# Lethem St. Ignatius Community Assessment For Disaster Reduction

# The International Federation's Global Agenda (2006–2010)

Over the next two years, the collective focus of the Federation will be on achieving the following goals and priorities:

#### Our goals

**Goal 1:** Reduce the number of deaths, injuries and impact from disasters.

**Goal 2:** Reduce the number of deaths, illnesses and impact from diseases and public health emergencies.

**Goal 3:** Increase local community, civil society and Red Cross Red Crescent capacity to address the most urgent situations of vulnerability.

**Goal 4:** Promote respect for diversity and human dignity, and reduce intolerance, discrimination and social exclusion.

#### **Our priorities**

Improving our local, regional and international capacity to respond to disasters and public health emergencies.

Scaling up our actions with vulnerable communities in health promotion, disease prevention and disaster risk reduction.

Increasing significantly our HIV/AIDS programming and advocacy.

Renewing our advocacy on priority humanitarian issues, especially fighting intolerance, stigma and discrimination, and promoting disaster risk reduction  $\ensuremath{\mathbb O}$  International Federation of Red Cross and Red Crescent Societies

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Cover photo: International Federation

#### 2008

International Federation of Red Cross and Red Crescent Societies

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#### Introduction

The Guyana Red Cross has a Community-based Disaster Management (CBDM) program to develop 'Safer, Healthier Communities'. The program includes activities in community first aid, water and sanitation, HIV AIDs awareness, prevention and reduction of stigma and disaster risk reduction. This current activity falls within the latter project.

The project title *Readiness to Respond – Increasing Disaster Preparedness Capacity through Enhanced Coordination and Community Awareness* is also being implemented in St. Lucia and Trinidad and Tobago through their Red Cross Societies. It is regionally administered by the International Federation of Red Cross and Red Crescent Societies which promotes humanitarian activities in Caribbean. Through preparedness and the coordination of international relief in times of disaster, the Red Cross aims to improve the lives of the vulnerable by mobilizing the power of humanity.

This CBDM project is funded by the United Stated under the USAID Office of Foreign Disaster Assistance and runs from March 2008 – August, 2009.It includes a number of components to improve community safety and readiness for disaster: Community risk and capacity assessment, training in community first aid and the development of community disaster response teams; community members in tandem with their regional administration drafting and testing disaster plans as well as the implementation of small projects to improve the safety of the community.

The Lethem, St. Ignatius, Tabatinga and Culvert City communities have assessed their area to:

- 1. Identify hazards and vulnerabilities in the surroundings
- 2. Recognize skills and resources available
- 3. Identify actions which the community can implement to reduce risk
- 4. Prepare micro-project proposals.

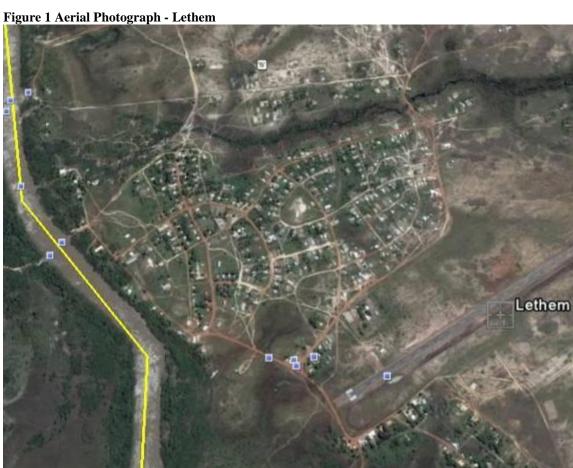
What follows are the results of these assessments undertaken by community members over the period 16-20 February 2009 from the community center in Lethem.

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Module 1 Better Be Prepared

COMMUNITY ASSESSMENT – Vulnerability and Capacity Assessment (VCA)

Disasters cannot always be prevented but risks can be significantly reduced through the mobilization of people and hazard reduction efforts at the local level.



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Spatial Map of Lethem Community



Activity no. 2 Direct Observations

- 1. The population grew 100-200% in the last 10 years
- 2. Population (in flood-prone areas) is still not prepared for flooding
- 3. In north Lethem 10 houses affected by floods in the last 10 years
- 4. Need to improve diet balance in some St. Ignatius children
- 5. Change in the weather pattern. There used to be very intense rainfall in the wet season, now "old lady rainfall" moderate. Also the river and creek (Takutu Moco Moco and Tabatinga have not dried up these last years in the dry season its been raining more in the wet season
- 6. Arewas the first name for St. Ignatius, it means big fish (cat fish)
- 7. Some roads are destroyed due to erosion. Dirt roads and dust.
- 8. There is a lot of garbage thrown behind houses and yards
- 9. In north Lethem along the Tabatinga creek some of the cess pits are positioned up hill of the wells.

