



# NATIONAL REVIEW

THE OFFICIAL NEWSPAPER OF THE GOVERNMENT OF SAINT LUCIA



- FREE -

# REMEMBERING TOMAS



## ADDRESS TO THE NATION ON THE 1ST ANNIVERSARY OF THE PASSAGE OF HURRICANE TOMAS

Fellow Saint Lucians, as we observe the first anniversary of the passage of Hurricane Tomas we pause to reflect on the life-changing lessons learned from this devastating Hurricane one year ago. Tomas was easily the biggest natural disaster in our modern history and while it left 7 people dead and 5 unaccounted for or missing, many injured and many more torn away from their normal lives, it also reminded us of the outstanding character

of the St Lucian citizen, especially when the chips are down in times of adversity.

Because of how well St Lucians looked out for each other, stood up for each other, assisted each other; shared acts of kindness with each other and committed themselves to the speedy recovery of their beloved country, it is easy to forget the huge challenge of reconstruction that Tomas left with us on October 31st 2011.

Fate has ordained that our brothers and sisters whose peace was

turned to turmoil in the ravages of Tomas now rest in peace with souls of the faithfully departed. They lost their lives in a rare display of Nature's wrath. We mourned with their families and friends; with the entire nation; with the people of the world who understand and appreciate how powerless we are when Mother Earth decides to send her children into the unknown.

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# REMEMBERING TOMAS

## ADDRESS TO THE NATION ON THE 1ST ANNIVERSARY OF THE PASSAGE OF HURRICANE TOMAS



By **Honourable Stephenson King**  
**Prime Minister and Minister for Finance, Economic Affairs and National Development**

*The fateful day was October 31, 2010 – a Sunday. The nation tried to catch its breath on Monday 1st November, and by Tuesday, 2nd November, Castries was open for business.*

their way back home as St Lucians struggled to repair their damaged properties and bring their lives back to normal

The Economic Commission for Latin America and the Caribbean estimated the damage inflicted on St Lucia by Tomas at 907 million EC dollars.

For many, especially those in the South, it was a steep climb back from the brink of near total disaster.

One year later, there is still a lot to be done, but quite a lot to smile about.

The fateful day was October 31, 2010 – a Sunday. The nation tried to catch its breath on Monday 1st November, and by Tuesday, 2nd November, Castries was open for business.

- The electricity and cell phone services were back up and in quick time; and the restoration of the water service, initially estimated to take six months was achieved in a matter of weeks.
- The Choc and Bois D'Orange bridges went back into use within 48 hours
- Numerous slides across the island were cleared in record time
- The first cruise ship after Tomas docked on Sunday November 7th, exactly one week after the storm with supplies of water for a nation that was without its main source of potable water.

All told, it has been an exciting year, ticking off the checklist, the many things that the government and people of St Lucia have had to do together, in the cause of bringing relief and comfort to those in need and bringing the nation back to full fitness. As I speak, work has commenced on the Million dollar housing investment in Mocha, Fond St Jacques, for the benefit of those who

were affected by Hurricane Tomas in that part of the island. Work will also begin soon in restoring some of the affected areas on the Barre de L'isle, after extensive investigative and assessment works and detailed and tedious procurement processes. These works will be undertaken with funding from the Government of Saint Lucia. Work on the Barre de L'isle will be ongoing, as we continue negotiations with the Caribbean Development Bank in order to secure funding to tackle the remaining seven (7) sites which require attention.

Keep in mind that Tomas ravaged us with 900 million dollars of damage, at a time when we were grappling with the economic fallout around the world, caused by the crisis in major financial markets.

In 2010, the year of Tomas, over one million tourists visited St Lucia and our record breaking stay over numbers drove a 30% increase in visitor spending which reached the one-point-five billion dollar mark for the first time ever. Before Tomas, we were on course for a truly incredible year of tourism performance.

Unfortunately, Tomas pushed our November 2010 numbers down by 36 percent and December 2010 was down 4 percent, before we started to climb back up with a 4 percent increase in January 2011.

In spite of these setbacks, Saint Lucia emerged as the largest economy in the OECS and the leading economic performer in the Eastern Caribbean Currency Union with GDP growth of 4.4%. Saint Lucia was the largest contributor to foreign exchange earnings in the grouping; and managed its affairs with a smaller debt burden than Antigua, Dominica, Grenada and

St Kitts and Nevis.

Consider for a moment; not just how very well we have performed in extremely challenging circumstances, but how much further we would have been in our economic development journey, if we had not been so adversely impacted by Tomas.

Yet, the set back of Tomas has given us the opportunity to review critical aspects of our infrastructure development and to make critical design and implementation changes for more lasting success.

In the worst of times; in the clutches of a global economic crisis, under the devastation of a killer storm, your government remained firm in its commitment to facilitate the people's determination to win; their desire to celebrate the success of their work together; and their need to give thanks and praise for an abundance of blessings.

We thank the many donors locally and overseas who came to our assistance in this time of great need. We thank the Ministers of Government; the members of Parliament; the members of the clergy; the leaders of civil society; the law enforcement agencies; the private sector, utility companies; the many volunteers; those who took our message to the world via traditional and news media platforms; and all those who in one way or another helped our nation to be where it is today.

Tomas has left us with the important lesson of TEAM St Lucia's capacity for outstanding human development results even in the worst of times. One year later, that lesson of triumph in adversity, shines a bright light of hope for a future of greater prosperity and progress for all. I Thank You.

*Continued from page 1*

Our brave struggle with Tomas, stirred us all, throughout the length and breadth of St Lucia, to come together as one people and one nation, under the guiding hand of a higher power. It was at that time I think, we took little time to count our blessings and to recognize that there is nothing so wrong about us that cannot be changed for the better, by what is right about us. We are good, loving, positive people who want the best for each other.

And in those moments of truth, when the raging flood waters and angry winds of Tomas brought us to our knees, we embraced the ties that bind us together as part of the human family in this piece of paradise we proudly call home.

Today, as we mark the Official Day of Remembrance, I salute the heroes of our recovery from widespread destruction - the courageous people of this land, who spared no effort in the good that they could do for the causes that needed their assistance and against the threats

of looming failure in the distance.

Today, we join hands and hearts as we reflect on an encounter with disaster that brought new meaning to our lives forever.

These scenes of unprecedented damage to the physical, social and economic infrastructure of our Island, underlined the complexity and enormity of the challenge to rebuild. This was by far, one of the worst disasters to have struck this nation.

- More than 24 inches of rain over a 24 hour period
- Soufriere, Bexon and Marc were the hardest hit areas
- The Choc and Bois D'Orange bridges collapsed
- The John Compton Dam, the main source of water, was disabled
- There were 19 landslides on the Barre de L'isle alone
- Electricity and telephone services were severely disrupted
- Damaged hotels closed their doors
- Visitors packed up and made

# Recovering from Hurricane Tomas – Assessment of Work on the Nation's Infrastructure



Around St Lucia today there is still visible evidence of the havoc wreaked on the island's infrastructure by Hurricane Tomas, but thanks to the prompt and ongoing action of the government the inconveniences being suffered by the population are minimal and for the overwhelming majority, life is comfortable again.

Tomas destroyed or damaged highways and roads, bridges and buildings and major installations in the communications sector. Almost all of the damages experienced were as a result of landslide action (mass slope movement), river bed erosion or river sedimentation. The initial estimate of damages was put at a little over \$100 million and losses at another \$46 million.

A year later, with the cooperative efforts of the government, the private sector and the population at large, normalcy is returning while work continues on getting the country's infrastructure to where it was before the hurricane.

It has been said that Hurricane Tomas provided St. Lucia with a wake-up call and a great opportunity to modernize its infrastructure. But that modernization comes at a huge cost and the funding has to come from international agencies such as the World Bank and the Caribbean Development Bank. Sourcing finance from these agencies involves a long and detailed process and this could affect the response time of local government agencies needing those funds to execute the project.

The Castries-Gros Islet Highway

accommodates more than 20,000 vehicles daily, highlighting its significance as a major link between the administrative capital and the northern tourism/commercial belt, where nearly half of the population resides. Consequently, the government is ensuring that the soon-to-commence repairs to two bridges linking that highway be done methodically and speedily. The Bois d'Orange Bridge and the Choc Bridge were both destroyed by Hurricane Tomas cutting off the north of the island to the capital. But within 48 hours temporary bridges were erected which today handle all the traffic commuting between the two points.

Design work on the two replacement bridges is in an advanced stage and drawn out funding procedures are being meticulously followed for the construction of a pair of bridges that are designed to last well into the middle of this century.

