

**Forest Carbon Partnership Facility
(FCPF)**

**Readiness Preparation Proposal
(R-PP)**

Country Submitting the Proposal:

Republic of Suriname

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General Information

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3. Executive Summary

The Republic of Suriname has a land surface of 163,384km² of which 14.8 million ha is covered with forest. The forest resource of Suriname comprises approximately 90% of Suriname's land area of which a large tract is in intact condition. This represents a potentially immense material, environmental and socio-economic value, which is of importance to the Suriname economy. In a global environmental perspective these forests provide important climate beneficial services. Nationally, the forests also contribute to the regulation of the water balance, the conservation of water quality and ensuring soil fertility by resisting erosion. Suriname is a developing country at the early stage of the Forest Transition Curve. In the pursue of its development and to continue to enhance the prosperity and well-being of its people, Suriname needs to take advantage of its national resources potential, comprising of inter alia fossil fuels, fresh water, gold, bauxite, kaolin, as well as its potential for infrastructure, agriculture and tourism development. The Government of Suriname is committed to pursue a path of sustainable use and management of its natural resources. A REDD+ mechanism should be supportive of Suriname's early bridging in the Forest Transition Curve, assist in improving sustainable forest management and create positive incentives for the global climate beneficial services that emanate from the Suriname forests. Taking into account Suriname's developmental needs REDD+ should furthermore assist in reducing the threats of deforestation and forest degradation. As a High Forest cover Low Deforestation country establishing a reference emission level should take into account future trends of deforestation and degradation. Suriname has become more aware of the role of forests in climate change, since forests are both carbon sources and sinks. Influenced by Suriname's input, the door was opened in the 14th Climate Change Conference of Parties for a comprehensive approach to REDD+. Suriname now also aspires to be part of the forest carbon mechanism. Therefore, Suriname submitted the Readiness Plan Idea Note (RPIN) in December 2008, which was approved in March 2009. This furthered an increased awareness of REDD+ within governmental and non-governmental institutions, the private sector, NGOs, Indigenous and Maroon organizations, and the academia.

The Ministry of Physical Planning, Land and Forest Management, in collaboration with Tropenbos International Suriname, Conservation International Suriname and the World Wildlife Fund, conducted various presentations, training and stakeholder meetings regarding the role and importance of REDD+ activities in relation to national developmental processes to promote awareness among different stakeholders. The Government of Suriname established a National REDD+ committee to develop the Readiness Preparation Proposal. Through internal meetings and stakeholder meetings with all relevant parties, such as governmental and non-governmental institutions, the private sector, NGOs, Indigenous and Maroon organizations, and the academia, comments and recommendations were received to develop the RPP.

Quick assessments were undertaken to set out the main current and future drivers of deforestation and forest degradation. Assessments of the current drivers of deforestation and forest degradation were mainly focused on mining activities, agriculture, slash and burn activities, energy, infrastructural developments, mangrove, deforestation and forest degradation. The principal driver of deforestation and forest degradation in Suriname in recent years has been mining, including large, medium and small scale mining for bauxite and gold. A quick assessment was also carried out on the capacity of (governmental) institutions with respect to

the implementation of the RPP and the REDD+ readiness strategy. It became evident that most governmental institutions will require capacity building and institutional strengthening to increase their knowledge about REDD+ and the implementation of the RPP. External expertise as well as substantial financial resources will also be needed for the implementation of the RPP and REDD+ readiness strategy. Suriname aims for the development of a national REDD+ strategy. The main activities are coordination, capacity building, financial carbon market access, financial mechanism development, research and education, stakeholders engagement, dissemination of information and baseline establishment, monitoring, reporting and verification. The output of these activities will be the development of a national REDD+ framework and its strategies, the development of the reference scenario and design of a monitoring system. To conduct all activities with respect to the implementation of the RPP and REDD+ readiness strategy, a National REDD+ Working Group will be established consisting of representatives of governmental institutions, the forest dependent communities namely the Indigenous and Maroon people, the timber industry, academia, civil society and some observers (other relevant non-governmental organizations). The overall task of the National REDD+ Working Group will be to coordinate and supervise all activities conducted by the National Forest Carbon Unit, which will operate under supervision of the National REDD+ Working Group and will also be coordinated by the Ministry of Physical Planning, Land and Forest Management. To succeed in the implementation of the RPP and REDD+ readiness strategy, implementation of the consultation and outreach plan is considered of eminent importance in order to engage the entire community in the process of implementation. Both governmental and traditional structures will be considered for consultation and outreach. Implementation of Suriname's RPP will require a lot of collaboration, technical and financial resources as well as technology. The estimated budget is USD15,236.00 for the implementation of both the RPP and REDD+ readiness strategy for a period of four years. Suriname strongly believes that the implementation of the RPP and REDD+ readiness strategy will lead to the development of a solid basis which will enable the country to be ready for the post-Kyoto arrangements. The World Bank/ FCPF is uniquely positioned to catalyze Suriname's REDD+ Readiness and to assist Suriname with these goals, which would complement the FCPF vision of partnership.

List of acronyms

ACTO	Amazon Cooperation Treaty Organization
ADEKUvS	Anton de Kom University of Suriname
ADRON	Anne van Dijk Rijstonderzoek Centrum Nickerie
AFOLU	Agriculture, Forestry and Sustainable Land Use
ASHU	General Suriname Timber Union
ATBC	Association of Tropical Biology and Conservation
ATM	Ministry of Labor, Technological Development and Environment
CABPRES	Cabinet of the President of the Republic of Suriname
CBO	Community based organization
CELOS	Centre for Agricultural Research in Suriname
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CIVILSoc	Civil society
CLI	Country-Led Initiative
CSNR	Central Suriname Nature Reserve
DEF	Ministry of Defense
DLGP	Decentralization Local Government Strengthening Programme
ESIA	Environmental and social impact assessments
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FIN	Ministry of Finance
FTAA	Free Trade Area of the Americas
GIS	Geographic information systems
GLIS	Land registration and Land information system
HI	Ministry of Trade and Industry
I&Mcomm	Indigenous and Maroon communities
ICFRE	Indian Council on Forestry Research and Education
IDB	Inter-American Development Bank
IIRSA	Integration of Regional Infrastructure in South America
IOL	Institute for Teacher Education
IPPC	Intergovernmental Panel on Climate Change
IRD	Institut de Recherche pour le Developpement
ITTC	International Timber Tropical Council
ITTO	International Tropical Timber Organization
JSOOC	Jan Starke Training and Recreation Centre
KKF	Chamber of Commerce and Industry
LBB	Forest Service
LVV	Ministry of Agriculture, Animal Husbandry and Fisheries
M&E	Monitoring and Evaluation

MOP	Multi Annual Development Plan
MRV	Monitoring, reporting and verification
MUMA	Multiple-use management area
MW	megawatt
NARENA	Department of Natural Resources and Environmental Assessment
NATIN	Nature Technical Institute
NB	Nature Conservation Division
NBS	National Biodiversity Strategy
NFCU	National Forest Carbon Unit
NGO	Non governmental organization
NIMOS	National Environmental Council and the National Institute for Environment and Development in Suriname
NRWG	National REDD+ Working Group
Obs	Observers
OIS	Organization of Indigenous People in Suriname
OW	Ministry of Public Works
PHS	Platform Timber Sector
PLOS	Ministry of Planning and Development
REDD	Reduced Emissions from Deforestation and Degradation
REL	Reference Emission Level
RGB	Ministry of Physical Planning, Land and Forest Management
RO	Ministry of Regional Development
RPIN	Readiness Plan Idea Note
SBB	Foundation for Forest Management and Production Control
SIVAM	Sistema de Vigilância de Amazônia
TBI	Tropenbos International
TEAM	Tropical Ecology, Assessment and Monitoring
TOR	Terms of reference
UNFCC	United Nations Framework Conventions on Climate Change
UNFF	United Nations Forum on Forests
VIDS	The Association of Village Leaders of Suriname
VSG	The Association of Saramaka Authorities
WWF	World Wildlife Fund

Component 1: Organize and Consult

1a. National Readiness Management Arrangements

Rationale

From 8th – 12th September 2008, Suriname hosted the international experts meeting on “Financing for Sustainable Forest Management: The Paramaribo Dialogue”, which was a Country-Led Initiative (CLI) in support of the United Nations Forum on Forests (UNFF). The objective of the Paramaribo Dialogue was to identify opportunities to significantly enhance financing for sustainable forest management. The meeting brought together finance and forest experts from around the world, who shared experiences with regards to mobilizing forest funding and generating revenues, existing and emerging public and private financing sources, the relationship between forest financing and forest-related governance and enabling environments for investment. The meeting also explored models, strategies and institutional arrangements for increased financing through such means like bilateral and multilateral public funding mechanisms, debt reduction, payments for ecosystem services (such as water and carbon), private sector commercial investment and private philanthropy. The meeting was attended by 227 participants, including international experts from all regions of the world, representatives from the Republic of Suriname, as well as representatives from regional and international organizations, non-governmental organizations, private sector, philanthropic organizations and major group organizations (Country-Led Initiative Summary report, 2008). In preparation of this CLI, the Government of Suriname, in collaboration with Tropenbos International Suriname and the Ministry of Agriculture, Nature and Food Quality Netherlands, commissioned a Rapid Assessment Report of Existing Financial Mechanisms for Sustainable Forest Management, in January 2008. The findings of this study in which a complete mapping of existing national mechanisms (public and private) has been outlined, was presented at the CLI.

After Suriname’s RPIN was approved in February 2009, the Ministry of Physical Planning, Land and Forest Management in collaboration with Conservation International Suriname, World Wildlife Fund Guianas and Tropenbos International Suriname, initiated a series of Workshops, which focused on Reduced Emissions from Deforestation and Degradation (REDD+), the climate change negotiations and opportunities for Highly Forested and Low Deforestation (HFLD) countries. Presentations for policymakers and the general public were held by Dr. Jagdish Kishwan, Director General Indian Council on Forestry Research and Education (ICFRE), by Ir. Bas Clabbers, REDD+ Senior Negotiator of the European Union, respectively on *‘REDD+ Negotiations: The case of HFLD Countries’* and *‘The European Union (EU) vision on REDD+ & HFLD Countries’*, by Benjamin Vitale of Conservation International and Ralph Ashton of the Terrestrial Carbon Group on respectively, *‘REDD+ Readiness Planning and REDD+ in the Global Climate Change Context: Implications for Suriname’*. The meetings were

attended by various participants from governmental and non-governmental organizations, Maroon and Indigenous organizations, the private sector and civil society.

With respect to capacity building for technical cadre of governmental institutions, the Anton de Kom University of Suriname, non-governmental institutions and representatives of Indigenous and Maroon organizations, Conservation International supported the Government of Suriname in providing the training course “*Forest Carbon Project Development and REDD+ Readiness for the R-PLAN Development*” from 25th -29th May 2009. About 42 participants took part in the *Forest Carbon Project Development* training, and 22 participants were selected for the *REDD+ Readiness Planning Workshop*. An important result of these activities was the establishment of a National REDD+ Committee with the aim to develop the RPP. In another government-initiated activity, a staff member of Conservation International held a presentation on the RPP for the National REDD+ Committee, with emphasis on components 1a and 1b.

From the 12th –14th of August 2009, Conservation International Suriname organized a training workshop for Indigenous and Maroon community leaders. Participants were representatives of all maroon traditional authority structures, the Trio tribal authority of South Suriname, the Association of Village Leaders of Suriname (VIDS), the Association of Saramaka Authorities (VSG), as well as representatives of the Organization of Indigenous People in Suriname (OIS) and the Foundation Meu, which is the local development organization from the Trio community of Kwamalasamutu. This workshop was facilitated by a Surinamese NGO, i.e. Projekta Foundation, which has expertise in developing training materials and training communities in civil action. This NGO had participated in the *Forest Carbon Project Development* training in May. During this workshop, the Ministry of Physical Planning, Land- and Forest Management (RGB) did a presentation on the RPP with emphasis on components 1a and 1b.

As a result of all of the above-mentioned activities, an increased knowledge and awareness of REDD+ issues has become apparent, among governmental institutions, the Anton de Kom University of Suriname and other technical institutions, stakeholders, Indigenous and Maroon organizations, timber companies, and civil society organizations.

Summarize the National Readiness Management Arrangements

The main task of the present National REDD+ Committee, coordinated by the Ministry of Physical Planning, Land and Forest Management (RGB), is to develop Suriname’s RPP. The National REDD+ Committee consists of representatives of a wide variety of Ministries (Physical Planning, Land and Forest Management, RGB; Labor, Technological Development and Environment, ATM; Natural Resources, NH; Agriculture, Animal Husbandry and Fisheries, LVV; Finance; Regional Development, RO; Public Works, OW; Planning and Development Cooperation, PLOS), the Cabinet of the President of the Republic of Suriname, the Foundation for Forest Management and Production Control (SBB) and two observers (i.e. Conservation International Suriname and Tropenbos International Suriname).

The current National REDD+ Committee will be transformed and expanded into the National REDD+ Working Group (NRWG), which will consist of representatives of the following entities:

1. **The Ministry of Physical Planning, Land and Forest Management (RGB).** This Ministry will coordinate both the National REDD+ Working Group and the National Forest Carbon Unit. The role of this ministry is to ensure the full implementation of the RPP and the REDD+ readiness strategy, thereby taking into consideration the National Forest Policy and other related policies.

2. **The Ministry of Labor, Technological Development and Environment (ATM).** The specific role of this ministry is to support the implementation of the REDD+ readiness strategy in accordance with the national environmental policy.
3. **The Ministry of Natural Resources (NH).** The main focus of this ministry is to ensure a thorough assessment of existing and future drivers of deforestation and forest degradation, including mining and energy production activities. The development of adequate monitoring systems and/or the upgrading of existing monitoring schemes used in the mining sector will be taken into account.
4. **The Ministry of Agriculture, Animal Husbandry and Fisheries (LVV).** The main focus of this ministry is to ensure a thorough assessment of existing and future drivers of deforestation and forest degradation, with due respect for land use changes and (new) agricultural activities, which may have an impact on the implementation of REDD+. The development of adequate monitoring systems and/or the upgrading of existing monitoring schemes used in the agricultural sector will be taken into account.
5. **The Ministry of Finance.** The specific role of this ministry is to assist the NWRG with the implementation of the REDD+ readiness strategy, with a focus on benefit sharing mechanisms, forest carbon market analyses, financial management systems and incentives, while taking into account all other financial issues regarding REDD+.
6. **The Ministry of Public Works (OW).** The main focus of this ministry is to keep the NWRG informed of all infrastructural activities that may have an impact on the implementation of the REDD+ readiness strategy, such as the improvement of existing infrastructure, as well as new infrastructural works (roads, bridges, dikes and other infrastructure).
7. **The Ministry of Regional Development (RO).** The specific role of this ministry is to ensure that all forest dependent groups, in particular forest-dependent communities and Indigenous and Maroon communities are informed and effectively consulted with regards to the implementation of the RPP and the REDD+ readiness strategy.
8. **The Ministry of Planning and Development Cooperation (PLOS).** The main focus of this ministry is to monitor and support the implementation of the RPP and the REDD+ readiness strategy, as well as to ensure the harmonization of the RPP and REDD+ activities with the Multi Annual Development Plan (MOP) and international (economic) development cooperation.
9. **The Ministry of Defense.** The main focus of this ministry is to assist with monitoring and to maintain security of especially the country's borders;
10. **The Cabinet of the President.** The main focus of the Cabinet of the President is to ensure a coordinated implementation of the RPP and the REDD+ readiness strategy within the context of the environmental commitments of the Government of Suriname
11. **The Foundation for Forest Management and Production Control (SBB).** The specific role of the Foundation for Forest Management and Production Control (SBB) is to assist the Ministry of Physical Planning, Land- and Forest Management (RGB) with the implementation of the RPP and REDD+ readiness strategy and to be part of the forest carbon accounting system and MRV.
12. **The forest-dependent communities namely the Indigenous peoples and the Maroon peoples.** Their main task is to ensure continuous communication with the communities and people whom they represent, and to ensure that the implementation of the RPP and the REDD+ readiness strategy are in line with the Consultation and Outreach Plan.
13. **The timber industry.** The main task of this representative is to look after the interests of the timber industry and to ensure that the implementation of the RPP and the REDD+ readiness

strategy are in line with the Consultation and Outreach Plan

14. **Academia.** This representative of the Anton de Kom University of Suriname and all its related (research) institutions will ensure that research activities are properly conducted and that where possible all institutions represented are indeed engaged. This representative will furthermore encourage the inclusion of REDD+ issues in the curricula of academic institutions.
15. **Civil society.** The representative of the civil society ensures that the implementation of the RPP and the REDD+ readiness strategy are in line with the Consultation and Outreach Plan and furthermore will keep the civil society informed of all REDD+ activities.

With the establishment of the NRWG all relevant parties will be continuously informed of the implementation and progress of the RPP and the REDD+ readiness strategy, as a result of which, REDD+ will be integrated into the national development policies at an early stage. The NRWG can at all times admit observers to its meetings and other activities. These observers can provide crucial technical assistance and expertise to both the NRWG and the NFCU.

The overall task of the National REDD+ Working Group is to coordinate and supervise all activities conducted by the National Forest Carbon Unit, focusing on the following:

- a. The implementation of activities of the RPP, in particular with regard to the TORs and the REDD+ readiness strategy;
- b. REDD+ readiness activities with special emphasis on consultation and outreach, dissemination of information on REDD+ issues and the REDD+ readiness strategy;
- c. The benefit sharing mechanism for carbon revenues;
- d. The commissioning of research studies for the development of regulations for forest carbon ownership;
- e. The development, implementation and evaluation of policies, strategies and methodologies;
- f. The development and implementation of technical national programs for training and awareness regarding the implementation of the RPP and the REDD+ Readiness strategy;
- g. Assessments of the national REDD+ readiness strategies and framework, as well as the forest carbon stocks, carbon accounting, market analysis, financial developments/ mechanisms/ incentives and the scenarios and
- h. Activities conducted by the National Forest Carbon Unit.

