

Producer/Director/ Voice Talent: Aljohn Torreta

Program: The Rise of Seawalls in Miagao, Iloilo (radio documentary)

Length: 45-minuteer

Medium of language: Hiligaynon (the local language)

Media: DYUP 102.7 FM, the educational radio station of the University of the Philippines Visayas

Element	Command
SFX1: CALM WAVES	<u>FADE UP SFX1...ESTAB FOR 3-5 SECS...THE FADE UNDER FOR</u>
MUS1 (Traditional/folk instrumental song) VO	<u>MUS1 FADE UP FOR 3-5 SECS AND FADE UNDER FOR</u> The Philippines as an archipelagic country with more than 7000 islands has long been intertwined with the sea. Many said that the waters divide the country, others see it as the connector that links everyone. As a country with rich marine resources, the coastal communities have also thrived, witnessed, and endured the changing of tides and times.
SFX2: HARSH WAVES AND STRONG WINDS	<u>SFX2 FADE UP FOR 3-5 SECS...FADE UNDER FOR VO</u> But the recent changes like the rising of the level of the seawater and increased strength of storms and typhoons, as exacerbated by climate change make things more complicated, putting the coastal community to extreme vulnerability.
MONTAGE OF AUDIO CLIPPINGS OF RESIDENTS AND THEIR EXPERIENCES THEN AND AT PRESENT	
VO	One of these at-risk and vulnerable areas is the Municipality of Miagao, located in the southern part of the Province of Iloilo and around 40 km away from Iloilo City. It is a 1 st class municipality that has a rich culture and history, and with a diverse geography. This municipality which has the most number of barangays in the whole country totaling to 119, and is where the UNESCO world heritage church is located, is fondly called the land where the mountains meet the sea. In the research “Valuing vanishing coasts: The case of Miagao coastline in Southern Iloilo, Philippines by Jonathan Chris Bantias, Rodelio Subade, Darius Salaum, and Claudette Posa from the University of the Philippines Visayas, they found out that the estimated value of the coastal area loss in selected barangays in Miagao amounted to Php 71.7 million.

	<p>Specifically, the estimated value of land loss due to coastal area loss amounted to Php 39-million. With a valuation of P2000 per square meter, the total land loss due to coastal area loss was estimated at 19,500 square meters. More or less, the total land loss is comparable to 46 standard-size basketball courts.</p> <p>The coastal communities in the municipality have been dependent to the sea. From traditional and small scale fishing for personal consumption, commercial fishing was also explored.</p> <p><u>INSERT VOICE CLIP FROM FISHERMEN</u></p> <p>While the sea gives them livelihood, at times, it can also be dangerous, destructing their livelihood, claiming lives.</p> <p>In the report from the National Disaster Risk Reduction and Management Council, the Local Government Unit of Miagao reported 39 barangays and 2,240 families that were affected by the combined effects of Southwest Monsoon and typhoon on September, 2024. In addition, 16 houses were reported to have been totally damaged while another 10 were partially damaged.</p> <p>The Philippines, identified as the most at-risk country in the world since 2022 according to World Risk Index, continues to strive to be better in disaster risk reduction and management, to protect lives and preserve properties, to be resilient amidst these changing times.</p> <p>Some of the identified actions to mitigate the negative impact of the rising level of seawater is the restoration of natural coastal barriers like mangroves and wetlands, and the construction of storm surge barriers and seawalls.</p>
<p>INSERT SFX: CONSTRUCTION OF SEAWALLS</p>	<p>In the Municipality of Miagao for year 2024 alone, the Department of Public Works and Highways Iloilo 1st Engineering Office reported on their final annual procurement plan that there are two projects related to the construction of seawalls. First is the 80-million worth of project for the construction of Miagao East coastline access road including protection works/seawall. The other project is the 50-million project for the construction of Miagao Shoreline Protection Seawall including access road.</p> <p>Last 2023, there was another 86-million project for the construction of Miagao shoreline protection or seawall including an access road.</p> <p>At present, the coastal communities in the at least three barangays in the municipality are now covered by seawalls.</p>