The first bridge to be reconstructed will be at Bois d'Orange. Already work has begun on a bypass which will take traffic to the back of the Do It Centre (formerly Sunbilt), reconnecting with the main road next to the new Orange Park Commercial Centre. The bypass is expected to integrate seamlessly into the main highway. It will involve the construction of four culverts and one bridge which will replace the present make-shift culvert crossing next to Computer World. This bridge, which will also provide access into Corinth, will be built to accommodate heavy duty traffic such as the haulers of 40 foot containers.

The Bois d'Orange bypass is expected to be completed in six months time with construction on the main bridge to begin immediately after. The erection of the Choc Bridge will follow and also involve a bypass road to the south of the current location. When completed both bridges will be stronger, able to handle another storm like Hurricane Tomas and contain all the protective features of modern bridges.

The Barre de L'isle section of the Castries-Vieux-Fort Highway, a vital link between the north and east of the island suffered a series of severe landslides that seriously impacted the integrity of the road. The southern [Tomazo] side of the Barre de L'isle experienced ten 'failure sites' which in some cases resulted in a significant portion of the road being lost confining it to single lane traffic.

Action has been taken to stabilize and check some of these slides. Funding from the Caribbean Development Bank and the Government of Saint Lucia has been identified for works along the southern side of the Barre de Lisle. A very detailed process of geotechnical investigations, preliminary and detailed designs, project documentation and meticulous funding conditions is involved prior to the actual commencement of works with extreme care.

The magnitude of the damage inflicted requires a detailed response and thorough planning, and the identification of engineering solutions that are sound and long lasting. The process of securing funding is at an advanced stage. The work involves the stabilisation of landslide sites, the construction of massive retaining structures, the realignment of the road in some areas and actual road construction.

The Ministry of Communications, Works, Transport and Public Utilities has completed work on major culverts on the east and west coasts. During Tomas, the north of the island was cut-off from the south and west coasts after aging culverts on the main link roads failed.

The culverts, which had outlived their lifespan were located at Mon Repos and Troumassee on the east coast and at Anse Galet located between Anse-la-Raye and Canaries on the west coast.

These culverts made out of metal pipes became corroded and were undermined by the waters of

Tomas. The metal culverts were unable to withstand the volumes of water and debris which came from the island's interior and so that a portion of the road was completely washed away.

The main bridge at Fond St. Jacques in Soufriere which was destroyed by floodwaters and landslides triggered by Hurricane Tomas has been restored with residents who live in the upper reaches having a safe crossing over the main river which runs through the community. The original bridge was swept away and lodged almost 200 yards away from its location. It was replaced temporarily but had to be taken out of service as damage sustained during the hurricane made it structurally unsound. The replacement bridge is as good as new and able to accommodate goods vehicles, mini-buses and pick-up vans with farmers' produce.

Quite a bit of work has gone on in Fond St. Jacques, including the clearing and the realignment of the main river. The original road access to the Sulphur Springs is currently receiving attention from the Ministry of Communications, Works, Transport and Public Utilities. Four landslides on that access road made the Sulphur Springs inaccessible. These have since been cleared but damage to the road structure itself has made it unsafe for the scores of local and tourist vehicles which visit the Sulphur Springs daily.

Engineers are currently designing remedial works to begin shortly. It will involve the construction of retaining structures on the landslide sites to trap further slides (on the up-slopes of the road and retaining walls on the down-slope) to ensure its integrity. Once these retaining structures on the four landslides have been completed, work will begin on

paving the main access road into the Sulphur Springs.

The Ministry is determined that in the rebuilding and restoration process that is still underway, its focus will be on creating "a stronger and more resilient infrastructure". That process is underway.

Meanwhile, the government is preparing to undertake the physical component of major reconstruction projects to repair damage inflicted by the hurricane. A crucial part of the preparation for these works has been the conduct of various risk assessment and geotechnical studies. The aim is that all post-hurricane Tomas works will be guided by geotechnical reports and guidelines to minimize the impact of future natural disasters. Government believes these are critical as they will give the Ministry of Communications and Works a better idea of the extent of work to be done in a number of areas, including the hard hit Bexon and Marc communities. A Flood and Land Risk Assessment will have to be undertaken in that region for which the process of commissioning a consultant is currently underway. Geotechnical investigations will also be conducted ahead of works in Gesneau which suffered an extensive slide, and on the Choc and Bois d'Orange bridges.

According to Laurina Raoul, an engineer attached to the ministry, the tender has gone out for this project, signalling the commencement of the procurement process.

It is not possible here to detail every road or bridge that has been restored and repaired, every landslide that has been cleared, or every community that has had its most urgent needs attended to as a result of the disruption caused by Hurricane Tomas but St Lucians recognize that the government, through Ministry of Communications has spared no effort in ensuring that the infrastructural services and systems that are crucial to their everyday lives are again functioning efficiently.

## The Return to Happiness Programme Post Hurricane Tomas Intervention by Ministry of Social Transformation in collaboration with UNICEF Office for Barbados and the Eastern Caribbean

The Ministry of Social Transformation, Youth and Sports plays the lead role in the social development of Saint Lucia, through its community development activities and other critical interventions. Still reeling from the impact of Hurricane Tomas, the Ministry was able to intervene in the communities quite aptly with the aid of the UNICEF Office for Barbados and the Eastern Caribbean, in providing psycho-social support to traumatized families, with special focus on the children, through the 'Return to Happiness Programme'.

The primary objectives of the Return to Happiness Programme are to engender 'a decrease in the number and frequency of stress-related symp-



Children participating in one of the activities of the return to happiness program

toms in children and to ultimately improve self-esteem, a sense of protection and security for the future.

By November 9, 2010, approximately 70 local volunteers including teachers, community leaders and ministry officials eagerly participated in a 'Train the Trainers' Workshop

which was conducted by facilitators from Grenada, Dominica and St. Vincent who had been trained by UNICEF to work with children following their respective experience with past hurricanes.

Immediately following the training, the volunteers went right to work

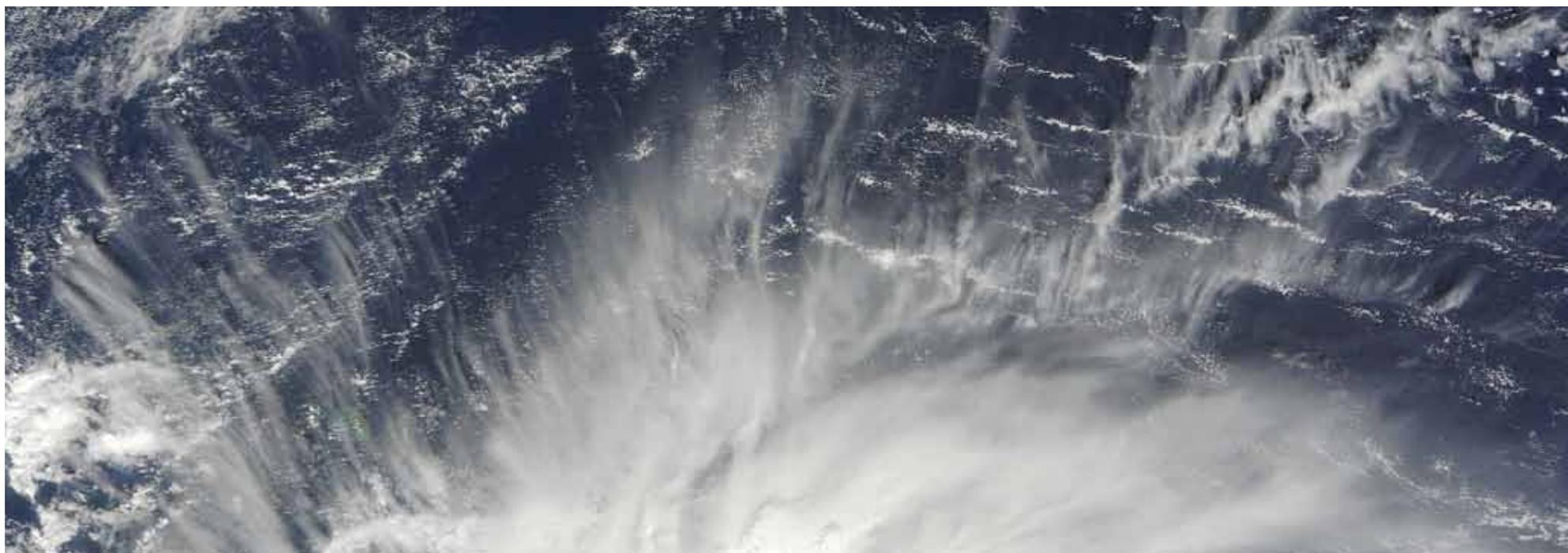
with approximately 400 children from the communities of Forrestiere, Ti Rocher, Marchand, Bexon, Odsan, Trois Piton, Guesneau, L'Abayee, Soufriere and Fond St. Jacques, which were some of the communities most impacted by Hurricane Tomas. Through the "Return to Happiness" programme, a safe space was created for children to colour, draw, and play in small groups. The trained volunteers were able to use these techniques as well as the use of modeling clay to get the children to describe their lives before and after the disaster and the use of puppets to tell stories of what they went through.

