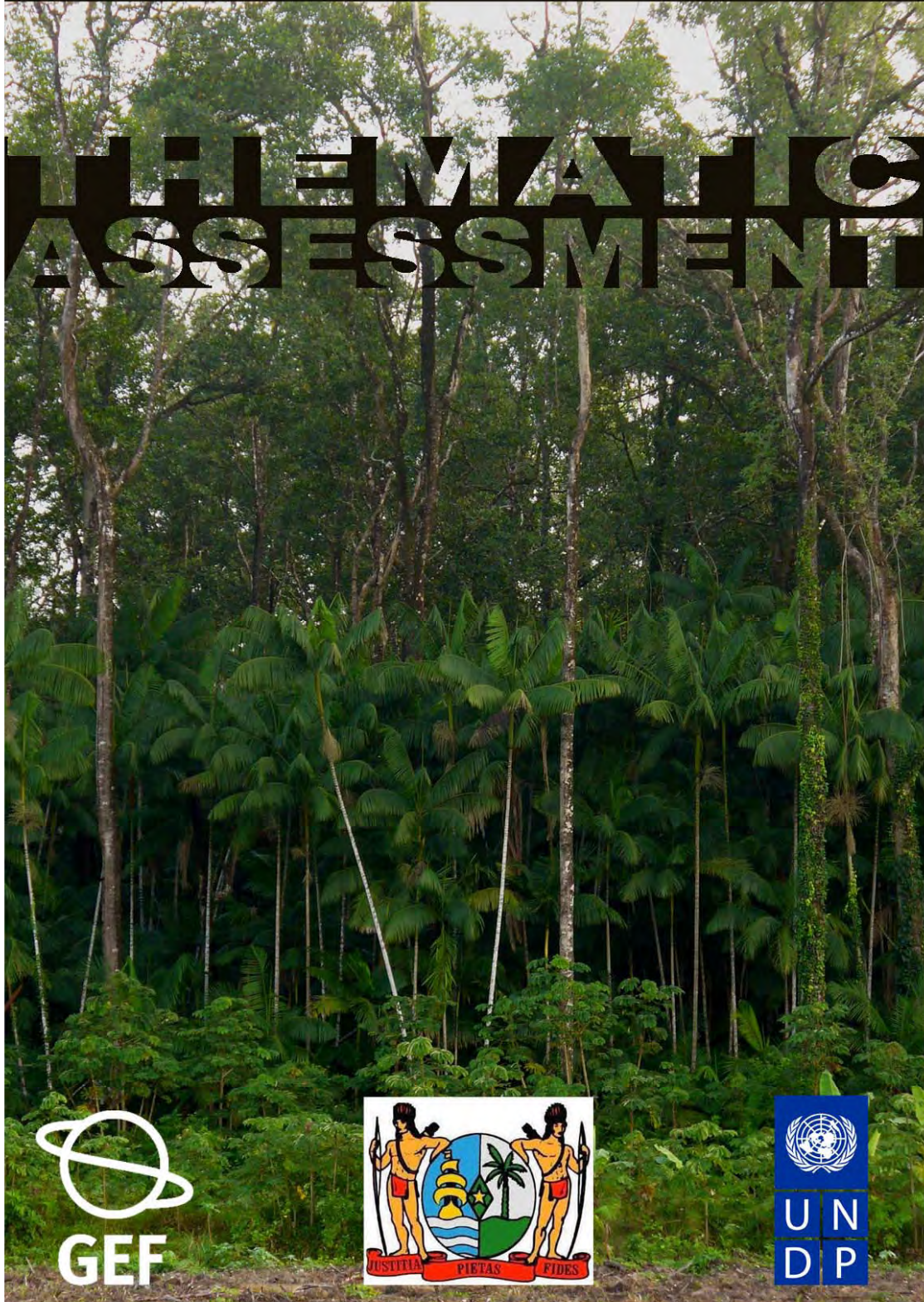


National Capacity Self-Assessment
in relation to the
**United Nations Convention
on Biological Diversity
(UNCBD)**



Prepared for the Ministry of Labour, Technological
Development and Environment in Suriname

Bart De Dijn, ESS
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Suriname National Capacity Self Assessment

Thematic Assessment in relation to the United Nations Convention on Biological Diversity (CBD)

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Bart De Dijn (BDD)

senior consultant

bartdedijn@ess-environment.com or dedijn@yahoo.com

Environmental Services & Support (ESS)

info@ess-environment.com



submitted via email to:

Janine den Hartog – Symbiont Consulting

Mariska Riedewald – min. Labor, Technological Development & Environment

The views expressed in this publication are those of the author(s) and do not necessarily represent those of the United Nations, including UNDP, or their Member States.



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Executive Summary

This report presents the backgrounds and results of a thematic assessment of capacity constraints that Suriname is faced with in the context of the implementation of the United Nations (UN) Convention on Biological Diversity (CBD). The assessment has been undertaken by biodiversity expert Bart De Dijn (BDD) of the consultancy firm Environmental Services & Support (ESS). The work has been commissioned by the Suriname Ministry of Labour, Technological Development and Environment (ATM).

Three activities were undertaken as part of the thematic assessment:

- completion of stocktaking (e.g. stakeholder analysis)
- the actual thematic assessment
- exploration of synergies (between CBD and other UN environmental treaties)

The most important stakeholders are identified:

- the Ministry of Spatial Planning, Land and Forest Management (RGB)
- the Forest Service (LBB)
- the Foundation for Forest Management and Production Control (SBB)
- the University of Suriname (UvS)
- the Center for Agricultural Research (CELOS)
- the Ministry of Agriculture (LVV)
- the Ministry of Planning & Development Cooperation (PLOS)
- the National Planning Office (NPO)
- the IPR unit of the Ministry of Justice & Police (JP)
- the Ministry of Labour, Technological Development and Environment (ATM)
- the National Institute for Environment & Development (NIMOS)

A total of 68 recent initiatives in Suriname that are relevant to the CBD are listed. These are associated with global, regional, and national government agencies or NGOs. More than half of these are coordinated by statal or para-statal organizations in Suriname; the rest is coordinated by multilateral agencies, international or local NGOs (incl. communities).

Based on the study of relevant policy and planning documents, and based on gap and constraint analyses, it is concluded that the following main capacity building actions would need to be undertaken to ensure that Suriname can honor its commitments under the CBD:

- provide education and training opportunities for professionals that deal with biodiversity-related issues as part of their work, especially for those in the forest sector, for those dealing with biotechnology, and for those employed by the government; within government organizations, improve the salaries and career perspectives, and ensure that individual performance is evaluated, based on better described / framed individual tasks and functions
- clarify the mandate of organizations within or linked to the government that deal with environmental issues; also improve the transparency (accountability) of these organisations; provide the planning office with an effective mandate; clarify the mandate of the council and different commissions dealing with land rights
- strengthen the organizations in charge of coordinating environmental policy and implementing it, e.g. by empowering them by law
- strengthen the organizations that regulate and manage forests, protected areas, genetic resources and Intellectual Property Rights (IPR), with special attention for strengthening their law enforcement capabilities; also strengthen the organizations

that regulate use of mineral and water resources, and those that may play a role in biosafety

- delegate nature conservation tasks to lower levels of governance and to communities
- align sectoral policies, laws and plans, avoiding contradictory and counter-productive regulations; create or activate communication mechanisms amongst ministries, and between these and NGOs and international organisations; ensure that decisions are justified by demanding that the rational or scientific grounds for the decisions are stated and supported
- finalize and enact the Environmental Framework law; develop laws on Biosafety and Bioprospecting; update the law on Nature Conservation; reorganize the legal framework for access to genetic resources and benefit sharing, in conjunction with IPR; effectuate the Planning Law
- finish the development of the National Biodiversity Action Plan (NBAP) and the Environmental Sector Plan; establish an effective clearinghouse mechanism and a mechanism to coordinate biosafety action
- develop a policy on biodiversity information, and establish an effective clearinghouse mechanism; establish a mechanism to coordinate biosafety action
- establish a mechanism to get consensus between government and private sector on forest policy; improve the lines of communication between conservation planners (e.g. NGO's) and the highest levels of government
- establish an education and training capability in relation to genetic resources and biotechnology; improve the education and training capability in relation to biodiversity; provide opportunities for postgraduate education or training in relation to the forest sector and natural science & technology

Several of the actions / approaches are likely synergetic, and make sense to undertake in relation to all three UN environmental treaties:

- education and training activities at individual level, aimed at improving performance, communication, accountability
- clarification of the mandate of institutes in the environmental sector, as well as the provision of an effective mandate to the planning office
- empowerment by law of the environmental authorities
- alignment of sectoral policies, and improvement of communication across sectors, and between government, NGO's and international organizations
- finalization and enactment of the Environmental Framework Law, and effectuation of the Planning Law
- finalization of the Environmental Sector Plan
- provision of opportunities for postgraduate training in natural sciences & technology
- establishment of a coordinating mechanism for awareness activities
- development of transparent approach to deal with payment for ecosystem services

Acronyms, abbreviations + some terms and their meaning

	Dutch	English
ABI	Associatie Binnenlandse Industrielen	Association of Industrialists of the Interior
ACT(S)		Amazone Conservation Team (Suriname)
ASP		Agriculture Sector Plan
ATM	ministerie Arbeid, Technologische Ontwikkeling en Milieu	ministry Labor, Technological Development and Environment
BDD		Bart De Dijn
BFN	Bureau Forum NGO's	
BGVS	Bureau Geneesmiddelenvoorziening Suriname	Bureau Provision Medicines Suriname
BI	Bauxietinstituut	Bauxite Institute
BMS	Billiton Maatschappij Suriname	Billiton Company Suriname
BOG	Bureau Openbare Gezondheid	Bureau Public Health
BSc		Bachelor of Science
CAPS		Conservation Action Plan for Suriname
CBD		<i>see (UN) CBD</i>
CBS	Centraal Bureau Statistiek	Central Statistics Bureau
CCC		<i>see (UN) CCC</i>
CCD		<i>see (UN) CCD</i>
CELOS	Centrum voor Landbouwkundig Onderzoek in Suriname	Center for Agricultural Research in Suriname
CI(S)		Conservation International (Suriname)
DBK	Dienst Bodemkartering	Soil Mapping Service
DNA	De Nationale Assemblée	National Assembly / Parliament
E(S)IA		Environmental (and Social) Impact Assessment
EBS	Energiebedrijven Suriname	Suriname (State) Energy Companies
EEZ		Exclusive Economic Zone
ESP		Education Sector Plan
ESS		Environmental Services & Support
EU		European Union
FOB	Fonds Ontwikkeling Binnenland	Fund Development Interior
GE		Guianas Ecoregion
GEF		Global Environment Facility
GFECF		Guianas Forest & Environment Conservation Program
GHF		Green Heritage Fund
GIS		Geographic Information System
GMD	Geologische & Mijnbouwkundige Dienst	Geology & Mining Service
GMO		(living) Genetically Modified Organisms
GoS		Government of Suriname
granman		paramount tribal chief (of Maroon or Amerindian tribe)
Gross-		Gross-Rosebel Mines (subsidiary of

	Dutch	English
Rosebel		IAMgold)
GSI		Guiana Shield Initiative
HI	ministerie van Handel en Industrie	ministry of Trade and Industry
IBA		Important Bird Area
I(A)DB	Interamerikaanse Ontwikkelingsbank	Inter-American Development Bank
ICBG		International Cooperative Biodiversity Group
IUCN		International Union for the Conservation of Nature
indigenous	descendant of native Pre-Colombian inhabitants of the Americas	
IOL	Instituut voor de Opleiding van Leraren	Institute for the Training of Teachers
IPR		Intellectual Property Rights
IRIS	Inter-Religieuze Raad Suriname	Inter-religious Council Suriname
JP	ministerie van Justitie en Politie	ministry of Justice and Police
JSOOC	Jan Starke Opleidings- en Ontspanningscentrum	Jan Starke Training & Recreation Center
JSP		Juridical Sector Plan
KKF	Kamer van Koophandel en Fabrieken	Chamber of Commerce and Industries
KPS	Korps Politie Suriname	Suriname Police Force
LBB	's Lands Bosbeheer	State Forest Service
LVV	ministerie Landbouw, Veeteelt & Visserij	ministry Agriculture, Animal Husbandry & Fisheries
maroon	descendant of Africans that formed autonomous societies after escape from slavery	
MAS	Maritieme Autoriteit Suriname	Suriname Marine Authority
MEA		Multilateral Environmental Agreement
Meteodienst	Meteorologische Dienst	Meteorological Service
Milieubeheer	department for maintenance of city roadsides, squares, ditches, etc.	
MINOV	ministerie van Onderwijs en Volksontwikkeling	ministry of Education
MOP	Meerjarenontwikkelingsplan	Multi-Annual Development Plan
MUMA		Multiple-Use Management Area
MSc		Master of Science
NATIN	Natuur Technisch Instituut	Nature Technical Institute
NBAP		National Biodiversity Action Plan
NBF		National Biosafety Framework
NBS		National Biodiversity Strategy
NC-IUCN		the Netherlands Committee for IUCN
NCSA		National Capacity Self-Assessment
NFP		National Forest Policy
NGO		Non-Governmental Organsiation
NH	ministerie van Natuurlijke Hulpbronnen	ministry of Natural Resources
NIMOS	Nationaal Instituut voor Milieu en Ontwikkeling in Suriname	National Institute for Environment and Development in Suriname
NL	Nederland	The Netherlands
NMR	Nationale Milieuraad	National Environmental Council
NOB	Nationale Ontwikkelingsbank	National Development Bank

