

NOTES FROM THE FIELD Learning to Talk Weather in the Coastal Philippines

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Abstract

In these notes from the field, I illustrate some impressions from my research on disaster communication in Tacloban City, a highly urbanized area on an island coast in the central Philippines. Coastal residents vulnerable to storm-related hazards (particularly storm surges, flooding, and landslides) gather weather information daily, from multiple resources —texting; radio; television; contact from government authorities; and knowledge shared with family, friends, and neighbors. Residents navigate scientific terminology, such as Low Pressure Area, and refer to their own experiences with storms to mitigate their risk. In this essay, I show that "weather talk" in this location takes a level of "know-how" that I am still trying to learn.

Residing in Tacloban City, Philippines, I find that I must consider information from a variety of media and my own past experiences to calculate my risk with each passing storm. These notes from the field provide an illustration of the daily juggle of weather updates that aim to ensure personal safety in the coastal Philippines.

At 6:18 AM, I wake up to the following text message: "TACLOBAN WEATHER: Jan. 16, 2017: Thick clouds cover with a drenching Thunderstorm. Highest Temp: 26 Degree Celsius. Chance of Rain: 62% -CCGR Do Not Reply" Since I registered my mobile number to the Community Climate Guide and Response (CCGR) service, I have received weather updates almost daily usually around 6:00 AM. Casual weather updates will say something like: "Mostly cloudy with a little rain," or "Generally sunny and beautiful." Today's weather update, however, forebodes a storm. I open my window and look out to find the popular street below drenched, but humming with traffic as usual. Pedi-cab operators have donned rain ponchos and placed plastic tarp over the open front of their passenger cabs.



Image: A flooded street in Tacloban City after heavy afternoon rain. Photo by the author.

People are taking the usual precautions against traveling in rainy weather.

Community Climate Guide and Response (CCGR) is a text-blast emergency response initiative introduced by the Tacloban City government in August 2016.¹ Tacloban City's mayor, Cristina Romualdez, was elected to office in July 2016 with Disaster Risk Reduction (DRR) at the heart of her campaign. After the traumas caused by Supertyphoon Yolanda (Haiyan) only three years ago, Disaster Risk Reduction has been at the forefront of peoples' political and everyday concerns. Bright red billboards advertising the CCGR service are hung up along main roads and central areas of the city. Cell phone use is high in the Philippines, and CCGR has been designed with this in mind. The program received over 3,000 registrants within the first two months of operation, and has already gained national and international recognition.

¹ In this essay, "texting" refers to the telecommunication feature Short Message Service (SMS).



Image: Map showing Tacloban City in the central Philippines. Photo courtesy of Google Maps.



Image: A CCGR registration notification billboard posted along a major highway in Tacloban City. Photo by the author.

Throughout the morning, the rain modulates between light sprays and heavy buckets, but never ceases. I am eager to get out of my apartment; but, as most people do here, I'll wait out the rain if I can. I turn on my radio and tune into DYVL Aksyon Radyo ("Action Radio"). DYVL presents mostly community-centered programming in the local language of Waray-Waray: local news and issues (maybe coverage of how a family is adjusting in their new resettlement home, or a discussion on what should be done about garbage on the streets of one neighborhood), a Catholic mass (perhaps related to current events such as the dangers of illegal drug use, a message addressing President Duterte's war on drugs), and an hour-long radio drama about the everyday joys, jokes, emotional bonds, love crises, money problems, and intergenerational conflicts of one fictional family in Tacloban City. This morning, the host is giving listeners updates on the weather. There are landslide warnings in effect; those who are at risk of landslides are advised to evacuate. I assume most those at risk of landslide already know who they are-possibly people living next to a hillside-but I do not know off-hand whether I am at risk, and the host does not name the affected areas.

I am worried that the heavy rains might be an indicator of a rough storm on the way. I open my laptop and check the PAGASA website. PAGASA is an acronym for Philippine Atmospheric, Geographical and Astronomical Services Administration. The acronym, however, doubles in meaning: "pag-asa" is a noun in the Filipino language that can mean hope, anticipation, expectation, or confidence, depending on context. PAGASA is looked to as the national authority on typhoon monitoring. Radio stations will report updates gained directly from PAGASA as an assurance they that are obtaining the most reliable information.