As the country began its recovery process, the teachers who had

received training were also able to identify additional children at their respective schools, who required psychosocial support and were able to intervene appropriately.

To date, as we commemorate the first anniversary of the passing of Hurricane Tomas, the Ministry is pleased to report that the "Return to Happiness" programme was a success and for the most part, children have regained a sense of normalcy. The Ministry therefore takes this opportunity to applaud all volunteers for their eagerness in providing support to the children who were impacted by Hurricane Tomas.

The Ministry is also pleased to report that in May-June 2011, an additional 108 persons received training under the "Return to Happiness" programme. Saint Lucia is now equipped with a cadre of volunteers ideally trained for intervening in cases where children experience traumatic events.



# NEMO Remembers.... Hurricane Tomas

On the night of October 29/30, 2010, Hurricane Tomas devastated the central core of Saint Lucia.

Hurricane Tomas was the nineteenth named storm and twelfth hurricane of the 2010 Atlantic hurricane season. Tomas developed from a tropical wave east of the Windward Islands on October 29. Quickly intensifying into a hurricane, it moved through the Windward Islands and passed just south of Saint Lucia. After reaching Category 2 status on the Saffir-Simpson scale, Tomas quickly weakened to a tropical storm in the central Caribbean Sea, due to strong wind shear and dry air. Tomas later regained hurricane status.

Throughout the hurricane's path, at least 69 people are known to have been killed, 7 of whom were in Saint Lucia. Monetary losses throughout the Windward Islands were estimated at US\$588 million, mainly in Saint Lucia.

Such was the devastating impact of this Hurricane, that the name of Tomas has been retired. The World Meteorological Organization, the Agency in charge of picking names for tropical storms, retires the names of storms that cause significant damage or casualties. The same set of 21 names for storms in the Atlantic, Caribbean Sea and Gulf of Mexico recycle every six years unless one is retired from the list. In 2016, Tobias will replace Tomas.

#### *Shopping List:*

<http://stlucia.gov.lc/docs/nemo/FamilyDisasterSuppliesCalendar.pdf>  
Saint Lucia's National Emergency Management Plan is available for download from <http://stlucia.gov.lc/nemp>

#### *There you will find...*

##### **The Hurricane Plan at SECTION E/ ITEM 10**

Direct Link: <http://stlucia.gov.lc/nemp/plans/HurricanePlanupdated.pdf>

##### **The Flood Plan at SECTION E/ ITEM 7**

Direct Link: <http://stlucia.gov.lc/nemp/plans/FloodPlan.pdf>

##### **The Community Evacuation Plan at SECTION E/ ITEM 6/ NUMBER 6**

Direct Link: <http://stlucia.gov.lc/nemp/plans/EvacTemplate.doc>



# Fond St. Jacques Community Disaster Response In Action

One year after Hurricane Tomas devastated the island, the St Lucia Red Cross continues to provide support to persons affected by the category two storm.

According to the organization, approximately 12,000 households benefited from the distribution of emergency relief, and another 10,000 from water distribution following the passage of the storm. Schools and other agencies including the government ministries also benefitted from the distribution of water.

As a result of the hurricane's impact, 25 families became immediate beneficiaries of renovations to their homes, thanks to the intervention of the Red Cross. Meanwhile, construction of 45 houses is continuing. The project is being undertaken by the French Red Cross, through funding from ECHO.

The Red Cross says all houses that are constructed under this project will be equipped with water harvesting systems.

In observance of the first anniversary of Hurricane Tomas, the St Lucia Red Cross has released a case study entitled "Community Disaster Response Teams in Action". It was conducted by the International Federation of Red Cross, and the American Red Cross and documents the response of St Lucia Red Cross Community Disaster Response Teams (CDRT) to Hurricane Tomas and the Dennery Floods of 2010. The study also presents an understanding of the role of the community-based approach to disaster management by evaluating the role of the community disaster response teams (CDRTs) of Fond St Jacques and Dennery in mitigating the impact of Hurricane Tomas.

The St Lucia Red Cross community-based approach to disaster management is founded on the theory that disasters can strike without warning, and that emergency response teams may not be available to provide assistance to communities immediately following a disaster, due to lack of access and communication. The three major steps of the community based approach to disaster management include, preparation of a VCA (vulnerability and capacity assessment) of the community, community-based mitigation projects to reduce the possible impact of existing hazards within the community and the provision of disaster response kits including first aid kits, tools, gloves, raincoats, ropes and boots.

The process of research for the case study was limited to in-depth interviews and focus group discussions with key stakeholders in disaster management including NEMO, members of the community disaster response teams, and beneficiaries of the CDRT response in both Dennery and Fond-St Jacques.

The St Lucia Red Cross said this week that the findings of the case study emphasized the value of community-based approach to disaster response, especially in the community of Fond-St Jacques, where considerable damage was done during the passage of Hurricane Tomas.

Fond St. Jacques, with a population of 1,349, forms part of Soufriere.

The community is accessed via the West Coast Road. Its location in the mountains makes it easy to be cut off from the rest of Soufriere and the rest of the island, which has happened in the past due to major landslides. The fact that a river runs through the entire community provides a constant source of water but also increases the risk of floods during heavy rains, especially as Fond St Jacques is also in a watershed area.

One member of the community response team commented: "We have this one main river and all the roads cross that river at some point, so if the bridges are blocked or damaged, we are marooned. We are blessed with the water, but the downside is we suffer from the landslides and the rains falling."

Although the community is in close proximity to the Soufriere volcano, this is not perceived as a major threat to community members who, above all, share a collective memory of destructive tropical storms, hurricanes and landslides with Hurricane Allen (1980) and Tropical Storm Debby (1994) severely damaging the community and isolating it from the rest of the island.

In 2009, Fond St Jacques was selected by St. Lucia Red Cross to be a part of the Better Be Ready project. After a series of community meetings, members of the Fond St. Jacques community reflected on their current situation, identified potential risks and vulnerabilities and actions to be taken to transform those vulnerabilities into capacities. Many of these same community members were trained as members of the Fond St. Jacques community response team in May 2009, just prior to the official start of the hurricane season in June. They felt that the community response team training was not just valuable but necessary in light of their past experiences with storms and their extreme vulnerability to isolation.

Beginning on Saturday, October 30, Hurricane Tomas brought severe wind and rains to the island of Saint Lucia, causing flooding and major land and mudslides. Access to a number of communities in the country, including Fond St. Jacques, was impossible as a result. On Sunday, October 31, the St. Lucia Red Cross initiated its relief operations. On the same day, the government of Saint Lucia declared a state of emergency.

In the wake of the storm, widespread devastation to crops, homes and water supplies was apparent, and communities remained isolated.

In the early morning of October 31 a massive landslide brought water, trees and mud rushing down from the mountains and through the community, destroying homes in its path as well as a critical bridge that allows access between the two sides of the community, which is split by the river. Relief from Red Cross headquarters was 48 hours from reaching the cutoff Fond St. Jacques community, where the community response team had launched its own response. One team member commented: "All of us had a fair idea of what was expected of us and did what we could in turns, and of course all of us were allotted to certain areas to take care of."

At daybreak, members of the CRT members did what they could to account for and assist neighbours before initiating treks through precarious terrain to reach their central meeting point, the Credit Union building, which also served as the storage area for the team's equipment.

According to one team member: "Very early in the morning we got out, thanks to the daylight, we braved, those of us who could. We reached out to those close by. It was not possible to get to everybody. The rivers were up. In fact, all of us at some point could not get to somebody else, but as much as possible, we tried to use whatever track there was to come together and we tried to mobilize even persons who were willing as volunteers, and got the supplies out because we had to get to the homes. The flood waters were very dangerous."

