated. The National Development Strategy identifies four overall objectives: (i) poverty reduction; (ii) achievement of geographical unity; (iii) economic inequity reduction; and (iv) economic diversification.
- 2.3 In Suriname, the bauxite industry alone accounts for more than 15% of GDP and 70% of export earnings. The opening of a large-scale gold mine in January 2004 and ongoing exploration activities by national and foreign mining companies forecast an increasing importance of the mining sector in the Suriname economy in the near future. Meanwhile small-scale gold mining provides an income to several thousand Maroons and Brazilians. Typically performed informally and illegally, small-scale mining supports a large share of poor households and substantially maintains the economy in the interior. Additional local industries include logging and plywood manufacturing. Agriculture, which accounts for 13% of GDP, is primarily practiced within the coastal plains area and the river valleys. The main cash crop is paddy rice. Other commercial crops include bananas, palm kernels (for oil), coconuts, plantains, peanuts, and citrus fruits. In addition small-scale producers farm a variety of vegetables and fruits for the local market. Shrimp fishing and shrimp farming are expanding along the coast.

- 2.4 Suriname's economic development and participation in external markets is almost exclusively dependent on the development of natural resources —many of them non-renewable resources— and areas of considerable ecological importance, including significant areas within the highly biodiverse Guyana Shield. Major expansionary investments related to this economic development are in process or proposed in the areas of: off-shore and on-shore oil exploration, bauxite/aluminum and gold mining, hydroelectric power generation and electricity transmission, palm oil and rice production, fisheries and forestry.
- 2.5 The main environmental concerns in both nations are deforestation, mining-related pollution of water especially by mercury and sediments, sanitation and disposal of solid and liquid wastes, water pollution, and excessive use of agricultural chemicals, over-fishing, and degradation of the coastal zone. Although Suriname and Guyana have ratified several environmental treaties, including the Rio Declaration on Environment and Development (1992), United Nations Convention on Biological Diversity (1996), United Nations Framework Convention on Climate Change (1996), and the Convention concerning the Protection of the World Cultural and Natural Heritage, few of these conventions have been incorporated in the national legislation. The lack of financial and skilled human resources to plan, manages, monitor and mitigate natural resource use impacts and conservation, is a persistent and central obstacle to sound environmental management in both countries. The Bank has supported Environmental Protection Agency (EPA) and NIMOS to upgrade their environmental management capabilities; nevertheless, a clear and concise legal, institutional, and regulatory operational framework for environmental management is not yet fully in place in either Guyana or Suriname.
- 2.6 Several major infrastructure improvements are planned or underway in Guyana and Suriname, including major road improvements, coastal zone protection and rehabilitation measures, and public water supply and waste treatment upgrades. In Suriname the Ministry of Public Works is supervising activities financed by the *Integración de la Infraestructura Regional Sudamericana* (IIRSA) to rehabilitate and upgrade the principal coastal road extending from Albina on the border with French Guiana to the western border with Guyana. Future road improvement initiatives are proposed that will significantly upgrade an interior road extending from the Paranám dam south of Paramaribo to Apura along the Corantijn River on the border with Guyana. In Guyana, work is on-going to significantly improve the road link from Georgetown to Nieuw Nickerie in Suriname, and IIRSA financed efforts to significantly upgrade extensive reaches of the road links between Georgetown and Venezuela and Brazil are in progress, as are efforts to rehabilitate the public water distribution system in Georgetown, and wastewater and solid waste disposal systems. Although the environmental impacts of each of these projects and other related infrastructure improvements have been acknowledged in the respective Environmental Impact Assessments (EIAs), there is still a recognized need to prepare a strategic assessment of potential environmental and social impacts at a programmatic level.
- 2.7 Amidst this fast changing scenario, there is a need to equip the EPA, NIMOS and other institutions of Guyana and Suriname charged with environmental management

responsibilities with a set of instruments that allows the upfront identification of potential impacts and the design of mitigation actions from development initiatives being haphazardly implemented across a wide variety of social and economic sectors, and especially addressing those included in the IIRSA initiative. While recent strategies and assessments prepared by the World Bank, European Community, and USAID among other donors have addressed some of these requirements, there is still an essential need for a comprehensive assessment that particularly addresses infrastructure improvements and assist the countries in achieving the environmental Millennium Development Goals (MDG). In this regard, this TC was conceptualized to attend this demand and also to support the Bank in the mainstreaming of environmental issues into the Country programming Strategies with Guyana and Suriname.

B. Relationship to Bank's country strategy

- 2.8 The Bank's strategy for Guyana seeks to collaborate with the country to reduce its level of poverty in the medium term, while simultaneously addressing chronic institutional and human resource problems that must be alleviated in order for the country to achieve sustainable equitable growth in the long term. Particularly, the Bank is targeting three areas of development challenges confronting the country: achieving sustainable economic growth, improving governance and public sector efficiency, and strengthening social programs. In Suriname, the Bank focus is on private sector development, governance, human resource development, macroeconomic management, and environmentally sustainable development of the nation's rich resource base.
- 2.9 This operation supports the IDB's principal areas of strategic focus on sustained growth and strengthening the environmental institutions and governance. It also identifies, at a strategic level, issues related to the development initiatives planned for Guyana and Suriname that may affect negatively the lives of the most vulnerable groups, such as the Amerindians and Maroons.

C. Relationship to other initiatives

- 2.10 This initiative builds on the efforts initiated with the Environmental Management Program I and II that created the EPA in Guyana and the Environmental Program (ATN/SF-7586-SU) that has been strengthening NIMOS in Suriname. The Environmental Management Program —EMP II— (ATN/SF-7679-GY) continues to strengthen EPA's actions through financing the development of the necessary instruments and regulations for environmental management. It is also aligned with the efforts of the European Community (EC), the World Bank (WB) and the UNDP to conserve the environment and preserve biodiversity. The EC prepared a Country Environmental Assessment (CEA) and the WB is financing a Strategic Environmental Assessment (SEA) for the country's mining sector. These reports will be considered during the development of the present studies and addressed in agreements for future actions with the governments.
- 2.11 The Guyana Shield's initiative goal of creating continuous areas for biodiversity protection that involves Guyana and Suriname and other countries of the Amazon region;

the specific objectives of the Guyana Protected Area System to be financed by the Global Environment Facility (GEF), Conservation International (CI) and *Kreditanstalt Für Wiederaufbau* —Germany's Financial Cooperation— (KfW) will be taken into consideration to avoid duplication of efforts when proposing specific actions. The development of the TC has been and will continue to be coordinated with NGOs and other government institutions during its development.

- 2.12 Regarding the Linden-Lethem road that connects Georgetown to Boa Vista in Brazil, the SEA will complement the efforts to be financed by the TC “Pre-investment Georgetown Boa Vista Road- Guyana Segment- (GY-T1026)” that includes the preparation of the environmental, economic, indigenous and preliminary engineering studies. These studies will be restricted to areas of indirect and direct impacts, while the SEA will look at the potential impacts at a broader strategic level.

D. Added value provided

- 2.13 The combined effort to be financed by this TC includes a CEA for Guyana (the CEA for Suriname has been prepared in 2005), an SEA and an MDG gap analysis. These assessments will allow both countries to: (i) have an in-depth assessment of existing environmental risks, threats and opportunities for improved management; (ii) identify upfront strategic actions to avoid environmental and social degradation due to development initiatives; (iii) actualize environmental indicators; and (iv) establish instruments to guide the Bank’s actions to pursue the governments’ development agenda and environmental objectives.

E. Program preparation strategy

- 2.14 The Fourth Work-Plan of the Netherlands Partnership Program includes the following two operations: a SEA applied to development programs in Guyana and Suriname for US\$250,000, and a Gap Analysis for the MDG environmental indicators for these two countries, for US\$70,000. As part of the discussions with the governments and given the close relationships of these two operations, it was agreed that it would be more effective to combine both operations into one and take advantage of economies of scale. The original objectives agreed under the Partnership’s Work Plan will be achieved under this format.
- 2.15 The SEA involves a detailed assessment of the environmental and social conditions around specific plans or programs; community consultation on project objectives and impacts; and the proposal of mitigation measures at the planning level. As part of the SEA a specific sub-component will be added to elaborate a CEA for Guyana, which will support the broader strategic framework of the Bank’s involvement in this country. This country-level analysis for Suriname already exists. Both the SEA and the CEAs are perfect complements in the context of addressing priority issues at the country level and at the sector level. The second component will focus on strengthening information and analysis of the gaps to meet the environmental goals and targets of the MDGs.

III. PROGRAM DESCRIPTION

A. Program goal and purpose

- 3.1 The goal of this TC is to contribute to the environmental management of Guyana and Suriname through the development of strategic environmental studies that contribute to the sustainability of the infrastructure programs in preparation and the establishment of a framework for the Bank's action in both countries. The specific objectives include: (i) the preparation of a strategic environmental impact assessment for the planned infrastructure projects, particularly those associated with the IIRSA initiative; (ii) the development of a CEA for Guyana to be mainstreamed into the IDB's Guyana Country Strategy (the CEA for Suriname has already been prepared); and (iii) the completion of a gap analysis for the environmental indicators included in the MDG. These objectives will be attained by supporting the execution of two components.

B. Components

1. Component I: Strategic Environmental Studies

- 3.2 Subcomponent A: A SEA for development programs in Guyana and Suriname. This subcomponent will support the preparation of a SEA focused on planned infrastructure projects for Guyana and Suriname. The preparation of the SEA will involve: (i) identification and analysis of the major development initiatives being devised in both countries focusing primarily on the IIRSA infrastructure projects; (ii) assessment of the state of the socio-cultural and biophysical environment in Guyana and Suriname related to these development initiatives as described previously; (iii) completion of a screening, scoping and impact analysis; (iv) completion of a representative public consultation of the potential affected population; (v) identification of the potential environmental and social impacts, including impacts on biodiversity, indigenous populations and fragile ecosystems, and institutional constraints, including planning and decision making limitations; and (vi) design and prioritization of the specific measures necessary to mitigate the identified social and environmental impacts and the respective monitoring plan and baseline. The findings of the SEA will be incorporated into an action plan that includes management alternatives and a monitoring plan with baseline and mitigation measures to achieve the program's sustainability.
- 3.3 Subcomponent B: CEA for Guyana. This subcomponent will support studies and investigations necessary to produce a CEA for Guyana, thus generating information that will be incorporated into the Bank's strategy for Guyana. The consultants will analyze the environmental situation in the country, establish priorities, and assess the state of enabling conditions for environmental management in relation to priority areas of intervention that will later be discussed and agreed with the country as part of the Country Strategy preparation process. The analytical work will consider relevant aspects such as: (i) the identification and analysis of environmental priority issues and opportunities across sectors, including their links to social and economic drivers, and poverty reduction objectives, as well as their regional and global implications; (ii) the

state of environmental governance (e.g., level of institutional development, civil society participation, access to information, adequacy of the legal, policy, and regulatory framework, the level of enforcement and compliance with environmental standards, and public sector capacity for environmental management); (iii) past and on-going actions of the Bank and other multilateral financial institutions (MFIs), donor agencies and NGOs; (iv) the identification of strategic priorities for Bank action, including opportunities and challenges for public and private sector financing; and (v) relevant environmental performance and trend indicators. In setting priorities and selecting focal areas for the CEA the Consultant will focus on to the strategic objectives of the Bank's Environment and Safeguard Policy (ESP).