	Dutch	English
NPO	Planbureau	National Planning Office
NR		Nature Reserve
NUES		Non-Urban Environment Sector
OW	ministerie van Openbare Werken	ministry of Public Works
OTCA		Organizacion del Tratado de Cooperacion Amazonica
RAP		Rapid Assessment Program
PHS	Platform Houtsector Suriname	Suriname Timber Sector Platform
PLOS	ministerie van Planning & Ontwikkelingssamenwerking	ministry of Planning & Development Cooperation
RGB	ministerie van Ruimtelijke Ordening, Grond- en Bosbeheer	Ministry of Spatial Planning, Land and Forest Management
ROB	Raad Ontwikkeling Binnenland	Council Development Interior
Santour	Surinaamse Alliantie voor Natuur- bescherming en Duurzaam Toerisme	Suriname Alliance for Nature Conservation and Sustainable Tourism
SBB	Stichting Bosbeheer & Bostoezicht	Foundation for Forest Management & Production Control
SBBS	Stichting Behoud Bananensector	Foundation for Retaining the Banana Sector
SCF		Suriname Conservation Foundation
Staatsolie		State Oil Company
Stinasu	Stichting Natuurbehoud Suriname	Foundation Nature Conservation Suriname
STS	Stichting Tourisme Suriname	Tourism Foundation Suriname
Suralco		Suriname Aluminum Company (subsidiary of ALCOA)
SVSS	Stichting Schoon Suriname	Foundation Clean Suriname
SWM	Surinaamse Waterleidingsmaatschappij	Suriname (State) Water Company
TCT	ministerie van Transport, Communicatie & Toerisme	ministry of Transport, Communication & Tourism
ToR		Terms of Reference
treepotter		local / native specialist in recognizing (valuable) tree species
TSP		Tropenbos Suriname Programme
(UN) CBD		(United Nations) Convention on Biological Diversity
(UN) CCC		(United Nations) Convention on Climate Change
(UN) CCD		(United Nations) Convention on Combating Desertification
UNCTAD		United Nations Convention of Trade And Development
UNDP		United Nations Development Program
UvS	Universiteit van Suriname	University of Suriname
VIDS	Vereniging Inheemse Dorpshoofden Suriname	Association of Indigenous Chiefs of Suriname
WLA	Waterloopkundige Afdeling	Hydrological Service
WWF(G)		World Wildlife Fund (Guianas)
Zoo		Paramaribo Zoo

1 Introduction

This report presents the backgrounds and results of a thematic assessment of capacity constraints that Suriname is faced with in the context of the implementation of the UN Convention on Biological Diversity (CBD). The assessment has been undertaken by biodiversity expert Bart De Dijn (BDD) of the consultancy firm Environmental Services and Support (ESS). The work has been commissioned by the Suriname ministry of Labour, Technological Development and Environment (ATM), which contracted ESS.

This is one of three thematic assessments that are undertaken in Suriname as part of the National Capacity Self Assessment (NCSA) in relation to the UN Multilateral Environmental Agreements (MEAs). The other two MEAs that are the subject of thematic assessment are the UN Conventions on Climate Change (CCC) and on Combating Desertification (CCD). The other two assessments have been undertaken and reported upon by different experts.

Apart from an assessment of capacity constraints that more or less hamper or slow down the implementation of the CBD in Suriname, this report also serves to complete the stocktaking (e.g. stakeholder analysis), and to provide insights on “synergetic” steps that may be taken to overcome constraints that likely exist in relation to all three MEAs. The background, procedure, and terminology of the NCSA are explained in more detail in GSP (2005).

The United Nations Convention on the Conservation and Sustainable Use of Biodiversity, a.k.a. UN Convention on Biological Diversity (CBD) or Biodiversity Convention, was introduced to the world at the UN Sustainable Development Conference, held in Rio de Janeiro (Brazil) in 1992.

The CBD has three overarching goals:

1. to conserve biological diversity, i.e. safeguard representative ecosystems and habitats, as well as the full diversity of species and genetic materials
2. to use biodiversity in a sustainable manner, i.e. in such a way and at such a rate that the resource is not exhausted, but in stead renews
3. the equitable sharing of benefits that are derived from the access to biodiversity resources and their use, e.g. the (financial) compensation of those who are the owners, stewards or custodians of biological resources and biodiversity-related knowledge

A number of additional goals that follow from the overarching ones (above) have been explicitly formulated in Suriname’s biodiversity strategy (NBS) and draft action plan (NBAP):

4. to acquire knowledge on biodiversity through research and monitoring
5. to build the capacity to conserve, use and study biodiversity, and share benefits
6. to build awareness in relation to the goals of the CBD, and empower stakeholders through education and communication
7. to work together locally, nationally and internationally to achieve the above
8. to ensure that the above is financed in a sustainable manner

2 Methodology

Based on the general NCSA methodology and multiple options that are explained in GSP (2005), choices have been made in terms of the specific methods for the implementation of this CBD-related thematic assessment. The methods selected are explained in this chapter. The overall methodology was agreed upon between the consultants and the client (ATM) during a three-day workshop held April 2008 in Paramaribo.

The activities that were undertaken as part of the thematic assessment are:

- completion of stocktaking (see 2.1 below)
- the actual thematic assessment (see 2.2 & 2.3 below)
- exploration of possible synergies (see 2.2 below)

The actual thematic assessment represents the focus and bulk of the work.

2.1 Completion of Stocktaking

Stocktaking includes the listing of national documents that are relevant to the thematic assessment, and the identification of important stakeholders.

Relevant documents are those that describe policies, strategies, actions or capacity in relation to the CDB and, more generally, in relation to the conservation and use of biodiversity and benefit sharing, as well as other goals mentioned in the NBS and draft NBAP (see chapter 1). During stocktaking, a listing was made of the most relevant documents, which ideally were recent, comprehensive documents that had been validated by stakeholders and were endorsed by the government. Documents were identified during the April NCSA workshop by the consultants and representatives of ATM. The list of documents was edited by ESS (BDD) in the course of the thematic assessment.

The identification of stakeholders was in part done at an earlier stage (see ATM 2007), in the context of a first stakeholder workshop that was held when the NCSA process was initiated in Suriname. As part of the assessment reported upon here, a list of potential stakeholders was first compiled based on two cross checks: i) one with a list of “sectors” that are typically relevant in relation to the CBD (based on IEFP *et al.* 2000), and ii) one with the list of the fifteen CBD requirements (GSP 2005: table 3.1). The procedure involved listing the potential stakeholders that were assumed to have an affinity (e.g. role, interest) with the different CBD-related sectors or requirements. As a last step, the relative importance of the stakeholders was assessed by giving them, for each goal of Suriname’s NBS / NBAP (see chapter 1), a score from 0 to 3. The score was given based on the information in relevant documents, on information from stakeholders, and on the consultants’ (BDD) knowledge of the role and interest of the different stakeholders. The score was from 0 = stakeholder with no important role or interest in relation to the goal, to 3 = stakeholder critically important to achieve the goal. The stakeholders that, overall, scored at least one 3 were considered critically important in relation to the CBD in general; those scoring at least one 2 or many 1’s were considered quite important too, but not critically so.

This approach served to i) exhaustively list potential stakeholders, to complete previous stakeholder listing efforts, and ii) identify the most important stakeholders to consult during this assessment, namely the critically important ones.

2.2 Thematic assessment

The thematic assessment was implemented by consulting and analysing the relevant documents identified during stocktaking (see 2.1 above), and by using additional information obtained via questionnaires (see 2.3 below) and brief interviews of representatives of some of the most important stakeholders.

The assessment was done in a stepwise manner:

- Establish the current situation: identify and list initiatives that are taking place in Suriname that are relevant in the sense that they contribute to meeting the CBD requirements. The CBD requirements are concisely listed in GSP (2005: table 3.1). This step includes the summarizing, for each CBD requirement, of the scope and progress of these initiatives.
- Identify existing gaps, i.e. CBD requirements that are currently not or only in part addressed in an adequate manner. The gaps are the observed discrepancies between the requirements and the initiatives (identified during the previous step).
- Identify the biodiversity-related issues (and larger environmental issues which relate to biodiversity) which are to be addressed with priority, based on an analysis of priority issues that are mentioned in relevant documents or suggested by stakeholders consulted. This step includes the summarizing of the main priority issues.
- Establish the current capacity constraints in the context of the priority issues identified in the previous step. These constraints were identified based on the information contained in the relevant documents and obtained from stakeholders; additional constraints were listed based on the knowledge of ESS (BDD) of the local situation.

A parallel step (not strictly part of the thematic assessment) was to identify possible synergistic actions between the three MEAs. This represents a prelude to the next phase of the NCSA, in which synergies are explored in more detail (see GSP 2005),

2.3 Validation

Two validation methods were implemented: i) a questionnaire, and ii) a validation workshop. The questionnaire (see Appendix I) was sent to representatives of the most important stakeholders (the appendix also contains a list of these representatives and whether or not they responded by filling out the questionnaire). The response was used as input in the different steps of the assessment (as explained in 2.2 above), and served to update and complement the information that was found in relevant documents. The validation workshop was implemented at the very end of the thematic assessment. At the workshop, the (draft) results of the assessment were presented – in the form of an oral presentation that was summarized in Powerpoint slides and handouts (see Appendix III).

3 Study area

3.1 Background information

The CBD was ratified by Suriname's parliament (DNA) in 1996. In 2007, Suriname finalized and officially released its National Biodiversity Strategy (NBS), and started the process of developing its National Biodiversity Action Plan (NBAP). The NBAP development process has not been concluded yet, but a first (incomplete) draft NBAP document has been produced. The current draft NBAP document is the result of "phase I" of NBAP development, and is by no means final; a final NBAP will be produced after additional consultations, which are scheduled to take place during the second half of 2008. A National Biosafety Framework (NBF) plan has been developed but has not yet been implemented. An environmental sector plan has been drafted (in two parts, one is the non-urban plan or NUES), but has not been finalised.

Capacity assessments that are relevant to the CBD have been undertaken in the recent past in the context of: i) the environmental sector plan (see draft NUES), ii) the NBS, and iii) the Tropenbos capacity building strategy for Suriname (TSP 2007). The results of these analyses are ultimately presented in the reports as goals or actions that need to be undertaken to improve capacity. The main actions that are being proposed in the documents under "capacity building" headings are:

- improvement of knowledge and skills of forest sector professionals (TSP 2007)
- develop training programs and opportunities for those employed in the public and private sector (NBS)
- the strengthening of existing institutes (that regulate and manage in relation to land-use planning, environment, conservation, forest, wildlife, research & education, etc.) (NUES and NBS); (higher / academic) research and education institutes are specifically mentioned, also in TSP (2007)
- creation of new institutes; the creation of authorities is proposed for mineral, water, and forest resources (NUES), while the creation of authorities in relation to biodiversity policy and management is also proposed (NBS)
- improvement of the legal framework (in relation to e.g. land-use planning, environment, mineral resources, conservation, fisheries and aquaculture, wetlands) (NUES)
- measures to improve inter-ministerial coordination and exchange of information (NBS and to some extent also TSP 2007); establish biodiversity databases (NBS)
- design biodiversity monitoring programs (NBS)

A list of all the relevant documents that have been used in the course of this assessment is located in Appendix II.

3.2 Policy and Legal background

3.2.1 National policy

Article 6 of the Constitution of the Republic of Suriname states that "the social objective of the state is directed towards the creation and stimulation of conditions, necessary for the protection of nature and the maintenance of ecological balance". This provides a legal basis for a national environmental and biodiversity policy.

As already mentioned above, Suriname has a biodiversity strategy (NBS). This NBS outlines the overall policy in relation to biodiversity. It remains to be fully translated into a validated action plan, an NBAP (of which an incomplete draft now exists).

Multi-Annual Development Plans (MOPs) are prepared which discuss national development issues and policies, and propose actions within a 5-year planning horizon. The most recent one covers the period 2006-2011, and includes a section on forestry, as well as one on environment as a cross-cutting aspect.

Sector plans have been developed for e.g. Agriculture (ASP), Education (ESP) and Juridical protection and safety (JSP). These plans provide more details and background than the cross-sectoral MOP. An environmental sector plan remains unfinished, although there exists a draft NUES document (on non-urban environment).

To formulate and implement an efficient environmental policy the National Institute for Environment and Development in Suriname (NIMOS) was established, as well as an environment section within the ministry of Labor, Technological Development and Environment (ATM). ATM has produced an environmental policy note, which is the basis of its current policy and which was used for the most recent MOP (2006-2011). There is a separate policy for the forest sector (NFP; which is being translated into an action plan).

3.2.2 National law

A draft environmental framework law has been prepared by NIMOS, is being adjusted by ATM, and will ultimately be submitted to parliament for approval. Regulations for E(S)IA, i.e. impact assessment based on impact studies, have already been developed, and are applied in the context of large development projects.

There is a large body of existing legislation that is relevant to environmental management in the sector or domains of mineral resources, cultural heritage, air and noise, land and land use, water, forests and natural areas, fish and wildlife, and occupational health & safety, and public health. This legislation has recently been reviewed (NIMOS 2004).

Forest management has its main legal basis in the Forests Management Act (1992). Natural (wild) biological resources of Suriname are protected based on a number of national laws, including the Nature Conservation Act (1945; which allows the creation of protected areas), the Game Act (1963; which is the basis for regulation of hunting and the protection of endangered species), the Fish Protection Act (1961 & 1963; which is the basis for the protection of fish stocks), and the Sea Fishery Law (1980; which allows for the regulation of fishing methods at sea).

Land ownership and use is regulated based on the Planning Act (1973) and based on the Laws on Issuance of State Owned Lands (1982). The latter enable the long-term lease of public lands to private persons or organisations, such as the lease of Brownsberg Nature Park to Stinasu. Suriname's Planning Act is the basis for land use planning. It allows the government to establish special management areas, and this is, in principle, the basis upon which areas can be assigned for multiple use (MUMA; in which activities are disallowed that damage the ecological function of the area or negatively impact protected species). Unfortunately the Planning Law is not fully operational, and the current MUMAs have in stead been established based on the Laws on the Issuance of State Lands.

Although the Agreement for National Reconciliation and Development (a peace treaty between the Government of Suriname and rebel groups, signed in 1992) provides some avenues to the recognition of land rights of indigenous and maroon peoples, the issue of land rights of indigenous peoples remains, in essence, unresolved. A council (the ROB) established under the 1992 peace treaty was tasked to deal with the land rights issue, and in recent years (under the present administration) two ad-hoc commissions have been established to also deal with the issue (one ministerial and one presidential commission).

Modern IPR legislation does not exist in Suriname, but the IPR unit at the Ministry of Justice and Police (JP) has prepared a draft law on industrial property.

