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LESSONS LEARNED, EVALUATIONS & AFTER ACTION REVIEW FOR THE DIPECHO CARIBBEAN PROJECT:

“Strengthening community preparedness and response capacities through the testing of preparedness plans using a tsunami hazard scenario”

Commonwealth of Dominica

November 2019 - January 2020



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Summary Of Lessons Learned; National Tsunami Workshop

- ❑ The workshop began a few minutes after 9 a.m and all activities went according to set time. Activities were planned to flow or transition into each other. Only 2 of the participants had in-depth prior training on Tsunamis.
- ❑ Prep work for the workshop was quite intense as one week's worth of training had to be condensed in 2 days, i.e. extracting the most relevant information to impart and factoring visuals, handouts and exercises that would strengthen learning. Day 1 focused on scientific information on Tsunamis, regional and international supporting agencies, and introduced the PTWC and its products and critical sections of the Grenada Tsunami SOPs template. Day 2 went further in-depth by expounding on the PTWC products and how to interpret and act upon them, adapting key sections of the Grenada SOPs to Dominica's context, and reviewing best practices in conducting Tsunami drills.
- ❑ The wealth of materials provided by the regional training, such as the PowerPoints, handouts, posters and documents were extremely helpful and useful and contributed to better success of the national workshop.
- ❑ Based on their evaluations submitted for both days, the participants (from Primary Health, Fire & Ambulance Service, Coast Guard, The Dominica Association of Persons (DAPD), Ministry of Education, Dominica Red Cross, Office of Disaster Management (ODM) & MET Office, Local Government, Calibishie Village Council & Disaster Committee, National Emergency & Response Team (NERT) & East Dominica Children's Federation, CARITAS Dominica, Youth Emergency Action (Catholic Church) felt the training was highly valuable. Several of these participants have volunteered their time to assist with the adaptations to the SOPs during the next few weeks.
- ❑ The greatest challenge was getting participants from the Police force, Housing and Planning departments to attend. Post the weeks-long Independence celebrations and the heightening of the election seasons, departments expressed that their Human Resources were stretched, but that they would want to benefit from such training at a later date.
- ❑ A series of subsequent, consecutive workshops on EWS & Gender, Volcanic Plans and the National Disaster Plan set for the following week also hindered the possible postponement of the Tsunami workshop.
- ❑ The CDEMA representative conveyed her satisfaction with the 2-days workshop.



Recommendations:

- ✔ A two-day's workshop is too short. There can be a first 2 days for introductory learning on Tsunamis as was executed. But then there can be an additional 1 or 2 days at a later date to focus on the development / review and finalization of the Tsunami protocols at national and community level.
- ✔ Participants wanted all schools and national entities to receive such training urgently.
- ✔ They further expressed that an intensive attempt should be made to promote Tsunami awareness on the island.
- ✔ They suggested that there should be a focus on training staff from various agencies specifically for the purpose of preparing and implementing standards and protocols.
- ✔ Participants want improved Tsunami alert systems in Dominica and for the public to be informed about it.
- ✔ They recommend more collaboration among stakeholders, and for the integration of School Emergency Operations Plans (SEOPs) in the National Emergency Plan.
- ✔ They emphasized that the authorities should implement mandatory drills and PSAs regularly.
- ✔ And someone concluded "Yes, make safety a priority!"

(See detailed Evaluation results for the 2 day National Tsunami Workshop below) *





Summary Of Lessons Learned; Calibishie Simulation Planning & Execution

☑ CDEMA shared Tsunami simulation scenarios, Performance Criterion templates, simulation evaluation forms and After Action Review templates which were very useful and timely and formed the essence of the Simulation plan. The List of Roles & Responsibilities of Stakeholders were adapted from the Maldives example: file:///home/chronos/u-49d5f4a6900486c0c742fa2ec50bf1afe60a5d53/MyFiles/Downloads/TARNS_Simulation_Maldives.pdf

☑ The section on 'Gender Review' was developed by the Gender Sustainable Development & Environment Consultant of the UNDP Regional Office for Latin America and the Caribbean. An online meeting with various experts including the IFRC had an intense technical discussion that aided in the formulation of information that needed to be observed and captured through gender lens.