It took the team leader until dusk to reach the other members, including their appointed team information officer who had already sent other community response team members out with equipment to fulfill their assigned roles. The team worked together for days and weeks, operating out of the Credit Union building and a community shelter they had established in the nearby church, a site that had been identified prior to the disaster.

In the initial hours and days one worker traversed much of the damaged terrain making assessments and noting individuals who were severely affected. With the help of others, he secured multiple rope lines across the river in order to evacuate persons in vulnerable situations and to allow other community members a safe passageway. The community response team member worked well with the team's Red Cross-donated response equipment, but also recommended that more specialized equipment, such as stretchers, be added to the disaster response kit for evacuation of older persons, persons with physical challenges and expectant mothers in life-threatening situations in hazardous terrain. Two other community response team members began a slow journey down to Soufriere to notify government authorities of the deaths and the damage sustained. The national statistics note that the landslide took the lives of four Fond St. Jacques community members.

The team leader, who had benefited from IFRC shelter management training, managed the shelter, which housed upwards of 300 community members at one time. Another community response team member assumed the responsibility of cooking for the persons housed in the shelter, while another member coordinated the logistics, serving as the store manager from the outset, rationing and distributing supplies as they came in.

Although the community response team members had convened prior to Hurricane Tomas making landfall to trace its movements via radio bulletins, organize themselves and prepare for the potential impacts of the storm, they admitted they had not anticipated such challenging circumstances but agreed that the training they received helped them to manage the difficulties they encountered.



## Ministry of Health Recognizes those who made Selfless Contributions

There has no shortage of heroes and heroics among St Lucians in the task of restoration and rehabilitation of St. Lucia in the aftermath of Hurricane Tomas.

Each Ministry of government will have its own list of outstanding persons who rose to the challenges and performed yeoman service for the country and its people in this time of crisis. On this first anniversary of the disaster, the Ministry of Health has put up the following list of nominees for national recognition for the respective roles which they played in the recovery effort:

### Soufriere

1. **Dr. Glensford Joseph - District Medical Officer**  
Cancelled vacation to coordinate medical management of patients
2. **Dr. Mc Kinley Marquis - District Medical Officer**  
Was on call for one continuous week
3. **Glovanna Jn Baptiste - Community Health Nurse**  
Provided four consecutive days of service without going home
4. **Vincent Louis - Handyman**  
Provided four consecutive days of service

### Fond St. Jacques

5. **Jacinta Brouet - Community Health Nurse**  
Aided care of patients within the shelter during the immediate aftermath
6. **Claudette Prospere - Community Health Aide**  
Aided care of patients within the shelter during the immediate aftermath
7. **Rufina Nicholas - Health Centre Attendant**  
Aided care of patients within the shelter during the immediate aftermath
8. **Mr. Claudius Prospere - Acting Assistant Chief Environmental Health Officer.**  
Mobilized the immediate environmental assessment and safe water management
9. **Anthony Robinson - Health Educator**  
Postponed vacation to aid in the recovery efforts particularly with managing public health conditions.

### Dennery

10. **Kerthney Surage - Principal Nursing Officer**  
Facilitated in the relocation of services and mobilization of resources
11. **Petronese Duplessis - Community Health Nurse**  
On duty during the storm and managed the care of the injured
12. **Pius Edward - Handyman**  
On duty during the storm and supported the movement of patients
13. **Lionel Prospere - Handyman**  
On duty during the storm and supported the movement of patients

### La Ressource

14. **Eunice Nelson - Community Health Nurse**  
Walked to work from the Barre de L'isle
15. **Dr. Olu Adesanya - Private Physician**  
Coordinated emergency care delivery in the south

# RECOVERING FROM HURRICANE TOMAS

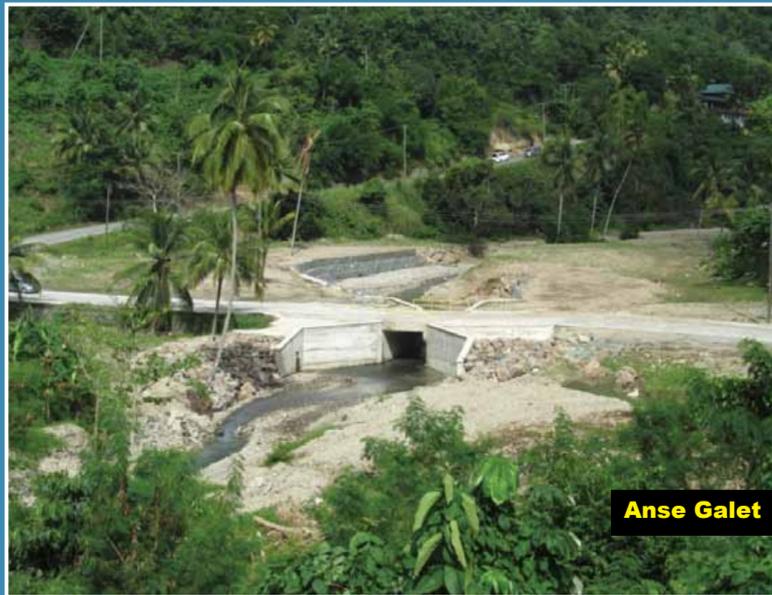
The recovery process post-Hurricane Tomas continues throughout the length and breadth of St Lucia as the Government remains committed to ensuring that life for all St Lucians gets better following this disaster.

Landslides have been cleared, services restored, roads and buildings repaired in this ongoing exercise that is expected to continue for some time.

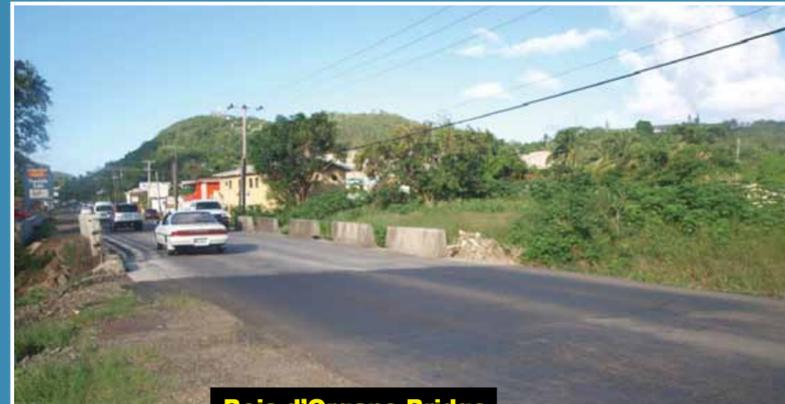
The Government of St Lucia is grateful for the cooperative effort that has

been in evidence all over the island which has allowed us to do so much during the past year, with ordinary people coming together to help rebuild and restore whilst standing shoulder to shoulder with the Government.

Below we feature some examples are just some examples of the recovery work that has been in progress. It is a testimony of the resilience and resolve of the people of St Lucia in the face of adversity which the Government recognizes and applauds.



Anse Galet



Bois d'Organe Bridge



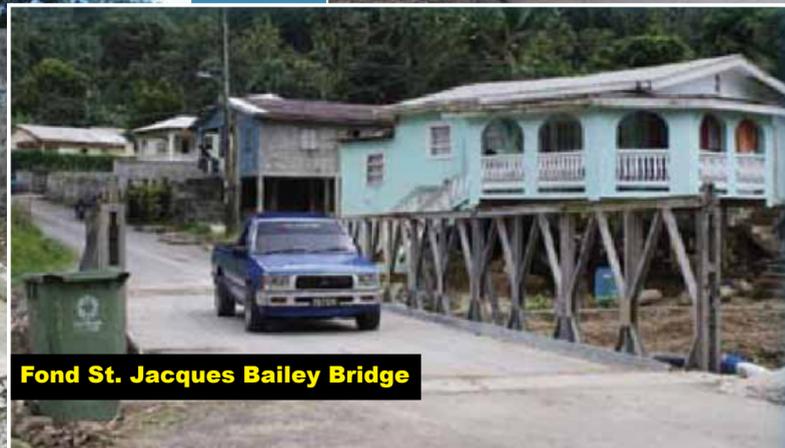
Choc Bridge



Mon Repos Road Completed



Troumassee



Fond St. Jacques Bailey Bridge



Troumassee Road Completed



# LUCELEC Response to Hurricane Tomas Rated First World

**H**urricane Tomas struck St. Lucia between the early hours of Saturday, October 30 and the mid-morning of Sunday, October 31, 2010. By the time it stopped affecting the island, it had dumped several inches of rain causing severe flooding, triggering massive landslides, and widespread damage to residences, commercial buildings. The transportation, water, and communications infrastructure, as well as the agricultural sector suffered significant damage as well.

