



WAYANA BASELINE STUDY

A sustainable livelihoods perspective on the Wayana Indigenous Peoples living in and around Puleowime (Apetina), Palumeu and Kawemhakan (Anapaike) in Southeast Suriname



Final Report
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ACKNOWLEDGEMENTS

We wish to thank numerous Wayana villagers, traditional authorities, government officials, health workers, and members of Non-Governmental Organizations in Suriname for their time, insights, and information. A special word of thank is reserved for the community members of Puleowime (Apetina), Palumeu, and Kawemhakan (Anapaike) for their hospitality and participation in the research. We are grateful to the Organisation of American States (OAS) for funding of this study as part of the FEMCIDI project “Sustainable development and biocultural conservation in the Brazil-Suriname border region”.

Our gratitude also goes to the Amazon Conservation Team-Suriname for financial support and logistic assistance. The staff members and affiliates of this organization provided valuable feedback and inputs that helped understand the problems and development priorities of Wayana families and their communities. Thank you all!

Opinions expressed in this report are those of the author and do not necessarily reflect the views of ACT Suriname or of other institutions the authors are affiliated with. The authors are responsible for all errors in translation and interpretation.

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Paramaribo, Suriname
October 31st, 2006





LIST OF ABBREVIATIONS

ABS	General Bureau of Statistics (Algemeen Bureau Statistiek)
ACT	Amazon Conservation Team
ADEK	Anton de Kom University
AIDS	Acquired Immune Deficiency Syndrome
CBL	Central Bureau Aerial Mapping (Centraal Bureau Luchtkartering)
CDFS	Community Development Fund Suriname
CITES	Convention on International Trade in Endangered Species
DFID	Department For International Development
EBS	Energie Bedrijven Suriname
EES	Ethno-Ecological Study
FOB	Fonds Ontwikkeling Binnenland
GIAHS	Globally Important Ingenious Agricultural Heritage System
FG	French Guiana
HIV	Human Immunodeficiency Virus
KITLV	Royal Institute for the Study of Language, Countries, and Peoples (Koninklijk Instituut voor Taal-, Land- en Volkenkunde)
METS	Movement for Eco-Tourism in Suriname
NARENA	National Resources and Environmental Assessment
NGO	Non Governmental Organization
NVB	National Women's Movement (Nationale Vrouwenbeweging)
OAS	Organisation of American States
PAHO	Pan American health Organisation
SRD	Suriname Dollar
SUR	Suriname
SURALCO	Suriname Aluminum Company
TALAWA	Tareno (Trio) and Wayana Foundation
UNDP	United Nations Development Program
USD	United States Dollars
WHO	World Health Organisation
WWF	World Wildlife Fund



SUMMARY

Study context

This report presents the results of an ethno-ecological survey (EES) among the Wayana Indigenous Peoples of Suriname, which was conducted between August 2004 and September 2006. The Wayana EES was commissioned by the Amazon Conservation Team-Suriname to provide baseline data for project planning and monitoring. This report will also serve as a reference point to track progress towards development goals for the communities concerned.

An interdisciplinary research team conducted fieldwork in the main Wayana communities of Puleowime (Apetina), Palumeu, and Kawemhakan (Anapaike), and in nearby smaller family-based settlements or *kampus*. Using the sustainable livelihoods approach, the researchers collected data on physical, natural, social, human, and financial capital. Primary data obtained through surveys, open interviews, and field observations were complemented by secondary data from reports, maps, publications, and other sources.

Back ground

Suriname is located on the northern tip of South America. Its small and ethnically diverse population lives primarily in the coastal zone. The forested interior, which covers 80% of the country, provides sustenance to Indigenous Peoples and Maroons. Education and health care in the urban areas are reasonable by Caribbean standards. The interior regions, however, are marginalized in their access to these and other public services such as clean water, electricity, and communication networks.

The Wayana occupy a large area in the northern Amazon Region, which now covers Suriname, French Guiana and Brazil. In Suriname, the Wayana live on the shores of the Lawa, Litani, Oelemari, and upper-Tapanahoni Rivers. They arrived here from Brazil around the mid 18th century and only settled in Apetina (Puleowime), Palumeu and Kawemakhan (Anapaike) at a time that the Ndyuka and Aluku Maroons had already settled along respectively the Tapanahoni and Lawa Rivers.