2. Component II: GAP analysis for the MDG environmental indicators

- 3.4 This component will support: (i) the analysis of the trends in the conservation of Suriname and Guyana's environmental resources and services, including biodiversity, marine ecosystems, forest ecosystems, protected species and depletion of natural resources; (ii) the identification and estimative of the rural sources of pollution (air, water, terrestrial) and main rural polluted sites of Guyana and Suriname; and (iii) the identification of the key links between environmental deterioration and impact on human health. Critical information gaps will be identified and included as an element to be addressed in the Environmental Action Strategy developed as part of the CEA. The information generated will be presented in graphic and mapped formats and will guide national initiatives to continue and maintain the MDG7 monitoring effort.

IV. COST AND FINANCING

A. Description and composition of financing

- 4.1 The total cost of the project will be the equivalent of US\$360,000, of which the Bank will provide non-reimbursable financing of up to US\$320,000 from the IDB-Netherlands Partnership Program in Environment (NPPE) as outlined in Table 1.
- 4.2 The Bank's contribution, which amounts to 88.90% of the total project cost, will be used to finance consulting services to execute all the tasks described in Section IV. It includes also the direct costs of travel to and from Guyana and Suriname, as well as the per diems. The local contributions of 11.10% of the total project cost will be provided in kind.

Table 1: Budget Summary (in US\$ equivalent)

Item	Total Cost	IDB-NPPE	Local
Strategic Environmental Studies	290,000	250,000	40,000
- SEA for Development programs for Guyana and Suriname	170,000	150,000	20,000
- CEA for Guyana	120,000	100,000	20,000
GAP analysis for the MDG environmental indicators	70,000	70,000	
Total	360,000	320,000	40,000

B. Sustainability

- 4.3 The TC aims to strengthen the sustainability of the IIRSA and other infrastructure programs by generating specific information for strategic decision making to avoid social and environmental impacts not captured in the respective EIA studies. Furthermore, the MDG gap analysis studies will develop a mechanism to guarantee the sustainability of the monitoring of MDG7. The CEA Action Plan will guide the Bank's actions to reach the goal of socio-economic development for Guyana in a sustainable manner. The present effort will contribute to the broader goal of strengthening institutional capacity to monitor, evaluate and mitigate environmental impacts from development programs and projects in Guyana and Suriname, with particular attention to infrastructure projects, and will focus policy makers and technicians in the governments, NGOs and the Bank on options and opportunities for policy, investment and institutional strengthening.

V. EXECUTING AGENCY AND MECHANISM

A. Executing Agency

- 5.1 The Bank, through RE3/EN3, will act as executor with technical and other responsibilities, including for the selection and hiring process of the consulting firm that will conduct the described studies, in accordance to the NPPE.

B. Executing mechanism

- 5.2 Project preparation has been coordinated with the IDB Country Office in Guyana (COF/CGY), EPA, the IDB Country Office in Suriname (COF/CSU), NIMOS and the IIRSA representatives in both countries. Project execution will follow the same scheme under RE3/EN3 technical and administrative responsibility. RE3/EN3 will conduct the bidding to select the consulting firm to execute the TC and constitute a selection committee that includes members of COF/CGY, COF/CSU and from the countries. The consulting firm will work with the counterparts and relevant stakeholders, who will participate in the analysis and approval of the products generated. The TC's achievements will be validated during specific workshops conducted in both countries and at headquarters.

C. Project implementation readiness

- 5.3 Six consulting firms have been pre selected, following Bank's procedures, to execute the TC. Upon approval of the Plan of Operations, a request for proposals will be send out and the consulting firm is expected to start working in November 2006. The final report should be received by April 2007.

D. Execution period and disbursement schedule

- 5.4 The execution period of the TC is five months and disbursing extends to six months. A timetable for project execution is presented in Table 2.

Table 2: Execution Timetable

Activities/Months	1	2	3	4	5	Progress Report
Data collection and stakeholder consultations	<input checked="" type="checkbox"/>					
Preparation of an updated work plan	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Stakeholder workshop – Suriname		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Stakeholder workshop – Guyana		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Analysis of Trends, Risks and Opportunities			<input checked="" type="checkbox"/>			
Draft SEA, CEA and MDG7 Reports			<input checked="" type="checkbox"/>			
Validation Workshop: Suriname				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Validation Workshop: Guyana				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Workshop at headquarter				<input checked="" type="checkbox"/>		
Final SEA, CEA and MDG7 Reports					<input checked="" type="checkbox"/>	

E. Procurement

- 5.5 The TC will finance the contracting of a consulting firm following the Bank's policies and procedures established in the corresponding documents (GN-2350-7). The Procurement Plan is available in Annex II.

VI. MONITORING AND EVALUATION

- 6.1 The Bank, through RE3/EN3 will supervise and be administratively responsible for the consulting firm contract. The satisfactory deliver of the products described in Table 2 will be monitored and evaluated by the project team and counterparts. Stakeholder consultations will be carried out throughout the project and workshops will be held at the end of each stage.
- 6.2 No external evaluation is envisaged. Within 30 days following the completion of the project, the consulting team will produce a Project Finalization Report (REFIP). This report will detail the activities undertaken, the results obtained, problems encountered with their solution, and lessons learned. For this, the Project Team Leader will call a meeting of the team members and relevant specialists from the Regional Departments and other pertinent units of the Bank to evaluate the level of achievement of the program's objectives and goals.

VII. PROGRAM BENEFITS AND RISKS

A. Program benefits and developmental impact

- 7.1 The main benefit of this project is to enhance the effectiveness of decision makers, government administrators, policymakers, managers, businesses and stakeholders in their

activities of planning, evaluation and execution of regional projects that include environmental management needs and risks. This group of beneficiaries consists of national government agencies, international and national NGOs, community based organizations (CBOs), corporations, regional policy and planning bodies, indigenous groups, among other stakeholders.

B. Target beneficiaries

- 7.2 The main target beneficiaries are the governmental institutions of Guyana and Suriname specifically the EPA in Guyana, the Suriname National Institute for Environment and Development (NIMOS) and the IIRSA counterpart in both countries. Ultimately, the whole population of these countries will benefit from this Technical Cooperation (TC) and more specifically the most vulnerable groups such as Amerindians groups.

C. Risks

- 7.3 There is risk that some rural stakeholder groups will be reluctant or unable to participate in scoping and validation exercises for the CEA and SEA due to lack of funds and difficulties to travel in both countries. The consulting firm is instructed to conduct at least one workshop in a rural location. The workshops will be carefully planned and announced by the most efficient means to reach the important stakeholders.
- 7.4 Coordination with stakeholders might be difficult. Mitigation: during preparation of the Plan of Operation, a coordination exercise was executed with success in both countries. Stakeholders are aware of the project and willing to participate. The consultant in charge of executing the studies will be instructed to coordinate all actions with the relevant stakeholders.

VIII. ENVIRONMENTAL AND SOCIAL REVIEW

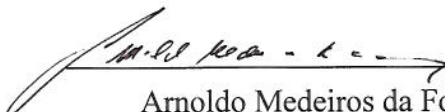
- 8.1 This is a preventive environmental initiative and is not expected to have any direct environmental or social impacts. The fundamental intent of the TC is geared towards environmental conservation, the protection of indigenous and non-indigenous populations rights, the upfront identification and prevention of environmental and social impacts from programs, policies and projects, and finally the development an instruments for environmental planning as described in Section IV.

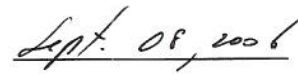
STRATEGIC ENVIRONMENTAL STUDIES FOR GUYANA AND SURINAME

(RS-T1239)

Certification

I certify that this operation was approved for financing by the donor of the IDB-Netherlands Partnership Program in Environment through an e-mail dated March 7, 2005, addressed to Ricardo Quiroga and signed by Ms. Jo-ella van Rijn, Policy Advisor, Climate and Energy, Netherlands Ministry of Foreign Affairs. Also, I certify that resources from the Netherlands Environmental Technical Cooperation Trust Fund are available for up to US\$320,000 in order to finance the activities described and budgeted in this document. The commitment and disbursement of these resources shall be made only by the Bank in US Dollars. The same currency shall be used to stipulate the remuneration and payments to consultants, except that local consultants working in their own borrowing member country shall have their remuneration defined and paid in the currency of that country. No resources of the Fund shall be made available to cover amounts greater than the amount certified herein above for the implementation of this Plan of Operations. Amounts greater than the certified amount may arise from commitments on contracts denominated in a currency other than the Fund currency, resulting in currency exchange rate differences, for which the Fund is not at risk.