## Activity no. 3 **Our Community's History**

#### Historical Profile

Historical Pro	
Year	Events
	Macushi tribe
1909	Adobe, brick and thatched roof houses
1930's	Lethem was an administrative area
1940's	Named after Sir Gordon Lethem, Govenor of Br. Guiana
	Predominantly Cattle farming
	Water pumped from the Takutu River to households
(0.50)	1949 Rodeo at stock farm
1950's	Tobacco Introduced as cash crop
	1 doctor and 2 'maids' also medical rangers who tool medical
	supplies to various villages
	1954 College Hospital established
10001	Foot and mouth diseases eradication program 50's-60's
1960's	Catholic Church and Christian Bretheren Church established
	DC6 aircraft used
	2 <sup>nd</sup> Jan. 1969 Rupununi uprising. Guyana Defence Force Base
	established
1970's	Zinc roofs on houses introduced
1970 \$	
	1972 Electricity generated by 3 Lister generators 24 hours
	First Regional Chairman Harold D'Aguiar 1976 First Flood covered from the market to the airstrip
	1978 Drought
1980	1981 All weather airstrip: Apapaima (Annex) started
1900	Small hail storm
	Late 80's peanuts introduced
1990s	Road completed Georgetown more people and vehicles in Lethem
10003	1991-93 Telephones; 1992 aircraft crashlands without wheels
	1992 Full Gospel Church
	1996 NDC local government; 1996-98 El Niño drought (river water
	turns green like aftershave)
	1998 Influx of Brazilians
	Late 1990's sunk wells improved hydroelectric supplies
	Migration of Macushis from Lethem and the increase in Wapishanas
	employed in Lethem
1999	Moco Moco hydro station built by Chinese – powered the
	communities of Moco Moco, Lethem and St. Ignatius
2000	Bridge from St. Ignatius to Lethem built
	Malaria outbreak > 8000 cases in Region 9
2004	Hydro dam burst due to heavy rains and mudslides
2005	Big flood, 80% of the population affected2-3m deep on average
2007-08	Dengue Type 2 outbreak in Region 9
2008-09	Takutu bridge to Brazil

#### 3 (b) Community history through pictures/sketches

Lets look at our history by topics such as population and housing growth, agriculture or forest, disasters & health etc. how have these changed over time. Draw sketch diagrams to represent the change.

Topic			Agriculture	Houses
Year or				
Decade				
				Adobe, brick & thatched hut
50's			Foot and Mouth	
60's			disease program	

Historical Pictogram

#### Notes:

Review of the historical information. From the tables above:

- What have we learned about our community?
- When last was the community affected by a severe hazard?
- Are there relationships between the topics or events?
- How have changes over time placed us at greater risk?

Activity no. 4: Community Baseline and secondary data:

#### **Official Community Name:**

#### Lethem, St. Ignatius, including Tabatinga and Culvert City

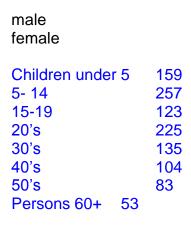
#### **Location of Community**

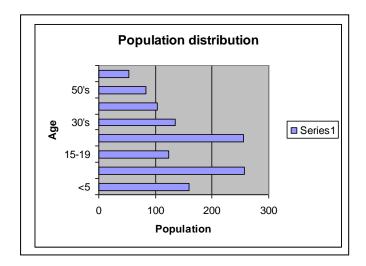
The communities are located in the northwest of the <u>Upper Takutu-Upper Essequibo</u> Region. It is the central administrative center of Region 9 of Guyana.

Main access route: by road, river and air

Population: 2002 Census 1158. The more recent data gives 2063 in Lethem, St. Ignatius in 2008. About 1200 persons live in St. Ignatius

Total number:





Number of Households

1176 in 2008 of which 396 connected to centrally pumped water. Approximately 63% are employed.

There is a regional development plan recently proved by Cabinet.

•	<u>Condary Information Need</u> Type of Data	• GAPS	•	Who/Where?
•	Inventory of Resources (possible shelters, transportation, communication capabilities etc.)	• Need updated and precise information. Need to know where to source this kind of information	•	RDC, GTT and Digicel, NDC
•	Population Information (Households, Vulnerable (kids, disabled and elderly)	<ul> <li>Hospital holds some of this information. Information not stored in centralized place where information could be accessed.</li> </ul>	•	Lethem Hospital – Malaria Department, RDC, Social Welfare, Community Based Rehabilitation (not active)
•	Livelihoods	• NDC could collect more data. Currently lacks information	•	Personnel Department – RDC, Community leaders, CI, RAM reports etc.
•	Climate data	• Not readily available in user friendly manner. Not data based at Lethem.	•	Hydromet. Ms. Hamilton (644-4844). D. Defraitus @ Dadanawa Ranch
•	Updated contact lists	• Needs better coordination	•	VCA list, National and Regional Events Committee. Rupununi Chambers of Commerce
•	List of NGOs and other donor agencies	• Needs better coordination and awareness of availability	•	RDC, community via social groups.
•	Maps of flooded areas and road network	• Need updated map to show exactly where power/water is located. Need to share among agencies	•	Lands and Surveys (Miller), VCA Maps.
•	<ul> <li>Health</li> <li>Prevalence/ rate of various diseases</li> <li>Extent + seasons for water-borne diseases + vomiting + diarrhea</li> <li>STI rates</li> </ul>	•	•	RHO – Hospital
•	Crime situation	•	•	Police
•	Abuse/ alcoholism	•	•	Social worker/ RDC.
	statistics			Desmona Douglas
•	Sanitation (water testing etc)	•	•	Environmental Officer- Bonita Gerrick. Hospital.

Secondary Information Needed and Gap Session

#### Activity no. 5 Seasonal Calendar

Events throughout the year tell us when to prepare; what are the best times to put on aware activities and training or implement projects.

Icons?	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Major events		Mash		Rodeo	Indp Day			Labr Day	Ameriderian Heritage ATH Sports		Rup'ni Day	Christ Mas
Income		\$		\$	\$			\$	\$		\$	\$ X
Drugs & Alcohol		X		X	х			X	X		X	X
Traffic Accidents		X		X					X		X	X
Crop season												
Bush fires												
Dust												
Rainfall												
Mosquitoes Cabauroc flies	m	m	m	m	Μ	М	Μ	Μ	mc	mc	тc	m
Malaria												
Diarrhoea					Х	X	Х	X				
Crime												
Migration	X						Х	Х	Х			

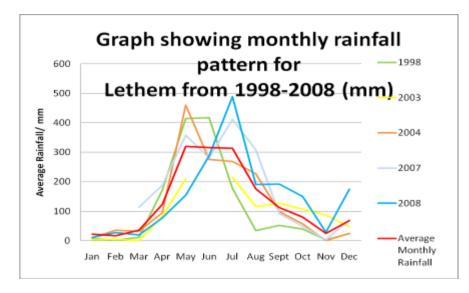
Climate affects crops, bush fires and an association between mosquitoes and the wet season.