LUCELEC's transmission and distribution network also took a beating, forcing a total shut down of the power system. Beyond the hundreds of poles and miles of distribution lines that lay on the ground, a section of the 66 kilovolt transmission line on the west coast was damaged when two transmission towers were compromised in a major landslide, with one tower being completely buried. As well, the Union substation was flooded with up to four feet of water.

However, within hours of the all clear some communities had been reconnected. Within one week of the hurricane, LUCELEC had energised more than 95% of the system, with full restoration achieved within 16 days, except for the community of Fond St. Jacques which was under a Government evacuation order. Fond St. Jacques was re-energised on January 16, 2011, immediately the evacuation order was lifted.

The success of the restoration process can be attributed to the system design, LUCELEC's preparation and well defined processes for such disasters, the availability of the technical, human and financial resources within the company, and a work ethic that emphasises team work, responsibility and pride.

LUCELEC's network is designed to provide redundancy and flexibility in its configuration. This allows damaged sections of the system to be isolated whilst other sections were restored, and to feed electricity to communities via several different routes.

Preparation was key. LUCELEC's All Hazards Preparedness Plan provides guidelines with clear roles for everyone and for restoration of the electricity supply after a disaster. With respect to hurricanes, there are 2-man teams responsible for inspecting various feeders before the start of a hurricane season and immediately after a storm, which encourages ownership and accountability. Inspections begin immediately after the all clear is given to assess the extent of damage with a view to prioritizing areas to be restored. In this instance, the use of a helicopter sped up the process. Reports from the teams in the field are fed into the Control Centre and the priorities established. Hospitals

*Within one week of the hurricane, LUCELEC had energised more than 95% of the system, with full restoration achieved within 16 days, except for the community of Fond St. Jacques which was under a Government evacuation order. Fond St. Jacques was re-energised on January 16, 2011, immediately the evacuation order was lifted.*

and emergency services are generally top of the list. The approach adopted in restoring the system was first to isolate damaged sections and then restore all sections that were cleared as fit for being re-energised, making use of the redundancy in the system.

The support services also play a critical role. For example, the Purchasing and Stores department, ensures the Company is fully stocked with materials to facilitate repairs to the system. Other teams include Meals and Welfare to ensure that teams working in the fields and at the various locations are provided for; Call Centre Operations to field the large volume of calls from the public about damage to electricity infrastructure; and Public Information to liaise with the media and provide regular updates on the restoration effort.

Not to be underestimated in all of this is the experience of our staff and contractors, some of whom have been involved in such restoration works all over the Caribbean dating back to the late 80's. Also, the commitment and solution-oriented thinking of the entire team was important during the difficult days following Tomas. An excellent example of this was the decision to get equipment into Soufriere by barge, as access by road was impossible due to major landslides.

And so, for the people of Soufriere who probably took the worst hit from Tomas and who did not expect to have power back for weeks, it was a huge psychological boost when the LUCELEC crews accompanied by earth moving and other equipment arrived by barge on the evening of the third day after the storm, and had restored power to sections of the town by the following evening.

Of course, the Company's financial viability was critical. It allowed for the stocking of spares and other supplies at the start of the hurricane season and for the company to pay for equipment and services required. Being a forward-thinking company also helped. The establishment of a self-insurance fund a couple years ago ensured that LUCELEC was able to cover the expenses associated with the recovery effort from resources that had been set aside for that purpose.

Another factor that contributed to the success was having staff and contractors all over the island, in

every community. That was a bonus given the degree of isolation caused by road closures. Some of the staff were able to take charge of restoration efforts in specific areas, even if they could not physically get to our Control Centre.

Overall, it was an outstanding team effort, produced by cohesive, dedicated and highly motivated staff and contractors who were able to rise above hardship throughout the long hours in the field in difficult conditions, with everyone contributing their ideas and strategizing to make things happen. The motivation was derived firstly from understanding LUCELEC's responsibility to the country, from its successes in the past, and from constantly measuring and evaluating our performance against international standards. The staff, contractors and others involved in the restoration effort was duly recognised for their efforts in a special awards ceremony in January.

One year on, looking back on the aftermath of Tomas and the impact on the electricity network, we've seen a slight dip in our reliability. Consider this, the last system shutdown before Hurricane Tomas was more than three years prior. In the six months immediately following Tomas, the island experienced three system shutdowns where the entire island was without power, albeit for relatively brief periods. The first of these, during the month of November last year was clearly related to Tomas with some water finding its way into one of the switch gears in the Generating plant. The other two involved the failure of lighting arrestors, which were very likely associated with stresses resulting from Tomas. Nonetheless, system improvements during the course of the year have helped to maintain reliability at fairly high standards.

There were also a few valuable lessons learnt from the experience. Among the important ones were the need for a better system for managing the large volume of calls from the public and the need for increased water storage capacity at the Cul De Sac Power Plant. Steps to address both of these issues have been initiated.

The Tomas restoration effort proved that LUCELEC had the capacity to excel in a crisis and in many ways provided a psychological lift for the entire country at a time when it was most needed.



Replanting pole at Bexon



Power Restoration work in Soufriere



Rebuilding transmission and distribution lines near Rabot Estate in Soufriere

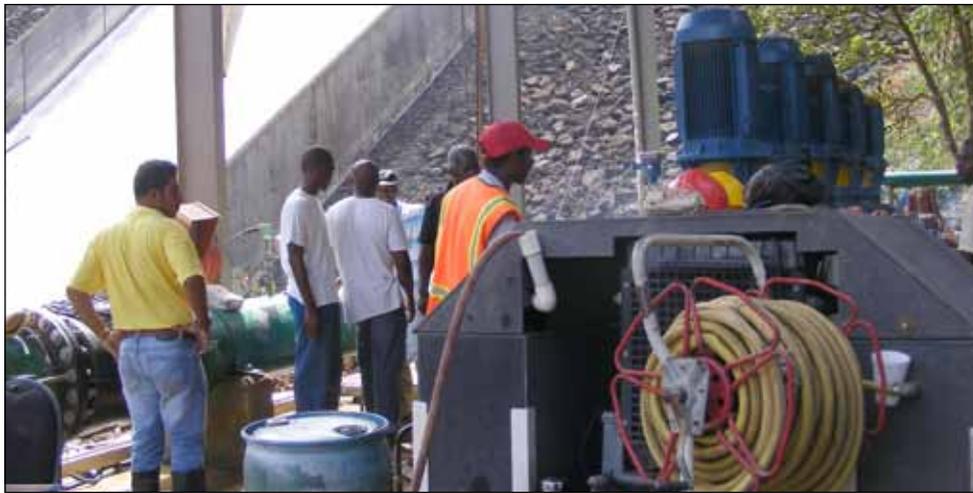


LUCELEC contractors at work in Bexon



Barge being loaded for Soufriere

# WASCO Recovery Effort Surmounting the Challenges



**W**ork on the restoration of St Lucia's water system is still ongoing one year after Hurricane Tomas.

It is now well known that WASCO's system took a pounding from the hurricane with the major storage supplies, like the John Compton Dam, suffering severe damage. Today, while most of the island's consumers are receiving a reliable supply, there are still areas like Dennery and parts of the south (Vieux Fort, Laborie and the environs) where restoration work is still in progress.

WASCO's Communications Consultant Mr Clinton Reynolds told the NATIONAL REVIEW this week that the company was sparing no effort in ensuring that the system was fully back to normal, but he pointed out that there were challenges.

"One major challenge is in the south", Reynolds said, "where in the course of trying to restore the service, we have had to shut down the system every time it rains because of turbidity".

But generally WASCO has risen up to the challenges posed by Hurricane Tomas to the point where within two months of the disaster, the company was able to announce that its water supply had been restored to more than 90 percent of the island. But Managing Director John Joseph was quick to make the point that the restoration of the municipal supply did not mean that

householders or the corporate sector should relax their responsibility of ensuring that there was clean water stored in reasonable quantities.

So serious was the situation in the immediate aftermath of the hurricane that the government was forced to declare a water related emergency as the island's main water source – the John Compton Dam, remained inaccessible as a result of a landslide in the area.

While a national disaster had already been declared, the water emergency was a specific announcement in light of the implications for the island, which was then under threat of a dwindling water supply. The Ministry of Health issued strict sanitary protocols for use of water including boiling before drinking, washing of hands before food preparation and consumption, and most importantly conservation of current supplies.

The new water-related emergency declaration allowed law enforcement authorities to stop residents from using water for purposes such as watering lawns, washing vehicles, filling pools etc.