3.2.3 International agreements

International legal instruments related to biological resources which Suriname's government has signed prior to the ratification of the CBD, include the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Western Hemisphere Convention), and the Convention on Wetlands of International Importance (Ramsar Convention). Suriname is also signatory to CITES, and implements the agreed-upon restrictions on the trade of endangered species. The Cartagena protocol on Biosafety has very recently been ratified by Suriname (June 2008), in line with its commitments under the CBD.

In the regional context, Suriname is a signatory to the Tratado de Cooperacion Amazonica (TCA). Suriname is a member of the Caribbean Community (CARICOM) and participates actively in various programs organized by CARICOM, including those on biodiversity, climate change and land degradation. Suriname is a member of the Small Islands Development States (SIDS) and participates in the implementation of the Barbados Plan of Action. Suriname is also member of the Guiana Shield Initiative (GSI), a regional program to finance conservation and sustainable development.

3.3 Institutional arrangements

The ministry of Labor, Technological Development, and Environment (ATM), supported by the National Institute for Environment and Development in Suriname (NIMOS), is the agency with the responsibility to coordinate activities related to environmental management. The focus of ATM is on environmental policy (incl. biodiversity) and on the implementation of international treaties, such as the CBD. The current focus of NIMOS is on the development of E(S)IA (impact assessment) procedures and ensuring their implementation.

The ministry of Planning and Development Cooperation (PLOS), supported by the National Planning Office (NPO) is not just the focal point for development cooperation but also for land-use planning. The NPO is currently focusing on land-use planning at district (regional) level, in the context of the program of gradual decentralization of government.

The responsibility for the actual issuance of lands and land-use concessions, and for the management of biodiversity lies with other ministries and associated bodies:

- the Ministry for Spatial Planning, Land and Forest Management (RGB), which deals with land issuance (in general), with conservation and wildlife management via its Forest Service branch (LBB, which includes the NCD, the Nature Conservation Division), and with forestry via the associated Foundation for Forest Management and Production Control (SBB)
- the ministry of Agriculture, Animal Husbandry and Fisheries (LVV) which manages agricultural land use and fisheries, as well as species that are used in agriculture, incl. livestock

The Foundation for Nature Conservation in Suriname (STINASU) should also be mentioned here, a para-statal organization that supports LBB in its tasks, and is currently engaged in ecotourism in protected areas, and in awareness activities.

Another important ministry in the context of biodiversity is that of Education (MINOV), with which are associated important education and research institutes:

- University of Suriname (UvS), with a Faculty of Technological Sciences (FTeW) that includes an Environmental Sciences stream, and with the National Herbarium (BBS) and the National Zoological Collection (NZCS) - the main biodiversity research institutes in the country
- the Center for Agricultural Research in Suriname (CELOS), which is a research and development institute with expertise in e.g. GIS, forestry and agro-forestry
- the IOL, the Teachers Training Institute which e.g. provides education in biology and geography

- The NATIN, a mid-level technical school which e.g. provides education in forestry and ecotourism

Other ministries and associated institutes which are important in relation to biodiversity include:

- the Ministry of Justice and Police (JP), which has a unit for Intellectual property rights (IPR), which is important in the context of benefit sharing
- the Ministry of Trade and Industry (HI), which regulates import and export, which is important in relation to trans-boundary movement of endangered species and genetic resources; HI incorporates Customs

A number of organizations that are not controlled by the government (NGOs) should be mentioned here since they play an important role in relation to biodiversity:

- SCF, the Suriname Conservation Foundation, which manages a trust fund that finances conservation activities in Suriname
- CIS, Conservation International Suriname, the local branch of CI, which implements a variety of conservation activities and supports low-impact use of biodiversity
- WWF Guianas, the regional branch of WWF, which implements and supports a wider range of activities on conservation, wildlife, forestry, impact reduction, etc.
- ACTS, Amazon Conservation Team Suriname, the local branch of ACT, which supports biodiversity and cultural conservation
- SVSS, the Foundation for a Clean Suriname, as well as Green Heritage Fund (GHF), and Santour, which are NGOs that implement awareness and education activities
- VIDS, the Association of Indigenous Village Chiefs, with its implementing unit Bureau VIDS, which is dealing with land rights issues and is mapping traditional land and biodiversity use

Multilateral organizations with representation in Suriname should also be mentioned here, such as UNDP and I(A)DB, since they are supporting the above mentioned national institutes and other stakeholders.

3.4 Stakeholders

The stakeholders in relation to the CBD are the ones already mentioned above (see 3.3), as well as several others. Below, the results of the stakeholder analysis are presented (see 2.1. for methods). Table 3.1 lists potential stakeholders with notes on their status or mandate, the reason why they may be included as stakeholders, and what their role may be in relation to the CBD. Table 3.2 lists the same potential stakeholders, and provides an indication of their actual importance, based on a cross-check with the different goals of the NBS / NBAP. The (overall) critically important stakeholders are those with a critical role to play in relation to at least one goal of the NBS / NBAP.

Table 3.1. Potential CBD stakeholders in Suriname.

<i>Who</i>	<i>What</i>	<i>Why</i>	<i>How</i>
Name	Status / mandate	include because	role in relation to CBD
Staatsolie	Industry with biodiv. Impact	to be informed	impact reduction / rehab.
Suralco	Industry with biodiv. Impact	to be informed	impact reduction / rehab.
EBS	Industry with biodiv. Impact	to be informed	impact reduction
ESSO	Industry with biodiv. Impact	to be informed	impact reduction
Texaco	Industry with biodiv. Impact	to be informed	impact reduction
RGB	Land & Forest Ministry	broad mandate	land & forest use policy
SBB	Forestry regulator	specific task	regulate timber & NTFP use
LBB	Conservation & Wildlife	specific task	manage PAs & wildlife use

<i>Who</i>	<i>What</i>	<i>Why</i>	<i>How</i>
	regulator		
Stinasu	Nature Conservation support	specific task	implement PA operations
CI(S)	Conservation NGO	specific task	support cons. & sust. use
WWF(G)	Conservation NGO	specific task	support cons. & sust. use
SCF	Conservation Trust Fund	specific task	support cons. & sust. use
ACT(S)	Conservation NGO	specific task	support cons. & sust. use
Zoo	Zoological Garden	to be informed	public awareness wildlife / conservation
UvS	University	broad task	education & research
CELOS	Research Station	broad task	research & development
HI / customs	Trade & Industry Ministry	specific task	regulate import / export
wildlife exporters	Part of biodiv. user chain	to be informed	sust. use / impact reduction
pet shops	Part of biodiv. user chain	to be informed	sust. use / impact reduction
hunters	Part of biodiv. user chain	to be informed	sust. use / impact reduction
bushmeat sellers	Part of biodiversity user chain	to be informed	sust. use / impact reduction
KPS	General law enforcer	to be informed	enforce law in general
ABI	Business association	specific task	support sust. use in business development
PHS	Timber business association	specific task	support sust. use in business development
KKF	Chamber of Commerce	specific task	support sust. use in business development
logging co.	Part of biodiv. user chain	to be informed	sust. use / impact reduction
sawmilling co.	Part of biodiv. user chain	to be informed	sust. use / impact reduction
BGVS	Part of biodiv. user chain	to be informed	sust. use / impact reduction
traditional farmacies	Part of biodiv. user chain	to be informed	sust. use / impact reduction
vegetable farmers	Industry with biodiv. impact	to be informed	impact reduction
rice growers	Industry with biodiv. impact	to be informed	impact reduction
subsist. Farmers	Part of biodiv. user chain	to be informed	sust. use / impact reduction
LVV	Agro & Fisheries Ministry	broad mandate	agro & fisheries policy
SBBS	Industry with biodiv. impact	to be informed	impact reduction
aquaculturists	Industry with biodiv. impact	to be informed	impact reduction
Gross Rosebel	Industry with biodiv. impact	to be informed	impact reduction
BMS	Industry with biodiv. impact	to be informed	impact reduction
NH	Mineral Resources Ministry	specific task	policy on impact reduction / rehab
GMD	Mining regulator	specific task	regulate impact reduction / rehab
BI	Bauxite sector regulator	specific task	regulate impact reduction / rehab
soil/bedrock miners	Industry with biodiv. impact	to be informed	impact reduction
artisanal miners	Industry with biodiv. impact	to be informed	impact reduction
TCT	Telecom, Transport & Tourism Ministry	specific task	develop tourism policy
STS	Tourism regulator	specific task	regulate tourism
tour operators	Part of biodiv. user chain	to be informed	sust. use / impact reduction
horeca	Industry with biodiv. impact	to be informed	impact reduction
OW	Public Works Ministry	specific task	develop public works policy

<i>Who</i>	<i>What</i>	<i>Why</i>	<i>How</i>
PLOS	Planning & Dev.Coop. Ministry	broad mandate	coordinate planning & cooperation
NPO	Planning regulator	specific task	regulate and implement planning
CBS	Statistics Bureau	specific task	information dissemination
BFN	CBO that supports NGOs	specific task	support sust. development
FOB	Development Fund	specific task	support sust. development
NOB	Development Fund	specific task	support sust. development
Milieubeheer	public space maintenance directorate	specific task	maintain public spaces
Meteodienst	Metereological Service	specific task	monitor weather
WLA	Hydrological Service	specific task	monitor hydrology
DBK	Soil Service	specific task	monitor soil
SWM	Industry with biodiv. impact	specific task	impact reduction
ATM	Labor, Tech.Dev. & Environment Ministry	broad mandate	coordinate environmental action
NIMOS	Environment regulator	specific task	regulate environmental impact
NMR	Environment Council	specific task	advise on environmental policy
BOG	Health Service	specific task	monitor / prevent disease
IRIS	Religious Council	to be informed	awareness / attitude change
VIDS	NGO Indigenous Chiefs	specific task	ensure protection rights
ROB	Development commission	specific task	ensure development interior
MAS	Maritime Authority	specific task	regulate marine traffic
NL	Armed / defence forces	specific task	enforce law at sea
granmans	Traditional chiefs	broad tasks	ensure protection rights
SVSS	Environmental NGO	specific task	awareness / attitude change
GHF	Environmental NGO	specific task	awareness / attitude change
Santour	Environmental NGO	specific task	awareness / attitude change
lawyers	law firms	specific task	assist with legal work
JP – IPR unit	Justice & Police Ministry	specific task	develop IPR policy
MINOV	Education ministry	specific task	develop education policy and law
IOL	Teachers education institute	specific task	nature-related education
JSOOC	Training Center	specific task	nature-related training
NATIN	Nature-technical school	specific task	nature-related education
labor unions	Labor unions	specific task	ensure protection laborers
consultants	Consultants / bureaus	specific task	implement specialist studies
UNDP office	Development Agency	broad tasks	support development
embassies	Representation foreign states	specific task	support development
I(A)DB	Development Agency	broad task	support development

Table 3.2. Importance of stakeholders in function of different NBS / NBAP goals.

x = a less important role, xx = a very important role, xxx = a critical role to play

Name	Conser- vation	Use	Benefit share	Know- ledge	Capa- city	Aware- ness	Collabo- ration	Finance
Staatsolie	x							
Suralco	x							
EBS	x							
ESSO	x							
Texaco	x							
RGB	xx	xx	xx	x	x	x		x

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Name	Conser- vation	Use	Benefit share	Know- ledge	Capa- city	Aware- ness	Collabo- ration	Finance
SBB	x	xxx	xxx	x	xx	xx		
LBB	xxx	xxx	xxx	x	xx	xx		
Stinasu	x	x	x		x	x		x
CI(S)	x	x		x	x	xx	x	xx
WWF(G)	x	x		x	x	xx	x	xx
SCF	x	x			x	x	x	xx
ACT(S)	x	x			x	x	x	x
Zoo	x	x				x		
UvS			xx	xxx	xxx	x		
CELOS			x	xxx	xx	x		
HI / customs	x	xx						
wildlife exporters	x	xx		x				
pet shops	x	x						
hunters	x	xx		x				
bushmeat sellers	x	x						
KPS		x						
ABI		xx			x			
PHS		xx			x			
KKF		x						
logging co.s	x	xx		x				
sawmilling co.s	x	x						
BGVS	x	x	x	x				
traditional farmacies	x	xx	x	x				
vegetable farmers	x							
rice growers	x							
subsist. farmers	x	xx	x	x				
LVV	xx	xxx	xxx	xx	x	x		x
SBBS	x							
aquaculturist	x							
Gross Rosebel	x							x
BMS	x							x
NH	xx					x		
GMD	x					x		
BI	x							
soil/bedrock miners	x							
artisanal miners	x							
TCT	x	xx			x	x		
STS	x	xx			x	x		
tour operators	x	x						xx
horeca		x						x
OW	x							
PLOS	x	x		x	x		xx	xxx
NPO	x	x		x			xxx	
CBS				x			x	
BFN							xx	
FOB							x	x
NOB							x	x
Milieubeheer	x							
Meteodienst								

Name	Conser- vation	Use	Benefit share	Know- ledge	Capa- city	Aware- ness	Collabo- ration	Finance
WLA								
DBK								
SWM	x	x						
ATM	x	x	x		x	xxx	xxx	xx
NIMOS	xxx	x	x	x		xx	xx	
NMR	x	x	x				x	
BOG								
IRIS								
VIDS	xx	xx	xx	xx	x	xx	xx	
ROB	x	x	x					
MAS								
NL								
granmans	xx	xx	xx	xx	x	xx	x	
SVSS	x	x				xx		
GHF	xx	x				xx		
Santour	x	xx				xx		
lawyers			x					
JP – IPR unit	x	x	xxx					
OV					xx			
IOL				xx	xx	x		
JSOOC					xx	x	x	
NATIN				x	xx	x		
labor unions								
consultants				xx	xx			
UNDP office					x	xx	xx	xx
embassies							x	xx
I(A)DB							x	xx

The most important stakeholders were the target of questionnaires and/or interviews as part of this assessment; these are:

- the Ministry of Physical Planning, Land and Forest Management (RGB)
- the Forest Service (LBB)
- the Foundation for Forest Management and Production Control (SBB)
- the University of Suriname (UvS)
- the Center for Agricultural Research (CELOS)
- the Ministry of Agriculture (LVV)
- the Ministry of Planning & Development Cooperation (PLOS)
- the National Planning Office (NPO)
- the IPR unit of the Ministry of Justice & Police (JP)
- the Ministry of Labour, Technological Development and Environment (ATM)
- the National Institute for Environment & Development (NIMOS)

4 Thematic analysis

4.1 Review of CBD commitments

4.1.1 Current situation

Table 4.1 provides an overview of the initiatives that are relevant in the sense that they contribute to the fulfilment of Suriname's CBD commitments (a.k.a. obligations or requirements) under the UN Convention Biological Diversity (CBD).