☑ The Village Council members, including their District Development Officer were very committed to many hours of giving input to the preparatory discussions and planning and community engagement that led up to the community simulation exercise. They were the most collaborative hosts, were very interested in the subject matter from the outset and facilitated all logistical arrangements with efficiency and made themselves accessible to answer questions or to make connections towards the project's objectives. Council members also worked professionally as a team and seemed to be always willing to support and assist each other including outsiders.

☑ Initially, instead of having Tsunami signage printed and installed, it was recommended that the signs be painted on appropriated spaces in the community by the artists residing in the community in order to engender a sense of ownership and to generate constant curiosity and discussions around tsunamis over time. Destructive hurricanes had dismantled and destroyed installed signage that had been erected several years before. Hence discussions were generated in the Council about sustainability and cost effective ownership that ensures the community itself will install and preserve more indigenous means of signage throughout the community. Of course, there were challenges with the artists having to redo some of the signs to ensure they reflected the standard templates using the Signage Guide, and there were a couple challenges with having to wait for permission to paint Tsunami signage on one or two critical structures. But the Council is taking care of this until they are satisfied that they have sufficient signage in the community. UNDP will also procure at least 2 - 4 additional 'Evacuation Route' and 'Safe Zone' signs to be installed in Calibishie.

☑ Calibishie had had community maps developed by the Dominica Red Cross 3-4 years prior but the map was dissected in sections representing various areas in the community and the contents of the maps were too detailed and too small for quick and fast comprehension. Hence, together the Council and some community members had to design a new evacuation map focusing mainly on the community coastal region / the Calibishie Flat, and then this

information was mapped by a graphic designer. This map was utilized and tested during the community simulation exercise and it will be printed and posted in the community. There is an open option for it to be painted as a mural as well by the community artists in a location where locals and visitors can view it. The electronic version will be disseminated through email and WhatsApp groups as well.

☒ Out of the 40 HF/ VHF radio sets that were purchased by the UNDP for Dominica, one set was assigned to the Calibishie Village Council to assist with alerts and notification. The ODM will support installation and training.

☒ The Calibishie Primary School held their Tsunami drill on Thursday, January 23rd and just before the drill, for a period of 40 minutes the consultant, CDEMA and ODM representatives and the UNDP Gender Specialist facilitated a special session with the 53 member student body to discuss Tsunami facts. The children seemed amazingly well informed, were highly participative, and were excited and disciplined both during the session and when they executed their drill exercise. The Principal and teachers had their School Emergency Operations Plan with the Tsunami Protocol and they seemed familiar with the warning process in the school and their drill SOPs. A videographer team filmed the entire process and captured short interviews. The only misstep was when the Principal and teachers forgot to carry along their First Aid kit along the Evacuation Route. Coincidentally, they did have to use it when they returned to the school grounds to nurse the small wound of a female student who had fallen during the walk back down the hill. It was not the first time the school had conducted their drill but it was the first time they had actually walked the evacuation route.

☒ Another challenge during the school's drill was the length of time the ODM took to interpret the PTWC threat message (sent by CDEMA acting as PTWC) to the school Principal, Village Council, the Police and observer teams according to an issued list. It took 15-20 minutes but this was due to an error in the initial scenario issued, a wrong telephone number for the principal and ODM having to formulate the entire threat warning text while adding all the 4-6 numbers issued. Having preset templates and mass texts issued through CAP or the Telecommunications companies will assist in negating that problem. The ODM has an informal agreement with FLOW and DIGICEL to assist with mass texts for Warnings related to all hazards.

☒ The Seismic Research Center (SRC) was only able to participate at the initial stage of the project through an online meeting. They were never able to get permission for a coordinated scheduled visit for both Volcanic and Tsunami related public awareness initiatives as the Government was preoccupied with national elections. But their contributions as with those of CTIC, CDEMA, IFRC which were well coordinated and led by UNDP, were extremely worthwhile and helpful through online meetings that were convened during the duration of the project.