There is a slight break in the rain around 12:00 PM and I take the opportunity to finally leave my apartment and walk 15 minutes to the nearest café. I duck inside the building just as the rain starts up againheavy bullets of raindrops thudding under clouds that darken the noon sky seemingly into twilight. When I finish up at the café just two hours later, the street has become flooded for about two blocks in my direction home. People are trudging through the calf-deep waters, but I am wary of warnings I have received about contracting leptospirosis from flood waters here. I hire a pedi-cab to traverse the water. When I look down from the pedi-cab, the water looks muddy, concealing unknown hazards.

By the evening, plans for tomorrow are being cancelled; the day-to-day is being disrupted by the ceaseless rain. At 10:00 PM, I receive the following text message from CCGR: "Work in all Govt Offices/ Agencies & Classes at all levels in TAC City are suspended tom Jan 17, 2017 due to extensive flooding, order by Mayor Cristina Romualdez."

I am not sure whether or not to be alarmed for my safety at this news. My apartment is on the second floor of a stone building that withstood Typhoon Yolanda's high-speed winds. I am about 0.5 kilometers (0.3 miles) from the coast, with several hundred buildings blocking me from any potential storm surge. This neighborhood is flat and is probably not at risk of landslides. I have bottled water, canned food, a battery-powered radio, and flashlights. I sense no immediate danger for myself. In a neighborhood more vulnerable to these hazards and with a less sturdy house, though, I could not accept the risks involved with remaining at home. I would consider evacuating.

Overnight, the rain continues pouring; but by morning it slows down and only an overcast drizzle lingers. Children are at home today, because school was cancelled, and many adults are likely using the day to deal with flood damages. The morning radio talk shows are dedicated to topics concerning the floods and landslides. A DYVL host is interviewing a government official who warns of the dangers of diseases that can be caught in floodwaters, and the trash that flows into flooded areas from the sea. He says, keep your children from playing in the floodwater.

At around 8:00 AM, I receive the following text from CCGR: "01/17/2017 [smiley face with sunglasses emoji] 4AM, the LPA was estimated based on all available data at 70km east Northeast of Zamboanga City, Tail-end of a cold front affecting Visayas – CCGR"

I gather from this message that the threat has passed, but I feel that there is more being communicated in this message– and the emoji–than I am aware of. I wonder how other residents of Tacloban are interpreting this latest update.

Talking about the weather gathering information, deciding what is reliable information, and disseminating information to others-is an everyday life skill here and elsewhere in the coastal Philippines that requires a significant amount of know-how and resourcefulness. I know that other people here are just as nervous as I am about how today's weather could develop into something more property damaging or life threatening. Like me, people are tuning into the same radio stations and receiving the same text-blasts. Unlike me, though, they are bouncing information off one another-comparing notes with their families, friends, coworkers, and neighbors. They are perhaps discussing whether they are comfortable staying in their homes with an "LPA 70km Northeast of Zamboanga." They are taking information from multiple sourcesscientific measurements, local reports of flooded streets, word of mouth information and opinions-and making it mean something to their everyday lives.

The "Typhoon Belt"

The Philippines is one of the most disaster-prone countries in the world. The archipelago is part of the "Pacific Ring of Fire," and also lies in the "typhoon belt" of the northwest Pacific, an area in which tropical storms typically affect the Philippines, Taiwan, Hong Kong, Vietnam, China, Japan, South Korea and islands in Oceania, like Guam. Residents are therefore vulnerable to all sorts of hazards from seismic activity (earthquakes, volcano eruptions, tidal waves) and storm activity (flooding, storm surges, high winds). The Philippines is also one of the countries most connected by media—in recent years, the country has been named the texting and social media capital of the world.² I arrived here in Tacloban City, therefore, with the expectation that I could form an ethnographic project around disaster and media.