By early November 2010 or less than a week after Tomas' passage, WASCO had restored the water supply to some parts of Babonneau, Anse la Raye, Dennery and Vieux Fort. Crews had repaired all breaks at the Chassin intake that supply the Hill 20 production facility. This good news followed the completion of work at the Talvern, Des Rame-

aux, Anse la Verdue, Thomazo and Beausejour, Vieux Fort intakes but high levels of turbidity at the Ravine Poisson intake rendered work there ineffective for a while with most of the remedial work undertaken there being washed away by the river.

WASCO then committed much of its resources to the John Compton Dam and Vanard. Crews from the Ministry of Communications and Works assisted the WASCO team at the Vanard site, working round the clock to get the system back on line as quickly as possible while WASCO continued to get assistance from regional and international partners in that regard. A five-man technical team started to refurbish two control panels at the John Compton Dam. The team landed on site, Saturday, November 6, 2010 and worked closely with Lucelec to reinstall the panels to operate two pumps at the dam. At the Venus Estate in Anse la Raye and Errard, Estate, Dennery, high river levels hampered piping, desilting and other clearing work, but crews continued to make steady progress in clearing access roads, laying pipes, and desilting water intakes in other parts of the island and WASCO continued to face the problem of resiling as more landslides occurred.

By the end of November, 2010, WASCO revealed that it had been able to partially or fully restore a steady supply of potable water to several communities on the south-

western and eastern regions of the country, while six portable water tanks had been installed in the community of Micoud which had been without pipe-borne water since the passage of Tomas. The communities of Vieux-Fort and Laborie also began to receive a steadier water supply as repairs at the Grace intake allowed WASCO to increase the volume of water produced to 1.2 million gallons per day to supplement the 400,000 gallons per day from Beausejour, Vieux Fort.

In Canaries, technical experts from Trinidad developed a new design for the plant there. Ti-Rocher and Desruisseaux were soon back to normal, although the water had to be rationed between the two communities. Landslides caused by continuing rain posed major challenges to crews and in Anse la Raye, clogs in the system necessitated a shut down of the supply to the community to allow crews to de-silt the intake and unblock the clogs.

Towards the end of January 2011, WASCO shut down the supply to the north of the island temporarily to facilitate multiple repairs on the 24inch raw water line from the dam to the Teddy Theobalds Treatment Plant in Ciceron. The repair work increased the supply of water to the north of the island. In the months since then, small improvements in service have been recorded everywhere as WASCO's crews stayed on the job of restoration.

Away from the field of work, however, WASCO received a tre-

mendous vote of confidence earlier in the year in the form of the government's support of, and commitment to the company's new strategic direction. Top company officials, at a presentation to the Cabinet, outlined a vision for WASCO that would allow the company to become fully viable within five years. Following the presentation, the Cabinet declared its support for the strategic plan and committed to making WASCO a priority in the Estimates of Revenue and Expenditure for 2011/2012.

WASCO Managing Director, John Joseph said the company was very encouraged by the public pronouncements by the Prime Minister during the presentation of 2011/2012 Estimates of Revenue and Expenditure. He said this kind of support from the company's sole shareholder would enable WASCO to become viable and provide a better service to its customers.

"WASCO's management and staff are heartened by Prime Minister Stephenson King's inclusion of WASCO in the 2011/2012 Budget, and the specific designation of the company as a priority area in the upcoming financial year," Joseph said. "We are very happy that the Prime Minister has given the full commitment of his government to WASCO's new strategic direction."

Based on the commitments provided by Prime Minister King, WASCO can now look forward to the future with renewed hope.

## Restoring the Health Sector-Update and Projections

It is a credit to the dedication of the health care professionals in the Ministry of Health and to the health status of the population of Saint Lucia that no major illnesses or epidemics emerged following the passage of Hurricane Tomas.

The Ministry of Health reported that the human resource capacity in the primary health care service at the time was inadequate to meet health care needs post-Tomas. It concluded that while persons of higher income might be able to seek health care in the private sector, lower income families' needs might have to be postponed or go unmet because of the difficulty of access to health facilities created by Hurricane Tomas. In addition, the report noted that Saint Lucians were without pipe-borne water for approximately two weeks and many were forced to seek water from rivers, streams and other sources. The supply of bottled water on the island was quickly depleted as persons with greater purchasing power were able to buy water in greater quantities, while those of lower economic status sought alternative water sources sooner than their better off counterparts.

The ministry also reported an increase in the numbers of cases of the gastroenteritis and undifferentiated fever in weeks 41-42 of 2010 compared to the same period in 2009. The gastroenteritis and undifferentiated fever were placed in the epidemic area of endemic level. A light increase in gastroenteritis was

anticipated in the following weeks particularly when school reopened, and the ministry sought to counter such with an increased public education campaign.

In the aftermath of Hurricane Tomas, assessments revealed that Ministry of Health's facilities were mainly affected by water penetration, secondary to flooding. The Dennery Hospital, however, suffered major structural damage and consequently, services had to be relocated. Additionally, the services of the Soufriere Hospital were temporarily relocated due to in-access to the facility as a result of damage to the road caused by flooding.

Three additional community primary health facilities (Etangs, Jacmel and Entrepot) which were affected or damaged by Hurricane Tomas were assessed and costed for major renovation. Tender submissions for the renovation of these facilities have been submitted and are currently being evaluated. Implementation is expected to start soon under the World Bank's Post Hurricane Tomas Disaster Recovery Project.

Inadequacy of water for the delivery of critical health services became an issue for the health facilities. In response, the Pan American Health Organization (PAHO), in collaboration with the Ministry of Health, funded the installation of fifteen (15) Rainwater Harvesting Systems in an attempt to address this challenge. This served to en-

hance the resilience of the facilities to respond to potential disasters, particularly in the event of water shortage.

Immediately following Hurricane Tomas, a rapid assessment was conducted to determine the priority environmental health issues which warranted attention in the immediate to medium term. That determination was made based on the potential for risks to public health from disease outbreaks, as a result of conditions emanating in the aftermath of the disaster. The following issues were prioritized:

1. Safety of water sources.
2. Food Safety.
3. Management of Emergency Shelters.
4. Vector Control.
5. Solid Waste Management.

Several of the municipal water supply systems were interrupted due to structural damage and sedimentation. A large proportion of the population was exposed to contaminated water sources which elevated the risk of gastro-intestinal diseases, leptospirosis and schistosomiasis. Following surveillance which indicated the sources where many people were abstracting water, public announcements were made via the mass media advising people to boil or disinfect all water intended for drinking, bathing or cleaning. A proposal has subsequently been submitted for a schistosomiasis project which will enhance surveillance for the disease and its host.

Large quantities of water purification tablets and water clarification tablets (Pur) were distributed throughout the country through the health centres. Two water purification units were received from Operation Blessing and following consultation with WASCO, were installed in the Canaries and Desruisseaux communities which were the hardest hit communities by water shortages. These units continue to operate in these communities producing 10,000 gallons of potable water daily in each community.

The absence of adequate potable water at food-handling establishments posed a serious public health issue. Many restaurants did not have adequate water storage capacity, rendering it difficult to conduct a sanitary food operation. Routine monitoring and surveillance activities were implemented to ensure safe food preparation.

The Department of Environmental Health also continued the monitoring and bacteriological testing of springs which were being utilized by a large number of people. Through its monitoring and control activities, the Department also played a pivotal role in managing the quality of water which was being imported into the island and ensuring that safe water quality standards were maintained.

Prior to the hurricane, over forty (40) cases of dengue fever had been reported for the year. With the shortage of water, it was expected

that water storage at household premises would increase, resulting in increased breeding grounds for mosquitoes, particularly the dengue fever mosquito. Thus, there was an increased threat from dengue fever and dengue hemorrhagic fever.

There was also an obvious decline in the consistency and effectiveness of the refuse collection service which resulted in the pile-up of refuse on the roadside in several communities. The situation caused the proliferation of rodents and concomitantly, the incidence of leptospirosis. The Ministry of Health embarked on an island-wide clean-up campaign to control mosquito breeding in and around household premises. The Ministry of Health has also embarked on an extensive larviciding and adulticiding (fogging) campaign intended to destroy the adult and aquatic stages of the mosquito.

Presently, the Ministry of Health is looking forward to the commencement of work towards the renovation of the old building which housed the Dennery Hospital. Following that renovation some medical services will be temporarily stationed at that site as a temporary measure pending completion of the new Dennery Polyclinic. Renovation of the Soufriere Hospital and the relocation of the Victoria Hospital to the new National Hospital also form part of the short-term plans for the national health infrastructure.