Arnaldo Medeiros da Fonseca Jr., Chief
Technical Cooperation Coordination Unit


Date

Strategic Environmental Studies for Guyana and Suriname (RS-T1239)

Terms of Reference

I. BACKGROUND

- 1.1 Guyana and Suriname are countries with a relatively low population and large expanses of their natural habitats still untouched. However, both nations face a number of connected and inter-related environmental problems, which need to be addressed in order to reach their full development potential and achieve the Millennium Development Goals (MDGs).
- 1.2 Guyana is a nation of approximately 766,000 residing within a territory of 215,000 square kilometers. Suriname has less than 450,000 residents within an area of approximately 163,300 square kilometers. Both nations possess a rich natural resource base, with more than 80 percent of each territory covered in largely intact lowland and sub-montane tropical forest, and dozens of moderate to large unaltered rivers extending from the southern interior to the north. The rich biodiversity of this area includes at least 50 rare and endemic plant species and several endangered species of wildlife. Although the protected area systems of both countries are only marginally developed, in 1998 Suriname set aside 1.6 million hectares of pristine forest as the Central Suriname Nature Reserve. Most of the population in both countries resides in the two capital cities, Georgetown and Paramaribo, smaller coastal communities or occupies the lowland coastal plains; most of which have been developed into small and medium scale farms. Significant potential exists to develop timber and non-timber resources, hydropower, hard rock minerals, and nature based tourism in the interior regions on an environmentally sustainable basis.
- 1.3 Although the two countries reflect differences in language and recent social and cultural histories, there is similarity and connectivity in terms of ecological, economic and cultural conditions and traditions. The lowland tropical forests that extend from eastern Venezuela across Guyana and Suriname are similar in composition and structure, and the two countries include within their borders a potentially rich natural resource base that includes a variety of timber and non-timber forest products, minerals, hydropower production potential and ecotourism.
- 1.4 Transportation and communications are limited in both countries. A coastal highway connects Georgetown with Paramaribo and extends in Guyana to a southwestern border with Brazil and in Suriname across the Marowijne River to connect with French Guiana and on to the state of Amapá in Brazil. A few poorly developed roads extend into the interior of both countries and most communities and natural areas are only accessible by small aircraft or boat or foot travel.

Consequently, social services and market opportunities for interior residents and the eventual sustainable development of these interior resources are significantly constrained. Recent initiatives, such as the South American Regional Infrastructure Integration Initiative (IIRSA) are trying to improve this situation.

- 1.5 The main environmental concerns in both nations are deforestation, water pollution by mercury and other mining-related by-products, sanitation and disposal of solid and liquid wastes, water pollution, excessive use of agricultural chemicals, over-fishing, and degradation of the coastal zone. Suriname and Guyana have ratified several environmental treaties, including the Rio Declaration on Environment and Development (1992), United Nations Convention on Biological Diversity (1996), United Nations Framework Convention on Climate Change (1996), and the Convention concerning the Protection of the World Cultural and Natural Heritage. However, few conventions have been incorporated into the national legislation.
- 1.6 While the causes of Guyana and Suriname's environmental problems are varied, cross-sectoral and complex, one issue, the lack of skilled human resources to plan, manage, monitor and mitigate natural resource use and conservation, is a persistent and central obstacle to sound environmental management. A clear and concise legal, institutional, and regulatory operational framework for environmental management is not fully in place in either country. While institutions charged with the development and implementation of policies to plan, manage and monitor natural resources and environmental conditions exist, their institutional capacity is currently low.

A. South American Regional Infrastructure Integration Initiative (IIRSA)

- 1.7 The IIRSA was launched in 2000 by the presidents of 12 countries and is being promoted as a regional priority for economic development and integration. IIRSA seeks to improve coordination of the participating countries' transportation, energy and telecommunications sectors.
- 1.8 The sector integration processes addressed by the IIRSA Action Plan in general includes: information and communication technologies (ICTs); air transport operating systems; border crossings; maritime transport operating systems; regulatory frameworks for regional energy markets; multimodal transport operating systems; and financing instruments.
- 1.9 IIRSA activities in Suriname and Guyana are currently focused on the rehabilitation of the road network that will link French Guiana-Suriname-Guyana-Brazil. In Suriname the work will include the repaving of approximately 140 kilometers of existing road between Albina and Paramaribo and new paving of approximately 30 kilometers of road between New Nickerie and the ferry across the Corantijn River. Future IIRSA related work could include expansion and improvement of the road network connecting Paranam south of Paramaribo and Apura located along the Corantijn River. This work, if undertaken would open the

currently inaccessible interior of Suriname to new development and exploitation opportunities. In Guyana the priority focus of the IIRSA program is on the improved transport connection between Lethem on the border with Roraima state in Brazil and Georgetown. This Lethem-Linden-Georgetown road project could facilitate improved transport of goods and services between Georgetown and the interior of Guyana; increased commercial exchange between Brazil, Guyana, Suriname and French Guiana; the development of hydroelectric facilities and transmission lines in the Essequibo watershed; development of new fiber optic communication lines between Guyana and the interior of Brazil; and the establishment of new manufacturing and agricultural processing facilities in interior Guyana.

B. Millennium Development Goals

- 1.10 The eight MDGs are: (i) eradicate extreme poverty and hunger; (ii) achieve universal primary education; (iii) promote gender equality and empower women; (iv) reduce child mortality; (v) Improve maternal health; (vi) combat HIV/AIDS, malaria and other diseases; (vii) ensure environmental sustainability; and (viii) develop a global partnership for development. Each MDG is accompanied by a set of specific targets and indicators that can be used to track progress toward achievement of the goal.
- 1.11 Measuring progress towards achievement of the MDGs has proven to be a challenge for many countries. The present study will assist Guyana and Suriname to prepare a gap analysis for Goal 7 (MDG7). The MDGs constitute an interconnected agenda for action, and making inroads on the environmental goals of MDG7 is essential to sustainable progress in meeting the other goals. Three global targets and eight global indicators provide an overarching framework for monitoring progress towards environmental sustainability under MDG7. Global progress towards MDG7 rests essentially upon making progress on the ground at the country level, and the global framework helps identify crucial areas that require concerted efforts at the country level to achieve environmental sustainability. The framework, however, does not prescribe a specific path to environmental sustainability nor does it dictate particular actions for reaching global environmental targets under MDG7.

C. IDB's Environmental Support to in Guyana and Suriname

- 1.12 The Bank's support for the environment in Guyana has included operations such as Environmental Management Program (EMP) I and II (support to the Guyana Environmental Protection Agency-EPA), Georgetown Interim Disposal Site (ATN-1052/SF-GY), Georgetown Solid Waste Management Program (GY-0055) approved in May 2006, and the Georgetown Water Supply and Sewerage I and II. While, EMP I supported the creation of the EPA, EMP II was aimed at consolidating the Agency strengthening its operational and administrative divisions. The two solid waste operations were designed to rehabilitate and close

the old landfill at Mandela Avenue in Georgetown and construct a sanitary landfill at Haags Bosch in greater Georgetown. The water and sanitation projects have been aimed at improving the quality of the supply and sewerage systems in Georgetown and to strengthen the water utility.

- 1.13 In Suriname, the Bank focus is on private sector development, governance, human resource development, macroeconomic management, and environmentally sustainable development of the nation's rich resource base. Some of the key projects financed with the Bank that will be important for the proposed strategic environmental studies include the recently completed Integrated Coastal Zone Management Project (SU-T1009), the Establishment of a Suriname Gold Mining Association Project (SU-M1006), and the Country Environmental Assessment prepared in 2005. The Bank has also provided training and technical support in the development of NIMOS. The preparation of a land and resource management plan to be developed through the Ministry of Spatial Planning is also receiving technical support. The Bank is also providing technical assistance and oversight in the environmental review of proposed road and related infrastructure developments for a bauxite mineral development concession in western Suriname.
- 1.14 The Bank's new initiative, "Building Opportunity for the Majority" is also expected to have several potential impacts for Guyana and Suriname, principally through partnership projects that will improve basic infrastructure, microfinance opportunities and institutional capacity.

D. Other Donor Activities

- 1.15 Projects funded by other donors in Guyana include DFID and World Bank assistance in the water and sanitation sector. The World Bank is also funding an environmental assessment of the mining sector. As for natural resources management, UNDP is funding a capacity building project for the management of natural resources and the environment and the German Government is assisting the protected areas system to ensure the sustainability of selected conservation areas within Guyana's Protected Areas System. UNDP and GEF are funding the National Capacity Self-Assessment Project aimed at identifying constraints affecting environmental management in Guyana in areas related to biodiversity, climate change and land degradation.
- 1.16 In Suriname, UNDP is assisting NIMOS to prepare its First National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), with funding from GEF. UNDP is also working with ATM, NIMOS and the National Biodiversity Committee to assist the Government to integrate biodiversity concerns into national development and sector planning, principally through the implementation of the National Biodiversity Strategy (approved March 2006) and Action Plan (in progress), with funding from GEF.

- 1.17 Projects to ensure the conservation and sustainable use of biodiversity on the ground include the “Conservation of Globally Significant Forest Ecosystems in Suriname’s Guiana Shield” project, funded by the GEF, which supports management planning for the reserves and capacity building for conservation. UNDP is also assisting the government to develop a multi-annual plan addressing ecotourism potential. The Permanent Mission of the Netherlands is supporting training programs to develop the technical and administrative capacity of the Ministry of Planning to implement strategic land use planning, and is a partner with UNDP in a small grants program to support local sustainable enterprise development. The Mission is also developing a strategy for a nature conservation trust fund, and assisting the IDB and other donors to develop a long-term strategy for integrated coastal zone management. The European Commission in Suriname is supported by a delegation from the Guyana office, and is providing support for infrastructure improvements, particularly to address road rehabilitation between Albina and Paramaribo, and for sections of the road extending to the border with Guyana.

II. OBJECTIVE AND PURPOSE

- 2.1 The objective of this consultancy is to conduct Strategic Environmental Studies (SES) for Guyana and Suriname; which include: (i) the preparation of a strategic environmental impact assessment for the planned infrastructure projects particularly those associated with the IIRSA initiative; (ii) the development of a country environmental assessment for Guyana to be mainstreamed into the IDB’s Guyana Country Strategy (the country environmental assessment for Suriname has already been prepared); and (iii) the completion of a gap analysis for the environmental indicators included in the MDG7.
- 2.2 The SES will identify —within the context of the established dialogue between the countries and the Bank— the opportunities for synergies between good environmental management and economic development, as well as environmental risks that can jeopardize economic and/or social development particularly those associated with the IIRSA initiative. Based on a cross-sector dialogue with government, private sector, local communities and other relevant stakeholders, the consultants will produce timely, practical and relevant analyses, including indicators, baseline data, and existing data deficiencies regarding the MDGs environmental indicators, to assist the countries and the Bank in promoting environmental mainstreaming and strategically targeted improvements in key areas of environmental management in Guyana and Suriname.

