

## A Sustainable Development Vision for Suriname



### Introduction

#### General

Surinam is a democratic country, situated in South America.

The geographic coordinates on the world sphere can be marked with 2-6 NB and 54-58 WL.

Surinam has become on 25 November 1975 independent of Holland.

The territory of Surinam has been subdivided in 10 districts. Paramaribo, one of the ten districts is the capital of Suriname. The government of Surinam has been established in Paramaribo, from where the complete financial and economic administration of the country happens. In contrast with Sipaliwini, the largest district, Paramaribo covers only 0.11% of the area. The results of the census in 2004 shows that 50% of the Surinamese population lives in Paramaribo, while 7% of this population lives in Sipaliwini, which cover 80% of the area.

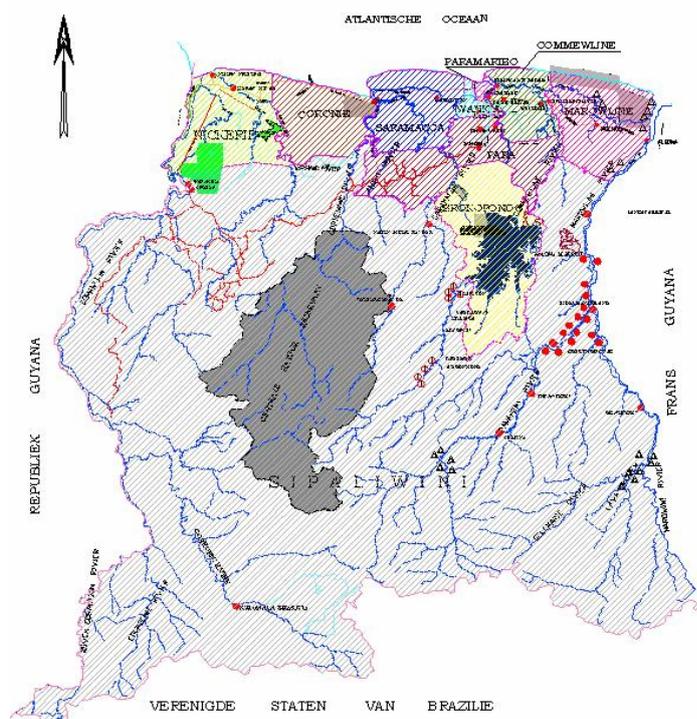
The population of Suriname is multicultural.

Because of the democratic law, every citizen has the right to profess its own religion. That's why different traditions and dialect has keep remained, e.g. negro's, Indians, Javanese, indigenous people, Chinese, Europeans, etc. In spite of the terrorism in the world, Surinamese people are tolerant and peace loving. In Suriname Muslims and Jews are living in peace with each other. A mosque and a synagogue are build near each other and both groups use each others facilities.

The influences of the colonial time is still present in Suriname. The official language is Dutch Development strategies are based on insights of the Netherlands.

The Surinamese legislation has had a lot of agreements with the Netherlands', but now many of them adapted to Surinamese circumstances and time spirit

### Regional location of Suriname



Suriname has a land area of approximately 164.00 km<sup>2</sup>. The northern boundary of Suriname is the Atlantic Ocean. Conform the international law of Sea, Suriname generate a territorial zone of 12 miles and an economic zone of 200 miles.

In the East Suriname is boundared by French Guiana and seaward by an equidistance line with a direction of 30 grade east of the true north, reckoned from the middle of the line connecting Galibi (Suriname) and Les Hattes (French Guiana).

The southern boundary is the watershed between the basin of the Amazone in the south and the basins of watercourses that flows through Suriname between the French Guiana and the Guyana borders. These 597 km boundary has been marked by boundary marks.

The western boundary of Suriname is established by the west bank of the Corantijn River, from the source to the mouth.

### **The Relief of Suriname**

The coastline of Suriname is formed by extensive mudflats interspersed with little sand and shell beaches. The mudflats and the beaches are continually migrating westward, because of the west flowing Guiana current. Thereby there is continually erosion on the eastside.

