

# **Public Health Report: Los Tsachilas Del Bua May 2007 Survey Results**



*Hand washing station in a classroom at Abraham Calacazon School Km15.*

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Data Collected from April 16<sup>th</sup> to May 11<sup>th</sup> 2007  
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## Table of Contents

<b>1.0 Introduction</b> .....	3
<b>2.0 Survey Methodology and Challenges</b> .....	3
<b>3.0 Results and Discussion</b> .....	5
<b>Part 1: General Health</b> .....	5
<b>Treatment</b> .....	6
<b>Root of Problems</b> .....	6
<b>Part 2: Water and Health</b> .....	7
<b>Bathing and Washing</b> .....	7
<b>Part 3: Waste and Sanitation Practices</b> .....	8
<b>Waste Disposal</b> .....	9
<b>Part 4: Health, Nutrition and Dietary Habits</b> .....	10
<b>4.0 Conclusions and Recommendations</b> .....	10
<b>5.0 Information about Abraham Calacazon School</b> .....	11
<b>Toilets</b> .....	11
<b>Water</b> .....	12
<b>Illnesses</b> .....	12
<b>Waste Disposal</b> .....	12
<b>Visions for the Future</b> .....	13

## **1.0 Introduction**

There has been little if any research regarding the public health of the Tsachila community in Bua and it was my intent to conduct a survey to develop a basic understanding of the environmental health conditions within the area. I volunteered in Bua from April 16<sup>th</sup> until May 11<sup>th</sup> 2007 and in that time conducted a total of 39 surveys. According to Alfonso Aguavil, there are approximately 105 Tsachila families who live within an area of 2885 h<sup>2</sup>, each family occupying about 4 h<sup>2</sup> on average. There are also around 20 families who live within the same area who are not Tsachila. Twenty three Tsachila families have joined together as a group naming themselves after the ShinoPi River and are dedicated to preserving their culture and traditions. The ShinoPi Bolon group live within the km 15 and km 21 area, along the main road leading to the town of Umpe Chico from Santo Domingo. The members of this group have a number of concerns regarding the fate of their livelihoods and customs but clearly worry about their health and environment.

## **2.0 Survey Methodology and Challenges**

I developed the survey in Spanish and it was edited by native Spanish speakers. All interviewing took place either in Spanish or Tsafiki (with the aid of Alfonso Aguavil and/or Freddy Aguavil).

The survey was designed to investigate 4 main themes revolving around public health:

**Part 1: General Health** – This section contained questions pertaining to problems/illnesses affecting the individual as well as members of their household.

**Part 2: Water and Health** – This part examined the source, consumption, treatment and uses of water in the household in relation to health.

**Part 3: Waste and Hygiene** – This section looked at waste and sanitation practices within the household.

**Part 4: Nutrition and Food** – This last part focused on nutrition and dietary habits of the Tsachila.

I also included a comments/question section in which the interviewees could indicate their concerns and needs for improving health within their home and community. Please refer to the actual survey for more details.

I attempted to be concise and time efficient with the surveying but some questions needed to be answered more in depth. I decided to focus on households rather than nuclear families because many homes are occupied by extended family. I always introduced myself and explained the purpose of carrying out the survey. Freddy or Alfonso sometimes would translate into Tsafiki in order to explain more clearly. However there were still various challenges when it came to interviewing people.

First of all, the subject matter is quite sensitive because the discussion of sanitation and hygiene still remains somewhat of an unspoken issue in the community. There were many personal questions which perhaps sounded too invasive. Many people felt shy/embarrassed to discuss or admit their problems in fear that they would be judged. For many personal questions, it is possible that people lied because they did not want to reveal the truth. Others thought the subject matter was humorous and laughed when I asked them about their everyday practices.