<p>INSERT VOICE CLIP WITH ENGR VICTORIO GEMOTO FROM DPWH</p>	<p>Rationale of the project and their process</p> <p>“...This is to protect the community and their houses from waves. There is a standard design for the country and we are implementing it, adjusting some parts depending on the situation...”</p>
<p>VO</p>	<p>The former secretary of the Department of Public Works and Highways, Mark Villar issued Department Order No. 100 series of 2020 which set the new and standard plans for various flood control, urban drainage and coastal structures.</p>
<p>INSERT VOICE CLIP WITH ENGR VICTORIO GEMOTO FROM DPWH</p>	<p>“...There are a lot of houses that were destroyed because of the waves. We want to protect it through these seawalls... there is a standard design, we just add additional measures...because of climate change, it is expected that the water will continue to rise but we have set a pre-board clearance to the seawall. There is still space should the water level continue to rise...”</p>
<p>MUS3: INSTRUMENTAL</p>	<p><u>FADE UP MUSIC3 FOR 3-5 SECS...FADE UNDER FOR</u></p> <p>According to the Climate Change Commission, Climate Change is the long-term shift in weather patterns and temperatures. Some of its consequences are the rising of sea levels, extreme weather events, and disruptions in biodiversity.</p> <p>But why is this happening? It is primarily because of and the result of human activities like the burning of fossil fuels like coal, oil, and natural gas for electricity, transportation, and other industries. The other factors are deforestation or the clearing of forests for agriculture, urbanization, and logging; and the use of fluorinated gases from refrigerants, air conditioning, and other aerosol propellants.</p> <p>Imagine yourself in your bed on a cold night. Because it is freezing, you put on a blanket to keep yourself warm. The blanket helps trap your body heat. The blanket is similar to the Earth’s atmosphere; it traps the warmth emitted by the Sun. However, when we burn things like coal or cut down too many trees which keep the temperature cool, we are adding more blankets in the form of greenhouse gases like carbon dioxide. These gasses trap too much heat, making the Earth becomes warmer and warmer.</p> <p>And because the temperature becomes warm, it causes more problems like stronger typhoons, rising sea levels, and extreme weather condition among others.</p>
<p>SFX: WAVES CRASHING THE WALL</p>	

INSERT ROSE, ELDERLY	“The seawall is a big help, the people need not to evacuate whenever there is a typhoon...Before we are filling sacks of sand and pile it in the shoreline, just in front of the houses, so that it will not be damaged...”
INSERT VON, YOUTH	“It is now better because the houses are being protected”
INSERT BRGY KAGAWAD TOMAS MONTALBO	“We, the barangay officials, agreed to the construction of the seawall to protect the houses. However, there are some constraints and impact to the fishermen”
VO	While the seawall protects the lives and properties in the coastal community, many have expressed, especially the fisherfolks, that their livelihood is affected.
INSERT HARRY, 60 YEAR OLD FISHERMAN	“The people’s position in the construction of seawall is divided. There are those who are in favor because their houses are protected but for us, the fishermen, life has become more challenging.
VO	According to 60-year-old Harry, because of the seawall, they can no longer easily dock their boats on the coast. They have to travel at least a kilometer because it is where they can only dock their boats, in the areas not yet covered by the seawall.
VO	Junjun, a 33-year-old fisherman also shared the same sentiment with Harry. He expressed that it is difficult to travel in a long distance because there are a lot of things used in fishing that needs to be carried whenever they go to the sea.
INSERT VOICE CLIP OF JUNJUN	“We can no longer dock here, the prescribed docking area is also far from our house. I hope that they incorporated in their design a portion in the seawall where we can dock our boats...”
VO	<p>Aside from these small-scale fishermen, other fishing methods are also at risk because of the seawall. Some locals expressed that they can no longer practice “<i>panahid</i>” and “<i>pang-gutok</i>”.</p> <p><i>Panahid</i> is beach seining. The fishermen use a net being handled by at least two individuals. The other individual guide the net going to the waters then making a curve before the both of them pull it together, sometimes with the help of other locals.</p> <p>On the other hand, <i>Pang-gutok</i> is a push and seine nets to capture milkfish fry. The fishermen push in the shallow part of the sea the improvised nets commonly attached to two bamboos formed in a v-shape.</p> <p>Because of the seawall, there is an experienced constraint in these traditional fishing techniques. Many fishermen expressed that they can no longer practice their traditional fishing practices because the seawall physically obstructs their fishing area. The infrastructure fundamentally alters the coastal ecosystem, making these traditional fishing practices impossible.</p>

