

Fact sheet - case study

Brownsweg, district Brokopondo, Suriname

General	
Population size and number of households	Brownsweg: +- 3,000 inhabitants (600 households)
Demographic changes in the past 10 years in the community as a result of in and out migration, and natural growth	Return to Brownsweg has increased because of opportunities in small-scale gold mining and possible employment at Iam Gold (+- 50-100 persons are employed by Iam Gold). In addition, some persons work in ecotourism, such as on Brownsberg, on Ston Island, Berg-enDal, and on Tonka Island. Others work for Brokopondo Water Woods. Some of these people are persons who have studied or worked in Paramaribo and have returned to Brownsweg, while others have never left and now are not leaving because of local employment opportunities. Still most youngsters leave town to continue education in Brokopondo Centrum and, to a lesser extent, Paramaribo.
Ethnic composition of the population	Brownsweg is a Saramacca Maroon village and inhabited by members of this tribal ethnic group. As there are several Ndyuka Maroon villages nearby (e.g. Koffiekamp) also some Ndyuka Maroons and persons of mixed Ndyuka-Saramacca descent are living in Brownsweg. A few Brazilian men are living in Brownsweg, who are living with local women and have children with them. There are a few Javanese men and women living in Brownsweg, typically living with a local partner. There are various Chinese shop owners but they have not yet mingled with the local population. Workers (M/F) in the mining areas around the villages are Saramacca Maroons, Ndyuka Maroons, Matawai Maroons, Paramacca Maroons, Hindustani (from Paramaribo) and Brazilians.

Socio-economics aspects of small scale gold mining	
Number of small-scale miners in community	The community of Brownsweg consists of seven villages that were joined by the (then Dutch) government after forced resettlement (Wakibasus I and II, Nw. Ganze, Djankakondre, Kadjoe, Makambie, Biroedoematoe). In the villages of Wakibasus land II almost all men are working in gold mining, but in Nw. Ganze few people. The total number of miners in the community is not known. An estimated 20-30% of adult (>16) men may be working in the small-scale gold mining areas. About 5% of women from the community are working in the mining service economy. None of the women owns a mining machine. Some years ago (+-6), elementary school and MULO students would go in the weekends to pan gold in the nearby Koemboe creek. It is possible that they are working there again because the small-scale miners have returned to the Koemboe creek.

<p>Number of mining units / teams</p>	<p>There are several mining areas near the Brownsweg community where the people from Brownsweg are mostly working: Kraboedoin, KrikiNeygi, Koemboekreek, and the Brownsberg (near Irene Val) Nature Park, Witikreek (near the Lake, in the natural park), Sikisi (kilometer 6; near Koffiekamp), Stonbergi (Kilometer 32 on the road to Atjoni), 29 (kilometer 29 on the road to Atjoni). In Krabudoin, about 20 mining teams (machine-sets) are working with a crusher, and 7 teams are hydraulicking (spoiti-soigi). In KrikiNeygi there are 15 crushers and about 3 teams are hydraulicking. In Koemboekreek there are about six hydraulicking equips, and no crushers. In Witicreek there are about 5 crushers and about 10 hydraulicking teams. On the Brownsberg there are only <i>soemajé</i> workers*. About 2 hydraulicking teams work here. In Sikisi most miners are from Koffiekamp. About 5 hydraulic teams and 5 crushers from Brownsweg inhabitants are working here. In km 32 and km 29, the grand majority of miners are Brazilians, and some from Paramaribo. A few persons from Brownsweg work in these places.</p> <p>* A pockline places material on a heap and hydraulic power is used to divert the ore to a small sluice box (about 1 m width)</p>
<p>Proportion migrant miners of total miners community</p>	<p>Migrants to the area who are attracted to the gold deposits are mostly Brazilians (M/F), Ndyuka Maroons (M/F), and Hindustani (M) from the city. These people typically do not stay in the village and may only stop in the village for fueling their car and buying groceries. The migrants have limited contact with the villagers. In the mining areas 29 and 32 the majority of miners are Brazilians, but in the other local mining areas local Saramacca Maroons tend to outnumber migrants.</p>
<p>Proportion of gold miners in community who are women</p>	<p>In Suriname, women are typically not so much involved in mining but play a crucial role in providing support services. They may work in the mining areas as shop owners, cooks, vendors, or commercial sex workers. In addition, a selected few women own a mining machine and are head of the operation. In the mining areas in this region, the ratio women to men in the mining areas ranges between 1:5 and 1:8. Commercial sex workers typically are not from the community; they may be Ndyuka Maroons, Indigenous (from Apoera), city creoles, Guyanese, and Saramacca women from further upriver. In km 29 and km 30 it is possible that there are also Brazilian commercial sex workers. Women from the community typically work as cooks or shop owners. If only looking at women from Brownsweg, the ratio women to men may be closer to 1:10.</p>
<p>Proportion of community women who are miners</p>	<p>About 5% of women from the community may be making a living in the gold mining business, typically in the mining service economy as cooks and shop owners. None of the women owns a mining machine.</p>