The overview focuses on initiatives that are recent, in the sense: recently concluded (postdating Suriname's 1996 ratification of the CBD), ongoing (activities with a recurring or permanent character, or programs and projects that are in progress), or impending (in the process of being initiated). For most initiatives listed, the responsible organisation which coordinates the work is indicated. This organisation may also be the implementing organization, or even the donor, but not necessarily. In many cases work is implemented by consultants or partner-organization, and organizations mentioned may function as intermediaries between the primary donors and implementing agencies.

A total of 68 recent initiatives that are relevant to the CBD are listed. These are associated with global, regional, and national government agencies or NGOs. More than half of these (some 38) are coordinated by statal or para-statal organization in Suriname; the rest is coordinated by multilateral agencies, international or local NGOs (incl. communities).

Table 4.1.: Recent initiatives, progress and constraints in relation to Suriname's commitments under the UN Convention Biological Diversity (CBD).

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
1. Undertake biodiversity conservation planning	#1. projects in supports of development National Biodiversity Strategy and Action Plan (ATM)	#1. NBS published and endorsed; NBAP development in progress	#1. changing insights of subsequent administrations
	#2. national projects related to conservation of Globally Significant Ecosystems in Suriname (NH; later RGB)	#2. management plans drafted for two major protected areas; trust fund (SCF) established	#2. limited expertise to review / prepare implementation of plans
	#3. regional project Guiana Shield Priority Setting Workshop for conservation (IUCN and CI)	#3. report published with maps of region with priority areas for conservation	#3. national government not committed at high level
	#4. regional project Guianas Ecoregion Vision for conservation and sustainable use (WWF)	#4. regional vision document and maps drafted (but not finalised)	#4. as #3, and limited data and expertise to review draft
	#5. regional program for Guianas Forest & Environmental Conservation (for implementation by WWF and its national partners)	#5. management plans drafted / adjusted for some (extant and proposed) protected areas; facilities in these areas improved	#5. limited project implementation and follow-up capacity with partners
	#6. regional Important Bird Area project (Birdlife International & Stinasu)	#6. national IBAs tentatively identified and mapped	#6. unknown

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
	#7. regional program Guiana Shield Initiative (NC-IUCN)	#7. GSI phase I finished with publication of several regional studies; focal area for GSI in Suriname identified	#7. unknown
	#8. national project Integrated Coastal Zone Management (RGB)	#8. project tender process ongoing	#8. unknown
	#9. regional program in support of Management for Sustainable Use of Biodiversity (ACTO)	#9. national report published; regional	#9. weak communication between ACTO and national actors
	OVERALL: several national and regional initiatives supported by major multilateral donors; often initiated and co-funded by major global conservation NGOs; a number of projects initiated by the national government branches	OVERALL: management plans drafted for most protected areas; need and potential has been assessed for eventual expansion of system of protected areas	OVERALL: limited expertise in the country to plan and to review third party reports; conservation recommendations in reports are often not in line with cross-sectoral government policies
2. Identify & monitor biodiversity and conservation	#5. see above: GFECF	#5. biodiversity and human impact assessed in selected areas	#5. staff turnover / loss with implementing partners
	#10. regional sustainable wildlife management program (WWF)	#10. assessments done on otters, turtles and macaws, as well as on pet and bush meat trade	#10. limited in-country expertise
	#11. national marine turtle and bird assessment and monitoring programs (Stinasu)	#11. turtle nesting and poaching monitored; bird fauna lists made of protected areas; populations of some birds tracked	#11. limited funding, expertise and staff
	#12. national inventory and monitoring programs of the University of Suriname (NZCS & BBS, and CELOS remote sensing unit)	#12. national fauna and flora collections; assessments of fauna and flora of selected areas; forest inventories and vegetation maps	#12. limited funding, expertise and staff, especially for specimen storage and identification
	#13. global Rapid Assessment Program (CI-CABS)	#13. assessments of and reports on biodiversity and conservation of selected areas	#13. implementation timeframe very limited
	#14. global TEAM monitoring initiative (CI-CABS)	#14. monitoring plots and field station created	#14. unknown
	#15. NTFP and agroforestry program of CELOS, incl. Guyagrofor project	#15. ongoing research	#15. unknown

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
	#16. E(S)IA programs by major mining companies (BHP Billiton, lamgold)	#16. assessment done and monitoring ongoing of biodiversity in some mining areas; one major assessment report done	#16. limited expertise in the country
	#17. local inventory projects of land, biodiversity and its use by organizations linked to Indigenous communities (VIDS and ACT(S))	#17. assessment of biodiversity and its use by local population; one major report published	#17. unknown
	#18. programmatic application of Forest Management Law and forestry policy (SBB)	#18. timber concession management plans, and timber inventories and national database	#18. limited availability of skilled tree-spotters
	#19. monitoring program for estuarine dolphins (GHF)	#19. ongoing dolphin monitoring	#19. limited in-country expertise
	OVERALL: several nationally or internationally initiated programs, mainly in relation to fauna and protected areas	OVERALL: national collections and databases exist; several areas already subject to assessment; some monitoring going on	OVERALL: limited funding and in-country expertise and staff, relative to the substantial size of the country and its biodiversity
3. In-situ conservation (in protected area system)	#20. programmatic application of Nature Conservation Law in nature reserves (LBB and Stinasu)	#20. game wardens enforce strict conservation at some reserves; consultation structure established for two reserves to help resolve stakeholder conflicts	#20. severely limited staff, finances, infrastructure and equipment
	#21. programmatic management of Brownsberg park for conservation and use by visitors, e.g. ecotourism (Stinasu et al.)	#21. interventions to remove litter and illegal miners from the park	#21. insufficient police backup / support; limited staff resources applied
	#22. programmatic management of Multiple-Use Management Zones to maintain ecological integrity (LBB)	#22. at one MUMA, presence of game wardens to regulate land and wildlife use	#22. as #20
	#23. programmatic application of regulations on collecting and exporting of wildlife based on Forest Management and Game Laws (LBB and SBB)	#23. patrolling to protect nesting marine turtles; seizure of illegally collected protected species, and occasional arrest and sanctions	#23. as #20 & 21
	#24. long-term maintenance of low-impact use zones (sanctuaries) by local population	#24. at least one community has formally declared and mapped a sanctuary	#24. little delegation of tasks to regional bodies, and even less to local communities

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
	OVERALL: in-situ conservation action is implemented by the government services (mainly LBB), based on national laws and regulations; land-use customs of Indigenous populations also lead to conservation, but appear mostly informal / not programmatic	OVERALL: some degree of on-site conservation action, but not at all protected areas, and not continuous; involvement of local communities is formal in a few cases, but typically informal (or not at all)	OVERALL: staff and finances to do actual on-site conservation is not in proportion to the task; delegation of local conservation tasks to regional bodies or local communities has hardly been attempted
4. Ex-situ conservation (in zoos and gardens)	#25. programmatic management of Zoo based on master plan	#25. improvement of holding facilities and live exhibits	#25. limited finances, space and expertise
	#26. sloth rehabilitation program (GHF)	#26. rehabilitation of traumatized sloths	#26. limited expertise
	OVERALL: hardly any ex-situ conservation, only one targeting conservation (of sloths)	OVERALL: one zoo in existence, where wild animals are kept for public display, and one experimental garden in existence where exotic cultivars used to be tended for economic application	OVERALL: limited expertise available in Suriname
5. Use E(S)IA (impact studies) for conservation	#18, see above: application of Forest Law & Policy	#18. development of several concession management plans which consider sustainability and conservation	#18. limited expertise and funds for developing such plans
	#27. program for development of ESIA guidelines (NIMOS)	#27. generic ESIA guidelines developed and in use, as well as guidelines for some specific sectors;	#27. unknown
	#28. programmatic implementation of ESIA, typically in relation to development projects financed by large companies and with development aid (NIMOS)	#28. ESIA procedure implemented for new, larger development projects only	#28. limited expertise and staff to draft ToR's for ESIA and evaluate ESIA studies
	#29. regional SEA for transport infrastructure development projects (IADB)	#29. one SEA drafted by consultants	#29. draft not considered satisfactory by client
	#30. development of environmental framework law (ATM)	#30. draft law under revision	#30. changing insights of subsequent administrations

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
	#31. Tropenbos Suriname Programme (Tropenbos)	#31. assessment of resource use by communities in progress	#31. communities not familiar with procedure
	OVERALL: increasing number and magnitude of initiatives in recent years	OVERALL: increasing implementation of ESIA, but no environmental framework law in place to make it binding and universally applicable	OVERALL: limited number of experts to develop and review plans, TORs, ESIA results, etc.
6. Manage information (clearing-house function)	#11. see above: inventory & monitoring by UvS / CELOS	#11. national libraries and databases of plant and animal collections and literature set up	#11. limited staff, infrastructure and finances to source and manage data; ad-hoc clearing-house function
	#15. see above: NTFP / agroforestry studies CELOS	#15. database on NTFP and cassava / manioc in development	#15. unknown
	#32. project for strengthening capacity at Suriname Conservation Foundation (and linked organizations) (ATM)	#32. TOR in preparation for setup of biodiversity information system	#32. limited staff at ATM
	#33. project Third National Report CBD (ATM)	#33. report in preparation	#33. clearing-house function ATM not in effect
	OVERALL: limited number of activities for making biodiversity information easier to access and apply	OVERALL: only partial and limited access to information, scattered over several organizations at / linked to university	OVERALL: insufficient staff, finances, infrastructure; clearinghouse function of ATM not in effect
7. Educate & train in science & technology	#34. BSc teaching program at Faculty of Technological Sciences, University of Suriname (UvS)	#34. bachelor-level graduates produced in forestry, agriculture, environmental sciences	#34. limited yearly enrolment; few lecturers with high academic and skill level
	#35. MSc teaching program at university (UvS) in collaboration with VLIR (Flemish Universities)	#35. master-level natural resources management teaching and research program being developed	#35. facilities for research limited
	#36. MSc teaching program of UvS Faculty for Graduate Studies & Research	#36. lecture hall built; biodiversity-related course being developed	#36. as previous
	#37. high-level education program for teachers at IOL (Teachers College)	#37. biology & geography teachers produced at two levels for secondary school teaching	#37. few full-time teaching staff, and hardly any funds for practical work in the field

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
	#38. teaching program of mid-level technical school NATIN	#38. mid-level foresters and tourism professionals produced	#38. as #37
	#39. forest and game warden training (SBB and LBB)	#39. forest and game wardens trained	#39. limited funds
	#13. see above: RAP	#13. initial courses for technicians done	#13. unknown
	#31. see above: TSP	#31. customized courses provided for forest sector professionals	#31. limited in-country expertise; logistic complications with organizing training
	OVERALL: within the country, three mid to higher level teaching organizations provide biodiversity-related education	OVERALL: past / ongoing training in Suriname does not exceed master-level; initiatives are in place to reach higher levels; few technical training courses	OVERALL: not enough qualified lecturers available locally (and local salaries hardly attractive for foreign ones)
8. Preserve indigenous / local knowledge	#40. ethnobotanical studies program of National Herbarium (part of UvS)	#40. research on medicinal use of plants by some communities reported upon; some information entered in database	#40. IPR issues hamper access to data
	#41. Shaman Apprentice Program and related ones to preserve indigenous knowledge and application of medicinal plants (ACT(S))	#41. set-up of databases; creation of traditional health clinics in Indigenous areas	#41. IPR issues limit access to and dissemination of the results
	#17. indigenous land / biodiversity use studies	#17. publication of traditional land-use maps, and of at least one extensive report	#17. unknown
	OVERALL: a number of programs are ongoing, but few initiated or led by indigenous communities themselves	OVERALL: some land-use maps, at least one report, and medicinal plant use databases exist; use of fauna and non-medicinal use poorly documented	OVERALL: unresolved IPR issues in relation to traditional knowledge hamper progress
9. Implement Cartagena Biosafety Protocol	#42. program to develop and implement Biosafety framework (ATM)	#42. framework developed but not yet implemented	#42. very limited local expertise
	OVERALL: only one project to initiate action, no follow-up to date	OVERALL: no progress beyond planning of activities	OVERALL: very limited expertise on, and facilities for biotechnology

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
10. Regulate access to / transfer of genetic resources	#23. see above: law enforcement wildlife	#23. harvest from the wild based on hunting licences, trade quota, forest management plans, research permits	#23. limited staff, equipment and finances to monitor harvest
	#43. implementation law and regulations in relation to fishes / fisheries (LVV)	#43. harvest based on fishing licences; import / export with sanitary certificate	#43. as #23
	#44. implementation law and regulations in relation to crops and domesticated animals (LVV)	#44. import / export with sanitary certificate; for seeds new regulations drafted	#44. as #23
	#45. projects on regulation of Bioprospecting (LBB)	#45. two assessments done and reported upon, but no follow-up	#45. unknown
	#46. implementation of import/export and customs laws (HI, customs)	#46. restrictions based on “negative lists”, which have been updated	#46. limited staff and facilities to monitor export
	#47. UNCTAD program on biotrade (ACTO)	#47. national Biotrade assessment done	#47. none
	OVERALL: regulatory action by at least four government agencies based on as many laws	OVERALL: complex regulatory system put in place, somewhat updated, but not comprehensive	OVERALL: limited staff, equipment and financial resources to assess and monitor
11. Regulate use of living Genetically Modified Organisms	#42. see above: Biotrade framework development	#42. no regulatory framework in effect	#42. very limited expertise and capacity in relation to biotechnology
	OVERALL: same as #42	OVERALL: same as #42	OVERALL: same as #42
12. Regulate commercial use of genetic resources, incl. benefit-sharing	#48. program to develop modern IPR laws (JP)	#48. new law drafted on industrial property rights, but not on traditional knowledge	#48. hardly any in-country expertise to develop some specific laws
	#49. project on traditional knowledge (BBS)	#49. first workshop held on this topic	#49. unknown
	#50. program to develop regulations for Bio-prospecting (LBB)	#50. two preliminary assessments done, but no follow-up	#50. unknown
	#51. ICBG bioprospecting program	#51. bioprospecting contract developed and implemented; field activities discontinued	#51. ad-hoc regulatory framework not accepted by changing administrations