Recommendations:

- ✔ Utilize the Carib Wave opportunity in March 2020, to test at least the mass warning systems (mass texts, media) and to evaluate the roles and responsibilities in Response Protocol graphic - on a national level
- ✔ Purchase and refurbish the Calibishie community with at least 2 high end megaphones
- ✔ The Dominica Police also needs VHF communication equipment (radio, antenna, receivers etc) hand radios and vehicle radios for the Police Stations
- ✔ UNDP to complete the purchase of the signage and community evacuation maps for Calibishie (quotes have already been obtained)
- ✔ The Police, Fire and Red Cross to be specifically trained to conduct Tsunami and other drills
- ✔ The Police to decide, select and inform of the specific siren warning to be utilized in national and community drills
- ✔ Physical Planning to be integrated in the follow up reviews and endorsement of the Tsunami Protocols and SOPs just developed, as well as future mapping in the communities
- ✔ All coastal communities should engage in adapting the protocols for their communities to be appended to the community disaster plans as will be done in Calibishie
- ✔ As communicated by many who participated in the Calibishie simulation, including the Honorable Parliamentary Representative, an innovative way to mobilize the public (particularly adults & business places) to take simulation exercises seriously is urgently needed. This further entails the approval of recently reviewed legislation relating to Comprehensive Disaster Management in Dominica.
- ✔ All institutions (private and public entities in Dominica) need to develop their Tsunami and other disaster related protocols.
- ✔ There was not much opportunity, given the political and festive climate of the projects' duration to do much awareness work through Radio media, but this should be a must during a similar project particularly to increase education and awareness among the public. There should always be space even during festive seasons to educate / inform the public on matters that will preserve and protect life.

(See detailed Calibishie Simulation After Action Review Notes below)*



Summary Of Lessons Learned; Development Of National & Community Protocols & Sops

☑ The Grenada sample of a Tsunami protocol seems to have adopted much of the language and content of PTWC level and there was a felt need to attempt to make Dominica's more applicable to its national context, and extracts from the samples from Barbados, Trinidad, Sri Lanka and the Maldives helped in achieving that.

☑ To begin, only the Grenada sample served as a model then other samples were received from CDEMA and a UNDP contracted Asian Pacific EWS expert much later in January. This expanded the deliberation on the protocols as applicable sections were selected and adapted to be more useful nationally and at the community level.

☑ Selecting the placement of the best section of information that would lead into or follow another section was quite tricky as the focus was to ensure the information and actions flowed naturally into each other and that the entire document was comprehensive and easily understood.





Recommendations:

- ✔ One of the recommendations by the EWS expert who has extensive experience in drafting Tsunami protocols is that the process from the initiation of the Threat Message to informing the mass public should be very short and very fast and uncomplicated. Hence an insertion for Dominica's protocol includes a specific Tsunami Warning graphic that shows Dominica utilizing the CAP system or mass texts through the telecommunications companies, in addition to use of the Media.
- ✔ The EWS expert further recommended that the longer diagram / graphic be referred to more as a Response protocol where agencies are notifying each other, validating that their counterparts received the initial threat messages, issuing directives and instructions and getting feedback.
- ✔ Reviewed sample outlines /templates of Tsunami protocols at both national and community level should be designed for adoption by any entity developing theirs for the first time, and the same would be advantageous for institutions such as private businesses, resorts, schools etc. These templates can be posted on CDEMA websites and national websites for stakeholders to utilize in their planning.
- ✔ The new Tsunami protocols / SOPs will need to go through a review period post this assignment to secure the highest, official endorsement.
- ✔ On that note, the Caribbean Wave in March should be another good opportunity for the Office of Disaster Management (ODM) to test the new protocol once more, particularly the mass media and text broadcasts, including through the use of the Common Alert Protocol (CAP) if possible.



Appendix 1.