III. CHARACTERISTICS OF THE CONSULTANCY

- 3.1 Type of consultancy: The work is expected to be carried out by a consulting firm or association. The consultants comprising the team may be international or national. The contract is a lump sum payment to be awarded on technical merit. The payment schedule is presented in Paragraph 6.1 within these Terms of Reference.
- 3.2 Starting date and duration: The main activities of the SES (up to the submission of the Final Report) are expected to be completed between September and December 2006. The Consultant will submit a calendar of personnel activities in the work plan that should be submitted with the first report.
- 3.3 Place of work: The Consultant will carry out the majority of the work in Guyana and Suriname, although not all consultants must be present in Guyana and Suriname at all times.
- 3.4 Qualifications of the consultants: All members of the team should have a post-graduate level degree (Masters or PhD), with a minimum of 10 years professional experience in the field. Fluency in English will be a pre-requisite for each team member, and fluency in Dutch is a requirement from some team members for the work in Suriname. The individuals comprising the team should have direct, relevant, and/or recent experience in the preparation of environmental assessments and national impact and development planning in Guyana and Suriname or a country with similar social and environmental conditions. Familiarity with preparation of IDB documents and project proposals is desirable. The suggested core team should consist of seven (7) specialists:
 - a. A project team leader with extensive experience in integrating environmental, social and economic considerations in countries similar to Guyana and Suriname, as well as in project management (possible backgrounds for this position include geography, environmental planning, engineering or related fields).
 - b. An institutional specialist with experience in analysing environmental governance frameworks, including key economic and social policies that impact the environment.
 - c. A specialist in natural resource economics with experience in environmental and cross-sector analyses.
 - d. A specialist with experience in strategic environmental and socio-cultural assessments of direct, indirect and cumulative impacts of large-scale infrastructure projects.
 - e. A geographic information specialist.

- f. A professional in the fields of biology/ecology specialized in biodiversity in tropical ecosystems.
 - g. A socio-cultural specialist with experience with indigenous population..
- 3.5 If deemed necessary, and not exceeding the suggested budget for the consultancy, the consultant may propose additional staff as part of the team or may negotiate the option of combining the duties of one or more of the recommended positions.

IV. ACTIVITIES AND SCOPE

A. Activities

1. Preparation of the SES

- 4.1 The preparation of the SES for Guyana and Suriname will comprise the following activities:
- a. State of the Environment Assessment (potentialities, issues, pressures, state response to key environmental issues, need for action, MDGs gaps).
 - b. Institutional and Policy Assessment (overview of the institutional, regulatory and regulatory framework and assessment of public participation processes including NGO participation).
 - c. Assessment of Existing and Proposed Projects (country priorities, issues that arise at strategic level, relationship of this study with the feasibility studies being prepared for the IIRSA and other initiatives including the steps needed to prepare an SEA).
 - d. Analysis of Cross-Cutting Issues (link between key sectors of socio-economic development and the environment).
 - e. Identification and Analysis of Opportunities, Assets and Risks based on the previous analyses.
 - f. From the results of the previous set of analyses, the consultant will present the following documents:
 - i. Strategic Environmental Assessment (SEA) of Proposed Infrastructure Development Initiatives in Guyana and Suriname.
 - ii. Country Environmental Assessment of Guyana (CEA).

- iii. Identification of Issues for a Gap Analysis for the Millennium Development Goals Environmental Indicators (MDG7) for Guyana and Suriname.

4.2 For all of these activities a number of general methodological issues apply, including the ones described in sections 1-7.

a) Information Gathering

4.3 In order to have access to and analyze all available relevant environmental and social information and data, the Consultant team will rely on the following working method:

- a. Existing studies and data: The Consultant will compile and review recent studies, data and reports available on the environment and related social situation in Guyana and Suriname, including reports on environmental issues that have been prepared by local environmental agencies, other relevant Ministries, NGOs, the Bank, other multilateral institutions, donors, and academia, including the university communities. A complete list of references will be included in each SES report.
- b. Knowledge and experience of local experts: The Consultant will hire the services or consult with local experts to provide insights into specific issues, and easy access to contacts in Guyana or Suriname to facilitate logistical support.
- c. Information gaps: Most of the information used to complete the SES activities will be from existing literature, data and documentation. Limited fieldwork in priority areas may be warranted and undertaken and agreed with the IDB's project team. Fieldwork may be necessary to obtain information regarding the direct and indirect impacts of road and other infrastructure development on nearby ecosystem and socio-cultural environments including risks to indigenous peoples. Initial efforts should rely on consultations with stakeholder groups to collect and assess recent fieldwork that may be unpublished or unreported. If it is determined that baseline or original data collection tasks will be required for any impact variable or factor then these activities should first be confirmed with the IDB project coordinator and IDB country staff. Critical information gaps will be identified and included as an element to be addressed in the work plans developed as part of the SES activities. Data proxies, qualitative information and interviews can be used to compensate for the data gaps.
- d. Participatory Stakeholder Consultations: For all tasks and phases of the SES, the Consultant will identify and selectively interview stakeholders from key groups, institutions or regions, ensuring that a thorough cross-section of stakeholder input is represented in the data input, analysis and findings

produced by the SES. Stakeholder representation should at least include, but not necessarily be limited to the institutions identified in Table 1. The consultant will include a list of stakeholders and institutions that participated in the SES activities and indicate the nature of their participation (interview, workshop, advisory team, etc.). Stakeholders will be engaged throughout the SES process to help develop the framework for the initial work plan; identify the principal infrastructure development projects and activities being proposed or implemented in each country; establish and prioritize the impacts to social, cultural, economic, institutional and ecological conditions posed by these development activities; identify qualitative and quantitative information that the consulting team can use to analyze these issues; and evaluate the technical, social, and institutional feasibility for achieving the recommendations. The Consultant will also create opportunities through workshops or other advisory groups or other appropriate formats for selected stakeholders to participate transparently as provided in the Bank's Environment and Safeguards Policy (ESP).

Table 1: Recommended Stakeholder Representation in SES Process

Government	<p><u>Guyana</u>: Ministry of Amerindian Affairs, EPA, Ministry of Finance, Ministry of Local Government, Guyana Forestry Commission, Ministry of Public Works, Guyana Geology and Mines Commission, Ministry of Agriculture, Guyana Energy Agency, Ministry of Fisheries, Crops and Livestock, Ministry of Tourism, Industry and Commerce.</p> <p><u>Suriname</u>: Ministry of Labor, Technology and Environment; NIMOS; Ministry of Natural Resources; Ministry of Public Works; Ministry of Planning and Development Cooperation; Ministry of Education and Community Development; Suriname Conservation Foundation; General Statistics Bureau; Ministry of Physical Planning, Land and Forest Management.</p>
NGOs	<p><u>Guyana</u>: Conservation International, World Wildlife Fund, Guyana Marine Turtle Conservation Society, and Amerindians Peoples Association.</p> <p><u>Suriname</u>: World Wildlife Fund; Conservation International; Amazon Conservation Team.</p>
Other	<p><u>Guyana</u>: Iwokrama, University of Guyana, PAHO, UNDP, World Bank, Canadian International Development Agency (CIDA), European Community, USAID, DFID, UNEP, and IDB Country Office.</p> <p><u>Suriname</u>: VIDS (Indigenous representation), UNDP, Government of Netherlands, European Community, and IDB Country Office.</p>

- 4.4 The Consultant will request input from the Bank, the Government and other key stakeholders in compiling the final list of stakeholders and will continue to update the list during the execution of the SES activities and send updates to the Bank. Stakeholders will be identified and engaged selectively in all phases of the SES reports preparation. Special attention will be given to analyzing the impacts and risks that may affect women, indigenous peoples, disadvantaged groups and the poor. The consultant will also ensure that the regulated community and other private entities are fully engaged in this process. The final list of stakeholders

consulted and engaged in the SES process will be included as an Annex to each document prepared.

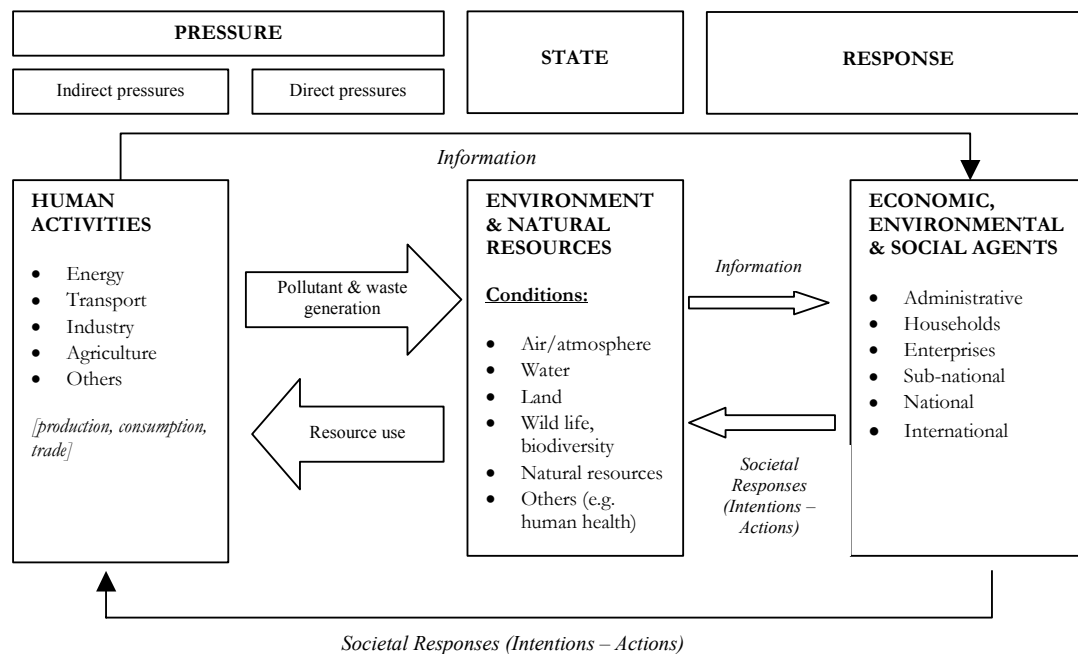
- 4.5 Indicators and Baseline Data: Based on the results of the diagnostic and availability of data, the consultant in consultation with Bank, will select a number of indicators (both quantitative and qualitative) to characterize the baseline conditions with respect to the state of the environment, predicted impacts from infrastructure projects and programs, and environmental governance and management in each country as a whole and in key sectors (or environmental management units if applicable). These indicators will be reviewed and validated by Bank staff prior to advancing the analyses. This is consistent with and will feed into the Bank's policy mandate to supervise the implementation of its environmental strategic priorities based on relevant and available key baseline indicators, such as the Millennium Development Goals (MDGs) and priorities identified in the Country Environmental Assessments (CEAs) for Suriname among others.
- 4.6 The consultant will also assist the Bank in incorporating selected priority verifiable indicators, which will be agreed with the member country strategies or other relevant programming documents, in order to track country-level environmental performance against the relevant environmental baseline. The Bank's Environmental and Safeguard Policy requires that information be periodically collected and updated in subsequent programming documents or country strategies, and that particular attention be given to tracking performance on internationally agreed targets and goals¹.
- 4.7 The Consultant will also assess the limitations of the proposed indicators as one possible tool for evaluation. Specifically, the Consultant will evaluate the degree to which: (i) results from indicators can be easily interpreted and validated by stakeholders; (ii) results from indicator assessment and monitoring can be directly linked to investments in the environmental sector and existing or proposed activities; and (iii) sufficient baseline data exist to allow for use of the indicators as evaluation and monitoring tools. In selecting the indicators the consultant team will favor those that most closely match Bank policy and strategic objectives and for which data are available and routinely collected for follow-up. However, the team will also point out data gaps and suggest future data collection and monitoring for critical sectors, issues or areas, especially those included in the Bank program for the country. The consultant team may also elect to apply other analytical tools to enhance or expand the analyses, such as a Threat Reduction Assessment or similar tools to place the environmental, social, economic, and policy context in Guyana and Suriname in a perspective that demonstrates the nature and magnitude of key environmental issues.