### Ministry of Communications, Works, Transport & Public Utilities

## A Proud Record of Leadership and Achievements

Early notification from the Meteorological Services Department signaled a weather system approaching Saint Lucia. It started as a tropical depression but quickly developed into a tropical wave, and no sooner did we start preparation, it was upgraded to a storm and, late Friday night, was Hurricane Tomas. A category one hurricane, we felt was not supposed to be so acute. Little did we know that Tomas had its own plan, and on Saturday, October 30, 2010, the rains came pouring down with high wind gusts lasting twenty four hours.

The Director of Meteorological Services kept in touch, providing updates on the system. While I hoped he would give good news, he said, "PS, I'm calling to give you bad news, the system is stationed on Saint Lucia and drifting away quite slowly". Other members of the management team kept in

touch while we strategized on our approach for the next day. We had a few 'dress rehearsals' previously, with landslides and flooding, so we had an idea of our strategy. However, what greeted us the next day was unbelievable!

Some of our main bridges, Bois D'Orange, Choc, and Cresslands were completely severed. Culverts which connected the East Coast Road at Mon Repos and Troumassee were washed away. Every mountain was scared with mudslides, some much larger than others such as Barre d'Isle, Guesneau, Colombette, Fond St Jacques/Migny, Ti Rocher (Castries), Bagatelle, Sulphur Springs, Debarras, Plato, Bexon, Marc, Deglos, Dennery, Fond St Jacques and Soufriere got its fair share of flooding, leaving residents and businesses displaced.

What seemed initially an insurmountable task for the Ministry

turned out to less difficult with the support of the staff members who were ready and waiting to get to work. We had a country to restore and everyone put purpose before self in getting down to action. Calls came from private engineers pledging assistance, but the efforts of two former Chief Engineers stood out. Without communicating with each other, Jude Regis headed for the West Coast while Gilbert Fontenard took the East Coast. On foot, Fontenard braved through the Barre d'Isle and walk down to the south of the island providing updates on the condition of the road infrastructure. Regis on the other hand kept the Command Centre abreast of the status of the West Coast. Working together with the Technical Team headed by the Chief Engineer with the able assistance of his Deputy, restoration work started in earnest to ensure that all road accesses were free of

obstruction for emergency response. The Koudmen spirit of Saint Lucia came alive through the collaboration of equipment operators, contractors, engineers, engineering assistants, technicians, volunteers and administrative staff. Our team also reached out to WASCO to assist in restoring the water system which was done in a record two weeks. The Electrical Team also engaged in inspections of all electrical wiring and outlets at all public institutions. Our goal was to ensure that there was minimal disruption to our productive sectors especially our vital tourism industry.

While the immediate response to Tomas resulted in quick success, the rebuilding efforts continue with the construction of a number of projects funded by the World Bank, Caribbean Development Bank and Government of Saint Lucia. It is envisaged that this process will take about 2 years while we seek to build

better and stronger infrastructure to safeguard our beautiful island. We have already completed the Anse Galet culvert crossing and river training, the Ti Rocher (Castries) retaining walls, Mon Repos and Troumassee culvert crossings, Fond St Jacques Bailey bridge, and Odsan culvert crossing. Works are ongoing on the Bagatelle retaining walls and road rehabilitation, while construction of the Cresslands bridge and Barre d'Isle retaining walls are soon to commence.

Saint Lucians must all commend themselves for a job well done, but the staff of the Ministry of Communications, Works, Transport & Public Utilities deserve much commendation for their efforts at putting country first in times of such calamity. Bravo to all team members of the Ministry of Communications, Works, Transport and Public Utilities.

# Tomas Revisited

## A Review of the ECLAC Report



Any credible assessment of where St Lucia is today in its reconstruction efforts, one year after Hurricane Tomas, must start with an understanding of the magnitude of problems the island faced as a result of the storm's passage.

Easily the most comprehensive assessment of the storm's impact was provided by the Economic Commission for Latin America and the Caribbean (ECLAC) which, at the request of the government of St. Lucia dispatched a mission to the island less than three weeks after Tomas' call.

ECLAC was supported in its assignment by the United Nations Development Programme's Barbados' sub regional office with the collaboration of the Organization of American States, the Inter American Institute for Cooperation on Agriculture and the University of the West Indies.

The assessment was carried out using the methodology first developed by ECLAC, now known as the Damage and Loss Assessment methodology, or the DaLA, and provided a quantitative approximation of the overall damage to the economy and its impact on the affected population.

Hurricane Tomas left a footprint of destruction and death as it swept across Saint Lucia. Seven persons were reported to have lost their lives, five were missing and 36 suffered a variety of physical injuries. Moreover, the hurricane occurred just as the economy was recovering from the fall-out of the recession in major markets, thus complicating the recovery process.

The total cost of the damage and losses to the different sectors amounted to EC\$907.7 million or US\$336.2 million. The scale of the event can be understood from comparing the total impact with

key economic indicators. The total impact represents 43.4% of GDP, nine times agricultural GDP, three times tourism GDP, 62% of exports of goods and services, 19% of gross domestic investment and 47% of public external debt.

A brief investigation of the most recent climatic conditions in St. Lucia suggested that a drought condition preceded the unusually high rainfall event that was Hurricane Tomas. The drought conditions, therefore, set the stage for extremely high potential for surface erosion and mass movements on slopes in the event of a normal rainy period. Even if the rainy season were to be of normal levels the effect of the drought on the soil/rock regime would have resulted in a severe hazard condition in respect of mass movements on slopes.

In fact, the Met Office in Saint Lucia was informed by Caribbean Institute for Meteorology and Hydrology (CIMH) that in terms of total daily rainfall, Tomas was classified as a 1-in-180-year event, making it a very extreme one with regards to rainfall, and well in excess of a 100-year event.

The data, as collected by the National Emergency Management Organization (NEMO), the Red Cross and the Ministry of Housing, suggested that some 5,952 persons, or 3.5% of the national population were severely affected as a result of Hurricane Tomas. The majority of the affected population, some 28% or 1,709, could be found in the suburban/rural area of Castries which, when combined, has the largest population of all the districts in St. Lucia and a significantly high proportion of persons classified as vulnerable (16.8%). Another 16.6% or 986 of those severely affected could be found in Soufriere which has the highest proportion of St. Lucians defined as poor but not indigent (42%); and 15.3% or 909

of those affected could be found in Micoud which has a significant proportion of persons defined as vulnerable (13%).

The ECLAC report identified four groups of the population: the primary, the secondary, the tertiary and those not affected. The primary group comprising 3% of the total population or 5,952 persons represented those who were affected due to the damage and destruction caused to their homes by Hurricane Tomas.

The secondary group, of 1% or 1330 farmers, represented those who were affected because their livelihood, particularly production of banana, was severely affected by the devastation to their crops and land used for cultivation. This proportion was grossly underestimated as all data for other agricultural producers had not yet come to hand. The tertiary group, of 80% or 137,896, represented the proportion of the population who were without potable water for a period of roughly two weeks following the event. The last group of 16% represented those who would not have been directly affected by the event. It can be concluded from this analysis that although a small proportion of the population was severely affected by Hurricane Tomas, it had a widespread secondary effect of restricting persons' access to potable water over a significant period of time. It is a credit to the resilience of the St. Lucian population and its health sector that no major outbreak of water borne diseases occurred.

Hurricane Tomas exposed the vulnerability of the population and its economic activities to the accessibility of water, as the Roseau Dam experienced land and flow slides into the reservoir area of the dam and damage to its back-up generator and pump house. The turbidity of raw water was increased and the

storage capacity of the dam compromised. For a two-week period, water became a scarce commodity, leaving some 80% of the population struggling to cope with a limited supply of potable water. The water authorities sought to supplement the water supply through trucking.

ECLAC concluded that Hurricane Tomas was primarily a damage event and, as such, this combined with the fact that it took place late in the year would help to contain the fall-out in GDP. Damage to capital assets and stock comprised 67% of the total impact, with losses that affected Value-added accounting for the balance. The profile of the impact indicated that the infrastructure sector was the most heavily affected, representing 43% of the total impact, however, the productive sectors and social sectors also suffered significant impact.