National Tsunami Workshop Evaluation: Dominica Nov 7-8, 2019

01. **General perspective of the (final) day in direct quotes:**

- Need information beforehand to prepare and participate. Day 2 built on the previous day. Now more enlightened and aware of things read before
- Today was very informative, educational and exciting. I definitely learned more. My knowledge on interpreting Tsunami maps and alerts have increased
- The day was informative. New knowledge was disseminated to heighten awareness on preparation for Tsunamis
- It was interesting and informative
- Productive and informative
- Very interactive and educational
- Generally today was an addition to yesterday. Much more learning took place and I am of the view that we are in a better understanding of the work that needs to be done
- Today gave a deeper perspective of the purpose of the training. Generally it was a direct follow up of yesterday
- Very informative. More practical so it solidified what was learnt yesterday. Videos helped.
- Today was informative and interactive
- Very good, informative, thought provoking
- The seminar was very informative

#	Question	Rating (1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly disagree) (YES / NO) (Poor, Good, Very Good, Excellent)
2	Workshop objectives clearly defined	4.5,5,5,4,4,5,4,5,5,5,4
3	Participation & interaction encouraged	3,5,4,4,4,4,4,4,5,4,5,4
4	Workshop was applicable to my job	-,5,5,4,4,yes,5,yes,4,4,5,4
5	Understanding of the Tsunami products	Yes (all)
6	Understanding of SOPs	Not fully (3), YES (9)
7	Understanding of agency / institution in national SOP	Not fully (4), YES (8)
8	Workshop was well paced	yes,5,4,yes,4,4,5,4,5,4,5,4
9	Content was organized & easy to follow	2.5, 5,2,agree,4,4,4,5,5,4,5,4
10	Interested in more in-depth content	Yes,5,2,agree, 4,5,4,5,5,4,5,5
11	Workshop too short, right length, too long	Too short (7), Right length (5)
12	Workshop documents & presentations	Good (4), Very good (5), Excellent (2)
13	Workshop space, environment	Excellent (5), Very good (5)
14	Handouts	N/A, Excellent (2), Very good (4)
15	Workshop overall	Excellent (1), Good (4), Very good (3)



16. Best part of the workshop

- Descriptions of the PTWC products (but needed information / documents beforehand. Something to be improved: more involvement of people with special needs)
- I appreciated the collaborative efforts from the different organizations represented. It gave insight into new ideas that can be used within my own organization.
- Send the digital documents earlier
- I gained information on Tsunamis
- Need more agencies to attend workshop
- The exercise to match the theory, (improve the length, make it longer and add more exercises, and target more agencies)
- Explanation on the use of products (i.e. messages [products], videos)
- Good participation
- The visual demonstrations
- The discussions

17. What more would be helpful for you know?

- More on everything we trained on for Dominica Association of Persons with Disabilities as DAPD is getting more involved in Disaster preparedness
- If I knew more about how Dominica was more specifically affected (including different areas) and the plans the country has for evacuations and drills, this would enhance job performance
- I would be able to do my work better if I knew more about what financing is available
- I would be able to do my work better if I knew more about emergency response management
- Need to understand the system of transmitting product
- The scientific aspect of Tsunamis and preparation of standards
- I read the material in advance, knew more of everything and I had done some prior research
- It would improve my job if I knew more about escape routes, safe zones / buildings
- Timing of Tsunamis, interpreting intensity and timing of impact, more cases, more videos

18. Recommendation to the national authorities

- Help DAPD more on related topics
- Need more workshops like this
- This should be treated with urgency, all schools to be educated, the information to be taken nationally
- Get serious
- Improve Tsunami alert systems in Dominica and disseminate that information to the public
- I suggest that an intensive attempt should be made in Tsunami awareness on island
- Focus on training staff from various agencies specifically for the purpose of preparing and implementing standards and protocol
- More collaboration among stakeholders, and integrate schools School Emergency Operations Plans (SEOPs) in National Emergency Plan
- Suggest mandatory drills and PSAs regularly
- Yes, make safety a priority



Day 1

Participants Feedback

01. **New learning acquired for the day**

- Help DAPD more on related topics
- Need more workshops like this
- This should be treated with urgency, all schools to be educated, the information to be taken nationally
- Get serious
- Improve Tsunami alert systems in Dominica and disseminate that information to the public
- I suggest that an intensive attempt should be made in Tsunami awareness on island
- Focus on training staff from various agencies specifically for the purpose of preparing and implementing standards and protocol
- More collaboration among stakeholders, and integrate schools School Emergency Operations Plans (SEOPs) in National Emergency Plan
- Suggest mandatory drills and PSAs regularly
- Yes, make safety a priority