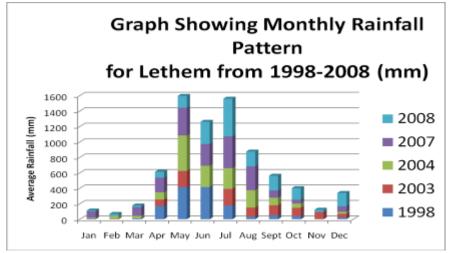
Crime is associated with high income periods, but also with the wet season. The community believes the thieves take advantage of the noise from the rain and the reduced number of persons moving about due to the weather

Migration is high when the wet season is low

Diarrhoea increases from August to year end. Mainly well water is used towards the end of the year (August – December) after the wet season. During the wet season water is collected from roofs.

Peak wet season May – August. There is a trend towards increasing rainfall over the last five years. 2004/07 and 08 have had an increase in rainfall in the dry season. Noticeable in the fact that the river and creeks do not dry up in the dry season as it was in the past.





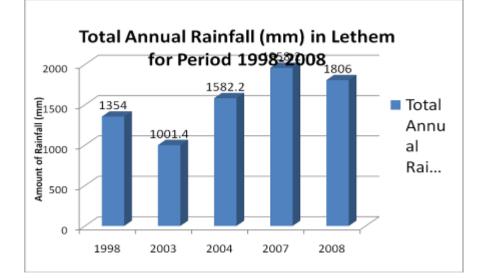




Figure 2 - Hazard & Vulnerability Map of Lethem

The main hazards in Lethem are:

Floods affecting over 60 families:

- North and south of the Tabatinga Creek 6-9 feet in depth affecting north Lethem, Tabatinga Drive and the southern streets of Tabatinga;
- Along the Takutu River and hence along Takutu Street in Lethem
- Along the Moco Moco River in the vicinity of the St. Ignatius bridge affecting homes in Culvert City along J.F. Halliday Boulevard.

# **Dust** affecting all homes in Lethem, Tabatinga and Culvert City as almost all the roads are dirt roads.

**Traffic accidents** at the corners of Bounty and Middle streets and Barracks and Corinthian Junctions and along lower Corinthian Street. There is a need for traffic signs Isolated **bush fires** occasionally threaten homes.

**Mosquitoes** generally throughout, and their related vector-borne diseases of malaria and dengue fever. Of the latter, health statistics for late 2008 show 126 persons (6% of the population) tested positive for dengue, mainly females 62% and most persons infected were of Amerindian heritage school children and young adults (less than 35 yrs).

There is the threat of foot and mouth disease from the Brazilian border.

#### Other community concerns:

No road signs, no drainage on streets, noise nuisance, garbage collection needed particularly for the business sector. Acushi ants destroy gardens. The pumped water is salty and hard. Electricity is inadequate – it shuts down at 1:00 am and starts up at 7:00 am. There is a need for Fire extinguishers in public buildings

#### Activity no. 7 Community resources and skills Map

No community is without skilled people and some items to help in an emergency.



Figure 3 Resource and Capacity Map

The communities of Lethem and Culvert City have many physical and human resources. These include, food supplies, privately owned heavy equipment and canters (trucks) as well as two petrol stations. There is water from wells and rivers and creeks (Moco Moco, Takutu and Tabatinga), many persons have water pumps. The proximity of the rivers encourages persons to own boats.

There are hospitals both in Lethem and in nearby Bom Fin/Bom Vista, Brazil. Many facilities possess HF radios and telephones and satellite transmitted internet are functional in the area.

There is a power generating facility and because it shuts down at times many residents have their own generators. The communities can use schools and the community center as shelters. There is a daytime airport capable of receiving DC 6 aircraft.

The community possesses carpenters, plumbers, an abattoir, police and immigration officers and nurses. There is a military base for manpower and equipment. Most persons have assisted in the construction of their homes and therefore have masonry skills. Most homes have basic farming tools.

#### Activity no. 8 Cross Section (Optional)

Sketch cross- section of the community	Tab	atinga creek cross se	ction
New flood height — Old flood Height			
Floods	4-6'	6-8' deep	4'-6'
Livelihood/jobs	Sold snacks Kitchen Gardens Domestic	Clothes & vehicle washing	Balata craft Kitchen Gardens Small shop
Dangers/hazards	Floods Mosquitoes Poor water quality Climate change cashew damp won't dry & mangoes soft & have flies Acushi ants	Oil and dirt from vehicle washing Quality of water, animals use troughs in dry season And people wash clothes and fish there.	Floods Mosquitoes, wells are open Poor water quality Well walls are low and at risk to flooding Pit latrines are near to wells and in danger of contamination Wells need cleaning Dust from the gravel road Garbage accumulation flies, mosquitoes
People most at risk	Children Elderly Single parent	Persons using river to wash and fish	Children Elderly Single parent
Things most at risk	Wells Adobe homes House hold items	Walkway bridge	Wells Adobe homes House hold items
Resources & skills	Carpenters and masons Dirt Tools Rain water collection in wet season		Carpenters & masons, tools Dirt Few homes with electricity 1-2% Rain water collection in wet season
Ground/ soil	Clay & gravel		Clay & gravel
Construction	Brick and zinc		Adobe nearer the river, and brick and zing

The flooding in homes is recent, since 2005. Most homes are built higher than the traditional flood line. The homes are separated from the creek by savannah grass and a few trees. This was the seasonal flood area. Now land higher, where the homes are flood 1.5-3'. All homes are flat just 4 inches above the ground.