Within the infrastructure sector, the water supply and water disposal systems were severely disrupted with heavy siltation of the main Roseau Dam. The report noted that in general, the water supply and distribution utility had fairly old infrastructure and hence most of this infrastructure was already compromised in terms of efficiency and effectiveness. In addition almost every single intake structure and associated equipment was damaged and silted up as a result of the hurricane. As a result, the cost to the water supply, disposal and works subsector was estimated at EC\$124.47 million, representing 32% of the fall-out in the infrastructure sector and 14% of the total impact. The diversion and siltation of main rivers would also incur substantial costs in river training and desilting. Major damage and destruction to the transport network (roads and bridges), including forest roads, conservatively estimated at EC\$141.7 million (15.6% of the total impact), was an important cause for concern as it would entail substantial costs to rebuild them to an upgraded standard to withstand an event of a reasonable magnitude. Fortunately, the impact on the telecommunications sector was contained to EC\$10 million. Similarly damage and losses in the electricity subsector were relatively modest at EC\$8.3 million, limiting the disruption to business and the lives of persons from this sector.

The productive sectors suffered important disruption that would affect the growth in real output in 2010, but with limited carry-over into 2011. The total impact on the sector amounted to EC\$306.8 million (34% of the total). The mainstay tourism sector suffered the brunt of the effects on the productive sectors, amounting to EC\$114 million, fully 37% of the impact on the sector. The main tourist hubs in Soufriere and Vieux Fort were badly affected by the hurricane, suffering heavy flooding. Fortunately, however, only a few hotels suffered major structural damage. Meanwhile, in the north of the island structural and landscaping damage to hotels was contained,

allowing for only temporary disruption of operations in the case of some properties. Losses in the tourism sector stemmed directly from damage to hotels that led to cancellation of some bookings and indirectly from the disruption of water supply that affected operations.

Tourism is by any measure the single most economically significant sector in St Lucia with 64% of the island's economic output either directly or indirectly attributable to it. The core (direct only) tourism sector contributes approximately 30% to St Lucia's GDP, making it the top ranked sector in the economy.

The agricultural sector is also critical to the economy of St Lucia and although its contribution to GDP over the last five years has fluctuated, with an upward tendency, it continues to play an important role in the country's socio-economic development.

Agriculture suffered damage to the tune of EC\$151.8 million. The banana crop was severely disrupted with whole fields being destroyed by the flooding and, to a lesser extent, wind damage. In addition, the fields would require major resuscitation investments in clearing, silt removal, fertilization and drainage to restore harvests to pre-Tomas levels.

Although less than the other key sectors, the social sectors suffered important damage and losses, amounting to EC\$209.2 million, 23% of the total impact. Housing bore the brunt of the fall-out in the social sector with estimated total effect of EC\$192 million, 92% of the impact in the sector. A large number of houses in Castries, Soufriere and Micoud, in particular, were badly damaged or destroyed. A number of those houses were owned by medium income earners and were, therefore, fairly more costly than those owned by low-income households.

The impact on the education sector amounted to EC\$8.9 million. Some 63 schools suffered significant damage mainly from flooding, while some others had damage to their roofs and ceilings. However, the limited structural damage served to limit the total costs of the effects on the education sector. The health sector was impacted to the tune of EC\$8.3 million. A number of hospitals were damaged, particularly the Dennery Hospital, which accounted for half of the cost of the impact in the sector and has to be relocated.

Altogether it was a pretty bleak picture that confronted St Lucia post-Tomas. But thanks to the national spirit of togetherness and resilience for which the island has become famous, the task of reconstruction and restoration was soon begun and has been sustained to this day. Today, just one year after the event, St Lucia is bustling again. A lot has been accomplished but there is still a job to be done....one that IS being done.

# The Ministry of Tourism & Civil Aviation Responds to Hurricane Tomas

St Lucia's important tourist industry is looking good again as it enters the winter season, just one year after Hurricane Tomas.

The industry is down 4 or 5 percent but Tourism Minister Senator Allen Chastanet said this week he can live with that small decline, and was confident that the figures would improve over the winter months.

He attributed the decline to a number of overseas factors like the price of fuel and reduced airline seats into the island coupled with austerity measures in some of the important markets where the effects of the 2008 economic crisis still linger.

Two major initiatives were undertaken by the Ministry of Tourism in the wake of Hurricane Tomas. One was the management of the information going out into the various markets about the effects of the hurricane on the island. This was followed by a \$10 million blitz to promote the island in the marketplace.

In November, one month after Tomas, tourist arrivals were down 36 percent but things quickly began to pick up again. The level of decline was just four percent in December but by January this year, the figures were up again, by four percent.

Some hotels experienced inconveniences after Tomas but the cruise sector recovered in quick time with the result that St. Lucia was able to welcome cruise ships just one week after the disaster.

At the time of the hurricane, Saint Lucia was on track to welcome 317,480 visitors. Notwithstanding, the island registered a record 305,937 stay-over visitors, while total visitor expenditure was estimated at EC\$1.5 billion. Hurricane Tomas therefore hampered the projected growth of the industry and by extension the economy.

In the immediate aftermath of the hurricane, the Product Development team of the Ministry carried out site visits to ascertain damage

suffered and to determine what government intervention was required. Data was collected from 45 of the targeted 50 accommodation units (hotels, villas, guest houses, apartments), as the managers of the remaining five indicated that there was no damage sustained. Twenty-nine properties were assessed in the north of the island and 16 in the south. Properties reported incidences of flooding, debris on-site, damage to communications, electrical machinery, infrastructure and furniture, as well as minimal damage to foliage.

With one exception, all properties were occupied when Hurricane Tomas struck. Measures were taken to ensure guest safety and comfort. These included provision of water for drinking and hygienic purposes. Whereas some properties utilized their water tanks, others harvested rain water or utilized naturally occurring spring water. Guests were kept together in the lobbies and reception areas and apprised of the situation, as needed. For most properties, electricity shortage was handled by utilizing lamps, torch lights, candles and generators.

Some properties reported loss in business arising primarily from cancellation refunds. Other properties experienced out-of-pocket expenses to provide hurricane supplies.

Five of the eight restaurants surveyed in Rodney Bay suffered no physical damage, while the other three suffered flooding and damaged roofs. The restaurants were closed for between one and three days, due to the disruption in the municipal water supply.

There was also some level of food spoilage due to the interruption of the public power supply. This was especially problematic for Plas Kassav, as 80% of its raw materials (farine and cassava) were spoiled. This resulted in the establishment being unable to meet their supply quota to the local and regional markets (mainly Barbados).

By the time of the site visits, all restaurants were operating as



usual, and did not express the intention of seeking direct government intervention.

Damage to the Sulphur Springs was considerable: landslides blocked the main entrance gate; fallen debris along the mineral spring; damage to vendors' huts; loss of some of the local bath areas. The Sulphur Springs remained closed for two weeks, causing between \$300,000 and \$400,000 in lost revenue.

Toraille Waterfall was completely transformed. It was reported that the waterfall itself had changed position. The owners had to wait several days before any excavation works could start to restore the site once more.

The ability of cruise ships to avoid the path of on-coming hurricanes and given that their tourists have the primary portion of their vacation on-board the ship, meant that the arrival of cruise passengers played a significant role in providing welcome income

to a number of stakeholders in the tourism industry. One week after the passage of Hurricane Tomas, the first cruise ship was able to call at Port Castries. Not only did the taxi drivers, souvenir shops and local craftsmen benefit from these visitors, the ship brought much needed bottled water for distribution. This role, they continued to play in the immediate aftermath and in the ensuing months after Hurricane Tomas.

As a result of the lessons learnt from the passage of Hurricane Tomas, the Ministry undertook a number of initiatives: Development of "Business Continuity Plans" with industry partners – accommodation establishments, restaurants and sites and attractions. Some of the establishments did not have disaster plans, but rather acted in an ad-hoc manner in the immediate post Tomas era to keep operating. Whereas events such as Hurricane Tomas cannot be avoided, the preparatory and remedial measures taken by establishments can leave

a remarkable impression on the tourist/patron.

- To date, approximately thirty-two SMEs received training in Business Continuity Planning. These participants are expected to prepare and submit their individual plans to NEMO for endorsement.
- Properties which suffered severe damage were readily accommodated in their restoration efforts through the Ministry's proactive approach in administering duty free concessions.
- Duty-free concessions following the hurricane were granted as follows:
- Four properties – for reconstruction / refurbishment
- One property – for a generator.

The Ministry continues to maintain an active working relationship with industry partners such as the Saint Lucia Hotel and Tourism Association. This has allowed the Ministry to be relevant and appropriate in its responses to the sector in times of disaster.



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Please email your comments or questions to: [nationalreview@pm.gov.lc](mailto:nationalreview@pm.gov.lc)