It seems that people felt more comfortable to answer questions when there were not a lot of family members/friends around. It took a lot of reassurance that I was not there to judge them and that only truthful answers would be valuable for the study. I believe that once this was explained, the majority of the people felt that the survey was indeed important and did their best to answer truthfully. Many times however I would have to repeat questions to get direct answers or to clarify questions. Since I am not fluent in Spanish, there were sometimes problems in rewording my questions for better comprehension or even to understand responses. This obviously took up more time and affected the accuracy of answers being given.

We traveled to houses in the late afternoon because most people were away during the day (working). This made it challenging because we only had a small window of time in the evening to conduct the interviews. In addition transportation was a problem because we did not have a vehicle to take us around. The main method of transportation was by foot or by the bus, but the bus only came at a certain hour and it only traveled along the main road. There are many families that live very far from the main road on smaller, unpaved roads. The fact that it was the rainy season made it difficult to travel on the wet muddy paths. Only once were we able to borrow a car to visit some houses that were further away. Therefore because of the limitations of time and transport, most of the surveying took place along the main road. More specifically, surveys were taken from km's 13, 13.5, 15, 15.5, 20 and 21 on the road to Umpe Chico.

Another challenge was that most people at the time of interviewing were tired, eating or relaxing and were concerned about the duration of the interviews. We had to assure them that it would not take much of their time and fortunately all 39 people agreed to participate. Sometimes people were not that motivated to talk and give details, especially when it came to the feedback section.

Overall interviews took around 20-25 minutes, sometimes longer depending on the families. One person from each family (an adult) was asked to provide individual answers and to also speak on behalf of the house. However other people often contributed, especially when discussing illnesses or problems. I felt these group discussions were quite useful to get better information and more insight. The only problem with this was that the individual felt more conscious of his/her personal answers.

However, when only one person was interviewed alone this was sometimes problematic because they could not always give the information correctly on behalf of their family and therefore this was not a true reflection of all the people in the house. For

example, children have different habits and perceptions from adults. Therefore there were definite advantages and disadvantages to the setup of the survey. Of course in retrospect there could have been better formulated questions or some questions altogether removed.

Overall, the results of the survey show that many households share the same reality and have the same customs or manners as each other. Many people attribute this similarity as a result of being “Tsachila”. There are many social, economic and political factors which contribute to the overall environmental health within the area and these must be kept in mind when trying to understand the public health of the population. Perhaps these factors can be investigated more thoroughly in future research to form a holistic picture.

### 3.0 Results and Discussion

As mentioned above 39 people were interviewed; 28 men and 11 women. This was determined by whoever was willing to answer questions and whoever was available. Some of the people interviewed are from the ShinoPi group. The list of participants is as follows:

Susanna Aguavil	Luis Rafael Machin	Delia Aguavil Aguavil
Jose Aguavil (1)	Maria Georgina Aguavil	Ramon Aguavil (1)
Fausto Aguavil	Sylvia Calazcon	Manuel Mora
Rufino Jorge Aguavil	Matilda Oransona	Mercede Aguavil
Luis Loche	Umberto Aguavil	Norma Aguavil
Luis Jacinto Zaracay	Samuel Mario Aguavil	Efrain Aguavil Calazacon
Freddy Aguavil Aguavil	Jose Aguavil (2)*	Guillermo Aguavil
Alfonso Aguavil	Rosaline Sanco	Ramon Aguavil (2)*
Franklin Loche Aguavil	Milton Jaime Aguavil	Remio Aguavil
Jorge Gusnay	Juan Loche Zaracay	Hulingo Aguavil
Selso Aguavil	Maria Graciela Machin Loche	Wilson Aguavil
Daniel Aguavil	Jenny Lorena	Gloria Aguavil
Jonas Loche Aguavil	Hector Calazacon	Maria Taipe

\* There was more than one person with the same name

The average age of people interviewed is 36 years old, the eldest being 60 and the youngest 23 (one person did not know their age). The average number of people within a household is 6 and the average number of children within a household is 3.