¹ ESP, Directives A1 and A5.

b) State of the Environment Assessment

- 4.8 This section will present an overview of the environmental and ecological context and natural resource assets in Guyana and Suriname and should follow the issue-pressure-state-response (PSR) framework.
- 4.9 The figure below illustrates how society, through development activities and use of natural resources, exerts pressures on the environment. These include indirect pressures, such as activities and trends of environmental significance, which are considered driving forces, as well as proximate or direct pressures on the environment, such as resource consumption and use and discharge of pollutants. Such pressures, in turn, affect the condition or state of the environment. Information about changes to the state of the environment and associated environmental pressures may be conveyed to society, which may then respond individually or collectively with policy, programme, stewardship, or behavioural measures. Thus, the PSR model uses a holistic approach linking causes, effects, and social responses.

Figure 1: The Pressure – State – Response (PSR) Model



- 4.10 The State of the Environment analysis should include an assessment of physical conditions, natural resource availability and dependency, economic trends and social-cultural conditions, population trends, environmental awareness and politics. The assessment should summarize the following list of issues.

- a. Biological conditions, biodiversity, ecology and nature conservation and trends.
- b. Critically contaminated areas, and principal sources of contamination.
- c. Air quality - sources of contamination, trends, and potential contributions or impacts to climate change factors (pesticide applications, burning of sugarcane for harvesting, forest clearing for agriculture or mining, etc).
- d. Mining and other extractive non-renewable resource extraction practices, including existing and proposed large and small-scale operations, and problems with mercury, cyanide, and suspended solids.
- e. Quality and quantity of surface and ground water, and estuary and near shore marine environments, fisheries and wetlands including cross-boundary issues.
- f. Land resources and terrestrial ecosystems, including actual and potential land use; principal agricultural resources (crops); forest resources, management and harvest practices including deforestation rates, patterns and areas, and existing and proposed logging operations; wildlife resources, including threatened and endangered species and risks to genetic resources; soil erosion rates, trends and areas; urbanization issues.
- g. Natural disaster exposure: floods, drought, and extreme weather events. Particular attention should be given to elaborating possible climate change scenarios and predicting the magnitude of possible impacts from these changes on the natural, social and economic environments.
- h. Energy production and distribution: development and mitigation of impacts from hydropower programs; alternative fuels and energy sources.
- i. Infrastructure development: impacts from road and other transportation improvements; telecommunications; water supply and distribution systems, wastewater management, solid waste management and waste recycling.
- j. Development and safeguarding of biotechnologies and genetic resources.
- k. Socio-economic conditions and trends (i.e. income level and distribution, education and literacy, human health, economic links to sector analyses, etc.)
- l. Key environmental and sustainability indicators with a focus on priority issues identified by any prior environmental analyses.
- m. Data gaps to guide planning, decision making, administration and management of environmental resources, including status of Millennium Development Goals.

- n. Inclusion and fulfillment of responsibilities to indigenous populations and disadvantaged groups.

c) Institutional and Policy Assessment

4.11 The SES reports for Guyana and Suriname will include an analysis of the effective state of environmental and natural resource governance in each country (e.g., level of institutional development, civil society participation, access to information, adequacy of the legal and policy framework, and public sector capacity for environmental and natural resource management). The SES reports should use this summary of Guyana and Suriname's *social and institutional assets* to determine existing capacity and identify strengthening opportunities that can help avoid and mitigate impacts from infrastructure development projects and ensure the sustainable management of environmental resources. This analysis should particularly assess the following factors:²

- a. Efficacy of existing and proposed policy and action plans; administrative and legal context for environmental protection, rights of indigenous peoples, and other rural communities, and international agreements regarding environmental issues.
- b. Legislation - existence and efficacy of laws, policies, standards and mandates to facilitate the planning, administration, and management of infrastructure development and the monitoring and mitigation of changes in environmental conditions and natural resources, including public participation, approach to international environmental conventions, natural resource concessions and regulations, occupational health and safety.
- c. Institutional and organizational capacity and effectiveness assessment - framework, structure and organization, roles of Government, NGOs, and private sector, formal structures and procedures for public participation, and financial and human resources available to relevant governmental agencies, and environmental NGOS and their strengths and weaknesses.
- d. Compliance and enforcement of existing norms including international obligations.
- e. Methodology and processes for priority setting and cross-sector coordination.
- f. Capacity for EIA approval and enforcement.
- g. Environmental public expenditure review.
- h. Indicators for measuring public sector capacity.

² ESP, Directive A.1.

- i. Data gaps to support environmental planning, decision-making, conflict mitigation, negotiations and resource management.
 - j. Institutional, legislative or policy areas in need of reform and improvement.
- 4.12 Some guiding overarching questions and concerns that should be addressed in this analysis include: (i) existence of legislation, government agencies and institutions with the capacity to plan, implement, monitor, evaluate and mitigate environmental problems related to infrastructure development projects; (ii) existing national strategies to support sustainable infrastructure development; (iii) operational plans of action to facilitate the sustainable use of different natural resources or ecosystems and the viability of these plans within the context of current financial and institutional capacity; (iv) actions taken to implement international environment-related conventions/protocols, and constraints on these actions that could result from transport and other infrastructure improvement and development activities; (v) institutional actions being implemented to increase public awareness and understanding of these issues; institutional strengthening and capacity development needs in environment-related areas; systems in place to promote and enforce compliance with environmental and natural resource regulations; training, awareness, dissemination, and inspection penalty and incentive programs in place; (vi) role and impact of the judicial system in upholding environmental and natural resource related rights and obligations; (vii) mechanisms in place to protect the environmental and natural resource rights of minorities, and (viii) indigenous peoples, rural populations and the poor.

d) Assessment of Existing and Proposed Projects

- 4.13 This part of the dialogue should use the information obtained through consultation and at least one initial workshop to establish a visual and written perspective on the geographic location of proposed or existing infrastructure development projects, with priority attention to IIRSA related projects and activities. The outcome from this assessment should include a clear delineation of each project status, and the role that the project may fulfill in relation to other regional IIRSA activities being planned or implemented outside of Suriname and Guyana. These areas will include, but not necessarily be limited to, projects or proposals that may result in improvements or new construction of roads and bridges; ports, river channel modifications, and ferries; airstrips; and water supply and treatment facilities. However, particular attention will be given to projects proposed through the IIRSA initiative. An immediate priority will be to evaluate and prioritize the potential impacts from initiatives and projects that are being implemented or are nearing an implementation phase, including the following:
- a. Georgetown-Linden-Lethem-Bonfim-Boa Vista road improvements between Guyana and Brazil (completing technical studies).

- b. Albina – Paramaribo – New Nickerie road improvements, Suriname (reconstruction and restoration work in progress).
- c. New Nickerie – New Amsterdam – Georgetown road improvements, Guyana (reconstruction and restoration work in progress).
- d. Paramaribo – Apura, Suriname – Orealla – Linden – Georgetown road improvements, and Linden – Bartica – San Martín de Turumbang, Guyana – Tumero, Venezuela road construction, rehabilitation and improvements, including road and bridge work (pre-feasibility and environmental impact studies in progress).

e) Identification of Priority Areas

- 4.14 At this stage, the consultant, using the information gathered in Activities 1-4 will identify the priority areas related to the three products to be delivered. During this exercise the Consultant will discuss with the respective governments and other stakeholder groups the development priorities and plans for the short to medium term (2 to 5 year period), as well as the implications of these priorities and plans on environmental and natural resource factors. Where available, the Consultant should establish the level of priority and/or state of preparation of the plans, and the scale and extent of the planned activities. The Consultant's reports should describe key priorities and plans, summarize the additional information gathered and, if available, include references to sources for further information on specific plans and projects.
- 4.15 The identification of priority areas will be carried out through a comprehensive dialogue with the Government of Guyana (GOG), Government of Suriname (GOS), and consultations with other relevant stakeholders including other donors, NGOs, private businesses and indigenous groups. These dialogues and consultations should establish (i) the country infrastructure development priorities and plans; (ii) the linkages of these priorities and plans with the strategic objectives of the Bank's engagement in Guyana and Suriname; and (iii) the linkages of the country's priorities and plans with the development assistance programs of other multilateral, bilateral, and international organizations working in the two countries. Based on this information, the Consultant should identify those areas that are a priority to the country and the Bank with respect to infrastructure development and environmental management. This information will be mainly used in the development of the SEA and the CEA and the respective reports will provide qualitative or quantitative factors that can support the selection of the priority areas, and the linkages of these priority areas with the specific interests of the Bank and other donors in Guyana and Suriname. The Consultant will document the process used to identify priority areas.