By the first half of the 20th century, introduced diseases led to rapid decreases in population numbers. In the 1960s the lives and culture of the Suriname Wayana were affected by governmental efforts to open up the interior and Baptist missionary activity. As the Wayana went to live in larger population centers, they experienced better health care, higher life expectancies, western education, and literacy. On the down-side, however, acculturation has caused dependency on outside manufactured goods, the loss of traditional cultural and ecological knowledge, and the over-extraction of selected natural resources.



Presentation of field data: Five capital types

Natural capital refers to natural resources, such as the forest, flora and fauna, sources of fresh water, and mineral resources. Other than most of Suriname, the Wayana area has a monsoon climate with one dry and one rainy season. The topography is characterized by low mountain ranges and isolated dome-shape inselbergs. The vegetation is dominated by lowland forest. Other vegetation types in the Wayana-area are floodable forest, secondary forest, and mountain forest. Researchers have registered 34 rare and 22 endemic plant species in the Wayana area, and one endemic animal.

The list of most-used plants among the Wayana is lead by palms, which are used for roofing thatch and their fruits. Second most valued are hardwood species for the construction of houses and shelters. Other trees and plants provide furniture, canoes, paddles, twining materials, hunting and fishing utensils, weapons, food, medicines, body care, and many other uses. Resins, rubber and non-cooking oils are used for a variety of purposes including illumination and glue. The Wayana do not make much commercial use of plants, though in all villages people sell jewelry made of plant- and animal parts.

Hunting and fishing occur year-round. The favorite hunting weapon is the shotgun, but hunters sometimes use other methods such as the bow and arrow, traps, or catching by hand (armadillo). Fishing occurs mostly with a long land line and nylon fishing nets. In the virtual absence of animal husbandry, bush meat and fish are the main sources of protein. In addition, animal parts are used for tools and utensils, initiation rituals, medicine, and musical instruments. Most hunters and fishers are to some extent involved in the sale of fresh fish and bushmeat and live animal trade, but prices paid to the trappers are low.

The Wayana farming system is based on shifting cultivation with a high agricultural biodiversity and is considered a *Globally Important Ingenious Agricultural Heritage System (GIAHS)*. The most important staple crop is cassava, which is planted alongside other staples, vegetables, and fruits. The Wayana also grow some fruits and utility crops around their houses. Agricultural plots are selected for accessibility, drainage conditions, soil texture, and flatness. Most fields are 0.4 ha or smaller, and found within a distance of 2-3 km from the village. The majority of field crops are planted in November-December-January and some crops are planted in May. Leaf-cutting ants and agouti are the most damaging agricultural pests, followed by other mammals and some birds. While youngsters are learning about modern ecological principles, traditional ecological knowledge and practices are at risk of being lost.

Human capital includes the skills, knowledge, ability to work and good health that enable people to pursue different livelihood strategies. The current total number of Wayana is around 1,500 people in Suriname, Brazil, and French Guiana. An estimated 503 people of (mixed) Wayana descent spread over 115 households are living in Suriname. Stating an



absolute population figure is difficult because the Wayana have mingled with at least 11 other –often related- Indigenous ethnic groups. The average Wayana woman in the sample has given birth to 3.7 children. Lawa households (av. 5.3 p) are significantly larger than those along the Tapanahoni River (av. 4.2 p).

There is one elementary school in Palumeu and another elementary school is being built in the village of Puleowime (Apetina). Most children from Kawemhakan (Anapaike) go to elementary school in French Guiana, but few of them are allowed to attend high-school there. Wayana Children have virtually no options for continued education at a Suriname high-school or technical training center. Opportunities for adult education, skills training or alternative forms of educations are practically non-existent.

Children grow up in the Wayana language and may learn Dutch or French when and if they go to school. Few Wayana speak any Dutch, the national language, and men are more likely to do so than women. Also relatively more men speak the lingua franca Sranantongo. In addition some ceremonial and opportunistic languages are spoken. Even though educational achievement is generally low, the majority of Wayana men and women are literate. Wayana men and women from the Lawa region have, on average, received more years of formal education than Wayana from the Tapanahoni region.