INSERT ELEANOR, 51 YEAR OLD	"Before we can practice panahid, that is now gone"
INSERT BRYAN, YOUTH	"If there is no class, we just go the beach and help in getting fishes from the nets"
INSERT JAMES, 54 YEAR OLD	"It seems that the residents are okay with the project because it protects their houses however, the fishermen are the ones suffering. The <i>Panahid</i> and <i>Pang-gutok</i> are affected, some fishermen even sold their boats because it is no longer profitable."
VO	Junjun is one of these fishermen who temporarily left the sea and explore other fields. In his case, working in the construction industry.
INSERT JUNJUN RE CONSTRUCTION	"...A lot of fishermen find other jobs, good thing for me I can handle construction works. Harvest in fishing varies, sometimes it is bountiful. In some other times, there is scarcity. The salary in the construction on the other hand is steady."
INSERT HARRY RE OTHER WORK	
VO	<p>Harry, one of the elder fishermen confirms this phenomenon. According to him, the catch at present is limited. Before they can catch at least a bucket of fish every day but at present, they are fortunate to catch 2-3 kilograms of fish per day.</p> <p>Some fishermen also ventured in tailoring. From casting nets, their prime armor and shield now are needles and threads.</p> <p>It is not only their livelihood which is not continued. Their art and science of fishing, along with the other fishing traditions and craftsmanship, are also compromised.</p>
MUSIC3: INSTRUMENTAL	FADE IN MUSIC3...ESTAB FOR 3-5 SECS AND FADE UNDER FOR
VO	It is not only the livelihood of the fisherfolks that are affected. Some claim that the sea that they witness now is not the sea that they used to know and cherished- their coastal experience has changed because of the seawall.
INSERT BRYAN, 16 YEAR OLD	"There is no sand here anymore. Going here in the coast makes me sad because there is no more sand. We used to play here in the sand."
INSERT ELEANOR, 51 YEAR OLD MOTHER	<p>"Before you can just sit in the sand and stones, you can relax. But that is not the situation anymore, you can't even get a <i>lugod</i> (a rock being used to scrub the body). You can't easily swim"</p> <p>At three PM before, we are already playing here. Now, children only play their gadgets.</p>
INSERT ROSE, ELDERLY	"If you have rheumatism, you can just walk barefoot in the coastline. It relaxes you. But now, that is no longer feasible."
VO	The DPWH clarified that they only want to protect the coastal community. They coordinate with the Local Government Unit with regard to these projects.