The National REDD+ Working Group will execute its activities through regular meetings and intensive communication to ensure maximum inputs and outputs from all relevant stakeholders to implement the RPP and REDD+ readiness activities. The expected output of the activities of the National REDD+ Working Group are:

- A consultation and outreach plan is developed, with due consideration for the key aspects described in component 2b;
- The national REDD+ readiness strategy and framework is developed;
- The national forest carbon accounting system is developed and implemented;
- The monitoring, reporting and verification system is developed for the National REDD+ Working Group to evaluate the implementation of the RPP and REDD+ readiness strategy activities;
- The RPP and REDD+ readiness strategy implementation activities are analyzed;
- The RPP and REDD+ readiness strategy implementation results are recorded and stored in a database;
- A benefit sharing mechanism is in place;

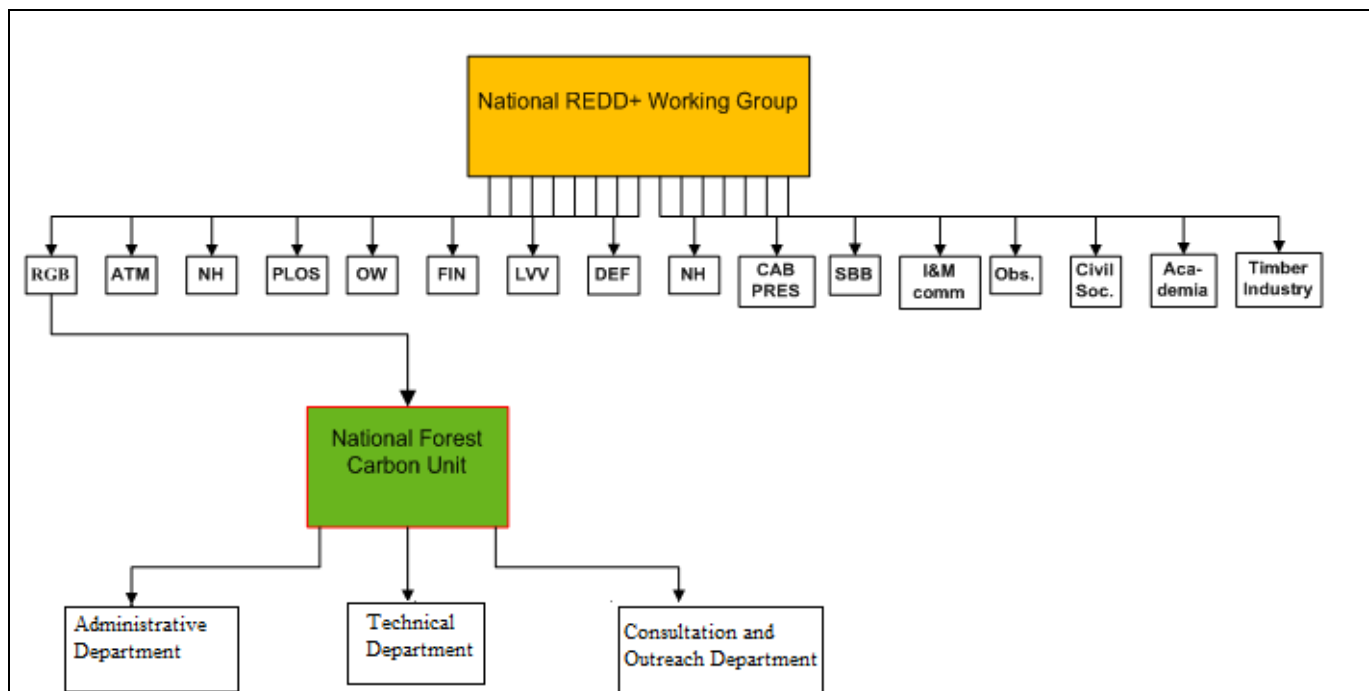
- Studies regarding forest carbon ownership are completed and the implementation phase is initiated;
- Evaluation of all activities conducted by the National Forest Carbon Unit.

The National Forest Carbon Unit (NFCU) will operate under supervision of the National REDD+ Working Group, and will also be coordinated by the Ministry of Physical Planning, Land and Forest Management (RGB). The main purpose of the National Forest Carbon Unit is to implement all the activities of the RPP in order to reach optimal output.

The National Forest Carbon Unit will be divided into three departments:

1. The administrative department, which will be responsible for all administrative work with regards to the implementation of the RPP and REDD+ readiness strategy. Key tasks are:
 - a. receive, disseminate, handle and keep all information, letters, newsletters regarding REDD+ up to date;
 - b. receive, disseminate and keep all general information, letters, newsletters regarding the implementation of the RPP and REDD+ readiness strategy up to date;
 - c. maintain close contact with the National REDD+ Working Group and relevant stakeholders on the implementation of the activities;
 - d. assist in the organization of activities to be implemented by the National Forest Carbon Unit in execution of the RPP and REDD+ readiness strategy.
2. The technical department, which will aim at managing all technical issues with respect to the implementation of the RPP and REDD+ readiness strategy. Key tasks are:
 - a. receive, disseminate, handle and keep all technical information, letters, newsletters regarding the implementation of the RPP and REDD+ readiness strategy up to date;
 - b. maintain close relations with the National REDD+ Working Group and all relevant stakeholders in the implementation of the RPP and REDD+ readiness strategy;
 - c. develop awareness material for dissemination;
 - d. develop training programs and time schedules for training sessions, meetings and workshops on technical issues regarding the implementation of the RPP and REDD+ readiness strategy;
 - e. conduct training sessions, meetings and workshops with a focus on capacity building of (governmental) institutions and relevant stakeholders, in collaboration with national and international experts.
3. A consultation and outreach department, which will work in close collaboration with the administrative and technical departments to organize and manage consultation meetings in accordance with the consultation and outreach plan, as well as disseminate information and materials. The work includes the development and implementation of training programs, time schedules for training, meetings and workshops, information for awareness and education on issues regarding the implementation of the RPP and REDD+ readiness strategy. The focus will be on the general public as well as on specific target groups, such as the forest-dependent communities in particular the Indigenous and Maroon communities.

The following organization chart shows the relationship between the National REDD+ Working Group, the National Forest Carbon Unit and the relevant stakeholders:



Schedule and sequencing of activities

Activities	Year 1	Year 2	Year 3	Year 4
Establishment of the National Forest Carbon Unit and National REDD+ Working Group	x			
Gathering information on REDD+ issues	x	x	x	x
Formulation of a REDD+ policy	x	x	x	x
Mainstreaming of REDD+ issues into national policy	x	x	x	x
Development of training programs and time schedules for training, meetings and workshops regarding technical issues of implementation of RPP and REDD+ readiness strategy	x	x	x	
Dissemination of information	x	x	x	x
Monitoring and recordkeeping of all results and data	x	x	x	x
Coordination of consultation and outreach plan	x	x	x	x

Implementation of these activities will require support for program funding and technical assistance, as well as knowledge sharing, capacity building and research. The Ministry of Physical Planning, Land and Forest Management (RGB) has built a good relationship with international and national organizations, which are focusing on sustainable forest management and REDD+ and will continue this collaboration

in seeking assistance in funding and capacity building for research and the implementation of the RPP and REDD+ readiness strategy.

Table 1 A: Summary of National Readiness Management Arrangements Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Establishment of a National REDD+ Working Group (NRWG)	Establishment of the unit, hire administration officers, conduct tasks	85.00	50.00	40.00	40.00	215.00
Establishment of the National Forest Carbon Unit (NFCU)	Establishment of the unit, hire personnel, conduct activities	118.00	69.00	69.00	69.00	325.00
Grand total 1a		\$203.00	\$119.00	\$119.00	\$119.00	\$540.00

1b. Stakeholder Consultation and Participation

Rationale

The aim of consultation and outreach is to make the entire Suriname community aware and to provide opportunities for their views, opinions and other inputs on REDD+, as well as to provide for their active role in the implementation of the RPP and the design of the REDD+ readiness strategy. Awareness will be provided through training, seminars, workshops, as well as the dissemination of technical and non-technical papers, articles in local newspapers, web pages and TV/radio programs and presentations

Consultation and outreach of the people of Suriname is important in the implementation of the RPP and REDD+ strategy. The governmental structures, civil society structures, as well as traditional structures of the forest-dependent people will be used to achieve active engagement. This is described below in the paragraph on consultation and outreach.

The aim of communication is to disseminate information about the activities of the RPP and the implementation of REDD+ issues to the Suriname community in such a way, that the information can be easily accessible and understood by everyone, so as to provide better understanding of the process. Only then will people be able to contribute to the readiness strategy design. Existing means of communication, such as national, district and community TV, radio and newspapers will be used to disseminate information in national, local and traditional languages. Where villages have none of these communication media available, awareness meetings will be held.

Suriname has held large multiple stakeholder consultations in the past, for example, during the preparation and formulation of the National Forest Policy, National Biodiversity Strategy and Climate Change Action Plan. Various national, regional, and local workshops, training and seminars have also been conducted. However, there have been concerns by Indigenous and Maroon organizations that the consultation processes did not sufficiently take into account their traditional methods of meeting or their traditional structures for consultations. To come to an effective consultation and outreach plan, the lessons learned from previous stakeholder meetings have been taken into account, such as planning more time for the engagement process and adequate budgets to ensure better involvement of Indigenous and Maroon communities.

The consultations to be held regarding REDD+ development will focus on the following important issues:

- the national REDD+ readiness strategy,
- the REDD+ implementation framework,
- the methodology for the development of a reference scenario,
- the monitoring, reporting and verification (MRV) activities,
- the environmental and social assessments and its mitigation,

- the economic effects and applicable mitigation.
- the methodology for the development of the national forest carbon accounting system as well,
- the benefit sharing mechanism

All abovementioned issues need to be explained at the level of understanding of all participants and in a language that ensures a good understanding. The views and feedback from consultation meetings are important in the further planning and development of REDD+ activities.

Consultations held so far in the development of the R-PP

To come to the development of an effective stakeholder consultation and outreach plan, stakeholder meetings were organized with participants from ministries, the district commissioners' offices, Indigenous and Maroon organizations, and non-governmental organizations. Stakeholder meetings were held on July 6th, July 31st, and August 17th 2009. During these meetings, the components of the RPP were presented. The comments and recommendations given by the representatives of Indigenous and Maroon organizations, the district commissioners, government and non-governmental organizations are summarized below:

1. *'More awareness is needed about REDD+ readiness strategy';*
2. *'The dissemination of information is important. Who provides the information is also important';*
3. *'Much time is needed for consultation meetings in order to ensure a good understanding of the REDD+ readiness strategy';*
4. *'Sufficient time must be planned for internal consultations within the Indigenous and Maroon villages';*
5. *'Any effective and efficient consultation model must be based on the principle of FPIC';*
6. *'The national and local languages must be used during consultations and in education and awareness programs to ensure a full understanding';*
7. *'All information must be sent to the organizations and representatives of traditional authorities in hard copies in a language that they can understand';*
8. *'The land rights of Indigenous and Maroon communities must be taken into account'.*

The meetings provided a clear view on issues to be taken into account to develop the RPP, and on issues regarding the development of an effective and efficient Consultation and Outreach Plan. Annex 1b gives the reports of the stakeholder meetings.

Full Consultation and Participation Plan

Consultation and Participation Plan:

In accordance with component 1a, the NRWG will develop the consultation and outreach plan together with the National Forest Carbon Unit. A special outreach team will be established to ensure effective and efficient implementation of consultation activities.

The objective of the Consultation and Outreach Plan is to engage the people of Suriname in the planning, implementation, monitoring and evaluation of the future REDD+ readiness strategy and to ensure continuous feedback. All relevant stakeholders will be part of the design and implementation of the REDD+ readiness strategy. This is a key element to ensure the successful design and future implementation of the REDD+ readiness strategy. To develop the consultation and outreach plan, due consideration will be given to the following:

1. Much experience was gained from large multiple stakeholder consultations in the past years (e.g. during the formulation of the National Forest Policy, National Biodiversity Strategy, Climate Change Action Plan), and successful national, regional, and local workshops, trainings and seminars. The process for REDD+ will most likely follow similar processes, but naturally take into account the lessons learned during the consultations, as well as recommendations of previous stakeholder meetings regarding the consultation and outreach plan. For example, most meetings in the past have been held only in the city and there was no opportunity to get feedback from the chiefs or communities. The Consultation and Outreach Plan will therefore take into account the need for more sufficient time. A feedback loop needs to be incorporated for consultations to be participatory and adequate budgets need to be planned to ensure sufficient travel to and from remote areas.
2. For all consultation meetings and the dissemination of information, the use of relevant local languages must be taken into account. Consultations and awareness activities need to take into account the different languages spoken in the city of Paramaribo, the districts, and among the tribal and Indigenous communities. Therefore, besides Dutch (the official language) and Sranan Tongo (the lingua franca of the country), due account will be given to the use of Javanese, Sarnami, Saamaka, Auka, Matawai, Arowaks, Caraib and Trio, among other languages.
3. As far as the forested area of the country is concerned, many non-governmental organizations in Suriname, such as CI Suriname, WWF, ACT Suriname, SCF and the 'Binnenlandoverleg' (a network of local non-governmental organizations that work in the interior), work with forest dependent people, Indigenous and Maroon communities, as well as relevant women and youth organizations. The experience of these organizations' and lessons learned from their meetings will also be taken into account.
4. Awareness training workshops will be conducted for local government (such as the district commissioners, regional coordinators, administrative officers), and the structures of the different traditional tribal authorities and representatives of traditional Indigenous and Maroon communities, such as the Association of Indigenous Village Leaders of Suriname (VIDS) and the Association of Saramaka Authorities (VSG), as well as local Indigenous and Maroon

organizations. An education and awareness program will furthermore ensure that local media are trained to more easily disseminate information to the target groups. As a result, there will be a better understanding of the implementation of the RPP and the REDD+ readiness strategy, while the information can then be disseminated more easily to the respective tribal authorities, thus strengthening the consultation meetings. An assessment will be needed of the capacity of villagers and their relevant organizations, to develop a relevant capacity building and institutional strengthening program. These activities will be coordinated by the National REDD+ Working Group and the National Forest Carbon Unit (NFCU).

5. The Consultation and Outreach Plan will take into account both the structure of the government and the traditional authority structures of the Indigenous and Maroon communities of the interior.
 - a. With regard to the structure of the government, the Ministry of Regional Development and its institutional structures i.e. the district commissioners, the sub-regional coordinators and the administrative officers will play an important role in the implementation of the consultation and awareness activities, in liaising with the forest dependent communities, Indigenous and Maroon communities, and civil society groups, and in disseminating information. For this purpose, existing governmental and traditional structures for communication will be utilized. According to the law, the district commissioners must be informed about activities that will take place in the respective districts. The district commissioner governs the district and is assisted by the sub-regional coordinators and administration officers. The district commissioners have the responsibility to oversee that activities are properly implemented and that all relevant stakeholders, Indigenous and Maroon communities are involved and informed. The district commissioners, together with the sub-regional coordinators and administrative officers of the districts, will therefore provide assistance in setting up, implementing and facilitating the consultations and outreach meetings.
 - b. With regard to the structures of the traditional authority, the chiefs or captains of the Indigenous and Maroon villages play a crucial role. The chiefs or captains must be informed in depth about everything before they can take the responsibility to pass on information to their communities, and before they can decide to be part of any participatory process to formulate the RPP and REDD+ readiness strategy. In a training workshop on REDD+, organized by CI Suriname for key Indigenous and Maroon community representatives (12th–14th August 2009), participants discussed what they thought was an ideal consultation and outreach plan for Indigenous and Maroon peoples of the interior. It is self-evident that this consultation process is extremely costly and time consuming, but it does provide continuous information and participation, as well as feedback loops:
 - i. First, convene a conference with representatives of all traditional Indigenous and Maroon authorities, and Indigenous and Maroon organizations such as the Association of Indigenous Village Leaders of Suriname (VIDS) and the Association of Saramaka Authorities (VSG) and representatives of other local Indigenous and Maroon organizations, such as women's organizations, youth

organizations and development organizations. These local organizations play an important role to remind the chiefs or captains of arrangements made and to monitor what is being done. In this conference, the Government can present the proposed RPP and REDD+ readiness strategy for discussion. It is also important that the advantages and disadvantages of the strategy are discussed openly.

- ii. After this conference, the representatives will go back to the respective chiefs or captains to present the information. Discussions will then be conducted within each of the Indigenous or tribal groups through their own traditional internal structures (i.e Saramaka, Auka, Patamaka, Matawai, Kwinti, Wayana and Trio separately, while VIDS will be able to provide this information and hold discussions with other Indigenous village communities through their existing regional structures).
 - iii. A second conference will be held, where all the representatives of the traditional Indigenous and Maroon authorities and organizations meet again to present and discuss the points of view of their respective tribal groups and discuss with the Government. If possible, an agreement might then be reached with the Government structures on the RPP and REDD+ readiness strategy. If not, individual meetings between the Government and the different tribal chiefs or captains will be required in separate traditional *krutu* (meetings) before agreement can be reached.
 - iv. The above steps will be repeated to ensure that communities are informed about the progress of the activities and that there is a constant feedback loop to include the views of Indigenous and Maroon peoples in the implementation of the RPP and the REDD+ readiness strategy.
- c. The principle of FPIC will be used as the basis for the REDD+ process.
6. Suriname consists of ten districts with an estimated total of 234 Indigenous and Maroon villages (General Bureau of Statistics, 2008, annex 1b-2), spread over nearly the entire Suriname territory. Most of these villages can only be reached by river or by air. Therefore, the relevant method of transportation must to be taken into account when the meetings are held in either the city or the villages namely:
 - a. transport by car (usually four-wheel drive vehicles) whenever the villages are accessible by road;
 - b. transport by boat and
 - c. transport by airplane.Transportation by boat is entirely in the hands of the local communities in the interior.
 7. The National REDD+ Working Group will coordinate the distribution of information through the relevant government structures and through the traditional structures, namely the official representatives of the Indigenous and Maroon communities. The tribal chiefs or captains of the villages will be given the opportunity to evaluate, inform and improve the consultation process, taking into account their traditional structures. The National REDD+ Working Group

will use existing communication media and government and local structures to remain in close contact with the official representatives of the chiefs or captains and representatives of the Indigenous and Maroon organizations.

8. Local and community radio stations will play an important role in the dissemination of information to local communities. The telecommunications companies have also improved their capacity to reach the interior of Suriname with telephone services, and hopefully in the near future also with internet services. The advantage of these developments is that local villagers now can receive information or announcements in a more accessible manner through local radio stations and communicate with other villages, as well as with the capital. The National REDD+ Working Group will make sure that available technology is utilized when consultations take place.
9. Consultations will focus on the relevant national policies, regulations, programs and their current status as well as the REDD+ readiness strategy and the REDD+ Implementation framework. Important issues of REDD+ and its national and international developments, will also be discussed at the consultation meetings.
10. Dissemination and access of information. One of the main tasks of the National Forest Carbon Unit is to disseminate information and create access to REDD+ information and the results of consultation meetings and training workshops. This will lead to more awareness about progress on the development of the REDD+ issues. An assessment will be made of existing national and local media stations to disseminate information.
11. All meetings will be monitored and evaluated by the National REDD+ Working Group to ensure inclusiveness, transparency and improvement of future activities.
12. The following structures will be taken into account in the development of the Consultation and Outreach Plan

Development of the Consultation and Outreach Plan considers				
<u>Governmental structure</u>	<u>Traditional Structure</u>	<u>Local organizations</u>	<u>Private Sector</u>	<u>Research and Education</u>
Ministry of Regional Development District Commissioners and their coordinators Relevant governmental institutions	Traditional authorities Forest dependent people Indigenous communities Maroon communities VIDS VSG	Local NGO's/ CBO's Women organizations Youth organizations Development organizations	Timber Industry Trade Unions Media stations (Radio/TV/ Newspaper)	ADEK University CELOS NATIN JSOOC IOL

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Table 1b: Summary of Stakeholder Consultation and Participation Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Conduct awareness training workshops on REDD+ readiness strategy and the implementation of the RPP	NRWG in collaboration with REDD+ consultation and outreach committee develop training programs and awareness material	75.00	75.00	75.00	75.00	300.00
Conduct a first conference with all representatives of traditional Indigenous and Maroon authorities, and Indigenous and Maroon organizations, including local women’s organizations, youth organizations and development organizations	Conference is conducted in the city, transportation and accommodation costs for participants, evaluation	490.00	490.00	490.00	490.00	1,960.00
Conduct village meetings where representatives will go back to the respective Chief or Captain to present the information and discuss the issues, and to organize that the information is disseminated in the different villages.	Conference is conducted in the villages, transportation and accommodation costs for participants, evaluation	560.00	560.00	560.00	560.00	2,240.00
Conduct a second conference with all representatives of traditional Indigenous and Maroon authorities, and Indigenous and Maroon organizations, including local women’s organizations, youth organizations and development organizations	Conference is conducted in the city	490.00	490.00	490.00	490.00	1,960.00
Subtotal		1,615.00	1,615.00	1,615.00	1,615.00	6,460.00
Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Consultation meeting: National Readiness Management Arrangements Activities and Budget	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	30.00	15.00	10.00		55.00
Consultation meeting: Assessment of Land Use, Forest Policy and Governance Activities	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	80.00	10.00	5.00		95.00
Consultation meeting: National REDD + Strategy Activities	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	50.00	40.00	5.00	5.00	100.00
Consultation meetings: Implementation Framework Activities	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	50.00	20.00	30.00		100.00

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Consultation meetings: Social and Environmental Impact Activities	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	40.00	10.00	10.00		60.00
Consultation meetings: Reference Scenario Activities	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	80.00	5.00	5.00	5.00	95.00
Consultation meetings: Monitoring Activities	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	80.00	15.00	15.00		110.00
Consultation meetings: Program M&E Activities	Development of training programs, conduct training, develop and disseminate awareness and didactical material and information	20.00	5.00			25.00
		430.00	120.00	80.00	10.00	640.00
Grandtotal 1b		\$2,045.00	\$1,735.00	\$1,695.00	\$1,625.00	\$7,100.00

Component 2: Prepare the REDD Strategy

2a. Assessment of Land Use, Forest Policy and Governance

Rationale

There are several policies that address key areas of the forest sector development, which can be of great importance to identify key drivers of deforestation and forest degradation. Also the outcomes and review of past and present research activities, in particular the necessary comprehensive future research activities, will provide more insight into key drivers and the status of areas where deforestation or forest degradation takes place.