The relief of Suriname can be split in 5 categories (from north to south):

- The coastline
- The young coastal plain (0-4 meters above sea level)
- The old coastal Plain or the savanna belt (1-12 m above sea level)
- The cover landscape (10-100 m above sea level)
- The mountainous area (100-1230 m above sea level)

The mountain area is above 1 billion years old and the young coastal plain has been set off between 6000 and 10.000 years ago. The coastline and the coastal plain are mostly formed by mudflats and mangrove forest. The old coastal plain is the zone with the most river terraces, within mudbanks. These landscapes are almost formed by sediments deposited by the rivers and the sea. That is why there are wide complexes sand and shell ridges and creeks. The ridges are separated by narrow clay flats. Depends on the drainage the ripening process of the clay has took place. The soil fertility of the clay soils are good and can be used for the agriculture.

Southern of the country the underground is mostly a part of the Guiana shield, that is completed with tropical forest. The geomorphology of Suriname has been examined till the 4 NB line so there can not be said much about the fertility of the inland.

### **The hydrology of Suriname**

The hydrografy of Suriname is mostly formed by the natural relief. In the coastal zone there are a lot of natural swamps, lagoons and lakes. Across the whole area of Suriname there is natural network of tidal rivers and rivers without tides.

Water is very important for the people and the economy of Suriname. Water plays an important role in almost every activity in the house, the industry, the dilution decomposition, the discharge of water, generation of hydroelectric power, navigation, commercial fishery and recreation. The groundwater which is of good quality is used for domestic use.

Theoretically Suriname is one of the fewest countries, which has not a lack of fresh water. This, because of the geographical position, the climate and the condition of the soil.

Because of the direct connection with the Atlantic Ocean in the north of Surinam, there is a penetration of salt water, which is necessary for the ecological system in the coast plain. This ecological system is continuously getting out of balance, because of an uncontrolled salt water penetration caused by human actions.

## The ecology or Suriname

Ecological the territory of Suriname can be subdivided five ecological zones:

- The maritime zone: this is the zone outside and near the coast, where there are predominately fish and sea turtles. In the deep ocean-floor there are amounts of nature oils.
- The young coastal plain: can be identified as the territory with beaches (sand and mud banks), river mouths, mangrove vegetation, swamps and the coastal forest.
- The old coastal plain: is the territory with higher sand ridges, inside swamps, watery area's and secondary forest
- The savanna belt: the area with a paramount of grasslands and xerophytic temporary forest.
- The vegetation in the interior: is the wet tropical lowland, various heights of mountains.

Because of the variation in the geomorphology and the soils in the different zones in Suriname, there are different vegetation types. The most important types are:

- Vegetation of the brackish coastal area.
- Freshwater march and swamp scrubs.
- Low swamp forest.
- High swamp forest.
- High seasonal swamp forest.
- High dry land forest.
- Mountain forest.
- High and low xerophytic forest.
- Savannas.
- Vegetation on granite outcrops.
- Vegetation on cultivated and abandoned land.

On base of the biodiversity, whereby 5800 flora species and 1890 fauna species has been counted, nowadays 13% of the Suriname land area has been protected by law.

## The demography of Suriname

It is difficult to analyses the development in the demography of Suriname, because the census has not been hold frequently. From the data of the census in 2004 there can be made an analyze of the population distribution, the educational level and the middle of mean.

district	Par'bo	Wan	Nick	Cor	Sar'ca	Com	Mar	Para	Broko	Sip
Area [km <sup>2</sup> ]	183	443	5353	3902	3636	2353	4627	5393	7364	130566
aantal mannen	120292	44005	18875	1526	8445	13006	8303	9692	7571	16131
aantal vrouwen	122405	41965	17756	1361	7519	11637	8337	9035	6622	17981
geslacht onbekend	249	16	8		16	6	2	22	22	24
totale aantal inwoners per district	242946	85986	36639	2887	15980	24649	16642	18749	14215	34136

*Totale bevolking per 2 augustus 2004*

### Totaal aantal personen dat formeel onderwijs gevolgd heeft 5 jaar en ouder

Onderwijsniveau	Par'bo	Wan	Nick	Cor	Sar'ca	Com	Mar	Para	Broko	Sip
geen	8816	852	372	248	138	239	1447	343	2027	9331
kleuter	6473									
speciaal	1591									
GLO	61818	7739	4097		1810	2777	3470	1122	3687	6254
LBO	5878	12161	4543	388	1875	3816	227	2316	1598	1372
VOJ	70691									
MBO	13828									
Kweekschool	8326									
VOS	11214	4466		97	527	1100	585	533	223	288
HBO	5483	1351	360							
Universitair	7853									
onbekend	17690	1479	545	58	271	517	1117	330	1401	2971
<b>Totaal</b>	<b>219661</b>	<b>28048</b>	<b>11373</b>	<b>791</b>	<b>4764</b>	<b>8701</b>	<b>9850</b>	<b>4908</b>	<b>8936</b>	<b>20216</b>