<p>INSERT MIAGAO MDRRMO CARLO MONTECLARO</p>	<p>“The seawall project is implemented by the national government agency. We are just the end-users”. The construction of seawall is important because it can protect the lives of the locals as well as their properties.”</p>
<p>INSERT KAGAWAD MONTALBO RE HEARING</p>	<p>“There was a consultation and public hearing. We agreed to it because it will protect the coastal community...They only presented the seawall, no other alternatives were presented”</p>
<p>MUSIC 3: INSTRUMENTAL VO</p>	<p>MUS3 FADE UP...ESTAB FOR 3-5 SECS, AND FAD UNDER FOR Are the seawalls the best solution to respond to the problem on the rising sea level?</p>
<p>INSERT DR. JOEMIL SUMBING</p>	<p>“ I am Engr Joemil Sumbing from the School of Technology at the University of the Philippines Visayas. I have been fascinated with the coast, coastal and estuarine engineering specifically was my masters and doctorate programs.</p> <p>The problem is the rising sealevel, ultimately we need to relocate because we cannot stop it. But we need to look at what are we protecting.</p> <p>In the case of seawalls in Kamakura, Japan. They built seawalls to protect their historical sites. But the kind of seawall there is different to the kind of seawall here. Their seawalls are built on the part of the land and not on the coastline. There are also tetrapods that serve as water breaker and these are situated in the waters.</p> <p>There must be gaps where the water can freely move. If all the coastline is cemented, the water will just destroy it.</p> <p>It is difficult to generalize the approach in the coastal protection because it is dynamic and is facing various realities.</p> <p>In the study by Khosro Zehro entitled “Specifications and types of seawall structures needed to protect beaches from sand erosion and storm disaster” published in the International Journal of Advanced Engineering, Sciences and Applications on 2020, he discussed the various types of seawalls and the specifications needed to sustain it. Zehro expressed that the coastal situation and weathering conditions in the area must be studied in the pre-construction stage because it is essential to make sustainable decisions and designs for the construction of the seawall.</p>
<p>VO</p>	<p>Seawalls protect the coast and the coastal community but there are a lot of types of seawalls. It is not a one-size-fits-all solution. As reiterated by the Zehro, it must be based on the conditions in the area. But this is not the case here in the Philippines...</p>

<p>INSERT ENGR GEMOTO OF DPWH</p>	<p>“It is us who identify which part of the coast which will be subjected to seawalls. We survey the area and prepare the design based on the issued order from the national. There is a standard design...”</p>
<p>VO</p>	<p>Engr. Gemoto clarifies that the seawall projects have tetrapods to serve as the water breakers. While some are already incorporated in the project design, some are just incorporated in the implementation as an observed need in the area and as requested by the fisherfolks.</p>
<p>MUS3:INSTRUMENTAL</p>	<p>FADE UP MUS3...ESTAB FOR 3-5 SECS...FADE UNDER FOR...</p>
<p>VO</p>	<p>The construction of seawall is not the only and definite solution to respond to the rising level of the sea.</p> <p>According to Atty. Rose-Liza Eisma-Osorio, senior director for the campaigns, legal, and policy of the Oceania-Philippines, the largest international advocacy organization that is dedicated solely to ocean conservation.</p> <p>According to Atty. Liza, seawalls are not a long-term solution to mitigate the negative impact. They are not sustainable.</p>
<p>INSERT VOICE CLIP: ATTY. LIZA</p>	<p>We are advocating nature-based strategy to include mangroves and other blue-carbon ecosystems...so that we do have to spend so much...”</p>
<p>VO</p>	<p>An example of this is the green-gray infrastructure story of barangay bacjawan norte in the Municipality of Concepcion, located in the northern part of the Province of Iloilo. Bacjaw is the local term or Hiligaynon word for mangrove exemplifies the large presence of bacjawan in the area.</p> <p>In a report by NGO Conservation International Philippines, they were able to establish a 2.5 hectares or mangrove rehabilitation area in the said coastal barangay, this will be continued by the community to maintain the green solution to shoreline protection. For the gray infrastructure, they decided to install a 108-meter permeable living breakwater to facilitate sediment accumulation and mangrove growth in the rehabilitation area. This minimizes wave impacts on the shore, and provides food and supplemental livelihood for shellfish gatherers.</p>
<p>MUS3</p>	<p>FADE UP MUS3...ESTAB FOR 3-5 SECONDS...FADE UNDER FOR</p>
<p>VO</p>	<p>Going back the rising seawalls in the Municipality of Miagao which also has a barangay called bacauan, the planting of mangroves was never considered.</p> <p>However, according to Engr. Gemoto, they did not consider green solution or the use of mangroves in the planning of a disaster mitigating project in the Municipality of Miagao.</p>