Share of workers who are under the age of 16	<1%
Where do community members go to sell their gold?	Gold is sold in the capital city of Paramaribo, typically to one of the formal gold buying centers. Occasionally miners may sell small amounts of gold to local Chinese or Maroon shop owners if the person needs rapid cash. Shop owners and the gas station holder also may extend credit to miners who they know well, if they have a certain level of confidence that the miner will pay back.

Community perception of small scale gold mining

Given the limited local employment options, work in the gold mines is perceived as a valid way to earn a living and support one's family, for both men and women. A positive effect is that part of the earnings is invested in the village e.g. for home improvement (particularly women).

Water turbidity is a nuisance for women who work on their subsistence plots away from the village. They used to drink the creek water. In Brownsweg village, drinking water is obtained by collecting rain water. Water for washing dishes and clothes, and for bathing and cooking is brought to the village from the hydropower lake.

If access to working space is limited, villagers may complain about the presence of Brazilian miners. Before, some places were mined out rapidly because of the large presence of Brazilians. The presence of a few Brazilians who are working alongside local people is not seen as a problem.

Small scale gold mining: environment and health

Description of natural resources in and around community

Land: Brownsweg is a conglomerate of six communities that were displaced by a hydropower lake. The Saramacca Maroons from the flooded villages were removed to this community, which is claimed by the Matawai Maroon people as theirs, as it is part of their watershed. Formally, none of the Maroon groups has right to the lands they traditionally live on and use for their subsistence.

Forest: The original vegetation of this area is tropical rainforest, but the current vegetation consists mainly of secondary forest.

Fish and wildlife: The new community of Brownsweg borders the Brokopondo lake. Fish from this lake is eaten but has been found high in mercury content. Due to land degradation and the large size of the resettled community, the wildlife stock in the near surroundings of Brownsweg is largely depleted. In addition, people from Paramaribo come to hunt, thus further increasing pressure on the wildlife population. Households depend on 'city-chicken and fish', lake fish (less), and (purchased) bush meat for their daily protein needs.

Gold: The community of Brownsberg and surrounding communities are part of the greenstone belt; a geological formation that contains Suriname's gold reserves. Around the village there are several places where alluvial and eluvial gold is mined by small-scale miners. The large-scale mining multinational Iam Gold mines primary gold deposits in a nearby mine, and may be exploiting gold deposits closer to the village.

The community of Brownsweg lays on the edge of Brownsberg Nature Park, which is an important tourist destination. Villagers and others, including government officials, have been involved in small-scale mining in the Nature Park.

Access to and use of natural resources by community members, male and female

Hunting and fishing is allowed by community members anywhere around the village. Outsiders (e.g. from Paramaribo) should ask permission from the local authorities, but nowadays few people respect these rules anymore.

Cutting land for agriculture occurs near a place where your household (Bee) has cut before. If you want to cut somewhere else, you will have to ask the other family. In the early days, all women used to have a subsistence plot. Nowadays some groups of older (>30) women have a subsistence plot, where they plant vegetables and staple foods for daily household use. Very few young women still plant. People now eat more rice and some vegetables from Paramaribo, in addition to some local vegetables.

Gold miners often do not obey traditional rules and may not take people's agricultural lands into account. Nevertheless, if a person has already cleared land for agriculture miners will typically discuss prior to starting mining. If there is a recently planted plot, miners may work around it but an old subsistence plot will be taken over without discussion. Local small-scale gold miners can go to any area they like though in the mining area, unwritten rules of conduct dictate where one may mine. Mining operations follow a certain line and it is 'not done' to place a mining machine in the working line of someone else. Pewpewzeros (miners who use metal detectors) cannot be controlled; they go wherever they like. Brazilian miners are often brought in by local miners.

Use of mercury in local mining operations

All local mining operations working with hydraulic pumps and/or crushers use mercury, typically not in a closed system. Few people use retorts and it is not unlikely that some mercury is spilled in the environment during washing. Miners (mostly Brazilians) using metal detectors (pewpewzeros) do not use mercury.