Noticed a few fire spots along the road, suggesting these may be caused by persons (throwing cigarette butts) but this presents a new hazard to the homes.

# Historical Profile St. Ignatius

Year	Events
1800s	Toshao Bruno of the "Bash" community population of 80 originally
	located near the Brazil boarder and relocated after 100 years to its
	present location
	Village was called Zoriwa after the (big) cat fish
	Macushi tribe was the original settlers. Mostly bartering, fishing and farming
1909	Community renamed after patron St. Ignatius
	First priest Father Alouise Alweys
1942	Toshao Lorentino Mendez – minimum wage \$4/day. Beef 28 cents
	and farine \$2 per can
	1948 First school run by catholics
1950	First Rodeo Stock Farm, first school and vehicles
	Foot and mouth disease, prevention and eradication program in
	place
1969	Rupunini uprising, migration of villagers
1970	1978-80 Government school
1980	Community received electricity
	Road to Georgetown available
1992	Full Gospel Church and others
1998	New nursery school built
1999	Moco Moco hydro station built by Chinese – powered the
	communities of Moco Moco, Lethem and St. Ignatius
2000	Bridge from St. Ignatius to Lethem built
	Secondary School and dormitories built
	2001 Heritage Celebration
	Community Benab built
	Malaria outbreak > 8000 cases in Region 9
2002	NARI commissioned
	Sports ground developed
2004	Hydro dam burst due to heavy rains and mudslides
2005	Phone Booths installed
2007	Some households benefits from a new water distribution system
2008	New primary school Beef \$700/kilo Farine \$3000/can

Toshoa (Village Captain)

1800 Bruno	
1942-1978	Lorentino Mendez
1978-1989	Nerso Lorentino
1989-1996	Derek Williams
1996-1998	Maucir Baretto
1998-2003	Ernesto Farias
2003-	Wilson Lorentino
2003-	



Figure 4 St. Ignatius Spatial Map

This is a Toshao (Captain) administered village approximately one mile east of Lethem. Its main industries are brick making and cashew which grow along the Takutu river. The Cashew factory is situated near the school.

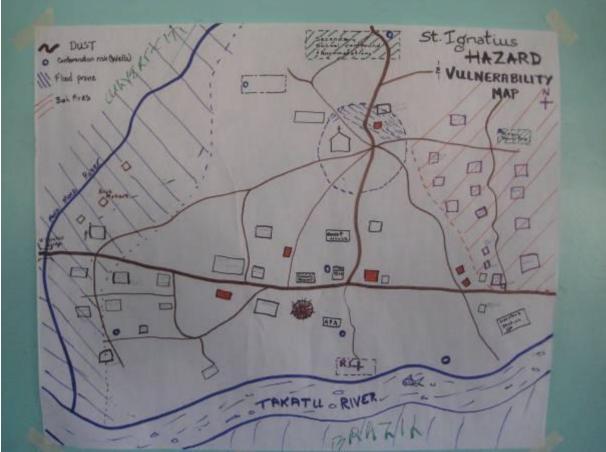
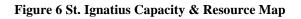


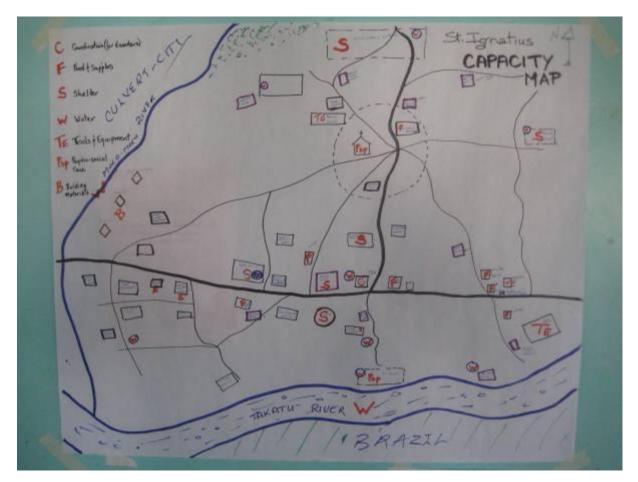
Figure 5 St. Ignatius Hazard & Vulnerability

The Moco Moco river floods in excess of 20 feet in the vicinity of the St. Ignatius bridge. It is mainly the brick makers operations which are affected. There are about 9 buildings within the edge of the flooded area and another seventeen buildings near the border of the historical flood area.

The community is concerned with the traffic hazards as vehicles travel fast through the village. There are three schools and a need for speed bumps, limits and school signs to encourage persons to slow down.

The latter had overhead bars to limit the weight of vehicles crossing but these bars are no longer there.





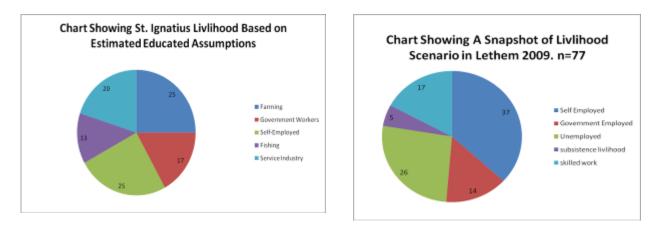
The St. Ignatius community has many resources.

There are three schools, nursery, primary and a dormitory secondary school which can be used as shelters as can the Guest House and Benab.. Food supplies can be obtained from over 5 shops, the livestock and fishing area. The community has many wells for water, a few mechanica, building materials for bricks and gravel pits, Coordination and leadership in emergencies is provided by the Toshao and the village tractor would be available.