INSERT ENGR. GEMOTO	“We did not consider mangroves because we have not seen any mangrove in the area.”
VO	Dr. Sumbing of the University of the Philippines Visayas reiterates that it is difficult to implement a generalized approach in disaster mitigation. It must responsive to the need in the locality, using either green, gray, or green and gray infrastructure.
INSERT DR. JOE ON GREEN-GRAY	The prime consideration is the value of the area we are protecting. Will it be cost –effective?
MUS3	FADE UP MUS3...ESTAB FOR 3-5 SECS. FADE UNDER FOR....
VO	While the construction of the seawall is ongoing in the Municipality of Miagao, it was observed that some parts are already damaged due to the experienced strong waves and typhoons recently. It has not been completed but some parts are already damaged.
INSERT PEOPLE RE SENTIMENTS ON DAMAGED SEAWALL	“Some parts are already damaged. There might be corruption because some parts are filled of materials while some are just hollow.
VO	Engr Gemoto of the Department of Public Works and Highways confirmed that some parts have been damaged recently but he asserted that these were repaired by the contractor.
INSERT ENGR GEMOTO	“There are minimal damages and these will be covered by the contractor...the water might have eroded the filling inside the damaged part, that is why it looks like it is hollow. ”
MUS3	FADE UP MUS3...ESTAB FOR 3-5 SECS, FADE UNDER FOR
VO	The rise of seawalls is not only limited in the Municipality of Miagao, DPWH data reveals that is also existing and ongoing construction of seawalls in the coastal municipalities in the 1 st District of Iloilo namely Oton, Tigbauan, Guimbal, and San Joaquin. This is also true in other parts of the Province of Iloilo.
INSERT KAGAWAD LEONARDO GESTOSO	“I am Kagawad Leonardo Gestoso of Brgy. Gerona-Gimeno, Guimbal, also a fisherman...the seawall is good because it protects us but the fisherman are having a hard time. There are those who stopped fishing and find other livelihood. Aside of the long distance where our boats are docked, our things inside it like the nets, motors, and etc. might be stolen...there are reported cases like that already... mangisda sila gid nabudlayan kay ang pangabuhian apektado...may mangingisda nga nag-untat, mantinir kun diin masafety ang mga gamit. Rayo sa balay, makina kag net..may cases nga may nadula...indi safety ang mga gamit...
	The construction of seawall is also evident in other parts of the Philippines such as Romblon, Leyte, and Tacloban.

	<p>Same problem, same response, and most probably the same experienced issues.</p> <p>But the construction of 884-million worth of seawall project in Borongan City, Eastern Samar was recently halted. Reportedly, the mayor and the residents raised concerns about the impact to the livelihood of the fisherfolks in the area and it might also destroy the marine resources like corals.</p>
MUS3	<u>FADE IN MUS3...ESTAB FOR 3-5 SECS..FADE UNDER FOR</u>
VO	<p>According to European Climate Adaptation Climate-ADAPT, a partnership between the European Commission and the European Environment Agency, while seawalls protect infrastructures and settlements, erosion in front of the seawall and in the adjacent coastal stretches will continue at an increasing rate, without solving the causes of the erosion. They highly recommend the integration of nature-based solutions in the seawall construction to ensure long-term sustainability.</p>
MUS3	<u>FADE UP MUS3...ESTAB FOR 3-5 SECS...FADE UNDER FOR...</u>
VO	<p>Sustainable, lasting.</p> <p>At present, while the construction of seawall and the debates around it are ongoing, the fishermen are innovating to make their livelihood sustainable in spite of what is happening.</p> <p>In the case of Manong Pepe, a 41-year-old fisherman, he made a makeshift <i>balsa</i> made of bamboo and styrofoams that carries his boat. The <i>balsa</i> serves as the floater of the boat. Imagine a boat with a floater.</p>
INSERT VOICE CLIP OF PEPE	<p>“This is my innovation so that the base of my boat will not be damaged. It is being submerged for a long time in the water, because of this, it easily gets damaged. I innovated because it is difficult to me to dock in the part where there is no seawall...”</p>
MUS3	<u>FADE UP MUS3...ESTAB FOR 3-5 SECS...FADE UNDER FOR</u>
VO	<p>The rise of seawalls is a testament to the realization and prioritization of the disaster mitigating projects.</p> <p>We can only hope that it is not just for a show, or for the sake of compliance.</p> <p>In a paper entitled “Negative impacts of Disaster Risk Reduction and Climate Change Adaptation to the Local Communities and Natural Environment” by Jake Rom Cadag from the University of the Philippines Diliman, he explored the short-term and long-term outcomes of many DRR-CCA programs. He posited that many of these programs have led to increased exposure of communities to hazards, heightened vulnerabilities, and constraints on local capacities.</p>