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
	#52. initiative of LVV to introduce law on Breeders Rights (IPR in relation man-made plant races)	#52. draft law developed	#52. flow of draft laws until adoption by parliament takes much time
	OVERALL: some initiatives to develop regulations, but not comprehensive	OVERALL: no functional regulatory system in place in relation to use of genetic resources and traditional knowledge	OVERALL: lack of accepted regulatory framework and hardly any expertise to develop one
13. Access finances to implement CBD	#53. national Multi-annual Development Programmes (NPO) and sector plans (PLOS et al.)	#53. MOP 2006-2011 with policies and plans on e.g. environment and natural resource use; several sectoral plans finished, but Environment Sector Plan remains a draft; all plans serve to access funds from national and Dutch government, EU, GEF	#53. plans often lack realism given quite limited implementing capacity
	#1. see above: NBS and NBAP development	#1. NBAP to be finished and used to access GEF funds	#1. changes in administration delay plan finalization
	#4 & 5. see above: WWF's GE Vision & GFCEP	#4 & 5: GFCEP funded using WWF and Dutch and French government funds	#4 & 5: time-schedules often unrealistic given limited implementing capacity partners
	#32. see above: strengthening SCF <i>et al.</i>	#32. SCF is being strengthened to source more funds	#32. as #4 & 5
	#54. Conservation Action Plans for Suriname (LBB, Stinasu et al.)	#54. second CAPS drafted, intended to source funding	#54. conflicts on policy between government and NGOs / communities
	#7. see above: GSI	#7. GSI phase II plan used to capture EU funds	#7. unknown
	#55. Conservation International multi-annual plans for the region and for global programs	#55. plans instrumental to capture private funds (e.g. Moore Foundation)	#55. as #4 & 5
	#56. ACT(S) long-term plan for communities in Southern Suriname	#56. as #54	#56. as #4 & 5

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
	OVERALL: many initiatives to make plans and budgets at regional and national level, mostly sectoral or thematic plans (sector-wide) or corporate ones (for an organization)	OVERALL: many plans developed (or being developed) to source funding from national governments, multilateral agencies, and private donors	OVERALL: plans often lack realism given limited implementing capacity
14. Raise understanding & awareness of CBD goals	#57. awareness program ministry ATM	#57. occasional biodiversity items as part of televised broadcasts	#57. traditional focus on labor issues, not much time allotted to biodiversity
	#58. awareness program SVSS	#58. two-weekly page on environment in national newspaper; frequent environmental spots on TV; yearly cleanup campaign	#58. unknown
	#59. education and awareness program LBB	#59. lessons on nature provided for schools; press releases in the paper on conservation and wildlife	#59. finances and staff limited
	#60. awareness program SBB	#60. weekly radio program on forest management	#60. unknown
	#61. awareness program WWF	#61. two-weekly page on nature conservation in national newspaper; television and radio series on WWF program	#61. unknown
	#62. awareness program Stinasu	#62. press releases; publication of booklets on flora and fauna	#62. finances and staff limited
	#63. education program Wildlife Rangers Club	#63. wildlife rangers camps for youth during holidays	#63. as #62
	#64. awareness activities CI	#64. as #62	#64. unknown
	#65. awareness activities by Santour	#65. press releases, and special activities at communities	#65. unknown
	#66 awareness activities by GHF	#66. press releases and production of booklets and other materials	#66. unknown
	OVERALL: many different awareness programs and activities by different NGOs and government-linked organizations	OVERALL: many awareness activities at different fora but not coordinated between organizations	OVERALL: financial resources are limiting as well as logistics; a national vision for joint action is lacking

Convention commitment	Initiative (plan, program, project)	Progress	Constraint
15. Implement incentives for sustainable biodiversity use & conservation	#67. LBB and Stinasu's ecotourism development program in protected areas	#67. involvement of local communities in ecotourism at protected areas, as an economic incentive	#67. financial, staff and logistic constraints; land-use conflicts
	#5 see above: WWF's GFCEP	#5. certification of sustainable forest operations (one company certified)	#5 limited human capacity with mostly small local companies
	#10. see above: WWF's wildlife program	#10. hunting / collecting restrictions compensated by support for ecotourism development	#10. conflicts between conservation and traditional beliefs or opportunism
	#68. CI's ecotourism program	#68. Same as #67	#68. high costs and difficult logistics due to remoteness; problems with introducing modern concepts in traditional communities; low general education levels and limited "modern" skills
	#41. see above. Shaman's Apprentice Program	#41. development of health care system that helps conserve biodiversity and local culture	#41. unknown
	OVERALL: mostly tourism-related incentive programs	OVERALL: mostly progress in relation to ecotourism, very little in relation to industry and trade	OVERALL constraints mostly due to remoteness of locations and due to a clash between global demands and local land use traditions

The situation in terms of number and scope of initiatives (comprehensiveness) and progress to date and constraints can be summarized as follows (with reference to Table 4.1, especially the comments in bold following "OVERALL").

Commitment 1. Undertake biodiversity conservation planning.

Initiatives are many and wide-ranging, often coordinated by major NGOs. Progress is good, as there are now management plans for most protected areas, and there are recommendations for the improvement of the current management and of the entire protected area system. An important constraint is the limited local human resource pool (few experts available in the country), and the frequent lack of follow-up on recommendations. The latter seems to be a consequence of obvious human resource limitations, as well as the situation that recommendations are often not in line with overall government policy (cross-sectoral), which itself may be caused by changes in administration after elections.

Commitment 2. Identify & monitor biodiversity and conservation.

Again many initiatives coordinated by different organizations, but the focus is mostly on terrestrial and freshwater wild fauna and its conservation, less on plants, habitats / ecosystems and marine or agricultural biodiversity, and hardly at all on micro-organisms or genetic diversity. Progress on the aspects on which there is a focus is good, in the sense that collections and databases are established and managed, and that reports exist on the biodiversity of certain localities or areas. Most of the in-depth studies done are of the assessment type (strongly time constrained), but some monitoring (over time) also occurs. Progress is constrained in general by limited expertise and staff available in the country, and of course limited funding, especially when this is compared to the magnitude of Suriname's land and marine EEZ surface, and the magnitude and complexity of the local biodiversity.

Commitment 3. In-situ conservation (incl. protected area system).

On-site (in-situ) conservation occurs in a system of protected areas – strict nature reserves (NR), multiple-use zones (MUMA), and a nature park – and this is done in a programmatic manner by government agencies and to some extent by local communities. It is governed by national laws and regulations on nature conservation, game and forest management, which are mainly enforced by game and forest wardens. Progress is slow, and enforcement activities lack continuity. Many protected areas have no wardens stationed in the area, and other areas are only visited by wardens on occasion. There is involvement of communities in in-situ conservation in at least two areas. Staff and financial limitations are major constraints for the government agencies in charge of in-situ conservation. However, another constraint is the very limited delegation of conservation tasks to local bodies or communities.

Commitment 4. Ex-situ conservation (in zoos and gardens).

There are hardly any ongoing ex-situ conservation initiatives in Suriname, although the activities at the local zoo, and a local sloth rescue program do go in that direction. Progress is slow due to the limited expertise available in Suriname, and of course due to limited finances.

Commitment 5. Use E(S)IA (impact studies) for conservation.

Many development projects by major companies, as well as development projects funded via multilateral agencies, are subject to E(S)IA or impact studies, prior to or during project implementation. The scope of ESIA is wide, but not regulated by law, although guidelines have been developed and are applied. The lack of a good legal framework hampers further progress, as does the limited expertise and staff available in the country to develop plans, write TORs, and review ESIA results.

Commitment 6. Manage information (clearing house function).

There are few recent initiatives on biodiversity information management, although organizations at or linked to the local university do function as ad-hoc clearinghouses (for subsets of information). Information remains scattered over different organizations, and is likely not up to date. An initiative exists to arrive at a comprehensive clearinghouse structure. In general, initiatives are constrained by the limited dedicated staff, finances and infrastructure in the country, and by the fact that the clearinghouse function is not effectively assumed or coordinated by a single body.

Commitment 7. Educate & train in science & technology.

Only three organizations in Suriname provide relevant mid/higher education programs; there are few other initiatives in biodiversity science and technology education and training. The biodiversity scope is limited, as already described under commitment 2 (see above). There is some progress, in the sense that education programs are being developed that will provide training at Masters level (current education does not exceed Bachelors level). A major constraint, as education is given at higher levels, is that few of the locally available lecturers have a sufficiently high academic and skill level. Local salaries are not very attractive for foreign lecturers.

Commitment 8. Preserve Indigenous / local knowledge.

Only a limited number of initiatives are ongoing, but their ethnic / cultural and geographic scope is wide. The focus is more on medicinal plant knowledge than on other types of biodiversity related knowledge. The initiatives have resulted in some land-use maps of Indigenous communities, some reports, and the establishment of traditional health clinics in at least one community. Progress is constrained by IPR issues, such as about the ownership of traditional knowledge and its publication and use by third parties. This is an important issue since most of the initiatives on local knowledge have been initiated and coordinated by non-indigenous.

Commitment 9. Implement Cartagena Biosafety Protocol.

Apart from the development of a Biosafety Framework plan, no recent activities have taken place, although follow-up is being prepared. The limited number of activities is mainly due to the very limited experience with and expertise in biotechnology in Suriname.

Commitment 10. Regulate access to / transfer of genetic resources.

Activities in relation to the access to and transfer of genetic resources are done in a programmatic manner by government agencies. This aspect is governed by national laws and regulations on wildlife use, fisheries, and (general) import / export. The scope of these laws does not include genetic material as such and bioprospecting, and there have been initiatives to address this. The regulatory system is complex, and not very comprehensive. Progress in its adaptation and implementation is hampered by limited staff, equipment and finances to monitor harvest (access) and export (transfer) of organisms and the genetic resources they represent.

Commitment 11. Regulate use of living Genetically Modified Organisms (GMO).

What applies to commitment 9 (see above) also applies here .

Commitment 12. Regulate commercial use of genetic resources, incl. benefit sharing.

A few initiatives relate to the regulation of commercial use of information on the medicinal use of wild species, and this remains the (narrow) scope of current activities. An initiative to develop an IPR law is only marginally relevant as it is specific to industrial property; an initiative to develop a breeders law is relevant, but not comprehensive. Suriname has been one of the locations of a major bioprospecting initiative (ICBG), but activities were hampered by difficulties to prolong permits. There remains an absence of a generally accepted and comprehensive framework for access to genetic resources for e.g. bioprospecting purposes, and the limited human resources in the country to develop one represent a major constraint.

Commitment 13. Access to finances to implement CBD.

There is much plan development and associated fundraising in relation to the implementation of activities that are in line with the CBD. Planning and fundraising is done by the national government and by NGOs which have a conservation objective. Funds are being accessed or targeted from national governments, multilateral agencies and private donors (individuals and companies). Access to funds is somewhat limited due to the often somewhat unrealistic character of plans. Plans are typically unrealistic in the sense that they cannot be implemented as planned, mainly due to the severity of the capacity limitations in the country, such as the limited expertise and the shortcomings of the overall regulatory and institutional framework.

Commitment 14. Raise understanding & awareness of CBD goals.

There is wider range of awareness activities, by both government and NGOs, but no coordination. While financial and logistic resources are limiting (e.g. due to fragmentation of efforts), the main constraint would seem to be the lack of a national platform that would lead to joint awareness activities in relation to biodiversity.

Commitment 15. Implement incentives for sustainable biodiversity use & conservation.

Incentives implemented include forestry certification (allowing access to lucrative markets for timber products), development of ecotourism for communities (as an incentive to abandon the wildlife and bushmeat trade), and maintenance of traditional health care (as a complement to western style healthcare). The focus is predominantly on ecotourism as an incentive for conservation. The scope does not include incentives such as cheap loans or tax holidays for companies (or other organizations) that want to make their business more oriented towards sustainable resource use and conservation. Many current initiatives (related to ecotourism) are constrained by the financial and logistic burden of working at remote locations (high transport costs), and the fact that the incentives are often not sufficient to overcome (non-sustainable) traditions and opportunism.

4.1.2 Cross-cutting linkages

A list of “related topics among the three UN conventions” (provided by the international consultant that assisted with the thematic assessment reported upon here) is used here to identify some cross-cutting topics and issues in relation to capacity between the CBD, CCC, and CCD. At this stage, based on the above mentioned list and Table 4.1 (above), the following cross-cutting topics and issues may be relevant in the context of Suriname:

- Planning and follow-up / implementation:
 - recommendations in sectoral reports and plans need to be in line with cross-sectoral government policies, or these policies need to be adapted
 - plans, such as sectoral ones, need to take into account Suriname’s limited implementing capacity
 - the remoteness of locations where action has to take place may hamper implementation, as well as a “clash of cultures” between the national / global society and local traditions (at remote locations)
- Capacity building:
 - Suriname has limited expertise on the many specialised aspects of the MEAs, and a very limited number of staff available / few in-country experts; expertise will need to be developed, recruited, and retained
 - Suriname has limited financial and logistic resources relative to the substantial size of the country and the magnitude of action to be undertaken under the MEAs; financial and logistic capacity needs to be improved
- Information:
 - technical information needs to be available, as well as information on progress in relation to MEA implementation; there needs to be an effective national clearing house mechanism

4.1.3 Gaps

Table 4.1 and the discussion in 4.1.1 point at some important gaps, in the sense: commitments under the CBD that are not adequately addressed in Suriname. Below, the gaps are presented explicitly under the fifteen CBD commitment headings.

Commitment 1. Undertake biodiversity conservation planning.