#### Part 1: General Health

Every person surveyed was asked to classify their health problems as being major or minor; 13 people said major and 26 said minor. They were asked to state problems or illnesses that they have/had and to also list problems experienced by other household members. When asked how they feel about their overall health status, 11 people said they feel good, 8 said they feel bad and 20 said that they feel in between these two states.

63% of individuals cited they have body pains which include back, chest and muscles (arthritis). About 43% have stomach problems including parasites/gastritis/diarrhea, while 38% have kidney problems. Headaches are experienced by 31% while malaria, dengue and the flu were also reported.

Others cited (less frequently) alcoholism, respiratory problems, high blood pressure, ulcers, anemia and hepatitis. Problems afflicting other house members are essentially the same and include; kidney problems, stomach pains, headaches, body pains, malaria, dengue, high cholesterol, problems due to age (bone, teeth and vision loss), loss of appetite, nausea and trouble breathing. The most common ailments affecting the children are parasites and diarrhea, with many households mentioning these as an everyday concern.

Malaria and dengue are diseases that pose a real threat to everyone because 77% of the people interviewed said they had one of the two diseases or both diseases in the past. 46% Tsachila interviewed said they use nets at night, 41% said they do not use nets and 13% said they sometimes use nets. Nets are not used because (1) people feel too hot, (2) they believe there are not many mosquitoes around at night, (3) they forget to put the net up, (4) they are accustomed to being without nets and (5) they do not have money to buy nets.

### **Treatment**

Most people do not rely solely on one method to cure/treat their problems, but rather try different things based on their economic situation and beliefs. The closest hospitals and clinics are located in Santo Domingo or Umpe Chico, but are still far away. Most people do not have a method of transportation or financial means to utilize these services, so many do not go for check ups etc. Only in really serious situations do people consult doctors and visit the hospital, of course providing they can pay for it. It is my understanding that there is a clinical post in Bua, but for some reason it has not been in service for sometime now. Malaria testing is a free service in Santo Domingo.

To my surprise not many people use traditional methods for treatment but rather go to the pharmacy/dispensary to buy tablets when necessary. Two people (5%) cited that they only use medicinal plants and consult shamans, while 20 people (51%) stated they only use western medicine. However 12 people (31%) said they use both methods, often trying plants first and then taking pills/visiting clinics if necessary. Many said if they had the resources, they would use more western medicines. Five people (13%) said they do not take anything, either because they do not like medicines, can tolerate the pain or do not have money.

Although there are shamans, they are mostly sought after for cleansing or ritual practices. It was expressed to me that medicinal plant knowledge is being lost among the Tsachila in Bua and that training workshops in plant preparation and application would be very beneficial for the local shamans.

### **Root of Problems**

I asked everyone to explain, if they could, what they thought to be the cause or source of the problems experienced by everyone in the household. Twelve people could not provide any answers as to why they and their families were sick/suffering. Only one person attributed some problems to witchcraft (i.e. "espanto"). The other 26 people gave a variety of answers. Body pains and headaches are attributed to the straining work

carried out daily harvesting crops or clearing bush in the hot sun. Arthritis is explained as resulting from back and forth exposure to cold rain and river water and then sun. Stomach pains and parasites are due to contaminated food/ water but some also said eating a lot of sweet things causes worms. Lack of vitamins, unbalanced/irregular diet and stress are other causes. The fact that many do not receive medical checkups/tests to monitor their health is seen as a big part of the problem as well.

## **Part 2: Water and Health**

The majority of Tsachila obtain their potable water from wells (37 households) while the other two households obtain water from their respective rivers because they do not have wells. All but one person said when drawing water, it appears very clear and clean. There are some families who use river or rain water as secondary sources. Many of the men surveyed stated that in their homes they use only well water for consumption but while working they drink directly from the river because they do not have a choice.