Looking at the current situation, it is stated that Suriname has a relatively low deforestation rate. Timber production has stagnated at 150,000 – 200,000m³/year in the last decades, which is about 20% of the potential sustainable timber production. There is a need for in-depth assessments to clarify the rate of deforestation and forest degradation and the main drivers. The country's Multi Annual Development Plan (MOP) for 2006 – 2011 states that the Government of Suriname is working on a specific target of enlarging the area under active timber exploitation by 2010, for the purpose of expanding the timber export volume. Expansion in the mining, agriculture and energy sectors is also envisioned in the MOP. Logging, mining, agriculture and energy production are identified as drivers of deforestation and forest degradation. The main driver of deforestation and forest degradation in Suriname has been mining, including small, medium and large scale mining for bauxite, gold, kaolin and hard core.

In February 2008, the Ministry of Regional Development launched the project “*Support for sustainable development of the interior*” which is funded by the Inter-American Development Bank in collaboration with the Japan Special Fund. The project component ‘Collective Rights’ of this project has started in January 2009 and focuses on the development of demarcation maps for land use of Indigenous and Maroon communities. On the 29th and 30th of June the Ministry of Regional Development organized a national conference regarding the rights of the Indigenous and Maroon peoples.

A full assessment to clarify other land uses and to calculate the rate of deforestation and forest degradation as well as to analyze its drivers is needed in order to get accurate data. The National REDD+ Committee, with input from relevant key stakeholders, carried out a quick assessment to have an overview of key drivers of deforestation and forest degradation, the conditions that might trigger or accelerate the deforestation and forest degradation process, existing regulations, gaps and constraints. This quick assessment was done during a training organized in collaboration with Conservation International in May 2009. The outcomes of this quick scan are presented in table 2a.1.

The Assessment

A short overview of the drivers of deforestation and forest degradation are described below:

1. Mining.

- a. **Bauxite mining.** The SURALCO, a subsidiary of the Aluminum Company of America (ALCOA), has been active in Suriname since 1916. The company had a long-standing working relationship with the Australian-owned BHPBilliton. In 2008, the government and BHPBilliton took the decision to discontinue the joint development of the Bakhuy's Mountain Reserves in West Suriname. Recently the government established a state mining company, ALUMSUR. On April 22, 2009 the government signed a memorandum of understanding (MoU) with the Swiss Glencore International AG to continue bauxite mining activities in the Nassau area.
- b. **Gold mining.** Gold mining activities in Suriname are currently increasing. Suriname's gold-bearing areas are part of the Guiana shield, an extensive Precambrian greenstone belt that encompasses 415,000 km² and extends from Venezuela through Guyana, Suriname, and Le Guyane into Brazil's Amazon basin. Most gold mining currently takes place in East Suriname mainly around the Brokopondo Lake. The gold mining sector can be divided into the following:
 - a. Small to medium scale gold mining activities. Most of these activities are characterized as unregulated and untaxed gold mining, which takes place in the forests of the interior of Suriname. According to Heemskerk (2005), small to medium-scale gold mining is crucial for the livelihoods of Maroon families in the Suriname interior. Survey data from 2002 suggests that in some villages, 70% to 80% of households obtain regular income from mining members of the household or the extended family (Heemskerk, 2005). Apart from the area, which is directly submitted to deforestation and forest degradation by land clearance and mining activities, unknown areas in the surroundings are subject to forest degradation due to environmental pollution, in particular through the use of mercury.
 - b. Large scale gold mining is related to companies that are legalized to carry out mining activities. Currently, Rosebel Gold Mine (RGM), a wholly-owned subsidiary of the Canadian firm IAMGOLD, is the only operator. IAMGOLD also has another project, the Sarakreek project, located at some 100 kilometres south of the Rosebel Mine, where drilling commenced in July 2009. The 2009 exploration program includes 4,000 metres of drilling and detailed follow-up work to extend into the Sarakreek area and to test new prospective areas for gold mining. (Second quarter exploration update, IAMGOLD corporation 2009). A joint venture between SURALCO and Newmont Mining Corporation was established, which resulted into the establishment of SURGOLD, a potential second operator in Suriname. Its project area

covers 743 square kilometers of Golden Star's concession rights in the Brokolonko Range of eastern Suriname. (Golden Star Resources, Ltd. News Release, 2006). Initial exploratory research indicated possible reserves of up to 3 million troy ounces on the Nassau Plateau in East Suriname. SURGOLD commenced negotiations with the government for a production license in 2008, but a downward revision in the estimated reserves in the area has put these negotiations on hold.

2. **Agriculture.** The National Planning Office in 2004 published the report *Agriculture Potential in Suriname*. This report gives an overview of agricultural development in Suriname. It stated that a total of 300,100 ha of land is used for the production of oil palm, rice, soy, maize, pineapple, coconut, various flowers, vegetables and fruits. Agricultural production is still an important activity in Suriname for national development. According to the Agricultural Sector Plan (2004), Suriname has about 1.5 million ha coastal area that can be used for agricultural purposes, of which about 10% has been brought into culture. The agricultural potential of the interior is estimated at about 400,000 ha. Prospective agricultural developments are for oil palm, for which already 100,000 ha has been cleared at several locations in the northern part of the interior of Suriname. Other upcoming agricultural potential in smaller scale the expansion of the banana plantation, horticulture (ornamental plants), expansion of rice cultivation and aquaculture (conversion of marsh forest to establish fishponds).
3. **Slash and burn agriculture.** Shifting cultivation or slash and burn agriculture is the most common way of agricultural production in the hinterland and is often the most important source for the Indigenous and Maroon communities to provide in their food needs. The total area of continuous shifting agriculture is estimated at 246,700 ha of forest land of which annually some 16,400 ha is re-cleared via slash and burn activities (Suriname's RPIN 2009).
4. **Energy production.** The supply of electricity is mainly based on the electricity production (installed 180 MW) of the Afobaka hydro plant (a lake of 1550 square kilometers). Energy is also supplied through the thermal power plant of Suralco at Paranam (40 MW) and the diesel power plant (52 MW) of N.V.EBS, the state-owned electricity supply company based in Paramaribo. Currently, a new 161 kV double circuit line has been built to increase the energy supply in the city and coastal districts. Two micro hydropower projects are under construction, one in Palumeu, an Indigenous village in the southeastern part of the country, and another at Granola-sula a location near Dritabiki, a Maroon village. These projects will be used as pilots for other potential hydropower sites in the Sipaliwini District: Tapawatra (Gran Rio river), Gran Dan (Gran Rio river), Felusi Afobasu (Suriname river), Felusi Mindrihati (Suriname river), Busipapaja (Sipaliwini river), Karina Ituru (Kutari river), Sir Walther Raleighvallen (Coeroeni river). (Naipal, 2003)
5. **Infrastructural developments.** Since 2004, the Ministry of Public Works has commissioned the construction of roads in and around Paramaribo with a total length of 275 kilometer of which 175 kilometer in rural areas. Currently various bridges are being built or rehabilitated. It should be mentioned that the road from Paranam to Brokopondo is being paved with asphalt. The Government of Suriname, endorsing the creation of the Free Trade Area of the Americas (FTAA) has further committed itself to participate in the so-called Initiative for the Integration of Regional Infrastructure in South America (IIRSA). The integration, which is physically capitalized by means of the transnational and regional linkage of the (multimodal transportation)

infrastructure of the Americas, forms the basis for the establishment and implementation of the foreseen trade infrastructure for the FTAA. On the national level, the Government of Suriname has reinforced its intention to participate in said regionalism of the infrastructure, which can be extracted from its participation in various meetings of the Executive Technical Groups (ETG) and the Executive Steering Committee (ESC) within the IIRSA project, and its inclusion of the foreseen physical infrastructure within the national planning of Suriname's infrastructure. Taking into account the basic concepts of integration and development and the related sectoral processes aimed at economic and social development of the participating countries, and harmonization of the regional integration infrastructure, Suriname has selected the following national routes for incorporation within the Venezuela-Brazil-Guyana-Suriname Axis of Integration, which is presented in annex 7. Suriname is committed to realizing a North-South connection by extending the current North-South road starting in Paramaribo.

6. Other relevant drivers to be considered are:

- a. The 386 km of coast line of Suriname is characterized by extensive mangrove woods and large mudflats. The vast majority of this mangrove coast is still preserved, making this coast a unique and valuable ecosystem, as the mangroves host nurseries for fish, crustacean, sea turtles and the mudflats form some of the major wintering grounds for migrating North American shorebirds. Mangrove also provides a natural protection of the coast against erosion and flooding. For this reason large parts (about 75%) of the coast is designated as Multiple-use Management Area (MUMA, i.e., where sustainable environmental use is allowed) or is protected as a nature reserve of international importance, which means that it meets several criteria of the international Ramsar Wetlands Convention. However, according to Naipal (Coastal Morphodynamics of Suriname, 2006), the following is noticeable:
 - i. The narrow stretch behind the mangroves reaching up to 50 km land inward (an area of about 10,000 km²) is the most important area for socio-economic activities. More than 80% of the population lives in this zone. Many of the original swamps have been drained to create agricultural land (polders) and in many places much of the fresh water flow to the coast has been canalized.
 - ii. Mangroves are being harvested for the construction industry and oil industry. This may have a serious impact on the mangrove woods.
 - iii. There are already a few locations where coastal erosion poses a direct threat to the coastal communities because of the removal of mangroves. These are in the Coronie District (near Totness) and at Weg naar Zee. Similar problems occur a bit more land inward along the Commewijne and the Suriname River, where there is a failure of dikes. This is causing loss of properties and the infiltration of saline sea water on agricultural land.

Overall, the need of land-use planning is the most important component of ongoing efforts to spatially organize productive activities in the country. More specifically, there is a need for:

1. Development of a coherent land use map;
2. Development of relevant baseline studies;

3. Research to develop and implement sustainable agricultural practices in areas with appropriate soils;
4. Research to establish and use criteria essential for sustainable logging, particularly long- term studies that document the growth rate of key timber species, their reproductive cycles, and the ecological conditions necessary to ensure their regeneration into the forest canopy;
5. Studies that address the cost and benefits from salvage logging as an integral part of conversion aimed at increasing agricultural production;
6. Development of monitoring mechanisms;
7. Development and implementation of new sustainable forest management protocols and criteria;
8. Capacity building to improve forest management, environmental impact assessment (e.g. improvement of institutional and human resource capacity) and
9. Awareness-building on REDD+ and the importance of sustainable management of the forests

This will help to improve knowledge, establish limits for land uses and improve the implementation and monitoring of increased sustainable forest use.

Table 2a.1 gives an overview of the underlying causes of deforestation and forest degradation considering direct drivers and factors. The major land use trends are also identified. Still, a thorough research is needed to gain accurate information on indirect drivers, land tenure and the implications of REDD+. This assessment will be done in close collaboration between the NRWG and relevant stakeholders through research and consultation meetings, as described in component 1b. The outcome of the land use, forest policy and governance assessment will help identify the main needs and gaps that have to be addressed for the implementation of the REDD Readiness strategy.

Past efforts to reduce deforestation and forest degradation have been made through the following:

1. The enforcement of forest (related) laws, policies and regulations:
 - a. The Constitution of the Republic of Suriname stipulates that the social goal of the state is to create and stimulate circumstances that are necessary for the protection of nature and maintenance of ecological balance. It also states that all forests, except private owned land, belong to the state. Forests on private land do not cover more than a total area of 50,000 ha. The Constitution does not provide for collective ownership rights of land. The government grants land tenure for various purposes to private individuals, private enterprises and organizations, and to communities. According to the Forest management Act of Suriname the following forms of tenure are granted:
 - i. Timber concessions, which are granted to companies and individuals
 - ii. Communal Wood Cutting Licenses, granted on the basis of the Timber Act of 1947 to forest based communities (Maroon and Indigenous), and since 1992, community forests, which are granted on the basis of the Forest Management Act.
 - iii. Incidental cutting licenses, which are granted to individuals and

companies for salvaged logging.

- b. The Forest Management Act of 1992, which replaced the old Timber Act, contains a number of requirements intended to promote sustainable forest management practices for the production of timber and non-timber products;
- c. The Forest Service (LBB) of the Ministry of RGB is responsible for the management of all forests in the widest sense of the word, thus including nature conservation and law enforcement;
- d. The Nature Conservation Division (NB) of the Forest Service is the CITES authority and is responsible for issuing permits for export of CITES species and therefore also for the enforcement of laws on hunting and wildlife (the Game Law 1954).
- e. The National Forest Policy was formulated in 2006. The overall objective of the policy is “to enhance the contribution of the forests to the national economy and the well-being of current and future generations with due regard for the conservation of the biodiversity”. Currently, a Strategic Action Plan for the forest sector has been produced and needs to be implemented.
- f. In view of the responsibilities with respect to general law enforcement, the Police Force and the Public Prosecutor’s Office are authorized to apprehend and prosecute people who are not in compliance with the forestry laws

Deforestation and forest degradation still does occur and could possibly increase due to a lack of investment in research, monitoring and stringent control activities, as well as the inaccessibility of certain forest areas, which can only be reached by air or by boat.

2. The establishment of SBB in 1998, mandated by the Forest Service (LBB) to manage forest production and therefore responsible for the supervision and control of all logging. The Forest Management Act of 1992 enables forest guards to confiscate illegally logged timber and to enforce the Forest Management Act. SBB also carries out forest monitoring and forest production statistics. However, a full and complete forest inventory and monitoring program has not been established due to a lack of capacity and funding.
3. The establishment of the National Environmental Council and the National Institute for Environment and Development in Suriname (NIMOS) in 1998 to implement and monitor the national environmental policy. Guidelines for environmental and social impact assessments (ESIA) were established for logging, mining, agriculture and energy production as well as for other activities that have a significant impact on the environment. These guidelines are important for the implementation of the REDD+ readiness strategy. A further description is given in component 2d. However, the development of an ESIA is not mandatory as yet because the environmental legislative framework is still in the constitutional process.
4. The development of the National Biodiversity Strategy (NBS) in March 2006, which provides the national vision, goals and strategic direction to be pursued, in order to conserve and sustainably use the nation’s rich biodiversity and biological resources; foster sustainable management of its natural resources and support the equitable sharing of biodiversity related services and benefits, provided by ecosystems. The strategic forest related directions of the NBS are:

- a. To promote and strengthen research and monitoring programs ;
- b. To improve agriculture and land use planning, as well as, review current agricultural policies and activities;
- c. Sustainable use and management of forest resources through updated inventories, strengthen enforcement, promotion of research, improvement and expanding programs, review and revise existing laws, implement a strong forest management authority and implement the national forest policy;
- d. Review and strengthen laws/rules and enforcement regarding mining as well as promote ecologically responsible mining and mineral development practices;
- e. Strengthen the capacity of ecologically sustainable tourism and expand the sustainable development of tourism infrastructure and
- f. Conduct public awareness, education and community empowerment.

There are some monitoring activities with regard to biodiversity. In the 1980s and earlier, specific permanent vegetation sampling plots were established by CELOS/NARENA. A monitoring program was set up in 2005 in the northern part of the Central Suriname Nature Reserve (CSNR) with the help of Conservation International, which is part of a larger, worldwide Tropical Ecology, Assessment and Monitoring (TEAM) program and is based on standard protocols for vegetation, climate and a limited number of species such as primates, birds, large mammals and butterflies.

Although a quick review has been given of the analysis of the performance of past efforts to reduce deforestation and forest degradation, a full assessment has to be conducted to acquire accurate data. This assessment will be based on causality analysis, existing studies/ reports and assessments, and consultation meetings and will address the following:

1. Assessment of relevant policies and regulations to reduce deforestation and forest degradation;
2. Assessment of the institutional capacities and capabilities considering the economic, social, political and environmental context;
3. Assessment of the institutions with respect to the monitoring of deforestation and forest degradation as well as the enforcement of regulations;
4. Assessment of the direct and indirect drivers and factors inside and outside the forest sector, as well as the identification of land tenure and other issues affecting REDD+;
5. Propose mitigation measures to reduce deforestation and forest degradation through the implementation of REDD+;
6. Propose mitigation measures for effective policy implementation or development considering REDD+;
7. Propose mitigation measures for effective monitoring and enforcement;
8. Propose programs for capacity building and institutional strengthening;
9. Costs and potential funding sources analyses.

The assessment will be carried out in collaboration with (governmental) institutions, relevant stakeholders as well as specialized international researchers. To come to a full assessment, meetings will be held to consult and inform all relevant stakeholders.

Component 1b gives an overview of the proposed consultation meetings. The subjects for discussion will include:

1. The assessment of relevant policies and regulations to reduce deforestation and forest degradation, mitigation measures and results as well as future deforestation and forest degradation events addressed;
2. Assessment of institutional capacities and capabilities to monitor deforestation and forest degradation and the enforcement of regulations, as well as the mitigation measures and results;
3. Assessment of current and future drivers of deforestation and forest degradation, as well as the mitigation measures and results;
4. Assessments of financial mechanisms applicable to REDD+.

The expected outcome of the activities are:

1. Consultation meetings are held to consult and inform (governmental) institutions, as well as relevant stakeholders of the Surinamese community;
2. An assessment report published with the following results:
 - a. Assessment of relevant policies and regulations to reduce deforestation and forest degradation, as well as mitigation measures and results;
 - b. Assessment of institutional capacities and capabilities to monitor deforestation and forest degradation and enforcement of regulations, as well as mitigation measures and results;
 - c. Assessment of indirect/direct drivers of deforestation and forest degradation. as well as the mitigation measures and results;
 - d. Identification of land tenure and other issues affecting REDD+;
 - e. A land-use chart showing inclusive deforestation and forest degradation;
 - f. A program for capacity building and institutional strengthening;
 - g. A budget with the estimated costs and possible funding.