02. **Learning acquired on PTWC products**

- New information; I did not know that those emails / texts are called products; those products when sent out, contain very specific information
- Yes, did not know about their products
- Did not know of the PTWC products; want them electronically
- New
- I did not know anything about PTWC before
- Products are alerts; they come as texts email or graphics (still need more in-depth explanation)
- PTWC products are equivalent to what we call alerts I.e. texts, graphics etc
- Yes, that the products may not reach affected countries in a timely manner to provide sufficient information for response; Yes, I learnt about the PTWC products that they assist and can be utilized by countries

03. Learning on response actions

- Families should prepare their evacuation plans; Schools prepare evacuation plans, do regular drills, Country should conduct public education and drills which should be ongoing; as a member of NERT I have to be ready to respond
- Evacuation plan is needed and practiced; could use higher buildings - if you can't move to elevated areas on time
- Special needs persons would need to have their individual & family plans & with contact information, evacuation spot etc
- Try to warn as many people as we can and assist as many people as possible to get to higher ground and organizing a rescue plan
- I learned what I can do individually, as a village, as a country
- In response there must be confirmation that there is imminent threat; the action plan must be adopted as to evacuation, warning protocols; prior to the emergency training in the response and detection
- We need to educate the public on mitigation measures and proper actions to be taken during this type of disaster; more drills need to be conducted throughout the island at various institutions
- I knew most of the response activities as D. M, however the implementing of these plans / activities to save lives on a national scale is of great concern to me; it is also a concern that Dominica does not [always] pay the seismic dues to SRC



04. Things you liked about today

- Very clear to understand; knowledgeable facilitator; meals on time!
- So far it's very informative, learning a lot of new things
- Workshop is timely & worthwhile but DAPD would need a lot of special attention
- It was very informative and legible. Environment is very comfortable and quiet for taking information
- It is informative
- The workshop was good; it was good information
- The information is timely and interesting; I have learnt quite a lot and have recognized the level of work that my division and country needs to undertake in getting ready for effective response;
- I enjoyed the entire workshop and the ability to learn something new; I enjoyed the approaches used by the facilitator; she made the information easy to understand
- The food, information timely, sufficient, interactive

05. Things you liked about today

- Wording on projector a bit small
- None yet
- Would need documents in advance especially for blind persons; location of ODM could be more accessible to persons with mobility impairments etc even the washrooms etc; commended those who participated
- More video demonstration
- I would like a copy of the power points
- Other agencies need to participate
- However, the information flow and slide projections on the screen needs to be addressed; class interaction needs to be encouraged, the participation is lacking
- Probably more group activities
- There was no presentation by the National Disaster Coordinator; I felt it would have been fitting seeing that the ODM is such a critical office in Tsunami response; discussion & implementation plans address the collaborating agencies and ODM to improve preparedness activities in schools and island wide



Appendix 2.

Calibishie Tsunami Simulation After Action Review Notes

Hon. Roslyn Paul (Parliamentary Representative):

- We have to help change the mindset and the culture of the people so they increase their levels of meaningful participation

Mandela Christian (CDEMA):

- Explained the rules of the After Action Review:

Fitzroy Pascal (NDC of ODM):

- Thanked all the regional and community partners,
- ODM is the Tsunami Focal Point
- Message was disseminated as planned
- The first responders did well in terms of response and coordination, but the community could have participated better
- Only one person acknowledged receipt of warning message: Need confirmation that messaging is received
- Message needs to identify it's from ODM

Inspector Riviere (Calibishie Police Station):

- Thanked all his police officers and volunteers,
- Thought the siren vans and those with loud speaker megaphones would stick together while passing through the flat of the community on the main road and warning and urging the people to evacuate. (Instead the Police van sped across to the other end of the community to block traffic heading down from the hills, the sound of the siren was like a regular police incident siren, and the van with the megaphones /loudspeakers was a far distance ahead)
- Thought the public could have taken it more seriously and they need to be more sensitized, some people pointed out the track that they would use during a real tsunami but did not want to practice using it:

- Gelina (consultant) pointed out a different and louder and more sustained siren is needed with the police vehicles and volunteers could be running alongside and mobilizing people to get out of their homes and evacuate.
- There is a Police shortage (man power shortage), but they have special constables and rural constables and beach guards that they utilize from the community.
- Mandela mentioned the Carib Wave in March and that perhaps Calibishie could try again.