Fourteen households always boil their water, 20 sometimes boil, 2 always boil and use chlorine to treat the water, 2 sometimes use chlorine and boil and 1 always uses chlorine but sometimes boils. The most popular responses for not boiling or using a purification method are (1) they do not have time (2) it is a Tsachila habit they are accustomed to (3) they prefer to drink cold fresh water (4) chlorine has a bad odor and (5) they are afraid to treat with chlorine in fear of being poisoned. Most drink boiled water because they are having a hot beverage like tea, coffee, hot chocolate or aromatized water, not because they are concerned about drinking safer water. Many of the Tsachila have parasites and believe that water is not always clean to drink.

According to the results, the Tsachila drink on average about 2L per day, but mostly with their meals. I am not sure of the accuracy of this result because some people were not sure how much a liter was and perhaps confused it with a cup (250ml). Also the amount they drink depends on the type of work they are doing. Most people said that when they work outside they drink a lot, but normally in their home they do not consume very much.

Water is stored in tanks, bottles, containers, barrels and pots, and typically is used up within the same day that it is drawn. 82% stated that they use covers to keep water clean and protect it from being contaminated and infested by mosquitoes and other insects. 10% said they do not use covers because (1) they do not have anything to use as a cover and/or (2) they are accustomed to leaving the water open. The remaining 8% surveyed said they cover sometimes, usually at night because during the day they need access to the water.

## **Bathing and Washing**

There are around 10 rivers within Bua which the families use for bathing themselves and for washing their clothes. Very few families wash their dishes in the river, most wash near their kitchen and dispose water outside. The two main rivers are called *ShinoPi* and *Suberano*. The 8 smaller rivers are known as *Pololonapi*, *Canadulce*, *Bua*, *Pite Napi*, *Ste' Ste*, *Le Shupi*, *Nashinopi* and *Ponapi*. There is concern over the welfare of the river

system and the ecological effects due to contamination. In the last two years, Alfonso Aguavil and other group members have visited families/businesses along the ShinoPi River banks to demand that garbage and wastes are not disposed in the water. Since then most people have abided with this request.

However there is still concern and 30 people surveyed believe that their respective rivers are not clean (4 said they are clean and 5 did not have any idea). The 30 cited the fact that everyone uses the rivers to wash themselves and their clothes and that soap and detergent is visible. On a daily basis in the ShinoPi River I noted a lot of soap on the surface of the water coming from upstream. I was told that in summer months when water level is low, the streams and rivers appear whiter since they are more concentrated with soap etc.

57% of the households use the river as their main place to bathe, while 15% use well water and 28% use river, well and rain water. Soap, shampoo and other products are rinsed into the rivers. On average people brush their teeth twice a day. Everyone bathes on a daily basis, sometimes more than once a day. About 77% of all households use the river to wash their clothes, while 8% wash near the well and the rest wash at both sites. Bar soap, powdered detergent and chlorine tablets are used by everyone and are deposited in the rivers.

Altogether there are a total of 230 people in the 39 households surveyed which indicates that a lot of people wash and bath everyday, with the majority contaminating the river systems. And this just reflects the 39 out of 125 households! Fish is a major part of the Tsachila diet and is caught from these very same rivers.

Other concerns include waste from animal farms or other toxins (pesticides) that leach into soil and water. The Suberano is apparently quite dirty and a lot of people throw plastics and other wastes. Many people expressed fear over dead animals and bacteria in the river water as well.

Even though some are aware of the detrimental effects, the Tsachila say they have no other alternatives and have to continue with their washing/bathing practices. Most people interviewed say they do not throw garbage into their rivers because they know it is not good to do so.

### **Part 3: Waste and Sanitation Practices**

The toilet system is basically just holes in the ground, sometimes enclosed with wood walls, but most households (25 of them) use anywhere outside to go to the toilet. On average, people said that they go to the toilet far from their house (about 40m) but often urinate closer to the home. 28 people said they do not use the same place every time while the others said they have a specific location. Usually when the holes are full, they are covered and new ones are dug in different locations. Most people (69%) do not use the river as a toilet citing that they know it is not good as others use it for consumption. However the others mentioned that sometimes they urinate in the river (as do the children).