The screening and evaluation of these results will be conducted by the NRWG. The TOR is presented in annex 2.

Time framework

Activities	2010	2011	2012	2013
Assessment of relevant policies and regulations to reduce deforestation and forest degradation;	X	X		
Assessment of institutional capacities and capabilities considering the economic, social, political, environmental context;	X	X		
Assessment of institutions with respect to monitoring of deforestation and forest degradation, as well as enforcement of regulations;	X	X		
Assessment of direct and indirect drivers and factors inside and outside the forest sector, as well as other	X	X		

issues affecting REDD+;				
Establish mitigation measures for effective policy implementation or development with due account for REDD+;		X	X	
Establish mitigation measures for effective monitoring and enforcement;		X	X	X
Establish programs for capacity building and institutional strengthening;		X	X	X
Establish mitigation measures to reduce current and future deforestation and forest degradation through the implementation of a REDD+ strategy ;		X	X	
Costs and potential funding sources analyses.		X	X	

Table 2a: Summary of Assessment of Land Use, Forest Policy and Governance Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Assessment of relevant policies and regulations to reduce deforestation and forest degradation;	Hire specialists (local consultants)	30.00	20.00			50.00
Assessment of the institutional capacities and capabilities considering the economic, social, political, environmental context;	Hire specialists (local consultants)		30.00			30.00
Assessment of the institutions regarding the monitoring of deforestation and forest degradation as well as the upgrading of existing and development of new regulations;	Hire specialists (local consultants)	30.00				30.00
	Develop and upgrade (existing) regulations	15.00	15.00			30.00
	Meetings, desk research	8.00	5.00			13.00
Assessment of the direct and indirect drivers and factors inside and outside the forest sector	Hire international consultants, meetings and two field visits in the interior, expert consultations	60.00	40.00			100.00
Identification of land tenure and other issues affecting REDD as well as strengthening the land administration	Hire international consultants, meetings and three field visits in the interior	100.00	80.00	80.00	60.00	320.00
Establish mitigation measures for effective policy implementation or development considering REDD+	Hire international consultants, expert consultations		60.00	10.00		70.00
Establish mitigation measures for effective monitoring and enforcement;	Hire international consultants, expert consultations		60.00	10.00		70.00
Establish mitigation measures to reduce current and future deforestation and forest degradation through the implementation of the REDD+ strategy	Hire international consultants, expert consultations		40.00	10.00		50.00

Analyses of costs and potential funding sources	Hire local consultants, internal meetings, desk research, expert consultations		40.00			40.00
Grandtotal 2a		\$243.00	\$390.00	\$110.00	\$60.00	\$803.00

Table.2a1 Results of the quick land use assessment

Potential Deforestation driver and region	National Program or Strategy that it may fall under	Conditions that might trigger or accelerate the deforestation and degradation process	Existing regulations	Gaps and constraints
<p>Mining</p>	<ul style="list-style-type: none"> • Suriname’s Multi Annual Development Plan 2006 – 2011 (MOP) • The National Environmental Policy • The Decentralization Program • The Brokopondo Agreement 	<ul style="list-style-type: none"> • High prices • Potential mining of other resources • Weak monitoring of mining activities • Weak enforcement • Increase of national/international demand • Increased accessibility of the interior e.g. due to road building • Development and accessibility to specialized mining methods 	<ul style="list-style-type: none"> • The Mining Act • The Bauxite Act 	<ul style="list-style-type: none"> • Lack of integrated mining policy which might lead to adopting revised legislation • Lack of/ insufficient control (illegal mining, illegal immigration, health and safety issues etc.) • Monitoring costs • Research costs • Lack of research capacity and funding • Redefine small scale mining • Environmental and social impact assessment (ESIA) is not mandatory • Legal asymmetry among neighboring countries • Draft Environmental Act
<p>Logging</p>	<ul style="list-style-type: none"> • Suriname’s Multi Annual Development Plan 2006 – 2011 (MOP) • National Forest Policy • Draft Interim Strategic Action Plan • The National Environmental Policy • The National Biodiversity Strategy 	<ul style="list-style-type: none"> • Land use conversion • Increased production • Weak monitoring mechanism • Weak enforcement • Insufficient awareness about REDD and the importance of SFM • Weak SFM protocols and criteria • Development and accessibility to specialized logging methods • Increased accessibility of the interior due to road building • International demand for timber and timber products • Timber cutting rights such as timber concessions, community forest & incidental cutting licenses. 	<ul style="list-style-type: none"> • Forest Management Act • Nature Conservation Act • Game Act 	<ul style="list-style-type: none"> • Institutional capacity strengthening (monitoring, training, outreach) • Lack of /insufficient control (illegal logging, illegal immigration, health and safety issues etc.) • Monitoring costs • Research costs • Lack of research capacity and funding • No baseline studies • Incoherent land use map • ESIA is not mandatory • Improvement of the National Forest Inventory System • Improvement of Current Lumber Laws is needed • Family based concessions could be improved and promoted • Commercially oriented concession promoted • Draft Environmental Act

Potential Deforestation driver and region	National Program or Strategy that it may fall under	Conditions that might trigger or accelerate the deforestation and degradation process	Existing regulations	Gaps and constraints
<p>Infrastructure activities (main roads, dams, dikes)</p>	<ul style="list-style-type: none"> • Suriname’s Multi Annual Development Plan 2006 – 2011 (MOP) • Regional and National Infrastructural Pogram • The National Environmental Policy 	<ul style="list-style-type: none"> • Increased accessibility of the interior due <ul style="list-style-type: none"> ○ to road building ○ upgrading river-transport infrastructure ○ expansion of air links ○ tourism activities ○ mining activities • Poor land use planning • Increased housing construction projects (public grand private sector) • Increased industrial activities excluding mining and agriculture. • Finance sources available that do not require ESIA • Weak monitoring of activities • Weak enforcement 	<ul style="list-style-type: none"> • Regional Development Act • Urban Development Act • Architecture Act • Road Authority Act • Planning Act 	<ul style="list-style-type: none"> • ESIA is not mandatory • Monitoring costs • Research costs • Lack of research capacity and funding • Request information from key institutions • Draft Environmental Act
<p>Agriculture</p>	<ul style="list-style-type: none"> • Suriname’s Multi Annual Development Plan 2006 – 2011 (MOP) • Agriculture sector plan • The National Environmental Policy • Agriculture Census by Ministry of LVV 	<ul style="list-style-type: none"> • Government approval for starting-up palm oil plantations and others. 	<ul style="list-style-type: none"> • Export Act regarding Agriculture and Forest products • Nature Conservation Act • Agricultural Act 	<ul style="list-style-type: none"> • Monitoring costs • Research costs • Lack of research capacity and funding • EIA is not mandatory • Draft Environmental Act
<p>Slash and burn activities</p>	<ul style="list-style-type: none"> • Agriculture Census by the Ministry of LVV 	<ul style="list-style-type: none"> • Income increase from mining activities • Permanent agriculture • Market growth for agriculture products • Migration due to natural disasters (flooding hinterlands) • Increase in commodity prices 		<ul style="list-style-type: none"> • Lack of information • Monitoring costs • Research costs • Lack of research capacity and funding • Land allocated for slash and burning • Improvement needed for the National Forest Inventory System • Draft Environmental Act

Potential Deforestation driver and region	National Program or Strategy that it may fall under	Conditions that might trigger or accelerate the deforestation and degradation process	Existing regulations	Gaps and constraints
Energy production	<ul style="list-style-type: none"> • Suriname’s Multi Annual Development Plan 2006 – 2011 (MOP) • The Brokopondo Agreement 			<ul style="list-style-type: none"> • ESIA is not mandatory • Monitoring cost • Research cost • Lack of research capacity • Request information from key institutions • Draft Environmental Act

2b. REDD+ Strategy Options

Rationale

Suriname is an important part of the Guiana region, an expanse of more than 250 million hectares, representing the largest block of intact tropical forest on earth. The potential for sustainable harvest is about 1 – 1.5 million m³ annually based on a production forest of 4 million ha. To increase production, different stakeholder platforms and processes have been used to develop plans to formulate the current forestry strategies. The best known are the Multi Annual Development Plan (MOP 2006 – 2011), the National Biodiversity Strategy (2006) and the National Forest Policy (2006). The current Multi Annual Development Plan emphasizes that economic development must proceed in a manner compatible with the environment, taking into account both national ecosystem services and climate change. This statement gives access to implement a REDD+ readiness strategy in all national developments. The development plan also states that hydro-energy is a major component of Suriname's energy future. Some forms of hydro-energy can have direct implications for forested areas and needs to be considered as a driver of deforestation and forest degradation. The current Multi Annual Development Plan also pays attention to infrastructural development to increase accessibility of the interior so as to enhance regional participation in economic developments and greater direct benefits to regional communities. The NRWG will take into account that the implementation of REDD+ readiness activities will be part of Suriname's national (economic) development.

A summary of preliminary REDD+ strategy options

REDD+ readiness strategies need to be incorporated into the overall national development, by strengthening the capacity and capabilities of all relevant (governmental) institutions and stakeholders, by increasing national (economic) development along with sustainable forest management and appropriate monitoring and enforcement, to achieve emission reductions. The national REDD+ readiness strategy will address interrelated social, political and economic drivers of deforestation and forest degradation at the national level, will identify and promote economic opportunities for sustainable forest management and enhance national efforts to reduce, remove and avoid emissions, with due considerations for the National Forest Policy and the Multi Annual Development Plan.

Issues to be considered when identifying programs that will achieve development of a national REDD+ readiness strategy while taking into account the reduction, removal and avoidance of emissions from deforestation and forest degradation and the design of a system for providing targeted financial incentives are:

- Design of national, institutional and legal framework relevant to REDD+;
- Implementation of the National Environmental Policy and National Forest Policy for emission reductions, removals and avoidance and relevant strategies;
- Long- term monitoring of development processes by the Government;
- Spatial planning and effective land use planning;

- Promote standing forests as a carbon reservoir taking into consideration the role of sustainable logging;
- Promote the inclusion of standing - intact and non-intact - forests in the REDD+ scheme and REDD+ strategy;
- Promote and assess markets for forest carbon credits (also on voluntary markets);
- Establish a monitoring system for transparency, and the equitable sharing of revenues from carbon credits for ecosystems services;
- Capacity building and institutional strengthening for implementing and monitoring institutions;
- Design funding mechanisms and alternatives for forest carbon;
- Design benefit sharing mechanisms.

To succeed in the development of the national REDD+ readiness strategy, consultations with a wide range of stakeholders at all levels of the government is needed. Through consultation and participatory meetings, a process will be set up to discuss, develop and implement plans and strategies. Representatives of relevant (governmental) institutions, Indigenous and Maroon communities, and other relevant civil society stakeholders will be consulted individually and/or in key stakeholder groups, as well as through wide participatory meetings with the aim to ensure broad-based input for the proposed national REDD+ readiness strategy. An assessment is needed of all relevant stakeholders for the development of a national REDD+ strategy.

The national REDD+ readiness strategy will be developed with due account for the following key elements:

1. The design of the national REDD+ readiness strategy will be coordinated by the National REDD+ Working Group assisted by the National Forest Carbon Unit (NFCU) to implement the necessary activities.
2. The design of the most effective and efficient strategy to identify the root causes of deforestation and forest degradation and future drivers hereof, through an assessment of current and future deforestation and forest degradation drivers.
 - a. The assessment of the drivers of deforestation and forest degradation mentioned in component 2a will be continued with in-depth research of:
 - i. Existing data and research studies;
 - ii. Linkage with other sectors;
 - iii. Linkage with national (economic) development and the Multi Annual Development Plan;
 - iv. Strengths and weaknesses of public interventions;
 - b. Determination of carbon stocks in land uses and associated changes in carbon stocks due to land use change activities.
 - c. Baseline studies to assess historical emissions from deforestation and forest degradation;
 - d. Assessments for identification of monitoring plots and

- e. Identification of specific areas for REDD+ demonstrations activities.
3. Development of the following methodologies:
- a. A national-level forest carbon accounting methodology based on IPCC guidelines and forest carbon standards for project development;
 - b. A national-level monitoring, report and verification methodology;
 - c. A methodology for the projection and modeling of future emissions from deforestation and forest degradation;
 - d. A national Reference Emission Level (REL)/ Reference level;
 - e. A national forest carbon database for recording;
 - f. A national funding/benefit sharing mechanism;
 - g. A compliance mechanism for emission reductions and
 - h. Methodologies to address leakage and non-permanence.
4. Identification of financial investment needs, as well as analysis of costs and benefits. At present timber extraction, processing and related activities account for about 5% of formal employment. The timber sector contributes less than 3% of GDP and exports generate around USD 4 – 5 million annually. The implication for REDD+ activities in areas that are potentially suitable for other land uses, such as mining and agriculture, is that REDD+ may be an opportunity cost. However, the magnitude of the opportunity cost will depend on the location of the particular forested area. The following financial analyses will have to be conducted:
- a. Opportunity costs, investment costs, transaction costs and benefits;
 - b. Assessment of methodologies for carbon accounting;
 - c. Assessment of the linkage between national accounting systems and other relevant national/sub-national programs;
 - d. Development of financial mechanism with incentives for conservation and sustainable forest management, including sustainable logging in concessions and community forests;
 - e. Commissioning of research studies for financial and funding mechanisms for forest carbon ownership;
 - f. Assessment of financial risks and their mitigation;
 - g. Development of protocols for methodologies used and for forest carbon project approval;
 - h. Development and implementation of demonstration activities;
 - i. Technical assistance will be sought for land rights issues. The government has organized a national conference on “tribal Rights” in Suriname on June 29 – 30, 2009.
 - j. Technical assistance will be sought to design the REDD+ readiness strategy.

5. Analyses of institutional capacities

- a. Assessment of institutional settings required to manage REDD+ within governmental structures, taking into account coordination, monitoring, reporting, participation and viable benefit sharing;
- b. Capacity building of institutions through awareness and training.

Schedule and sequencing of activities

Activities	Year 1	Year 2	Year 3	Year 4
Conduct assessment to address interrelated social, political, and economic drivers of deforestation and forest degradation at the national level	X	X		
Develop a reference emission level or reference level based on future economic growth (adjustment factor)	X	X	X	
Design transparent financial structures for an equitable distribution of forest carbon benefits		X	X	X
Develop a national forest carbon financial plan revenue		X	X	X
Develop a national-level forest carbon inventory based on IPCC guidelines	X	X	X	
Develop a national-level permanent forest carbon monitoring methodology;	X	X	X	
Develop a methodology for projection and modeling of future emissions from deforestation and forest degradation		X	X	X
Develop a national Reference Emission Level (REL) or Reference Level	X	X	X	
Develop a national Monitoring, Reporting and Verification (MRV) system with due account for GIS and remote sensing	X	X		
Develop a national forest carbon database	X	X		
Develop a forest carbon rights regulatory framework	X	X		

Table 2b: Summary of Strategy Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Development of the national REDD+ strategy	Hire international consultants, conduct workshops	300.00	150.00	150.00		600.00
Financial analyses	Hire international consultants, meetings, desk research	150.00	100.00			250.00
Analyse methodologies	Hire international consultants, conduct workshops	300.00				300.00
Analyses of institutional capacities	Hire local consultants, meetings. Desk research	60.00				60.00
Expert consultations and training		250.00	100.00	100.00		450.00
Grandtotal 2b		\$810.00	\$250.00	\$150.00		\$1,660.00

2c. REDD Implementation Framework

Rationale

The national REDD+ readiness strategy can provide opportunities for Suriname to meet its goals for sustainable forest management simultaneously with poverty reduction initiatives. Currently, an Interim Strategic Action Plan for the Forest Sector in Suriname 2009 – 2013 has been developed, whereby opportunities are created to implement the national REDD+ readiness framework as well as complementary REDD+ readiness issues. The Interim Strategic Action Plan provides results of analyses of the forest sector, including growth and yield, relevant policy and legal framework, forms of land tenures, concession policies, timber rights and production and interim strategic action plans. This plan specifically states that a strategy needs to be developed to promote Suriname as a highly forested and low deforestation (HFLD) country in relevant international forums, and this could contribute to mainstreaming the national REDD+ readiness strategy into the implementation of the Interim Strategic Action Plan.

Summarize the relevant information and ideas on your REDD+ implementation framework

The national REDD+ readiness implementation framework focuses on the assessment of existing institutional, economic and legal settings to come to an effective national REDD+ framework, with due consideration for the reduction of emissions from deforestation and forest degradation, while providing opportunities for national economic development and accessibility to the carbon market.

To come to the design of the national REDD+ readiness framework, the following needs to be taken into account:

- Institutional arrangements. Currently, the national Multi Annual Development Plan (2006-2011), the Interim Strategic Action Plan for the Forest Sector (2009-2013), and the National Environmental Policy are of great importance for the development and implementation of REDD+ through mainstreaming REDD+ into these existing programs. Therefore it will be important to strengthen the capacity and the capabilities of the existing institutions and institutional frameworks. Another institutional structure to consider is the decentralization of the districts, which is being executed through the ‘Decentralization Local Government Strengthening Programme’ (DLGP) developed with technical and financial assistance of the Inter-American Development Bank (IDB). The main goal is to establish ‘fiscal decentralization’ and to build capacity for programme and financial management within the respective district administration. This will allow a real transfer of tasks and responsibilities from the national to the local level within the various districts.
- Economic arrangements. In January 2008, a Rapid Assessment Report of Existing Financial Mechanisms for Sustainable Forest Management in Suriname was

commissioned by the Government of Suriname and conducted in collaboration with Tropenbos International Suriname and the Ministry of Agriculture, Nature and Food Quality Netherlands, in support of the Country Led Initiative (CLI) on Financing for Sustainable Forest Management, which was held in September 2008 in Suriname. This assessment presented a national inventory and evaluation of existing financing mechanisms in Suriname, focusing on support of sustainable forest management including conservation of forests. The report stated that existing financial mechanisms for sustainable forest management are underdeveloped and not always available and if available, under less favourable conditions at a relatively high price and no grace periods. Other factors which have a negative influence on forest financing are:

1. The absence of a clear investment policy framework with specific incentives, arrangements and facilities for the forest sector;
2. The absence of formal collective land rights and land titling for traditional forest communities;
3. The absence and/or outdated legislation on concession policies for timber and non-timber forest products;
4. The absence of an enabling investment law with clearly defined incentives, which protects domestic and foreign investors in order to attract bona fide investments;
5. Insufficient capacity to access and utilize available funds;
6. Increasingly high conditions and demands to access available funds;
7. Lack of international arrangement for “Highly Forested and Low Deforestation countries” like Suriname.

These factors will be considered when developing the national REDD+ readiness framework and are considered of great importance for linkage with the national economic development and the development of national funding or benefit sharing mechanisms for forest carbon emission reductions. Also market requirements need to be addressed, including verification and issues of carbon credits, legal security, insurance against loss and price fluctuations.

- Legal arrangements. As described in the “Rapid assessment on existing financial mechanisms for sustainable forest management in Suriname”. There is an absence of legislation and/or existence of outdated legislation on concession policies for timber and non-timber forest products. The development of a national REDD+ readiness framework needs to consider improvement of outdated legislation, as well as the development, harmonization and/or amendment of legislation for the implementation of REDD+.