	<p>Furthermore, these programs have resulted in adverse impacts on the communities, to include the natural environment of the flora and fauna.</p> <p>While the intention is to protect and help, it was not always the end-result.</p>
MUS3	<u>FADE UP MUS3...ESTAB FOR 3-5 SECS...FADE UNDER FOR</u>
VO	<p>We cannot control the disasters like the rising of the seawater. What we can control is our action to respond on it.</p> <p>In the construction and rise of seawalls, the coast and the coastal community is protected.</p> <p>But we need to make it sustainable. For we are protecting and investing not only the present, but also the future.</p> <p>We can do something as an individual and as part of institutions to fight climate change. No matter how small that climate action is, together we can make a big impact.</p>
MUS3	<u>FADE UP MUS3...ESTAB FOR 3-5 SECS...FADE UNDER FOR</u>
VO	<p>This radio documentary was produced as part of the “Covering Climate: Qualifying Environmental Journalists in the Philippines” Project, which was financed by the German Embassy Manila and implemented by Deutsche Welle Akademie.</p> <p>This is the Rise of Seawalls in Miagao, Iloilo by Aljohn Tubilleja Torreta for DYUP 102.7 FM Aton Dya!</p>
MUS3	<u>FADE UP MUS3...ESTAB FOR 3-5 SECS...FADE OUT</u>

END

Thank you for the opportunity to be part of this fellowship. It made me aware of and realize the value of solutions journalism. As mentioned in the training, this topic and approach is novel to me because my exposure was more on investigative journalism and radio commentary. With my interest now in disaster and risk communication, my learnings and insights about solutions journalism from you guys, my co-fellows, and other individuals we met in the course of the training is a complementary to it. I am eager to explore more about solutions journalism as a tool for Disaster Risk Reduction and Management.

As a teacher as well, I highly appreciate you and Kyle as our instructors. Thank you for being patient and accommodating to us. I enjoyed the various activities which enabled us to think critically and creatively. Thank you for being straightforward to ensure that the objectives were always met. You did not just criticize but also offer recommendations for us to improve our work.

I totally enjoyed the training, I have learned a lot as well. The training design was compact but organized and easy to follow with. The immersion in the community towards the end to apply the learnings was challenging but fulfilling. I am glad that I was randomly partnered with Elle because we share the same wavelength and values. I am proud that we were able to publish our photo essay in the prescribed period, of course without compromising its content.

If there are things that I can recommend to further improve it, maybe you can consider the following:

- 1.) Provision of dinner (as well). The cost of living in Manila is pricy. I am fine providing for myself but I am concerned about other fellows who have some financial constraints.
- 2.) Revise the evaluation design after the program. While the senders are anonymous, the template let everybody reads the posted comments. I cannot post there that I have issues with another fellow because he uses vape, and I have asthma. While it is true, for me it is indecent and inappropriate.
- 3.) I would appreciate if the scholarship grant/ financial assistance be given fully or partially before the production of the output. We need the assistance to cover our expenses.

Generally, the training is significant and timely. It provides opportunity for us to be capacitated, to be impactful. I hope that there are additional trainings for our progression. If not, I hope that it can be implemented again with another set of media practitioners especially those who are coming from the regions.

I am new to solutions journalism but I found my heart close to it. I am also integrating it in my class as I teach radio broadcasting and journalism courses. I am propagating the concept and applying it through our outputs in our educational radio station, DYUP 102.7 FM Aton Dya!

Salamat gid!

Note: The target date of the publication of this output is on January or February, 2025. Since we already have our Christmas break, I will not be able to use our recording/production room. The classes and office works will resume on the 2nd week of January. Rest assured that I will share with you the link to the output once available.