According to the results, people urinate about 4 times a day and defecate about 2 times per day. The Tsachila use mainly toilet paper, newspaper and leaves to clean. For those who use pits, sometimes they fill them with ash or leaves to prevent odors and insects. The others who use random areas sometimes cover their waste with leaves, or bury or burn used toilet paper. However 25 people stated that they do not bury or cover their wastes, and that it is just left in open air. This causes concern as this human excrement is left exposed to animals, people and insects, therefore acting as a source of contamination. The buildup of waste in the ground may be hazardous as it can leak and leach into surrounding soil and groundwater. One household said that they even cross a river to use the toilet because they have fear of contaminating the grounds near their home.

The question regarding hand washing was the most sensitive and frustrating one because the majority of people immediately responded that they **always** wash their hands after using the toilet. Virtually everyone said they always wash hands before eating. People just did not want to admit that sometimes they do not wash their hands. However when I decided to discuss this further and ask them more questions, most changed their answers to “sometimes wash hands”. We discussed how there is not always water available to wash hands right after using the toilet and also how it is difficult to monitor children and their hand washing practices. Others were very candid and stated they do not wash their hands all the time, especially after urinating. Most of the men said that at work they do not always wash their hands, but always wash them in their home. Water and soap, plain water and towels are used to clean hands. A lot of people are aware of the importance of washing hands in that it helps kills bacteria/germs and avoids the contraction or spreading of sicknesses. However I noticed that there were people who were shaking my hands while their hands were clearly not clean (after working, eating or using the toilet).

The Tsachila are accustomed to going barefoot around the house and grounds, and not everyone always wears shoes to go to the toilet. This could be another vector of disease as bacteria and germs could be transmitted from one location to another (into the home or directly ingested). Children are less likely to wear shoes than adults, although some are scared of encountering snakes so they may wear shoes sometimes.

### **Waste Disposal**

Garbage that is accumulated is disposed right on the property of the household in a heap/hole not too far from the house or just anywhere around the house. While some households have specific places or holes (49%), others (51%) just throw their garbage anywhere. It was shocking to see massive amounts of garbage littered around the houses and the lack of incentive to collect it into a pile. Sometimes I would observe children playing close to or in the garbage and there did not seem to be concern from parents about the effects. Often children throw garbage directly on the ground, mimicking the action of their parents. Ironically, when asked if they littered in the street, 24 people (62%) said they do not. There are 10 families who separate their organic waste from plastics/toxins/glass and use this to keep soil fertile. In summer months, plastics and other wastes are burned. The home of Alfonso Aguavil is very clean because he and his family have decided to make sure there is no garbage on the ground. They receive a lot of visitors and other Tsachila members and have set up sacs to promote proper waste

disposal. Furthermore they are active in separating organic wastes from plastics etc. The household hopes to be an example for other Tsachila and have received praise for keeping their home tidy.

#### **Part 4: Health, Nutrition and Dietary Habits**

The Tsachila diet consists of food that is largely self-cultivated by the Tsachilas on their land. Other items are purchased in the shops and markets in town. Plantains (green and mature), yucca, potatoes, eggs, rice, fish and soups with vegetables are consumed daily. “Mallong”, a type of larva which is rich in protein is sometimes consumed (raw or roasted). Every one of the households except one has chickens, but chicken and other meats (beef and pork) are not consumed all the time because it is expensive. Wild meats are not hunted like before because populations have diminished.

The Tsachila do not eat a lot of fruits and vegetables because (1) they say that there are not many available because it is not the season (2) fruits are too expensive in town (3) fruits/vegetables from the market are contaminated with pesticides (4) some people do not like the taste and (5) Tsachilas are not accustomed to having lots of fruits and green vegetables in their diet. Therefore it was noted that there is not a lot of fiber in their diet and foods are heavy and full of starchy carbohydrates. The diet may play a part in contributing to stomach problems because foods are very binding. Meals are three times a day and not many people snack in between. Drinks (hot beverages or juices) are consumed mainly with meals. There are 25 individuals who drink alcohol and/or smoke.