An important gap in relation to conservation planning is that the plans often have insufficient support at the highest levels of governance. Overall government policies, as well as subsequent administrations, do not necessarily agree with conservation-oriented plans and recommendations.

Another gap is related to limited expertise (and finance), and is in fact due to constraints in relation to commitments 2 and 6 (see discussion above). The link between commitments 2 and 6, and 1 is that gaps in data and problems with information management translate into

skewed and flawed planning. In Suriname, this is quite obvious at the planning level: limited data and information availability on e.g. marine, microbial, genetic and agricultural biodiversity translate into plans that hardly address these aspects.

Commitment 2. Identify & monitor biodiversity and conservation.

The most important gaps here are the ones already mentioned above (commitment 1), namely the lack of biodiversity and conservation assessments and monitoring in relation to marine, microbial, genetic and agricultural biodiversity. Plant and habitat / ecosystem biodiversity remains poorly studied in the interior of Suriname, compared to animal biodiversity (at least as far as vertebrate animals are concerned).

Commitment 3. In-situ conservation (incl. protected area system).

An important gap in in-situ conservation is also linked to the gaps discussed under commitment 2 (above). There are no marine protected areas in Suriname, the protected area system may not be adequate to conserve microbial, genetic and agricultural biodiversity (due to lack of information on this), and it would need to be expanded in the interior of the country (based on limited data available).

Another gap is in relation to the weak on-the-ground enforcement of conservation laws. The staff resources and on-site infrastructure of the central government body responsible are simply insufficient to ensure a permanent and effective presence in the protected areas. There is currently hardly any delegation of conservation law enforcement tasks to local organizations or communities.

Commitment 4. Ex-situ conservation (in zoos and gardens).

There is an almost total lack of ex-situ conservation in Suriname; a major gap.

Commitment 5. Use E(S)IA (impact studies) for conservation.

A major shortcoming is the absence of a legal framework for ESIA, although some impact studies are already being implemented.

Another one is that there is not enough local expertise and staff to develop ESIA-related plans and TORs, and review ESIA results.

Commitment 6. Manage information (clearing house function).

The major gap here is the absence of a policy and of a comprehensive clearing house mechanism in relation biodiversity data and information. Currently, information is scattered.

Commitment 7. Educate & train in science & technology.

A major gap is that education above the bachelors level is not being provided in Suriname, at least not in relation to natural sciences and technology. Also, hardly any education or training is provided in Suriname that can produce specialists in biodiversity, regardless of the level.

Commitment 8. Preserve Indigenous / local knowledge.

Initiatives to preserve indigenous knowledge on fauna and non-medicinal uses of plants are lacking. This represents a substantial gap.

The preservation of indigeneous / local knowledge in general is hampered by the lack of appropriate legislation on IPR; this is a gap that is discussed under commitment 12 (below).

Commitment 9. Implement Cartagena Biosafety Protocol.

There has been no follow-up on the plan of action on biosafety (Biosafety Framework), meaning that a number gaps remain in terms of laws and regulations on biosafety, etc.

Commitment 10. Regulate access to / transfer of genetic resources.

The lack of comprehensive legislation on access to, and transfer of genetic resources represents a serious gap. The regulatory system needs to be simplified and completed; the current system is antiquated and does not foresee the direct access to, and transfer of genes and genetic information. There is a need for the regulation of bioprospecting and biotrade in its many forms.

Commitment 11. Regulate use of living Genetically Modified Organisms (GMO).

What applies to commitment 9 (see above) also applies here .

Commitment 12. Regulate commercial use of genetic resources, incl. benefit sharing.

There remains an absence of a generally accepted framework for the use of genetic resources, e.g. as part of bioprospecting and biotrade, and for benefit sharing that is associated with commercial use of these genetic resources. Although Suriname has some experience in this field, there are no dedicated regulations and no organization that is competent to develop the required laws and regulations.

Commitment 13. Access to finances to implement CBD.

There are no major gaps in relation to fundraising, although the lack of an approved National Biodiversity Action Plan and Environmental Sector Plan can be regarded as a matter of concern.

Commitment 14. Raise understanding & awareness of CBD goals.

Although there are numerous programs to improve awareness, they are not coordinated, and this is an important shortcoming. The absence of a coordination mechanism and joint action to improve awareness can thus be regarded as a gap. Coordinated action would seem especially important to reach all levels of governance, across the different sectors. Lack of cross-sectoral support for environmental and biodiversity issues remains a problem in Suriname

Commitment 15. Implement incentives for sustainable biodiversity use & conservation.

There are few incentives for business to become more oriented towards sustainable resource use and conservation. This represents an important gap. Incentives such as tax breaks, soft loans, simplified procedures to get concessions, etc. should be considered. For communities incentives should probably be more diverse than at present, not just related to ecotourism development as a substitute for less sustainable resource use.

4.2 Identification of Key issues and prioritization

Suriname's National Biodiversity Strategy (NBS) and an incomplete draft National Biodiversity Action Plan (NBAP) exist, and provide some insight in national priorities. What may be useful as a basis for prioritisation here, is grouping of issues under eight main goals, as done in the draft NBAP:

1. Conservation of biodiversity
2. Sustainable use of biodiversity
3. Access to genetic resources & related knowledge, with equitable benefit sharing
4. Acquisition of knowledge through research and monitoring
5. Capacity building
6. Awareness building and empowerment through education and communication
7. Local and international collaboration
8. Sustainable financing (of the above)

Each of these goals relates to a larger issue that requires priority attention. We will use the eight goals to structure our analysis in this chapter (as in Table 4.2). In the draft NBAP, more details about the goals and priorities are provided (see also 2nd column in Table 4.2).

Other national planning documents and background documents are potentially also useful at this stage, in the sense that they may provide more detail on national policies and priorities. These documents include:

- Multi-annual Development Plan (MOP) 2006-2011 and policy statement on environment by the Ministry of Labor, Technological Development and Environment

(ATM); the ATM policy statement has been the basis for the environmental chapter in the MOP 2006-2011

- National Forest Policy (NFP)
- National Biosafety Framework plan (NBF)
- draft Non-Urban Environmental Sector Plan (NUES; used here with caution, since it is a draft that will likely undergo considerable revision)
- sectoral plans for the Agricultural Sector (ASP), the Education Sector (ESP), as well for the sector Juridical protection and security (JSP)

In Table 4.2, priorities mentioned in these plans are listed in a concise manner. Based on this table, the CBD-related national priorities may be summarized as follows:

1. the planning of land-use, both in the context of biodiversity conservation and sustainable use, also taking into account the risk of disasters (special attention required to land-use in savannas and the protection of shell ridges)
2. designing a protected area system in which the different habitats and endangered species are adequately represented (incl. sanctuary zones in forestry concessions), and which is effectively managed by engaging and involving local communities
3. the reduction of the impact of mining, agriculture, forestry and potentially dangerous substances (e.g. toxic chemical) and organisms (e.g. GMOs), largely via the implementation of E(S)IA or impact studies and by rehabilitation of damaged areas
4. the sustainable use of terrestrial, freshwater and marine biodiversity in such sectors as forestry (timber and NTFP), fisheries, wildlife use (hunting and trade), and tourism
5. recognition of traditional land-use rights of local communities
6. regulation of access to genetic resources and equitable benefit sharing, both in case of (non-profit) research and commercial application, such as via bioprospecting and the application of biotechnology
7. regulation of the use of traditional knowledge relating to biodiversity
8. the implementation of biodiversity research, both general biological research that e.g. will help assess the adequacy of the protected area system and the impact of land use on biodiversity, and research that is targeted at making the use of biological resources more sustainable (as in the forestry and agricultural sectors)
9. the implementation of awareness activities, on biodiversity, biosafety, the environment and the forests, targeting the general public, local communities, and the forestry and agricultural sectors
10. achieving collaboration on environmental issues amongst ministries, and between these and the private sector and NGOs, with the aim of coordinating policy and action
11. achieving international collaboration on environmental issues, especially in the regional context (South America, Caribbean)
12. obtaining funds for both ad-hoc action (e.g. projects) and long-term / recurrent activities, to finance e.g. biodiversity conservation, e.g. via a trust
13. direct funds generated by biodiversity use (e.g. in forestry) and through biodiversity valuation (payment for ecosystem services) to the management of biodiversity (e.g. forest management)

The capacity building issues / priorities are not listed above, since they are a function of the other issues. They will, however, feature prominently in the next section.

Table 4.2. National priorities related to the CBD in function of eight main goals of the NBS / NBAP.

main goals from NBAP	NBS / NBAP (biodiversity)	MOP & ATM policy (environment)	NFP & APFS (forest sector)	NBF (biosafety)	NUESP (environment)	ASP, ESP & JSP (other sectors)
1. Conservation of biodiversity	Planning of land-use, taking into account risk of disasters Adequate and effective system of protected areas Reduced-impact mining Reduced-impact agriculture Responsible application of biotechnology Prevention of spread of dangerous objects, substances and organisms	Implementation of land use planning Implementation of E(S)IA procedures	Designation of sanctuary zones in forestry concessions Mobilization of communities for protected area management Implementation of E(S)IA procedures		Protection of representative habitats and endangered species Community participation in protected area management Conditional economic use of multiple-use areas Rehabilitation areas damaged by mining Mining with reduced impact Protection of intact shell ridges	Agriculture with reduced environmental impact
2. Sustainable use of biodiversity	Sustainable use of marine and freshwater resources Sustainable forestry and forest recovery Sustainable use of wild animals Sustainable tourism	Implementation of sustainable agriculture, fisheries and forestry	Operational land use planning Monitoring of timber and NTFP harvest and trade		Zoning of resource-use within the forest estate Land-use planning for responsible use of savannas Sustainable, economic timber and NTFP industry	

main goals from NBAP	NBS / NBAP (biodiversity)	MOP & ATM policy (environment)	NFP & APFS (forest sector)	NBF (biosafety)	NUESP (environment)	ASP, ESP & JSP (other sectors)
	in natural areas				Use of natural areas for ecotourism, sports fisheries and research Reduction of illegal fisheries and non-sustainable fishing	
3. Access to genetic resources & related knowledge, with equitable benefit sharing	Regulation access to genetic resources and equitable sharing of resulting benefits Regulation use of collective, traditional knowledge		Creation framework for bioprospecting Regulate research by foreign researchers Recognition of land / land-use rights of traditional users	Implement interim trade restrictions on GMO	Recognition of traditional land / land-use rights	
4. Acquisition of knowledge through research and monitoring	Implementation of research on biodiversity, both basic biological research as well as on sustainable use Monitoring of biodiversity and human activities that impact it Set up of accessible databases on biodiversity		Investigate adequacy of existing protected area system Develop and implement research in support of forest use / management		Research on sustainable use of savannas	Monitoring of fish and shrimp populations

main goals from NBAP	NBS / NBAP (biodiversity)	MOP & ATM policy (environment)	NFP & APFS (forest sector)	NBF (biosafety)	NUESP (environment)	ASP, ESP & JSP (other sectors)
<p>5. Capacity building</p>	<p>Adjustment of national legal / regulatory framework for conservation</p> <p>Create biodiversity information system for policy makers</p> <p>Develop capacity at individual and institutional level with general public, within the government, the private sector, NGOs, and communities</p> <p>Strengthen the capacity of research and monitoring organizations</p>	<p>Develop laws to protect IPR, incl. traditional knowledge, and achieve equitable benefit sharing</p> <p>Environmental framework law finalized and in effect</p> <p>Environmental management regulations set and authority created</p> <p>Biodiversity-related laws and regulations adjusted</p> <p>Biodiversity management organizations strengthened</p> <p>Biodiversity education and monitoring organizations strengthened</p> <p>Create education and research capability in biotechnology and genetic resources</p>	<p>Adjustment / updating of forest-related laws</p> <p>Creation of a single forest authority</p> <p>Functional data and information gathering and sharing mechanism</p> <p>Provision of advanced education and training for forest professionals</p>	<p>Develop biosafety laws and regulations</p> <p>Strengthen organizations to play their role in biosafety framework</p> <p>Create coordination structure for Biosafety</p> <p>Training of professionals dealing with biosafety</p>	<p>Improve legal / regulatory framework for management of environment</p> <p>Strengthening of existing organizations with role in environmental regulation and management</p> <p>Creation of forest management, mineral resources and water authorities</p> <p>Strengthening of capacity to manage freshwater resources</p> <p>Strengthening of capacity of traditional users to negotiate</p>	

main goals from NBAP	NBS / NBAP (biodiversity)	MOP & ATM policy (environment)	NFP & APFS (forest sector)	NBF (biosafety)	NUESP (environment)	ASP, ESP & JSP (other sectors)
6. Awareness building and empowerment through education and communication	Enhance awareness with general public, within local communities, and in the agriculture / fisheries sector	Increase public awareness on environment	Improve education on and awareness of forest issues	Awareness building in relation to biosafety		
7. Local and international collaboration	Local collaboration with participation of communities International collaboration within the context of the region	Functioning inter-ministerial collaboration Use of national and international collaboration networks	Promote regional collaboration for conservation Regional collaboration on training for forest professionals Improved collaboration between local forest sector actors and stakeholders Cross-sectoral coordination of forest policy		Improved coordination between public and private organizations	

main goals from NBAP	NBS / NBAP (biodiversity)	MOP & ATM policy (environment)	NFP & APFS (forest sector)	NBF (biosafety)	NUESP (environment)	ASP, ESP & JSP (other sectors)
<p>8. Sustainable financing (of the above)</p>	<p>Obtaining incidental funds (for ad-hoc projects programs)</p> <p>Obtaining continuous income (to finance long term and recurrent programs)</p> <p>Valuation of ecosystem services</p>		<p>Establish alliances with international partners to obtain finance for conservation</p> <p>Effective international support for conservation</p> <p>Channel income from forest use to forest management</p> <p>Establish a forest fund to attract international donor contributions</p> <p>Access funds from development banks for capacity building</p> <p>Valuation of ecological functions of forests</p>	<p>Obtain funds to implement biosafety framework</p>		

4.3 Constraints of priority issues

Capacity constraints related to the thirteen priority issues identified in the previous section are described in Table 4.3. These constraints have been identified based on existing documents, on the feedback from stakeholders, on constraints identified in section 4.1 and 4.2 (above), and on the knowledge of the consultant (BDD) of the local situation.