### Economical activities in Suriname

To have an image of economic activities in Suriname, we can use the data from the census in 2004. There isn't enough recent material to compare this data, because 25 years ago, research on the same level was done

### Totale werkzame bevolking naar bedrijfstak niet institutioneel 15-64 jaar

sector	Par'bo	Wan	Nick	Cor	Sar'ca	Com	Mar	Para	Broko	Sip	
LVV en B	1711	2577	2959	240	1634	1043	1023	608	283	871	
Mijnbouw	2478	1075					283	462	2394	2172	
Industrie	6097	2502	612	76	194	705	347	347	121	92	
Electra en water	1037	298	921	26	323	1154					67
Constructie	7448	3303									347
Handel	14954	4636	1659	641	453	1412	347	404	121	439	
Hotel en Restaurant	3062	611	313	198	241	659		95		146	
Transport	5019	1658	417	31				1160		298	576
Financiële instelling	2065	340	138	56	132	333	90	33	57	63	
Commerciële diensten	4358	966	352	61							
Overheid	15588	4714	1738	641				1953			629
Onderwijs	5458	1201	552	407	1146	496	225	134	184	177	
Gezondheid	5007	852	307	213				1056		156	
Overige Diensten	6073	1928	464	198				507		549	93
Onbekend	3772	1387	701	133	134	397	112	257	128	550	
<b>totaal</b>	<b>84127</b>	<b>28048</b>	<b>11133</b>	<b>2921</b>	<b>4764</b>	<b>8701</b>	<b>3962</b>	<b>4908</b>	<b>4225</b>	<b>5806</b>	

### Niet institutionele bevolking van 15 jaar en ouder

	Par'bo	Wan	Nick	Cor	Sar'ca	Com	Mar	Para	Broko	Sip
werkzaam	85615	28321	11578	805	4809	8765	4149	3341	4414	6189
werkloos	8030	2420	1190	300	444	672	526	654	799	1541
discouraged worker	2749	1188	788	89	301	471	662	244	530	3753
bejaard/ gepensioneerd	18497	5142	2722		1136	2039	971	358	550	2187
scholier/ student	26072	8357	3016					1428		584
gezinsverzorger	14251	9890	4775		2436	2969		855		1148
arbeidsongeschikt	3473	1504	609					172		485
anders	7196	2064	752	615	1495	2326	2765	461	1476	1496
onbekend	6843	1623	915	193	547	591	777	205	1167	2833
<b>totaal</b>	<b>172726</b>	<b>60509</b>	<b>26345</b>	<b>2002</b>	<b>11168</b>	<b>17833</b>	<b>9850</b>	<b>7718</b>	<b>8936</b>	<b>20216</b>

### Development potentials of Suriname

To describe the potentials of the country, the territory can be divided in the interior and in the coastal plain.

#### *The interior*

The interior of Surinam is geographical part of the Guyana Shield.

The soil al lot of scarce minerals, eg. gold, silver, bauxite, granite and rubble.

Besides stretch the bottom fully with scarce minerals, by which are named can immediately: gold, silver, bauxiet, granite, stone blow etc. The soil is covered with a beautiful virginal tropical rain forest, by which the variety of flora and fauna are for many inconceivable. The natural waterfalls and rapids make the interior a paradise of aesthetics and relaxation.

There are settlements of the maroons and indigenous people. These communities are living on a traditional way. Unique is that a large part of the original culture has been kept.

These communities has a large amount of know how about traditional treatment and medical plants.

The developments potentials of the interior can be translate as follows:

- The mining sector: by which raw material can be exploited sustainable on supervision of the government.
- The tourism: the presences of waterfalls and rapids and the traditional cultures can fulfill an important role.
- The forestry sector: by preservation of the biodiversity for tourism and at the sale of carbon credits. The accent can't be laid on the timber trade.
- The medical sector: Except of the traditional treatments, the presence of different medical plants can give a positive impulse at this sector.
- Scientific research on different fields and levels, e.g. the biodiversity and the medical sector.