There is electricity in 37 households. Refrigerators are found in 18 of the households and are used to store goods. Households without refrigerators only prepare enough food to be consumed the same day and therefore rarely have leftovers.

Most people have dogs, cats and chickens, while very few have pigs, ducks and horses. Cats and dogs are largely free to roam wherever they want (inside and outside the house) and often have fleas or other insects. Chickens are not caged and also roam all over the grounds. This again is another vector for transmission of diseases and bacteria as they may walk over areas with animal or human excrement.

I was told that the Tsachila typically live till an old age, however recent changes to their diet and the introduction of sugar, oils, salt etc. are worrisome. Diabetes and cholesterol have become more prevalent.

#### **4.0 Conclusions and Recommendations**

Everyone had an opportunity to express their concerns and needs for improving health. Most said that proper toilets, clean water and more accessible medicines are the most important things. A few people have heard about the “bano seco” project and would like to know more about how it works etc. Other people such as Alfonso would like to stop polluting the river and bring water to their homes. They propose the installation of water pumps to transport water but do not have the finances to carry out this project.

Health education, awareness campaigns and proper waste disposal techniques would be ideal in the community to help improve overall health. Just the act of having a place to store garbage and wastes in the homes would be a good first step. Organic composting and recycling projects could be developed in the future, but first people have to understand more about basic waste management. More economic data should be collected to form a bigger picture of the health reality in the community. Finally there are many more questions regarding health, and these should be formulated in a sensitive manner. From the experience of this survey, “Yes and No” questions are not the best because answers are not always black and white when it comes to this subject matter.

Overall, the interaction with the community members was productive and it stimulated the conversation of topics that are not normally discussed. A lot of people are concerned for their health but feel they can do little because of their economic means. I believe there are small steps that can be taken to help reduce unnecessary health problems and this starts with basic hygiene and sanitation reforms. Of course the implementation of larger projects (water pumps, toilet construction) would be extremely beneficial but the community needs assistance with these projects in terms of financing and guidance.

I am very appreciative to all the people that took the time to participate in the survey and hope that the collected information has brought more insight onto the health reality of the Tsachila in Bua. Freddy Aguavil and Alfonso Aguavil were extremely helpful by accompanying me to all the homes and assisting me with translations/clarifications.

### **5.0 Information about Abraham Calacazon School**

I had a meeting with Senor Guillermo Aguavil, the director of the Abraham Calacazon School in Bua on April 26<sup>th</sup> 2007. I was informed that there are about 10 to 11 teachers and 136 students registered. There are several classrooms but not all in good condition or with sufficient desks or benches. The director is very passionate about improving the school and was very eager to share information with me. He has a lot of plans but cites that he needs help from members and authorities of the community to make them a reality. The director stated that there are many barriers with the Tsachila authority director which impedes progression in the school.

Health and education are top priorities for Senor Aguavil. There is no formal program for health and hygiene, but health issues are discussed in natural science classes.

#### **Toilets**

There are a total of 5 toilets for the entire school population. These toilets are septic systems and are around 10 years old. The director mentioned that they are close to reaching their capacity and new ones need to be constructed. In addition, construction of more toilets would be ideal. The bathrooms are located very close to the classrooms. Both teachers and students share the responsibility of maintaining the toilets on a weekly basis and they use various cleaning products to disinfect and sanitize. The younger students receive toilet paper but students in the senior level are responsible for bringing their own. Used toilet paper is disposed in a bin and then is taken to another location to be buried or burned. There is soap and water available to wash hands but this is

obviously up to the student. However in all the classes of the younger students, there is a basin of water and a bar of soap. Each of these students also has their own hand towel. When the students return from the bathroom, upon arriving in class they must wash their hands with the soap and water. This is a recently new idea implemented by the director in hopes of teaching the children at an early age the importance of keeping hands clean.