Table 4.3. Capacity constraints to address CBD-related priority issues.

Priority issues	Individual capacity constraints	Institutional capacity constraints	Systemic capacity constraints
1. the planning of land-use, both in the context of biodiversity conservation and sustainable use, also taking into account the risk of disasters	Shortage of expertise and skilled staff at planning office.	Mandate of planning office in terms of land-use planning not effective	No comprehensive information policy, nor a biodiversity information system (clearinghouse). Different sectoral and cross-sectoral plans and laws are incoherent, maybe even contradictory. Decision making often not on rational / scientific basis. Planning law not in full force; planning board and advisory commission not established.
2. designing a protected area system in which the different habitats and endangered species are adequately represented, and which is effectively managed by engaging and involving local communities	Shortage of expertise and skilled staff at organizations that are involved in nature conservation and management; poor pay and career perspective.	Weak enforcement capability of the organization responsible for protected area management; weak organization due to limited finances, equipment and infrastructure. Hardly any delegation of law enforcement tasks to lower levels of governance and local communities.	Legal / regulatory framework for biodiversity conservation is outdated, e.g. does not provide for delegation. No comprehensive information policy, nor biodiversity information system (clearinghouse).
3. the reduction of the impact of mining, agriculture, forestry and potentially dangerous substances and organisms, largely via the implementation of E(S)IA or impact studies and by rehabilitation of	Shortage of expertise and skilled staff at all organizations that are involved in the regulation and management of mining, agriculture, forestry, biosafety Members of traditional, local communities often have weak	Organization that coordinates environmental policy with many weaknesses (e.g. poor planning) Organization that implements environmental regulation is not empowered (no	Lack of an environmental framework law that sets legal regulations to reduce the human impact on environment and biodiversity, and that empowers a regulatory body. Legal / regulatory framework for forest

Priority issues	Individual capacity constraints	Institutional capacity constraints	Systemic capacity constraints
damaged areas	<p>negotiation skills.</p> <p>Individual tasks and functions within the government are not well defined.</p> <p>Weak performance (of individuals) in much of the government, and relatively low pay and few career opportunities.</p>	<p>strong legal mandate).</p> <p>Organizations that are to play a role in ensuring biosafety lack capacity (e.g. staff, equipment, funds) to do so.</p> <p>Organizations regulating minerals and water use are weak, not in a position to enforce regulations.</p>	<p>management is somewhat outdated.</p> <p>Biosafety law and regulations, and coordination structure are non-existent.</p> <p>Decision making often not on rational / scientific basis.</p>
4. the sustainable use of terrestrial, freshwater and marine biodiversity in such sectors as forestry, fisheries, wildlife use, and tourism	<p>Shortage of expertise and skilled staff in the entire forest sector.</p> <p>Weak performance (of individuals) in much of the forest sector, and relatively low pay and few career opportunities.</p>	<p>Forest resources management is inefficient and lacks coordination, as it currently is the responsibility of two separate and relatively weak organisations (e.g. with insufficient manpower, logistic and financial means).</p> <p>Law enforcement capability in relation the freshwater and marine resources is extremely limited.</p>	<p>No comprehensive information policy, nor biodiversity information system (clearinghouse).</p> <p>Implementation of forest policy and process of strategic reform of forestry sector is hardly proceeding.</p> <p>No local postgraduate education or training available for forest sector professionals.</p>
5. recognition of traditional land-use rights of local communities	<p>Members of traditional, local communities often have weak negotiation skills.</p>	<p>Mandate of no less than three different councils and commissions that deal with land rights is unclear.</p>	<p>Negotiations on land rights between government and indigenous communities lacks transparency and is proceeding extremely slow.</p>
6. regulation of access to genetic resources and equitable benefit sharing, such as via bioprospecting and the application of biotechnology.	<p>Shortage of expertise and skilled staff that can deal with the issue.</p>	<p>Organizations responsible for access to genetic resources are weak, not designed for regulating modern bioprospecting, biotechnology and biotrade.</p>	<p>No comprehensive legislation on access to, and transfer of genetic resources, and associated benefit sharing.</p>
7. regulation of the use of local “traditional” knowledge relating to biodiversity	<p>Members of traditional, local communities often have weak negotiation skills.</p>	<p>Organization that deals with IPR is hardly equipped to deal with this issue.</p>	<p>Lack of IPR laws that deal with communal and traditional knowledge and benefit sharing based on use of this knowledge.</p> <p>IPR hardly respected or enforced.</p>

Priority issues	Individual capacity constraints	Institutional capacity constraints	Systemic capacity constraints
8. the implementation of biodiversity research, both general biological research that e.g. will help assess the adequacy of the protected area system and the impact of land use on biodiversity, and research that is targeted at making the use of biological resources more sustainable	Shortage of expertise and skilled staff at the organizations that are involved in biodiversity research and education.	Organizations that implement biodiversity research and education lack adequate funding.	No organization that educates or trains specifically in relation to genetic resources and biotechnology. No local postgraduate education or training opportunities in relation to natural sciences and technology. Hardly any education that can produce biodiversity specialists.
9. the implementation of awareness activities, on biodiversity, biosafety, the environment and the forests			Awareness activities are not coordinated.
10. achieving collaboration on environmental issues amongst ministries, and between these and the private sector and NGOs, with the aim of coordinating policy and action	Individual tasks and functions within the government are not well defined. Weak performance (of individuals) in much of the government, and relatively low pay and few career opportunities.	Tasks and functions of organizations within the government that deal with environmental issues are not well defined.	No effective communication and cooperation system amongst ministries. Poor communication and coordination between conservation planners (NGOs) and high levels of government.
11. achieving international collaboration on environmental issues, especially in the regional context (South America, Caribbean)	Limited staff and expertise to fully engage in international collaboration.	Tasks and functions of organizations within the government that deal with environmental issues are not well defined.	Communication between national and international organisations is often weak or slow.
12. obtaining funds for both ad-hoc action (e.g. projects) and long-term / recurrent activities, to finance e.g. biodiversity conservation, e.g. via a trust	Limited skill in project-writing and fundraising, at least with the government.	Poor performance (e.g. implementation of programs and project typically delayed) and limited accountability of many organizations.	No final and approved NBAP and environmental sector plan yet, which limits fundraising capacity of the government.
13. direct funds generated by biodiversity use (e.g. in forestry) and	Shortage of expertise and skilled staff in relation to payment for ecosystem	Flow of funds in forest sector towards management organization is	No consensus on forest policy between government and private sector.

Priority issues	Individual capacity constraints	Institutional capacity constraints	Systemic capacity constraints
through biodiversity valuation (payment for ecosystem services) to the management of biodiversity (e.g. forest management)	services.	insufficient.	No government organization really dealing with payment for ecosystem services.

The constraints can be summarized as follows (based on table 4.3).

Individual capacity constraints:

- shortage of expertise and skilled staff at many organizations that deal with biodiversity in some way or another, especially in the forest sector, in relation to biotechnology, and generally at government organizations, where salaries and career perspectives are poor, and individual tasks and functions tend to be poorly defined
- weak negotiating skills with members of local communities, e.g. when engaging in E(S)IA and discussions about land use, IPR and benefit sharing

Institutional capacity constraints:

- mandate of organizations within or linked to the government that deal with environmental issues are not well defined; they are often also poor in terms of transparency (accountability); ineffective mandate of planning office; mandate of council and commissions dealing with land rights is not clear
- several weaknesses with the organizations in charge of coordinating environmental policy and implementing it, such as lack of legal empowerment
- weak organizations for regulation and management of forests, protected areas, genetic resources and IPR, especially weak in terms of enforcement; also weak organizations that regulate use of mineral and water resources, and those that may play a role in biosafety; important weaknesses of all these organisations are insufficient manpower and logistic means
- organizations that implement biodiversity research and education lack adequate funding
- hardly any delegation of nature conservation tasks to lower levels of governance or communities
- flow of funds in forest sector to management organization is insufficient

Systemic constraints:

- incoherent body of sectoral policies, laws and plans, and poor communication amongst ministries, and between these and international organisations; decision making often not based on rational / scientific grounds
- many laws non-existent (Environmental Framework, Biosafety, Bioprospecting), outdated (Nature Conservation), not comprehensive (access to genetic resources and benefit sharing, IPR) or not effectuated (Planning)
- no final and approved NBAP and environmental sector plan; lack of an effective clearing house mechanism for biodiversity information; mechanism to coordinate biosafety action non-existent
- lack of consensus between government and private sector on forest policy and poor communication between conservation planners (e.g. NGOs) and the highest levels of government
- negotiations on land rights, and reform of forest sector hardly proceeding

- lack of education and training organizations in relation to genetic resources and biotechnology, few in relation to biodiversity; hardly any postgraduate education or training opportunities in relation the forest sector or natural science & technology
- awareness activities in relation to biodiversity not coordinated
- no government organization really dealing with payment for ecosystem services

4.4 Gap Analysis Conclusions

There is considerable overlap between the constraints in relation to priority issues (see 4.3 above), and the gaps identified earlier (see 4.1.3; not prioritized). These areas of overlap may serve to identify the main gaps to address with priority in the Suriname NCSA context. The main priority gaps may thus be:

- There is not enough expertise and skilled staff at organizations that deal with biodiversity in some way or another. This is very obvious in the forest sector and in relation to biotechnology. Governmental organizations typically have great shortages. A specific problem is that there is not enough local expertise and staff to develop ESIA-related plans and TORs, and review ESIA results.
- One of the explanations for the previous gap is that education above the bachelors level is not being provided in Suriname, at least not in relation to natural sciences and technology. There is a lack of education and training organizations in relation to genetic resources and biotechnology, few in relation to biodiversity; there are hardly any postgraduate education or training opportunities.
- The mandates of organizations within or linked to the government that deal with environmental issues are not well defined. The organizations in charge of coordinating environmental policy and implementing it (e.g. the implementation of ESIA) lack legal empowerment. The mandate of the planning office is not effective. A council and two commissions dealing with land rights have overlapping mandates.
- The organizations that regulate and manage forests, protected areas, genetic resources and IPR, have very limited manpower and logistical resources, and are especially weak in terms of enforcement. Organizations that regulate use of mineral and water resources are also weak, as are those that may play a role in biosafety.
- There is hardly any delegation of nature conservation tasks to lower levels of governance or to communities.
- The body of sectoral policies, laws and plans is not comprehensive, and there is poor communication amongst ministries and between these and international organisations. Many laws are non-existent, but much needed, such as an Environmental Framework law and laws dealing with biosafety and bioprospecting. Other laws are outdated, notably the Nature Conservation Law, or are not comprehensive, such as the laws on access to genetic resources and benefit sharing, and IPR. The Planning Law exists, but is not effective. The lack of appropriate legislation on IPR hampers the preservation of indigenous / local knowledge. There is no generally accepted framework for the use of genetic resources; benefit sharing that is associated with commercial use of genetic resources is not regulated.

- There is no final and approved NBAP or environmental sector plan. No single agency, such as ATM, assumes the role of clearing house for biodiversity information. An effective mechanism to coordinate biosafety action is not in place; there has been hardly any follow-up on the biosafety plan (Biosafety Framework).
- There is a lack of consensus between the government and the private sector on forest policy, and there is poor communication between conservation planners (e.g. within NGOs) and the highest levels of government. This leads to forest sector reorganisation plans and nature conservation plans that have insufficient support at the highest levels of governance, and are thus not implemented.

Other gaps also require priority action, but may be less important in the NCSA context (identified in 4.3, but no overlap with gaps in 4.1.3):

- weak negotiating skills with members of local communities, e.g. when engaging in E(S)IA and discussions about land use, IPR and benefit sharing
- organizations that implement biodiversity research and education lack adequate funding
- flow of funds in forest sector to management organization is insufficient
- negotiations on land rights, and reform of forest sector hardly proceeding
- awareness activities in relation to biodiversity not coordinated
- no government organization really dealing with payment for ecosystem services

A set of additional gaps that are relevant in the NCSA context may not require priority action (identified in 4.1.3, but no overlap with gaps in 4.3):

- gaps in (biodiversity) data and problems with information management translate into skewed and flawed planning
- lack of biodiversity and conservation assessments and monitoring in relation to marine, microbial, genetic and agricultural biodiversity
- no marine protected areas in Suriname; the protected area system may not be adequate to conserve microbial, genetic and agricultural biodiversity
- an almost total lack of ex-situ conservation in Suriname
- hardly any initiatives to preserve indigenous knowledge on fauna and non-medicinal uses of plants
- few incentives for business to become more oriented towards sustainable resource use and conservation (e.g. tax breaks, soft loans)

5 General conclusions and recommendations

The constraints that have been listed above (section 4.4) are transformed below into capacity building actions that would need to be undertaken with priority to ensure that Suriname can honor its commitments under the CBD.