Despite the growing interaction between the capital of Surinam and the interior, there is much work to do yet to bring the interior in development. One of the most important bottle necks is the lack of physical infrastructure. This results in a lack of supervision by the government on legal and illegal activities in the gold sector and marauding of protected species.

Important aspects, for the formulation of the developments views for sectors of the interior are:

- The various conventions which Suriname has committed to: climate change office, air quality, maritime topics, biodiversity, human rights, forestry, cultural inheritance, regional development, labor, health and safety.
- Suriname is committed to the international conventions of basic laws related to native and traditional communities. There is also a Presidential decision (PB 28/2000) which has confirmed the collective laws on the residential of the maroon and indigenous people.
- Except of the formulation of a clear policy on the territory of the maroon and the indigenous people, there must be also a policy formulated the area's which are used for the forestry and other mining concessions. After exploiting the raw materials these area's will be property of the state again.

### ***The coastal plain***

De coastal plain of Suriname, covers approximately 20% of the country surface. 75-90% of the Surinamese population is settled there. The coastal plain is characterized a large amount of ridges, swamps and vegetation types.

The development potentials for this area are:

- The estuarine zone where the biodiversity is inconceivable. Except of the fact, that mangrove forest is protection against the coast reduction, it also hatch place for different species: birds, fish and shrimps.
- Petroleum supplies in the deep bottom of the waters and in the soil.
- Quaternary sediments and some sands sediments (mainly white sand and shells).
- The water sources have a very good quality for the dinking water provision.
- The soil fertility and the presence of sufficient fresh water are in favour of the agricultural sector.

The most important threat for the coastal plain is the rising of the sea level, which is caused by the climate change. This is the result of wrong human interventions.

For the formulating of a development vision for the coastal plain, the following aspect are important:

- The different conventions at which Suriname is committed to: climate change office, air quality, maritime topics, biodiversity, human rights, forestry, cultural inheritance, regional development, labor, health and safety.
- Most of the coastal region in the northern part of Suriname is property of the citizens in the country or domain ground on which citizen established a concise title. The implementation of the development vision will be only successful if the government comes to terms with the stakeholders.

### **The current physical planning in Suriname**

The physical planning in Surinam is a responsibility of the government.

Political developments have caused changes in tasks of the various ministries and other institutions. This is the reason why physical planning is not the responsibility of one ministry.

The result is a inadequate physical planning.

The bottle necks are:

- an unbridled spacing of urban positions over the countryside;
- jostle of the economic weak positions through the economic strong positions;
- devaluation of urban centers, because of the move of commercial positions to economic more attractive areas;
- spatial isolation of residential areas for the elites (the so-called closed communities);
- damage of the natural and cultural inheritance through commercial and inefficient space use;
- bad or absent public provisions;

- bad developed infrastructure
- strong environment demotion
- a lack in the development of the interior of Surinam
- a bad management in the mining sector and the forestry sector.
- Illegalities within the mining sector.

## **Development Vision for Suriname**

Although the decentralization process of the districts, all districts are administrative and economically depend on Paramaribo. Without some simply organizational and spatial intervention all these areas will decay to sleep cities of Paramaribo. Because of those reasons it is necessary to formulate a national sustainable development vision on short term. There for the natural resources offer good potentials for the economic development of the country, through which the gross national product increases and with that the prosperity and the welfare of the total population.

Within the developments program the zones for the different destinations must be clear. On behalf of the law there can be protected areas, residential areas and production areas (forestry, mining, industry or a combination).

It is important that the balance between the function: living, working, recreation and traffic, is realized in the development planning of areas. This should be the key to move back the dependence on Paramaribo. That will also increase the chance of the decentralization process.

To have the guarantee of the realization of development vision, the vision should be record by the law, followed through the formulation of structure and zoning plans for the delimited orders. The legal record of the developments vision, either translated in structure or zoning plan, will bind every citizen and every authorities at the observance of that. The memory of explanation of the development vision will clarified every article to the individual.

Considering the small population and the weak economy of Surinam it is necessary for the the government (in early stage) to decide which sectors can be develop by itself and which sectors should be develop with others, either with local or international market players.

The development vision should serve as a communication mean between the authorities and the private sector. Dependent on the projected sector it should make it possible to negotiate over the investment and the development.

To enlargement of the capacity of the development vision it is considerably that all actors should have a positive contribution in the vision. Considerably is to be mentioned that except of the government, the legislative power has an important task to realize the development vision.

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