Mining-related pollution, including mercury pollution

The most visible impact of small-scale gold mining is the increased turbidity of creeks and rivers. Down-streams of mining areas, creek water can no longer be used for drinking, cooking, washing dishes and laundry, and other household uses.

Areas for mining are deforested, and it takes a long time before the forest regenerates naturally. Throughout the landscape there are abandoned mining pits with standing water. These areas form breeding areas for the malaria mosquito and other disease vectors. Some pits that have been filled up with mining tailings turn into areas with quick sand. The nearest mining pits are located within a 5-km radius.

Mercury pollution: During a recent investigation, a few individuals from Brownsveg were found to have high levels of mercury contamination. This study did not make a distinction between persons working in the mining area and those who do not. Nor were personal mercury levels coupled to dietary information (Ouboter & Landburg 2007).

Annual deforestation because of gold mining

An estimated 100 teams may be mining, of which perhaps 25% removes primary forest for mining. Spoiti-soigi in 1 month $\pm 50 \times 50 \text{ m} = 0.25 \text{ ha}$. Crushers may work on 0.05 ha/month. Crushers are concentrated in certain areas, such as Krikineygi and Krabudoin. Crushers more often work in primary forest, whereas for Spoitisoigi equips it is more profitable to work in secondary forest. If we assume that of the 25 equips working in primary forest, 1/5 are hydraulicking, deforestation on a monthly basis would be: $(5 \times 0.25) + (20 \times 0.05) = 2.25 \text{ ha/month}$; $\pm 27 \text{ ha/yr}$ (around Brownsveg greater area)
1 ha = $100\text{m} \times 100\text{m} = 10,000\text{m}^2$
1 km² = $1000 \times 1000 = 1,000,000\text{m}^2$
1 km² = 100ha

Health effects as a result of mining activities (direct & indirect)

Mercury poisoning is a threat but has not systematically been measured in the mining population.

Malaria is under control.

Miners do not use any safety gear such as helmets, safety shoes, or masks. Very few accidents with machines have been reported. About three years ago, a person was trapped underneath a collapsing sand wall.

It is possible that standing in dirty water for long hours causes skin problems but no research has been conducted to verify such health problems.

Existence and activities of mining cooperatives and interest group

Foundation AHALA (2010) aims to promote Maroon entrepreneurs from Brownsveg, and currently focuses mostly on small-scale gold miners. AHALA has asked miners to donate a share of their earnings to a community fund to execute community projects.

NV Gowtuman 94 (1994) is composed of 12 small-scale mining machine holders from the community of Brownsveg. The group was created in response to the impact of the arrival of Iam Gold on their incomes. The gold miners signed an agreement with Cambior (predecessor of Iam Gold) to work on part of their exploration concession.

Makambo (2000?) is a group of (mostly Ndyuka Maroon) small-scale gold miners from the community of Nw. Koffiekamp, near Brownsveg. Like NV Gowtuman, the group was created in protest against Iam Gold. Gold miners from Makambo obtained permission from Cambior to mine in the Sikisi mining area (Rosebell hill), in the Rosebell exploitative concession.

Existence and objectives of community funds

Stg. AHALA created a community fund. The objective is to collect fees from small-scale gold miners for development projects in the Brownsveg community. Projects that have been selected include street lights, improving infrastructure (road to the burial site), and a daycare center. To date, the group has bought lamps for the street lights and has lobbied with the national authorities to provide the electricity connection.

Small community groups involve in rotating savings systems named 'kas-moni'.

Occurrence of child labor in mining

Child labor is uncommon in the Suriname mining areas, and parents do not typically take their children to the mines as a form of vocational training. If boys under the age of 16 are working they may be 14 or 15, and come on their own account. This is rare though, and we estimate that less than 1% of workers are under the age of 16.

Legal aspects of small scale gold mining

% of producers who are mining legally, according the national mining legislation

Small-scale miners in the Brownsveg area who are working legally: 0%

According to the national mining legislation, mining and related activities may only occur by holders of a mining concession, which has been granted by the Suriname government. As such, the only legal miner is the mining multinational Iam Gold. Small-scale miners who are working on this concession are tolerated, but have no legal rights to mine and must leave whenever the company declares it needs the area where they are working. Evidently, small-scale gold miners working in the Nature Park are working illegally but national authorities have not acted to stop their activities.