It is recommended that the following main priority actions are undertaken:

- provide education and training opportunities for professionals that deal with biodiversity-related issues as part of their work, especially for those in the forest sector, for those dealing with biotechnology, and for those employed by the government; within government organizations, improve the salaries and career perspectives, and ensure that individual performance is evaluated, based on better described / framed individual tasks and functions
- clarify the mandate of organizations within or linked to the government that deal with environmental issues; also improve the transparency (accountability) of these organisations; provide the planning office with an effective mandate; clarify the mandate of the council and different commissions dealing with land rights
- strengthen the organizations in charge of coordinating environmental policy and implementing it, e.g. by empowering them by law
- strengthen the organizations that regulate and manage forests, protected areas, genetic resources and IPR, with special attention for strengthening their law enforcement capabilities; also strengthen the organizations that regulate use of mineral and water resources, and those that may play a role in biosafety
- delegate nature conservation tasks to lower levels of governance and to communities
- align sectoral policies, laws and plans, avoiding contradictory and counter-productive regulations; create or activate communication mechanisms amongst ministries, and between these and NGOs and international organisations; ensure that decisions are justified by demanding that the rational or scientific grounds for the decisions are stated and supported
- finalize and enact the Environmental Framework law; develop laws on Biosafety and Bioprospecting; update the law on Nature Conservation; reorganize the legal framework for access to genetic resources and benefit sharing, in conjunction with IPR; effectuate the Planning Law
- finish the development of the NBAP and the Environmental Sector Plan; establish an effective clearinghouse mechanism and a mechanism to coordinate biosafety action
- establish a mechanism to get consensus between government and private sector on forest policy; improve the lines of communication between conservation planners (e.g. NGO's) and the highest levels of government
- establish an education and training capability in relation to genetic resources and biotechnology; improve the education and training capability in relation to biodiversity; provide opportunities for postgraduate education or training in relation to the forest sector and natural science & technology

The following actions / approaches are likely synergetic, and make sense to undertake in relation to all three MEAs (CBD, CCC, CCD):

- education and training activities at individual level, aimed at improving performance, communication, accountability
- clarification of the mandate of institutes in the environmental sector, as well as the provision of an effective mandate to the planning office
- empowerment by law of the environmental authorities

- alignment of sectoral policies, and improvement of communication across sectors, and between government, NGO's and international organizations
- finalization and enactment of the Environmental Framework Law, and effectuation of the Planning Law
- finalization of the Environmental Sector Plan
- provision of opportunities for postgraduate training in natural sciences & technology
- establishment of a coordinating mechanism for awareness activities
- development of transparent approach to deal with payment for ecosystem services

Appendix I: NCSA – CDB Questionnaire

#1. What is the mandate or concern of your organization in relation to the CBD?

	check	describe briefly
General mandate		
Limited / specific mandate		
No official mandate, but concerned		
Neither official mandate, nor concern, but interested		
other		

2. What CBD obligations are associated with your organization?

	check	remarks
Implementation of nature conservation planning		
Identification and monitoring of biodiversity		
In-situ conservation		
Ex-situ conservation		
Use of E(S)IA for conservation		
Management of biodiversity information		
Provision of education or training		
Preservation of indigenous / local knowledge		
Implementation of the		
Regulate access to genetic resources		
Regulate the use of GMOs		
Regulate commercial use of genetic resources and benefit sharing		
Sourcing of financial resources		
Enhancement of understanding and awareness		
Development and implementation of “incentives”		
Other		

#3. Which programs or project does your organization implement that are related to the CBD, en what is the relation to CBD obligations?

Short title / description	indicate relation to CBD obligations with number [see numbers in column to right]	
		1. conservation planning
		2. identification & monitoring
		3. in-situ conservation
		4. ex-situ conservation
		5. E(S)IA
		6. information management
		7. education & training
		8. indigenous / local knowledge
		9. Cartagena Protocol
		10. access to genetic resources
		11. GMOs
		12. commercial use of genetic resources
		13. financial resources
		14. awareness
		15. "incentives"
		16. other

#4. Which capacity constraints make it difficult to fulfill Suriname’s commitments under the CBD?

Capacity constraints at three levels: <i>Individual</i> <i>Institutional</i> <i>Systemic</i>	check	remarks on precise nature of constraint
Individual: tasks and functions not clearly described and delimited		
Individual: insufficient technical knowledge		
Individual: weak skills		
Individual: not performance oriented and little evaluation of result		
Individual: low salaries and other benefits, and limited career opportunities		
Institutional: little long-term vision and no / poorly defined mandate		
Institutional: strategy vague and weak planning		
Institutional: insufficient financial means and equipment, and lack of transparency		
Institutional: poor guidance and (internal) communication		
Institutional: hardly performance oriented and weak supervision and evaluation		
Institutional: HRM policy not effective or transparent		
Systemic: poor cohesion between national plans and documents		
Systemic: legal framework hardly adapted to CBD and (law) enforcement weak		
Systemic: very limited public participation		
Systemic: decision making about natural resources at wrong level of government		
Systemic: property rights, incl. IPR, not clear and not well respected		
Systemic: price setting not free, not a good reflection of supply and demand		
Systemic: decision making not rational, insufficiently based on science		
Other:		

#5. Which capacity constraints should be addressed as soon as possible?

<i>capacity constraint:</i> describe in detail, with reference to constraints listed in Q #4	<i>link with CBD obligation (see note)</i>	<i>proposed approach to address the issues</i>
Individual level:		
Institutional level:		
Systemic level:		

note : refer to the number of the following obligations :

1. conservation planning
2. identification & monitoring
3. in-situ conservation
4. ex-situ conservation
5. E(S)IA
6. information management
7. education & training
8. indigenous / local knowledge
9. Cartagena Protocol
10. access to genetic resources
11. GMOs
12. commercial use of genetic resources
13. financial resources
14. awareness
15. "incentives"
16. other

Stakeholder representatives to which questionnaires were sent, and their response

Organization	Department / unit	Function	Response
RGB		Director	no
	Sub-directorate Forest & Nature	Deputy Director	no
LBB	NCD	Head	no
SBB		Director	yes
UvS	Board	Chairman	no
	Faculty of Technology	Coordinator Environment	yes
	NZCS	Head	no
	BBS	Head	no
CELOS	Board	Director	no
LVV	Sub-directorate Research	Director	no
		Repres. in national CBD committee	no
PLOS		Repres. in national CBD committee	no
NPO	Spatial planning unit	Geographer	no
JP	IPR unit	Head	yes
ATM	Environment unit	Focal person CBD	yes
NIMOS	Environmental Management	Director	no

Appendix II: Relevant information sources

- ASP – **Agriculture Sector Plan** / Agrarisch Sectorplan Suriname (2004) Ministry of Agriculture Animal Husbandry and Fisheries, Republic of Suriname, Paramaribo.
- ESP – **Education Sector Plan** / Sectorplan Onderwijs (2004) Ministry of Education, Republic of Suriname, Paramaribo.
- GSP – Global Support Programme (2005) **National Capacity Self Assessment Resource Kit**, UNDP-GEF, New York
- IEFP et al. – Institut de l'énergie en de l'environnement de la Francophonie (2000) **Guide to Developing a Biodiversity Strategy form a Sustainable Development Perspective**, Quebec, Canada
- JSP – **Juridical Sector Plan** / Beleidsplan sector Rechtsbescherming en Veiligheid 2006-2010 (2006) Ministry of Justice & Police, Republic of Suriname, Paramaribo.
- MOP – **Multi-Annual Development Plan** / Meerjarenontwikkelingsplan 2006-2011 (2006) Republic of Suriname, Paramaribo.
- NCSA - **National Capacity Self-Assessment for Global Environmental Management** (project description). UNDP & Government of Suriname, Paramaribo.
- NBAP – **National Biodiversity Action Plan** / Nationaal Biodiversiteit Actie Plan, draft (2007) Ministry of Labour, Technological Development and Environment, Republic of Suriname, Paramaribo.
- NBF – **National Biosafety Framework for Suriname** (2004) Ministry of Labour, Technological Development and Environment, Republic of Suriname, Paramaribo.
- NBS – **National Biodiversity Strategy** (2006) Ministry of Labour, Technological Development and Environment, Republic of Suriname, Paramaribo.
- NFP – **National Forest Policy of Suriname** / Nationaal Bosbeleid van Suriname (2005) Ministry of Natural Resources, Republic of Suriname, Paramaribo.
- NIMOS (2004) **Milieugerelateerde Wetgeving in Suriname**. NIMOS, Paramaribo.
- NUES – **Non-Urban Environment Sector plan** / Beleid en Actieprogramma Duurzaam Beheer Niet Urbane Milieu (2004) Republic of Suriname, Paramaribo.
- Policy note on environment** / Beleidsnota milieu (2006) Ministry of Labour, Technological Development and Environment, Republic of Suriname, Paramaribo.
- ATM – Min. Labour, Technological Development and Environment (2007) **Report first NCSA workshop**, Paramaribo.
- TSP – Tropenbos Suriname Program (2007) **Capacity Building Strategy & Action Plan for Capacity Enhancement in Suriname's Forest Sector**.

Appendix III: Presentation at Validation Workshop

Intro

- 1 of 3 Thematic Assessments in the context of the National Capacity Self Assessment (NCSA), this one **focusing on Biodiversity Convention (CBD)**
- **Guided** by GEF “toolkit” and intl. consultant
- **Aspects** of this assessment:
 - Completion of “stocktaking”
 - **Actual CBD thematic assessment**
 - Exploration of synergetic actions in relation to Multilateral Environmental Agreements (MEA)

Completion Stocktaking

- Identify important / relevant **documents**
 - Biodiversity Strategy (NBS) and draft Action Plan (NBAP)
 - 5-year Development Plan (MOP), policy ATM, and draft Non-urban section of Environmental Sector Plan (NUES)
 - Biosafety and Forest sector policy (NBF and NFP)
- Identify **stakeholders**, focus on those with critical role:
 - RGB + LBB & SBB (Min. Land & Forest Management)
 - UvS/AdeKUS + CELOS (University *sensu lato*)
 - PLOS & NPO (Min. Planning & Development Coop.)
 - LVV (Min. Agriculture)
 - JP (Min. Justice & Police)
 - ATM + NIMOS (Min. Environment)

Actual Thematic Assessment (TA)

- **Four main analytical steps:**
 - Establish current situation: existing initiatives that contribute to meeting CBD obligations
 - Identify gaps: CBD requirements not / partially met based on existing initiatives
 - Identify national priority issues in relation to CBD
 - Identify capacity constraints in relation to these priorities
- Fresh **stakeholder input** via questionnaires and brief phone conversations or meetings

Thematic Assessment *steps 1-2*

- **step 1: establish current situation**
 - based on important documents and fresh stakeholder input
 - list *post-1996* initiatives and their progress and constraints
 - 67 initiatives organized in function of 15 CBD commitments
 - for each commitment initiatives summarized
- **step 2: identify gaps** based on discrepancy between CBD commitments and current situation

Thematic Assessment *steps 1-2*

Example: requirement 1

Undertake biodiversity conservation planning

- **Many (9) initiatives**, such as Conservation Globally Significant Ecosystems, Priority Setting Workshop, Ecoregion Vision, ICZM
- **Good progress**: management plans for Protected Areas (PA) and recommendations for expansion PA system
- **Constrained by poor follow-up**, likely due to different overall development priorities of GoS
- **Gaps: weak implementation** of management plans and no expansion PA system, but also information gap, that makes planning difficult / risky

Thematic Assessment *steps 1-2*

Example: requirements 9 and 11

Implement Cartagena Biosafety Protocol

Regulate use of living GMO

- **Few (1) initiatives**, only development of Biosafety Framework Policy / Plan
- **Poor progress**: no implementation of plan and no actual regulation of living GMO
- **Constrained by limited expertise / experience with biotechnology**
- **Gaps: no follow up on plan**, e.g. no new laws and regulations, no actual regulatory action, etc.

Thematic Assessment *steps 3-4*

- **step 3: identify national priority issues**
 - based on important documents and stakeholder input
 - listing of priorities mentioned
 - priorities organized along 8 NBS / draft NBAP goals
 - 13 main (larger) priorities summarized
- **step 4: identify capacity constraints**
 - based on documents, stakeholder input, constraints identified during steps 1-2
 - for each of the 13 main priorities at 3 levels: individual, institutional, and systemic
 - 16 main (larger) constraints summarized at the 3 levels

Thematic Assessment *step 3*

Example: NBS / draft NBAP goal no. 3

Access to genetic resources & related knowledge with equitable benefit sharing

- **Mentioned in four documents as priority**, in terms of the regulation of access to genetic & forest resources and to traditional knowledge, and in the context of bioprospecting and biosafety, as well as land / land-use rights
- **Summarized under three distinct priorities:**
 - recognition of traditional land-use rights
 - regulation of access to genetic resources
 - regulation of the use of traditional knowledge

Thematic Assessment *step 4*

Example: priority issue no. 6

regulation of access to genetic resources

- **individual capacity constraint:** shortage of expertise and skilled staff to deal with the issue
- **institutional capacity constraint:** organizations that should deal with the issue are weak, not designed to regulate bioprospecting, biotrade, biotechnology
- **systemic constraint:** no comprehensive legislation to regulate access to genetic resources, nor benefit sharing

Thematic Assessment *step 4*

SUMMARY **individual capacity constraints:**

- **shortage of expertise and skilled staff** at many organizations, especially in the forest sector, in relation to biotechnology, and generally at government organizations, where salaries and career perspectives are poor, performance is weak, and individual tasks / functions tend to be poorly defined
- **weak negotiating skills** with members of local communities, e.g. when engaging in E(S)IA and discussions about land use, IPR and benefit sharing

Thematic Assessment *step 4*

SUMMARY **institutional capacity constraints:**

- mandate of GoS / GoS-linked organizations that deal with environmental issues not well defined; ineffective mandate of Planning Office; mandate of council / commissions dealing with land rights not clear
- weaknesses with the organizations in charge of coordinating environmental policy and implementing it, such as lack of legal empowerment
- weak organizations for regulation and management of forests, protected areas, genetic resources and IPR (e.g. weak enforcement); also in relation to mineral and water resources and biosafety

Thematic Assessment *step 4*

SUMMARY **institutional capacity constraints:**

continued

- organizations that implement biodiversity research and education lack adequate funding
- hardly any delegation of nature conservation tasks to lower levels of governance or communities
- flow of funds in forest sector to management organization is insufficient

Thematic Assessment *step 4*

SUMMARY **systemic capacity constraints:**

- incoherent body of sectoral policies, laws and plans, and poor communication amongst ministries; decision making often not based on scientific grounds
- many laws non-existent (Environmental Framework, Biosafety, Bioprospecting), outdated (Nature Conservation), not comprehensive (access to genetic resources and benefit sharing, IPR)
- no final and approved NBAP and environmental sector plan; lack of a policy on biodiversity information; mechanism to coordinate biosafety action non-existent

Thematic Assessment *step 4*

SUMMARY **systemic capacity constraints:**

continued

- no consensus between GoS and private sector on forest policy, nor between GoS and conservation planners
- negotiations on land rights, and forest sector reform hardly proceeding
- lack of education and training organizations in relation to genetic resources and biotechnology, few in relation to biodiversity; few advanced training opportunities
- awareness activities in relation to biodiversity not coordinated
- no government organization really dealing with payment for ecosystem services

Synergies

based on likely similar capacity constraints, identify **synergetic action** that would benefit the implementation of all three MEA