Many residents are farmers and therefore have tools. They have also helped construct their own homes and are therefore capable masons and carpenters. The community well being is protected by its close bond and the spiritual care provided by its church officers.

Activity no. 9 Livelihoods and coping strategies

a) How do people support themselves and their families? This can be expressed as a pie chart or list.



Livelihood of the ..... community

b) Make a list of how people in the community cope with emergencies and disasters; what strategies are used; what gets reduced first?

# Activity no. 10 Social networks in Lethem, St. Ignatius

	Groups & Institutions	Point of Contact	
Government	Arapaima Primary School	H.M. George	645-4291
	Guyana Defence Force		772-2015
	Guyana Water Inc.	John Jacobus	692-4457
		Raymond George	617-3338
	Immigration		772-2087
	Lethem Hospital	Emergency Nurse	682-8642
			772-2006/2206
	Lethem Police Force	911	772-2078/2011/ 2085
	Malaria Department	L. Gomes	772-2007
	National Democratic Council		772-2028
	Regional Democratic Council	Mr. Clarindo Rudolph	
	Regional Disaster Committee	Chair: Mr. Clarindo Rudolph	
Business	Lethem Chamber of Commerce	J. Mecado	
	Vanessa Mining Co.		772-2086
NGOs	Conservation International		772-2227/8
	Gladiators Sports Club	S. Defreitas	685-3755
	Guyana Red Cross	Julie, Jason. Noel, Gorman, Shannon	662-4847. 772-2208, Mhz53 Romeo Charlie
	Helping Hand Women's Group	R. Farias	662-4686
	PTFA St. Ignatius Primary	Gerard Ribeiro	663-5586
	Remote Area Medical	Terrence Trapnell	610-9850
	St. Ignatius Sports Club	L. Cabrel	772-2019
	Youth Challenge Gy.		682-4233
Religious	Assemblies of God	Pastor Jenny	772-2082
	Baha'i	L. Zammet	772-2131
	Christian Bretheren Church	Pastor Charles	772-2026
	Christian Conregration	S. Rebeiro	772-2166
	Church of Christ	Pastor George	694-4151
	Full Gospel Fellowship	Pastor Rennie	610-0038
	Roman Catholic Church	Fr. A. Jochim	652-3788
	Seventh Day Adventist Church	Desiree Hamilton (Education)	772-2012

## Activity 11 Reducing risk and make the community stronger

Hazard - Scenario	Reasons for damage and or injury	Possible actions to reduce or eliminate risk
Dust	Poor quality of air Breathing difficulties – asthma Frequent sinus and throat irritations	<ul> <li>-tarring of roads</li> <li>- planting of trees &amp; grass along side of road</li> <li>- place speed limits and bumps (to reduce speed of vehicles which adds to dust movement)</li> <li>- wet roads and compact during the dustier months (end of dry season)</li> <li>-wash gravel – get finer dust out</li> <li>- examine alternative materials for road</li> </ul>
Lack of road signs	Accidents due to lack of : street signs; speed limit signs; intersection signs (right of way); cautionary signs (stop/yield);bi- lingual signs;pedestrian crossing	-gazetted streets/roads - re-inforce speed limit in Lethem -identify steps in process of getting street signs - Paint and post street signs
Garbage	Vector breeding sites Pollution of area	<ul> <li>recycling (reuse of pastic bags and bottles; aluminium recycled in BomFin)</li> <li>composting</li> <li>separating garbage</li> <li>use paper instead of Styrofoam</li> <li>have functioning garbage disposal services</li> <li>Enforce that dumpsite be used for dumping garbage Burning (always monitor)</li> <li>bury</li> <li>bring cloth bags to grocery</li> <li>enforce fine for littering</li> <li>no washing of vehicles in creeks</li> <li>education &amp; awareness</li> </ul>
Floods	Damage to property Risk to life Contamination of wells Generation of water borne diseases	<ul> <li>-advise persons not to build in flood areas</li> <li>- provide house lots to relocate</li> <li>-advise on building higher</li> <li>-stop removal of vegetation and soil along creeks and rivers</li> <li>-teaching about flood barriers</li> <li>-build 'sea' wall and kokers</li> <li>- preparedness (education &amp; awareness)</li> <li>- digging drains in community</li> <li>-stump walls around property</li> <li>-retaining walls around wells</li> <li>-build flood resistant latrines</li> </ul>
Insects	Agricultural and household pests Disease vectors irritations	<ul> <li>frequent fogging</li> <li>use of treated nets</li> <li>clean yards &amp; house</li> <li>insect repellents</li> <li>use of traditionall/local methods</li> <li>use of mesh on septic tanks</li> <li>well ventilated latrines</li> <li>reduce or cover standing water in yards &amp; houses</li> <li>cover 'soak-away' and use charcoal to purify water</li> <li>Use of protective clothing</li> </ul>

We can transform our community by reducing how much harm a hazard can cause.

Fires	Damage to property Loss of vegetation cover – increase risk of flooding	<ul> <li>education</li> <li>create volunteer fire service</li> <li>keep yard clean of flammable material</li> <li>keep trees trimmed</li> <li>monitor any fire set, e.g. to burn garbage</li> </ul>
Health	Mosquitoes roaches	-fogging - keep surrounding clean - treated mosquito nets -use of fendona - mesh air-vent in septic tank -use of protective clothing - use of mesh in homes -cover water containers and wells
Animals	Damage to kitchen gardens and private property	<ul> <li>create new regulations</li> <li>fence yards</li> <li>communal grazing grounds</li> </ul>

Activity 12 Change we can carry out now.

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Of the "*Possible actions to reduce risk*" above, pick out the ones we CAN CHANGE and do it for ourselves.