Population health appears to be good and child mortality is low. The main health problems are poor nutrition; viral, bacterial, and parasitic infections; malaria; colds and flue; diarrhea; and mercury contamination. Threats to people's health include HIV/AIDS and diseases associated with high fat/sugar/salt diets. Shamans traditionally perform holistic healing ceremonies but their central role in society has withered since the arrival of the church. Since 2002, the ACT-Suriname has developed the shaman's apprentice program in the village of Puleowime (Apetina) to promote the preservation of traditional medicinal and other knowledge. In addition the Medical Mission Primary Health Care – Suriname (*Medische Zending- MZ*), a non-profit organization, operates clinics in the three main Wayana villages.

From a young age Wayana boys and girls are socialized for the gender roles they will fulfill later in life; marriage and having children for girls and hunting and fishing for boys. There is no evidence for parents' preference for either sex at birth or for the preferential treatment of boys or girls. Women are less likely to speak out than men at community meetings, but they do have a relevant voice in household decisions.

Financial capital represents (sources of) cash money and other valuables that are used as stock. Financial infrastructure in the form of banks and exchange offices is absent in the Wayana area. Also wage labor jobs are rare. Many Wayana rely on the natural environment for cash income. They make traditional handicrafts; sell birds, mammals, and reptiles; sell bush meat and fish; and earn from small-scale gold mining. The main non-



resource related income is wage labor, with the government being the main employer. Other jobs include providing transport, sale and resale of consumer goods, vending meals, tourism, planting marihuana, and a number of odd service jobs.

The Wayana have long maintained trade relations with neighboring Maroon groups. At present, however, most heads of household travel to the capital city of Paramaribo themselves to obtain manufactured products. Larger Wayana villages feature small shops but their prices are relatively high, particularly along the Lawa River. For selling handicrafts, Wayana rely on tourists visiting their villages. Like other citizens, the Wayana are entitled to social benefits such as old age wages and child benefits. In Suriname the value of these allocations, which are paid bi-annually, is low. Social security payments for French Wayana may amount to several hundreds of Euros a month.

An analysis of asset ownership suggests that Suriname Wayana from the Lawa river basin are wealthier than their tribal relatives in the Tapanahoni watershed. They are more likely to possess expensive appliances, consumer electronics, and an outboard motor, and have more than double the amount of money available to spend on trips to the city. Overall most cash money earned is spent on food (rice, cans, sugar, salt), followed by batteries and fuel, among other items. Donor and development organizations active in the Wayana area include the ACT, CDFS, UNDP and WWF.

Social capital refers to social networks and norms, organizational and institutional structures, migratory networks, and formal and informal safety nets. Centralized leadership was only institutionalized among the Wayana when they went to live in larger villages in the 1960s. The tribal authorities are named granman, kapitein, and basia after the Maroon example and obtain their position through a combination of inheritance, election, and appointment. They receive a public honorarium and are accountable to the national government. However, their roles are not clearly defined or endorsed by law and they have no mandate to speak justice on behalf of the Suriname law. Other than these customary authorities, the Wayana have virtually no representation in the national government and little voice in political decision-making.

The Suriname government does not have a long-term policy strategy to cushion either household shocks or community- and region-wide disasters in the interior. In the absence of a strong public welfare system, the church provides a social safety net for the most vulnerable groups in society. Other community-based social support groups are rare but community members do organize support mechanisms in times of need. Nationally, the Wayana are represented by the regional foundation TALAWA and the national indigenous organization VIDS. Relations of the Wayana with their Indigenous and Maroon neighbors are generally friendly, though marriage with non-indigenous individuals remains rare.



Today, almost all Wayana are Baptist and this religion dominates social and cultural life. As a result, traditional dances, songs, stories, cosmology, and other cultural expressions are rarely practiced and unknown by Wayana children. Some shamans are still active as healers but no longer publicly perform rituals involving association with the spirit world. The French government subsidizes cultural preservation in the Wayana villages on the French side of the border.