For the design of the institutional, economic, legal and governance arrangements for the implementation of the REDD+ readiness strategy and in order to be in compliance with obligations under a future REDD+ regime, in-depth research is required for the following:

- the role of the national government and its institutions;
- funding/benefit sharing;
- national REDD+ registry;
- accountability.

Currently, there are some national arrangements which can give an impulse, but these structures need to be assessed, and their capacities need to be strengthened to implement REDD+. Among the national institutional arrangements are the Multi Annual Development Plan, the establishment of a Designated National Authority for the Clean Development Mechanism and the ongoing project of the decentralization of districts. A full assessment of these arrangements should be conducted in order to ensure, efficient and effective programs for the development of a national REDD+ readiness framework.

To achieve the design of such a framework, the following activities will be conducted:

Activities	Expected outcome
Assessment of policy, legal and institutional settings with due account for the implementation of REDD+ (component 2a)	Institutional frameworks developed Programs developed for increased institutional capacity
Assessment of forest trading mechanism, with due account for the financial elements of component 2b: <ul style="list-style-type: none"> • Funding mechanism for benefit sharing of forest carbon • A forest carbon financial plan • A national forest carbon accounting system Design a mechanism to target financial incentives for REDD+ Design a system to verify findings and ensuring reliability and accuracy Design a REDD+ networking mechanism	Forest carbon markets analyzed A national funding/ benefit sharing mechanism developed to ensure a fair distribution of profits to all actors involved A national forest carbon accounting system established Protocol for the independent verifier developed Criteria established for the selection of REDD+ demonstration sites and pilot activities Increased institutional capacity A national framework for REDD+ developed
Collaboration with all relevant stakeholders through workshops, meetings and training.	Enhanced interest and commitment to participate in the development of the REDD+ strategy and policy Increased awareness on carbon trading Increased capacity building A plan for capacity building and technology transfer developed

These activities will be executed through analytical studies, surveys, benchmark socio-economic research, and consultation meetings with all stakeholders and the government. The Ministry of Physical Planning, Land and Forest Management will coordinate the development of the national REDD+ readiness framework in collaboration with all relevant governmental

and non-governmental institutions and stakeholders. An assessment of these stakeholders is already included in component 2b.

Schedule and Sequencing of activities

	Year 1	Year 2	Year 3	Year 4
Development of institutional frameworks for social, economic and legal arrangements, as well as programs for increased institutional capacity	X	X		
Assessment of forest carbon trading mechanism	X	X	X	
Design and implement a national funding/ benefit sharing mechanism	X	X	X	
Design and implement a national forest carbon accounting system	X	X		
Design and implement a mechanism to target financial incentives for REDD+	X	X		
Design and implement a system to verify findings and ensure reliability and accuracy, as well as its protocols	X	X		
Design and implement a REDD+ networking mechanism	X	X		
Develop a REDD+ reporting structure		X	X	
Develop a plan for capacity building and technology transfer		X	X	
Disseminate information to all stakeholders	X	X	X	X
Stakeholder consultations	X	X	X	X

Table 2c: Summary of Implementation Framework Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Development of institutional frameworks for social, economic and legal arrangements as well as programs for increased institutional capacity	Hire national consultants, conduct meetings and workshops, implement activities	715.00	330.00	30.00		1,075.00
Grandtotal 2c		\$715.00	\$330.00	\$30.00		\$1,075.00

2d. Social and Environmental Impacts

Rationale

The national environmental policy of Suriname aims to protect the environment while achieving sustainable development. The establishment of the Ministry of Labor, Technological Development and Environment (ATM), the National Environmental Council and the National Institute for Environment and Development in Suriname (NIMOS) as technical working arm of the ministry of Labor, Technological Development and the Environment (ATM) were important steps towards developing and implementing policy frameworks on a number of issues, such as the development of an Environmental Legislative Framework and guidelines for the development of an Environmental and Social Impact Assessment. The Environmental Legislative Framework is still in the constitutional process, but the guidelines of the ESIA are already widely used in the logging and mining sectors. ESIA guidelines for the energy and agricultural sectors have also been developed. Environmental, social and economic assessments of REDD+ strategies options and implementation of the framework identified in components 2b and 2c will give an overview of both the positive and negative effects. Through early mitigation of these effects, emission reduction can be achieved. The overall objective of the environmental and social assessment of readiness activities is to gain in-depth information on the quality of the environment and the socio-economic status when implementing REDD+ activities. Effective and efficient mitigation measures for the reduction of greenhouse gas emissions, and the enhancement of economic development will also be taken into account.

Insert the ToR for the SESA

The assessments will be conducted by national and international consultants in close collaboration with relevant governmental and non-governmental institutions. The terms of reference are:

1. Conduct assessments of all relevant stakeholders, ranging from (non) governmental institutions to civil society and forest dependent groups. This assessment will produce a list of stakeholders for consultation, dissemination of information and training.
2. Develop a consultation plan for the environmental and social impact assessment. A full explanation of the development of a consultation and outreach plan is described in component 1b, which will be considered when preparing and organizing the consultation meetings to discuss the national ESIA guidelines.
3. Develop a capacity- building program, with due consideration for the relevant subjects of the training and methods of training to enable the conducting of assessments and risks/impact analyses.
4. Conduct assessments of the general environmental and social issues when REDD+ is implemented.

5. Conduct assessments of all relevant policies and legislation, taking into account the drivers of deforestation and forest degradation.
6. Determine areas for environmental assessments, with regard to areas for future programs and projects. Socio-economic impact assessments will also be conducted in these future programs and projects. An integrated environmental and social impact report will be produced, containing the following:
 - a. Baseline studies will be conducted, environmental aspects and impacts identified, risks analyzed, and mitigation measures developed. With respect to the execution of the environmental impact assessment, the national ESIA guidelines of NIMOS will be considered.
 - i. The environmental baseline study will give information on the present situation of the environment, with due consideration for biodiversity, physical and biology components, as well as cultural heritage.
 - ii. Assessment of the compatibility of the proposed area or project with respect to other land uses within the proposed or project areas.
 - iii. Analysis of environmental opportunities and risks of the implementation of the RPP as well as REDD+ readiness strategy
 - iv. Development of an environmental monitoring plan to monitor the environmental risks and mitigate environmental impacts of the RPP and REDD+ activities. This monitoring plan will also describe the monitoring methodology.
 - b. The social impact assessments will give in-depth information about the forest dependent people and their livelihoods. The social impact assessment will be conducted in an area to be determined for future programs and projects. In this assessment, baseline studies will be conducted, social aspects and impacts identified, risks analyzed and mitigation measures developed. For the execution of the social impact assessment, the national ESIA guidelines of NIMOS will be considered.
 - i. The social effects and risks of implementation of a funding/ benefit sharing mechanism will be conducted, as well as the development of mitigation measures.
 - ii. Analysis of socio-economic opportunities and risks of the implementation of RPP and REDD+ activities will be conducted.
 - iii. A social monitoring plan will be developed to monitor social risks and to mitigate the social impacts of the RPP and REDD+ activities. This monitoring plan will also describe the monitoring methodology.
 - iv. Consultations will be conducted in accordance with component 1b considering the ESIA guidelines of NIMOS.

Schedule and sequencing of activities				
Activities	Year 1	Year 2	Year 3	Year 4
Assessment of relevant stakeholders, ranging from (non) governmental institutions to civil society and forest dependent groups.	X			
Development of a consultation plan for the environmental and social impact assessment.	X			
Development of a capacity building program, with due account for relevant training subjects and methods of training.	X	X	X	X
Assessments of the general environmental and social issues in implementation of the REDD+ readiness strategy.	X	X		
Determination of areas for environmental assessments, with due consideration for future programs and projects.	X	X	X	
Conduct environmental impact assessments	X	X	X	
Conduct social impact assessments	X	X	X	
Consultation meetings	X	X	X	X
Development of the ESIA report	X	X	X	X

Table 2d: Summary of Social and Environmental Impact Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Determination of areas for environmental assessments are determined considering areas for future programs and projects.	Hire international consultants, conduct field research, on site training	350.00	180.00			530.00
Conduct environmental impact assessment and social impact assessment	Hire team of international/ national consultants, conduct field research, meetings and workshops	475.00	425.00			900.00
Development of the ESIA report (including technical and non-technical summaries in local and traditional languages)	Hire team of international/ national consultants, conduct meetings and workshops			150.00		
Expert consultation and training		30.00	15.00			45.00
Grandtotal 2d		\$855.00	\$620.00	\$150.00		\$1,475.00

Component 3: Develop a Reference Scenario

Rationale

Forest biomass carbon stocks in Suriname have been assessed in a number of studies and there is ongoing research by Tropenbos International Suriname. Other governmental and non-governmental institutions have also done research on the status of Suriname's forests.

In 1998, a report on 'Monitoring tropical rainforest in Suriname: Internal Memorandum' was developed by CELOS/NARENA. This report presented a calculated aboveground biomass carbon density by forest type, resulting in a weighted average aboveground biomass carbon of 676 tCO₂ equivalent per ha, which provides an estimate of an annual emission from deforestation of about 3.4-6.8 million tCO₂ (5,000-10,000 ha per year). The emissions referred to within this context are mostly related to forest cover loss due to mining activities. Emissions from logging are not included and analyses for resolving these impacts have not been applied to date.

Due to historical deforestation, Suriname has to develop a different approach to the reference scenario, which will be based on modeling economic trends that will trigger deforestation and forest degradation processes in the future. In this regard, this RPP will identify the main activities and research required in order to develop an appropriate reference scenario based on socioeconomic drivers. In order to develop such a reference scenario, the government will start by determining current deforestation and forest degradation rates.

Summarize your proposed approach to establishing a reference scenario

National forest inventories of approximately 320,000 ha were conducted between 1971 – 1974 by the FAO for sustainable logging purposes. Again in the mid-1990s, 30 plots were established by the Department of Natural Resources and Environmental Assessment of the Centre for Agricultural Research (CELOS-NARENA) presenting different forest types. Field measurements are periodically taken from limited areas, such as logging concession areas. Currently, there is no continuous and systematic national forest inventory system in place to directly monitor forest biomass.

Landsat imagery from 1998, with limited ground-verification and confirmation with aerial photographs were used to develop the preliminary classification of forested lands in Suriname and to develop indicative forest classification maps for the Ministry of Natural Resources. This was the result of a collaborative effort between the Natural Resources and Environmental Assessment (NARENA), the Centre for Agriculture Research in Suriname (CELOS), the Foundation for Forest Management and Production Control (SBB) and the FAO. These maps will serve as a starting point for stratification of the forests (i.e. forest types), using the official forest type classification first developed by Lindeman and Molenaar (1957).

The Central Bureau of Aerial Survey (CBL) has aerial photographs of the entire country. These data have already been used to produce vegetation maps, which can assist validation for satellite forest assessments. Various geographic information systems (GIS) data layers are available at the Ministry of Physical Planning, Land and Forest Management (RGB), the Forest Service (LBB), Foundation for Forest Management and Production Control (SBB), CELOS and the Land registration and Land information system (GLIS). Annual data on timber production were previously generated by LBB and since 1998 by the Foundation for Forest Management and Production Control (SBB). Possible forest degradation caused by logging is also estimated by the Foundation for Forest Management and Production Control (SBB). This will provide baseline information for modeling future deforestation and forest degradation rates, based on socioeconomic drivers and future development strategies in the main economic sectors (mining, timber production, etc)

The following is a list of spatial data that Suriname has access to:

1. Landsat imagery 1998-2002;
2. Preliminary classification of forested land of Suriname map (1998);
3. Indicative Forest Classification Map (1998) and
4. Digital elevation model.

For GIS coverage:

1. Transportation networks;
2. Mining concessions;
3. Forestry concessions and location of logging activities;
4. Protected areas; and
5. Population centers.

Other data and tools to consider are:

1. Annual reports and plans. Every year, (governmental) institutions and the private sector, active in the field of i.e mining, produce annual reports regarding their financial status and developments.
2. Information from the General Bureau of Statistics on population growth, population distribution, GDP, economic growth, infrastructural developments, inflation, environmental statistics etc. The last census dates from 2005.
3. Agricultural expansion. The Ministry of Agriculture conducted an agricultural census in 2009 and the results will be available in 2010. Also other agricultural institutions, such as the 'Anne van Dijk Rijstonderzoek Centrum Nickerie (ADRON)' and non-governmental organizations that focus on agricultural development, can be sources for data needed, especially on agricultural developments in the hinterland.
4. Forest industry growth or other forecasts. The Ministry of Physical Planning, Land and Forest Management (RGB), Ministry of Trade and Industry (HI), the Chamber of

Commerce and Industry (KKF) and other (governmental), institutions such as the Anton de Kom University and its institutions, as well as non-governmental organizations, such as national and international NGOs, private sector organizations (i.e Platform Timber Sector (PHS), General Suriname Timber Union (ASHU)), are additional sources for some data.

5. National or sectoral development plans and specific investment programs. All Ministries and (governmental) institutions and non-governmental organizations are sources of data. The national Multi Annual Development Plan is one of the most important documents to consider. The Ministry of Planning and Development Cooperation (PLOS) is currently working on framing a green development strategy, which can ultimately be used for a green development plan for Suriname for the coming years, including low-carbon development.

Suriname has received technical support from international organizations, and there are also initiatives that are available and/or should be further explored:

1. Suriname has access to RADAR data from the Japanese –US sensor ALOS, which are being acquired and analyzed at Wageningen Agriculture University. SARvision in The Netherlands generates RADAR-based estimates of forestcover change for the Guiana Shield for the Japanese Space Agency (JAXA)-Kyoto Carbon Project. Landsat data are necessary to confirm forest trends prior to 2002 when the ALOS data became available. As the project is implemented, Suriname plans to monitor the trends every two years. However, a high level of technical and financial support will be required to build the capacity to establish in-country monitoring.
2. The *Sistema de Vigilância de Amazônia (SIVAM)* was set up early by the Brazilian Ministry of Aviation as a coordinating network, which administers a database and makes the data available to collaborating organizations. The *Sistema de Proteção de Amazonia (SIPAM)* is a working arm of SIVAM. Suriname participates in this data collecting network and it is considered one of the regional monitoring systems to be used for the forest cover monitoring.
3. The European Commission – Joint Research Centre together with the research ‘Institut de Recherche pour le Developpement’ (IRD)-Brasilia, uses remote sensing to carry out surveys of forest cover. The satellite of IRD-Cayenne, French Guiana has a reach of 2600km and also covers Suriname. The two organizations are conducting a study for the Food and Agricultural Organization of the United Nations (FAO) in which forest cover is compared on satellite images of 1990, 200 and 2005. Suriname can participate in the research and could get access to free data and work on a baseline inventory.
4. Amazon Cooperation Treaty Organization (ACTO) project TCP/RLA/3007(A), “Validation of 15 priority indicators for Amazon Forest Sustainability”, was implemented in the period 2004 – 2006. A proposal entitled ‘Monitoring deforestation, logging and land use change in the Pan-Amazon Forest was thereupon developed, which is geared towards developing ‘forest cover’ as a practical criterion to achieve sustainable forest management. The project was approved in 2008 by the International Timber Tropical Council (ITTC) for the International Tropical Timber Organization (ITTO). Financing is currently being sought. Deter and Spring geographic information system software are expected to be used.

5. Conservation International has started a spatial planning training course for technical governmental institutions and CELOS/NARENA in June 2009. A network of spatial planners is currently being established, and the course will continue in October 2009 and January 2010. The course includes future modeling scenarios and reference emission level scenarios.

So far, Suriname has little experience with REDD+ activities, although a process has been set out to strengthen the capacity of both the private and public sectors. This process was described in earlier components. It is important to identify which studies are currently lacking and which need to be carried out. The first step is to identify gaps and strengthen the necessary capacity. Capacity gaps already identified are the need for technical and financial assistance “from skilled experts” to

- i. Formulate and implement projects;
- ii. Carry out forest inventories to estimate biomass and carbon stocks;
- iii. Conduct in-depth assessments of historical emissions from deforestation and forest degradation;
- iv. Model future projections of emissions from deforestation and forest degradation using a national reference scenario; and
- v. Establish and use a monitoring system for future emissions from deforestation and forest degradation.

Suriname will develop a national baseline, based on the emissions from deforestation and forest degradation activities during a pre-determined historical reference period as appropriate. The historical reference period will be set for various time intervals, although for REDD+ a minimum amount of time (perhaps 5-10 years) will be essential for taking into account variations in deforestation-related emissions. Through the establishment of a national level reference historical period, Suriname aims to increase clarity, and feasibility of measurement, as well as provide correct incentives for real emission reductions and for avoiding potential increased emissions. However, some flexibility may be necessary, while estimating a credible national level land cover change. This will require improved methods to cover the greater spatial extent and to optimize accuracy.

In-depth research will be necessary to establish our own methodologies for determining local level baselines and ensuring consistency with national level accounting.

The following activities will be executed to come to a national reference scenario:

1. **Conduct modeling for future projections.** The focus will be on national and international economic trends and reference scenario projections into future deforestation and forest degradation. The outcomes of the analysis of the drivers for deforestation and forest degradation (component 2a) and future developments (component 2a) will be considered. The focus will be on forest area change and biomass and carbon density change.
2. **Obtain, review and analyze all relevant data** for the development of the reference

scenario, including historical and current forest cover, concessions, statistics, and mining, agricultural and infrastructural development.

3. **Conduct field inventories and surveys to measure greenhouse gas emissions** associated with deforestation and forest degradation and validate remote sensing results. The selection of pilot areas is described in component 2d. This field survey will result in establishing credible baselines, as well as key “reality checks” to the overall system of land cover classification and land change
4. **The development of National Forest Carbon Inventory.** The inventory will be part of the database already discussed in components 2b and 2c. The aim of the inventories is to enable better carbon stocks and associated emissions estimates. The National Forest Carbon Inventory will provide data for future carbon projects as well as for research purposes. The following activities will be conducted:
 - a. Obtain existing data on biomass and carbon from the region or a similar region;
 - b. Generate information from own field surveys;
 - c. Develop a measurement plan based on the following activities: determine the project plots distributed randomly across the forest lands, stratify the project area, decide which carbon pools to measure, determine type, number and location of measurement plots, and determine the frequency of measurements; and
 - d. Consider Intergovernmental Panel on Climate Change (IPCC) default values as a reference, as well as the Intergovernmental Panel on Climate Change (IPCC) Guidelines 2003 and Agriculture, Forestry and Sustainable Land Use (AFOLU) 2006, if appropriate for greenhouse gas inventories.
5. **The development of a historical baseline.** This baseline refers to activities and emissions in a defined period (5 to 10 years) as they existed before any policy decision. The historic reference period approach will help increase transparency, and sets a clear target for reductions, which is important for Suriname’s effective national policy and national economic development. Transparency will be maximized by allowing independent observers to replicate and verify the measurements to come to confident results. The following reference levels will be developed:
 - a. **Changes in forest cover and other land uses; and**
 - b. **Changes in forest carbon stocks due to deforestation and forest degradation.**

For the development of the baseline, existing relevant data obtained through activity 1, will be used.

6. **Strengthen remote sensing monitoring capabilities within national institutions.** There is a lack of in-depth information on existing data and methodologies used, as well as in technical capacity. Therefore, measurement programs will be developed. The results will be used in component 4.
7. **Collaboration, training and consultation meetings** are already being conducted to inform and build capacity within institutions on the development and management of the reference scenario.
8. **Review and acceptance of the National Reference Scenario by the National REDD+ Working Group.** Stakeholder consultations will be conducted to discuss the national reference scenario. The National REDD+ Working Group will evaluate both the methodologies used, as well as, the results for the national reference scenario, in

order to reach a final decision. The national reference scenario will be presented to the government for a national decision.