Dust	<ul> <li>planting of trees &amp; grass along side of road</li> <li>fence yards</li> </ul>
Traffic accident risk	<ul> <li>identify steps and process in getting street signs</li> <li>paint and put up street signs</li> </ul>
Garbage	- recycling (reuse of pastic bags and bottles; aluminum recycled in BomFin)
Gaibage	<ul> <li>compositing</li> <li>separating garbage</li> <li>use paper instead of Styrofoam</li> </ul>
Floods	-stop removal of vegetation and soil along creeks and rivers -teaching about flood barriers - preparedness (education & awareness) -stump walls around property -retaining walls around wells -build flood resistant latrines

Mosquitoes and other Insects Ants Roaches	<ul> <li>clean yards &amp; house</li> <li>insect repellents</li> <li>use of traditionall/local methods</li> <li>use of mesh on septic tanks</li> <li>well ventilated latrines</li> <li>reduce or cover standing water in yards &amp; houses</li> <li>cover 'soak-away' and use charcoal to purify water</li> <li>Use of protective clothing</li> <li>education</li> <li>keep surrounding clean</li> <li>treated mosquito nets</li> <li>use of fendona</li> <li>use of mesh in homes</li> <li>cover water containers and wells</li> </ul>
Fire	<ul> <li>create volunteer fire service</li> <li>keep yard clean of flammable material</li> <li>keep trees trimmed</li> <li>monitor any fire set, e.g. to burn garbage</li> </ul>

INFLUENCE change	<ul> <li>placing of speed limits and bumps</li> <li>wet roads and compact during dustier months (end of dry season)</li> <li>wash gravel to get finer dust out</li> <li>examine alternative materials for road building</li> <li>gazetted streets/roads</li> <li>re-enforce speed limits in Lethem</li> <li>have functioning garbage disposal services</li> <li>Enforce that dumpsite be used for dumping garbage</li> <li>Burning (always monitor)</li> <li>bury</li> <li>bring cloth bags to grocery</li> <li>enforce fine for littering</li> <li>no washing of vehicles in creeks</li> <li>education &amp; awareness</li> <li>advise persons not to build in flood areas</li> <li>provide house lots to relocate</li> <li>frequent fogging</li> <li>advise on building higher</li> <li>build 'sea' wall and kokers</li> <li>digging drains in community</li> <li>create new regulations</li> <li>communal grazing grounds</li> </ul>
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Activity 13 Project Proposal

### Improving Road Safety within Key Lethem/ St. Ignatius Areas

#### Time: Mid March 2009 – May 2009

#### **Problem Statement**

The Lethem/ St. Ignatius area has gone through rapid development since the 1960s. The population continues to grow along with an increase in several environmental, economic and social issues which includes the effects of dust on air quality, water quality, garbage issues, transportation and traffic issues.

With regard to traffic issues, the Lethem/ St. Ignatius citizens expressed that speed and lack of speed limits are a public health safety hazard. Areas/ streets with high traffic lack adequate signage and for drivers local and from Brazil use the road indiscriminately and recklessly.

In December 2008 to February 2009, 80 persons reported traffic related injuries to the Lethem Hospital.

Representatives (community members and agency reps) from within the Lethem/ St. Ignatius area identified some of these major issues during a week-long work session implemented on 16<sup>th</sup>-20<sup>th</sup> February, 2009. Information was collected from a Vulnerability and Capacity Assessment as part of a Disaster Planning initiative for the area facilitated by the Guyana Red Cross and the International Federation. The Guyana Red Cross will work along with the Community, the Neighborhood Democratic Council, the Regional Democratic Council and the Regional Disaster Preparedness Committee.

#### **Objectives:**

- To erect adequate bi-lingual signs (international traffic, speed limit, street signs, Pedestrian Crossings by 1<sup>st</sup> week of April 2009.
- 2. To increase public awareness levels of good road safety by conducting house-house visits, 3 public demonstrations and 6 school visits by 3<sup>rd</sup> week of April.

Activities	When
<ol> <li>Meet with key Government officials (NDC, RDC, RCCI, Police) to create signs and for an inventory of important sites</li> </ol>	By Mid March
<ul> <li>2. Make adequate bi-lingual signs <ul> <li>-International traffic signs</li> <li>-Speed limit sign</li> <li>-street signs</li> <li>-Pedestrian crossing</li> <li>-Encourage creation of round about</li> <li>-Erect speed bumps</li> </ul> </li> </ul>	By 1 <sup>st</sup> week of April 3 <sup>rd</sup> April
3. Public awareness campaigns	2 <sup>nd</sup> – 3 <sup>rd</sup> week in

#### Activities

-House to house visits -6 school visits -3 public demonstration sessions -create 100 posters April

1<sup>st</sup> week in April

#### Budget

Activities/ Material	Cost	Who?
Construction materials (post, nail, hammers, paint)	\$50,000	NDC, Red cross, NGOs, RCCI
50 signs (\$4000 per sign)	\$200,000	Red Cross, RCCI
100 posters	\$50,000	Red Cross, Police
3 public awareness session	\$30,000	Police, Ministry of Education
12 speed bumps – 12 bags cement	\$48,000	RCCI
6 school visits	In-kind	Community
Erecting signs (labor)	In-kind	Community
Тс	otal \$378,000	

#### Partners

NDC: to seek permission RCCI: source of funding Community: consultation and labor Police: Identify suitable places and assist with awareness sessions. GDF: transport food.

## Proposal on Garbage for Lethem/ St. Ignatius Area

We propose that the communities of Lethem and St. Ignatius are educated about the serious problem of excess garbage in their areas.

#### **Problem Statement**

The accumulation of garbage and the inadequate disposal of waste are rampant practices within the communities of Lethem and St. Ignatius. As a result, community health is at risk, natural habitats are polluted including waterways and savannahs, burning from air pollution and indiscriminate disposal of litter.