f) Analysis of Cross-Cutting Issues

- 4.16 This analysis concerns the economy's and society's use of and impact on natural resources, environmental goods and environmental services in Guyana and Suriname. It complements the previous analyses in highlighting the connections between socio-economic development and environmental management and will be used mainly in the development of the CEA for Guyana.
- 4.17 To achieve this succinct cross-sector analysis the consultant team will provide concise graphic and written assessments of policies, programs, subsidies, and strategies to address economic development, poverty, health and livelihoods, equitable access and distribution of environmental resources, population growth, migration and conflict, with particular attention to the following factors:
- a. Identification and analysis of key macroeconomic or sector policies and reforms that may have significant environmental and natural resources implications (e.g., energy and water pricing issues; privatization schemes affecting natural resources or environmental services; trade liberalization; property rights; changes in explicit and implicit subsidies to reflect resource scarcity or risks; and improved use of market instruments to protect the environment).
 - b. Identification and analysis of subsidies relating to potentially environmentally damaging products, including, but not limited to such as subsidies as: the production and consumption of energy, notably motor fuels, coal, and electricity; the production and consumption of agricultural chemicals, notably fertilizers and pesticides; the exploitation or harvesting of natural resources, in particular, timber.
 - c. Identification of excessively generous production quotas or poor concession an allocation management in the fisheries, mining and forest sectors.
 - d. Identification and analysis of viable policies that can be used to reduce the wasteful use of resources emissions such as charging fees for emissions, reductions in quotas or taxes on the consumption of raw materials.
 - e. Identification and analysis of governance issues (decentralization, fiscal austerity and environmental expenditures, removal of corruption, better transparency and accountability).
 - f. Identification of opportunities to break the vicious cycle of environmental degradation and poverty.

g) Identification and Analysis of Opportunities and Risks

- 4.18 The analysis should categorize potential environmental impacts and mitigation responses by resource and institutional sector. Sectors that are of greater

importance in Guyana and Suriname are: (i) road and bridge improvements and construction; (ii) water and sanitation improvements and construction including liquid and solid waste treatments; (iii) coastal zone management and climate change preparations; river channel modifications and river transport improvements; and (iv) natural resource developments in mining, forest resources, and agriculture that may occur as the direct or indirect consequence of infrastructure improvements. For each sector the State-pressure-response framework should be used to include an assessment of the following factors: (i) sector characteristics, technologies and trends; (ii) environmental and natural resources issues; (iii) regulatory and institutional framework; (iv) cross-sector linkages; and (v) environmental and related social mandates of Bank policies; and strategies for the sector.

- 4.19 The assessment of biophysical, social and institutional assets and potential impacts to these assets by sector can be used to determine opportunities and risks related to the Bank's engagement in environmental management in Guyana and Suriname. In particular, the Consultant will identify opportunities for synergies between good environmental management and economic development in its wide representation including, but not limited to, infrastructure development, such as improvements in the planning and implementation of infrastructure improvements, and monitoring and mitigation of impacts from these activities. At the same time, the Consultant will determine social and environmental risks that can jeopardize the implementation of these development initiatives.
- 4.20 The Consultant will support findings with succinct information on the cross-sector context of environmental risk, the potential impact of proposed plans and programs on ecosystems, and an assessment of expenditures on environmental risks and management needs. The Consultant will also categorize how opportunities and risks can, respectively, be increased or reduced; and actions that can be implemented to take advantage of these opportunities or reduce risks. Particular attention will be given to irreversible and cumulative impacts, as well as conflicting demands between key stakeholder groups over resource use and management. The analysis should also examine the existing capability of each country, mainly Guyana, to address risks and opportunities and refer to the assessment of the environmental governance framework described in paragraph 5.11-5.12.
- 4.21 Examples of the risks, threats and constraints that the team may address include: (i) increase in water quality degradation and contamination due to unregulated discharges and lack of treatment facilities; (ii) degradation or loss of forest resources due to unregulated harvests; (iii) loss of biodiversity resources due to increased, but unregulated access to hunting and harvest sites; (iv) resource use and allocation conflicts; (v) overlapping jurisdictions creating conflicting management or mitigation mandates; and (vi) lost opportunities for sustainable resource development due to uncertain resource use rights, incomplete or unreliable data, lack of planning capacity, or other factors.

- 4.22 Examples of possible opportunities could include: (i) adding environmental education to basic education programs; (ii) conducting public awareness programs that cut across sectors, strategic objectives, and customer groups; (iii) incorporating environmental resource valuation in development planning for economic growth; (iv) combining environmental conservation work with civil society development through community-based natural resource programs; (v) developing conflict prevention or mitigation activities for resource access issues between communities or tribes; (vi) adding environmental health issues to preventive health programs; (vii) identifying environmentally friendly technologies for energy sector programs; (viii) adding natural resource management and conservation practices to commercial export agriculture programs; (ix) addressing environmental resource issues in food security programs; (x) addressing environmental governance in general governance reform programs; and (xi) positive linkages between environmental changes and livelihoods of vulnerable populations.
- 4.23 This summary of risks, threats and opportunities will form the foundation for the Action Plan to be developed in the CEA and SEA documents.
- 4.24 **Geographic Information Assessment:** The Consultant reports, specially the SEA report, will include the use of dynamic geographic information systems (GIS) to provide a graphic delineation of proposed infrastructure development activities, and the biophysical and social environments most likely to be affected by these activities. The GIS assessments can rely on existing recent databases to provide a visual overview of proposed or on-going improvements to roads, bridges, coastal zones, rivers, communication networks and other infrastructure improvements prioritized during the stakeholder consultation component. The GIS assessments should also create a graphic interpretation of potential impacts that may result from these infrastructure improvements and an interpretation of assets that can be used to mitigate or resolve adverse impacts, with particular attention given to existing or proposed parks and protected areas; indigenous reserves; public forest management units; fossil fuel and mineral extraction concessions; key fisheries areas; commercial agricultural areas; important surface and ground water supply sources; key ecotourism sites; and urban and other important residential areas. The Consultant should use a scale in this geographic assessment that will support qualitative determinations of potential impacts from proposed development activities.
- 4.25 The results and outcomes from Activities 1-7 will be used to prepare three independent reports: (i) A CEA for Guyana; (ii) an SEA of infrastructure developments in both countries; and (iii) a Gap Analysis of the MDG7 Indicators for both countries.

2. Strategic Environmental Assessment of Proposed Infrastructure Development Initiatives

- 4.26 After having identified specific development initiatives that have been translated into policies, plans and programs, with particular emphasis on the IIRSA initiative, the consultant will develop a SEA that should be structured as described below. While making every effort to follow the given orientation, the consultant, based on the firm's experience with SEA methodology and procedures, may suggest alternatives for action to the IDB's project team. The Consultant should also keep in mind that their efforts should be coordinated with the feasibility studies being prepared for the Guyana's Linden-Lethem road, TC "Pre-investment Georgetown Boa Vista Road" —Guyana Segment— (GY-T1026), which include the analysis of the direct and indirect environmental and social impacts but does not consider the strategic ones.
- 4.27 The Strategic Environmental Assessment (SEA) is conceived as an instrument to analyze upfront the potential risks and opportunities for environmental and socio-cultural management of the project alternatives contained in the IIRSA initiative and other pertinent major development initiatives in both countries. The SEA will be used as the framework from which to develop an Action Plan to deal with strategic impacts or issues identified in order to guide Guyana and Suriname towards an approach that is environmentally and socio-culturally sustainable.
- 4.28 Basically, the objectives of the SEA are:
- a. Ensure that the major environmental, socio-cultural, economic and institutional risks and opportunities of the IIRSA and other government initiatives are identified upfront. This identification also includes direct, indirect and cumulative impacts related to the IIRSA initiative and others proposed by the governments.
 - b. Display in GIS maps the environmental, socio-cultural and other relevant information prepared for the program's area of influence in order to facilitate and strengthen monitoring and decision-making within programs pertaining to these areas.
 - c. Engage the public institutions, NGOs, civil society organizations, indigenous communities and other relevant stakeholders that can derive benefits or be affected by the development initiatives in the assessment and analysis phases of the environmental, institutional and socio-cultural risks and opportunities of the proposed alternatives.
 - d. Generate agreement among the stakeholders as to the scope of the environmental, institutional and socio-cultural management plans that should be developed to ensure the sustainable implementation of the IIRSA and related programs.

- e. Promote coordination, at least at an initial stage, between the relevant institutions of Guyana and Suriname.
 - f. Ensure that the results of the SEA are thoroughly disclosed among the affected populations and beneficiaries of the proposed initiatives.
- 4.29 The preparation of the SEA will involve: (i) identification and analysis of the major development initiatives being devised in both countries focusing primarily on the IIRSA infrastructure projects; (ii) assessment of the state of the socio-cultural and biophysical environment in Guyana and Suriname related to these development initiatives as described previously; (iii) completion of a screening, scoping and impact analysis; (iv) completion of a representative public consultation of the potential affected population; (v) identification of the potential environmental and social impacts, including impacts on biodiversity, indigenous populations and fragile ecosystems, and institutional constraints, including planning and decision making limitations; and (vi) design and prioritization of the specific measures necessary to mitigate the identified social and environmental impacts and the respective monitoring plan and baseline. The consultant is expected to incorporate the SEA findings in an action plan that includes management alternatives and a monitoring plan with baseline and mitigation measures to achieve program's sustainability.
- 4.30 The consultant should produce a work plan as a first product of this process in which it should specify: (i) the scope of the SEA; (ii) the area of influence of the study; (iii) the main sources of information available to prepare the necessary assessment of the environmental, socio-cultural and economic including the cartographic resources; (iv) the methodology to obtain primary information as needed, integrated and cumulative analysis, and special topics; (v) the institutions responsible for the management of the affected areas; (vi) the design and methodology of the consultation process; (vii) the need for institutional coordination; and (viii) the timetable to execute the work plan.
- 4.31 The SEA will be based on a qualitative and quantitative analysis of the predicted environmental impacts from existing or emerging policies and programs alternatives in order to create an action plan for Government actions. The Consultant will include a geographic information assessment to provide a graphic and mapped delineation of proposed infrastructure development activities; the biophysical and social environments most likely to be affected by these activities; and the range of biophysical, social and economic impacts that could occur. The final SEA report will provide the basis for a concise and pragmatic set of environmental actions that can be undertaken with Bank support in Guyana or Suriname over the next 4-5 years.
- 4.32 Impact Assessment - This particular task involves the analysis of the development programs with emphasis on IIRSA for Guyana and Suriname and the identification the major impacts using the criteria and indicators developed during the assessment

phase. The major stakeholders identified previously should validate the results of this impact identification. The assessment should focus on the negative and positive impacts at a strategic level including the cumulative impacts. As an indication and not being exhaustive, the consultant should consider in the analysis the following issues: (i) water quality and erosion; (ii) deforestation; (iii) land tenure and illegal occupation along the roads to be built; (iv) indigenous lands; (v) tourism frontiers; (vi) monitoring capabilities; (vii) risk to protected areas; (viii) commercial and artisan fishing; (ix) endangered species etc.