Physical capital comprises physical infrastructure such as roads, railways, markets, clinics, schools and physical assets in the communities. None of the Wayana villages can be reached by road; access is provided by plane or by boat. Wayana families tend to live with their nuclear family unit in one-room houses. As compared to houses in the tapanahoni villages, Wayana houses along the Lawa are more likely to be built of imported construction materials. In addition to houses and kitchens, the larger villages have structures owned by outsiders such as a clinic, a government building (Pulewime/Apetina and Kawemhakan/Anapaike), and a tourist lodge (Puleowime/Apetina and Palumeu). One settlement (Tutu Kampu) and one village (Palumeu) in the Suriname Wayana region have a *tukuspan*, which is a traditional meeting and ceremonial space. There is a church in all larger villages, but few sports and recreational facilities for Wayana youth.

The public provision of electricity is poor throughout the Wayana area. In Kawemhakan (Anapaike), fuel donations by gold miners who work on tribal lands are keeping the community generators running. Wealthier households have personal generators. For drinking water the Wayana rely on a variety of sources, ranging from an engineered water system in Kawemhakan to rainwater basins (durotanks) and, in the dry seasons, rivers and creeks. Sanitary conditions are poor across regions, and waste management and recycling are virtually non-existent. An exception is the village of Palumeu, where tour operator METS has organized bi-weekly garbage collection. None of the Suriname Wayana villages can connect to the Suriname telecommunication network. Neither do the villagers receive newspapers or have access to national radio and television broadcasting. Traditional clothing is seldom worn, but traditional jewelry remains popular.

Synthesis

Identified vulnerabilities, problems and risks include:

Natural capital:

- Poor preparedness for extreme weather events and other natural disasters
- With population growth, extraction levels may exceed the forest's carrying capacity.
- Dependency on decreasing wildlife resources; risk of over-extraction but lack of data
- Loss of ancient knowledge of ecosystem behavior and management
- The lack of land rights/titles for Indigenous individuals and communities

Human capital



- Poor access to primary education and virtually no access to continued education
- Health problems, including poor nutritional health; infections; malaria; common colds and flue; diarrhea; and mercury pollution
- The main health risks are HIV/AIDS and modern diet-related diseases
- Loss of traditional medicinal knowledge
- Traditional gender roles place women in a vulnerable position within the community

Financial capital

- Lack of banks and other institutions for financial management
- Lack of non-natural resource related (wage)labor opportunities
- Increased dependence on manufactured goods
- Lack of capacity to manage donor funding

Social capital

- Absence of strong Wayana leadership
- Traditional authorities lack an operational budget and legal recognition
- Limited functionality of state-wide and community-based social safety nets
- Decreasing transfer of cultural values and traditions from elders to youngsters

Physical capital

- Physical and communicative isolation
- Poor access to national news and information
- Loss of knowledge of traditional construction
- Lack of reliable sources of electricity and drinking water
- Poor waste and sewage management

The researchers identified a variety of opportunities, capacities, and resources to overcome these negative forces and develop more sustainable livelihoods:

Natural capital:

- Abundance of forest resources such as Non Timber Forest Products
- Presence of mineral resources in and around the villages

Human capital

- Widespread literacy
- Presence of Wayana fluent in Dutch, who could serve as teachers
- Peace Corps worker in Puleowime (Apetina) with intention to teach basic business administration skills
- Generally good health; low HIV/AIDS zero-prevalence rates
- Knowledge of medicinal plants and traditional healing practices still present among shamans and elders



Financial capital

- Natural environment provides opportunities for sustainable income generation
- Tour operator METS can become a market opportunity for vegetables and other products
- Increased mobility can be used to bring handicrafts to the national market
- Presence of donor organizations willing to invest in the interior

Social capital

- Low rate of crime and other deviant behavior (e.g. drugs use, alcoholism)
- Strong influence of the church in maintaining social cohesion
- Establishment of TALAWA to represent the interests of the Trio and Wayana in national policy making and other national level affairs.
- ACT-led cultural preservation programs can stimulate the transfer of traditional knowledge from elders to children

Physical capital

- All villages host people who are skilled in traditional architecture
- Growing local interest in traditional indigenous structures
- Waste management program in Palumeu may serve as an example for other villages
- Many adults still have knowledge to make and wear the traditional dress



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