#### Objectives

- 1. Conduct education campaigns on four topics (reducing individual trash, proper composting, separating and recycling, and proper disposal –burying, burning, dumping) by \_\_\_\_\_.
- To produce <u>education</u> posters and brochures by \_\_\_\_\_
- 3. To coordinate 1 clean up day and regularize as an annual event by\_\_\_\_\_.
- 4. To coordinate a poster competition by\_\_\_\_\_.
- 5. To secure and place \_\_\_ bins are key public locations by\_\_\_\_\_
- 6. To work with the NDC etc. to enforce, monitor and regulate garbage disposal in the communities by\_\_\_\_\_.

#### Activities

- 1. Conduct education campaigns in schools on four topics (reducing individual trash, proper composting, separating and recycling, and proper disposal –burying, burning, dumping).
- 2. Produce brochures for households and posters and signs.
- 3. Use anti littering slogan ' don't be a dirty slug, don't be a litter bug' on bins which will be placed at strategic locations.
- 4. Demonstrate composting.
- 5. Host a community clean up campaign.
- 6. Launch a poster competition to raise awareness.

Materials	Cost
12 bins	\$18,000
1400 Brochures	\$9.800
3000 Garbage bags	\$7,500
10 signs	\$1.600
Poster competition	\$20,000
Compost bin	\$6,000
Transport	\$54,000
Snack/ water	\$100,000
Total	\$231,000 = 1 clean up
	\$500,000 = 3 clean ups

#### Budget

#### Partners

Social Community Groups, EPA, RDC, RCCI, big business (especially with vehicles)

# **Proposal: Drought and Fire**

Fires can be influenced by two causes, drought and man-made. Lethem/ St. Ignatius doesn't have a fire service.

#### Activity

- 1. Target communities: Lethem/ St. Ignatius areas
- 2. Sensitizing population by handouts
- 3. Formation of voluntary fire service
- 4. Indentify alternate source of water

Time: 2 months before and after the rainy season

Materials	Cost
Fire trucks	5,000,000
Hoses	1,000,000
Buckets	1,800,000
Fire extinguishers	120,000
Paper and brochures	\$15,000
Water tanks	900,000
Water pumps	120,000
Fuel	300,000
Sand	
Fire resistant clothing	
Respirators	
	Total \$9,255,000

# Proposal for Improving Health in terms of treating and controlling Mosquito diseases

#### **Problem Statement**

Increase of health concerns of persons affected due to insufficient access to health care resources and lack of awareness.

#### Activities

- 1. To reduce amount of persons affected by an average of 60%.
- 2. Advocate for more testing kits for (dengue) so that adequate numbers are always available for patients.
- 3. Education families on the use of treated nets, repellant, proper disposal of refuse and garbage.
- 4. Make brochures on use of nets and other precautionary measures.

Time: as soon as possible. Target: 200 persons

Who is involved: Health authority- RHO, EHO, Lab personnel, RTR Team, etc.

#### Budget

ltem	Unit Cost	Cost	
Nets	\$1500*200	\$300000	
Bro	\$120 *200	\$241,000	
Repellant	\$300*200	\$60,000	
Garbage bags	\$400/ 50	\$3000	
Workers		\$2500	
		Total \$389,500	

# Proposal on to Reduce Dust in Lethem/ St. Ignatius Area for 2-year period

#### **Problem Statement**

Dust is a health hazard - 'to reduce dust nuisance in the communities'

#### Activities

- 1. Consult with NDC, RDC, Toushao, NARI by \_\_\_\_\_
- 2. Identify areas around the hospital, schools, hostel and community by \_\_\_\_.
- 3. Conduct community meetings to educate persons on importance of planting grass and trees. (brochures, posters, PA system) by \_\_\_\_
- 4. Prepare and plant special trees, bananas and evergreen between April- May
- 5. Encourage planting of trees along fence by \_\_\_\_
- 6. Organize with the NDC to wet road once per week in the dry season by \_\_\_\_\_.

#### Budget

Item	Cost
Meetings	\$50,000
Trees	\$200,000
Seed	\$50,000
Maintenance (2 stipend / year	\$300,000
Fencing	\$600,000
Total	\$1,200,000

#### Community Project Proposal Flood Hazards

Floods	Damage to property	- preparedness (education & awareness) (C)
1976 First	Loss of personal items	- advise on building higher (C)
Flood covered	Risk to life	- advise persons not to build in flood areas (C)
from the	Contamination of wells	- teaching about flood barriers (C)
market to the	Generation of water	-Demonstrate (C)
airstrip	borne diseases	- build 'sea' wall and kokers
2004 Hydro-	Loss of utilities	- stump walls around property
dam burst		- retaining walls around wells
2005 Severe floods		- build flood resistant latrines
2007 floods		
2007 110003		(Influence only)
		- provide house lots to relocate (I)
		stop removal of vegetation and soil along creeks and rivers
		- digging drains in community
		-stump walls around property
		-retaining walls around wells
		-build flood resistant latrines

#### **Problem Statement**

#### Objective

To educate and raise awareness among the Lethem, Tabatinga, Culvert City and St. Ignatius communities on how to reduce flood damage.

#### Target Group/beneficiaries:

School children200Youths out of school 200200Adults100

52% of school population 55% 33.3%

#### Activities

Awareness of flood preparedness and prevention in schools

- Identify volunteers
- Prepare brochures
- Print brochures
- Prepare information learning objectives and presentations
- Two volunteers visit three schools over three months with brochures and visual presentations, sharing with children ways to reduce flood damage

10 volunteers attend three sports or youth events and share with the individuals there ways to reduce flood impact on a one-on-one conversation.