- 4.33 The action plan for government actions should identify the appropriate measures to prevent, mitigate or manage the impacts on the biophysical and socio-cultural environment. It should also identify the institutional strengthening actions needed to guarantee the program's sustainability.
- 4.34 Public consultation - This is an integral part of the SEA and will involve identification and prioritization of programs and impacts by stakeholders as well as the validation of findings and the design of preventive and mitigation measures. It comprises the interviews and workshops during the assessment phase and the presentation of the results for validation when the impact analysis is completed. In both cases it is crucial for the Consultant to document the identification of the important stakeholders in all phases. A public consultation report should be provided with the work plan, and should include: (i) the methodology used to ensure public consultation; (ii) a document identifying participating stakeholders; (iii) presentation materials and facilitation methods used; and (iv) a summary of interviews and issues discussed during the meetings.
- 4.35 The SEA final report - The SEA report should include at a minimum: (i) an Executive Summary; (ii) program description, including statement of the goals, objectives and work strategy for achieving the SEA results; (iii) an assessment of the institutional and legal analysis available and needed to implement the program; (iv) results from the environmental and socio-cultural assessment of the area of influence describing the main characteristics and tendencies, as well as information deficiencies and issues raised during the public consultation/validation; (v) a presentation of the direct, indirect and cumulative impacts indicating major risks and potential issues to be resolved in the future; (vi) a detailed description of the Action Plan to prevent, mitigate and manage environmental and socio-culture issues with the respective criteria for detailed design and implementation (here the consultant should present the design and implementation scheme for the most critical issues); and (vii) description of the public consultation with a summary with the adopted methodology, participants and documentation of main results.
- 4.36 For each of the recommendations made the Consultant must provide an indication of the key implementation requirements, including an identification of: (i) the governmental, private sector and civil society actors whose support is needed to promote a successful implementation of the action; and (ii) technical assistance (such as capacity building in impact mitigation techniques, project execution,

survey techniques, public consultation skills, or environmental data management) that is required to provide the framework for initiating the recommended actions; (iii) an approximate schedule or time frame required for implementation; and (iv) estimated costs for delivery of recommendations.

- 4.37 In addition to a written explanation of the recommendations, the SEA report should include a matrix that summarizes the issues addressed, the related recommendation(s), and the expected outputs and outcomes.

3. Preparation of a Country Environmental Assessment for Guyana

- 4.38 The Country Environmental Assessment (CEA) for Guyana will: (i) develop a strategic framework for Bank staff and others to identify and address environmental priorities; (ii) help guide and forge a consensus between the Bank and Guyana (government, private sector and civil society) on key environmental priorities and on a programmatic approach to improving environmental management; (iii) inform policymakers about the environmental implications of specific policy choices and the country's environmental management, capacity and performance; and (iv) support the preparation of the Bank's revised Country Strategy and identify areas in which the Bank can support the country in its objectives of reaching sustainable economic growth, poverty alleviation, and protection of the global commons.

- 4.39 The assessment will provide the basis for a concise and pragmatic set of environmental actions that can be undertaken with Bank support in Guyana over the next 4-5 years. These recommendations should build on past efforts and complement on-going activities. Thus, they should be derived from the stakeholder dialogue and comprehensive analysis described in sections A to G; the comparative advantage of the Bank in Guyana; and the Bank's current portfolio and pipeline with the country.

- 4.40 The Consultant will identify specific actions regarding projects proposed for inclusion in the lending program, including private sector projects, such as:

- a. Requiring preliminary environmental studies and identifying environmental priority issues as part of pipeline management and entry requirements.³
- b. Assessment requirements, including adoption of a pipeline risk management approach to promote and facilitate enabling conditions for proper environmental management particularly when the Bank's proposed portfolio is likely to include public and private sector operations that are potentially environmentally and socially sensitive and controversial;⁴ or identification of categories A and B projects according to the ESP.

³ ESP, Directive A6.

⁴ ESP, Directive A6.

- c. Specific impacts and risks to be considered during project EIA/environmental due diligence and triggering of specific safeguard policies.⁵
 - d. Possible environmental enhancement measures for inclusion as environmental and natural resources management components in non-environmental in non-environmental projects operations, provided these components bring increased net-benefits for the operation as a whole.⁶
 - e. The definition of strategic priorities for Bank financing and action according to its environmental policy mandate which includes, but is not limited to operations that: (i) combat ecosystem degradation and revert soil, water and air degradation; (ii) strengthen institutional development, capacity building and environmental governance at all levels; (iii) promote the efficient and clean use of energy resources; (iv) improve the urban environment; (v) contribute to the sustainable management of land- and marine-based natural resources; (vi) protect biodiversity and fragile ecological systems; improve watershed and water resources management; (vii) promote the reduction and control of greenhouse gas emissions⁷; and (viii) support regional environmental and natural resources management initiatives, and provisions to support the country in meeting its agreed national obligations under ratified international environmental agreements, including those addressing trans-boundary global and regional environmental public goods.⁸
- 4.41 For each of the recommendations made the Consultant must provide an indication of the key implementation requirements, including an identification of: (i) the governmental, private sector and civil society actors whose support is needed to promote a successful implementation of the action; and (ii) technical assistance (such as capacity building in impact mitigation techniques, project execution, survey techniques, public consultation skills, or environmental data management) that is required to provide the framework for initiating the recommended actions.
- 4.42 In addition to the above considerations, the following criteria should also be included in the selection of recommendations for Bank support in Guyana: importance; urgency; implementation capacity; costs, benefits and trade-offs; and strategic priorities contained within the Bank's environmental policy mandate.
- 4.43 In addition to a written explanation of the recommendations, the CEA reports should include a matrix that summarizes the issues addressed, the related recommendation(s), and the expected outputs and outcomes.

⁵ ESP, Directives A6 and B.

⁶ ESP, Directive A3.

⁷ ESP, Directive A2.

⁸ ESP, Directive A4.

4. Identification of Issues for the Gap Analysis of Millennium Development Goal Environmental Indicators

- 4.44 The Gap Analysis report will: (i) determine the trends in the conservation of Suriname and Guyana's environmental resources and services, including biodiversity, marine ecosystems, forest ecosystems, protected species and depletion of natural resources; (ii) identify and estimate the rural sources of pollution (air, water and terrestrial) and main rural polluted sites of Guyana and Suriname; and (iii) determine the key links between environmental deterioration and impact on human health.
- 4.45 The analysis and identification of trends, risks and opportunities to achieve MDG7 targets will provide the basis for a concise and pragmatic set of environmental actions that can be undertaken with Bank support in Guyana and Suriname over the next 4-5 years. These recommendations should be derived from dialogue with the GOG, GOS, the Bank and other stakeholders.
- 4.46 The data used to determine environmental resource conservation trends and identify and estimate principal sources and sites of rural pollution should be carefully selected. The gap analysis can rely on the conclusions drawn from previous assessments to develop the analysis of trends and results in the monitoring and achievement of Targets 9, 10 and 11 of MDG7. Table 4 identifies the criteria that could be used to establish this analysis of trends and results:

Table 4. Criteria for Assessment of Trends and Results in MDG7

Target #9: Integrate the principles of sustainable development into country policies and programs and reversing the loss of environmental resources.	<ul style="list-style-type: none"> • Total land area under forest cover by forest class. Include deforestation and reforestation rates and geographic areas, and identify principal risks and threats to forest cover. • Total area and geographic location of parks and protected reserves by classification status, including pending and proposed reserves • Estimated volume of carbon dioxide emission per capita and identification of opportunities to reduce emissions. • Gross domestic product (GDP) per unit of energy use, including analysis of opportunities to develop a sustainable energy program in each country.
Target #10: Reduce by half the proportion of people without sustainable access to safe drinking water by 2015.	<ul style="list-style-type: none"> • Number and percentage of urban households served by treated potable water supplies, and evaluation of the quality of distribution lines. • Number and percentage of rural households served by treated potable water supplies, and evaluation of the quality of distribution lines or accessibility of boreholes or wells.
Target #11: Achieve by 2020 significant improvement in the lives of at least 100 million slum dwellers.	<ul style="list-style-type: none"> • Number and percentage of urban and rural households with access to sanitary disposal facilities for wastewater and solid wastes • Number, location and treatment level (primary, secondary, tertiary) of wastewater treatment facilities. • National or regional preparedness for natural disasters, including flooding, drought, a rise in sea levels due to climate change, or uncontrolled fire in forest and savannah ecosystems. • Percentage of population with secure land title and with secure access to traditional natural resource base, with particular attention to indigenous and disadvantaged populations, and groups affected by expansion of mining, forestry and other large-scale resource extractions.

Source: Adapted from The Millennium Declaration Road Map.

- 4.47 The final product will be a report showing: (i) The current status of the rural and urban MDG7 environmental indicators and recommendations for actions that can be implemented to fulfill these if not yet achieved; and (ii) Identification of additional information required to maintain effective monitoring of the MDG7 targets and indicators, including the elaboration of opportunities for Bank involvement in any of the following:
- a. Strengthening sustainable energy use policy and programs.
 - b. Carbon dioxide emission reductions or offsets.
 - c. Carbon sequestration actions.
 - d. Mitigation of impacts to coastal zones, coastal plain agricultural areas, coastal urban areas, and interior forests from climate changes.
 - e. Improved drinking water distribution, and wastewater and solid waste treatment and disposal in rural and urban areas.
 - f. Improvements in mineral extraction, processing and transport, particularly a reduction in health risks for workers and potential adverse impacts to aquatic ecosystems, water quality and wildlife.
 - g. Achievement of the National Biodiversity Strategy and Action Plans for Guyana and Suriname in order to ensure the long term conservation of environment and natural resource conditions.
- 4.48 For each of the recommendations made the Consultant must provide an indication of the key implementation requirements, including an identification of: (i) the governmental, private sector and civil society actors whose support is needed to promote a successful implementation of the action; and (ii) technical assistance (such as capacity building in impact mitigation techniques, project execution, survey techniques, public consultation skills, or environmental data management) that is required to provide the framework for initiating the recommended actions; (iii) approximate schedule or time frame required for implementation; and (iv) estimated costs for delivery of recommendations.
- 4.49 In addition to a written explanation of the recommendations, the MDG7 gap analysis report should include a matrix that summarizes the issues addressed, the related recommendation(s), and the expected outputs and outcomes.