Local knowledge on existing mining legislation and related laws (environmental and workers rights)

Knowledge of local mining laws is limited; only a few mines may have some knowledge of the national legal framework. Miners know that they are working illegally according to national laws. Maroon miners are of the opinion that based on customary rights, they have a right to mine in the area.

Land and water rights versus mining activities

In Suriname, Indigenous and Maroon peoples have no formal rights to their traditional home lands. Gold mining multinational Iam Gold obtained a large-scale mining concession that includes Maroon traditional lands, without consultation with the affected communities. The village of Koffiekamp lies within the exploitation concession, while Brownsweg and other villages are located within the exploration concession boundaries. The community members have been restricted in their land uses, including agriculture and small-scale mining.

Gold mining coupled with a lack of clarity over land rights also has caused friction between the Matawai and the Saramacca Maroons. The Saramacca are extracting gold from land within the watershed that by the Matawai is considered as part of their traditional home lands. Most polluted creeks flow into the Saramacca River, along which the Matawai villages are situated.

Small scale gold mining and conflict

Description of gold mining related conflicts in the community

1. *Matawai Maroons and Saramacca Maroons:* The Matawai Maroons claim the area as theirs on the basis of the division of watersheds, while the Saramacca Maroons argue that they have legitimate user rights because they have been living and using the area traditionally.
2. *Large-scale mining company and small-scale miners:* Brownsweg and some of its nearby small-scale gold mining areas are situated within mining concession from the multinational Iam Gold. In some places, small-scale gold miners are temporarily allowed to work in the concession area.
3. *The Organization of Authorities of Brownsweg (ODB) and the Foundation AHALLA:* When miners started working at Kraboedoin, ODB wanted to collect money from them but the miners refused. The miners choose for Foundation AHALLA to represents them in negotiations with Iam Gold and the government. Another point of friction is the ODB wanted to bring Brazilians to the area to work under their wings in order to collect 'concession fees' (10% of earnings).
4. *Maroon miners and Brazilian miners:* A local concern is that Brazilians exploit the area rapidly so that nothing is left for local miners, who wish to work in the area for a long time. On the other hand, Maroon miners have been inviting Brazilians for their expertise, to work under their control. In 32 and 29, Brazilians work on their own account.
5. *The Saramaccan Granman Belfon Aboikoni and local Kraboedoinminers, organized in AHALLA:* The granman wanted to control the Kraboedoin area and, in exchange, demanded a share of the money that the miners collected. The gold miners refused. The granman had brought Brazilians to the area to mine and provide him with the 'concession fees'. The Suriname government called a meeting with the police and District commissioner, AHALLA/gold miners, and the granman to resolve the matter. During this meeting, it was decided that the Brazilians would have to leave the area.

Examples of gold mining related conflicts

Since the late '90's miners from Brownsweg have been working in the local creeks surrounding Kraboedoin. They worked alongside Brazilian miners. The Brazilians, with some local miners, started opening up mining areas on the mountain (+- 2007-8).

In end 2009/early 2010, there was a conflict between gold miners from New Koffiekamp (Makambo) and Brownsweg miners in the Sikisi mining area, pertaining to the Koffiekamp community. This was the area that Makambo had 'leased' from Cambior. Makambo has the decision-making authority in the area. Brownsweg miners left with their machines and returned to the Brownsweg area, but without a place to work.

In order to find a working spot, the Brownsweg miners asked the Suriname government to remove the Brazilian miners (March-April 2010). Because it took a long time before the government came into action, the Brownsweg miners barricaded the road to Atjoni to prevent Brazilian miners to enter the mining areas. During this action, Foundation AHALLA (as representative of the gold miners) and local miners had a meeting with the Minister of RO (Regional Development) and the DC (Districts Commissioner). It was decided that the road block would be removed, and that the government would remove the Brazilians from the Kraboedoin area (which then had the largest concentration of Brazilians) – though they could not say when.

During the road block, the community of Brownsweg was divided. For example, ODB did not agree because the local authorities were collecting percentage shares from the Brazilian miners. This created tension between one group of local gold miners, who wanted the Brazilians removed, and the local authorities and another group of gold miners, who wanted the Brazilians to stay (because they earned money from them).

In order to reduce tensions, a second meeting was held with AHALLA, ODB, DC, and local miners. The Minister of RO asked the local people to first agree and resolve problems among themselves. After this meeting, various other stakeholder meetings were held. Ultimately it was decided that local authorities and community members should not be collecting percentage shares from Brazilian miners, but that the area should be to the disposal of Brownsweg miners instead.

References

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