- Identify volunteers
- Prepare brochures
- Print brochures
- Prepare information learning objectives and presentations
- Obtain approval to attend events from organisers
- Attend events and share

Three one day workshops for adults ways to reduce flood impact, sharing basic preparedness information as well as how to build fence barriers, doorway flood barriers and flood resistant latrines.

- Identify volunteers for facilitators
- Prepare brochures
- Print brochures
- Prepare information learning objectives and presentations
- Identify venue, organise meals and refreshments, secure stationery
- Invite adult community members
- Host workshops and evaluate learning

Place a flood preparedness billboard near airport road.

Ensure approval to place sign Gather materials Paint sign Erect billboard

Stationery	Flip chart, note pads & pens	\$80,000
Brochures	printing \$120 each full colour	\$120,000
Stipend	labour / resource persons	\$30,000
Meals snacks and refreshments	to build notice board 4 per/ \$260 x 2 days	\$2,100
	Workshops 30per x \$1000 x 3 days	\$90,000
	Sport/event snack 10 per x \$300 x 3 events	\$9.000
	Resource persons visiting schools 2 per x \$300 x 3 school visits	
Materials	billboard1 sheet marine ply	10,000
	15 ft 4"x4"x2 poles	3,000
	2"x4" x 2 brace	2,000
	2.5" x 2lbs H/nail	500
	1 gal white paint, 2.5 gal paints 2 colours, 1 paint brush and thinners	17,200
	Example barrier fence or protected pit. 8000 bricks, 20 bags of cement	312,000
		\$675,800

#### Methodology

The Community Assessment (Vulnerability and Capacity Assessment - VCA) is a participatory investigative process. It is designed to assess the risk that people face in their local areas, as well as the resources and skills the community haVE to cope and recover from adverse events.

The process is a skills-transfer approach. The community is trained to carry out the assessment and develop solutions which will reduce risk. The output is not only an assessment of community risk and capacities, but also micro-project solutions to reduce the frequency and impact of disasters.

The results of the VCA are developed through direct observation and interaction with other community members over a period of time. Persons gathering the information in the field record and analyze their:

- Direct observations of visits through the community,
- Structured and semi-structured interviews with other community members
- Focus group meetings with target audiences
- Mapping of hazards, vulnerabilities, capacities and resources
- Brainstorming as a team and
- Quick surveys.

The information gathered from the community is cross referenced with secondary statistics, historical records and other materials available.

The intention is to understand the community better and have the residents implement solutions to risk reduction developed by themselves.

#### Glossary

**Brainstorming:** The gathering of as many ideas as possible in a short period of time, usually to solve problems.

**Capacity (C)**: Combination of all the strengths and resources available within a community, society or organization which may reduce the level of risk, or the effects of an event or disaster.

Coping Strategies: The ways in which people manage and reduce the impact of a hazard.

**Disaster**: Serious interruption of the functioning of a community or society which causes loss of human life and/or important material, economic or environmental losses which exceed the capacity of the affected community or society to manage the situation using their own resources.

Direct Observation: A process of observing objects, people, events and relationships.

**Emergency**: A situation of a threat or actual hazard which requires an almost immediate response, to prevent or reduce harm. Often the affected community has the capacity to respond using their own resources.

Hazard (H): A potentially damaging physical event, phenomenon or human activity, that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.

**Historical Profile and Historical Visualization**: Tools for gathering information of what has happened in the past to tell how past events has had an effect on the community. These are represented as lists and a table of sketches respectively.

**Livelihoods**: The way people use the resources they have available to support their lives. For most people this means the method of earning cash income.

**Mitigation**: Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.

**Mapping:** A visual form to get an overview of the main features of an area in relation to its surroundings (Spatial map). It can also show dangers and exposed homes, services and infrastructure (Hazard and Vulnerability map); or resources and skills available in the community (Capacity Resource Map)

**Risk**: Probability of harmful consequences or expected losses (deaths, injuries, property, livelihoods, interruption of economic activity or environmental deterioration) as a result of interactions between natural or anthropological disasters and conditions of vulnerability. It is sometimes expressed as (HxV)/C = R

**Seasonal Calendar**: Visualization over the course of the year of weather patterns, social and economic conditions, festivals and other seasonal activities.

**Social Network**: The community's key groups and individuals, the nature of their relationship with the community and the perceptions residents have of their importance.

**Transect Walk:** A walk through the community to observe the people, relief of the land, surroundings and resources. It is represented as a cross-section diagram beneath which are descriptive topics. It helps to understand inter-relationships in a selected section of the community.

**Vulnerability (V)**: The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

#### Bibliography

Education, Organisation and Community Preparation fro Risk Reduction - Better Be Prepared series. Regional Centre of Reference in Community-Based Education for the Prevention of Disasters April 2008

Terminology for Disaster Risk Reduction, International Strategy for Disaster Risk Reduction Updated March 31, 2004. http://unisdr.org/eng/library/lib-tey and Capacity Assessment:

VCA Toolbox with Reference Sheets. International Federation of the Red Cross and Red Crescent Societies 2007

The seven Fundamental Principles of the International Red Cross and Red Crescent Movement

#### **Humanity**

The International Red Cross and Red Crescent Movement, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours, in its international and national capacity, to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace amongst all peoples.

#### Impartiality

It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours to relieve the suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

#### Neutrality

In order to continue to enjoy the confidence of all, the Movement may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature.

#### Independence

The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

#### **Voluntary service**

It is a voluntary relief movement not prompted in any manner by desire for gain.

#### Unity

There can be only one Red Cross or one Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

#### Universality

The International Red Cross and Red Crescent Movement, in which all Societies have equal status and share equal responsibilities and duties in helping each other, is worldwide.