Filipinos prepare for an average of 20 typhoons per year, which mostly range from Signal 1-3 on a 4 signal scale.³ Typhoon Yolanda, however, presented wind speeds higher than a signal 4 storm, and so was dubbed a "super-typhoon," and recorded as the first Signal 5 typhoon ever to make landfall. Filipinos who were accustomed to preparing for Signal 3 and 4 typhoons did not know what differences would make up a Signal 5 typhoon. So, they prepared themselves as best they could, based on their past experiences with storms and information coming through media, local government leaders, family, friends, and neighbors.

Typhoon Yolanda affected 14.1 million people across multiple islands and municipalities in the Philippines.⁴ Death estimates range from 6,000 to 10,000 people and an estimated 4 million people were displaced from their homes.⁵ Tacloban City was the center of most media and humanitarian attention after the storm, since it is the most densely populated and highly urbanized area nearest the storm's initial landfall.

The storm came with unprecedented challenges in survival, immediate disaster relief, and long-term recovery. One of the ongoing challenges of recovery has been conceiving of and implementing plans for Disaster Risk Reduction, including effective disaster communication. Communicating about storms is a DRR strategy that involves multiple actors from the national to community levels. Here in Tacloban City, weather monitoring is intimately tied to experiences of Typhoon Yolanda. When people monitor the weather now, they are also preparing themselves for a recurrence of Typhoon Yolanda.

Storm Surges: Measurements and Experiences

The day before Typhoon Yolanda made landfall, PAGASA issued a press release warning of the storm's impact.⁶ The two-page document started with a paragraph description of the storm's last reported location, wind speeds, and projected movement though the Philippine Area of Responsibility. The next page was filled almost entirely by a table describing wind speeds for each of the four Public Storm Warning Signals (PSWS), and potential effects in each major Philippine region

² According to Wave7 social media research, the Philippines retains its position as "social media capital of the world" in 2014: https://sg.news.yahoo.com/research-confirms-philippines-still-social-033045566.html.

³ See PAGASA (2009).

⁴ See OCHA Philippines (2013).

⁵ See OCHA Philippines (2013).

⁶ See PAGASA (2013).



Image: A jeepney in Tacloban City. Jeepneys become dangerous debris when they are lifted by storm surge waters. Photo by the author.

(Luzon, Visayas, and Mindanao). At the very end of the document, five additional notifications were grouped together in bullet points. One bullet point read: "Residents in low lying and mountainous areas under signal #4, #3, #2 & #1 are alerted against possible flash floods and landslides. Likewise, those living in coastal areas under signal #4, #3 and #2 are alerted against storm surges which may reach up to 7 meter wave height."⁷

The storm surges are remembered as much more than a bullet point for Yolanda survivors. As predicted by PAGASA, seawaters swelled inland up to 5 meters deep in affected coastal areas.⁸ The predicted measurement of seawater, however, could not translate into how that water would be experienced by people on-theground.

In just 15-20 minutes, water swept up the coast in a "whirl" motion, crumbling weak "shanty" houses and completely submerging the first floor of larger structures. The force was so strong that large water vessels, including a cargo ship, were swept aground and tore right through houses in their path. People became pinned or crushed when the water lifted and toppled heavy objects like "jeepneys," or public buses. Those who sought shelter in the single-level elementary schools that act as official evacuation centers had to find ways to break through ceilings to escape the rising waters that quickly surpassed single stories. People climbed street lamp poles,

⁷ See PAGASA (2013).

⁸ See Lagmay et al. (2015).



Image: Map outlining Barangay San Jose in Tacloban City, the first point of storm surge impact in the city. Photo courtesy of Google Maps.

clung to debris and each other, swam the rushing waters, and got swept out to sea.

The storm surges hold a prevalent place in peoples' memory of Yolanda. It was during the storm surges that people tend to recall stories of fighting for their own safety and the safety of others. When coastal residents decide to move their families to evacuation centers, it's the storm surges especially that they want to avoid.