Schedule and sequencing of activities

Activities	Year 1	Year 2	Year 3	Year 4
Conduct modeling for future projections	X			
Obtain, review and analyze all relevant data for the development of the reference scenario	X			
Conduct field inventories and surveys to measure greenhouse gas emissions	X	X	X	
The development of a National Forest Carbon Inventory.		X	X	
The development of a historical baseline.		X	X	
Capacity building of national institutions for remote sensing monitoring capabilities.	X	X	X	X
Collaboration, training and consultation meetings	X	X	X	X
Review and acceptance of the National Reference Scenario by the National REDD+ Working Group.		X	X	X

Table 3: Summary of Reference Scenario Budget

Main activity	Sub- Activity	Estimated Cost in USD (in thousands)				
		2010	2011	2012	2013	Total
Development of the national reference scenario	Hire team of consultants, conduct workshops, meetings, field research, mapping, conduct all activities for the development of the national reference scenario	745.00	150.00	15.00	15.00	925.00
Collaborations, training and consultation meetings	Expert consultations and training	100.00	100.00	50.00		250.00
Review and acceptance of the National Reference Scenario by the NRWG.				100.00		100.00
Grandtotal 3		\$845.00	\$250.00	\$165.00	\$15.00	\$1,275.00

Component 4: Design a Monitoring System

Rationale

In 1967, various forest monitoring efforts were undertaken by the Government's Forestry Service (LBB), but they were not consolidated into a full and complete forest inventory and monitoring program. In recent years, the Foundation for Forest Management and Production Control (SBB, established in 1998) has started to prescribe exploratory surveys, a 100% stock survey of logging units for intensively managed concessions, and the production of a cutting register for every felled log in each logging unit. This provides a reliable sample of the actual output achieved, but it is only a partial monitoring solution. Small to medium sized forest inventory, mapping, and remote sensing analyses are carried out by the Centre for Agricultural Research in Suriname (CELOS), which is linked to the Anton de Kom University of Suriname. This centre is active in various areas of agriculture and forestry research and can contribute to the development of a national forest monitoring system. Its forestry department conducts research activities through the development of sustainable forest management systems, while its GIS and remote sensing department, i.e Natural Resources and Environmental Assessment (NARENA), is responsible for the inventory of Suriname's natural resources and for monitoring the effects of human interventions on the natural resources and the environment. For the development of Suriname's R-PIN, a quick assessment was made of the design of a national monitoring system. This resulted in identification of the following constraints, which need to be addressed in the near future

- There are few time series of classified remote sensing data maintained to monitor changes in forest cover;
- Tracking of permitted land clearing activities through the compliance process is insufficient, due to the magnitude and dispersal of unauthorized activities and incomplete monitoring for compliance;
- Capacity building to deal with remote sensing and GIS information;
- Continuation of systematic national forest inventory systems to directly monitor forest biomass and to accurately model forest degradation; and
- An institute with a systematic and standardized approach is needed.

In June 2009, the Prince's Rainforest Project and the Government of Norway published the report 'An assessment of national forest monitoring capacities in tropical non-Annex 1 countries: Recommendations for capacity building'. This report provides a basis for countries like Suriname to assess their existing capacities and to specify steps to improve their monitoring system. The recommendations with regard to Suriname are:

1. Capacity building to conduct regular forest inventories and mapping;
2. Increase of skills, expertise and knowledge regarding GIS and monitoring; and
3. Capacity building for biomass monitoring, carbon accounting and measurement plots.

The report provides useful information and recommendations on the current capabilities of Suriname and will be considered in the design of the national monitoring system.

Summarize your proposed approach to designing the monitoring system

The development of a national monitoring system for measuring, reporting and verifying (MRV) emission reductions and removals of greenhouse gases is important to demonstrate credible reductions in deforestation and forest degradation.

The objective of the national monitoring system is to conduct activities to come to accurate and consistent datasets of forest area change monitoring, as well as carbon stock and carbon stock change estimation monitoring.

The following activities will be conducted to come to a national monitoring system:

1. **Assessment of existing monitoring capacities.** Although the above-mentioned report gave an overview of the current status and recent trends of resources, capacities, technologies and data about existing monitoring systems in Suriname, it is important to conduct an in-depth assessment, which is crucial for institutions to strengthen their relevant capacities for existing forest data and monitoring systems and to come to a feasible and effective design plan. The assessment will inclusively focus on:
 - a. Roles and responsibilities of relevant institutions and their linkage with MRV;
 - b. Current resources (financial and knowledge) of relevant institutions regarding MRV. The assessment will consider the national REDD+ actions and monitoring challenges.
 - c. Current technologies (hardware and software) of relevant institutions regarding MRV. Component 3 already provides a general overview of existing technologies. However, in-depth assessment will focus on all relevant institutions that have technologies and capacities for the MRV, as well as remote sensing technical challenges.
 - d. Current national, regional and international collaboration. Besides the Foundation for Forest Management and Production Control (SBB) and CELOS-NARENA, other non-governmental organizations are also conducting monitoring activities. However, the type of monitoring system used and their level of expertise, is not clear.
 - e. Current forest inventory capacities. The focus will be on the growing stock and biomass. Suriname has already conducted forest inventories, which is explained in component 3. However, the inventories were less focused on growing stock, biomass and carbon pools.
2. **Assessment of future capacities.** After abovementioned assessments have been conducted, the relevant institutions will be scaled up through training, workshops, field research and information dissemination, as well as institutional strengthening where necessary.
3. **Increase of knowledge and expertise** within institutions through training, workshops, meetings, seminars and dissemination of information. To come to an effective national monitoring system, there needs to be a good understanding of the following:
 - a. United Nations Framework Conventions on Climate Change (UNFCCC) REDD+ process;

- b. Intergovernmental Panel on Climate Change (IPCC) Good Practice guidelines;
- c. Processing and interpreting remote sensing data
- d. GIS analyses;
- e. Measure plots;
- f. Measure and monitor biomass;
- g. Measure and monitor carbon stocks; and
- h. Carbon accounting;

In-depth assessment, institutional strengthening and capacity building are key issues if Suriname wants to reach its objective. After conducting these activities, the national monitoring systems will be designed through eight phases, which are also described in the report. These phases are:

1. **Planning.** The national REDD+ readiness framework and strategy are developed as described in component 2. Stakeholder meetings will be conducted, and dissemination of information will take place to come to a better understanding of the UNFCCC and REDD+ process, as well as of the MRV and the importance of a national monitoring system. A detailed time schedule with its goals and activities will be developed as described in component 1b.
2. **Design.** The design of a national monitoring programme will be presented. The results from the assessment will be of great importance to come to an effective design whereby continuity is highly desired. At this stage the following programs will be developed:
 - a. A plan for institutional capacity building and short/long term improvement;
 - b. A budget and cost estimation for institutional strengthening, capacity building and implementation of the national monitoring programme;
3. **Data collection and monitoring: forest area change.** The results from the land use assessment described in component 2a will be studied to have a good understanding of the drivers of deforestation and forest degradation. All relevant existing data and information will be reviewed and consolidated. Existing historical data will be reviewed in depth, to make a distinction between sufficient and insufficient data. Suriname has access to different data, such as remote sensing data, aerial photographs, historical Landsat and CBERS data, and limited cloud-free SPOT coverage. Radar data (ALOS) that are processed and analyzed with support from the Netherlands (Wageningen University and SARvision) are also available. Optical data to achieve full country coverage should be taken into account.
4. **Data collection and monitoring: carbon stocks changes.** Suriname has little knowledge and experience with carbon stock monitoring. According to the report, Suriname needs to set up a continuous, systematic and standardized national inventory approach to quantify above-/belowground carbon and soil carbon. The development of a national inventory is already described in component 3. However, specific activities will be conducted to come to a complete data collection and monitoring programme for carbon stock changes. The activities recommended by the report, are:
 - a. Capacity building, as described in activity 3;
 - b. Identification of national carbon stock key categories;
 - c. Develop country specific sampling design and stratification;
 - d. Implement field sample plots to derive the following parameters:
 - i. Allometric data (for biomass conversion and expansion);

ii. Carbon fraction values considering country-specific stratification.

5. **Data collection and monitoring from biomass burning.** Slash-and-burn activities occur in the hinterland of Suriname, but there is little information available on the rate of activities. Through assessment, an efficient monitoring programme will be developed to measure emissions from the burning of biomass. Data of active fire and burned areas will be collected and analyzed for sufficiency, as well as continuous in-situ measurements for emission factors.
6. **Accuracy assessment, verification and data treatment.** Suriname has very little experience with this. Capacity building will help to make (governmental) institutions ready for accurate and transparent verification. The training programme will focus on the following:
 - a. Error sources and uncertainties in the assessment process;
 - b. Statistical methods to quantify, report and analyze;
 - c. Techniques to gather, store and analyze data;
 - d. Data analysis;
 - e. Data interpretation;
 - f. Information technology (hard and soft ware);
 - g. Data for spatio-temporal processes affecting forest change, socio-economic drivers, spatial factors, forest management, land use practices and spatial planning;
 - h. Spatial and temporal analysis; and
 - i. Modeling tools.
7. **Regular updating of the reference emission level.** Component 3 gives a full description about the development of the reference scenario. However, the reference emission level needs to be verified and upgraded regularly.

Schedule and sequencing of activities.

Activities	Year 1	Year 2	Year 3	Year 4
Assessment of existing monitoring capacities	X			
Assessment of future capacities	X	X		
Increase of knowledge and expertise	X	X	X	X
The design of the national monitoring systems:				
Planning.....	X	X		
Design.....	X	X	X	X
Data collection and monitoring: forest area change.....	X	X	X	
Data collection and monitoring: carbon stocks changes.....	X	X	X	
Data collection and monitoring from biomass burning.....	X	X	X	
Accuracy assessment, verification and data treatment.....	X	X	X	X

Table 4: Summary of Monitoring Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Assessment of existing monitoring capacities		30.00				30.00
Assessment of future capacities		40.00				40.00
The design of the national monitoring systems	Hire team of international consultants, conduct workshops, meetings, field research, mapping, conduct all activities	910.00	465.00	150.00		1,125.00
Grandtotal 4		\$980.00	\$465.00	\$150.00		\$1,195.00

Component 5: Schedule and Budget

The activities are presented in table 5a.

Table 5a. Timeschedule

Activities	2010	2011	2012	2013
Component 1a				
Establishment of National Forest Carbon Unit and National REDD+ Working Group	x			
Develop a mechanism to gathering information on REDD+ issues, as well as to collect all data	x	x	x	x
Monitoring and recordkeeping of all results and data	x	x	x	x
Formulation of a REDD+ policy	x			
Mainstreaming of REDD+ issues into national policy	x	x	x	x
Development of training programs and time schedules for training, meetings and workshops regarding technical issues of implementation of RPP and REDD+ readiness strategy	x	x	x	
Coordinate consultation and outreach plan	x	x	x	x
Dissemination of information	x	x	x	x
Component 1b				
Conduct awareness training workshops on REDD+ readiness strategy and the implementation of the RPP	x	x	x	x
Conduct meetings with all representatives of traditional Indigenous and Maroon authorities, and Indigenous and Maroon organizations, including local women’s organizations, youth organizations and development organizations	x	x	x	x
Development of training programs, conduct training, develop and disseminate awareness and didactical material and information regarding the implementation of the RPP and REDD+ readiness strategy	x	x	x	x
Component 2a				
Assessment of relevant policies and regulations to reduce deforestation and forest degradation	x	x		
Assessment of institutional capacities and capabilities considering the economic, social, political, environmental context	x	x		
Assessment of institutions with respect to monitoring of deforestation and forest degradation, as well as enforcement of regulations	x	x		
Assessment of direct and indirect drivers and factors inside and outside the forest sector, as well as other issues affecting REDD+	x	x		

Activities	2010	2011	2012	2013
Identification of land tenure, and other issues affecting REDD+ as well as strengthening the land administration	x	x	x	x
Establish mitigation measures for effective policy implementation or development with due account for REDD+		x	x	
Establish mitigation measures for effective monitoring and enforcement		x	x	
Establish programs for capacity building and institutional strengthening;		x	x	
Establish mitigation measures to reduce current and future deforestation and forest degradation through the implementation of REDD+ strategy		x	x	
Costs and potential funding sources analyses.		x		
Component 2b				
Conduct assessment to address interrelated social, political, and economic drivers of deforestation and forest degradation at the national level	x	x	x	
Develop a reference emission level or reference level based on future economic growth (adjustment factor)	x	x	x	
Design transparent financial structures for an equitable distribution of forest carbon benefits		x	x	x
Develop a national forest carbon financial revenue plan		x	x	x
Develop a national-level forest carbon inventory based on IPCC guidelines	x	x	x	
Develop a national-level permanent forest carbon monitoring methodology;	x	x	x	
Develop a methodology for projection and modeling of future emissions from deforestation and forest degradation		x	x	x
Develop a national Reference Emission Level (REL) or Reference Level	x	x	x	
Develop a national Monitoring, Reporting and Verification (MRV) system with due account for GIS and remote sensing	x	x		
Develop a national forest carbon database	x	x		
Develop a forest carbon rights regulatory framework	x	x		
Component 2c				
Development of institutional frameworks for social, economic and legal arrangements, as well as programs for increased institutional capacity	x	x		
Assessment of forest carbon trading mechanism	x	x	x	
Design and implement a national funding/ benefit sharing mechanism	x	x	x	
Design and implement a national forest carbon accounting system	x	x		
Design and implement a mechanism to target financial incentives for REDD+	x	x		
Design and implement a system to verify findings and ensure reliability and accuracy, as well as its protocols	x	x		
Design and implement a REDD+ networking mechanism	x	x		

Activities	2010	2011	2012	2013
Develop a REDD+ reporting structure		x	x	
Develop a plan for capacity building and technology transfer		x	x	
Disseminate information to all stakeholders	x	x	x	x
Stakeholder consultations	x	x	x	x
Component 2d				
Assessment of relevant stakeholders, ranging from (non) governmental institutions to civil society and forest dependent groups.	x			
Development of a consultation plan for the environmental and social impact assessment.	x			
Development of a capacity building program, with due account for relevant training subjects and methods of training.	x	x	x	x
Assessments of the general environmental and social issues in implementation of the REDD+ readiness strategy.	x	x		
Determination of areas for environmental assessments, with due consideration for future programs and projects.	x	x		
Conduct environmental impact assessments	x	x		
Conduct social impact assessments	x	x		
Consultation meetings	x	x	x	x
Development of the ESIA report	x	x	x	x
Component 3				
Conduct modeling for future projections	x	x		
Obtain, review and analyze all relevant data for the development of the reference scenario	x	x		
Conduct field inventories and surveys to measure greenhouse gas emissions	x			
The development of a National Forest Carbon Inventory.	x	x	x	x
The development of a historical baseline.	x			
Capacity building of national institutions for remote sensing monitoring capabilities.	x	x	x	x
Collaboration, training and consultation meetings	x	x	x	x
Review and acceptance of the National Reference Scenario by the National REDD+ Working Group.			x	
Component 4				
Assessment of existing monitoring capacities	x			
Assessment of future capacities	x	x		
Increase of knowledge and expertise	x	x		
The design of the national monitoring systems: Planning	x	x		
The design of the national monitoring systems: Design	x	x		
Data collection and monitoring: forest area change	x	x		
Data collection and monitoring: carbon stocks changes	x	x		
Data collection and monitoring from biomass burning	x	x		
Accuracy assessment, verification and data treatment	x	x		
Consultation meetings and training	x	x	x	

Activities	2010	2011	2012	2013
Component 6				
The development of the M&E Program framework	x	x		
Development of a training manual for the M&E Program and conduct the training.	x	x		
Identification for independent verification.		x		
Consultation meetings and training; dissemination of information	x	x	x	

The detailed budget is presented in the following tables:

Table 1 A: Summary of National Readiness Management Arrangements Budget

Main activity	Sub- Activity	Estimated Cost in US\$ (in thousands)				
		2010	2011	2012	2013	Total
Establishment of the NRWG	Establishment of the unit	15.00	10.00			25.00
	Hire administration officers	14.00	14.00	14.00	14.00	56.00
	Conduct the tasks of the NRWG (coordinate, supervise and evaluate)	20.00	20.00	20.00	20.00	80.00
	Formulate REDD+ policy	30.00				30.00
	Develop a time schedule to conduct training programs	6.00	6.00	6.00	6.00	24.00
Subtotal		85.00	50.00	40.00	40.00	215.00
Establishment of the National Forest Carbon Unit (NFCU)	Establishment of the unit	30.00	15.00	15.00	15.00	75.00
	Hire 5 personal for the NFCU (1 national officer, 2 technical officers, 2 administration officers)	44.00	44.00	44.00	44.00	176.00
	Development of a mechanism to gather all information regarding REDD+	8.00				8.00
	Development of a mechanism to disseminate all information regarding REDD+	6.00				6.00
	Establishment of the REDD+ Consultation and Outreach Committee	30.00	10.00	10.00	10.00	60.00
Subtotal		118.00	69.00	69.00	69.00	325.00
Grandtotal 1a		\$203.00	\$119.00	\$109.00	\$109.00	\$540.00

Table 2a: Summary of Assessment of Land Use, Forest Policy and Governance Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Assessment of relevant policies and regulation to reduce deforestation and forest degradation;	Hire specialists (local consultants)	30.00	20.00			50.00
Assessment of the institutional capacities and capabilities considering the economic, social, political, environmental context;	Hire specialists (local consultants)		30.00			30.00
Assessment of the institutions regarding the monitoring of deforestation and forest degradation as well as the upgrading of existing and development of new regulations;	Hire specialists (local consultants)	30.00				30.00
	Develop and upgrade (existing) regulations	15.00	15.00			30.00
	Meetings, desk research	8.00	5.00			13.00
Assessment of the direct and indirect drivers and factors inside and outside the forest sector	Hire international consultants, meetings and two field visits in the interior, expert consultations	60.00	40.00			100.00
Identification of land tenure and other issues affecting REDD as well as strengthening the land administration	Hire international consultants, meetings and three field visits in the interior	100.00	80.00	80.00	60.00	320.00
Establish mitigation measures for effective policy implementation or development considering the REDD+	Hire international consultants, expert consultations		60.00	10.00		70.00
Establish mitigation measures for effective monitoring and enforcement;	Hire international consultants, expert consultations		60.00	10.00		70.00
Establish mitigation measures to reduce current and future deforestation and forest degradation through the implementation of REDD strategy	Hire international consultants, expert consultations		40.00	10.00		50.00
Analyses of costs and potential funding sources	Hire local consultants, internal meetings, desk research, expert consultations		40.00			40.00
Grandtotal 2a	Total	\$243.00	\$390.00	\$110.00	\$60.00	\$803.00

Table 2b: Summary of Strategy Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Development of the national REDD+ strategy	Hire international consultants, conduct workshops	300.00	150.00	150.00		600.00
Financial analyses	Hire international consultants, meetings, desk research	150.00	100.00			250.00
Analyse methodologies	Hire international consultants, conduct workshops	300.00				300.00
Analyses of institutional capacities	Hire local consultants, meetings. Desk research	60.00				60.00
Expert consultations and training		250.00	100.00	100.00		450.00
Grandtotal 2b		\$810.00	\$250.00	\$150.00		\$1,660.00