### **Water**

There is one well on the school property and an elevated tank for storage of water. However this tank is unstable due to age (wear and tear) and is not used because of fear of an accident. There is water available for students to use (consume and wash) and this is taken from the well. However the water is neither purified nor boiled and is consumed directly by the students. The director is aware of the health problems associated with unpurified or non-boiled water and it is a definite concern for him. He stated that they do not boil/purify because (1) there is no one to delegate the task to because everyone is busy (2) there is no tank to store the purified water and (3) he has a fear of putting chlorine in the water because he does not know how much to put and does not want to intoxicate the children. He stated that he does not drink the water from school and instead drinks juices from the cafeteria. The director mentioned that most of the children are thirsty and do not care about the quality of the water, therefore consume water directly. He would like to buy a large tank that is specifically for potable drinking water and will treat the water with chlorine. However he would like to consult with someone to make sure that he has the correct proportions of water and chlorine. *\*There was a meeting to discuss the purchase of a tank one week after I had the meeting with the director.*

### **Illnesses**

The typical illnesses experienced by the students include stomach problems, parasites, the flu and malaria. However the most pressing problem is parasites. The director stated that most parents do not have an interest in knowing more about healthy practices or just lack knowledge. For example, he stated that most families do not boil their water and this is a major source of gastrointestinal problems. Often he writes notes home to the parents to explain the importance of boiling water, but usually there is no change in practice. Interesting to note the school itself does not treat the water, so the parents are not only to blame. However the director is taking steps to solve this problem.

At the school there is no area to treat students who are sick, and depending on their condition they will go to the shaman, Santo Domingo or Umpe Chico. A lot of students take medicine from the pharmacy but their problems are never really solved and they usually fall sick again. Hospitals and clinics are far away and there is no transport from the school because there is no vehicle on site. There are vaccination days at the school but these are not fixed dates. Each student has a vaccination card but according to the director they lack many important shots which are critical in preventing illnesses.

### **Waste Disposal**

Around the perimeter of the school and also on the grounds of the school I noted a lot of litter. I observed many students throwing litter onto the ground carelessly. The director

told me that it is difficult to monitor and discipline the students when it comes to littering. They do however have school clean up days where everyone participates in helping collect garbage. In my opinion this is pointless if the students help clean one day and the next day resume their old ways of throwing stuff back on the ground. There is definitely a lack of environmental education and this should be incorporated into the curriculum. The students do not have an understanding of the effects of littering and contamination. The director informed me that each classroom does have a waste basket but there is no waste receptacle on the grounds. When I asked why this was not so, he told me that they sometimes put cartons to collect garbage but they get easily damaged by the rain. *\*Two week after our meeting I met again with the director and he told me that he was placing sacs on the school grounds to collect garbage. He said that the principle was simple and that there was no excuse for not doing it. It was motivating to hear that he already started to make changes.*

There is no separation of the garbage/waste and it is taken to a spot nearby and usually burned in the summer months.

### **Visions for the Future**

The director has visions for the future and would like to implement many projects. There have been tree planting activities in the past, but this has ceased because the school does not have enough property. Senor Aguavil would like to use neighbouring land to start a large garden and agricultural space to cultivate crops and do experiments. He believes that agriculture is an important aspect of Tsachila culture and that it is also practical “out of classroom” experience for the students. In addition the school can generate income by selling produce and become more self sufficient. Families of the students can also work in this space; therefore this would be something beneficial for the entire community. Composting and the production of manure could be another activity for the students. The biggest obstacle for the school right now is not having enough support, both financially and motivationally speaking. More meetings with parents, community members and authorities are seen to be imperative for improving the school. He would like to work with organizations and others to create and sustain projects.