San Jose Beach: Sociality and Locality of Weather

San Jose is a neighborhood (*barangay*) of Tacloban City, 7 kilometers south of the downtown hub.⁹ Some refer to San Jose as "ground zero" of the storm on Leyte Island. San Jose includes a small peninsula so thin at its land bridge to Leyte Island that it almost looks like a small island on its own. The peninsula sits at the mouth of the San Juanico Strait, which is a body of water separating Leyte Island and Samar Island. The storm surge traveled San Juanico Strait: first through San Jose, and then to downtown Tacloban City. The peninsula in San Jose was almost entirely inundated by storm surge waters. Coastal areas were inundated 3-5 meters, and inland areas inundated 1-2 meters.¹⁰

On a bright beautiful day in January, I visit a small neighborhood in the San Jose peninsula to meet some residents and learn about how they monitor storms with communication technologies like cell phones, radio, television, and internetaccessing devices like tablets and laptops.. In this neighborhood, all houses were

⁹ Barangay is a governing unit in the Philippines that is used within the city level.
¹⁰ See Lagmay et al. (2015).

completely destroyed. Only the concrete floors of some lots remain of the original structures. Atop the remains of these concrete platforms, plywood houses have been constructed. These are permanent shelters constructed with assistance from two non-governmental organizations. The houses are lined neatly in rows, stretching only about a quarter kilometer (0.15 miles) from the highway to the seaside.

Here at San Jose Beach village, I can feel the difference in location from my own residence, which is nearer the city hub.¹¹ The highway cuts through the middle of the peninsula. Standing on the road, I can see both coasts clearly. The wind from the ocean hits me directly-no multilevel structures in its way. It's quiet; there are just not that many people around. I note the many problems I would have in keeping safe if a storm surge were to sweep up here suddenly. There's nowhere high enough to get to, except palm trees. We are far from community resources like hospitals, police stations, and churches. It is clear that people here have to count on those around them

Ever since Typhoon Yolanda, many survivors here in San Jose make it their duty to stay informed about the need to evacuate. They do this by checking media throughout the day, and talking to family, friends, and neighbors. In a survey I distribute, I ask: how often do you check the weather? (Waray-Waray: *Masukot ba kamo manginano hiton kahimtang hiton aton panahon*?) Respondents choose from a

selection of: every day, sometimes, never (adlaw-adlaw, talagsala, diri gud). All but one of the 33 respondents mark "every day." Several also mark that they check for weather updates more than once per day (often, morning and afternoon). One respondent, a fisherman, strikes me as spending the majority of his day checking news and weather updates across all media types. In addition to checking media like radio and television, he even checks updates from a Navy satellite posted in an area further west (Guiuan, Eastern Samar), where weather on its way to Tacloban City will tend to hit first by a few hours. If he is uncertain whether or not there is a storm coming, he will consult the city's Disaster Risk Reduction Office or City Hall. From these coastal residents, I start to see that weather talk can be regarded as a "life or death" activity. People spend more time accumulating weather information than I initially anticipated. There is also a certain know-how in gathering and exchanging weather information, which I hope to continue learning about during my field research

Additionally, I notice something about weather: threat and location. It is becoming clear to me that weather here in San Jose Beach is a different thing from that in my more inland residential neighborhood. We may receive similar warnings, but the consequences of a storm will be vastly different. I am starting to think of weather as having a "locality"—weather looks, acts, and is experienced differently by people

¹¹ Village name has been changed to protect participants' identity.

based on location. In addition, I am beginning to think of the "sociality" in weather. Sharing information about the weather is an everyday social interaction, and here, in a neighborhood as close-knit as San Jose Beach, that sociality of weather does not look the same as it might in downtown Tacloban City.

Conclusion

In these notes from the field, I have tried to share a context for understanding the role water plays in the everyday lives of some Filipinos. In stormy weather, water becomes a threat through flooding, landslides and storm surge. An individual synthesizes information from several sources and must imagine his or her possible risk to these hazards. I learn, by being here, that trying to match my weather experiences with media information is not an intuitive task. "Weather talk" takes persistence and know-how. Because the Philippines is highly connected by media, information gathering takes places across a variety of platforms: mass media like radio and television, national meteorological authorities like PAGASA and the Navy, local government text messaging, personal text messaging, phone calls, and face-toface communication. Hazards from water (flooding, landslides, and storm surges) are particular concerns people have when monitoring weather. Through continuing participant-observation, I hope to gain greater insight into the social networks of storm monitoring and disaster communication, and what these activities mean for coastal Filipinos in their everyday lives.

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