Table 2c: Summary of Implementation Framework Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Development of institutional frameworks for social, economic and legal arrangements as well as programs for increased institutional capacity	Hire national consultants, conduct meetings	60.00	50.00			110.00
Assessment of forest carbon trading mechanism	Hire international consultants, design and implement a national funding/ benefit sharing mechanism, conduct workshops	150.00	30.00	5.00		185.00
	Hire international consultants, conduct workshops, design and implement a national forest carbon accounting system	150.00	20.00	5.00		175.00
	Hire international consultants, conduct workshops, design and implement a mechanism to target financial incentives for REDD+	100.00	80.00			180.00
	Hire international consultants, conduct workshops, design and implement a system to verify findings and ensuring transparency, reliability and accuracy as well as its protocols	80.00	20.00			100.00
Design and implement a REDD+ networking mechanism	Desk research, conduct workshops	100.00	50.00			150.00
Development of a REDD+ reporting structure	Desk research, conduct workshops		30.00	10.00		40.00
Expert consultations and training		75.00	50.00	10.00		135.00
Grandtotal 2c		\$715.00	\$330.00	\$30.00		\$1,075.00

Table 2d: Summary of Social and Environmental Impact Budget

Main activity	Sub- Activity	Estimated Cost in USD (in thousands)				
		2010	2011	2012	2013	Total
Areas for environmental assessments are determined considering areas for future programs and projects.	Hire international consultants	70.00	25.00			95.00
	Conduct field research	80.00	80.00			160.00
	On site training	200.00	75.00			275.00
Conduct environmental impact assessments	Hire team of international/national consultants	175.00	25.00			200.00
	Conduct field research and meetings	50.00	50.00			100.00
Conduct social impact assessments	Hire team of international/national consultants	200.00	300.00			500.00
	Conduct field research and meetings	50.00	50.00			100.00
Development of the ESIA report (including technical and non-technical summaries in local and traditional languages)				150.00		
Expert consultations and training		30.00	15.00			45.00
Grandtotal 2d		\$855.00	\$620.00	\$150.00		\$1,475.00

Table 3: Summary of Reference Scenario Budget

Main activity	Sub activity	Estimated costs in thousands \$				
		2010	2011	2012	2013	Total
Development of the national reference scenario	Hire team of consultants, conduct workshops, meetings, field research, mapping					
	Conduct modeling for future projections	145.00	75.00			220.00
	Obtain, review and analyze all relevant data for the development of the reference scenario	120.00	55.00			175.00
	Conduct field inventories and surveys to measure greenhouse gas emissions	250.00				250.00
	The development of National Forest Carbon Inventory.	30.00	10.00	5.00	5.00	50.00
	The development of a historical baseline.	50.00				50.00
	Capacity building of national institutions regarding remote sensing monitoring capabilities.	150.00	10.00	10.00	10.00	180.00
Collaborations, training and consultation meetings	Expert consultations and training	100.00	100.00	50.00		250.00
Review and acceptance of the National Reference Scenario by the NRWG.				100.00		100.00
Grandtotal 3		\$845.00	\$250.00	\$165.00	\$15.00	\$1,275.00

Table 4: Summary of Monitoring Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
Assessment of existing monitoring capacities		30.00				30.00
Assessment of future capacities		40.00				40.00
The design of the national monitoring systems	Hire team of international consultants, conduct workshops, meetings, field research, mapping					
	Planning and design	10.00	5.00			15.00
	Data collection, measurements and monitoring	200.00	150.00			350.00
	Data collection, measurements and monitoring: carbon stocks changes	300.00	40.00			340.00
	Data collection, measurements and monitoring from biomass burning	200.00	100.00			300.00
	Accuracy assessment, verification and data treatment		70.00	50.00		120.00
	Expert consultations and training	200.00	100.00	100.00		
Grandtotal 4		\$780.00	\$365.00	\$50.00		\$1,195.00

Table 6: Summary of Program M&E Budget

Main activity	Sub- Activity	Estimated Cost in U\$D (in thousands)				
		2010	2011	2012	2013	Total
The development of the program M&E framework	Hire specialists (local consultants)	30.00				30.00
	Meetings	6.00				6.00
The development of a training manual for the program M&E and conduct the training.	Hire specialists (local consultants)	17.00	10.00			27.00
	Expert consultations and training	15.00	15.00			30.00
	Evaluation		10.00			10.00
Dissemination of information		5.00	5.00			10.00
Grandtotal 6		\$73.00	\$40.00			\$113.00

GRAND TOTAL RPP

Activities	Estimated Cost in U\$D (in thousands)
Component 1a: National Readiness Management Arrangements	540.00
Component 1b: Stakeholder Consultation and Outreach Plan	7,100.00
Component 2a: Assessment of Land Use, Forest Policy and Governance Activities	803.00
Component 2b: Strategy Activities	1,660.00
Component 2c: Implementation Framework Activities	1,075.00
Component 2d: Social and Environmental Impact Activities	1,475.00
Component 3: Reference Scenario Activities	1,275.00
Component 4: Monitoring Activities and Budget	1,195.00
Component 6: Program M&E Activities and Budget	113.00
GRAND TOTAL RPP	\$15,236.00

Component 6: Design a Program Monitoring and Evaluation Framework

Rationale

The National Monitoring and Evaluation (M&E) Program is a nationally organized effort to deliver socio-economic services to target efficient and transparent management of Suriname's resources. The level of program evaluation is focused on national and sub-national sites. To perform activities in this program, skills and resources are required such as, research, statistical data analyses, special software to perform modeling and evaluation and policy analysis and report writing. The goal of the National M&E Program framework is to develop a sustainable monitoring, evaluation and reporting framework for the REDD+ readiness strategy.

Summarize your proposal

The overall purpose of monitoring and evaluation is to track changes in program performance over a certain time and to attribute program outcomes to their causes. The M&E Program is a continuous cycle of participation and communication and it promotes learning and adaptive management in response to progressive monitoring and evaluation. This leads to improvement of designed programs and achievements.

The development of a National Monitoring and Evaluation Program framework is the responsibility of the NRWG, which assesses the performance of the implementation of the RPP and the REDD+ readiness strategy.

The objective of the M&E Program framework is to create steps for the achievement of REDD+ readiness goals and continuous performance. It is also intended to give guidance on the development and implementation of evaluation plans.

To come to a National M&E Program framework, the following will be considered:

1. Development of the program logic to determine when and what to evaluate, so that existing or available resources can be used effectively and efficiently. A model will assist in developing appropriate processes and outcome measures. The development of the program logic will take the following into consideration:
 - a. Key evaluation questions and methods;
 - b. Performance of indicators.
 - c. Targets for outcomes;
 - d. The desired changes expected on national and sub-national levels.
2. Monitoring in the context of the M&E Program ensures that appropriate data is available to assess and to track changes in program performance over time. Monitoring involves the collection and analysis of information to assist timely decision making and it provides the basis for evaluation and learning. The monitoring process will consider the following:
 - a. Development and definition of indicators to measure progress;
 - b. Data collection mechanisms;
 - c. Data analysis to determine output, outcomes and trends;

- d. Data verification, validation and system clean up;
 - e. Reports on the monitoring results;
 - f. Distribution and feedback mechanisms across all relevant stakeholders.
3. Evaluation in the context of the M&E Program encompasses assessment of the REDD+ readiness strategy and it includes internal and external evaluation processes. It also attributes the REDD+ readiness program outcomes to its causes. The evaluation process will take into account:
 - a. The development of assessment frameworks;
 - b. Evaluation at every stage of investment, program planning and implementation;
 - c. Agreement on evaluation methods;
 - d. Output, outcomes and financial reports.
 4. Capacity is required to conduct activities. Therefore, an assessment of institutional capacity will be carried out focusing on the existing M&E instruments and the proposed way forward for the M&E framework.
 5. The development of a training manual for the M&E Program is required to build the capacity of the National Forest Carbon Unit, National REDD+ Working Group and other relevant institutions. The M&E Program framework of REDD+ performance is a responsibility of the National REDD+ Working Group, which will evaluate the performance against set goals, targets, equitableness of resource allocation, and effectiveness and efficiency.
 6. Identification for independent verification.

Timeschedule and sequencing of activities

Activities	Year 1	Year 2	Year 3	Year 4
The development of the M&E Program framework	X	X		
Development of a training manual for the M&E Program and conduct the training.		X		
Identification for independent verification.		X		

Table 6: Summary of Program M&E Budget

Main activity	Sub- Activity	Estimated Cost in US\$ (in thousands)				
		2010	2011	2012	2013	Total
The development of the program M&E framework	Hire specialists (local consultants), conduct meetings	36.00				36.00
The development of a training manual for the program M&E and conduct the training.	Hire specialists (local consultants), expert consultation and training, evaluation	32.00	35.00			67.00
Dissemination of information		5.00	5.00			10.00
Grandtotal 6		\$73.00	\$40.00			\$113.00

Annexes (Optional)

Annex 1a: TOR National Readiness Management Arrangements

1. Establish a National REDD+ Working Group with representatives of governmental and non-governmental organizations, forest dependent communities (Indigenous and Maroon communities), the academia, civil society, and the timber industry..
2. Establish a National Forest Carbon Unit as a technical unit of the National REDD+ Working Group, with three departments (technical, administrative, and consultation and outreach). In particular the consultation and outreach department will require expertise to ensure that the consultation and outreach plan described in component 1b is effectively implemented.
3. Design a mechanism to gather all relevant information and disseminate it to and from the National REDD+ Working Group, National Forest Carbon Unit and all relevant stakeholders.
4. Develop an efficient time schedule to conduct training programs for the implementation of the RPP and REDD+ readiness strategy, with due consideration for the tasks of the National REDD+ Working Group and the National Forest Carbon Unit.
5. Conduct research studies on forest carbon ownership.
6. Develop REDD+ policy, and benefit sharing mechanisms, with due account for the REDD+ readiness strategy.

Annex 1b-1: Stakeholder Consultations Held So Far on the R-PP

The Ministry of Physical Planning, Land and Forest Management (RGB) organized three stakeholders meetings with the aim to develop the RPP in collaboration with governmental and non-governmental stakeholders, Indigenous and Maroon organizations, district commissioners and their sub-regional coordinators, the private sector, civil society, timber industries and academia.

The stakeholders meetings are presented below.

- ***1st stakeholders meeting (July 6, 2009).*** The focus was on the development of the consultation and outreach plan. The method for communication, consultation, identification of relevant stakeholders and the effects of the implementation of the consultation plan were presented. A total of 34 participants attended this meeting. The participants had the opportunity to give comments, recommendations, advice and ask questions which are summarized as follows:
 - i. *‘Is the use of wood a good alternative for the generation of energy?’;*
 - ii. *‘What are the preparation activities of the RPP in the next three years and what are the activities after 2012?’;*
 - iii. *‘Is this an ongoing process?’;*

- iv. *'Adjust the list of NGO's';*
 - v. *'Better classification of the Surinamese community (public sector, private sector, institutions etc)';*
 - vi. *'The use of F-PIC';*
 - vii. *'The use of a better methodology to consult and inform the Indigenous and Maroon people about REDD and REDD activities';*
 - viii. *'What is mentioned in the R-Pin of Suriname about the forest dependent people?';*
 - ix. *'Acknowledgement of the land rights of the Indigenous and Maroon people';*
 - x. *'Better information to the Indigenous and Maroon people';*
 - xi. *'Who and which institutions will be responsible for the distribution of information';*
 - xii. *'Make a baseline study about forests and the forest industry';*
 - xiii. *'The Council of ministers must be informed about REDD+ and REDD+ issues'; and*
 - xiv. *'Make up a better consultation and information plan';*
- ***The 2nd stakeholders meeting (July 3, 2009).*** The focus was on the components 2, 3 and 4. A total of 22 participants attended the meeting. The participants had the opportunity to give comments, recommendations, advice and ask questions which are summarized as follows:
 - i. *'What will be the key role and the main activities of the National Forest Carbon Unit?';*
 - ii. *'Will it be an independent institution or will it be linked to the ministry of RGB?';*
 - iii. *'What will be the role of NIMOS in the National Forest Carbon Unit?';*
 - iv. *'Mention or add nongovernmental institutions clearly';*
 - v. *'The use of preceding studies of the drivers of deforestation before assessments are carried out';*
 - vi. *'Is REDD the correct solution for Suriname given the current changes in the climate of Suriname?';*
 - vii. *'It is better to use a list of experts instead of a list of institutions';*
 - viii. *'Need of strengthening and capabilities of all relevant governmental and nongovernmental institutions';*
 - ix. *'Take into account the political fragmentation of institutions';*
 - x. *'What are the job opportunities in the REDD+ process?';*
 - xi. *'The use of the term 'forest dependent people needs to be considered';*
 - xii. *'Application of international terminology regarding Indigenous and tribal communities';*
 - xiii. *'How will the ownership of carbon credits be divided?';*
 - xiv. *'Who will be involved in the monitoring process?';*
 - xv. *'A social impact assessment is not widely used';*
 - xvi. *'The use of other systems to consult and inform the forest dependent people';*

- xvii. *‘A schematic reproduction of the REDD activities is needed’;*
- ***The 3rd stakeholders meeting (August 17, 2009).*** The focus of this meeting was on the components 1 and 6. A total of 33 participants attended the meeting. The participants had the opportunity to give comments, recommendations, advice and ask questions which are summarized as follows:
 - i. *‘The use of existing regulations or must new regulations be implemented?’;*
 - ii. *‘Addition of more languages of the traditional communities’;*
 - iii. *‘Recognition of the Saramacca Verdict’;*
 - iv. *‘The use of traditional ways to communicate with the Indigenous and Maroon people’;*
 - v. *‘Recognition of the rights of the Indigenous and Maroon people’;*
 - vi. *‘A hard copy of the RPP must be distributed in the local language’;*
 - vii. *‘Emphasize independent verification’*
 - viii. *‘What were the activities executed in the period from march 2009 until now regarding REDD+?’; and*
 - ix. *‘Dissemination of information to the forest dependent people’.*

Annex 1b-2: Consultation and Participation Plan

Map of Suriname



Villages in Suriname (source: Statistic Bureau)

Dorpen per Ressort.xls

DORPEN PER RESSORT IN SURINAME

Dorpen per Ressort.xls

DISTRIKT	RESSORT	DORPEN van NOORD naar ZUID	DISTRIKT	RESSORT	DORPEN
Saramacca	Tijgerkreek	geen	Sipaliwini	Boven Coppename	Corneliskondre, Donderskamp, Kaaimanston, Wayambo, Witagron
	Calcutta	Batavia, Kalebaskreek		Boven Saramacca	Baling, Bethel, Boslanti, Kwatahede, Makaja pingo, Misalibi, Nw. Jacobkondre, Bilawatra, Padua, Paka Paka, Pijeti, Piniel, Poesoegroenoe, Soekibaka, Tevreden, Vertrouwen, Wanhatti
	Kampong Baroe	Maho, Totokamp		Boven Suriname	Abenaston, Adawai, Akisamaw, Akwawkondre, Amakakondre, Asidonhopo, Asawbasoe, Begron, Bendikwai, Bendiwatra, Pamboko 1 en II, Bofroekoele, Botopasi, Danpati, Dan, Dawme, Debika, Deboo, Djindjeston, Djoemoe, Futunakaba, Godowatra, Godoholo, Goejaba, Gunsil, Grantatai, Granslee, Hekoenoenoe, Jawjaw, Kajana, Kajapatie, Kambaloewa, Konoi, Dangogo I en II, Kroetoetin, Laduani, Tjalikondre, Ligoio, Lipsansi, Maisiakriki, Malobi, Nw. Aurora, Paloelobasoe, Penpen, Pikinslee, Pokigron, Semoisi, Solang, Ston-oekeo, Toemanpa, Coeroeni, Allalapadu, Coeroeni, Kwamalamamutu, Sipaliwini
	Groningen	Columbia, Grankreek		Kabalebo	Apoera, Washabo, Section, Taparahony, A dosiang I en II, Anapaika (Kawemhakan), Apelina, Benanoe, Bendsorp, Bonnidoro, Clementie, Cottica, Drietabbetje, Gobaja ini, Godoholo, Godsbazukondre, Granborie, Jamaica I en II, Jawsa, Karmel, Kisai (Duwatra), Langatabiki, Loka loka, Mainsie, Mankatapoe I, II, III en VI, Manlobi, Mooitaki, Nason, Palumeu, Peleletepoe, Pikinkondre, Poeketi I en II, Poeloegoedoe, Polokaba, Pompiloly, Powi, Saaje, San ben doemi, Sangamasoesa, Skin tabiki I en II, Stoelmanseliland, Tabikihede, Tabiki, Tjon tjon, Fandakie, Wanfinga,
Marowijne	Albina	Erowate, Tapoehoekoe, Bamboesi, Pierrekondre, Marijkedorp, Alfonsdorp, Papatamkondre, Manjabon, Chikaikondre, Bilokondre, Akolokondre, Bigiston			
	Gallibi	Gallibi, Langamankondre, Christiaankondre			
	Moengo	Ricanaurnofo, Palatakondre, Tangnanga lanti, Akoejoetoe kondre, Happyland, Peto Ondro, Abadoekondre, Bematie Mofo, Akalekondre, Kraboeholo, Pelgrimkondre, Morakondre, Dang Tapoe			
	Moengo Tapu	Toekonie, Adjoemakondre, Moengo Tapoe			
	Patamacca	Ovia Olo, Kasabaondro, Patamacca, Lemtilbon, Sokekondre, Santoniadorp, Apaikondre, Mopikondre, Pakirakondre, Maria's Hope			
	Wanhatti	Wanhatti, Calbo, Lantwee, Pinatjarimi, Pikinsanti, Tamarin, Langa Oekoe 1+2, Malokokondre, Manjabon			
Para	Bigi Poika	Bigi Poika,			
	Carolina	Pierrekondre, Redi Doti, Cassipora			
	Noord	Bernhardorp			
	Oost	Powakka			
	Zuid	Witsanti, Hollandsekamp, Cabendadorp, Metta, Pikin Saron			
Brokopondo	Centrum	Victoria, Boslanti, Asigron, Drepada, Tapoeripa, Compagniekreek I-II, Bailingsoela, Brokobaka, Afobaka			
	Brownsweg	Nw. Koffiekamp, Blirhoedoematoe, Makambi, Nw. Gansee, Kadjoe, Djankakondre, Wakibasoe I-II			
	Klaaskreek	Kapasikele, Moejekreek, Klaaskreek, Nw. Lombe			
	Kwakoegron	Kwakoegron, Commissariskondre, Makakriki,			
	Marchalkreek	Phedra, Rama, Eendracht, Aliasabaka			
	Sarakreek	Lebidonij, Bachoe, Pisjan, Doewatra, Baikeoetoe, Pikiopada, Banafoekondre, Bekiokondre			

Annex 2b: TOR REDD Strategy Options

1. Develop an assessment report for addressing the interrelated social, political, and economic drivers of deforestation and forest degradation at the national level;
2. Develop a strategy to address the interrelated social, political, and economic drivers of deforestation and forest degradation at the national level;
3. Develop a reference emission level or reference level based on future economic growth (adjustment factor);
4. Design transparent financial structures for an equitable distribution of forest carbon benefits ;
5. Develop a national forest carbon financial plan revenue;
6. Design a national forest carbon accounting system which will include the following:
 - A national-level forest carbon inventory based on IPCC guidelines;
 - A national-level permanent forest carbon monitoring methodology;
 - A methodology for projection and modeling of future emissions from deforestation and forest degradation;
 - A national Reference Emission Level (REL) or Reference Level;
 - A national Monitoring, Reporting and Verification (MRV) system with due account for GIS and remote sensing;
 - A national forest carbon database;
 - A forest carbon rights regulatory framework.
7. Develop project demonstration activities, taking into account land use and reversing deforestation and forest degradation trends that promote alternative livelihoods;
8. Establish clear standards to make forest carbon credits easily tradable and bankable;
9. Conduct training and consultation meetings to inform, build capacity, set up collaboration within governmental and non-governmental institutions to manage the REDD+ readiness strategy.