Sandra Charter Rolle (Director of Dominica Red Cross):

- Happy to be here and to learn from the experience,
- Thankful for the large turnout of the Marigot volunteers,
- The Red Cross communications systems worked,
- Those who stayed at the council reviewed their medical items
- Felt there should have more permanent signage,
- Some routes may be too challenging (too steep) for the elderly etc,
- Participation could have been more on the part of community
- Red Cross volunteer spoke of utilizing an advanced EWS such as automated siren system

Blanchard (Fire Officer):

- Thanked everyone and as this is a drill of a large magnitude that makes it difficult to observe the whole community at the same time,
- We should have synchronized our timepieces
- The time it took from the ODM to the Police to act, the siren /alerting system we would need another siren system centralized in addition to the police station and there should be more footmen,
- On one safe zone the people gathered along the road...in a real situation vehicles could be passing among the public,
- the more you drill the more you reduce chaos, only when the people have had some practice then you can throw in more urgency and other variables

CERT:

- A lady stayed with her washing machine the whole time - she didn't care,
- Some persons were not concerned,

- The children were more alert and ready to act
- The consultant validated that the Calibishie children were highly participative during their school Tsunami drill 2 days before and they were very participative in the physical exercise

Steve Joseph (District Development Officer - DDO, Local Government):

- Thanked all the players and said the negatives are positives because it's a learning exercise;
- Council Chair received the message at 11:21 but she was not sure of the source as it wasn't identified,
- There needs to be some tightening of the role and interconnection between the Council and the Disaster Committee. (Chair of the Disaster Committee should have reported to the EOC at the Council building)
- The Council utilized a log sheet documenting everything that happened
- Post this exercise, we should break down and tear apart this plan and build it back again with these experiences integrated,
- Persons at the safe zones need to be fully participative as well and expecting the evacuees,
- tsunami preparedness should be nationally driven

Brenda Paul (Village Council Chair):

- Today was successful and productive,
- It was our first time and we did have a community meeting,
- Only concern is the villagers who did not cooperate - maybe because they know it's not real
- Lennox (Councilor) added: we need to work on the (particular) trail / evacuation foot path - councilors to clean the trail so the community persons can ask why are you cleaning the trail so we can tell them it's for tsunami evacuation:

Martina (Chair of Disaster Committee and member of the Village Council):

- Wanted to test how quickly she could leave her home and reach the evacuation routes,
- The people were sensitized through community meetings, church announcements, brochures etc,
- Just wanted to point out as well that the tide goes far back every month and that people will need to differentiate between this and tsunami

Vanya David Dominica National Council of Women -DNCW):

- We had Red Cross on one end and Council on the other end,
- We always talk about data so I was asked to do that work hence I ask all participants here to checkmark you gender on the participants sheet

Community Nurse:

- The transportation for the elderly was available but the elderly refused to leave their homes to participate in the exercise

Kelvin: Village Councilor

- Fliers and church announcements don't seem enough. We need to show videos, instill some fear in them (the community)

Inspector:

- We need resources, not enough fire stations, not enough fire hydrants, number of Police per capita (3-6 police per 3000 plus persons)
- DDO agreed that more resources are needed - EWS equipment, regular resources,
- How do we counteract the culture of "laissez faire"
- (cell service was a problem and is part of a regular challenge for the Calibishie Police, hence there was a delayed receipt of the initial warning /threat messages to the Inspector through his cell phone)

Gelina: (consultant)

- Hopes the government resources the communities better and takes this issue more seriously so that the public themselves take it more seriously

Mandela ended on the point that community persons should not be discouraged but added that they can make use of indigenous means as well to alert others.