B. Scope

- 4.50 The Consultant will carry out all the studies and investigations necessary to produce three distinct reports: (i) a CEA specific to Guyana to support the revision

of the Bank's Country Development Strategy and define the Action Plan between the Government of Guyana (GOG) and the Bank on environmental issues and programs; (ii) a SEA of major development initiatives being proposed or implemented in Guyana and Suriname with emphasis on the IIRSA projects; and (iii) a gap analysis of the MDG7 for Guyana and Suriname. The resulting reports will analyze the biological and physical environment, social and institutional context and the strategic impact of development initiatives in the two countries, establish priorities, and assess the state of enabling conditions for environmental management in relation to priority areas of intervention discussed and agreed upon with the country.

- 4.51 The final documents will identify technical data gaps that could constrain the monitoring and evaluation of impacts from IIRSA and other infrastructure development projects, and describe measures that can be put in place to reduce or eliminate these gaps. The final documents will also include an assessment of institutional capacity to implement recommendations and describe strengthening actions that can be applied to enhance institutions.
- 4.52 Operationally, these three products are different and have different purposes. They all require basic assessments with similar information requirements, which should be optimized to avoid overlapping efforts. Essentially, each assessment covers similar technical topics including: the state of the environment; the legal and institutional framework for environmental management; and the socio-economic and cultural context for program or project development. Nevertheless, the focus of each assessment is different. For example, the SEA should be linked to specific infrastructure development programs or plans such as the IIRSA with the aim to identify major environmental and socio-cultural impacts early in the process in order to prescribe mitigation measures to be incorporated in feasibility studies of the specific projects. This assessment involves both countries. Conversely, the CEA is focused entirely on Guyana and involves a broader overview of Guyana's environmental situation; a clear understanding of the legal and institutional issues affecting environmental management of the country's adopted development alternatives; and the identification of the respective cross-cutting issues of environmental management and economic development. The Assessment for the MDG gap analysis is aimed at filling the data gaps of a pre-agreed upon set of conditions. However, these TORs are designed such that the basic assessments and interaction with the stakeholders are common and can be executed as one task, as described in Chapter V (A to G).

V. REPORTS AND WORKSHOPS

- 5.1 The final activity of the SES relates to the presentation of the findings from the assessment. This activity contains three sub-activities: (i) preparation and circulation of written reports, including a project progress report, and a draft and

final SES report; (ii) at least one initial workshop to obtain stakeholder input, and one urban and one rural workshop to review and validate findings in Guyana and Suriname, respectively (therefore, a total of six national workshops); and (iii) one workshop in Washington, D.C. to present the results of the assessment as described in the draft SES report to Bank staff.

A. Reports

5.2 The Consultant will deliver a progress and three reports in English, and will include executive summaries for: (i) Progress Report; (ii) Draft SEA, CEA and Gap Analysis Reports; and (iii) Final SEA, CEA and Gap Analysis Reports. Each report will be submitted in three hard copies, accompanied by a diskette or CD in PDF and Microsoft Word format that contains the complete version of the respective reports (including, as applicable, executive summary, cover pages, table of contents, appendices, figures, graphics and tables). All reports will be submitted to Fernando S. Bretas RE3/EN3, by the dates stipulated in the schedule included in these TOR. The Bank will reserve the right to publish each draft or final report under its own name on its website or in print, with or without changes to the content of the document presented by the Consultant.

- a. Progress Report: to be delivered within 35 days after contract signature. This will include a summary work plan, the final adjusted TOR, including an updated specific assignment of expert months to each task, a summary of all activities undertaken to date, and indication of any problems that may affect satisfactory completion of the SES work. This report includes the report described in 5.30.
- b. Draft SEA, CEA and Gap Analysis Reports: according to the scope of work and outline described earlier, 40 days from submission of the Initial Progress Report. The Bank will provide comments on the Draft reports within 10 business days. The Draft reports incorporating the Bank's comments will be presented at the second Workshop in Guyana to all relevant stakeholders, approximately two weeks after becoming available.
- c. Final SEA, CEA and Gap Analysis Reports: to be delivered 15 days after the conclusion of the second Workshop. The final report will integrate all comments on the Draft reports and suggestions received during the Workshop. This will include revisions to: the conclusions, recommendations, the Environmental Action Strategy developed during the preparation of the CEA and the Environmental Action Plan developed for the SEA if appropriate, as well as a summary of all the views expressed in the Workshop, particularly as they pertain to potential conflicts over environmental management, resources and mainstreaming actions. The consultant will limit each report to a maximum of 100 pages.

B. In-country workshops

- 5.3 The Consultant will prepare and deliver an initial one-day Workshop in Georgetown, or the most convenient city to facilitate and ensure full stakeholder participation in Guyana, and a second one-day workshop in Paramaribo to achieve the same in Suriname. The first workshop will provide an opportunity for the consultant team to gather information, elicit expectations for the SES, and explain the process. The third through sixth workshops will be conducted after the completion of Activities A-D. The goal of these later workshops will be to reach agreements on predicted impacts from proposed infrastructure development activities, the magnitude of predicted risks and threats, and the most viable alternatives available to mitigate those risks. However, if this is not possible, the Consultant will use the workshops to at least disseminate and validate the findings, analysis and recommendations of the SES, and to document the views of various stakeholders regarding the seriousness and priority of environmental issues and impacts and the cost benefits, trade-offs and likelihood of implementation of the recommended environmental actions. The Consultant will be responsible for all logistics including invitations and distribution of copies of the draft reports in advance.
- 5.4 A range of participants involved in environmental management in Guyana and Suriname will be invited to each Workshop. These participants will come from Government, the private sector, NGOs, community and indigenous organizations and international donors. The Consultant will determine the final list in collaboration with the government and the IDB. Every effort will be made by the consultant team to schedule and complete at least one workshop outside of Georgetown and Paramaribo in order to increase opportunities for participation by rural groups and communities. The Team Leader will notify the Bank project coordinator if logistical or financial constraints will prevent the delivery of these fifth and sixth rural-based workshops.

C. Headquarters workshop

- 5.5 The Consultant will conduct a workshop at the Bank's Headquarters within 30 days from acceptance of the final reports to disseminate the resources, discuss and clarify the contents and identify the lessons learned from the SES preparation process. The Workshop will serve as a forum to discuss the challenges and opportunities identified, the indicators selected and their use and activities recommended to implement the results and monitor the results of the SES. The workshop will last one day.

VI. PAYMENT

- 6.1 The Consultant will be paid according to the schedule established for the delivery of all 3 components identified in the Plan of Operations for the Strategic Environmental Studies to be carried out in Guyana and Suriname which includes: (i) 25% at contract signing; (ii) 20% upon delivery of progress report with work plan to execute the SES; (iii) 20% upon delivery of draft report of SES (SEA, CEA, MDG gap analysis); and (iv) 35% upon Bank approval of final reports of the SES (SEA, CEA, MDG gap analysis) and completion of the Headquarters workshop.

VII. COORDINATION

- 7.1 Technical and administrative coordination for this consultancy rests with Mr. Fernando Soares Bretas, Environment and Natural Resources Management Division 3 (RE3/EN3), [phone: (202) 623-1910; fax 8202) 623-1998; e-mail: fernandob@iadb.org].

**STRATEGIC ENVIRONMENTAL STUDIES FOR GUYANA AND SURINAME
(RS-T1239)**

PROCUREMENT PLAN

Description of the contract	Estimated cost of Procurement (US\$)	Procurement Method	Source of financing and percentage		Estimated Dates	Status
			IDB (%)	Local/other (%)	Publication of specific procurement notice	
Preparation of the Strategic Environmental Studies	320,000	International Competitive Bidding -Selection based on consultant qualifications (CQS)	100	0	Q3 06	Pending

**STRATEGIC ENVIRONMENTAL STUDIES FOR GUYANA AND SURINAME
(RS-T1239)**

DETAILED BUDGET

Budget Line	Unit	No. Units	Cost/Unit	IDB Cost	Local Counterpart	Total
A. Component 1: Strategic Environmental Studies						
1. Sub-Component A: SEA-Guyana and Suriname						
International Senior Consultants	Days	90	600	\$54,000	\$0	\$54,000
National Consultants	Days	130	300	\$39,000	\$0	\$39,000
Project Assistants	Days	75	100	\$7,500	\$0	\$7,500
Sub-Total				\$100,500	\$0	\$100,500
2. Sub-Component B: CEA-Guyana						
International Senior Consultants	Days	55	600	\$33,000	\$0	\$33,000
National Consultants	Days	90	300	\$27,000	\$0	\$27,000
Project Assistants	Days	50	100	\$5,000	\$0	\$5,000
Sub-Total				\$65,000	\$0	\$65,000
B. Component 2: Gap Analysis of MDG						
International Senior Consultants	Days	45	600	\$27,000	\$0	\$27,000
National Consultants	Days	60	300	\$18,000	\$0	\$18,000
Project Assistants	Days	25	100	\$2,500	\$0	\$2,500
Sub-Total				\$47,500	\$0	\$47,500
C. Travel and Per Diem						
International Travel	Flights	9	1200	\$10,800	\$0	\$10,800
Local Travel				\$12,500	\$0	\$12,500
Per Diem (international consultants)	Days	190	150	\$28,500	\$0	\$28,500
Per Diem (national consultants)	Days	45	100	\$4,500	\$0	\$4,500
Per Diem (workshop participants)	Days	100	75	\$7,500	\$0	\$7,500
Workshops	Days	24	750	\$18,000	\$7,500	\$25,500
Local Logistical and Office Support				\$3,000	\$32,500	\$35,500
Communications and Materials				\$6,000	\$0	\$6,000
Sub-Total				\$90,800	\$40,000	\$130,800
Contingency				\$16,200	\$0	\$16,200
Grand Total				\$320,000	\$40,000	\$360,000