Annex 2c: TOR REDD+ Implementation Framework

1. Develop an assessment report on policy, legal and institutional settings;
2. Develop an assessment report on forest carbon trading mechanisms;
3. Design a system to verify findings and ensure reliability and accuracy;
4. Develop criteria for the selection of REDD+ demonstration sites and pilot activities;
5. Develop a plan for capacity building and technology transfer;
6. Establish a national REDD+ readiness framework with its components:
 - a. Baseline determination
 - b. Verification measures
 - c. Monitoring and regular reporting
 - d. Forest Carbon financial mechanisms
 - e. Stakeholder consultations and engagement

- f. Institutional arrangements: social, economic, legal and governance
- g. Capacity building and research
- h. Dissemination of information and networking
- i. Submissions of REDD+ proposal
- j. Forest carbon market access
- k. Demonstration sites and the criteria for selection
- l. Pilot activities

Annex 2d: TOR Social and Environmental Impact Assessment

1. Develop a consultation plan for the environmental and social impact assessment and to discuss the national ESIA guidelines.
2. Develop a capacity building program.
3. Conduct assessments of the general environmental and social issues when REDD+ is implemented.
4. Conduct assessments of all relevant policies and legislation
5. Determine areas for environmental assessments containing the following:
 - i. Baseline studies
 - ii. The compatibility of the proposed area or project with respect to other land uses within the proposed or project areas.
 - iii. Analyze environmental opportunities and
 - iv. Develop an environmental monitoring plan
6. Develop social impact assessments considering the national ESIA guidelines of NIMOS.
 - i. The social effects and risks of implementation of a funding/ benefit sharing mechanism
 - ii. Analyze of socio-economic opportunities and risks
 - iii. Develop a social monitoring plan to monitor social risks and to mitigate the social impacts
 - iv. Conduct consultations according to component 1b considering the ESIA guidelines of NIMOS.

Annex 3: TOR Reference Scenario

1. All relevant data will be obtained, reviewed and analyzed to be used for the development of a national reference scenario. All data will be recorded in the National Forest Carbon Inventory.
2. Conduct a feasibility study to find out whether proposed approaches for estimating baselines are feasible for Suriname, focusing on investments, data collection and analyzing, institutional capacities and continuation.
3. Field inventories and surveys to give the value of greenhouse gas emissions.
4. Develop a historical or “reference period” baseline.
5. Develop the terms of reference to review and accept the National Reference Scenario.
6. Publish the national reference scenario, which is based on the future COP decisions in this regard.
7. Develop and implement a National Forest Carbon Inventory. Conduct institutional strengthening, training, consultation meetings, workshops and information dissemination for capacity building.

Annex 4: TOR Monitoring System

1. Develop an assessment report of current and future monitoring capacities.
2. Develop a national monitoring system including:
 - a. forest area change,
 - b. carbon stocks,
 - c. biomass burning
 - d. accuracy, verification and data treatment

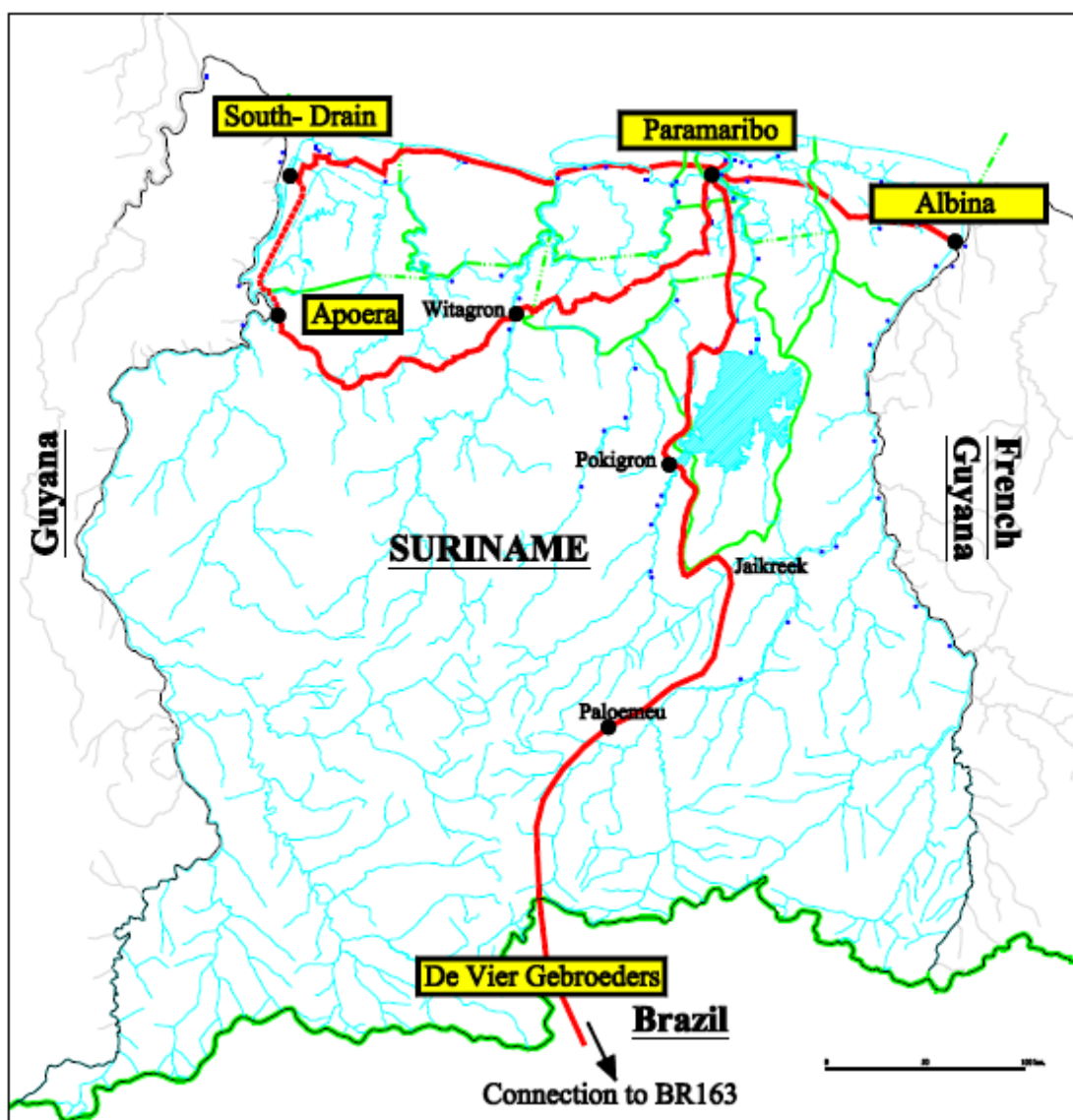
Annex 6: TOR Program Monitoring and Evaluation

1. Develop a program logic considering:
 - a. Key evaluation questions and methods;
 - b. Performance of indicators.
 - c. Targets for outcomes;
 - d. The desired changes expected on national and sub-national levels.
2. Develop a monitoring system in the context of the M&E Program consider the following:
 - a. Develop and define indicators to measure progress;
 - b. Establishment of data collection mechanisms;
 - c. Determine data analysis for outputs, outcomes and trends;
 - d. Data verification, validation and system clean up;
 - e. Report on the monitoring results;

- f. Develop mechanism for distribution and feedback across all relevant stakeholders.
- 3. Evaluation in the context of the M&E Program will take into account:
 - a. Develop assessment frameworks;
 - b. Evaluate at every stage of investment, program planning and implementation;
 - c. Agree on evaluation methods;
 - d. Conduct output, outcomes and financial reports.
- 4. Develop training manual for the M&E Program.
- 5. Identify independent verification.

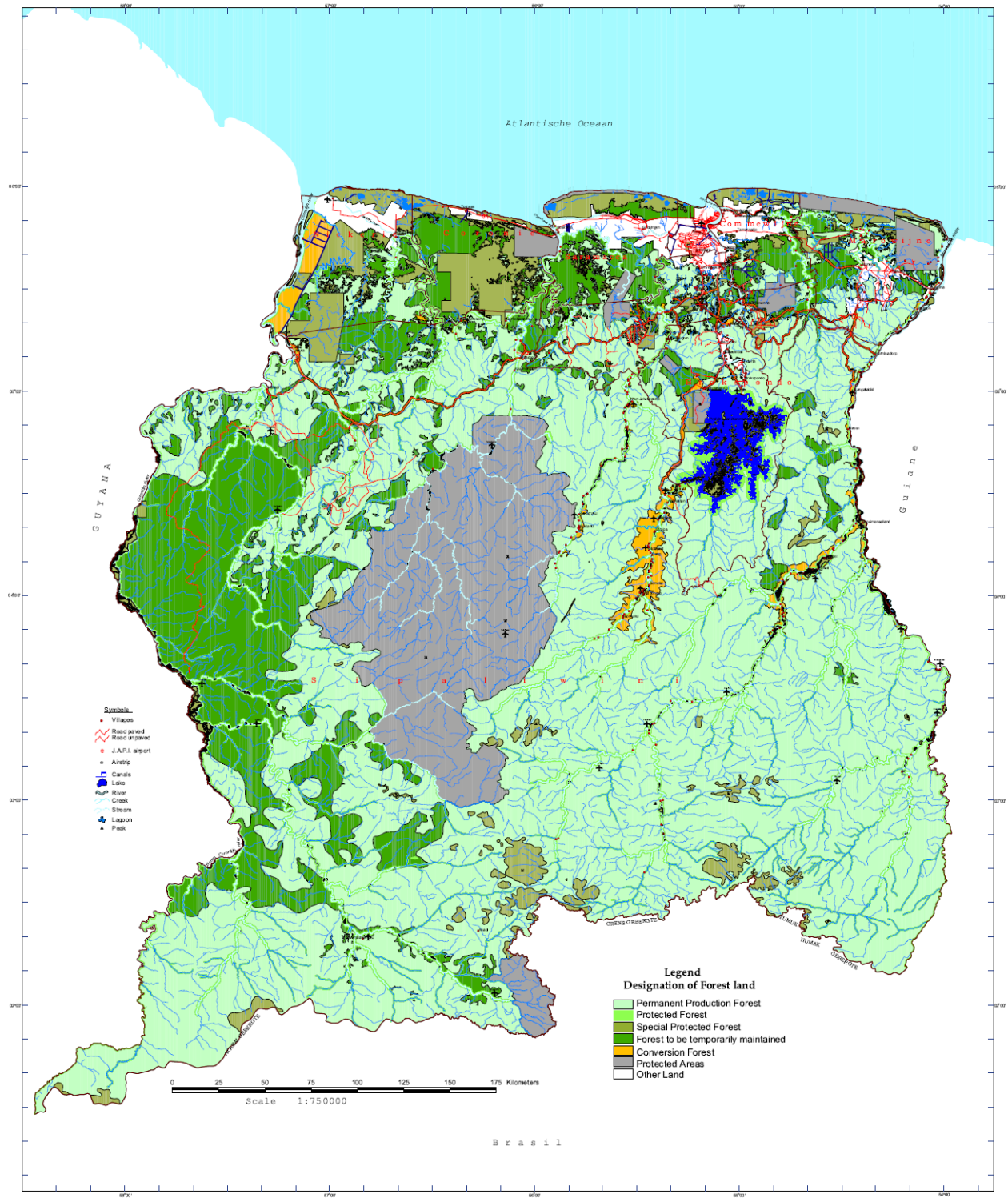
Annex 7 MAPS

Proposed route of the IIRSA project



Indicative Forest Classification Map of the Republic of SURINAME

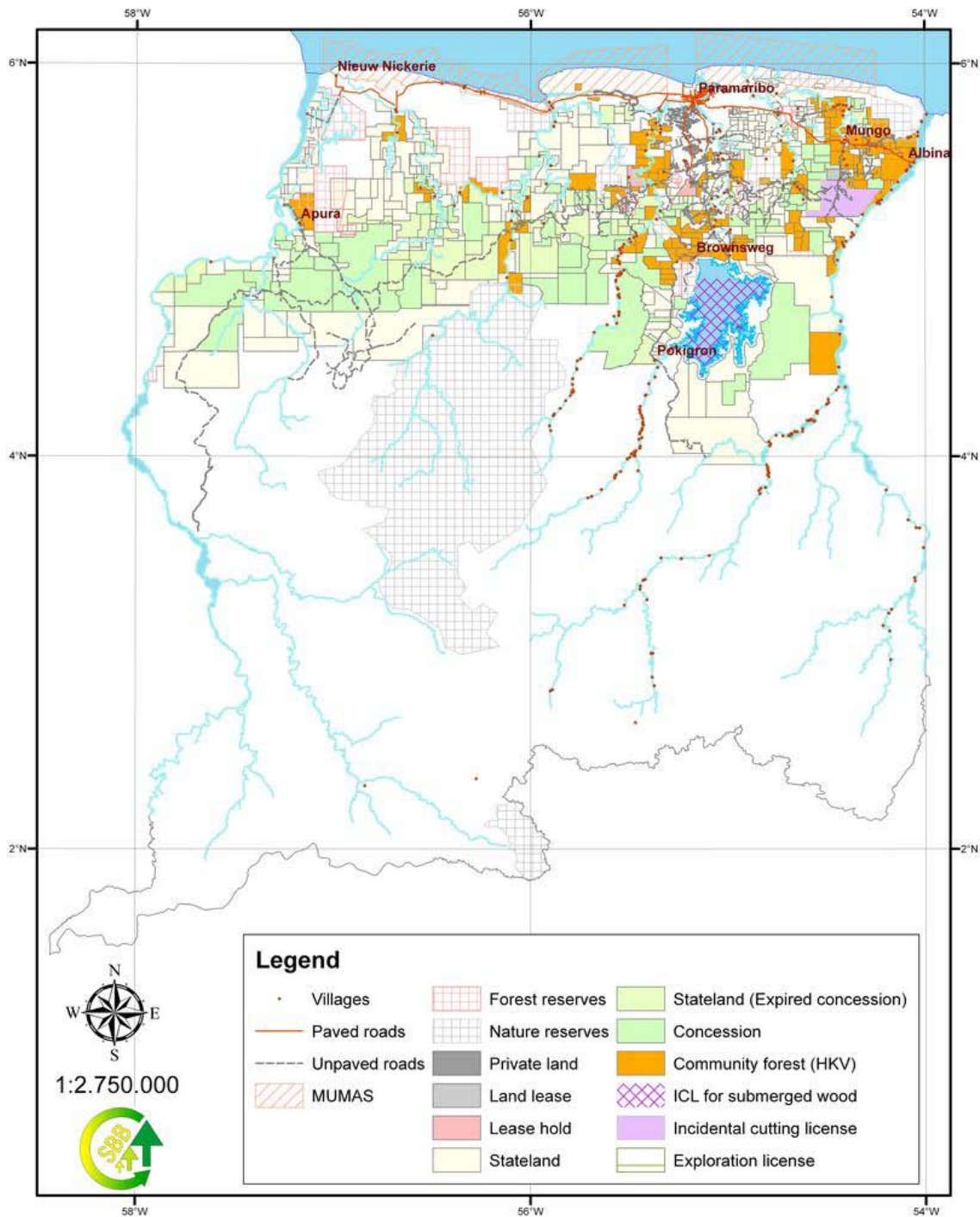
[In implementation of the Forest Management Act 1992, (S.B. 1992 no. 80, art. 4 en 5)



SOURCES:
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 C.B.L. (Central Bureau of Aerial Survey)
 F.A.O. (S.C.P. / SUR / 001 / NET)
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 S.B.B. (Foundation for Forest Management & Forest Control)

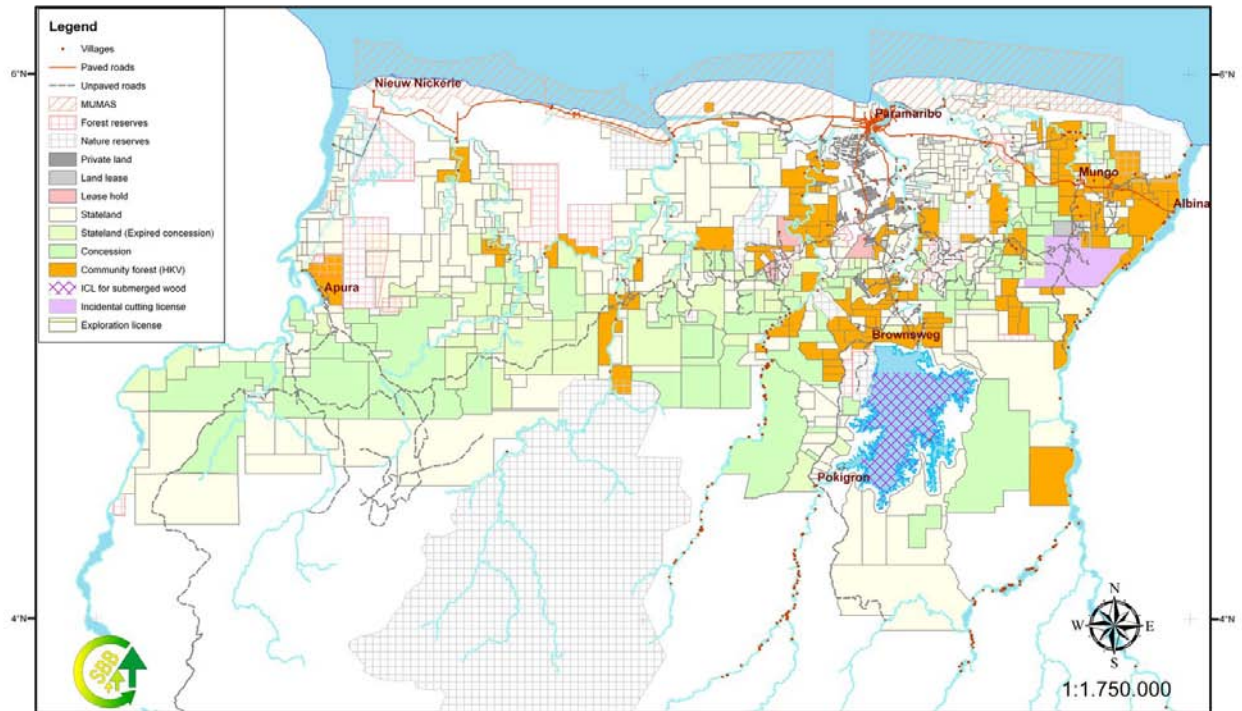
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REPUBLIC OF SURINAME
 Ministry of Physical Planning, Land- and Forest Management
 Overview of the timber licenses north of the 4th latitude, August 2009



Datasources: Narena (CELOS), Ministry of Physical Planning, Land- and Forest Management (ROGB), The Foundation for Forest Management and Production Control (SBB)

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